

Supplemental Information on Tier 3 Motor Vehicle Emissions and Fuel Standards

Historical context The Tier 3 vehicle and gasoline sulfur standards are a revision to the existing Tier 2 vehicle and gasoline sulfur standards, which were published in 2000 and phased in from 2004-2010. The “systems approach” that the Tier 2 standards pioneered—that is, addressing vehicle and fuel standards in an integrated manner—has been replicated throughout the last decade in subsequent vehicle/engine and sulfur standards for on-road heavy-duty trucks, nonroad diesel engines and equipment, diesel locomotive and marine engines, and oceangoing vessels.

EPA’s development of the Tier 3 light-duty vehicle and fuel standards has been informed by the implementation of the existing Tier 2 standards. EPA expects the technologies used to comply with Tier 3 standards will be extensions of those already employed for Tier 2 compliance. As a result, the effectiveness and costs associated with these technologies are well understood. EPA is applying the same emissions and cost estimation methodologies that it has used in a large number of standard-setting rulemakings for the automotive and petroleum industries over more than 15 years.

EPA will be proposing Tier 3 standards in response to the President’s May 2010 memorandum, which requested that EPA evaluate the adequacy of the Tier 2 standards and develop a comprehensive national vehicle program to address both greenhouse gases (GHGs) and non-GHGs. The proposed Tier 3 standards will accomplish this goal by harmonizing with the California Low Emission Vehicle (LEV III) standards for non-GHGs, and by coordinating implementation with EPA’s recently-finalized GHG/fuel efficiency standards for 2017 model year and later light-duty vehicles. EPA is also developing these standards in response to Section 202 of the Clean Air Act, which requires EPA to establish standards for motor vehicles and to revise such standards from time to time.

Timing of rulemaking The Tier 3 proposal is currently under interagency review and is projected to be signed and published this month (March 2013). The final rule must be issued by December 2013 in order to provide industry the required lead time for implementation beginning in the 2017 model year, which starts as early as January 2, 2016. The 2017 start date is critical to achieving the harmonized 50-state vehicle program and coordinated implementation with the GHG standards—a key desire of the auto industry and a fundamental goal of the Tier 3 program. By aligning the timing of these standards, the auto manufacturers can phase in compliance consistent with their vehicle redesign cycles, thus reducing their costs. Lower sulfur gasoline would need to be available beginning in 2017 to coincide with the implementation of the Tier 3 vehicle standards. It would also provide immediate emission reductions and air quality benefits in a timeframe relevant to states and localities, some of which have 2018 attainment deadlines.

Scientific questions have been peer reviewed EPA has peer reviewed several technical work products supporting the Tier 3 proposal. EPA has identified these work products as “influential scientific information” because they are supporting a regulatory decision of major impact (i.e., the Tier 3 proposal), not because they involve novel or precedential science issues. The new information underlying the Tier 3 proposal consists of updates to our emissions data sets to

include exhaust and evaporative emissions data from Tier 2 vehicles, and updates to our refinery cost information. Each of these cases involves the collection and analysis of vehicle emissions data and refinery operations data consistent with our experience over many years. However, because data collection, analysis, and modeling require careful interpretation, EPA has conducted peer review of each of these technical work products.

Additional details on peer review The peer reviews were performed in accordance with EPA and OMB peer review guidelines and managed by an independent contractor who, for each work product, selected three subject matter experts. The contractor-led process involved a robust review of potential conflicts of interest. The background and expertise of the peer reviewers varied depending on the work product, but involved academics and consultants familiar with statistical analysis, vehicle emissions measurement, vehicle emissions control technologies, and/or refinery technology and operations. The many reviewers included engineering professors from the University of California-Riverside and North Carolina State University, a statistics professor from the University of Michigan, a vehicle research expert from the Oak Ridge National Laboratory, and consultants with various specialized experience. The charge questions varied with the work product but included the methodologies, analysis, and conclusions of each work product. EPA has made changes to the draft work products based on comments from the peer reviewers, and detailed information regarding the peer reviews will be made available to the public upon publication of the proposed rule, including a summary of how EPA responded to the peer review comments.