



Air Pollution Control in New Jersey



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PROGRESS REPORT

New Jersey Air Pollution Commission

A Progress Report of the

New Jersey Air Pollution Control Commission

including

A Report of the Department of Health, Air Sanitation Program

for the period July 1, 1956 to October 31, 1957

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NEW JERSEY AIR POLLUTION CONTROL COMMISSION

<i>Members</i>	<i>Representing</i>
WILLIAM R. BRADLEY <i>Chairman</i>	New Jersey Manufacturers Association
VERNON C. WINN <i>Vice Chairman</i>	New Jersey Society of Professional Engineers
DANIEL BERGSMA, M.D.	State Commissioner of Health
JOHN P. BRADY	Citizens of the State
WILLIAM C. LYNN	Secretary of Agriculture
DENNIS J. SULLIVAN	New Jersey Health Officers Association
RICHARD J. SULLIVAN	Commissioner of Labor and Industry
NORMAN G. WHITE	New Jersey Section—American Industrial Hygiene Association
LOUIS A. WINKELMAN	New Jersey State Chamber of Commerce

<i>Past Members</i>	<i>Representing</i>
CLYDE M. BERRY (February, 1955 to November, 1955)	New Jersey Section—American Industrial Hygiene Association
NORMAN HEINE (February, 1955 to May, 1956)	Citizens of the State
C. GEORGE KRUEGER (February, 1955 to September 1956)	Commissioner of Labor and Industry

PREFACE

That air pollution is a problem of our age which must be reckoned with has been acknowledged by the citizenry of the State of New Jersey through its voice in the State Legislature.

Perhaps the words of Thomas A. Cowan, Professor of Law, Rutgers University, as contained in "Rutgers Law Review," Volume IX, Number 4, best summarize the action taken and the future outlook for some resolution of the problem in New Jersey.

"The Air Pollution Control Act (1954) puts the State of New Jersey into the lead in the attack on air pollution on both the educational and the regulatory fronts. The statute provides for notice and hearing for interested parties whenever the new Commission legislates or the Department of Health enforces the law, and its penalties are adequate for most violations. Those which do not yield may be reached by the more rigorous penalties of indictment or regulation under other existing laws. The Legislature has gone to great lengths to make administration of our new air pollution law fair and equitable. There is no reason why much good should not come from its firm administration. To the extent that a statute can lay the groundwork and provide the means for a vigorous cleanup of the atmosphere in this state, a start has been made. What remains, of course, is the intelligent, vigorous, and fair-minded administration of this exemplary piece of legislation."

INTRODUCTION

New Jersey is both very heavily industrialized and densely populated. The State of New Jersey ranks forty-fifth in the nation according to geographical size, it ranks eighth in population, and sixth in the value of its industrial production. Consideration of possible sources of atmospheric pollution, i.e., from general, industrial, municipal and commercial operations, from certain allergenic vegetation, from motor vehicles, and domestic heating plants, will make it immediately apparent that the degree of a community air pollution problem is proportional to the extent of urbanization and the concentration of industry. Of the 14,000 factories in New Jersey, over 9,000 are located in four of the twenty-one counties. In the same four counties lives 57 percent of the State's total population. The degree of urbanization can be demonstrated by indicating that 51 percent of the State's population resides in cities of a population greater than 25,000. In fact, in some areas, city limits join each other.

BACKGROUND

General recognition of the need for the reduction of atmospheric pollution has existed among the citizens of New Jersey for some time. The problem of air pollution was first given legislative recognition in 1950 when, pursuant to a resolution of the State Senate and General Assembly, a legislative commission was created to study air pollution in New Jersey and to recommend legislation to deal with the problem. A report of this group's findings, including recommendations for air pollution abatement legislation, was submitted to the New Jersey State Legislature in March, 1952.

The originally recommended legislation failed of passage. A good number of people considered that this legislation would not operate to the benefit of all New Jersey citizens, would be awkward in administration, and would require the expenditure of excessive amounts of money. It did not propose to make use of the past research and the equipment and personnel of the New Jersey Department of Health which had been actively engaged in air pollution control work for the previous six or seven years. A somewhat modified form of the original bill was introduced in 1954 and was enacted into law as Chapter 212, Public Laws of New Jersey. It is known as the Air Pollution Control Act (1954). (See Appendix A) Under its provisions, an Air Pollution Control Commission is appointed by the Governor as an agency of the State Department of Health. The Commission is empowered to promulgate and amend codes that are reasonable and necessary to control air pollution in the State.

Creation of the Air Pollution Control Commission for New Jersey was not through hastily enacted legislation. The Air Pollution Control Act is the result of four years of rather intensive study by many groups, including the originally appointed legislative study commission. New Jersey industries, particularly the larger industries, were becoming increasingly aware of their responsibility in the matter of air-borne waste disposal. Assuming this responsibility, they led in organizing special air pollution committees within the framework of such organizations as the New Jersey Manufacturers Association and the New Jersey State Chamber of Commerce.

Committees in such organizations as the Manufacturing Chemists' Association, American Society of Mechanical Engineers, New Jersey Society of Professional Engineers, American Industrial Hygiene Association, and the National Association of Power Engineers, made valuable contributions to the philosophy of this act. Advice and recommendations on the subject of air pollution control legislation were given freely by the State University and its departments of Engineering, Agriculture, and Law and by the State Departments of Health, Labor and Industry, and Agriculture, as well as by legal representatives of industry and the public.

The aforementioned Act reflects this cooperative thinking and advice. The keys to its success are the reasonableness and necessity of codes as may be promulgated thereunder. The Act provides circumstantial guarantees that codes established under its provisions will be reasonable and necessary to effect control of air pollution.

DUTIES AND RESPONSIBILITIES OF THE AIR POLLUTION CONTROL COMMISSION

A Commission of nine members is created under the provisions of said Act to formulate and promulgate, amend and repeal codes and rules and regulations controlling and prohibiting air pollution throughout the State or in such territories of the State as shall be affected thereby. Commission members receive no salary. Three of the members are the State Commissioner of Health, the Commissioner of Labor and Industry, and the Secretary of Agriculture or a representative designated by each. The remaining six members are selected by the Governor with the advice and consent of the Senate. One member is chosen as a citizen representing the general public; the other five represent and are selected from among nominees recommended by the following organizations:

1. New Jersey Health Officers Association
2. New Jersey State Chamber of Commerce

3. New Jersey Society of Professional Engineers, Inc.
4. New Jersey Manufacturers Association
5. New Jersey Section of the American Industrial Hygiene Association.

The Commission is empowered to organize County Air Pollution Control Associations. Members of the County Associations also serve without compensation. County Associations, when appointed, are charged with the duty of studying air pollution problems in their respective counties. All codes, rules or regulations of strictly local application, before adoption by the State Air Pollution Control Commission, must be submitted to County Associations for discussion and report thereon. Furthermore, no code, rule or regulation, amendment or repeal may be adopted except after public hearing held after thirty days prior notice by public advertisement of the date, time and place of such hearing.

DUTIES AND RESPONSIBILITIES OF THE DEPARTMENT OF HEALTH

The State Department of Health is assigned the responsibility of controlling air pollution in accordance with any code, rule or regulation promulgated by the Commission. For this purpose, the Department is granted power to:

- a. Conduct and supervise research programs for the purpose of determining the causes, effects and hazards of air pollution.
- b. Conduct and supervise state-wide programs of air pollution control education.
- c. Require the registration of persons engaged in operations which may result in air pollution and the filing of reports on the emissions of air contaminants.
- d. Enter and inspect buildings or places other than private residences.
- e. Receive or initiate complaints, hold hearings and institute legal proceedings.
- f. Cooperate with and receive money from the Federal government, the State government, County or Municipal governments or from private sources for the study and control of air pollution.

The Act further prescribes procedures for hearings before the Department and provides for protection of confidential information. When investigation discloses violation of any code, rule or regulation, the Department of Health is required first to endeavor to bring about correction by conference, conciliation and persuasion. In case of failure to remedy the violation in this manner, the law provides for penalties.

That, very briefly, is the content of the Law. It contains no specific

rules or regulations designed to impose immediate control measures nor does it attempt to spell out legal limits or performance standards. The law does, however, in its definition of air pollution recognize that air pollution in New Jersey can be injurious to human, plant or animal life and to property, and that air pollution can interfere with the comfort and enjoyment of life.

ACTIVITY AND PROGRESS OF THE AIR POLLUTION CONTROL COMMISSION

The Commission created by this Act was appointed and sworn into office by the Governor on February 24, 1955. At the second regular meeting of the Commission, held on March 21, 1955, it was agreed that the over-all subject of air pollution as it applies to New Jersey might be generally classified into four major categories as follows:

- (1) Smoke and odor from open burning dumps.
- (2) Smoke, fly ash and odor resulting from incomplete combustion of solid, liquid and/or gaseous fuels. Subject category to also include incinerators.
- (3) Dusts, gases, vapors, fumes and odors resulting from commercial and industrial operation, including radioactive dust.
- (4) Pollens of allergenic significance.

In making such classifications, it was fully recognized that the actual listing of the various items in the order of, let us say, "true importance" was much more difficult, particularly in view of the vast amount of investigatory and experimental work that remained to be done in order to resolve more clearly some of the less tangible aspects of the problem. Accordingly, initial efforts were directed toward those phases of pollution that afforded the opportunity for most immediate resolution. In view of the vast amount of work that already had been done on the subject of open burning dumps, including the development of alternative methods of solid waste disposal, namely, sanitary land fill and incineration, it was felt that this category would be a most logical starting point.

CONTROL OF AIR POLLUTION FROM OPEN BURNING

At its second regular meeting, the Commission decided to conduct a public conference on May 4, 1955, on the subject of open burning dumps. This public conference was conducted to gain guidance on all aspects of the open burning dumps problem to be taken into cognizance along with the work of the Commission, to arrive at a better determination of what should constitute the scope of a regulatory code on this subject.

That the democratic method was successful was evidenced by the excellent attendance at this meeting, by the number of participating agencies and organizations, and the many persons who took part in the group discussions. As much as is practical and possible, the Air Pollution Control Commission will continue this type of conference, preliminary to the public hearing and promulgation of codes, rules and regulations. By so doing, the Commission recognizes its responsibility to the citizens of New Jersey. By affording citizens an opportunity to voice their feelings before the Commission, valuable information is obtained as to the reasonableness and necessity for air pollution control measures being considered.

The Commission's interest in the control of open burning is primarily the elimination of air pollutants—smoke, dust, and odors, that arise from open burning in refuse disposal, trade wastes and salvage operations. This is not to be construed as minimizing the other harmful effects of open burning such as diminution of highway visibility and fire hazards. The Commission appreciates the fact that to the extent its codes effect benefit to the public in addition to the control of air pollution, such codes have even greater support from the public.

As a result of the statements read and submitted and the group discussions carried on at the public conference in May, there was little doubt that open burning should, in general, be outlawed with sufficient time allowed for changeover to other methods of solid waste disposal and burning for salvage. After the Commission had duly weighed the statements and recommendations made at the conference, a proposed code was drafted by the Commission at its regular meeting in September, 1955.

It was the decision of the Commission, at this time, to designate these and all future regulations of the Commission as Chapters of a *New Jersey Air Pollution Control Code*. Accordingly, the control of open burning was defined in the provisions of proposed Chapters I, II, and III of the *New Jersey Air Pollution Control Code*. Additional chapters on other sources of air pollution will be made part of this code as the Commission progresses with its assignment.

Proposed Chapters I, II, and III were the subject of a public hearing on November 21, 1955, in Trenton. The contents of briefs submitted at the public hearing were studied and the chapters in final form (see Appendix B) were adopted and filed with the Secretary of State, January 24, 1956, to become effective May 1, 1956.

During the year that the problem of open burning as a cause of air pollution was under public consideration, from May 4, 1955 to the effective date of a code on this subject May 1, 1956, and through

conference, discussion, and study, there has been general public acceptance of the Commission's philosophy and methods of procedure. Many private, municipal and industrial groups began a year in advance of the effective date to consider means to eliminate open burning.

Under the provisions of the aforementioned Code, the public is responsible for its own contribution to air pollution. The Code places upon the public an obligation to eliminate the archaic bonfire method of waste and refuse disposal. An awareness of this responsibility on the part of New Jersey citizens and their municipalities is important in establishing the philosophy of the joint partnership of industry and the general public in attacking the air pollution problem.

CONTROL AND PROHIBITION OF AIR POLLUTION BY SMOKE AND COMBUSTION OF SOLID FUEL

At the April 15, 1957 meeting of the Commission, the drafts of two additional chapters to the New Jersey Air Pollution Control Code were approved. These proposed chapters entitled, "Chapter IV, Control and Prohibition of Air Pollution by Smoke" and "Chapter V, Control and Prohibition of Air Pollution from Combustion of Solid Fuel," were presented to the citizens, municipalities, industries and others concerned at a public hearing in Trenton, New Jersey, on June 17, 1957.

The briefs presented and the comments and recommendations heard were studied by the Commission. After careful consideration was given to all information received, the Commission was required to take one of the following actions on either or both of the proposed chapters:

- (a) Adopt as drafted.
- (b) Modify in accordance with acceptable comments or recommendations and adopt the revised form.
- (c) Elect not to adopt at the present time.

Chapter IV, Control and Prohibition of Air Pollution by Smoke was modified and adopted on September 16, 1957 to become effective January 1, 1958. (See Appendix C)

Chapter V, Control and Prohibition of Air Pollution from Combustion of Solid Fuel, was modified and adopted on October 21, 1957 with an effective date of July 1, 1958. (See Appendix D)

CONTROL OF OTHER SOURCES OF AIR POLLUTION

The destruction of solid waste materials by process of incineration is another facet of the air pollution problem. The Commission is at

present compiling technical data upon which to base a code for the regulation of incinerators and similar forms of destructors. Information is also being gathered for deliberation in promulgating regulations and recommendations to control other types of air pollution as previously referred to in the outline of the four major categories of import.

A special committee has also been organized to investigate and report on the agricultural aspects of air pollution. Airborne pollen of allergenic significance, particularly that from ragweed, may be lessened by weed control programs. Field study attests to the widespread growth of ragweed in New Jersey. The control of airborne pollen from this source is considered a matter of public significance.

The Commission believes that nearly everyone in New Jersey contributes to air pollution. It is a complex problem that requires a concentrated total program. The costs must be shared so that the benefits of clean air may be mutually enjoyed. All must join in resolving this problem, which affects everyone.

Concurrent with the attention being given to the development of codes, the Commission, through an appointed technical committee, has provided technical guidance to the Air Sanitation Program of the New Jersey State Department of Health. Each committee of the Commission has outside expert consultants appointed to its membership who serve without pay. Every effort is being made to keep the Commission members abreast of current studies and developments in the field of air pollution control through the work of its various committees.

COUNTY AIR POLLUTION CONTROL ASSOCIATIONS

Section 11 of the Act provides that the Commission shall organize a county Air Pollution Control Association in each county in which it shall determine that the establishment of such Association is advisable to assist it in carrying out the purposes of the act. After careful consideration, it was decided to establish the first Associations in eight counties. The counties are Bergen, Passaic, Hudson, Essex, Union, Middlesex, Mercer, and Camden. Professional and civic groups in each of these counties were requested to submit nominations for possible appointment to County Association membership. Names of nominees have been received and appointments made. Seven County Associations have been organized.

At the time of preparation of this report, a noticeable reduction in air contamination is evident. It is further evident that there has been a general acceptance of the philosophy of the Air Pollution Control Commission and the Commission's way of doing business.

NEW JERSEY STATE DEPARTMENT OF HEALTH
AIR SANITATION PROGRAM

The Air Sanitation Program of the New Jersey State Department of Health has been designed to meet the needs of the State of New Jersey for a comprehensive air pollution control program. It is intended to provide for the enforcement of codes, rules and regulations promulgated by the Air Pollution Control Commission, to offer a technical service to local municipal government and industry, and to perform necessary research and development work for definition of the problem in the State. The lack of standards for clean air and the lack of standard procedures for measurement of air contaminants require that continuous applied research be conducted to maintain the high degree of technical capability necessary for a progressive Air Sanitation Program.

For functional purposes, this program is subdivided into three sections:

1. ENFORCEMENT SECTION
2. TECHNICAL SERVICE AND SPECIAL INVESTIGATION SECTION
3. RESEARCH AND DEVELOPMENT SECTION

This subdivision is necessary because of the different specialized training and experience required for carrying out the basic functions of the program activities. Each section, under direct supervision of a section leader, is organized to carry out its assigned activities. This type of organization makes it possible to develop a high degree of competence in each of the specialized sections with a limited number of professional personnel.

The *Enforcement Section* is essentially an inspection type of organization assigned the responsibility of enforcement of the New Jersey Air Pollution Control Code. This includes instruction, supervision and assignment of field personnel, maintenance of records, correspondence, conferences and preparation of material for hearings and court actions. It is not intended that the personnel of this section perform tests, take samples or conduct studies of a technical nature to ascertain compliance with codes. When required, these tests will be performed by the Technical Service and Special Investigation Section for administrative application by the Enforcement Section.

The *Technical Service and Special Investigation Section* is assigned responsibility for investigating complaints, providing technical assistance to municipal agencies or industry, evaluating and studying air pollution control devices, conducting field studies when standard

procedures have been developed by the Research and Development Section, and performing all field tests of a technical nature as may be required by the Enforcement Section.

The *Research and Development Section* carries out all research projects which have been assigned by the Program Coordinator plus such other activity as is necessary for the development of technical information required for the improvement of the Air Sanitation Program and the activities of the Air Pollution Control Commission. This section is also responsible for carrying out special field studies of the causes and effects of air contaminants where the very nature of the problem makes it an experimental or demonstration project.

Laboratory Analysis of air samples as required for the activities of this program is provided by a well equipped wet chemistry and spectrographic laboratory. The calibration of instruments, development of field procedures and the planning of all special field studies are performed with assistance and guidance of the laboratory personnel.

AIR SANITATION PROGRAM ACTIVITY

Specific code items, in effect during the period of this report, are those covering the regulation and control of open burning.

It should be emphasized again that the entire procedure for noting and processing violations of the Air Pollution Control Code is set forth in the Air Pollution Control Act (1954).

The Act requires that violations be investigated and verified and that the first action by the Department of Health must be a process of conference and conciliation to persuade violators to take corrective action within a reasonable period of time. The time periods in all instances will vary depending upon the technical and economic factors involved. Municipal governments frequently may require one fiscal year or more to provide for budget and engineering considerations. Similar problems occur in private industry.

Should violations continue to exist after a reasonable period of time has expired, the persons responsible are served with a notice to appear at a formal hearing before the Commissioner of Health. At this hearing, the facts are considered and a written order issued by the Department to compel compliance within a reasonable period of time. If after this period, the violation still exists, the Department may institute court action which can result in an injunction and/or fine at the rate of \$100.00 per week.

Solid waste, like liquid waste and sewage, flows in a never ending pipeline which cannot be cut off until acceptable disposal facilities are available. Several steps are necessary with time intervals of reasonable

duration to allow for collective measures to be instituted.

Municipalities, industrial plants, small businesses and even individuals with backyard incinerators have been notified regarding violations of the Air Pollution Control Code. Open burning dumps conducted by municipalities have been one of the chief sources of complaints by citizens and, in a few cases, local governing bodies have focused the attention of the State Department of Health on the open burning dumps of a neighboring municipality. The attitude of officials who have appeared at conferences on violations where an open dump was cited has been extremely good in almost all instances. Generally, there was agreement that open burning dumps should not be tolerated in a well-governed municipality, whether prohibited by law or not.

Actions taken by municipalities to comply with the requirements of the code to cease and prevent open burning of dumps were taken as follows:

1. Dump locations were changed to an area where a sanitary landfill method of refuse disposal could be instituted and waste land reclaimed for useful purposes.
2. Barricades were erected to keep out unauthorized persons from the municipal disposal areas.
3. Bulldozers and other equipment were purchased to improve dump maintenance.
4. Cover material was purchased to keep the dump adequately covered day to day.
5. Better supervision and maintenance programs were instituted thus giving municipal housekeeping (dumps operation) its deserved and important place in the community.
6. Police departments were requested to increase their patrols to the usually neglected dump areas to prevent boys and others from shooting rats for sport, who when they tired of rat destruction (not in itself detrimental) would climax an exciting visit by starting a dump fire which caused air pollution and annoyance to the citizens, fire departments, public works departments and even neighboring municipalities for days and weeks at a time.
7. Municipal garbage and refuse collection contracts were let to private contractors who removed the refuse to disposal areas in other communities and relieved governing bodies of all responsibilities.
8. Contracts were made with other municipalities having incinerators in operation to dispose of garbage and refuse.

SUMMARY OF ENFORCEMENT ACTIONS
(FROM JULY 1, 1956 TO OCTOBER 31, 1957)

Violations cited	484
Violations removed	81
Written agreements by violators indicating intention to comply	105
Conferences with violators to arrive at a reasonable period of time to obtain compliance	170
Formal hearings resulting in a Department order	17
Affidavits received requesting exceptions from provisions of code	30
Affidavits not accepted after investigation	22
Total field investigations	1231

TECHNICAL SERVICE

Providing a technical service to boards of health or other government agencies responsible for local control of air pollution comprised about 40 per cent of the total activity of the Air Sanitation Program. This assistance ranges in nature from conducting in-plant surveys for the purpose of evaluating air pollution control practices of an industry, or suspected source of air pollution, to detailed aerometric studies of ground level air contaminants, to determine source or concentration of one or more airborne substances. The findings obtained, together with interpretation and recommendations for further action, are referred to the local agencies concerned. Follow-up service, including attendance at meetings, informal hearings and court action initiated under local authority, was provided where indicated. Two detailed ground level surveys were initiated by the Air Sanitation Program in instances where more than one municipality was involved and it was suspected that a public health hazard might exist.

In a number of instances, it appeared desirable for local governments to adopt ordinances to provide some degree of control in matters of nuisances caused by smoke or other air contaminants. Technical assistance was provided in the preparation, adoption and enforcement procedures. In most instances, a model Smoke Control Code and/or a model Public Health Nuisance Code, developed by the New

Jersey Department of Health for adoption by reference by local boards of health, were recommended.

SUMMARY OF TECHNICAL SERVICE ACTIONS

(FROM JULY 1, 1956 TO OCTOBER 31, 1957)

Investigations for local agencies	92
Number of recommendations submitted	110
Assistance in local control	17
Detailed aerometric surveys	9

RESEARCH AND DEVELOPMENT

Research and Development projects undertaken by the Air Sanitation Program include:

- (1) Statewide Air Pollution Survey (Smoke Index)
- (2) Field Study of Public Hazard Associated with Large Area Aircraft Spraying of DDT
- (3) Automatic Directional Air Sampling
- (4) Study of Petroleum Refinery Practice—a joint project with the State of Pennsylvania and the City of Philadelphia.

EDUCATIONAL ACTIVITY

Educational activity continues to be an important phase of this relatively new public health program of air pollution control. Program personnel assisted in the organization of nine courses or technical conferences, 26 lectures or talks were given, 13 conferences or courses were attended and four out-of-state visits were made to observe air pollution control procedures of other agencies.

Lack of standard air testing and sampling procedures and the lack of minimum standards for "Clean Air" continue to be a major obstacle in obtaining a satisfactory resolution to the problem of air pollution in New Jersey.

A definite start has been made toward air pollution control and a progressive improvement should hereafter become evident.

APPENDIX A

CHAPTER 212

AN ACT relating to the control and suspension of air pollution, creating an Air Pollution Control Commission in the State Department of Health and prescribing its functions, powers and duties and providing for the appointment of County Air Pollution Associations.

BE IT ENACTED *by the Senate and General Assembly of the State of New Jersey:*

1. This act shall be known and may be cited as the "Air Pollution Control Act (1954)."

2. The following words shall have the following meanings:

"Commission" means the Air Pollution Control Commission created under this act.

"Department" means the State Department of Health.

"Air pollution" as used in this act shall mean the presence in the outdoor atmosphere of substances in quantities which are injurious to human, plant or animal life or to property or unreasonably interfere with the comfortable enjoyment of life and property throughout the State and in such territories of the State as shall be affected thereby and excludes all aspects of employer-employee relationship as to health and safety hazards.

3. There is hereby created in the State Department of Health an Air Pollution Control Commission, which shall consist of 9 members, 3 of whom shall be the State Commissioner of Health or a member of the State Department of Health designated by him, the Commissioner of Labor and Industry or a member of the Department of Labor and Industry designated by him, and the Secretary of Agriculture or a member of the Department of Agriculture designated by him, who shall serve *ex officio*, 1 citizen of the State representing the general public and 5 members to be appointed from persons to be nominated by the organizations hereinafter enumerated, by the Governor with the advice and consent of the Senate.

On or before July 1, 1954 and thereafter as required, at least 1 month prior to the expiration of the term of the member chosen from nominees of each organization hereafter enumerated each such organization shall submit to the Governor a list of 3 recommended nominees for membership on the Commission from which list the Governor shall appoint 1.

If any organization does not submit a list of recommended nominees at any time required by this act the Governor may appoint a member of his choice.

The organizations which shall be entitled to submit recommended nominees are: New Jersey Health Officers Association, New Jersey State Chamber of Commerce, New Jersey Society of Professional Engineers, Inc., New Jersey Manufacturers Association, New Jersey Section of the American Industrial Hygiene Association.

4. Of the 6 members first to be appointed, 1 shall be appointed for a term of 1 year, 2 for terms of 2 years, 1 for a term of 3 years and

2 for terms of 4 years beginning on July 1, 1954. Thereafter, all appointments shall be made for terms of 4 years beginning on July 1. All appointed members shall serve after the expiration of their terms until their respective successors are appointed and shall qualify, and any vacancy occurring in the appointed membership of the commission, by expiration of term or otherwise, shall be filled in the same manner as the original appointment for the unexpired term only, notwithstanding that the previous incumbent may have held over and continued in office as aforesaid. The Governor may remove any appointed member of the commission for cause after a public hearing.

5. All members of the Commission shall serve without compensation but shall be reimbursed for expenses incurred in attending meetings of the Commission and in the performance of any duties as members thereof.

6. The Commission shall elect annually a chairman and vice-chairman from its own membership, and 5 members of the Commission shall constitute a quorum to transact its business, except that any action shall be by at least a majority vote of the entire Commission.

7. The Commission shall have power to employ such employees as it may deem necessary.

8. The Commission shall have power to formulate and promulgate, amend and repeal codes and rules and regulations 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 Commission 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. Any person heard at such public hearing shall be given written notice of the determination of the Commission.

9. The Department shall control air pollution in accordance with any code, rule or regulation promulgated by the Commission and for this purpose shall have power to—

- (a) Conduct and supervise research programs for the purpose of determining the causes, effects and hazards of air pollution;
- (b) Conduct and supervise State-wide programs of air pollution control education including the preparation and distribution of information relating to pollution control;
- (c) Require the registration of persons engaged in operations which

may result in air pollution and the filing of reports by them containing information relating to location, size of outlet, height of outlet, rate and period of emission and composition of effluent, and such other information as the Department shall prescribe to be filed relative to air pollution. The requirement for filing of reports shall be conditional upon either the consent of the person engaged in operations which may result in air pollution or the direction of the Department, which direction may be granted only after a hearing upon notice to the person engaged in such operations;

(d) Enter and inspect any building or place, except private residences, for the purpose of investigating an actual or suspected source of air pollution and ascertaining compliance or noncompliance with any code, rules and regulations of the Commission. The right to enter and inspect shall be conditional upon either the consent of the owner or lessee of the premises or the direction of the Department, which direction may be granted only after a hearing upon notice to the owner or lessee of the premises. Before any entry and inspection is made, the person who is to make the same shall sign a statement in the presence of and witnessed by a notary public or other officer qualified to take acknowledgment to deeds, that all information obtained shall be kept confidential except as it relates directly to air pollution. If samples are taken for analysis, a duplicate of the analytical report shall be furnished promptly to the person suspected of causing air pollution;

(e) Receive or initiate complaints of air pollution, hold hearings in connection with air pollution and institute legal proceedings for the prevention of air pollution and for the recovery of penalties, in accordance with this act;

(f) With the approval of the Governor, co-operate with, and receive money from, the Federal Government, the State Government, or any county or municipal government or from private sources for the study and control of air pollution.

10 Any hearing required by this act to be held before the Commission shall be held before any 3 or more members of the Commission designated by the chairman and any member of the Commission shall have power to subpoena witnesses and compel their attendance, administer oaths and require the production for examination of any books or papers relating to any matter under investigation in any such hearing. Any information as to secret processes or methods of manufacture or production shall not be disclosed in public hearing before the Commission, insofar as practicable, and shall be kept confidential.

11. The Commission shall organize a county air pollution control association in each county in which it shall determine that the establishment of such association is advisable to assist it in carrying out the purposes of this act. Each county air pollution control association shall consist of such number of resident members as shall be determined by the Commission, who shall be appointed by the Commission and shall serve at the pleasure of the Commission without compensation.

12. It shall be the duty of each county air pollution control association to study air pollution problems of the county.

13. All codes, rules or regulations of strictly local application, before they are adopted by the Commission, shall be submitted to the county air pollution control association of each county affected for discussion and report thereon.

14. In case any written complaint is filed with the Department, or the Department has cause to believe, that any person is violating any code, rule or regulation promulgated by the Commission, the department shall cause a prompt investigation to be made in connection therewith and if the Department shall find, after such investigation, that a violation of any code, rule or regulation of the Commission exists, it shall immediately endeavor to eliminate any source or cause of air pollution resulting from such violation by conference, conciliation and persuasion.

15. In case of the failure to correct or remedy a violation of any code, rule or regulation of the Commission, within a reasonable time, by conference, conciliation and persuasion, the Department shall cause to be issued and served a written notice, together with the copy of a complaint made by it, or a copy of the complaint made to it, requiring the person so complained against to answer the charges of such complaint at a hearing before the Department at a time and place to be specified in such notice.

16. The respondent to such complaint may file a written answer thereto and may appear at such hearing in person or by representative, with or without counsel, and submit testimony, or both. The testimony taken at the hearing shall be under oath and recorded stenographically, but the parties shall not be bound by the strict rules of evidence prevailing in the courts of law and equity at such hearing, provided, however, that true copies of any transcript and of any other record made of or at such hearing shall be furnished to the respondent upon request and at his expense.

17. Any hearing required by this act to be held before the Department shall be held before the State Commissioner of Health, or a

member of the department designated by him, who shall have power to subpoena witnesses and compel their attendance, administer oaths and require the production for examination of any books or papers relating to any matter under investigation in any such hearing. The Department, at the request of any respondent to a complaint made by it, or to it, pursuant to this act, shall subpoena and compel the attendance of such witnesses as the respondent may designate and require the production for examination of any books or papers relating to any matter under investigation in any such hearing.

18. If, at said hearing, the Department shall determine that the person against whom the complaint is made is violating any code, rule or regulation promulgated by the Commission, it shall fix a reasonable time during which said person shall be required to take such measures as may be necessary to prevent the same and to give periodic progress reports. Any information as to secret processes or methods of manufacture or production revealed by such periodic progress reports shall be kept confidential.

19. If such preventive or corrective measures are not taken in accordance with the order of the Department, the Department may institute a civil action in any court of competent jurisdiction for injunctive relief to prevent any further violation of such code, rule or regulation. Said court shall have power to grant such injunctive relief upon notice and hearing. Any person thus determined by the department to have violated a code, rule or regulation promulgated by the commission shall be liable for a penalty of \$100.00 per week beginning with the 10th day after the expiration of the time fixed for the taking of preventive or corrective measures in the Department's order. In the event that he continues to maintain or to permit the maintenance of any condition which has been determined by the department to constitute such a violation, the method of recovery of said penalty shall be pursuant to the Penalty Enforcement Law. (N. J. S. 2A:58-1 et seq.)

20. Review of any final decision or action by the Department or by the commission shall be by procedure in lieu of prerogative writs. Review of the validity of any code, rule or regulation promulgated by the Commission shall likewise be by procedure in lieu of prerogative writs.

21. No existing civil or criminal remedy for any wrongful action which is a violation of any code, rule or regulation of the Commission shall be excluded or impaired by this act.

22. No ordinances or regulations of any governing body of a municipality or county or board of health not inconsistent with this act or

any code, rules or regulations promulgated pursuant thereto shall be superseded by this act. Nothing in this act or in any code, rules or regulations promulgated pursuant thereto shall preclude the right of any governing body of a municipality or county or board of health to adopt ordinances or regulations not inconsistent with this act or any code, rules or regulations promulgated pursuant thereto.

23. The powers, duties and functions vested in the State Department of Health under the provisions of this act shall not be construed to affect in any manner the powers, duties and functions vested in the State Department of Health under any other provisions of law.

24. This act shall take effect immediately.

Approved September 16, 1954.

APPENDIX B

NEW JERSEY AIR POLLUTION CONTROL CODE

Pursuant to authority vested in it under Chapter 212, P. L. 1954, the Air Pollution Control Commission does this sixteenth day of January, 1956, promulgate and adopt the Code entitled "New Jersey Air Pollution Control Code" as set forth below to become effective May 1, 1956.

William R. Bradley, Chairman
Air Pollution Control Commission

Effective Date: May 1, 1956
Filed with the Secretary of State:
January 24, 1956.

NEW JERSEY AIR POLLUTION
CONTROL CODE
CHAPTER I

Section 1 DEFINITIONS

The following terms used in this code shall mean and include:

- 1.1 REFUSE: garbage, rubbish and trade waste.
- 1.2 GARBAGE: animal and vegetable matter originating in houses, kitchens, restaurants and hotels, produce markets, etc.
- 1.3 RUBBISH: solids not considered to be highly flammable or explosive including but not limited to rags, old clothes, leather, rubber, carpets, wood, excelsior, paper, ashes, tree branches, yard trimmings, furniture, tin cans, glass, crockery, masonry and other similar materials.
- 1.4 TRADE WASTE: all solid or liquid material or rubbish resulting from construction, building operations, or the prosecution of any business, trade or industry including, but not limited to, plastic products, cartons, paint, grease, oil and other petroleum products, chemicals, cinders and other forms of solid or liquid waste materials.
- 1.5 SALVAGE OPERATIONS: any business, trade or industry engaged in whole or in part in salvaging or reclaiming any product or material, including, but not limited to, metals, chemicals, shipping containers or drums.
- 1.6 OPEN BURNING: any fire wherein the products of combustion are emitted into the open air, and are not directed thereto through a stack or chimney.
- 1.7 STACK OR CHIMNEY: a flue, conduit or opening permitting particulate or gaseous emissions into the open air, or constructed or arranged for such purpose.
- 1.8 PERSON: the word "person" includes corporations, companies, associations, societies, firms, partnerships and joint companies as well as individuals, unless restricted by the context to an individual as distinguished from a corporate entity or specifically restricted to one or some of the above enumerated synonyms and, when used to designate the owner of property which may be the subject of an offense, includes this state, the United States, any other state of the United States as defined infra and any foreign country or government lawfully owning or possessing property within this state.

- 1.9 COMMISSIONER: means the State Commissioner of Health who is the chief administrative officer of the State Department of Health.
- 1.10 AIR POLLUTION: the presence in the outdoor atmosphere of substances in quantities which are injurious to human, plant or animal life or to property or unreasonably interfere with the comfortable enjoyment of life and property throughout the State and in such territories of the State as shall be affected thereby and excludes all aspects of employer-employee relationship as to health and safety hazards.

CHAPTER II

Section 1 CONTROL AND PROHIBITION OF AIR POLLUTION FROM REFUSE DISPOSAL AND SALVAGE OPERATIONS

- 1.1 No person shall cause, suffer, allow or permit open burning of refuse except as provided in section 1.4 and section 1.5 of this chapter.
- 1.2 No person shall conduct a salvage operation by open burning.
- 1.3 No person shall dispose of refuse in such manner as to cause air pollution.
- 1.4 The open burning of trade waste where no other known method of disposal can be used without hazard to health or property is excepted from the provisions of this code.
Any person intending to so engage in the open burning of trade wastes shall before so doing file with the Commissioner an affidavit stating the following:
- (a) The name, address and telephone number of the person submitting affidavit; if such person is a legal entity, the name and address of the individual authorized to accept service of process on its behalf and the name of the officer in charge of the premises where trade wastes are to be burned.
 - (b) The type of business or activity involved.
 - (c) The proposed operating practice including the type and quantity of trade waste to be disposed of by open burning.
 - (d) Whether the open burning is to be carried on for a single instance or intermittently.
 - (e) The exact location where open burning will be used to dispose of trade waste.

(f) Reasons why no method other than open burning can be used for disposal of trade waste without resulting in a hazard to health or property.

1.5 Open burning of plant life grown on the premises is not intended to be covered by this code.

CHAPTER III

Section 1 MUNICIPAL ORDINANCES OR REGULATIONS

1.1 No ordinance or regulation of any governing body of a municipality or county or board of health not inconsistent with this code shall be superseded by this code and nothing in this code shall preclude the right of any governing body of a municipality or county or board of health to adopt ordinances or regulations not inconsistent with this code.

APPENDIX C

NEW JERSEY AIR POLLUTION CONTROL CODE

CHAPTER IV

Pursuant to authority vested in it under Chapter 212, P.L. 1954, the Air Pollution Control Commission does this sixteenth day of September, 1957, promulgate and adopt Chapter IV of the "New Jersey Air Pollution Control Code" as set forth below to become effective January 1, 1958.

BY:

(signed)

William R. Bradley, Chairman
Air Pollution Control Commission

Effective Date: January 1, 1958

Filed with the Secretary of State: September 19, 1957

NEW JERSEY AIR POLLUTION CONTROL CODE
CHAPTER IV
CONTROL AND PROHIBITION OF AIR POLLUTION
BY SMOKE

Section 1 DEFINITIONS

- 1.1 FUEL-BURNING EQUIPMENT: shall mean and include any furnace, incinerator, marine installation, internal combustion engine refuse-burning equipment, boiler, apparatus, device, mechanism, stack or structure used in the process of burning fuel, refuse, or other combustible material.
- 1.2 SMOKE: shall mean and include small gas-borne and air-borne particles arising from a process of combustion in sufficient number to be observable.
- 1.3 RINGELMANN SMOKE CHART: shall be the Ringelmann's Scale for Grading the Density of Smoke published by the U.S. Bureau of Mines or any chart, recorder, indicator or device for the measurement of smoke density which is approved by the Department as the equivalent of said Ringelmann's scale.
- 1.4 MARINE INSTALLATION: shall mean equipment for propulsion, power or heating on all types of marine craft and floating equipment within the jurisdictional waters of the State of New Jersey.

Section 2 EMISSIONS PROHIBITED AND STANDARDS
OF MEASUREMENT

- 2.1 No person shall cause, suffer, allow or permit smoke from any fuel-burning equipment, the shade or appearance of which is darker than No. 2 of the Ringelmann Smoke Chart, to be emitted into the open air.
- 2.2 The provisions of Section 2.1 shall not apply to:
 - (a) Smoke emitted during the cleaning of a fire box or the building of a new fire, the shade or appearance of which is not darker than No. 3 of the Ringelmann Smoke Chart for a period or periods aggregating no more than 3 minutes in any 15 consecutive minutes.
 - (b) Smoke from locomotives the shade or appearance of which is equal to but not darker than No. 3 of the Ringelmann Smoke Chart for a period or periods aggregating no more than 30 seconds in any 3 consecutive minutes, or smoke of

said density for a period or periods aggregating no more than 4 minutes in any 15 consecutive minutes when building a new fire.

- (c) Smoke resulting from any fire ignited solely for the purpose of training or research in fire protection or prevention.

APPENDIX D

NEW JERSEY AIR POLLUTION CONTROL CODE

Pursuant to authority vested in it under Chapter 212, P.L. 1954, the Air Pollution Control Commission does this twenty-first day of October, 1957, promulgate and adopt Chapter V of the "New Jersey Air Pollution Control Code" as set forth below to become effective July 1, 1958.

BY:

(signed)

William R. Bradley, Chairman
Air Pollution Control Commission

Effective Date: July 1, 1958

Filed with the Secretary of State: October 22, 1957

CHAPTER V
CONTROL AND PROHIBITION OF AIR POLLUTION
FROM COMBUSTION OF SOLID FUEL

Section 1 DEFINITION

- 1.1 SOLID FUEL: shall mean a fuel which is fired as a solid, such as anthracite or semianthracite, bituminous or subbituminous coal, lignite, coke breeze, wood, or any solid by-product of a manufacturing process that may be substituted for any of the above specifically mentioned fuels.
- 1.2 FLY ASH: for the purposes of this Chapter, shall mean particles of gas-borne solid matter arising from the combustion of solid fuel, and does not include process materials.

Section 2 CONTROL AND PROHIBITION OF FLY ASH

- 2.1 No person shall cause, suffer, allow or permit fly ash caused by the combustion of solid fuel to be discharged from any stack or chimney into the open air in excess of the quantity set forth in the following table:

Heat in Fuel Burned British Thermal Units per Hour	Fly Ash Rate of Emission Pounds Per Hour
1,000,000	1
100,000,000	100
400,000,000	330
1,000,000,000	750
2,000,000,000	1,365
3,000,000,000	1,850
4,000,000,000	2,260
5,000,000,000	2,640
6,000,000,000	2,950
7,000,000,000	3,200
8,000,000,000	3,410
10,000,000,000	3,750

For the purposes hereof, the heat in solid fuel burned shall be the aggregate heat content, based on the higher heating value, of all solid fuels whose products of combustion pass through such stack or chimney. For a heat content between any two consecutive heat contents stated in this table, the fly ash limitation shall be as determined by interpolation.

- 2.2 (a) Persons burning solid fuel, whose products of combustion are discharged into the open air from a stack or chimney, shall

submit to the State Department of Health information for each such stack or chimney relating to place, type of fuel burned, heat in fuel burned, quantity of fuel burned per hour, description of combustion equipment, period of operation, height and size of outlet, and description of dust-removal equipment, on forms provided for that purpose by the State Department of Health.

(b) Such information shall be submitted to the State Department of Health in the case of existing installations within 90 days from the effective date of this Chapter and in the case of new or altered installations within 90 days after being placed in service. From time to time, additional reports concerning these items may be requested by the Commission.

2.3 The provisions of this Chapter shall not apply:

- (a) when the heat in solid fuel burned is less than one million British thermal units per hour, nor
- (b) to marine installations, vehicles, or other movable or portable equipment.