

FACT SHEET

RECONSIDERATION OF THE FINAL AIR TOXICS STANDARDS FOR PHOSPHORIC ACID MANUFACTURING AND PHOSPHATE FERTILIZER PRODUCTION

ACTION

- On September 13, 2017, the Environmental Protection Agency (EPA) signed a final notice of reconsideration, regarding four issues raised in petitions received on the final air toxics standards for phosphoric acid manufacturing and phosphate fertilizer production.
- This action addresses the following four issues identified in the reconsideration petitions:
 - the compliance schedule for including emissions from oxidation reactors in the total fluorides emission limits for superphosphoric acid (SPA) process lines;
 - the option to use blower design capacity to determine the gas flow rate through the absorber for use in the liquid-to-gas ratio;
 - other available options to determine the gas flow rate through the absorber for use in the liquid-to-gas ratio; and
 - the compliance schedule for continuously monitoring the liquid-to-gas ratio for low-energy absorbers.
- With respect to these four issues, the EPA is making the following changes to the rule in this action.
 - EPA is changing the compliance date from August 19, 2016 to August 19, 2018, for SPA process lines. The initial date was effective 1 year from promulgation. However, sources needed additional time for the design and installation of equipment in order to comply with the total fluoride emission limits.
 - To address the issue of determining the liquid-to-gas ratio of low-energy absorbers, EPA is clarifying an option in the final rule and adding an alternative option.
 - To address the issue of other available options to determine the gas flow rate through the absorber for use in the liquid-to-gas ratio, EPA is adding a new option to develop and use a regression model in lieu of measuring gas flow rate or using the blower design capacity option.
 - EPA is changing the compliance date for the low-energy absorbers monitoring requirement from August 19, 2015 to August 19, 2018. The initial compliance date was immediately effective, and we proposed to allow sources up to 2 years to comply. However, sources needed more time for the design and installation of equipment, and for development of regression models; consequently, we are allowing sources up to 3 years to comply with the monitoring requirements.
 - In addition, EPA is making one other change in the final rule to restore a provision which allowed the liquid flow rate at the absorber to fluctuate up to ± 20 percent.
- EPA estimates the use of the monitoring alternatives in this final rule will save the industry

about \$80,000 per facility for an over \$1 million cost savings across the industry.

BACKGROUND

- Phosphoric acid is manufactured by acidulating phosphate ore (i.e., reacting the ore with sulfuric acid). Twelve facilities manufacture phosphoric acid, and 11 facilities produce phosphate fertilizer from that acid. Typically, sulfuric acid, phosphate ore and water are reacted with one another to produce varying strengths of phosphoric acid. Gypsum is a waste by-product from the reaction, and it is stored on facility property in large mounds. Most of the phosphoric acid produced domestically is used in phosphate fertilizer production. Phosphate fertilizer is produced through three basic steps: reaction of phosphoric acid with ammonia, granulation and finishing processes.
- The EPA published final amendments to the 1999 air toxics standards for phosphoric acid manufacturing and phosphate fertilizer production on August 19, 2015.
- In addition to other changes, the amendments revised the SPA process line definition to include oxidation reactors and changed the monitoring provisions to require monitoring of liquid-to-gas ratio rather than pressure drop for low-energy absorbers.
- Following publication of the final amendments, the EPA received two petitions for reconsideration; one from The Fertilizer Institute (TFI) and the other from Phosphate Corporation of Saskatchewan (PCS). This action responds to those petitions.
- The Clean Air Act requires the EPA to regulate toxic air pollutants, also known as air toxics, from large industrial facilities in two phases.
- The first phase is “technology-based,” where EPA develops standards for controlling the emissions of air toxics from sources in an industry group (or “source category”). These maximum achievable control technology (MACT) standards are based on emissions levels that are already being achieved by the controlled and low-emitting sources in an industry.
- The second phase is a “risk-based” approach called residual risk. Here, EPA must determine whether more health-protective standards are necessary. Within 8 years of setting the MACT standards, the Clean Air Act requires EPA to assess the remaining health risks from each source category to determine whether the MACT standards protect public health with an ample margin of safety, and protect against adverse environmental effects.
- Every 8 years after setting the MACT standards, the Clean Air Act also requires EPA to review and revise the standards, if necessary, to account for improvements in air pollution controls and/or prevention.

FOR MORE INFORMATION

- Interested parties can download the notice from the [EPA's website for air pollution regulations for phosphate fertilizer production and phosphoric acid plants](#).
- Today's notice and other background information are also available either electronically at [the EPA's electronic public docket and comment system](#), or in hardcopy at the EPA Docket Center's Public Reading Room.
 - The Public Reading Room is located in the EPA Headquarters Library, Room Number 3334 in the EPA WJC West Building, located at 1301 Constitution Avenue, NW, Washington, DC. Hours of operation are 8:30 a.m. to 4:30 p.m. eastern standard time, Monday through Friday, excluding federal holidays.
 - Visitors are required to show photographic identification, pass through a metal detector, and sign the EPA visitor log. All visitor materials will be processed through an X-ray machine as well. Visitors will be provided a badge that must be visible at all times.
 - Materials for this action can be accessed using Docket ID No.EPA-HQ-OAR-2012-0522.
- For further information, contact Susan Fairchild of the EPA's Office of Air Quality Planning and Standards by phone at (919) 541-5167, or by e-mail at: Fairchild.Susan@epa.gov.