

November 9, 2023

Ms. Trish Clary  
Senior Director, Environmental Programs  
Union Pacific Railroad  
1400 Douglas Street  
Omaha, Nebraska 68179  
[TRCLARY@up.com](mailto:TRCLARY@up.com)

Dear Ms. Clary,

The California Air Resources Board (CARB) received Union Pacific Railroad's (UPRR) 2022 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). CARB staff determined that UPRR complied with provisions of the 1998 Agreement for its operations in 2022.

UPRR's reported activity met the fleet average emissions standard in the South Coast Air Basin by utilizing ultra-low emitting locomotives (ULEL) credits. Although UPRR has met the 1998 Agreement requirements, CARB continues to be concerned about the harmful diesel emissions from locomotives. The In-Use Locomotive Regulation adopted in April 2023, will address the harmful exposure from locomotives that has burdened communities for far too long.

### **Compliance with the 1998 Agreement**

The 1998 Agreement requires that the final annual locomotive fleet average be under 5.5 grams per brake horsepower-hour (g/bhp-hr) for oxides of nitrogen (NOx) for locomotive operations in the South Coast Air Basin, to meet the final fleet average standard.

### **Compliance Evaluation: Calendar Year 2022**

UPRR's Compliance Report included the following:

1. UPRR's letter of certification: This letter is signed by UPRR and certifies that the information in this report is true, accurate, and complete.
2. UPRR's fleet summary information: This is information regarding the methodology used by UPRR to comply with the 1998 Agreement (F-S).
3. UPRR'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).

Staff reviewed UPRR's 2022 Compliance Report submittal, which included activity information (in megawatt-hours) and emission levels for over 4,500 locomotives. Staff

determined that for calendar year 2022, UPRR's final fleet average of 5.8 g/bhp-hr met the NOx compliance level set forth in the 1998 Agreement after adjustments were made by utilizing 0.3 of the ULEL credits, bringing the final fleet average to 5.5 g/bhp-hr. UPRR's remaining ULEL balance is 23.2. UPRR submitted the initial UPRR Compliance Report to CARB on March 31, 2023, a data error was identified by CARB and confirmed by UPRR, the data was corrected and resubmitted to CARB on October 5, 2023. Thank you for correcting the computer aided design reading error and resubmitting your data.

CARB will make the UPRR Compliance Report 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.

If you have any questions or comments, please contact Layla Gonzalez, Staff Air Pollution Specialist, Freight Systems Section at [Layla.Gonzalez@arb.ca.gov](mailto:Layla.Gonzalez@arb.ca.gov) or Jaskamal Kaur, Air Pollution Specialist, Freight Systems Section at [Jaskamal.Kaur@arb.ca.gov](mailto:Jaskamal.Kaur@arb.ca.gov).

Sincerely,

A handwritten signature in black ink that reads "Ajay Mangat". The signature is written in a cursive, flowing style.

Ajay Mangat, Chief, Freight Technology Advancement Branch, Transportation and Toxics Division.