

June 6, 1996

FACT SHEET

EPA'S NATURAL EVENTS POLICY FOR PARTICULATE MATTER

TODAY'S ACTION...

- o The Environmental Protection Agency (EPA) is today issuing a policy statement that outlines how States should address "natural events" (e.g., forest fires, dust storms, etc.) that produce high levels of particulate matter.
- o EPA worked in partnership with State and local air pollution control agencies to develop a common-sense policy for addressing violations of the health-based standard for particulate matter (measured as PM-10) caused by natural events. EPA believes that this policy will help States provide increased public health protection by reducing high levels of particulate matter during forest fires, dust storms, etc.
- o The three most common natural events affecting particulate matter air quality are "volcanic and seismic activities" (e.g., volcanos and earth quakes), "wildland fires" (e.g., unwanted forest and grass fires), and "high wind events" (e.g., dust storms).

WHAT IS PARTICULATE MATTER?

- o Particulate matter is the term used for a mixture of solid particles and liquid droplets found in the air.
- o While individual particles can not be seen with the naked eye, collectively they can appear as smoke, black soot, dust clouds, or grey hazes.
- o Those particles that are 10 microns or less in diameter are referred to as PM-10. The national limits for concentrations of particulate matter in the ambient air are expressed in terms of PM-10. (The diameter of one human hair is about 70 microns).

WHY IS EPA CONCERNED ABOUT PARTICULATE MATTER?

- o Community studies of air pollution effects on health have

linked PM-10, alone or in combination with other air pollutants, with a number of significant respiratory and cardiovascular-related effects. These effects include increased mortality and aggravation of existing respiratory and cardiovascular disease as evidenced by increased hospitalization, school absences, and increased work loss days.

- o In addition, airborne particles are respiratory irritants, and laboratory studies show that high concentrations of components of particulate matter cause persistent cough, phlegm, wheezing and physical discomfort in breathing.
- o Particulate matter can also alter the body's immune system and affect removal of foreign materials from the lung (e.g., bacteria and pollen).
- o Concentrations of PM-10 can be significantly increased a few days each year by natural events. This is especially true in States in the western half of the nation. Volcanos and earthquakes affect PM-10 concentrations in Hawaii, Alaska and in the States along the west coast of the continent. Forest fires impact air quality in Alaska and many other western States as well as States in the east. Dust storms frequently affect air quality in States from west Texas to eastern Washington.

WHAT ARE THE MAIN COMPONENTS OF EPA'S NATURAL EVENTS POLICY?

- o If natural events cause violations of the PM-10 air quality standards, States will be required to develop and implement a natural events action plan, which will include the following components:
 - States will be responsible for documenting when and to what extent natural events affect PM-10 concentrations.
 - States will (1) educate the public about the harmful effects of particulate matter, (2) notify the public when the air quality is affected by natural events, (3) minimize personal exposure to high levels of PM-10, and (4) reduce particulate matter levels during natural events.
 - States will implement programs to reduce PM-10

concentrations following volcanos and seismic activities by cleaning ash and dust deposits from areas such as streets where emissions could be reentrained into the air by vehicles. PM-10 concentrations in areas affected by forest fires can be helped by prohibiting other open burning activities during the event. Dust concentrations caused by high winds can be lowered by reducing the amount of loose, uncovered soil at construction sites, agricultural fields and unpaved parking lots.

HOW WILL EPA'S POLICY HELP STATES MEET THE PM-10 STANDARDS?

- o EPA's Natural Events policy provides additional flexibility to States in meeting the PM-10 standards, while providing increased public health protection. EPA will not redesignate any area to "nonattainment" status if a State develops and implements a plan to respond to the public health impacts resulting from violations of the PM-10 air quality standards caused by natural events. In addition, EPA will discount exceedances of the PM-10 standard caused by uncontrollable natural events when determining whether or not an area should be redesignated to "attainment" status.

- o EPA intends to develop an additional policy over the next 18 months to address air quality impacted by planned wildland fires, such as prescribed fires and the burning of debris (i.e., branches, etc.) from timber harvesting. EPA will form a partnership with state and local air pollution agencies, and federal and state land management agencies to develop this policy.

FOR MORE INFORMATION...

- o Anyone with a computer and a modem can download the Natural Events policy from the Clean Air Act Amendments bulletin board (look under "Title I - Policy/Guidance Documents") of EPA's electronic Technology Transfer Network (TTN). For further information about how to access the board, call (919) 541-5384. For further information about today's action, contact Ken Woodard at EPA's Office of Air Quality Planning and Standards at (919) 541-5697.