

Environmental Information

PREVENTING SIGNIFICANT DETERIORATION OF AIR QUALITY IN CLEAN AIR AREAS

INTRODUCTION

A major purpose of the Clean Air Act of 1970 is "to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population." The Act is administered by the U.S. Environmental Protection Agency (EPA).

Under the Act, States are required to develop and carry out State Implementation Plans (SIPs) to achieve and maintain national ambient air quality standards established by EPA. The standards set clean air goals to protect health (primary standards) and welfare (secondary standards).

The Act has been interpreted by the courts as also barring degradation of air in areas that are cleaner than the national ambient air quality standards require.

EPA has issued regulations to provide ways in which States can protect air quality in areas where the air is already cleaner than is required by the standards. The background of these regulations is this:

On May 30, 1972, as a result of a suit filed by the Sierra Club, EPA was ordered by the District Court of the District of Columbia to disapprove all State Implementation Plans which did "not prevent significant deterioration of air quality" in currently clean air areas. EPA was ordered to publish regulations to this effect. The District Court order was appealed by EPA to the U.S. Court of Appeals where it was affirmed, and subsequently to the U.S. Supreme Court where it was affirmed by a tie vote.

Following the initial court action, EPA disapproved all State Implementation Plans which did not explicitly "prevent significant deterioration."

There was no firm judicial or legislative guidance available to EPA on what constituted significant deterioration or on how to prevent such deterioration. Nevertheless, after extensive public comment was analyzed, EPA published final regulations in the Federal Register on December 5, 1974.

WHAT THE REGULATIONS DO

The regulations establish three classifications of air quality levels based on how much increase will be permitted in ambient concentrations of particulate matter, such as dust, soot and smoke, and of sulfur dioxide.

Class I--regions where practically any air quality deterioration would be considered significant. In this class, the annual mean increases in present pollution levels would be limited to five micrograms of particulates per cubic meter of air and to two micrograms of sulfur dioxide per cubic meter of air.

Class II--regions where deterioration in air quality that would normally accompany moderate, well-planned growth, would not be considered significant. The allowable annual mean increase would be limited to 10 micrograms of particulates and 15 micrograms of sulfur dioxide per cubic meter of air.

Class III--regions where intensive major industrial growth is desired. But levels of particulates and sulfur dioxide would not be allowed to rise beyond the point of the most stringent Federal air standards to protect the public health and welfare.

EPA designated all areas of the country as Class II bearing in mind the twin objectives of the Clean Air Act to protect air quality and "promote...productive capacity."

REDESIGNATION

Under the EPA regulations, the States (including sovereign Indian governing bodies) may request redesignation of an area to Class I or Class III. Managers of Federal land, however, may request redesignation only from Class II to Class I.

The redesignation of an area may be necessary to achieve the social, economic or environmental objectives of its population or of the Nation as a whole. The regulations give the primary decision-making responsibility to the States to help them achieve their various objectives.

Requests for redesignation must reflect full consideration of environmental, economic and social effects of the classification change on the affected area and on the surrounding region and the Nation as well.

The public must be involved. Full public participation is an essential element of the redesignation process. An analysis of the anticipated effects of a classification change must be made available to the public prior to and at a public hearing on the proposed redesignation.

HOW THE REGULATIONS WORK

The prevention of significant air quality deterioration is to be achieved by a review of major sources of industrial air pollution prior to plant construction. A list of the industries regulated follows:

1. Fossil-fuel fired steam electric plants of more than 1,000 million B.T.U. per hour input.
2. Coal cleaning plants (i.e., thermal dryers).
3. Kraft pulp mills (i.e., recovery furnaces).
4. Portland cement plants.
5. Primary zinc smelters.
6. Iron and steel mills (i.e., metallurgical furnaces).
7. Primary aluminum ore reduction plants.
8. Primary copper smelters.
9. Municipal incinerators capable of burning more than 250 tons of refuse per day.
10. Sulfuric acid plants.
11. Petroleum refineries.
12. Lime plants.
13. Phosphate rock processing plants.
14. By-product coke oven batteries.
15. Sulfur recovery plants.
16. Carbon black plants (i.e., furnace process).
17. Primary lead smelters.
18. Fuel conversion plants.
19. Ferroalloy production facilities.

EPA has established criteria published in the September 10, 1975, Federal Register to add other source categories. Such sources would be those that emit more than 25 pounds per hour of particulate matter or sulfur dioxide and have a New Source Performance Standard. (This standard limits emissions from new industrial plants.)

EPA significant deterioration regulations require that new or modified sources use the best available control technology to limit their emissions. Industrial development in clean areas will not only be well planned and orderly but will cause less pollution than earlier developed industrialized areas, which now must be cleaned up.

Applications for permission to build any of these new air pollution sources will not be approved without a determination that the air quality level in the class concerned will not be exceeded.

The regulations offer the States and local governments an opportunity to assume responsibility to review and approve applications for new industrial development.

Decisions arising from the new regulations are too important to be left to technicians alone. Government at all levels must seek out the advice of affected and interested citizens to help make these decisions. And citizens should make themselves heard.

EPA had to decide what degree of air quality deterioration would be considered "significant." In areas having very clean air, it was not possible to set standards based on any measurements of damage to the public health or welfare. On the other hand, it was the intent of the 1970 law to prevent the air everywhere from becoming uniformly dirty through a "leveling out" of the Nation's air pollution.

The EPA regulations seek to define "significant" in a reasonable way that will allow both for protection of clean areas and for national economic growth. Any growth that occurs will be well planned, orderly and with application of best available control technology to keep the air as clean as possible.

Overall, the regulations will result in much more stringent limitations on pollution than would be the case if no such rules existed.

WILL THIS MEAN THAT ALL ECONOMIC GROWTH WILL STOP?

Not at all. The air pollution limit for a Class II area, for example, would under normal circumstances permit construction there of any of the major source categories that will be regulated in the program to prevent significant deterioration.

In a Class III area, an aggregation of major industrial projects may be constructed as long as air quality standards are not exceeded.

The program thus can help States and local governments

and citizens decide not only where growth should be prohibited, but also where growth should be encouraged.

DOES THIS PROGRAM MEAN MORE FEDERAL CONTROL?

No. The program gives the States and local governments the flexibility and primary responsibility for making decisions that affect the people they serve. State and local people have a better understanding of the social, economic and environmental factors that go into decisions to reclassify. State and local governments can be more responsive to State and local needs than any Federal agency. Moreover, EPA believes that State and local governments should continue to exercise the basic land-use decision-making responsibility.

CAN A CLEAN AREA PROTECT ITSELF?

That's up to local governments and the State, mainly. Even a slight increase in pollution in the air might damage the economy of a recreational area. On the other hand, an area facing severe unemployment may welcome industrial growth and new job opportunities. Even in the latter case, however, air quality impact can and should be minimized.

EPA believes that most decisions about development of affected areas should not be based only on environmental factors. For this reason, as long as proper procedures are followed and no decision is arbitrary or capricious, EPA wants the States or local governments and the people to make decisions about whether to reclassify an area to Class I (no development) or Class III (whatever development the air quality standard will allow).

REGIONAL AND NATIONAL EFFECTS OF RECLASSIFICATION

An example of a "regional" effect would be the downwind impact of air pollution from a power plant. Where a major industrial source is planned, the facility must be situated so it will not affect air quality in "adjacent" areas--perhaps up to a distance of 60 miles in the case of a coal-fired power plant of 1,000 or more megawatts controlling emissions to meet new source performance standards. For other major sources, and for power plants controlling emissions beyond new source performance standards, downwind effect generally will be considerably less--perhaps 6 to 30 miles. Such variables as the terrain, weather conditions, and the size of the source would be determining factors.

"National" effects might include such elements as the impact of pollution on food supply and production, the preservation of sufficient recreation and wilderness land, and the supply and development of energy resources.

After a State's proposed redesignation of an area to Class I or III is offered for public comment in the Federal Register, Federal agencies and any citizen would be expected to make known their views on any national effects of which they are aware. Finally, it would be up to the Administrator of EPA to rule on the proposed request.

WON'T EVERYONE BE TRYING TO SWITCH TO CLASS I OR III?

EPA believes not. No large-scale switching of classifications is expected because Class II--into which all areas now fall--will accommodate most moderate, well planned development while also providing substantial safeguards for air quality. And the public can be expected to react against efforts either to unreasonably restrain development or to endanger valued areas that should be preserved.

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