

Appendix B

Statutory and Administrative Background

The establishment of the Environmental Protection Agency and its Office of Research and Development is an outgrowth of the recognized need to enhance the level of environmental quality and to unify, where possible, the disparate environment-related agencies and offices scattered throughout the Federal Government.

Statutes

The Agency was created through powers granted to the President under sections 901 (a), 901 (a) (3), and 907 of Title Five of the U.S. Code.

Section 901 (a) provides that the President may reorganize elements of the Executive Branch "to promote the better execution of the laws, the more effective management of the Executive Branch and its agencies and functions." Section 901 (a) (3) notes that reorganization is permitted "to increase the efficiency of the operations of the Government to the fullest extent practicable." Section 907 acts as a bridge for the orderly transfer of such Federal business as public hearings and other, ongoing actions. Using this legislation, the President established the Environmental Protection Agency in December 1970, under Reorganization Plan No. 3.

Federal environmental objectives are set forth in the National Environmental Policy Act of 1969. The purposes of this legislation are to establish "a national policy which will encourage (a) productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation, and to establish a Council on Environmental Quality."

Title I states that all policies, regulations, and laws shall conform to the policy established in the act. Federal agencies are required to use a systematic, interdisciplinary approach to formulate such plans and policies that may affect the environment and to consult with the Council on Environmental Quality. In addition, they are to provide a report with all legislative and proposed Federal actions which describes a proposed program's environmental impact, alternative proposals, and short- and long-range environmental effects as well as noting any irreversible or irretrievable environmental damage that a given program may cause.

Title II establishes the Council on Environmental Quality. This three-member Council is required to aid the President in formulating environmental decisions, to review Federal programs, to conduct investigations and studies, to document and define changes in the national environment, to provide an annual report on environmental quality, and to advise the President on pending legislation.

While the National Policy Act establishes a central Federal direction in the area of environmental planning, EPA/ORD is governed by eight separate laws as amended, plus guidance from various appropriations reports. The eight Federal laws, in alphabetical order, are:

Clean Air Act.—Requires EPA to establish a research and development program that coordinates and accelerates investigations to determine the causes, effects, extent, prevention, and control of air pollution.

Federal Insecticide, Fungicide, and Rodenticide Act.—This legislation requires EPA to develop biologically integrated pest control alternatives and to formulate a national monitoring program.

Federal Water Pollution Control Act. --Creates a research and development program

Figure 4. Legislative Base for ORD Research

		Federal Water Pollution Control Act, Section 104	Federal Water Pollution Control Act, Section 105	Federal Water Pollution Control Act, Section 107	Federal Water Pollution Control Act, Section 113	Clean Air Act, Section 104	Clean Air Act, Section 316	Solid Waste Disposal Act, Section 216	Noise Control Act	Federal Insecticide, Fungicide, & Rodenticide Act, Section 20	Public Health Service Act, Section 301	Marine Protection, Research and Sanctuaries Act	Interdisciplinary Programs with more than one Authority
Program Area I	Health and Ecological Effects												
Subprogram Area	Health Effects												
Program Element	Health Effects (Air)												
	Health Effects (Water)	•											
	Health Effects (Pesticides)												
	Health Effects (Radiation)												
	Health Effects (Interdisciplinary)												
	Health Effects (Toxic Substances)												
Subprogram Area	Ecological Processes and Effects												
Program Element	Ecological Processes and Effects (Air)												
	Ecological Processes and Effects (Water)	•											
	Ecological Processes and Effects (Interdisciplinary)												
Subprogram Area	Transport and Fate of Pollutants												
Program Element	Transport and Fate of Pollutants (Air)												
	Transport and Fate of pollutants (Water)	•											
Program Area II	Energy												
Subprogram Area	Extraction and Processing Technology												
Program Element	Extraction and Processing Technology												
Subprogram Area	Conversion Utilization Technology Assessments												
Program Element	Conversion and Utilization Techniques and Assessments												
Subprogram Area	Health and Ecological Effects												
Program Element	Health and Ecological Effects	•											
Program Area III	Industrial Processes												
Subprogram Area	Mineral, Processing, and Manufacturing												
Program Element	Mineral, Processing, and Manufacturing Industries (Air)												
	Mineral, Processing, and Manufacturing Industries (Water)	•											
Subprogram Area	Renewable Resources												
Program Element	Renewable Resources Industry (Interdisciplinary)	•	•										
Program Area IV	Public Service Activities												
Subprogram Area	Waste Management												
Program Element	Waste Management (Water)	•	•										
	Waste Management (Solid)												
Subprogram Area	Water Supply												
Program Element	Water Supply												
Subprogram Area	Environmental Management												
Program Element	Environmental Management (Interdisciplinary)												
Program Area V	Monitoring and Technical Support												
Subprogram Area	Monitoring, Techniques, & Equipment Development												
Program Element	Measurement, Techniques, & Equipment Development (Air)												
	Measurement, Techniques, & Equipment Development (Water)												
	Measurement, Techniques, & Equipment Development (Interdisciplinary)												
Subprogram Area	Quality Assurance												
Program Element	Quality Assurance (Interdisciplinary)												
Subprogram Area	Technical Support												
Program Element	Technical Support (Air)												
	Technical Support (Water)												
	Technical Support (Interdisciplinary)												
	Technical Support (Energy)												
Program Area VI	Program Management and Support												
Subprogram Area	Program Management												
Program Element	Program Management												
Subprogram Area	Program Support												
Program Element	Program Support												
Other ORD	Science Advisory Board (Interdisciplinary)												
Program Elements	Reimbursables ORD												
	ADP Support												

SOURCE PLANNING REPORTING A NO REVIEW MANUAL, INTÉRIM PROCEDURES OF *Office of Research and Development* U.S. Environmental Protection Agency Washington, D.C. 20460 Dec. 1975

under EPA to prevent, reduce, and eliminate pollution in navigable waters. Requires research and development in such specific areas as Great Lakes pollution, oilspills, and thermal discharges. Provides for the establishment of a control technology and management program to eliminate the discharge of waterborne pollutants.

Marine Protection, Research, and Sanctuaries Act.—Working with the Commerce Department and the Coast Guard, EPA must monitor and study the pollutants dumped into the ocean or which reach the Great Lakes. EPA is required to consult with the Commerce Department on such topics as overfishing, man-induced changes in the ecosystem, and the long-range effects of pollution.

Noise Control Act.—Provides that EPA will establish a research and development program to examine noise control, abatement technology, and the health effects of noise under various conditions.

Public Health Service Act.—This legislation instructs EPA to determine environmental radiation levels, associated health risks, to review present radiation standards, and to assess the nuclear fuel cycle and its relationship to the environment.

Safe Water Drinking Act.—Provides for EPA to conduct research and development studies on waterborne contamination and the diagnosis, treatment, control, and prevention of such contaminants. It also requires that EPA establish a research and development program to assure a safe supply of drinking water.

Solid Waste Disposal Act.—Directs EPA to work in numerous waste disposal areas including research and development on the operation and financing of solid waste disposal systems; monitoring to determine negative health effects; development of methods to reduce negative health effects; the reduction of unsalvageable materials; and new methods of collecting, processing, and recovering materials and energy generated from solid waste.

In addition to requirements set forth in Federal legislation, appropriations reports are a source of EPA directives. Specific requests for research and development through appropriations reports have included an assessment of adverse environmental impacts affecting the Chesapeake Bay and a study of the potential impact created by powerplant siting on the lower Ohio River in terms of environmental, social, and economic factors.

ADMINISTRATION

When the EPA was first established, it consolidated 15 separate organizational programs in the Federal Government. The environmental research units among these programs were formed into the Office of Research Monitoring, which was subsequently renamed the “Office of Research and Development.” ORD was an amalgam, at that point, of 40 separate field installations—installations with different functions, interests, and interrelationships.

In June 1973, the 40 installations were consolidated into three major field units called National Environmental Research Centers (NERC’s). Later a fourth NERC was established. These major centers, in turn, administered 24 field laboratories.

By 1975, the consolidation under the four NERC’s was becoming administratively cumbersome. A second reorganization occurred. This time the order of organization was based on the type of output desired.

Under the second reorganization, four offices were established. Each is responsible for planning one or more of the major ORD subprograms. In one case—monitoring techniques and equipment development—planning authority is shared by two offices. Each office also has implementation responsibilities for individual subprograms. Implementation responsibility is frequently shared by two or more offices.

The Office of Health and Ecological Effects has planning responsibility for two subprograms: health effects and ecological processes and effects.

The Office of Energy, Minerals, and Industry plans the research and development effort for four subprograms: mineral, processing, and manufacturing; health and ecological effects/energy; extraction and processing technology/energy; and conservation, utilization, and technology assessments/energy. Two subprograms are planned by the Office of Monitoring and Technical Support: quality assurance and technical support. The monitoring techniques and equipment development subprogram is planned by the Office of Monitoring and Technical Support and the Office of Air, Land, and Water Use. The latter Office has five additional

subprograms for which it has planning responsibility: transport and fate of pollutants, renewable resources, waste management, water supply, and environmental management.

Each subprogram established by ORD has been created as a result of Federal legislation. Some programs are formulated on the basis of a single law, while others have many legal references. The matrix displayed in figure 4, which lists ORD program areas, subprogram areas, and program elements, charts the relationship between environmental legislation and each activity.