



California Environmental Protection Agency

Air Resources Board • Department of Pesticide Regulation • Department of Toxic Substances Control
Integrated Waste Management Board • Office of Environmental Health Hazard Assessment
State Water Resources Control Board • Regional Water Quality Control Boards

Alan C. Lloyd, Ph.D.
Agency Secretary



Arnold Schwarzenegger
Governor

May 23, 2005

Honorable Dianne Feinstein
United States Senate
331 Hart Senate Office Building
Constitution Avenue and 2nd Street NE
Washington, DC 20510

Dear Senator Feinstein:

Thank you for your May 20, 2005 letter to Governor Schwarzenegger requesting an assessment of air quality impacts of various quantities of ethanol in California fuel. Your questions are fairly technical, and I am happy to respond to you on behalf of the Governor.

Before I answer your questions about the proposed Renewable Fuels Standard (RFS), I want to emphasize two things: (1) renewable fuels and ethanol, particularly derived from cellulosic sources, are helpful in reducing emissions of global warming gases and our dependency on imported oil, and (2) regardless of the size of the RFS, the current rigid oxygenate requirement for California gasoline increases emissions of smog forming pollutants during the warm summer months. Responses to your specific questions follow.

- 1) *What is the largest volume of ethanol that California can absorb under a national Renewable Fuels Mandate without creating adverse air quality impacts?*

Six billion gallons a year. At this level, California has the capacity to use its proportional share of the national renewable fuel volume without significant negative impacts on our air quality thus balancing economic and environmental issues.

I would like to stress the significant difference between a six and an eight billion gallon mandate for California. At six billion gallons, California can mitigate the summertime emissions impact, but a larger RFS mandate could force the use of low percentage ethanol blends into the summer and hamper California's efforts to achieve healthy air quality.

- 2) *If this level is exceeded, what are the environmental impacts on California?*

If the national RFS requirements exceed California's capacity to avoid ethanol's use during the summer smog season, the consequences are significant. The California Air Resources Board estimates that on a hot summer day, an additional 75 tons per

day of smog forming pollutants are now being emitted. To put this number in perspective, it is equivalent to almost a five percent increase in ozone forming pollution from all gasoline powered motor vehicles and equipment in the State.

3) *Lastly, what other administrative requirements would prevent adverse air quality impacts?*

Assuming the RFS replaces the current oxygenate requirement, then the most significant administrative obstacle for California would be a year-round use requirement. As illustrated above, based on our recent data, ethanol in California gasoline increases emission during our hot summer months. Therefore, it is imperative that California be given the flexibility to allocate the State's share in a manner that provides us the greatest opportunity to avoid increasing emissions in the summer months while taking advantage of the use of non-petroleum fuel in California.

Another avenue for encouraging greater renewable fuel use would be for federal support of E-85 infrastructure and vehicles. This would allow additional volumes of ethanol to be used without the air quality obstacles associated with low volume gasoline blending. These topic were also discussed in the Governor Schwarzenegger's May 13, 2005 letter to Senator's Domenici and Bingaman relating to the pending energy bill.

I would like to take this opportunity to personally thank you for your dedication to protecting California's environment. If you have any questions, please contact me or Michael H. Scheible, ARB's Deputy Executive Officer at (916) 322-2890.

Sincerely,



Alan C. Lloyd, Ph.D.
Agency Secretary

cc: Mr. Michael H. Scheible
Deputy Executive Officer
Air Resources Board