

# EDITORIAL PAGE

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## **No Significant Deterioration - an Essential Tool For Long-Term Environmental Protection**

By

Larry J. Gordon, M.S., M.P.H., Assistant Editor and Kenneth *M. Hargis*, B.S., M.S.

The balancing of conflicting environmental and economic interests has been a major issue throughout the history of environmental control. As environmentalists, we have urged the strictest of regulations to protect not only human health, but other aspects of the natural environment. We also recognize that health, safety, comfort, and wellbeing have an economic component in addition to the requirement for an unpolluted environment.

The energy crisis and subsequent recession have brought fears that a proper balance of environmental and economic considerations would be lost; environmental values might be sacrificed to obtain energy self-sufficiency and a healthy economy. However, recent actions in Congress have demonstrated that the nation is still committed to environmental quality as well as economic growth. Both the Clean Air Act Amendments of 1976 recently adopted by the Senate and that reported to the full House of Representatives by its Commerce Committee, contain provisions to prevent significant deterioration of air already cleaner than that defined by the National Ambient Air Standards. The House Bill has received support from such groups as the National Governors' Conference, National Council of State Legislatures, National League of Cities, and National Association of Counties. Over the past several years, some 33 states have supported a federal policy of prevention of significant deterioration. Such a policy of "no significant deterioration" is necessary not only for the protection of our environmental heritage, but would allow any reasonable, well-controlled industrial development; and long-term economic benefits would be derived from such a national policy.

Environmentalists have recognized that the national ambient air standards were inadequate to protect against all environmental effects since they were promulgated in 1971. Those effects of greatest concern are related to "welfare effects"

such as the reduction of --- long-range visibility, adverse effects on vegetation, objectionable tastes or odors, and corrosion or deterioration of property. Visibility range throughout most of the West is commonly 80 to 100 miles, yet visibility may be reduced to as little as 3 or 4 miles at air contaminant levels allowed by the national secondary ambient air standards. Effects on vegetation have been demonstrated at levels of sulfur dioxide below the national standards, particularly in combination with other pollutants such as ozone or nitrogen dioxide. Increased emissions of sulfur oxides and nitrogen oxides are associated with the phenomenon known as acid rain, which in turn can lower the pH of waters and soil, affecting both plants and animals. While EPA has acknowledged that such effects should be considered in promulgating standards under the Clean Air Act, the agency has taken the position that insufficient data are available to establish a quantitative relationship between specific concentrations and effects, or that such effects are not clearly adverse to the public welfare.

During the years subsequent to the promulgation of the national standards, a number of questions have also been raised as to the adequacy of the national standards to protect against effects on human health. The standards are based on the assumption that there is a no-effect threshold concentration; this assumption may be false for many, if not all, pollutants. Even if true, it appears that the margins of safety to prevent health effects have turned out to be very small or nonexistent. Other pollutants such as sulfates, nitrates, and fine particulates may be more important to effects on health than those pollutants for which national standards have been defined. Although achieving the national standards may reduce risks associated with genetic mutations, birth defects or cancer the standards were not designed to protect against such effects; as many as 90 percent of all cancers are thought to be of environmental origin.

Clearly, the evidence points to the probable need to tighten up the national standards as data permit quantification of cause and effect. The best control technology must be applied as new facilities are constructed because our experience over the past few years indicates that it may be impossible to retrofit existing plants because of both economic and technical considerations. Few would argue with Senator

Jennings Randolph, as he stated in his recent address before the National Environmental Health Association, that " pollution is far easier to prevent than to eliminate."

One of the primary concerns of the states joining in the original litigation to require a federal policy of prevention of significant deterioration was that states wishing to maintain their clean air might be at an economic disadvantage to states that reduced their pollution standards to attract new industry. Clean air also has direct economic benefits to states that derive a large amount of income from tourism, movie making, recreation, or other such enterprises.

Because of these considerations, both the Senate bill and House committee report have gone beyond the existing EPA regulations to eliminate the provision for states to reclassify some clean-air areas for deterioration up to the standards. The Senate version retains EPA's Class I and Class II increments, but drops the Class III designation which would allow deterioration to the Standards. Although the House committee version retains a Class III, the associated increments are only 50 percent of the national standards. The House Class II is similar to that of the Senate, except that the 3-hour increment is somewhat more restrictive. In all cases, Class I is intended for areas of particular environmental concern, as the increments would allow only minimal growth and the air would remain pristine. Only national parks and wilderness areas would be mandatory Class I under the Senate and House versions. Other areas would initially be Class II, and states would be free to reclassify areas if desired. The Class II increments appear to reflect a balance which will allow industrial development yet protect against most "welfare" effects and will give additional margins of safety against unknown effects on health.

Industry has repeatedly objected to the Class II increments in the existing EPA regulations as arbitrary since they are not tied to protecting specific environmental values. In fact, the Class II increment is tied most directly to economics in that the increments were derived from the impacts of a 1000 megawatt coal-burning power plant which met only federal new source performance standards. A coal-burning power plant as large as 3,500 megawatts could be built in rugged terrain under the existing Class II increments if it incorporated the best control

technology available today. According to EPA, units as large as 8000 megawatts could be built in flat terrain. This is more than twice the size of existing large coal-burning power plants.

Studies sponsored by EPA on 18 major industrial-source categories have confirmed that other large sources should not be constrained by the existing Class II increments. These included petroleum refineries, kraft pulp mills, cement plants and copper smelters. In fact, other large industrial sources should have greater flexibility because their emissions are lower than those of large coal-fired power plants. This view has been confirmed by Exxon Engineering's Technology Department, which concluded that large industrial facilities, including refineries and coal gasification units could be built in a Class II area using current technology.

Closely related to the increments for no-significant deterioration is the requirement in both Senate and House versions of the Clean Air Act amendments that new major sources use best available control technology. This is extremely important because it would prevent one less well-controlled source from using up more of the allowable increment in an area than is necessary. It would also reduce the zone of influence of the emissions from a major source. The effect will be to allow more industrial growth in an area than under the current EPA regulations in which a new major source only has to meet the federal new source performance standards. Historically, air pollution control technology has developed in almost direct proportion to the extent that it has been legally required. This "technology forcing" provision would also act to increase the growth potential of all areas in the long run, without sacrificing air quality superior to the standards. From the present to 1994, capital requirements for the utility industry to meet best available control technology is projected to be about two percent of that industry's total capital needs.

In summary, the prevention of significant deterioration is essential to protect existing air quality superior to that defined by the national standards. The requirements are preventive in nature, and yet not so restrictive as to preclude properly controlled industrial development.