EPA Publishes Proposed Rule: Petroleum Refinery Sector Risk and Technology Review and New Source Performance Standards

On June 30, 2014, the United States Environmental Protection Agency (“EPA”) published a proposed rule that will significantly affect petroleum refineries. This proposed rule, if finalized, would create air emission requirements for petroleum refineries by revising the National Emission Standards for Hazardous Air Pollutants (“NESHAPs”). Changes would include: (1) fenceline air quality monitoring requirements; (2) the elimination of the startup, shutdown, and malfunction (“SSM”) periods emission exemption included in 40 C.F.R. part 63, subparts CC and UUU; and (3) emission control requirements for storage tanks, flares, catalytic reforming units (“CRUs”), fluid catalytic cracking units (“FCCUs”), and delayed coking units (“DCUs”) at petroleum refineries. The EPA will be accepting comments until August 29, 2014, for this proposed rule.

Statutory Authority

Under section 112(d) of the Clean Air Act (“CAA”), EPA is required to promulgate Maximum Available Control Technology (“MACT”) standards for major stationary sources that emit Hazardous Air Pollutants (“HAPs”). The EPA is not allowed to consider costs when establishing the MACT floor level and must review the MACT standards at least every eight years. After establishing the MACT floor level, EPA is then required to reduce any residual risk and to determine whether the emission standards provide an ample margin of safety to protect public health, as required by CAA section 112(f). Using the approach developed in establishing the Benzene NESHAP, EPA adopted the acceptable risk standard of a less than one in ten thousand (or 100-in-1 million) maximum individual risk (“MIR”) of developing cancer, assuming a person living near a plant was exposed to the maximum pollutant concentrations on a 24-hour per day, 365-day per year basis for 70 years. To consider whether the MACT floor level should be revised to provide an ample margin of safety, EPA must consider other factors in addition to health risks, including costs and economic impacts of controls, technological feasibility, uncertainties, and any other relevant factors.

Under section 111 of the CAA, EPA is given authority to promulgate new source performance standards (“NSPS”), which apply to new and modified stationary sources. EPA is required to establish emission standards when the administrator finds that the new and modified stationary sources cause or contribute significantly to air pollution, which may be reasonably anticipated to endanger public health or welfare. The EPA must establish NSPS that are a level of control commonly referred to as best demonstrated technology (“BDT”) or best system of emission reduction (“BSER”). This is usually a numerical emission limit, rather than a particular technology system. Once an NSPS has been established in a particular source category, section 111(d) of the CAA requires the regulation of existing sources, with certain exceptions.
Background

The NSPS for petroleum refineries were initially promulgated in 1974, amended in 1976, and amended again in 2008. The MACT standards for petroleum refineries were initially promulgated in 1995 (“MACT 1”). Additional regulations were added in 2002 (“MACT 2”), and regulations of heat exchange systems were promulgated in 2009. In August 2013, the U.S. District Court for the District of Columbia approved a consent decree between environmental groups and EPA. Environmental groups had challenged EPA in *Air Alliance Houston et al. v. McCarthy* for not reviewing the emission limits for petroleum refineries in accordance with the time frame required by the CAA, which requires EPA to review standards every eight years. The consent decree mandated that EPA review the prior MACT emission standards and, by February 14, 2014, either sign a proposal revising the rule or issue a proposed determination that no revision is necessary. The decision would then be finalized by December 19, 2014. In February, EPA received an extension with a new proposal deadline of May 15, 2014, with the final rule to be published 11 months later. On May 15, EPA issued the unofficial proposed rule and, on June 30, EPA published the proposed rule in the Federal Register.

Requirements

This proposed rule would result in important revisions to the original MACT 1 and 2 standards as applied to petroleum refineries, including:

1. Each petroleum refinery would be required to conduct fenceline monitoring with passive monitors surrounding the refinery, which would be used to measure two-week average benzene concentration readings to determine if analysis and corrective action is needed;

2. The SSM exemptions in 40 C.F.R. part 63, subparts CC and UUU would be eliminated;

3. DCUs would be required to reduce the drum pressure to below two pounds per square inch gauge (“psig”) before releasing emissions into the atmosphere from the steam vent;

4. Flares used as air pollution control devices would be subject to additional operational requirements, including monitoring and control requirements;

5. Storage tanks would be subject to upgrading requirements for emission controls and lower applicability thresholds;

6. CRUs using active vessel depressurization would be required to meet 98% reduction or 20 ppm total organic compound emission limits; and

7. FCCUs would be subject to revised averaging periods for certain operating limits and performance testing every five years.
In addition to the MACT revisions, the EPA will also make some technical corrections and clarifications to the 2008 Petroleum Refinery New Source Performance Standards.

Summary

These proposed rules will significantly affect petroleum refineries. EPA will take public comments until August 29, 2014, and plans to release the final rule in April 2015. If you have any questions about how this proposed rule may affect your facilities and operations or how you may participate in the comment phase of EPA’s rulemaking process, please contact the Thompson & Knight attorney with whom you regularly work or any of the attorneys listed below.

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