

## Supplemental Information on Petroleum Refinery Risk and Technology Review and NSPS

**Historical context.** The EPA withdrew the 2009 Refinery MACT 1 RTR to collect additional information on the industry. In 2011, the EPA issued an industry-wide information collection request (ICR) under its CAA section 114 authority to obtain more up-to-date industry information and emission inventories to use to model risk and to review advancements in practices, processes and control technologies. The information that was not claimed confidential is publicly available on the EPA's website. Several environmental groups filed a mandatory duty lawsuit (September 2012) in Federal District Court over the EPA's failure to conduct the 8-year risk and technology review (RTR) for both Refinery maximum achievable control technology (MACT) 1 standards and Refinery MACT 2 standards. The NSPS amendments in this rulemaking are an extension of an existing initiative to resolve multiple petitions on the 2008 Refinery NSPS amendments. These amendments are technical corrections and clarifications to the 2008 Refinery NSPS in response to a petition from the American Petroleum Institute. For administrative efficiency reasons, we are including the NSPS amendments in the same Federal Register package as the RTR rulemaking, rather than issuing a separate Federal Register notice to address them.

**Timing of rulemaking.** EPA is currently in negotiations with litigants in the mandatory duty lawsuit concerning a schedule for the Refinery MACT 1 and 2 RTR rulemaking. It is unlikely that EPA would be able to negotiate a long schedule (or that a court would enter a long schedule if the parties are unable to settle the case), especially since it is a matter of public record that a proposal is currently at OMB for inter-agency review. Based on past experience, we are likely to get an aggressive schedule as a result of the litigation. Additionally, since nothing in the rule is based on new science, technologies or methodologies and we are applying the risk assessment methodology that was specifically reviewed by the SAB, we are not in a position to insist on extra time in the schedule to accommodate SAB peer review.

**Scientific questions have been peer reviewed.** The risk assessment for petroleum refineries follows an approach for both inhalation and multipathway exposures that was reviewed by SAB<sup>1</sup> for the purposes of RTR rulemaking. While the refining industry is complex, we have good data on the industry, and the only developments that we identified for the technology review of the two Refinery MACT standards are controls and operational practices already being employed by the refining industry. Information on these technologies comes from the industry; the 2011 Refinery ICR; information collected when we conducted the 2008 review of the Refinery New Source Performance Standards (NSPS); and enforcement settlement agreements. In addition, the EPA is evaluating a requirement for refineries to use passive monitoring at the facility fence line as a check that they are achieving the emission reductions targeted in the Refinery MACT standards for fugitive emission sources. To the extent that we propose such requirements, the EPA would develop methods for using passive monitors, consistent with the EPA's long-standing method development protocol, which includes adopting technologies and approaches vetted in the peer-reviewed literature, using consensus standards (i.e., standards developed by measurement experts and approved by an official standards body, such as ASTM or ISO) and proposing their application in specific regulatory contexts via notice and comment rulemaking. In addition, in 2011, a field research study was published in the peer-reviewed *Journal of Air & Waste Management*. This piece, titled *Facility Fence Line Monitoring Using Passive Samplers*, specifically describes the concept being considered for implementation in this proposed rule. The study was led by EPA's Office of Research and Development.

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<sup>1</sup> SAB Review of EPA's draft entitled, "Risk and Technology Review (RTR) Risk Assessment Methodologies: For Review by the EPA's Science Advisory Board with Case Studies – MACT I Petroleum Refining Sources and Portland Cement Manufacturing" (PDF, 69 pp., 384,577 bytes), EPA-SAB-10-007  
<http://yosemite.epa.gov/sab/sabproduct.nsf/0/b031ddf79cffded38525734f00649caf!OpenDocument&TableRow=2.3#2>

**Additional information: Refinery Flares.** The EPA plans to include in the proposal an amendment to the operational requirements for flares in the current MACT standards to ensure that a high level of combustion efficiency is achieved for the waste gases that go to a flare. The EPA conducted an ad-hoc external flare peer review study in the spring of 2012, dedicated to determining parameters for properly designed and operated flares. An eight-person peer review panel was tasked with answering specific charge questions relating to proper design and operation of steam and air assisted flares. The panel confirmed that the EPA had identified the operating parameters that affect flare performance. There is also general agreement among stakeholders regarding the operational factors that affect flare performance.