UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION V
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AN OPEN LETTER

TO

ELECTED OFFICIALS, BUSINESS LEADERS AND CONCERNED CITIZENS

My office has received numerous inquiries questioning the impact of "non-attainment" area designations, and it has become quite clear that there is a great deal of misunderstanding about the reasons for the designations and about their impact on industry and future growth in the midwestern States of Illinois, Indiana, Michigan, Minnesota, Ohio and Wisconsin.

The purpose of this letter is to clearly spell out just what the Clean Air Act says regarding this issue and to answer some of the more commonly asked questions about what impact non-attainment area designations can have on clean air and industrial growth.

The most commonly asked questions are: What is non-attainment and how does the United States Environmental Protection Agency (USEPA) determine how an area should be designated; which air pollutants have been identified as harmful to human health and how are they derived; whose responsibility is it to control pollution; what effect does designation of non-attainment have on economic growth; what kind of problems are most typical; and what happens if a state does not plan adequately for acceptable air quality? I will address each of these questions in turn.

Q. What is non-attainment, and how does the USEPA determine how an area should be designated?

A. Acceptable levels of air quality as defined in the Clean Air Act are called National Ambient Air Quality Standards (NAAQS). The primary NAAQS are required to be established at a level sufficient to protect the health of all members of the general population, including the elderly and very young. The secondary NAAQS are established at a level sufficient to protect against property damage, damage to vegetation, crops and animals. These ambient air quality standards were to have been achieved nationwide by 1975. "Non-attainment" means that the air in an area is

still more polluted than is acceptable to insure protection of health and property. The designation is made on the basis of measurements of air quality, or on the basis of predicted or projected air quality where information on air quality measurements is not available.

Q. Which pollutants have been identified as harmful to human health and how are they derived?

A. National Ambient Air Quality Standards have been established for the following air pollutants:

Total Suspended Particulates. This refers to dust, ash, grit, toxic metals, and other particles suspended in the air. Particulate matter can be produced by burning coal, incineration of garbage and other wastes, blowoff from vacant lots and unpaved roads, and industrial processes such as steel making, coking, stone quarrying, grain drying, and others. Dust can be resuspended by heavy automobile traffic, and this can cause violation of air quality standards in downtown areas. Particulate matter can cause serious breathing problems, particularly to individuals with asthma, bronchitis, or emphysema. It causes soiling of fabrics, buildings, home furnishings, and other materials, erodes paint on homes and automobiles, decreases sunlight, increases rainfall, and may cause increases in violent weather.

Carbon Monoxide(CO). Carbon monoxide is a product of incomplete burning and is also produced by several chemical processes. The major cause of nonattainment in towns and cities is the automobile. CO causes headache, dizziness, slowing of reflexes, and at high concentrations, coma and death.

Sulfur Dioxide(SO_2). Sulfur dioxide is formed when sulfur-containing coal or oil is burned. More than half of the SO_2 emitted nationwide is from electric power plants. The remainder is from other combustion operations and process industries. Sulfur dioxide causes damage to cells lining the lungs. Sulfuric acid is formed when SO_2 reacts with water vapor in the air. This causes acidic rain, which damages building materials, paint, crops and other vegetation, and which threatens desirable species of game fish in lakes and streams.

Oxides of Nitrogen(NO_x). Nitrogen gas (N_2) composes about 80 percent of our atmosphere. Under extreme heat (such as occurs in the cylinders of automobile engines), nitrogen combines with oxygen to form NO_x. Oxides of nitrogen causes severe irritation to lung tissue. Children living and playing in areas of dense automobile traffic have more frequent bouts with colds and flu. Exposure to high levels of NO_x can cause pneumonia and brochitis. NO_x also combines with water vapor in the air to form acid mists.

However, the most serious pollution problems of oxides of nitrogen is the role they play in the formation of photochemical oxidants, or smog.

Photochemical Oxidants(smog). Smog is, by far, the most serious air pollution problem of urban America. It is formed by the interaction of oxides of nitrogen and hydrocarbons (hydrocarbons are compounds containing hydrogen and carbon, such as gasoline, cleaning fluid, paint thinner, and other solvents) in the presence of sunlight. Smog causes headaches, irritates the eyes and throat, permanently damages lung and heart tissue, destroys red blood cells, and increases susceptibility to infection. It is particularly damaging to the very young, the very old, and victims of chronic heart and lung disease. The number one cause of NO_x and hydrocarbons (the raw material of smog) is the automobile. Blankets of smog can travel to rural areas hundreds of miles from the city where it is formed.

Q. Whose responsibility is it to control this pollution?

A. The Clean Air Act clearly notes that the prevention and control of air pollution at its source is the primary responsibility of state and local governments. The Federal government provides guidance and financial assistance to the states to help them develop a program to meet the NAAQS everywhere in the state by December 31, 1982 (this date may be extended up to December 31, 1987 for carbon monoxide and photochemical oxidants, if a state can show that it will not be able to meet the NAAQS by 1982 despite the imposition of all reasonable control measures). The state's plan to attain the NAAQS is called a State Implementation Plan (SIP). This plan must be approved by the USEPA by July 1, 1979.

Q. Can there be new industrial growth in non-attainment areas?

A. Between now and July 1, 1979 industry can locate or expand in a non-attainment area as long as certain conditions are met.

These are:

1. All sources of pollution owned or operated by the same firm must be in compliance with the existing air pollution control regulations.

2. The company must reduce pollution from its existing operations or from other operations in the area to make room for the pollution which will be produced by the new pollution source. This process allows growth while not permitting poor air quality to deteriorate further.

3. The company must use the most effective pollution control technology on the new source. After 1979, the revised state pollution control plan will be in effect. This plan will contain regulations which will result in attainment of health related air quality standards and provide room for new industrial growth.

Q. What Kind of problems are most typical?

A. The major problem facing the Midwest is coping with pollution from motor vehicles. In most major cities new transportation control programs will need to be developed, including requiring annual automobile inspection and maintenance programs.

Q. What happens if a state does not plan adequately for acceptable air quality?

A. The 1977 amendments to the Clean Air Act establish a number of automatic penalities if the required plan is not submitted or approved.

These are:

1. Construction of new major sources of pollution within the non-attainment area is illegal after July 1, 1979.

2. USEPA is not permitted to grant air pollution control funds and some sewage treatment funds to the state.

3. Where an acceptable plan is not approved in areas where transportation control measures are necessary, the Department of Transportation cannot award Federal highway funds to the State except for funds for air quality and safety improvements.

The main points I would like to leave with your are:

1. A non-attainment area designation can cover a multi-county area but in most instances covers only narrowly defined sections of that area.

2. A one-year "clock" started running on January 1, 1978 for the states, in conjunction with cities and counties, to develop revised clean air plans that will bring non-attainment areas into compliance by December 31, 1982.

3. Failure to complete a plan approved by USEPA by July 1, 1979 will result in Congressionally mandated sanctions over which USEPA has no control.

Clearly, representatives from industry, local government and state government must work together to develop plans to attain all of the ambient air quality standards everywhere. Such a partnership will insure responsible growth, while protecting public health and property.

Sincerely yours,

Valdas V. Adamkus

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Acting Regional Administrator

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