



# Air Resources Board



**Matthew Rodriguez**  
Secretary for  
Environmental Protection

**Mary D. Nichols, Chairman**  
1001 I Street • P.O. Box 2815  
Sacramento, California 95812 • [www.arb.ca.gov](http://www.arb.ca.gov)

**Edmund G. Brown Jr.**  
Governor

February 12, 2013

Mr. Robert M. Grimalia  
Vice President  
Safety, Security, Environment and CSO  
Union Pacific Railroad  
1400 Douglas Street, STOP 1180  
Omaha, Nebraska 68179-1180

Dear Mr. Grimalia:

This letter is to inform you that the Air Resources Board (ARB) staff has completed its review of Union Pacific Railroad's (UP) submittal for Ultra Low Emitting Locomotive (ULEL) credit as provided for in the 1998 South Coast Locomotive Fleet Average Emissions Program (1998 Agreement).

The 1998 Agreement provides the opportunity to create ULEL credit as an incentive to a participating railroad to introduce the cleanest locomotives into the South Coast Air Basin. Since 2006, UP has been operating genset and battery-electric hybrid locomotives that are 50 to 75 percent cleaner than required. These advanced technology locomotives have provided significant emission reductions as well as local and regional public health benefits.

This review covered UP's submittal for calendar year 2011. The submittal included the following:

- (1) UP's letter of certification: This letter is signed by the railroad and certifies that the information in this report is true, accurate, and complete.
- (2) UP's summary information: This is information provided by the railroad regarding the methodology used to generate fleet average emission credits for the 1998 Agreement (Form F-S).
- (3) UP's calculation for ULEL credit: This information includes individual locomotive days of operation and emission levels, as well as calculations and any necessary adjustments (Form F-D-1 through F-D-4).

*The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our website: <http://www.arb.ca.gov>.*

California Environmental Protection Agency

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Upon review, ARB staff has determined that the submitted documents are complete and meet the reporting requirements set forth in the 1998 Agreement. Staff analyzed individual locomotive emission and activity levels to review the amount of ULEL credit supported by UP's submittal. It was determined that, for calendar year 2011, UP has created a total of 3.1 grams per brake horsepower-hour (g/bhp-hr) of ULEL credit. Similar to a bank transaction, the ULEL credit can be deposited, then withdrawn in the future in order to comply with the oxides of nitrogen fleet average of 5.5 g/bhp-hr. The maximum pre-2010 ULEL credit that can be withdrawn annually is 1.3 g/bhp-hr.

As discussed, ARB will make all of the information publicly available except for individual locomotive activity levels, which have been determined to be business confidential according to California Government Code Section 6254.7. The activity data will be aggregated by tier or emission standard level.

Should you have any questions regarding staff's determination of UP's submittal for ULEL credit, please contact me at (916) 324-0062 or [cmarvin@arb.ca.gov](mailto:cmarvin@arb.ca.gov), or Mr. Harold Holmes, Manager, Rail Strategies Section at (916) 324-8029 or [hholmes@arb.ca.gov](mailto:hholmes@arb.ca.gov).

Sincerely,

A handwritten signature in blue ink, appearing to read 'C. Marvin', with a stylized flourish at the end.

Cynthia Marvin, Chief  
Stationary Source Division

cc: See next page.