Placer County
AIR POLLUTION CONTROL DISTRICT

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Thomas J. Christofk, Air Pollution Control Officer

September 21, 2009

Mary Nichols, Chair
California Air Resources Board
1001 "I" Street
Sacramento, CA 95812

Subject: Agenda Item 09-8-5: Public Meeting to present ARB's Draft Recommendations to Implement Further Locomotive and Railyard Emission Reductions

Dear Chair Nichols:

Placer County Air Pollution Control District appreciates this opportunity to comment on the ARB Staff's *Draft Recommendations to Implement Further Locomotive and Railyard Emission Reductions* being presented to your Board Members at the September board meeting. As you are well aware, the District's interest in this item centers on the Roseville rail yard and we have made it a priority to reduce the health risk from locomotive emissions to rail yard neighbors. We offer three comments on the draft recommendations and the rail sector program in general.

Support Cooperation and Incentives

The District has developed a workable relationship with Union Pacific Railroad (UPRR) based on cooperation and mutual benefit. Roseville was the first rail yard that went through the HRA (Health Risks Assessment) process and set the format for other rail yards in California. This was initiated by the District with cooperation from UPRR. In December 2004, an agreement was signed between UPRR and the District Board resulting in mitigation measures such as reduction of unnecessary idling, early introduction of ultra-low sulfur diesel fuel at Roseville, switcher locomotive fleet replacements and or upgrades, emission control from the service, test, and repair locations, and a stated goal of a 25% reduction of diesel particulate emissions from the yard from the baseline 2000 emissions by the end of 2007. This agreement became the basis of the ARB/Railroad Statewide Agreement of 2005.

The mitigation measure of emission control from the service, test, and repair locations in the 2004 agreement led to development of the hood concept. UPRR was cooperative in the concept development, demonstration and testing of the hood equipment at the Roseville rail yard. Another feature of the 2004 agreement was to conduct a 3-year emissions monitoring project (which evolved into four years of monitoring) around the Roseville yard.

Based on the above history with UPRR, the District agrees that CARB's preferred approach to further emission reductions should be pursuing cooperation and incentive programs in order to leverage railroad company funds in replacing or upgrading to equipment with lower emissions. The

District believes that cooperation with the railroad companies, rather than fighting a legal battle over regulation, is the best way to achieve emission reductions from locomotives and rail yards. The District and UPRR are interested in incentive funding to replace additional switch locomotives at the Roseville rail yard. Goods Movement and AQIP (Air Quality Improvement Program) incentive funding could possibly help with the installation of a hood system at the Roseville rail yard.

Hood Cost Effectiveness Analysis

District Staff also offer a comment on the Advanced Locomotive Emission Control System (ALECS) section on options for emission reductions in rail yards. District Staff thinks that the cost effectiveness analysis detailed in the Technical Options document is far too high at $23 per pound and reflects poorly on this emission reduction option. The ARB analysis draws heavily from the TIAX analysis published in the *Evaluation of the Advanced Locomotive Emissions Control System (ALECS)* released on April 2, 2007. In this report on the ALECS testing, TIAX estimated cost effectiveness at between $3.60 and $9.00 per pound for the range of potential uses of the ALECS in the Roseville rail yard. The ARB analysis severely discounts the emission reductions stated in the TIAX study by referencing the emissions profile of various activities developed from year 2000 activity data for the 2004 HRA of the Roseville Railyard. The ARB cost effectiveness would reflect installation of an ALECS in Roseville if yard operations were carried on as usual without regard to optimizing for use of the hood system. But, it would not make sense to make a $25 million investment in equipment and operations cost then continue to do business as usual.

Union Pacific Railroad and the District have performed studies to identify potential modification of work flow in the yard (West side of the diesel shop) to maximize use of the ALECS for load testing while providing economies over the current way of doing business. One example of this economy takes advantage of the noise suppression in using the hood for high-power testing of locomotives. Currently, during night hours, locomotives to be run at high power for load testing or diagnostics are taken to a shielded location to avoid complaints from nearby residents. With a hood at the diesel shop, this movement of locomotives would be reduced thereby saving time and fuel.

Another incentive for UPRR to slightly modify work flow in the service area to maximize use of a hood system is the potential for emission reduction credits (ERCs). ERCs are becoming increasingly valuable in the Sacramento area and even more valuable in the South Coast AQMD. The District has promulgated a rule (Rule 515) for issuing ERCs for hood type equipment at rail yards. In the South Coast AQMD, the value of ERCs generated by a Roseville type hood system would more than pay for equipment and operation costs.

Continued ARB Support for District Initiatives to Reduce Emissions at Roseville Rail Yard

ARB has benefited from the pioneering work of the District in proposing and participating in the first rail yard HRA and in the 2004 agreement between the District and UPRR, which served as a model for the Statewide ARB/Railroad agreement. Moving forward, the District and UPRR are funding an agreement with Sierra Research to update the emissions and dispersion analysis using 2008 activity data and the latest rail yard methodology, and comparing analytical results with the actual measured emissions from the four years of monitoring data. The District has requested that ARB perform the health risk assessment part of this effort. The District was recently advised that ARB will not participate in this effort, which we believe to be a mistake. We think that the benefit of this HRA update will be to show the community that there is progress in reducing the health risk. This effort

also offers a rare opportunity to validate the emissions and dispersion model with real measured emissions data.

Additionally, the District has initiated Phase II of the ALECS demonstration project with a number of stakeholders, which does not include ARB. This is unfortunate because the use of this technology in the proper application can significantly reduce emissions and the subsequent health risks. ARB's locomotive and rail yard emissions reduction program generally addresses all areas of rail operations except maintenance and servicing functions, which account for significant emissions. The ALECS technology is specifically targeted for emissions reductions in these areas, which often results in the point of maximum individual cancer risk (MICR). PCAPCD would welcome ARB's participation in this project.

Should staff have any questions or need of further information regarding these comments, please contact me at (530) 745-2321.

Sincerely,

Thomas J. Christofk
Air Pollution Control Officer