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FACT SHEET

PROPOSED NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FROM OIL AND NATURAL GAS PRODUCTION FACILITIES AND NATURAL GAS TRANSMISSION AND STORAGE FACILITIES

TODAY'S ACTION

- ! The Environmental Protection Agency (EPA) is proposing National Emission Standards for hazardous air pollutants emitted from oil and natural gas production facilities as well as natural gas transmission and storage facilities.
- ! Emissions from various processes and operations at oil and natural gas facilities and natural gas transmission and storage facilities typically contain at least 5 different hazardous air pollutants. Hazardous air pollutants are also known as air toxics; these are pollutants which are known or suspected to cause cancer or other serious health effects such as birth defects or reproductive effects. The primary hazardous air pollutants emitted from these facilities are: benzene, toluene, ethyl benzene, and mixed xylenes, and n-hexane.
- ! In this action, EPA is requiring controls for “major” sources and selected “area” sources of emissions of hazardous air pollutants from oil and natural gas production as well as “major” sources of emissions of hazardous air pollutants from natural gas transmission and storage. (“Major” sources are stationary sources that have the potential to emit 10 tons/year or more of a listed hazardous air pollutant or 25 tons/year of or more of a combination of pollutants. “Area” sources are stationary sources that emit hazardous air pollutants, but are not classified as a major source.)

WHY IS EPA ISSUING NATIONAL EMISSION STANDARDS FOR OIL AND NATURAL GAS FACILITIES?

- ! Existing State and local regulations control some of the emission points associated with oil and natural gas facilities. EPA has previously issued a Federal new source performance standard for equipment leaks at some of these facilities. New source performance standards apply to newly built or refurbished facilities. The proposed national emission standards supplement and strengthen the existing levels of control on oil and natural gas facilities and expand these controls nationwide.

BACKGROUND

- ! Under the Clean Air Act Amendments of 1990, EPA is required to regulate sources of 188 listed toxic air pollutants. (Note that this list originally referenced 189 pollutants, but EPA has subsequently removed the chemical caprolactum from the list.) On July 16, 1992, EPA published a list of industry groups (known as source categories) that emit one or more of these hazardous air pollutants. For listed categories of "major" sources, the Clean Air Act requires EPA to develop standards that require the application of stringent air pollution reduction measures known as maximum achievable control technology (MACT). Oil and natural gas production is a source category listed for regulation. Natural gas transmission and storage, which EPA did not include as a distinct source category in the original listing, is now being added to the list of source categories to be regulated.

- ! Emissions of hazardous air pollutants from oil and natural gas production facilities and natural gas transmission and storage facilities occur during the separation, upgrade, transport, and storage of crude oil, condensate, natural gas, and related products and by-products. In addition, emissions occur as a result of vapor leaks from pumps, compressors, valves, flanges, and other equipment in liquid and gas service that contribute to emissions of hazardous air pollutants.

WHO WILL BE AFFECTED BY TODAY'S ACTION AND WHAT IS EPA SPECIFICALLY REQUIRING?

- ! Based on currently available information, of the estimated 100,000 to 250,000 oil and natural gas production facilities, approximately 960 would be affected by the proposed oil and natural gas production emission standards. Of the estimated 2,000 natural gas transmission and storage facilities, 5 would be affected by the proposed natural gas transmission and storage emissions standards.

- ! EPA is requiring affected facilities to apply existing and affordable control technologies to known emission points. In addition, in an effort to increase flexibility, EPA is encouraging the use of pollution prevention to reduce emissions of hazardous air pollutants from the process vents at glycol dehydration systems. These vents constitute the largest single identified hazardous air pollutant emission point for the oil and natural gas production source category.

WHAT EMISSION POINTS IS EPA PROPOSING TO CONTROL IN TODAY'S ACTION?

- ! Oil and Natural Gas Production Facilities
EPA is proposing that emissions of hazardous air pollutants from the oil and natural gas industry be controlled at both major and selected area sources. In general, at oil and natural gas production facilities that are major sources of hazardous air pollutants, the

following emission points would be subject to emission controls: (1) all process vents at glycol dehydration units, (2) tanks with flashing emission potential, and (3) fugitive emission sources at natural gas production processing plants. At area sources, all process vents at selected glycol dehydration units would also be subject to emission controls.

! Natural Gas Transmission and Storage Facilities

For natural gas transmission and storage facilities, that are major sources of hazardous air pollutants, all process vents at glycol dehydration units would be subject to emission controls.

WHAT MONITORING REQUIREMENTS IS EPA PROPOSING?

- ! The proposed emission standards require periodic inspection and monitoring of air emissions controls. EPA is requiring continuous monitoring of the operation of the control device. This involves the use of automated instrumentation to measure and record operating parameters that indicate whether the control device is in compliance with the proposed rules.

WHAT ARE THE HEALTH AND ENVIRONMENTAL BENEFITS OF TODAY'S ACTION?

Hazardous Air Pollutants

- ! This action will reduce emissions of hazardous air pollutants from oil and natural gas production facilities by approximately 33,000 tons/year for major sources and 3,600 tons/year for area sources (a combined 57 percent reduction).
- ! This action will reduce emissions of hazardous air pollutants from natural gas transmission and storage facilities by approximately 120 tons/year for major sources (a 95 percent reduction).
- ! Hazardous air pollutants are pollutants which are known or suspected to cause cancer or other serious health effects such as birth defects or reproductive effects.

Volatile Organic Compounds

- ! This action will reduce emissions of volatile organic compounds from oil and natural gas production facilities by approximately 67,000 tons/year for major sources and 7,900 tons/year for area sources (a combined 50 percent reduction).
- ! This action will reduce emissions of volatile organic compounds from natural gas transmission and storage facilities by approximately 1,500 tons/year for major sources (a 93 percent reduction).
- ! Volatile organic compounds contribute to the formation of ground-level ozone, the

primary constituent of smog. Exposure to ozone can damage lung tissue, reduce lung function, and sensitize the lungs to other irritants.

Methane

- ! This action will reduce methane emissions from oil and natural gas production facilities by approximately 7,700 tons/year for major sources and 1,700 tons/year for area sources (a combined 41 percent reduction).
- ! This action will reduce methane emissions from natural gas transmission and storage facilities by approximately 56 tons/year for major sources (a 92 percent reduction).
- ! Methane is a potent greenhouse gas that contributes to global warming.

WHAT WILL BE THE COST OF TODAY'S ACTION?

Capital Cost

- ! EPA estimates that the capital cost of controlling emissions from oil and natural gas production facilities to be approximately \$6.5 million for affected major sources and \$6.9 million for affected area sources.
- ! EPA estimates that the capital costs of controlling emissions from natural gas transmission and storage facilities to be approximately \$57 thousand for affected major sources.

Total Net Annual Cost

- ! EPA estimates the total net annual cost of controlling emissions from oil and natural gas production facilities to be approximately \$4.0 million for affected major sources and \$6.2 million for affected area sources
- ! EPA estimates the total net annual cost of controlling emissions from natural gas transmission and storage facilities to be approximately \$46 thousand for affected major sources.

NEXT STEPS

- ! After reviewing and analyzing public comments received on this proposal, EPA expects to issue the final rule by June 1998.

FOR FURTHER INFORMATION

- ! Anyone with a computer and a modem can download the proposed rule from the Clean Air Act Amendments bulletin board (under "Recently Signed Rules") on EPA's Technology Transfer Network (TTN) by calling (919) 541-5742. For further information about how to access the bulletin board, call (919) 541-5384. You can also access the TTN

directly through the World Wide Web at: (<http://ttnwww.rtpnc.epa.gov/>). For further information about the proposal, contact Ms. Martha Smith of EPA's Office of Air Quality Planning and Standards at (919) 541-2421.

- ! EPA's Office of Air and Radiation's homepage on the Internet contains a wide range of information on the air toxics program, as well as many other air pollution programs and issues. The Office of Air and Radiation's home page address is: (<http://www.epa.gov/oar/>).