Air Resources Board

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Matthew Rodriquez
Secretary for
Environmental Protection

Edmund G. Brown Jr.
Governor

July 3, 2015

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:

The California Air Resources Board (ARB) received Union Pacific Railroad's (UP) 2014 Fleet Average Agreement Annual Compliance Report (Compliance Report) pursuant to Section IV.B. of the 1998 Memorandum of Mutual Understanding and Agreements, South Coast Locomotive Fleet Average Emissions Program (1998 Agreement). ARB staff determined that UP fully complied with provisions of the 1998 Agreement for its operations in 2014.

UP's Compliance Report 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 fleet summary information: This is information regarding the methodology used by the railroad to comply with the 1998 Agreement (Form F-S).

(3) UP's fleet average calculation: This information includes individual locomotive megawatt-hours and emission levels, as well as calculations and any necessary adjustments (Form F-A-1 through Form F-A-6).

Starting in calendar year 2010, the 1998 Agreement requires that UP have an annual locomotive final fleet average of 5.5 grams per brake horsepower per hour (g/bhp-hr) for oxides of nitrogen (NOx) for locomotive operations in the South Coast Air Basin. Additionally, the 1998 Agreement allows UP to use accumulated fleet average credits, including credits accrued from the use of ultra-low emitting locomotives (ULEL) in the South Coast Air Basin, in order to meet the locomotive final fleet average.

Staff reviewed UP's submittal of its Compliance Report, which included activity information (in megawatt-hours) and emission levels for over 7,000 individual locomotives in 2014. Staff also assessed the accuracy of UP's data by comparing it with extensive locomotive information collected from ARB field surveys, inspection reports, and locomotive inventories. After reviews were completed, ARB staff determined that, for calendar year 2014, UP had an initial fleet average NOx level of 6.0 g/bhp-hr before applying any credit.

UP had accumulated ULEL fleet average credits in the past by operating genset and battery-electric hybrid switch locomotives, which are 50 to 75 percent cleaner than required. These advanced technology locomotives provided the South Coast Air Basin with significant early emission reductions and public health benefits. For 2014, UP applied 0.5 g/bhp-hr of ULEL credit to its initial fleet average. Therefore, after the adjustment, we find that the final fleet average for 2014 meets the required 5.5 g/bhp-hr NOx compliance level set forth in the 1998 Agreement.

ARB will make all of the information publicly available except for individual locomotive activity levels, which are business confidential according to California Government Code Section 6254.7. The activity data will be aggregated by tier and emission level.

Should you have any questions regarding UP's compliance with the 1998 Agreement, please contact me at (916) 327-5981 or doug.ito@arb.ca.gov or Harold Holmes, Manager, Rail Strategies Section at (916) 324-8029 or harold.holmes@arb.ca.gov.

Sincerely,

Douglas Ito
Assistant Division Chief
Transportation and Toxics Division

cc: See next page.

cc: Mr. Robert Toy
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