

# Union Pacific Railroad Company

## Environmental Management Group

### California Visible Emission Reduction and Repair Program

#### BACKGROUND

These guidelines will help ensure Union Pacific Railroad's compliance with the California Air Resources Board (ARB)/Railroad Statewide Agreement regarding Particulate Emissions Reduction Program at California Rail Yards (June 2005) and reflect UPRR's commitment to protect our environment.

Union Pacific Railroad has previously established and now provides ARB with a detailed statewide visual emissions reduction and repair program. The program is designed to ensure (1) that UPRR's locomotive fleet in California meets at least a 99 percent visible emissions compliance rate; and (2) locomotives with excessive emissions will be repaired in a timely manner. [*Section C.3(a)*]

UPRR is available to meet and confer on any questions or concerns between UPRR and ARB relating to the Program. [*Section C.3(b)(ix)*]

#### SUMMARY OF PROGRAM ELEMENTS

- Annual inspections of each locomotive operating in California.
- Internal process to route locomotives operating in California with excessive visible emissions to the nearest repair facility within 96 hours.
- Annual yard- and field-based visible emission locomotive inspections for compliance monitoring. Review and adjust program if needed.
- Visible Emission Evaluator qualification maintenance mechanism.
- Screening for locomotives exceeding 20 percent opacity.
- Define the currently applicable visible emission standards.
- Prohibit return of locomotives with excessive visible emissions to service in California without demonstrating compliance.
- Training for key employees at each Covered Yard.
- Train and place certified Visible Emissions Evaluators (VEEs) at or near the Designated Rail Yards.
- Record locomotive information as required. Maintain records for two years.

#### PROGRAM COMPONENTS

- A. INSPECTIONS – Each locomotive operating in California shall be inspected annually using either an opacity meter or a State Certified Visual Emissions Evaluator (VEE). Inspections will be conducted at locomotive repair facilities within California and on the UPRR system. For

locomotives not operating within California, inspections will be performed using either an opacity meter or a visual evaluation by a Qualified VEE. UPRR estimates it will perform a minimum of 11,000 locomotive emissions opacity inspections systemwide annually. [Section C.3(b)(i) and (iii)]

- B. INSPECTORS AND TRAINING - Visible Emissions Coordinators (VECs), State Certified VEEs, UPRR Qualified VEEs, and UPRR Basic VEEs (identified key employees) will be trained to implement assigned functions of this Program. Basic VEEs may include managers, supervisors, and/or dispatchers based on the Covered Yards indicated in the Agreement. Training for each type of VEE is listed in the table below. [Section C.3(b)(iv) and C.3(b)(viii)]

Title	Training	Frequency
<b>Visible Emission Coordinator (VEC)</b>	California VERRP Familiarity	To be determined
<b>State-Certified Visible Emissions Evaluator (SC-VEE)</b>	EPA Method 9 Training UPRR EV-16 UPRR EV-17	Bi-Annually Annually One Time
<b>Union Pacific Qualified Visible Emissions Evaluator (Q-VEE)</b>	UPRR EV-16	Annually
<b>Union Pacific Basic Visible Emissions Evaluator (B-VEE)</b>	UPRR EV-16	Annually

- C. EMISSION STANDARDS - Locomotives exceeding a steady state opacity measurement of 20 percent based on opacity meter testing or visual evaluations will be evaluated for repair based on the federal standards shown in the table below. [Section C.3(b)(v) and (vi)]

<b>Smoke Standards for Locomotives (Percent Opacity - Normalized)</b>			
	<b>Steady-state</b>	<b>30-second peak</b>	<b>3-second peak</b>
Tier 0	30	40	50
Tier 1	25	40	50
Tier 2	20	40	50

from EPA420-F97-048, Dec 1997

- D. EXCESSIVE VISIBLE EMISSIONS NOTIFICATION AND REPAIRS - Suspected non-compliance with visible emission opacity standards may be reported to UPRR by any employee, citizen or public agency. Non-employees should contact Union Pacific Railroad's Response Management Communication Center (RMCC) at the toll-free number 888-877-7267. **[See Attachment A – Excessive Visible Emissions & Community Reporting Process]** All locomotives suspected to exceed the visible emission limits will be evaluated. If it is determined that a locomotive has excessive visible emissions, it will be sent to the nearest repair facility within 96 hours. If travel along its scheduled route will take a locomotive with excessive visible emissions out of the state, UPRR will repair the locomotive expeditiously, and in any event will not allow the locomotive to reenter the state until it has been repaired. [Section C.3(b)(ii), (vii), and (viii)]

- E. RECORD KEEPING – Records of all Visible Emissions Evaluations will be maintained as part of the individual locomotive history. These Evaluations include the locomotive manufacturer, model number, certification standard, unit number, test(s) performed, date, time and location of test(s), inspection or excessive visible emissions and the results of such tests. If a locomotive is identified as having excessive visible emissions, then the Evaluations will also record which additional tests, if any, were performed, where the defect was corrected, what defect(s) were repaired and when the unit was returned to service. [*Section C.3(c)*]
- F. REPORTING – Within 90 days of the effective date, and every April thereafter, UPRR will report the total number of inspections performed, the results of those inspections and any other information that UPRR or ARB may deem reasonably necessary. [*Section C.3(d)*]
- G. NOTIFICATION PROCESS AND COMMUNITY REPORTING – Any person or agency may report locomotives believed to have excessive visible emissions to Union Pacific Railroad's Response Management Communication Center (RMCC) at our toll-free number, 888-877-7267. [**See Attachment A – Excessive Visible Emissions & Community Reporting Process**] [*Section C.3(j)*]

## RESPONSIBILITIES

- **Environmental Management Group (EMG)** -- Perform appropriate audit activities required by the regulatory agencies.
- **Program Coordinator** -- Define, implement, and monitor excessive visible emissions program.
- **Visible Emission Coordinator (VEC)** – Monitor and ensure compliance with the provisions of the Agreement.
- **State Certified Visible Emissions Evaluators (SC-VEEs)** -- Perform inspections and assist in the determination locomotive's emission opacity.
- **Union Pacific Qualified Visible Emissions Evaluators (Q-VEEs)** --Perform inspections assist in the determination locomotive's emission opacity.
- **Union Pacific Basic Visible Emission Evaluators (B-VEEs)** -- Identify and report locomotives with excessive visible emissions to the VEC.
- **Maintenance Operations** -- Provide for the training of adequate number of State Certified VEE's and Qualified VEE's at proper locomotive facilities.
- **Locomotive Managers Harriman Dispatch Center (HDC)** -- Remove from service locomotive(s) cited by an agency or designated CVEC, route the locomotive for repair, and immediately notify Program Coordinator.
- **Train Dispatchers, Train Crews & Local Transportation Managers** -- Report locomotives with excessive visible emissions to HDC Locomotive Desk.
- **Locomotive Maintenance Managers** -- Arrange to have locomotive repaired and ensure record keeping.

## **Excessive Visible Emissions Program & Community Reporting Process for California**

### Contact Information:

- To report locomotives with excessive visible emissions, citizens should contact the Union Pacific Railroad Company (UPRR) Risk Management Communications Center (RMCC)
- RMCC's contact information may be found on Union Pacific's website
  - ◆ UP Website: [www.up.com](http://www.up.com)  
Please call 1-888-UPRR COP (877-7267) to report locomotives with suspected excessive visible emissions.
- RMCC's contact information may also be found on the Air Resources Board (ARB) website that provides additional numbers to call to reach ARB or the appropriate local air district with complaints about locomotives with suspected excessive visible emissions
  - ◆ ARB Website: [www.arb.ca.gov/railyard/complaint/complaint.htm](http://www.arb.ca.gov/railyard/complaint/complaint.htm)  
This page provides a telephone number to report locomotives with suspected excessive visible emissions to ARB (1-800-END-SMOG (1-800-363-7664)) and a link to a list of local air pollution control district telephone numbers.

### Excessive Visible Emissions Reporting Process:

Upon the receipt of a call reporting a locomotive with suspected excessive visible emissions, and to notify managers to investigate if further action is required, RMCC will:

1. Determine the name and contact phone number of the reporting party.
2. Determine the amount of time the locomotive has allegedly been emitting excessive visible emissions.
3. Determine the exact location of the locomotive by subdivision, milepost, DOT number, street intersection, city, county, and state.
4. Determine whether the locomotive is on a mainline, a siding, or an industry lead.
5. Determine the pertinent identification numbers of the locomotive and access its shipping papers to determine the Train ID (assuming the reporting party was unable to provide this information).
6. Advise the reporting party RMCC will contact UP officials to respond to the locomotive suspected of excessive visible emissions and his/her report will be documented.
7. Ask the reporting party if he or she would like an update report on what actions have been taken by UPRR in addressing any identified problems.
8. Personally notify the Mechanical Desk and provide the name and contact number of the reporting party, the exact location, and the Train ID or pertinent identification numbers of the locomotive.

9. Mechanical Desk provides information for electronic visible emission incident report.

Notification Process:

- Upon request, Union Pacific will provide a summary and/or detailed information regarding the resolution of an incident involving excessive visible emissions; and/or
- Provide a progress report on the Excessive Visible Emissions Program at annual update meetings with ARB, local air districts, and community member representatives; and/or
- RMCC will contact the reporting party to provide information about how the identified problems were addressed, if requested.