REPORT

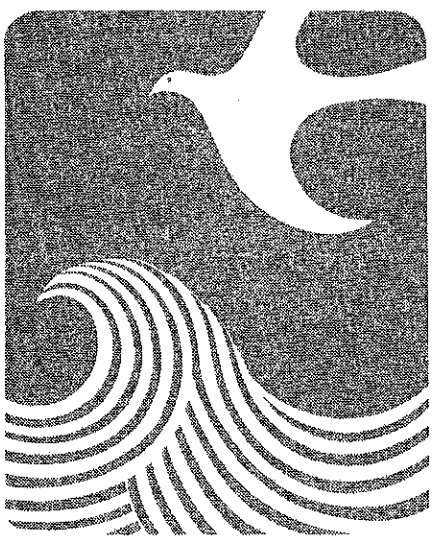
OF THE

CLEAN AIR COUNCIL

ON THE

STATUS OF AIR POLLUTION CONTROL IN NEW JERSEY, WITH RECOMMENDATIONS FOR FURTHER ACTIONS

Let's keep our air & water clean



NEW JERSEY STATE DEPARTMENT OF HEALTH

DECEMBER, 1969

REPORT OF THE CLEAN AIR COUNCIL ON THE STATUS OF AIR POLLUTION CONTROL IN NEW JERSEY WITH RECOMMENDATIONS FOR FURTHER ACTION

December 1969

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December 29, 1969

Roscoe P. Kandle, M.D.
Commissioner of Health
New Jersey State Department
of Health
Box 1540
Trenton, New Jersey 08625

Dear Dr. Kandle:

The New Jersey Clean Air Council is pleased to forward this report of its conclusions and recommendations pursuant to Title 26:2C-3.3:(h) which states that the Council shall:

> "Hold public hearings at least once a year in regard to existing air pollution control statutes, codes, rules and regulations and upon the state of the art and technical capabilities and limitations in air pollution control and report its recommendations thereon to the commissioner . . . ."

The public hearings providing the primary basis for the Council's recommendations were held on February 5 and March 26-28, 1969. Over 1,000 pages of testimony were transcribed during the four days of hearings and covered a number of vital issues related to the control of air pollution in New Jersey and its effect on the people and organizations of this and neighboring states. The participation by representatives of the general public, industry, labor, the medical and scientific professions, federal, state, and local governments, and others, evidenced the widespread concern over air pollution and its control.

It is the Council's earnest hope that its recommendations lead directly to improvements in the State's already effective air pollution control program. The future activities of the Council will continue to be directed toward that end.

Sincerely,

Stephen F. Lichtenstein
Chairman

REPORT OF THE CLEAN AIR COUNCIL ON THE STATUS OF AIR POLLUTION CONTROL IN NEW JERSEY WITH RECOMMENDATIONS FOR FURTHER ACTION

I. INTRODUCTION AND SUMMARY OF RECOMMENDATIONS

A. Background

The Clean Air Council was created in the New Jersey State Department of Health by the enactment of Titles 26:2C-3.1 to 2C-3.3 which amended the Air Pollution Control Act of 1954.

Title 26:2C-3.1 abolished the Air Pollution Control Commission and transferred its functions to the Department of Health. The Air Pollution Control Commission, functioning from 1954 to 1967, promulgated New Jersey Air Pollution Control Code Chapters I through VIII, which codes still are enforced by the Division of Clean Air and Water.

Title 26:2C-3.2 established the 17-member Clean Air Council and prescribes its composition. The current members of the Clean Air Council are as follows:

Stephen F. Lichtenstein, Chairman
John J. Hanson, Vice Chairman
Roslyn Barbash, M. D.
Henry W. Gadsden (resigned by letter of April 8, 1969)
John Sarrus, P.E.
John Horton, P.E., Sc.D.
Raymond M. Manganelli, Ph.D.
Louis A. Winkelman
Robert J. Haefeli, P.E.

Irwin S. Zonis
Franklin W. Church, P.E.
Joseph Healey
Albin W. Erickson
Arthur R. Sypek
James W. Conlon, P.E.
Sidney Willis
Richard D. Chumney

Title 26:2C-3.3 sets forth the duties and powers of the Clean Air Council. The Council's basic function is to assist the State of New Jersey in the prevention and elimination of air pollution by reviewing the performance of the Division of Clean Air and Water and by acting to stimulate public concern in air pollution matters. The Council's members are commissioned to investigate all aspects of New Jersey's Air Pollution Control Program and to report their findings and recommendations to the Commissioner of Health.

The Clean Air Council held its first meeting in September, 1968. Since that time the Council has been actively involved in carrying out its mandated functions. Accordingly, under Title 26:2C-3.3: (h) which states that the Clean Air Council shall: "Hold public hearings at least once a year in regard to existing air pollution control statutes, codes, rules and regulations and upon the state of the art and technical capabilities and limitations in air pollution control and report its recommendations thereon to the commissioner . . . .", four sessions of public hearings were held.

In part I (February 5, 1969) the testimony of participants presented a comprehensive status report from those federal and state governmental agencies actively engaged in air pollution control. The report of the federal representatives considered the authority of the federal government under the Air Quality Act of 1967 and the operation of interstate air quality regions. The State's testimony summarized the present statutes concerning air pollution control and introduced proposed amendments to the New Jersey Air Pollution Control Codes. The status of the State program with particular reference to air pollution sources, controls, and program administration, was presented by representatives of the various sections of the Division of Clean Air and Water.

Part II (March 26, 27, and 28, 1969) provided testimony concerning air pollution control by municipal governments, including the scope, effectiveness and problems of local controls. In addition, the Council received information and opinions from industry representatives, medical authorities, and members of the public interested in air pollution control. Testimony pertinent to advise the Council in the drafting of a report to the Commissioner of Health covered the following broad areas of activity -- the role of citizens and voluntary clean air groups, legislative and legal considerations, health and medical considerations, sulfur dioxide and particulates, motor vehicle pollution, control of other contaminants and sources, enforcement, administration and

intergovernmental relationships, monitoring, emergencies, economic impact, and solid waste disposal.

A listing of the name and affiliation of witnesses who presented oral or written testimony during the course of the hearing is included in the appendix.

Section II of this report summarizes the status of air pollution control in New Jersey. Section III presents the conclusions and recommendations of the Council on 10 key issue areas affecting New Jersey's air pollution control and solid waste disposal programs.

B. Summary of Recommendations

The Clean Air Council's principal recommendations are summarized briefly below. A fuller discussion of these and other recommendations is given in section III.

Air Pollution Control Legislation

(1) Code Changes

Generally: Include within each code a catalogue of acceptable emission levels so that the requirement that equipment "incorporate advances in the art of air pollution control" is better defined.

Chapter IX: Require equipment to meet the acceptable emission levels of each code.

Chapter X and X-A: The present sulfur restrictions are reasonable and the Council fully supports the promulgation of these chapters by the Division of Clean Air and Water.

(2) Suggested Codes

The Division of Clean Air and Water should investigate further the need for specialized regulations affecting motor vehicles, aircraft, evaporation and spillage of fuels and solvents, and other pollutants, such as flourides, asbestos, nitrogen oxides and cadmium.

(3) Powers and Functions of the Clean Air Council

The Air Pollution Control Act should be amended to provide the Clean Air Council with the right to review new or revised codes and make recommendations thereon prior to public hearing and promulgation.

State - Federal Relationships

The Division of Clean Air and Water should demand that the federal government disapprove air quality standards proposed by neighboring states which are weaker than and incompatible with New Jersey's standards.

State - Local Relationships

(1) Liaison office

The Division should establish a liaison office to assist local governments in developing air pollution control programs.

(2) Minimum standards

A minimum standard of air pollution control activity at the local level should be established by the Division.

(3) Air sampling data

Air sampling data summary reports should be disseminated regularly to local governments by the Division.

(4) Emergencies

The Division should develop a more definite procedure for notifying municipalities of impending air pollution emergencies.

(5) Permits

Copies of applications for permits to construct air pollution control facilities should be sent by the Division to each municipality concerned.

(6) Model ordinances

The Division should prepare model air pollution control ordinances for local adoption by reference.

(7) The Division should provide opportuntiies for local government personnel to be trained in specialized technologies so that the local control activities can be reasonably carried out.

State - State Relationships

The Council recognizes the need for cooperation among contiguous states to achieve desirable air quality levels in New Jersey. The Council is concerned that the authority of the Division not be delegated to other regional governmental agencies, such as by interstate compact, unless there is adequate and enforceable assurance that the rigorous standards of New Jersey's control program will not be compromised. In this context the Council is opposed to the proposed Penjerdel Compact in its present form.

Health and Ecology

(1) There is a pressing need to understand better the health effects of pollutants in the air. The Council recommends:

a. The Department of Health encourage the establishment of environmental health research centers in New Jersey's colleges and universities.

b. The Department establish a registry of air pollution related diseases.

(2) The Division should establish educational programs concerning the relationship of air pollution to health for both the medical profession and the public at large.

(3) The Council favors the establishment of a permanent council on environmental policy to provide a multi-disciplined approach to New Jersey's environmental problems.

Control of Motor Vehicles

(1) Motor vehicles, as a group, represent a major source of pollution of New Jersey's air. The Council believes that a total review of the problem area is required and requests the submission of a comprehensive report, by the Division, on this subject with recommendations for future action. This report should include:

a. An effectiveness study of motor vehicle inspection systems.

b. Alternate control systems such as mandatory maintenance, fuel reformulation, etc.

c. Mechanisms by which control codes can be adequately enforced through the Divisions of Motor Vehicles and State Police.

d. The diminuition of future problem areas through adequate community and transportation planning.

Economic Impact

The Division should assess and document the economic feasibility of control measures, including the cost to society of pollution as well as the cost of control.

Public Relations

The Division needs to supplement its total public relations program so that greater support and understanding of the Division's

objectives is developed in industry, local government, clean air citizens groups, as well as the public at large.

Manpower and Training

Recognizing the critical need for trained manpower for state, regional and local governmental air resources management programs, as well as industrial air pollution control activities, the Council encourages as an important first step the strengthening and expansion of the present in-service training, continuing education and graduate level programs in the state. The Council intends to file a separate report on Manpower and Training.

Solid Waste Disposal

Because solid waste disposal is closely related with air pollution, and because problems of solid waste disposal are increasing exponentially, the Council recommends that the State administration seek the immediate enactment of a solid waste management act, give priority to intensive research and development efforts in this field, and provide as much assistance as possible to local governments in the development of solid waste disposal facilities.

II. STATUS OF AIR POLLUTION CONTROL IN NEW JERSEY

A. Present and Future Air Quality

At present, it is extremely difficult to provide a systematic, quantitative description of air quality throughout the state. New Jersey's existing air quality is reflected through data gathered at three comprehensive monitoring laboratories and four satellite air monitoring stations. The planned expansion of the air monitoring network is expected to greatly increase the quantity of data available for analyzing air quality levels throughout the State.

Changing meteorological conditions complicate the comparison of pollution levels over time. Several methods are used by the Division of Clean Air and Water to evaluate the trends in air quality: the percentage of time that a given air quality objective is exceeded for each pollutant, a comparison of monthly average pollution levels from one year to the next, seasonal averages, etc. Utilizing one or more of these measures, air quality trends have been evaluated for several pollutants from data gathered during the period from June 1966 to October 1968. The results of the evaluation presented by the Division at the public hearings were as follows:

1. Sulfur dioxide. There is an apparent improvement. The consistent downward trend in sulfur dioxide pollution levels is attributable to emission control actions taken by the electric utilities and industry under Chapters VIII and X. Further reductions are expected as code Chapter X-A (sulfur content of coal) is implemented and enforced.

2. Hydrocarbons. An upward trend in pollutant levels is evident. The increase in hydrocarbon pollution levels may be the result of the increasing motor vehicle population or the time lag involved in control of motor vehicles, since control devices meeting federal requirements are required only on new cars. The publication of hydrocarbon criteria and control technology documents by the federal government and the implementation of New Jersey's motor vehicle inspection program are expected to improve the situation.

3. Nitrogen oxides. There is some indication of an upward trend in pollutant levels.

4. Oxidants. There has been a marked decrease from the elevated levels of 1966.

5. Carbon monoxide. There appears to be a downward trend. However, more statistical analysis is necessary to verify this trend.

6. Smoke shade. No trend is evident.

The Council is encouraged by the progress the Division has made in reducing sulfur dioxide pollution levels. Continuing effort must be expended to maintain this trend. With regard to other pollutants, however, it is evident that greater emphasis is necessary to attain acceptable air quality levels. Future air quality in New Jersey will depend on the effectiveness of the Division's air pollution control program in terms of air quality goals, stringency of regulations, and vigorous enforcement policies, as well as new control technology, ecological and health factors and the economic feasibility of control.

In accordance with the Air Quality Act of 1967, the federal government is preparing control technology and air quality criteria documents dealing with photoreactive hydrocarbons, carbon monoxide, oxidants, lead, fluorides, and nitrogen oxides. Significant improvements in New Jersey's air quality are expected as the State begins to develop regulations, implementation plans, and enforcement procedures necessary to comply with federal requirements.

B. State Program

The Clean Air Council commends New Jersey's progressive air pollution control program. Under the direction of Richard J. Sullivan, the Division of Clean Air and Water has made significant progress toward the goals of ensuring a safe, healthful atmosphere, and improving the aesthetic quality of our industrial state.

The effectiveness of New Jersey's air pollution control program is largely due to the increased stringency in the air pollution control law passed in 1967 and codes adopted thereafter and to the regorous and fair enforcement policy pursued by the Division of Clean Air and Water. In addition, the vigorous prosecution of air pollution code violators by the Attorney General has engendered greater voluntary compliance with the Division's enforcement orders so that violators need not always be referred for legal action.

Where legal action has been necessary, recent New Jersey Supreme Court decisions have affirmed the validity of air pollution control legislation. In the case of Department of Health, State of New Jersey vs. Owens-Corning Fiberglas Corporation the Court upheld the constitutionality of the standards set forth in the Air Pollution Control Act of 1954, pursuant to which the Department of Health is empowered to act against industries deemed in violation of the New Jersey Air Pollution Control Code.

Despite concerted opposition by the coal and railroad industries and by the State Chamber of Commerce, the validity of Chapter X-A, regulating the sulfur content of coal, of the Air Pollution Control Code has also been affirmed in the landmark decision of Consolidation Coal Co. vs. Roscoe P. Kandle, Commissioner of Health, et al.

The Division of Clean Air and Water is to be complimented on its performance. The Clean Air Council recognizes that the State of New Jersey is a pioneer in the field of air pollution control. Consequently, the Council's recommendations are aimed toward these major areas where greater emphasis will be necessary so that the State's air pollution control program can become even more effective.

C. Air Pollution Control as a Public Policy Issue

The testimony at the public hearings of the Council in February and March 1969 has provided ample evidence that air pollution and problems of solid waste disposal in New Jersey pose substantial threats to people and property. Were it not for the aggressive abatement program being waged by the Division of Clean Air and Water of the Department of Health it is likely that pollution levels would be significantly higher than at present. As pollution tends to grow with population and industry, the citizens of New Jersey are therefore greatly concerned that the fight against pollution be pursued even more vigorously at the federal, state, local, and neighborhood levels. This public concern was evidenced at the public hearings by the presentations of a number of organized citizen groups, who are commended for their active interest and constructive recommendations. Substantial public and private resources must be committed to this fight if we are not only to slow the degradation of our environment but also to sustain a reversal of pollution trends. Almost all the speakers at the public hearings shared these concerns and recognized the complexity of the pollution problems, the comparable complexity of the technology needed for control, and the public-private cooperation needed to produce acceptable, timely, and sustained solutions.

In light of the evidenced agreement of the public, industry, and government with the goal of clean air, it should be possible to carry out a truly cooperative anti-pollution program in New Jersey. Fair consideration of public and private interests will enhance continued cooperation.

In its relationship to the public and private sectors, the State has the clear duty to seek and enforce just laws and regulations to protect the lives, health, and welfare of the residents of New Jersey. No special interest should be permitted to weaken that protection. While the aim of enforcement is abatement of pollution and not punishment of polluters per se, in moving towards the goal those who pollute our air must be prepared to accept the harsh consequences of continued violation. The public health must be protected. Economic considerations are a part of the total picture in establishing just laws and regulations and effective dates of enforcement. However, even where the very existence of an industry is claimed to be threatened or where burdensome economic impact or inconvenience to the individual citizen is caused by the stringency of codes or enforcement policy, alternative courses of action should be considered only if they are equally protective of public health and welfare, and not conducive to undue delay.

The Council agrees with the policy of New Jersey to work towards the highest air quality achievable. It was suggested by several speakers at our hearings that the emission levels in New Jersey be set in accordance with the area or region involved, i.e., that emission levels be permitted by code to be higher in areas where pollution is not presently a problem. The Clean Air Council cannot accept such a recommendation. Emission standards must be uniform throughout the State. We do not believe that an air quality standard should be a license to pollute up to the standard. Our clean air must remain clean. There are enough abatement problems without permitting more to develop.

Regarding New Jersey's federal and interstate relationships, the Air Quality Act of 1967 gives the federal government jurisdiction to set pollution criteria, to designate interstate air quality control regions, to approve State abatement plans in interstate regions, and to initiate abatement actions if a state fails to act in accordance with the schedule of events prescribed by the law. New Jersey's air pollution program is considerably in advance of the federal schedule, however, and is based upon higher air quality goals. New Jersey has part of two federal air quality control regions within its borders. In the interest of equity,

and of improved air quality for both regions, New Jersey must seek equivalent controls imposed on the bordering metropolitan areas of other states through all available means.

Among other areas discussed at the hearings were the concern of localities seeking increased aid in developing air pollution control and solid waste disposal programs and the recruiting and training of technically qualified personnel. Medical, scientific, and community leaders have stressed the need for greater citizen awareness and action to combat pollution and have therefore urged the State to develop a comprehensive public information and education program and to establish centers for environmental health research.

Thus, the problem of air pollution and its potential solutions engage many social, political and economic interests. The Clean Air Council has attempted to consider these interests in shaping its conclusions and recommendations. To protect the citizens of New Jersey and to maintain the momentum of the State's air pollution control program, the Council has therefore chosen to frame positive recommendations for action on those issues where definite conclusions could be drawn. Where lack of information prevented the Council from drawing conclusions, recommendations are directed toward fact-finding actions. The conclusions and recommendations

of the Council which follow are directed to 10 key issue areas developed principally from testimony given at the public hearings held in February and March, 1969:

A. Air Pollution Control Legislation

B. State-Federal Relationships

C. State-Local Relationships

D. State-State Relationships

E. Health and Ecology

F. Control of Motor Vehicles

G. Economic Impact

H. Public Relations

I. Manpower and Training

J. Solid Waste Disposal

III. CONCLUSIONS AND RECOMMENDATIONS OF THE COUNCIL

A. Air Pollution Control Legislation

(1) Code Changes - The amendments to the Air Pollution Control Codes II, IV, V and VII, proposed by the Division of Clean Air and Water at our public hearings, presently are under review by the Council and suggestions made by the Council are being considered by the Division. When the codes, as revised, are brought to public hearing prior to their promulgation, the Council will make known its position on the proposed code changes.

Comments concerning two Code chapters presently in effect are occasioned by the significant amount of testimony presented at the public hearings which indicated some concern over present regulations. These codes are Chapter IX, regulating the issuance of permits for the installation of equipment or control apparatus, and Chapters X and X-A, regulating sulfur content in fuel oil and coal.

(a) Chapter IX - Many complaints were heard as to problems in the permit code arising from a lack of definition in the requirement that equipment must "incorporate advances in the art of air pollution control."

The Council feel that part of the problem would be alleviated by making Code requirements synonymous with the latest "advances in the state of the art."

This would necessitate periodic updating of Code requirements and inclusion within each code of a catalogue of acceptable emission levels regulated under a particular Code.

The net result of this procedure would be a concrete definition of the "state of the art." At any given time, industry would know exactly what the Division expects in terms of air pollution control. In addition, the double standard problem would be removed. Under the present system, an inconsistent policy of regulation may occur in certain situations. For example, where the emission level for equipment incorporating the latest advances in the state of the art is lower than the emission level specified by code, a permit applicant seeking to install air pollution control equipment is required to meet a more stringent requirement than is a code violator.

Promulgation of new codes to reflect advances in, and to specifically define, the state of the art would not change the permit code per se; nor would it relax emission regulations. To obtain a Permit to Construct, a permit applicant would still be required to submit plans and information to illustrate that the equipment proposed would be designed to meet air pollution emission codes. After equipment installation, the criterion for the granting of a Certificate to Operate would be met if the applicant demonstrated compliance with emission Code regulations on a

performance basis.

As a guideline in updating Codes, it is suggested that the Divisions's definition of "state of the art" be compatible with that expressed in the control technology documents published by the National Air Pollution Control Administration of the U. S. Department of Health, Education, and Welfare. Also a key to a definition of "state of the art" is an assessment of the economic feasibility of particular types of equipment installations.

(b) Chapters X and X-A - Repeated requests were made to extend the effective dates of implementation of the regulations in order to allow the coal industry time to develop sulfur oxide emission control processes. The arguments of the coal and railroad industry questioned the necessity for a regulation which they asserted would effectively ban coal from the state of New Jersey. Evidence, especially by New Jersey and New York public utilities, indicates that the sulfur restrictions set forth are reasonable and will result in significant improvements in New Jersey's ambient air quality. In addition, the Council feels that the stringent sulfur regulations will give impetus to the development of fuel desulfurization processes or stack gas cleaning systems which will allow industry to comply with the Codes. Therefore, the Council fully supports the promulgation of Chapters X and X-A by the Division.

(2) Suggested Codes - During the course of the hearing and the deliberation of the Council, several areas were suggested where the Division should investigate the need for regulation:

1. Visible exhaust from motor vehicles
2. Emissions from off-highway vehicles
3. Aircraft emissions
4. Evaporation and spill losses from fuel storage and marketing, including service stations.
5. Composition of gasoline and solvents manufactured or used within the state
6. Emissions from small 2-and 4-cycle utility and sport engines
7. Emissions of fluorides and other pollutants, including asbestos, stationary sources of nitrogen oxides and cadmium.
8. Rock dust, street dirt and general dust level.

(3) Powers and Functions of the Clean Air Council - The Council's relations with the Department of Health and the Division of Clean Air and Water have been excellent. The Division has been very cooperative in providing the information and assistance necessary for the Council to perform its duties properly. Director Richard J. Sullivan has also assured the

Council that it will have ample opportunity to review proposed codes prior to their promulgation by the Division.

At our hearings several speakers recommended that the power to promulgate regulations be divided from the power to enforce by transfering the power to promulgate from the Department of Health to a body such as the Clean Air Council, just as the former Air Pollution Control Commission had such power prior to 1967. The power to promulgate codes together with the power to enforce are the essence of air pollution control. We are not convinced that these functions should be separated, nor that the public interest would be served by such separation. The performance of the Division of Clean Air and Water to date confirms the correctness of our position in this regard.

The Council feels, however, that its review of proposed codes or code changes should not be dependent upon the cooperation of the Division. The power of mandatory review should be specified as a statutory function of the Council. Therefore, the following amendments to the Air Pollution Control Act are recommended:

Title 26:2C-3.3: add paragraph (i):

(i) Study proposals by the Department for new or revised codes, rules and regulations in regard to air pollution control and submit recommendations thereon to the Commissioner.

Title 26:2C-8: Amend paragraph to read
(New portion underlined)

The department shall have power to formulate and promulgate, amend and repeal codes and rules and regulations preventing, controlling and prohibiting air pollution throughout the State or in such territories of the State as shall be affected thereby; provided, however, that no such code, rule or regulation and no such amendment or repeal shall be adopted except after public hearing to be held after 30 days prior notice thereof by public advertisement of the date, time and place of such hearing, at which opportunity to be heard by the department with respect thereto shall be given to the public; and provided, further, that no such code, rule or regulation and no such amendment or repeal shall be or become effective until 60 days after the adoption thereof as aforesaid. Notwithstanding the above, prior to the calling of any public hearing to consider the promulgation, amendment or repeal of a code, rule or regulation preventing, controlling or prohibiting air pollution, the department shall furnish to the Clean Air Council a copy of such code, rule or regulation as proposed. Within 60 days of receipt of such proposal, the Clean Air Council shall provide the Commissioner with its written recommendation thereon. Following receipt of the Council's recommendations and prior to the calling of a public hearing the Commissioner shall inform the Council in writing of his response to each recommendation of the Council for revision of the proposed code, rule or regulation. Any person heard at such public hearing shall be given written notice of the determination of the department.

All codes, rules and regulations heretofore adopted by the Air Pollution Control Commission shall continue in full force and effect subject to the power of the department to amend and repeal such codes, rules and regulations as provided by this act.

B. State-Federal Relationships

The statements of representatives of the National Air Pollution Control Administration at the public hearings were

general and brief. Little information was conveyed about: (1) federal criteria for evalulating regional inplementation plans under the Air Quality Act of 1967; (2) the availability of direct federal financial and technical assistance to New Jersey; (3) the extent to which federally funded research and development in control technology may benefit New Jersey; (4) the expected impact of present and future federal motor vehicle emission standards on air quality in New Jersey; (5) the degree of compatibility of national fuel policies with the impending sharp increase in the demand for low sulfur, low ash fuels in the eastern United States; or (6) other areas of significant interface between New Jersey and the federal government in air pollution control.

Since New Jersey has been leading rather than following in air pollution control, the Council is concerned that the momentum of our program not be slowed and that the Division of Clean Air and Water obtain maximum external support.

The Council therefore requests the Division of Clean Air and Water to provide information on the extent to which it considers the state and federal air pollution control programs to be compatible or incompatible and the plans of the Division in resolving incompatibilities and in obtaining maximum support from the federal programs. We also request the Division to communicate to the federal government our expectation that it will examine very care-

fully the air quality standards proposed by our neighboring states and, if they are not compatible with our own standards, disapprove them.

C. State-Local Relationships

To improve New Jersey's air quality as quickly and as efficiently as is practicable, the Council feels that the Division must make a more concerted effort to involve local government in the State's total air pollution program. A stronger communications link between the State and municipalities would enable full employment of the talents and resources available at the local level for air pollution control and would ensure that programs are coordinated to avoid duplication of effort. Implementation of the several specific suggestions which follow would promote a more satisfactory State-local relationship.

(1) Liaison office - The Division should establish a liaison office to assist local governments in developing air pollution control programs. Division assistance in this form would enhance air pollution enforcement procedures through cooperative determination of those areas best suited for local policing.

The liaison office could encourage localities to consider air pollution in their zoning and city planning departments and acquaint municipalities with the opportunites available for funding

of air pollution control projects at the local level. Technical services and advice, training programs, and guidelines for pollution control projects could also be provided to municipalities through this office.

(2) Minimum Standard - A minimum standard of air pollution control activity at the local level should be established by the Division and implemented through the liaison office. Where individual municipalities lack resources the liaison office could assist and encourage in the formation of intrastate regional compacts.

(3) Air Sampling Date - As mentioned previously, the Council favors publication and release of Division air sampling data in a form intelligible to the layman. Dissemination of summary reports to local government is recommended. This would allow municipalities to make comparisons with local sampling data in order to indicate significant patterns in local air pollution reduction.

(4) Emergencies - Under Chapter XII the Division should develop a more definite procedure for notifying municipalities of an impending air pollution emergency. In addition, to avoid overlapping of State and local enforcement efforts during an emergency, more specific lines of authority should be drawn.

(5) Permits - Copies of an application for a Permit to Construct should be sent at the time of application to the municipality concerned. This policy would allow local government to make pertinent information quickly available to the Division and thereby reduce conflict between Division approval criteria based on air pollution potential and local approval criteria based on equipment design, safety, property maintenance, or zoning factors.

(6) Model Ordinances - The Council suggests that the Division should prepare model air pollution control ordinances for local adoption by reference. This policy would overcome the technical or legislative difficulties encountered by local governments as they begin to establish air pollution control programs. In addition, regulation consistency would be enhanced among municipalities.

D. State-State Relationships

The Clean Air Council recognizes that there must be cooperation among the air pollution control agencies of contiguous states to achieve desirable levels of ambient air quality in New Jersey and to meet the requirements established by the federal government for interstate Air Quality Control Regions.

The Council is opposed, however, to the Penjerdel Compact as it is proposed. This compact between New Jersey, Delaware and Pennsylvania would include the following New Jersey counties: Burlington, Camden, Gloucester, Mercer, and Salem. Opposition is expressed on several grounds:

1. Despite recent improvements, the air pollution control programs of Pennsylvania and Delaware are neither as comprehensive nor as rigorous as that of New Jersey. Therefore, the Council questions the ability of the proposed multi-state agency to accomplish air quality levels in the five New Jersey counties equivalent to those obtainable by enforcement of New Jersey's program. Most likely, in attempting to set and enforce uniform standards, the multi-state agency would be forced to devise those standards as to accommodate the less progressive pollution control programs of Delaware and Pennsylvania. This is most aptly illustrated by the ambient air quality standards recently proposed by Pennsylvania to meet Federal Law whose levels are substantially less stringent than those proposed by New Jersey.

The Council believes that by delegating full powers of regulation and enforcement in the Penjerdel Region to a compact agency, New Jersey's efforts to provide an effective, uniform, statewide air pollution control program would be diluted.

2. The administrative organization of the proposed Compact Commission might also pose problems. The stipulation that the votes of two governors are required in order to constitute a majority decision might render the Commission ineffective. Also, the requirement that the three state representatives be elected rather than appointed to the Commission might inject politics into an area where the criterion for membership should be expertise.

3. Compact legislation which requires approval by the three state legislatures and Congress poses problems in its inability to be quickly enacted and implemented.

4. Remedies for interstate air pollution presently exist within federal law. Under the Air Quality Act of 1967, the federal government has pledged to resolve the inequities between the air pollution control efforts of states within an air quality region. Provisions have been made for grants, technical assistance, and legal sanctions to ensure state compliance with the minimum standards expressed in the federal air quality criteria documents.

In the context of these objections, the Council questions

whether the Penjerdel Compact, as proposed, is the best way to achieve acceptable air quality levels in the Penjerdel region. A better solution might be to press the federal government to insist on strict adherence to the time requirements imposed on the states by the Air Quality Act. After the air pollution control standards of Pennsylvania and Delaware are elevated to meet Federal criteria and the standards set by New Jersey, the creation of a regional compact agency to coordinate and maintain enforcement efforts might be feasible.

E. Health and Ecology

During the course of the public hearings representatives of the medical profession and public health officials presented testimony to indicate that air pollution is a factor in the continuing rise of chronic lung and cardiovascular diseases, as well as other acute and chronic diseases. Statistics illustrating the rising death and disability rates from respiratory diseases were cited along with a discussion of surveys and research studies correlating pollution with respiratory problems and with increased susceptibility to infectious disease.

Medical scientists are as yet unable to relate concentration levels of specific pollutants directly to specific human diseases on a dose-effect basis. The Council believes, however, that the statistical correlation between air pollution and increased incidence of respiratory disease requires that if the State errs it err

on the side of human safety; it should therefore take measures towards maximum feasible abatement of air pollution.

Related to maximum feasible abatement is the formulation of air quality standards which, based on scientific and medical evidence, are clearly safe for all persons. To define these air quality standards precisely, it is necessary to augment the existing body of knowledge of the kinds and levels of pollutants which correlate with detrimental health effects. The federal air quality criteria documents have begun to address this part of the air pollution problems but supplementary information is needed. The Council believes that New Jersey's program would be enhanced by placing greater emphasis on research into the health aspects involved in air pollution control. Several recommendations are suggested which would encourage basic research and more effectively utilize the medical profession in the solution of environmental problems:

(1) Disease registry - The Department of Health should establish a registry of symptomatology and disease related to air pollution. Information should be solicited from practicing physicians. This policy would result in the compilation of data specific to the health effects of air pollution.

(2) Environmental health centers - The establishment of centers for environmental health research should be encouraged in New Jersey's colleges and universities by the Department of

Health. Incorporated within these centers should be active programs for the recruitment of physicians into the field of all disease affected by air pollution.

(3) Educational programs - In-depth educational programs about air pollution for the medical profession and the general public should be initiated. The State should promote the development of educational materials and more factual information for these programs. In this connection, it is suggested that air monitoring data be made available to physicians to whom it would be of clinical value.

(4) Environmental policy council - The Council notes that Senate Bill No. 406 would establish a permanent Council on Environmental Policy. With responsibility for formulating plans to maintain a high quality human environment in the State, such a group could serve to provide an ecological perspective and a multi-disciplined approach to the solution of environmental problems in New Jersey. In particular, in the planning of future land use expert consideration should be given to the ecological ramifications of population density, waste disposal, traffic congestion, highway planning, industrial location, recreation areas, and permanently undeveloped areas.

F. Control of Motor Vehicles

The Council is concerned with the rate of progress of the State's Motor Vehicle Project. The significance of the automobile's contribution to air pollution in New Jersey was emphasized during the public hearings. New Jersey has the highest motor vehicle density of any state in the nation with over three million gasoline powered motor vehicles and about 10,000 diesels registered in the state. In addition, emissions from motor vehicles comprise about 95% of total carbon monoxide emissions, about 60% of hydrocarbon emissions, about 30% of the nitrogen oxides, and lesser amounts of other pollutants such as particulates, sulfur oxides, lead and asbestos. The health hazards attributable to carbon monoxide are well known, and there is evidence to indicate that photochemical smog is being produced in New Jersey through the interaction of emissions of hydrocarbons and nitrogen oxides.

At the present time the diesel project has progressed to the point of code formulation. The gasoline-powered vehicle project, however, is still in the research and development stage. The Motor Vehicle Project Section of the Division has indicated that more practical testing is needed for the instrumentation system being prepared for use in the State inspection system. Also the development of emission

standards required to operate a motor vehicle inspection system remains to be accomplished.

In light of the contribution of motor vehicles to air pollution in New Jersey and the problems indicated in establishing regulations and enforcement techniques at the present time, it is requested that the Division submit to the Council, by January 30, 1970, a comprehensive report covering the motor vehicle problem in New Jersey, the detailed status and schedule of the Motor Vehicle Project and the Division's plan of attack.

The Council will hold a public hearing devoted entirely to motor vehicles. Such a hearing will serve to generate additional information which might suggest viable solutions for the problems encountered in the control of motor vehicles. In the interim, the Council urges that the Division consider the following recommendations which were distilled from testimony presented during the February-March public hearings and from its own deliberations:

(1) Inspection system - Review the effectiveness of the motor vehicle inspection system presently being developed with relation to emissions.

(2) Enforcement by other agencies - Encourage

greater involvement of the Division of Motor Vehicles and the State Police in inspection and enforcement by appropriation of funds and other measures.

(3) Transportation planning - Coordinate the Division's air pollution control efforts with Transportation Department programs, including planning for mass transit, and examine the air pollution implications of highway planning.

(4) Alternative controls - Explore the feasibility and cost of alternative control measures, such as: mandatory maintenance, fuel reformulation, and low pollution fuel systems for intra-urban vehicles.

In subsection A above, some possible new code requirements recommended for consideration included motor vehicle sources.

G. Economic Impact

Significant opposition to some abatement regulations appears to be based at least in part upon the belief that the Division of Clean Air and Water had not placed sufficient

emphasis on the economic feasibility - as opposed to the purely technical feasibility - of the regulations. The Council therefore recommends that where possible the economic feasibility of control measures be realistically assessed and documented - including the cost to society of air pollution as well as the cost of control.

H. Public Relations

To generate the public support necessary to further air pollution control, the public relations program of the Division of Clean Air and Water must be strengthened. The Council suggests that the Division pursue a policy which stresses a more out-going relationship to industry and to the community.

Recommendations for improving communications and strengthening the liaison between the State program and local government have been discussed in subsection C. The Division's public relations program would be further enhanced by channeling increased air pollution information to the general public to industry and organizations, and to the individual New Jersey citizen. Areas of emphasis should include:

1. Provision of additional press releases, tailored to the audiences they are intended to effect

2. Preparation of articles for publication in governmental, trade, and technical journals
3. Use of the mass media to disseminate summarized and simplified versions of air monitoring data and to encourage private citizens to participate in air pollution control practices
4. Establishment within the Division of a library or cataloging of magazine and newspaper articles which concern New Jersey's air pollution program. In addition, listings of these publications should be provided to the Council and other interested groups or individuals upon request. Such a policy would allow the Council to assist the Division in disseminating information
5. Encouragement of the public school system to integrate into the present curriculum information relating to air pollution and its control. Also school and public libraries should be included on the

mailing list for the Division's publications

6. Distribution of more visual aids and material to meet the requests of the public.

7. Encouragement by the Division of continued interest and participation of citizen air pollution control groups.

I. Manpower and Training

Effective and viable air resource management programs at the state, regional and local levels are predicated on sufficient numbers of trained personnel to carry on the many complex, broad and specialized activities required.

As the New Jersey State Department of Health expands its air pollution control program and increases its responsibilities and activities, the need for personnel from all scientific disciplines with training in air pollution control becomes critical. Also pressing is the trained manpower requirement of the developing local and regional agencies as well as in industry.

Therefore the Council strongly subscribes to in-service training, continuing education programs, workshops and

short-term training courses and graduate level programs for qualified personnel needed for positions of high responsibility and technical competence.

In recognition of the immediate need for a program to insure a total education and training capability, the Council encourages the expansion and strengthening of the education and graduate training program of the College of Agriculture and Environmental Science of the State University which is, at present, the primary source of manpower trained in New Jersey.

In recognition of the broad scope and complexity of the problem of manpower needs and training, the Council intends to file a separate report on this matter.

J. Solid Waste Disposal

The Council is concerned over the apparent lack of progress in the solid waste disposal area. Very little concrete evidence was presented at the public hearings to indicate the existence of viable solutions to the problems encountered in disposing of solid waste, especially vegetation and tree waste. In fact, there presently is no legislation specifically dealing with solid waste disposal.

The Council recommends that the Administration seek the immediate enactment of a Solid Waste Management Act and

that the State give priority to intensive research and development efforts in this critical area. In addition, attention should be given to the need of municipalities for technical, financial, and program planning assistance in order that solid waste disposal projects may be expanded at the local level.

In view of the lack of data presented concerning solid waste disposal as it relates to air pollution, it is also requested that the Solid Waste Program of the Division present a report to the Council covering its present control activities and the present and prospective state of the art in this area. The report should include an investigation of the economic feasibility and efficiency of refuse compacting devices and other means of refuse disposal, and means of reducing the amount of waste to be disposed. This information could later be disseminated to interested municipalities.

APPENDIX

AGENDA OF WITNESSES

Part I

February 5, 1969

1. National Air Pollution Control Administration - Kenneth Johnson, Regional Director

2. Division of Clean Air and Water - Richard J. Sullivan, Director

3. State Commissioner of Health - Dr. Roscoe P. Kandle

4. New Jersey Air Pollution Control Program
   William A. Munroe, Chief
   Herbert Wortreich, Supervisor of Field Control Operations Section
   James P. Moran, Assistant Supervisor of Permits & Certificates Section
   Bernhardt V. Lind, Supervisor of Technical Services Section
   Marvin H. Green, Supervisor of Research and Development Section
   Robert C. Foster, Supervisor of Evaluation and Planning Section
   John C. Elston, Acting Supervisor of the Motor Vehicle Project
   Alex Corson, Public Information Office

5. Deputy Attorney General, New Jersey - Theodore A. Schwartz

Part II

March 26, 1969

1. Suburban Essex Air Pollution Commission
   Paul R. Jackson
   James V. Feuss

2. City of Elizabeth, New Jersey - John J. McGoohan

3. Interstate Sanitation Commission - Thomas R. Glenn, Jr.

4. National Air Pollution Control Administration
   Robert Goldberg, New Jersey-Delaware-Pennsylvania Region
   John Busik, New York-New Jersey-Connecticut Region

5. New Jersey Public Health Association - Denton J. Quick

6. New Jersey State Chamber of Commerce - Joseph Ludlum

7. Anthracite Institute
   T. S. Spicer
   F. R. Axelson (written presentation)

8. AAA Clubs of New Jersey - William K. Duncan

9. Seversky Environmental Dynamics Research Associates -
   S. Smith Griswold

10. Tuberculosis - Respiratory Disease Association of New Jersey
    Robert R. Blunt
    Mrs. Samuel B. Reich

11. New Jersey Health Officers Association - Walter J. Nicol

12. Essex County Medical Society - Frank L. Rosen, M.D.

13. Health Officials Air Pollution Council of New Jersey -
    Sidney Katz

14. New Jersey Allergy Society and New Jersey Medical Society -
    William I. Weiss, M.D.

15. Passaic County Committee on Air Pollution - Aaron Weiner, M.D.

16. Arborists Association of New Jersey - Harry J. Banker

17. Fred J. Weber

March 27, 1969

1. National Coal Association
   Robert F. Stauffer, N.C.A.
   Joseph P. Brennan, United Mine Workers of America
   John D. O'Brien, Consolidation Coal Co.
   Gilbert P. Remey, United Eastern Coal Sales Corp.

Herbert S. Richey, The Valley Camp Coal Co.
Reginald I. Bush, Eastern Associated Coal Corp.
Noel D. Sidford, Jr., Noel D. Sidford, Jr. Coal Sales
Erle K. Diehl, Bituminous Coal Research, Inc.
Joseph W. Mullan, N.C.A.

2. Cornell University - Dr. LaMont Cole, Ecologist

3. New Jersey Citizens for Clean Air, Inc.
   Mrs. Robert I. Ballou
   Mrs. Gibson
   Mrs. Barbara Eisler

4. Associated Railroads of New Jersey
   Augustus Nasmith, General Counsel
   A. Paul Funkhouser, Penn Central Co.
   Byron C. Cassel, Reading Co.
   Robert Frederickson, Central Railroad Co.

5. Public Service Electric and Gas Co.,- Charles E. Parker

6. New Jersey Farm Bureau - C. H. Fields (written presentation)

7. Atlantic City Electric Co. - John D. Feehan

8. Jersey Central Power & Light Co., New Jersey Power & Light Co. - George Kelcec

9. Fuel Merchants Association of New Jersey - David T. Brewster

10. New Jersey Petroleum Council - Leonard H. Ruppert

11. New Jersey Manufacturers Association
    Robert J. Woodford
    Joseph L. Richmond (written presentation)

12. New Jersey Society of Professional Engineers - Garrie B. Haulenbeek, P.E.

13. New Jersey Society of Professional Engineers - Engineers-in-Industry
    Functional Section - Edgar Hawley (written presentation)

14. Raymond J. Jenny (written presentation)

15. United Transport Union - Gilbert B. Wood (written presentation)

16. New Jersey Medical Society - M. Hall, M.D. (written presentation)

17. New Jersey Federation of Planning Officials - Samuel P. Owen (written presentation)

March 28, 1969

1. Delaware Valley Citizens' Council for Clean Air - Arthur J. Holland

2. West Hudson - South Bergen Chamber of Commerce - George E. Ransom, Jr.

3. The North Jersey Regional Anti-Pollution League - Mrs. Joseph Hoffman (written presentation)

4. Cardio-Pulmonary Lab, St. Vincent's Hospital, New York City - Stephen M. Ayers, M.D.

5. Rutgers University - L. G. Merrill, Jr., Dean

6. Chemical Industry Council of New Jersey - James L. Brannon

7. The Regional Conference of Elected Officials
   Rodney P. Lane
   Chester A. Kunz, Exec. Director

8. International Union, United Automobile, Aerospace and Agricultural Implement Workers of America - Joseph A. Lisi

9. Brunswick Rubber Co. - Richard Clemens

10. Ovitron Corporation - Daniel J. Graham

11. Continental Air Products, Inc. - Arthur E. Lenox, Jr.

12. C. M. Ford Meyer

13. Liberty Lumber Co. - J. A. Hauter

14. Compactor Corporation - Simon S. Spielman

15. New Jersey Association of Realtor Boards - Frank Kovats

16. Metropolitan Regional Council - Robert P. Slocum

17. Mid-Atlantic States Section, Air Pollution Control Association - Joseph J. Soporowski, Jr.

18. Owens-Corning Fiberglas Corp. - Larry Harrington

19. Better Air For Bergen - Mrs. Dorothy Frazer

20. Raritan Bay Environmental Council - Joan C. Rider

21. Morgan Bay View Manor Improvement Association - Mrs. Virginia Yuhasz

22. Martin L. Fried, Sanitary Inspector (written presentation)

23. North Jersey Conservation Foundation - Charles R. Debevoise, President (written presentation)

24. Ruth Zukerman, M.D. (written presentation)

25. New Jersey State Federation of Women's Clubs - Mrs. Daniel C. Nelson (written presentation)

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PUBLIC INFORMATION

- being the testimony of

Alex Corson

at the

1969 NEW JERSEY CLEAN AIR COUNCIL PUBLIC HEARING - PART I

New Brunswick, New Jersey, February 5, 1969

Stephen F. Lichtenstein, Chairman of the Council, presiding.

New Jersey State Department of Health

Division of Clean Air and Water

Air Pollution Control Program

Mr. Corson is Public Information Officer, Air Pollution, Division of Clean Air and Water.

The New Jersey State Department of Health is authorized by the air pollution control statute to "conduct and supervise statewide programs of air pollution control education including the preparation and distribution of information relating to air pollution control".

The department's Division of Clean Air and Water accepts this charge as a major responsibility and has assigned personnel to carry out this function. The Public Information group in the division assigned to air pollution consists of a Public Information Officer, an Assistant Public Information Officer and a Secretary. In addition, secretarial and other services are performed by personnel of the division, of the Air Pollution Control Program, of the Graphic Arts unit within the department, and several outside suppliers.

Public information activity has been carried on for many years in this field, but its level and tempo have increased considerably since 1966.

A public relations man given to philosophizing about the temper and attitudes of the public on air pollution matters in New Jersey in the last several years might distil this part of history into the following sequence.

1st - uninformation and misinformation
2nd - comprehension of the danger
3rd - righteous indignation
4th - demand for action
5th - legislation and enforcement
6th - increased education and progress

It is not illogical to say that the New Jersey public attitude is now in a stage of increased education and progress.

A brief look at the way the state's activities are conducted in this field may be illuminating.

Just as the technical staff must examine air pollution in terms of its components, so a public information person must address himself to the public in terms of its various segments. Public relations people simply call these segments "publics", in the plural.

It is sufficient to say here that the public information activity of the Air Pollution Control Program is channeled toward three main objectives: (1) the public as a whole, or the mass public; (2) the organizations and political subdivisions of the state, which may be called the group public; and (3) the private citizen, or the individual public.

The tools of the trade, known as media, are used to reach these publics. The Program in New Jersey uses the following media:

1. Daily newspapers in New Jersey, New York City and Philadelphia.
2. Radio and television stations in New Jersey, New York City and Philadelphia.
3. Weekly newspapers in New Jersey.
4. Posters and transitads, or car cards.

In general, these are known as the mass media. In addition, the following media are used:

- Journals of health and air pollution-oriented societies.
- National, regional and state newsletters.
- Publications of the State Department of Health, including Public Health News and New Jersey Air, Water & Waste Management Times.
- Specialized magazines in the various trades.
- Direct mail.
- Motion pictures.
- Exhibits.
- Public speeches.
- Professional scientific papers.
- Printed materials.
- Public events, meetings and hearings.

Generally speaking, these media are used to reach such publics as groups and organizations, municipalities, legislators and industries.

The individual citizen, aside from being a member of the general public, and often a member of a group, frequently speaks out just as an individual on his own. The Program attempts to respond to each individual. This is done through the handling of a voluminous amount of requests for information, requests for literature, commentary and complaints from citizens, and requests from school children, college students and professional people.

Another channel of information which may be termed a medium is the constant word-of-mouth interchange between members of the division and program staff and those many persons with whom they come in contact throughout the year.

This listing of activity may sound somewhat extensive, but the really great job of public education in air pollution in New Jersey has been accomplished by the media themselves. The citizens of New Jersey owe the mass media a debt of gratitude for awakening them to the dangers of air pollution, to its prevalence in the state, and to the need for stepped-up action to control it. Without the public support generated by newspapers, radio and television, it's almost a certainty that air pollution control in New Jersey would be pretty far behind rather than marching in the forefront of this field in the United States.

Special mention should be made of the New Jersey Air, Water and Waste Management Times. This publication originally was started early in 1966 under the name of AirSan. It then contained only air pollution information. In early 1968, it became the publication of the division and now includes information on air, water, solid waste and potable water, the four Programs in the division. It is a news publication whose prime objective is to reach the group public, along with many interested individuals. It is published as a bi-monthly.

A poster has been designed and printed which stands as a symbol of New Jersey's collective effort to clean up its environment.

This is in brief the status of the public information activity in air pollution control. Some tough problems lie ahead, such as public acceptance of the Motor Vehicle Program. It is hoped that the media will continue to generate the public support that is needed to keep our air getting cleaner and cleaner.