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Question & Answer

August 31, 2016 Conference Call:

Railroad Emissions Reduction for Bibb County Project

Question: What is meant by the term “traditional?” Does this term or any other verbiage constrain the type of switcher eligible for funding based on horsepower specifications?

Answer: EPD identified the Fire Station #8 fine particulate matter (PM_{2.5}) monitor in Atlanta and the Macon-Allied PM_{2.5} monitor located in Bibb County as two monitors with a history of exhibiting higher PM_{2.5} concentrations compared to other monitors in the state. These two monitors are located near rail yards operating locomotives performing switcher duty.

EPD’s active effort to reduce emissions from locomotives performing switcher duty started around 2008. Class I railroads were initially identified as the primary concern. Genset locomotives were an emerging technology in 2008, and regulators at that time believed the genset technology would become an industry mainstay. However, genset locomotives were later found to be inadequate for the Class I railroads because of work demands and respective reliability issues. Genset locomotives may be better suited for lighter-duty applications at this point. With design improvements, the genset locomotive may eventually meet the reliability needs for Class I switching.

The term “traditional” appears to have been initially introduced as a way of contrasting an old single diesel engine locomotive with a new multiple diesel engine locomotive genset design. Hence, the term “traditional” continues to mean the old single diesel engine locomotive (Unregulated or TIER 0). CMAQ funding does not require railroad conversion to gensets. The funding does require that the unregulated or TIER 0 locomotive performing switcher duty be converted to a clean locomotive meeting a minimum TIER 2 switcher duty standard, and larger line haul locomotives must also meet the TIER 3 line haul standards.

The current selection criteria for Bibb County funding focus on achieving the most cost effective emission reductions. There is no explicit horsepower constraint related to this funding. EPD’s intent is to reduce emissions from locomotive switching activity. The United States Environmental Protection Agency (EPA) identifies switchers as having horsepower less than 2,300. However, EPA also requires line haul locomotives above 2,300 horsepower to comply with both line haul standards and switcher duty standards. EPA understands that the larger locomotives (example: 3,000 horsepower) can operate as either a line haul or switcher. EPD’s intent has always been to improve air quality measured by ambient monitors located near rail yards by reducing emissions from locomotive switching activities. In conclusion, a locomotive that is legally providing switch duty service is considered a switcher for the purposes of this funding.