Proposed Amendments to Air Toxics Standards for the Manufacturing of Nutritional Yeast: Fact Sheet

ACTION

- On December 13, 2016, the U.S. Environmental Protection Agency (EPA) proposed amendments to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Manufacturing of Nutritional Yeast facilities. This rule will further reduce emissions of hazardous air pollutants, also known as air toxics, which are known or suspected to cause cancer and other serious health and environmental effects.

- EPA issued the manufacturing of nutritional yeast air toxics emission standards in 2001. The rule applies to facilities that manufacture baker's yeast (for human consumption) using fermentation.

- Following a residual risk review and technology review, the EPA is proposing to:

    - Revise the form of the emission limits so that facilities are in compliance at all times. EPA is proposing that each batch must meet existing emission limits to ensure the standards are consistent with the requirements of the Clean Air Act. EPA is also proposing an alternative compliance option to allow sources to average VOC emissions for each fermentation stage on a rolling 12-month period with a discount factor of 5 percent applied to the existing emission limits to ensure that this option is at least as stringent as the current standard.
    - Remove emission limit exemptions during periods of malfunction.
    - Make additional changes to testing, monitoring, recordkeeping and reporting requirements that correct deficiencies in current methods and align requirements of this rule with those of similar NESHAPs
        - Removal of option to estimate emissions using an annual performance test
        - Requirement to collect emissions data at all times
        - Requirement to perform annual performance tests to evaluate performance of the emissions monitoring system over time
        - Requirement for electronic reporting

- EPA will accept comment on these proposed amendments for 45 days after publication in the Federal Register.

RESIDUAL RISK ASSESSMENT

- The Clean Air Act requires the EPA to assess the risk remaining after application of the final air toxics standards. This is known as a residual risk assessment.

- After assessing the risk from exposure to toxic air emissions from nutritional yeast manufacturing facilities, the EPA proposes that the emission standards provide an acceptable level of risk with an ample margin of safety to protect public health.
- The maximum individual cancer risk (MIR) for the source category is estimated to be 2-in-1 million. Approximately 750 people are predicted to have an elevated cancer risk between 1-in-1 million and 2-in-1 million due to emissions from 1 nutritional yeast manufacturing facility.
- The chronic non-cancer, respiratory risk for the source category indicates a maximum hazard index (HI) of less than 1.
- The maximum acute hazard quotient is below 1 for all nutritional yeast manufacturing facilities, with acetaldehyde being the risk driver.

TECHNOLOGY REVIEW

- The Clean Air Act requires the EPA to assess the review and revise air toxics standards, as necessary, taking into account developments in practices, processes and control technologies since the EPA issued the standards.
- The technology assessment did not identify any practices, processes or control technologies that were not already required by the manufacturing of nutritional yeast NESHAP or considered in its development. The EPA also did not identify any improvements to those practices, processes, or control technologies that could be transferred and applied to this source category.

BACKGROUND

- The Clean Air Act requires the EPA to regulate toxic air pollutants, also known as air toxics, from categories of industrial facilities in two phases.
- The first phase is “technology-based,” where the EPA develops standards for controlling the emissions of air toxics from sources in an industry group (or “source category”). These MACT standards are based on emissions levels that are already being achieved by the best-controlled and lower-emitting sources in an industry.
- Within eight years of setting the MACT standards, the Clean Air Act directs the 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. This second phase is a “risk-based” approach called residual risk. Here, the EPA must determine whether more health-protective standards are necessary.
- Also, every eight years after setting the MACT standards, the Clean Air Act requires that the EPA review and revise the standards, if necessary, to account for improvements in air pollution controls and/or prevention.
- The previously-issued air toxic standards for this source category is one of 96 air toxic standards (MACT) that require 174 industry sectors to eliminate 1.7 million tons of 187 toxic air pollutants. Congress listed these toxic air pollutants in the Clean Air Act.

HOW TO COMMENT

- The EPA will accept comment on the proposal for 45 days after publication in the Federal Register. Comments, identified by Docket ID Number EPA-HQ-OAR-2015-0730 may be submitted by one of the following methods:
    - Go to www.regulations.gov and follow the on-line instructions for submitting comments.
    - Send comments by email to a-and-r- Docket@epa.gov, Attention Docket ID No. EPA-HQ- OAR-2015-0730.
    - Fax your comments to: 202-566-9744, Attention Docket ID. No. EPA-HQ-OAR-2015- 0730.
    - Mail your comments to: Air and Radiation Docket and Information Center,
    - Environmental Protection Agency, Mail Code: 28221T, 1200 Pennsylvania Ave., NW, Washington, DC, 20460, Attention Docket ID. No. EPA-HQ-OAR-2015-0730.
    - Deliver comments in person to: EPA Docket Center, 1301 Constitution Ave., NW, Room 3334, Washington, D.C. Note: In person deliveries (including courier deliveries) are only accepted during the Docket's normal hours of operation. Special arrangements should be made for deliveries of boxed information.

FOR MORE INFORMATION

- To download a copy of the proposed rule notice, go to EPA's Worldwide Web site at https://www.epa.gov/stationary-sources-air-pollution/manufacturing-nutritional-yeast-national-emission-standards
- Today's action and other background information are also available either electronically at http://www.regulations.gov, 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 at EPA Headquarters, room number 3334 in the EPA WJC West Building, 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 proposed action can be accessed using Docket ID No. EPA-HQ-OAR- 2015-0730.
- For further technical information about the rule contact Allison Costa, EPA's Office of Air Quality Planning and Standards, at (919) 541-1322 or costa.allison@epa.gov.