Locomotive Visible Emissions Reduction Program Training

UPRR Basic for Key Employees

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Locomotive Visible Emissions Training

UPRR Basic for Key Employees

• Purpose
  – This training is required as part of the Memorandum of Understanding (MOU) signed by UPRR, the BNSF, and the California Air Resources Board in June, 2005.
  – This training will be delivered at employee safety meetings and job briefings across California to ensure we are complying with the provisions of the MOU.
  – At the end of this short presentation, there will be a 10 question test.
  – Results will be logged into PINS so a record can be maintained to demonstrate compliance.
• **Training Goals**
  - Detection of locomotives with suspected excessive visible emissions
  - Reporting locomotives with suspected excessive visible emissions

• **Overview**
  - Operating and keeping the Railroad's equipment in good working order can:
    - Reduce potentially harmful pollutants,
    - Produce “Real” benefits.
  - So, who is responsible?
WE ALL ARE...

• Shop Personnel repair and enter information into the MTC System.
• Transportation Managers train the Train and Engine Crews.
• Train Dispatchers and Locomotive Managers report to RMCC locomotive with suspected excessive visible emissions.

KEY AIR QUALITY ISSUES

• Clean Air Act
  – Looks at Stationary Sources - Shops
  – Mobile Sources - Locomotives

• Memorandum of Understanding (MOU) signed by UPRR, the BNSF, and the California Air Resources Board in June, 2005.
MEMORANDUM OF UNDERSTANDING

• Requires
  – Screening for locomotives exceeding 20% opacity;
  – Locomotives with excessive visible emissions operating in California to nearest repair facility within 96 hrs;
  – Locomotives with excessive visible emissions prohibited from returning to operation in California without demonstrating compliance;
  – Training for key employees at covered yards.

COVERED YARDS

• Anaheim
• Fresno
• Martinez
• Milpitas
• Montclair
• Portola
• Yermo
• Designated Yards (not pictured)
VISIBLE EMISSION REDUCTION PROGRAM
UPRR Basic for Key Employees

• Union Pacific Basic (Key Employees)
  – Detection of locomotives with suspect excessive visible emissions, and
  – Reporting locomotives with suspect excessive visible emissions.

VISIBLE EMISSION REDUCTION PROGRAM
UPRR Basic for Key Employees

• Detection
  – Understanding what “Opacity” means in relation to locomotive emissions,
  – Understanding what “Excessive” means in relation to locomotive emissions, and
  – using the naked eye, are able to determine whether an observed locomotive emission is suspect.
Opacity is the measure of density or thickness of the locomotive’s emissions (smoke).

UPRR STANDARDS

- “Excessive”
  - When it is equal to or exceeds 20% opacity and
  - Last longer than 20 seconds.
Causes of Excessive Emissions

- Operating Problems
  - “Wiping the Throttle”
  - Running a Cold Unit
- Mechanical Problems
  - Worn Injectors
  - Governors
  - Excitation Settings
  - Engine Timing Setting
  - Turbo Design and Defects
  - Plugged Air Filters
  - Fuel Rack Settings

REPORTING

- To report an excessively smoking locomotive, contact:

  Response Management Communications Center
  (888) UPRR-COP
  or
  HDC Locomotive Desk
  8-636-7509
REPORTING
Excessive Visible Emissions Program & Community Reporting Process For California

- RMCC receives call and gathers
  1. Caller's name, phone number, etc.
  2. Locomotive information
  3. Location information
- RMCC notifies Mechanical Desk
- Mechanical Desk provides information for electronic Visible Emissions Incident Report
THE ROAD TO THE FUTURE ISN'T A ROAD AT ALL.