THE ENVIRONMENTAL PROTECTION AGENCY: PRELIMINARY ANALYSIS OF THE PROPOSED 1983 BUDGET

Staff Working Paper

Natural Resources and Commerce Division
Congressional Budget Office
March 1982

CONTENTS

SUMMARY

This paper contains a brief analysis of the President's 1983 budget request for the Environmental Protection Agency (EPA). In particular, the analysis concentrates on four major media programs within EPA--water quality, air quality, hazardous waste, and toxic substances. The analysis was prepared at the request of Senator Patrick Leahy and Congressman Paul McCloskey, Jr., the Co-Chairmen of the Environmental and Energy Study Conference.

The numbers presented in this analysis were prepared for the March 9 EPA Budget Workshop hosted by the Environmental and Energy Study Conference. The numbers are preliminary and subject to revision as part of the continuing analysis of the federal budget by the Congressional Budget Office (CBO).

Methodology

All historical and projected budget figures presented here were obtained from the EPA Appropriations Justification documents submitted each year to the Congress. Historical figures from 1975 to 1981 depict actual obligations; these figures were used because they are the most detailed, showing budget trends within the individual media programs. Obligations reported for the years 1982 and 1983 in Tables 1, 4, 7, and 9 represent CBO estimates of expected obligations, and include carry-over funds from the previous year. In other comparisons of the 1982 and 1983 budgets, only budget authority as estimated (1982) or requested (1983) by EPA is used.

In comparing 1982 and 1983 budget authority levels, both nominal and 1981 constant dollars (adjusted for inflation) are used. Historical figures were adjusted to 1981 dollars using appropriate gross national product (GNP) deflators; projected 1982 and 1983 figures were adjusted using CBO's estimated GNP deflators described in The Prospects for Economic Recovery (February 1982).

In addition to the EPA Budget Justification Statement submitted to the Congress, other documents used in this analysis include the 1983 EPA budget submission to the Office of Management and Budget and the 1982 EPA Resource Impact Analysis (workload models) prepared by the agency. In all cases, the Budget Justification Statement was assumed to contain the final and most accurate description of potential program changes.

Overview of the EPA Budget

The total EPA budget request of $3.6 billion for 1983 includes funds for construction of public treatment works (construction grants program) and emergency hazardous waste cleanup (superfund). The remainder of the EPA budget funds the operating programs conducted by the agency, and includes funds for abatement and control, enforcement, research and development, management and support, and buildings and facilities (see Summary Table). The total 1983 request of $961 million for EPA's operating programs represents a 17 percent decrease in real terms from 1982 appropriation levels. Funding for abatement and control will be reduced from its 1982 level by 22 percent, enforcement by 22 percent, and research and development by 27 percent. The Summary Table shows the budget changes between 1982 and 1983 for the agency.

In the following sections, four separate EPA programs are examined--water quality, air quality, hazardous waste, and toxic substances. The first part of each section explores the legislative requirements underlying the program. The second part describes the budget and program changes between 1982 and 1983 for the program and its subprograms. Each program is subdivided into abatement and control, enforcement, and research and development subprograms. This discussion presumes some basic familiarity with environmental issues and policies.

In summary, the 1983 budget makes several major changes in EPA program direction and raises corresponding issues:

- The states will receive a greater share of program responsibility, often in conjunction with reductions in the amount of federal resources supplied to the states in the form of direct grants, training, and assistance. Will the states be capable of assuming such greater responsibility in light of probable budgetary constraints at the state level?

- Federal resources in the enforcement areas of the air, water, hazardous wastes, and toxic substances programs are being reduced, with legal resources being consolidated in a single office of the agency, the Office of Legal and Enforcement Counsel. It appears that a sharp reduction will occur in the resources available to monitor compliance. Will such reductions be offset by increased state enforcement activities, or will reduced federal efforts lead to possible relaxed compliance in certain areas of the country?

- In general, EPA is shifting research and development efforts away from long-term projects to those activities more concerned with the immediate implementation of regulations. This may have the effect of reducing the amount of data available to review, revise, and develop future regulations.

SUMMARY TABLE. TOTAL EPA BUDGET CHANGES, 1982-1983 (Budget authority as reported by EPA, in thousands of dollars)

	1982 (EPA current estimate)	1983 (EPA request)	Percent Change
		Nominal Dollars	
Construction Grants	2,400,000	2,400,000	0
Superfund	190,000	230,000	+21
Operating Programs	1,086,012	961,392	-11
Total	3,676,012	3,591,392	-2.3
		Constant 1981 Dollars	
Operating Programs			
Abatement and control	482,319a/	394,340	-22
Enforcement	80,112b/	62,821	-22
Research and development	238,281	174,117	-27
Management and support	205,628	199,647	-3
Buildings and facilities	3,368	2,601	-23
Total	1,010,208	833,527	-17

NOTE: Includes salaries and expenses.

a/ Includes hazardous waste permit issuance.

b/ Does not include hazardous waste permit issuance.

WATER QUALITY

Water quality is the largest regulatory program in EPA's operating budget. Obligations reached a peak of $387 million in 1979, more than double (without adjusting for inflation) the EPA 1983 budget estimate of $192 million. This 1983 budget represents a 23 percent decline from the 1982 level. It will require a substantial reduction in water quality research and development, and a significant increase in the responsibilities of individual states in developing water quality programs.

BACKGROUND

Water pollution arises from numerous sources, notably industrial and municipal discharges and natural drainage from farmland, forests, and developed areas. Among the most widespread pollutants observed by state officials who monitor water quality are high levels of nutrients, bacterial pollution, high concentrations of suspended sediment, and materials that deplete oxygen in streams. 1/ More recently, concern has increased over toxic pollutants in surface waters and contamination of groundwater by conventional pollutants and toxic substances.

Policy Action 2/

Congressional Mandate. The history of Congressional action to deal with water pollution problems begins with the Federal Water Pollution Control Act of 1948. Major changes followed in amendments in 1956 and 1961, the Water Quality Act of 1965, the Clean Water Restoration Act of 1966, and the Water Quality Improvement Act of 1970. The current program, however, is primarily a result of the Federal Water Pollution Control Act Amendments of 1972 (Public Law 92-500) and the Clean Water

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1/ Environmental Quality: The Ninth Annual Report of the Council on Environmental Quality (December 1978), p. 91.

2/ Additional information can be found in David Harrison, Jr., and Robert Leone, Federal Water Pollution Control Policy, Working Paper Number 12, American Enterprise Institute (November 18, 1981), and Environmental Quality: The Sixth Annual Report of the Council on Environmental Quality (December 1975).

Act of 1977 (Public Law 95-217). These acts established a "zero discharge" goal by 1985 and an interim water quality goal of "fishable" and "swimmable" waters by July 1, 1983.

The 1972 legislation requires EPA to develop limitations for industrial and municipal discharges into the nation's waters. Direct industrial discharges are to be controlled utilizing the "best practicable control technology currently available" (BPT) by July 1, 1977, and the stricter standard of "best available technology economically achievable" (BAT) by July 1, 1983. Discharges from new sources are to be controlled using the "best available demonstrated control technology." EPA is required to maintain a list of industries (including 27 industries mentioned specifically) and promulgate standards (effective immediately) for new sources in these industries within 16 months of their inclusion on the list.

Industrial discharges into municipal sewage systems ("publicly owned treatment works") are to be regulated through "pretreatment guidelines." Pretreatment standards are to specify a compliance date no later than three years from the date of promulgation, and shall prevent the discharge of pollutants through publicly owned treatment works that strain the capacity of those facilities.

Municipal sewage discharges are to receive "secondary treatment" (as defined by EPA) by July 1, 1977, and "best practicable waste treatment technology" (BPT) by July 1, 1983. In order to assist local governments in meeting these requirements, the 1972 amendments greatly increased the amount of federal aid for constructing municipal waste water collection and treatment systems. The 1972 amendments set the federal share of planning, design, and construction costs at 75 percent and authorized $18 billion over a three-year period for this purpose.

The major change of the Clean Water Act of 1977 was to specify different standards for toxic and conventional pollutants, a distinction not made in the 1972 act. The 1977 act requires EPA to develop industry effluent limits based on "best available technology economically achievable" (BAT) for control of the 65 classes of toxic priority pollutants referred to in the act. For conventional pollutants, BAT was replaced by "best conventional pollution control technology" (BCT), and the deadline was extended to 1984. BCT was to be as strict as the "best practicable control technology" (BPT), but no more strict than BAT. BCT was to be determined by the relationship between the cost of effluent reduction and the resulting effluent reduction benefits, and the cost and level of reduction attained from publicly owned treatment works.

Therefore, these two acts require EPA to set three types of effluent limitation standards for industry: BPT for interim control, BAT for toxic pollutants, and BCT for conventional pollutants. These standards are to be enforced through the issuance of permits to individual point sources. In

addition, pretreatment guidelines are to be set for discharges into municipal treatment works and standards also are to be set for each category of new sources.

Program Accomplishments. Effluent limitations are standards set by EPA for an entire industry or subcategories of an industry. Permits are then issued to individual sources within an industry to enforce the standards.

1. BPT and NSPS Guidelines for Direct Industrial Discharges. Although EPA was only required to develop effluent standards for new sources for 27 industries within 16 months of the effective date of the act, EPA decided to issue BPT guidelines for sources within these industries at the same time. These 27 industries, along with three added by EPA, were termed Group I, Phase I industries and standards were promulgated by the end of 1974. Nearly all were challenged in court. As a result of a court decision (N.R.D.C. versus Train, 1974), EPA began the development of guidelines for another 38 industries (termed Group I, Phase II and Group II industries). Approximately one-half of these guidelines have been promulgated.

2. BAT Standards for Direct Industrial Discharges. BAT standards for nine primary industries--leather tanning and finishing, textile mills, timber products processing, gum and wood chemicals, rubber manufacturing, petroleum refining, paint formulating, ink formulating, and inorganic chemicals manufacturing--were proposed by the end of 1980. The standards include standards for existing and new discharges into publicly owned treatment works and pretreatment standards of performance for new sources. However, only one standard (timber products processing) has been promulgated.

3. Pretreatment Guidelines. Only one guideline (for electroplating, in 1979) has been promulgated concerning indirect industrial discharges into municipal sewage treatment systems.

4. BCT Guidelines. BCT guidelines for conventional (non-toxic) pollutants were promulgated for 41 industrial subcategories in August 1979. EPA also published at that time its methodology for developing BCT effluent limitations. In July 1981, a court decision remanded these regulations to EPA. In February 1982, EPA withdrew all BCT limitations that were more strict than BPT. Over the next few months, EPA will be developing the cost-effectiveness test required by the court, assessing the desirability of revising the underlying BCT methodology, correcting its calculations, and examining new data that have been developed since 1979.

Other program accomplishments have occurred at the state level. National Pollutant Discharge Elimination System (NPDES) permits are issued to industrial and municipal dischargers by an EPA regional office or by a state if permitting authority has been delegated. About one-half of the states and territories currently have authority to issue permits. Approximately, 62,000 NPDES permits have been issued to dischargers.

Obligations by Budget Function

EPA's obligations by budget function are shown in Table 1 for water quality programs and construction grants, for the years 1975-1983.

Future Program Direction

The two major regulatory activities in the water program will continue to be the effluent guidelines and NPDES permitting program. Effluent guidelines (including BAT requirements, standards for new sources, and pretreatment standards for new and existing sources) are required to be proposed and promulgated for 23 primary industries according to a schedule specified in the N.R.D.C. et al. versus Gorsuch et al. and Union Carbide et al. consent decree. EPA failed to meet any of the deadlines in the consent decree as modified, and filed with the court on March 5, 1982, a new schedule for proposal and promulgation. This schedule, which has not yet been agreed to by the court, requires proposal of all guidelines by March 1983 and promulgation by June 1984 (see Table 2). EPA's March 5 proposal would require compliance by June 30, 1984, except where a later date is allowed by the act.

All dischargers are required to have a NPDES permit under the 1972 and 1977 laws, and about 62,000 facilities have such permits. About one-half of these have expired, another 6,000 will expire by the end of fiscal year 1982, and another 6,000 will expire in fiscal year 1983. The current permitting rate of the EPA and the states is about 12,000 permits a year. Since permits last for five years, the current rate implies issuance of 60,000 permits every five years. If this rate continues, EPA can probably eliminate the backlog and stay even with permitting requirements for the existing 62,000 permitted facilities.

Whether the current permit rate will accelerate or slow down is an open question. For some permits, issuance of the BAT permit will be easier than the original BPT permit, since BAT will be like BPT and thus major modifications will not be required. For other permits, the new permit may be more difficult to issue because of the presence of toxic pollutant requirements that were not in the original permit. Another factor affecting the permit rate could be the unavailability of BAT guidelines. If BAT guidelines are not available, EPA could base permits on interim guidance (as was done in the early 1970s), or delay the issuance of new permits.

WATER QUALITY AND THE 1983 BUDGET

The requested 1983 budget for the water quality program is approximately $186 million. This represents a drop of 27 percent in real terms

TABLE 1. WATER QUALITY PROGRAM OBLIGATIONS, 1975-1983 (In thousands of current dollars)

	Total a/	Abatement, Control, and Compliance	Enforcement	Research and Development	Construction Grants
1975	167,270	101,837	24,284	41,149	4,224,936
1976	216,248	161,633	19,414	35,201	4,329,228
1977	209,939	143,639	21,229	45,071	7,501,146
1978	309,034	214,106	22,522	72,406	2,859,908
1979	387,169	294,216	27,230	65,723	4,256,588
1980	344,918	249,824	27,789	67,305	4,673,011
1981	318,237	237,696	30,559	49,908	3,941,567
1982*	248,598	167,257	28,945	52,396	3,409,458
1983*	192,294	136,467	23,628	32,199	2,400,000

* Estimate of obligations, including carry-over funds as estimated by EPA.

a/ Construction grants obligations are not included in total.

TABLE 2. EPA PROPOSAL FOR EFFLUENT GUIDELINES SCHEDULE

	Proposal Date	Promulgation Date
Aluminum Forming	8/82	9/83
Battery Manufacturing	8/82	9/83
Coal Mining	12/80	10/82
Coil Coating	12/80	11/82
Copper Forming	12/82	1/84
Electric and Electronic Components	8/82	8/83
Foundries	11/82	1/84
Ink	12/79	8/82
Inorganic Chemicals (Phase I)	7/80	7/82
Iron and Steel	12/80	5/82
Leather Tanning and Finishing	6/79	12/82
Metal Finishing	8/82	10/83
Nonferrous Metals (Phase I)	1/83	2/84
Ore Mining	5/82	3/83
Organic Chemicals and Plastics and Synthetic Materials	3/83	6/84
Paint	12/79	7/82
Pesticides	10/82	11/83
Petroleum Refining	11/79	9/82
Pharmaceuticals	10/82	11/83
Porcelain Enameling	1/81	12/82
Pulp and Paper	12/80	11/82
Steam Electric	10/80	3/83
Textile Mills	10/79	9/82
Timber	10/79	1/81

from the 1982 level of $237 million. The 1983 request amounts to 43 percent less for research and development, 24 percent less for enforcement, and 23 percent less for abatement and control. Reductions in abatement and control account for over one-half of the total decrease, as this subprogram receives the greatest proportion of water quality funds. Full-time employment levels also will fall in 1983 (by approximately 18 percent). Personnel reductions will be 22 percent in research and development, 21 percent in enforcement, and 15 percent in abatement and control. These data are presented in Table 3.

Explanation of Changes

Abatement and Control. The abatement and control subprogram is made up of six activities: state program management, effluent standards and guidelines, grants assistance programs, water quality strategies and implementation, water quality monitoring and analysis, and municipal source control activities.

Reduced federal resources for state program management imply an increased state responsibility. Some individual programs will be completed or terminated, including the Great Lakes program (providing only what is necessary to maintain U.S. participation in the joint U.S.-Canadian Great Lakes Water Quality Agreement), the Chesapeake Bay program, the Flathead Environmental Impact Study, and the wastewater treatment training program. Decreases will occur in oversight activities for section 106 supplementary grants to the states, and in resources for developing and overviewing delegated programs.

Under effluent standards and guidelines, there will be an overall nominal increase (but a 3 percent real decrease) due to an increase in extramural (contracts) funding for technical and litigation support after the expected completion and proposal of 23 required effluent guidelines in 1982 and 1983. This increased extramural support is offset by a decrease in internal agency resources due to the completion and proposal of these effluent guidelines.

More than one-half of the total decrease in water quality abatement and control occurs in the grants assistance program. Section 106 supplementary grants to assist states generally with water quality improvement efforts will be reduced 26 percent in 1983. The estimated funds that will be set aside by states under Section 205(g) and 205(j) of the Clean Water Act for construction grants and water quality management will be approximately 18 percent lower in real terms in 1983. The Clean Lakes program will not be funded by the agency in 1983, leaving further work to the states. No wastewater treatment training grants will be funded in 1983.

TABLE 3. WATER QUALITY PROGRAM SUMMARY, 1982-1983 (Budget authority as reported by EPA)

	1982 (EPA current estimate)	1983 (EPA request)	Percent Change
		Thousands of Dollars	
Nominal Dollars, Total	236,796.7	185,965.7	-21
Constant 1981 Dollars			
Abatement and control	151,607.7	116,785.9	-23
Enforcement	26,718.3	20,421.7	-24
R&D	41,942.4	24,024.6	-43
Total	220,268.3	161,232.2	-27
		Permanent Full-Time Employees	
Abatement and Control	1,261	1,074	-15
Enforcement	621	490	-21
R&D	365	286	-22
Total	2,247	1,850	-18

There will be a net decrease in funding for water quality strategies and implementation, accounted for by an overall reduction of federal effort in such areas as dredge-and-fill permit review, water quality standards, review and promulgation efforts, damage assessments for oil spills, spill prevention, control and countermeasure inspections, and Clean Lakes Management. Therefore, in most cases, responsibility will be shifted to the states. There will be a 7 percent real increase in funding and effort for ocean disposal permits, as the ocean dumping program developed in 1982 is implemented.

Under water quality monitoring and analysis, there will be a net real increase of 1 percent. Emphasis in this program will shift from analysis aimed at control strategies development to determination of environmental benefits of existing and proposed regulations and controls, which will be used for regulatory impact analyses.

Finally, municipal source control will experience a net decrease in funding in 1983. Some of this decrease is attributable to the transfer of functions to the state programs management activity and also to slightly greater state responsibility for construction grants management. However, most of the net decrease is due to lower obligations for municipal waste treatment facilities construction (which is supported by regional and headquarters management activities associated with the construction grants program). Despite this reduction, the level of effort will rise in most areas of this activity to eliminate fraud, reduce backlogs, support state programs, and improve performance and compliance.

Enforcement. The water quality enforcement subprogram is composed of enforcement and permits issuance. Both activities will receive budget reductions in 1983, with the bulk of the reduction being in enforcement. Under enforcement, some of the decrease is due to the transfer of various legal activities to the Agency Office of Legal and Enforcement Counsel. Despite this reduction in resources, water quality enforcement activities are expected to increase slightly over 1982 levels, although the manner in which this increase will occur is unspecified. The focus in enforcement will be on more effective compliance monitoring. The Water Quality Office of Legal and Enforcement Counsel will be eliminated in 1983, with the completion of one objective (development of a legal docket system), the transfer of one objective to the Agency Office of Legal and Enforcement Counsel (case development), and the elimination of one objective (training efforts).

Under permits issuance, the reduction in resources is accompanied by an expected reduction in level of effort. The highest priority of this activity will be issuance of major industrial permits. The other major objective will be reform of permit issuance procedures, designed to achieve greater efficiency in processing permit applications. The pretreatment program, intended to control indirect discharge of damaging pollutants to municipal treatment facilities, will be restricted to approval of individual

state pretreatment programs and development of pretreatment programs for states without approved programs. In permit activities concerning direct discharges to waterways, EPA will concentrate on major non-municipal sources and will avoid issuance of "second-round" permits.

Research and Development. The research and development subprogram is divided into three main research areas: water quality, municipal wastewater, and industrial wastewater. All have decreased funding for 1983, with the greatest reduction occurring in water quality research. These research activities provide a scientific base for EPA and the states to use in establishing policies, guidelines, and standards.

Reductions in research resources are consonant with completion of research projects and a decreased effort devoted to long-term research projects. Major projects in three areas--health effects research involving municipal wastewater re-use and sludge disposal, development of water quality criteria documents for priority pollutants, and development of effluent guidelines for industries--will be completed by 1983. Dissemination of information gathered in the Chesapeake Bay study will be completed in 1982. The primary objective of the research portion of the Great Lakes study, eutrophication research, will be achieved by 1983, with no further funding requested.

Long-term projects that will have reduced funding in 1983 include new process development, land treatment of wastewater, toxic pollutant control, urban runoff, and small wastewater flows, as well as others not specified. Research efforts in 1983 will concentrate on projects addressed to current program needs. The decrease in funds for monitoring systems and quality assurance results from cooperative agreements with states in which they will carry out all monitoring procedure research that does not have national application.

Outstanding Issues

- In the research and development subprogram, a reduction of 46 percent in real terms from 1981 levels is planned for the water quality research activity. However, EPA's 1983 budget submission to OMB states that if funding for this activity were continued at real 1981 levels, the necessary minimum technical and scientific base in water quality research could be completed, but not field validated, by approximately 1990. Under current funding levels, and with overall de-emphasis on long-term research projects, completion of this information base will likely be delayed beyond that date. Without this scientific base, EPA and the states may not be able to identify water quality problems and pursue water quality control strategies according to the budget submission.

- In the abatement and control subprogram, the grants assistance programs will be reduced 37 percent in real terms from 1982, with over one-half of this decrease coming in Section 106 (general water quality activity funds) supplementary grants to states. This represents over one-third of the entire decrease in the water quality program. In addition, less money will be available under Sections 205(g) and 205(j) of the Clean Water Act, funds which assist state management efforts. Despite these reductions, increased responsibility is being given to the states in all areas. Reduced federal funding for management and implementation of state water quality programs in combination with potential budgetary stringency at the state level may affect the progress in water quality improvement efforts nationwide.

- In the abatement and control subprogram, the municipal source control activity (supplying management support to the construction grants program) will have 19 percent less funding in real terms from 1982 levels. Despite the overall reductions in resources for this activity, management efforts in the construction grants program are expected to increase in 1983, in an attempt to improve program efficiency, performance, and compliance.

AIR QUALITY

The air program is the second largest program in EPA's operating budget. Obligations reached a peak of $290 million in 1980. The current EPA 1983 budget estimate is $189 million. Almost half of the 16 percent 1983 appropriation reduction will occur in assistance to states under the abatement and control program.

BACKGROUND

Air pollution is a problem for human health, property, and aesthetics. Control of visible discharges in urban industrial areas was among the first air pollution concerns. The problem of air pollution became more prominent in the early 1960s, when "smog incidents" began occurring in California. These incidents galvanized interest in the short- and long-term health effects of air pollution.

Policy Action

Congressional Mandate. The Clean Air Act Amendments of 1970 provided for development and enforcement of two kinds of standards for ambient air quality--"primary" standards designed to protect human health and "secondary" standards to protect public welfare. These standards are the cornerstone of the air pollution program. EPA was to promulgate national ambient air quality standards for six major classes of pollutants: particulates, sulfur oxides (SO_2), hydrocarbons (HC), carbon monoxide (CO), oxides of nitrogen (NO_x), and photochemical oxidants. States were to develop state implementation plans (SIPs) for EPA's approval, setting forth how they intended to achieve the national standards. Achievement of primary standards was required by 1975; secondary standards were to be achieved within a subsequent reasonable time period.

Ambient air quality standards were, therefore, to be uniform nationally, but the emission limitations set for existing sources to attain these standards would vary by state. In contrast to this state-based control of existing sources, the 1970 act provided for uniform national emission standards for new stationary sources and hazardous pollutants. New sources were required to comply with emission standards reflecting the best system of emission reduction that (taking into account the cost of achieving such

reduction) had been adequately demonstrated. EPA was required to promulgate standards by the fall of 1971 for each category of sources of pollutants that may cause or contribute to the endangerment of public health or welfare. By spring of 1971, EPA was required to publish (and from time to time thereafter revise) a list of hazardous air pollutants. 3/ By fall 1971, EPA was required to promulgate national emission standards for hazardous air pollutants on this list that would apply to both new and existing stationary sources and would provide an ample margin of safety to protect the public health.

The August 1977 amendments to the Clean Air Act changed some practices regarding national ambient air quality standards and new source performance standards. By December 31, 1980, and at five-year intervals thereafter, EPA was required to make a thorough review of the national ambient air quality standards. The 1970 act had only required a review "from time to time." The 1977 act also required EPA to promulgate by August 1978 a new list of major stationary source categories and to promulgate NSPS for these categories by August 1982.

Significant changes were also made in the 1977 amendments in automobile emission requirements, prevention of significant deterioration in "clean" air areas, and requirements for areas that failed to meet the standards. Deadlines for the reductions in emissions required by the 1970 act were postponed for automobiles, trucks, motorcycles, and other vehicles (already postponed for one year by the Energy Supply and Environmental Coordination Act of 1974). The prevention of significant deterioration requirements divided clean air regions into three classes, with the amount of air quality deterioration permitted varying with the class. The 1977 amendments delayed the required date for attainment of primary standards to 1982, and for automobile-related pollution to 1987. New sources in non-attainment areas were required to attain a "lowest achievable emission rate" standard.

Program Achievements. EPA regulatory actions have focused on development of national ambient air quality standards, review of State Implementation Plans (SIPs), development of new source performance standards, and development of standards for hazardous air pollutants. EPA promulgated national ambient air quality standards for the six pollutants specified in the 1970 act (particulates, sulfur dioxide, hydrocarbons, carbon monoxide, oxides of nitrogen, and photochemical oxidants [or ozone]) in 1971. A seventh (lead) was added in 1978. EPA has been reviewing these

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3/ Hazardous air pollutants were defined as those for which no ambient air quality standard is applicable (the "criteria" pollutants for which primary and secondary ambient standards are developed) and which may cause, or contribute to, an increase in mortality or an increase in serious irreversible illness.

standards, as required by the 1977 amendments. A revised ozone standard was promulgated in 1979 and the hydrocarbon standard was revoked in 1981.

EPA reviewed the SIPs as submitted in the early 1970s, and subsequently has reviewed a number of proposed changes in these plans. As of early 1981, all but 11 states had submitted complete SIPs; the remaining 11 states had submitted SIPs covering most requirements. In August 1979, EPA released its list of the 64 categories or subcategories of major new stationary sources, which the 1977 amendments had required by August 1978. Since that time, approximately 12 source categories have been deleted, usually because the categories were expected to show only limited growth. NSPS have been promulgated for a number of other categories, including a major one for coal-fired steam electric generating plants in 1979. EPA has also promulgated NSPS for all of the 27 categories required by the 1970 amendments.

Seven substances (asbestos, mercury, beryllium, vinyl chloride, benzene, radionuclides, and arsenic) have been listed by EPA as hazardous air pollutants; emission standards have been promulgated for four of these (asbestos, beryllium, mercury, and vinyl chloride).

Obligations by Budget Function

Obligations for air programs by budget function are shown in Table 4 for the years 1975-1983.

Future Program Direction

EPA will continue its revision of national ambient air quality standards and its issuance of new source performance standards and standards for hazardous air pollutants. The 1977 amendments required EPA to complete its review of the ambient standards by December 31, 1980, and review these standards every five years thereafter. Of the required seven, only the review of the ozone standard and the revocation of the hydrocarbon standard have been completed. The current EPA schedule envisions promulgation of a carbon monoxide standard in 1982 and a particulate standard in 1983, and proposals for a nitrogen dioxide standard in 1982 and a sulfur dioxide standard in 1983. Review of the 1978 lead and 1979 ozone standards will also be initiated during this period.

The 1977 amendments require EPA to promulgate NSPS by August 1982 for the 64 categories listed in August 1979. EPA now believes it will not be possible to meet this deadline.

EPA is required to develop emission standards for the hazardous pollutants it has listed. Three substances (benzene, asbestos, and radio-

TABLE 4. AIR QUALITY PROGRAM OBLIGATIONS, 1975-1983 (In thousands of current dollars)

	Total	Abatement, Control, and Compliance	Enforcement	Research and Development
1975	152,221	84,899	10,870	56,452
1976	110,711	63,552	11,353	35,806
1977	165,644	98,718	15,398	51,528
1978	171,190	106,087	20,810	44,293
1979	243,362	162,999	28,359	52,004
1980	290,059	190,203	31,474	68,382
1981	235,388	146,770	29,487	59,086
1982*	228,141	138,158	29,265	60,718
1983*	188,611	117,622	20,644	50,345

* Estimate of obligations, including carry-over funds as reported by EPA.

nuclides) have been listed for which emission standards have not yet been promulgated. Four benzene standards have been proposed, with another likely soon. For arsenic, EPA is considering reliance on a voluntary agreement, since only one plant may need to be controlled. The agency is also reviewing the asbestos standard as a result of a court decision. The 1983 budget provides money (listed under the radiation program rather than the air program) for the proposal of standards for one source of radionuclides. The agency intends to promulgate an emission standard by fiscal year 1983 for both coke oven emissions and benzene.

AIR QUALITY AND THE 1983 BUDGET

The requested 1983 budget for the air program is approximately $184 million. This is a 22 percent reduction in real terms from the 1982 level of $220 million. The largest real decrease occurs in the enforcement subprogram (34 percent). The smallest decrease occurs in the abatement and control subprogram (20 percent), although reductions in this subprogram account for over one-half the total budget decrease of the air program. Moreover, 48 percent of the entire budget reduction in the air program occurs in resource assistance to the states under the abatement and control subprogram.

Full-time employment also is reduced from 1982 levels (approximately a 19 percent decrease). Like the funding changes, the anticipated major reductions in staff occur in the enforcement subprogram. These data are presented in Table 5.

Explanation of Changes

Abatement and Control. The abatement and control subprogram consists of several activities: development of regulations for mobile and stationary sources, resource assistance and air quality management implementation for states, compliance certification for mobile sources, and air quality monitoring and trends assessments. The funding (in constant 1981 dollars) for all activities falls in 1983, although mobile source control implementation and trends assessment activities will receive a nominal funding increase.

In the majority of instances, the requested lower budget reflects a reduction in regulatory development activity commensurate with the completion of several planned major standards and regulatory support activities over the past two years. For example, approximately 52 new source performance standards are being either developed, proposed, or promulgated this year, compared to less than 40 such standards in 1983 (based on data contained in EPA's 1983 budget submission to OMB). Similarly, eight hazardous emission standards are under development in 1982, compared to

TABLE 5. AIR QUALITY PROGRAM SUMMARY, 1982-1983 (Budget authority as reported by EPA)

	1982 (EPA current estimate)	1983 (EPA request)	Percent Change
		Thousands of Dollars	
Nominal Dollars, Total	219,761.9	184,053.3	-16
Constant 1981 Dollars			
Abatement and control	125,661.6	100,856.9	-20
Enforcement	26,919.3	17,807.9	-34
R&D	51,841.6	40,909.4	-21
Total	204,422.5	159,574.2	-22
		Permanent Full-Time Employees	
Abatement and Control	781	695	-11
Enforcement	496	330	-34
R&D	365	309	-15
Total	1,642	1,334	-19

only 3 in 1983. Thus, while these lowered activity levels are discretionary, they correspond to past long-term regulatory development schedules.

Efforts directed at assisting states to develop implementation plans to meet 1982 and 1987 clean air deadlines will decline after this year, when the majority of plans will be processed for approval or disapproval. In addition, 1981 and 1982 marked the completion of several guidelines issued to states for establishing emission standards for volatile organic compounds, the target of the major state plan development efforts for the 1987 deadline. Accordingly, the 1983 budget for air quality management implementation will decline 15 percent in real terms from 1982 levels.

Other budget reductions anticipate a greater shift of program responsibility to the states. However, such shifts are to be accompanied by a 26 percent reduction (in real terms) in EPA grants to state control agencies.

Enforcement. The enforcement subprogram is divided into stationary and mobile source activities. Although the 1983 budget for the overall subprogram is 34 percent lower than in 1982, the mobile source enforcement element receives a 3 percent real funding increase.

All major reductions in the enforcement program occur in activities directed at stationary sources, such as power plants and factories. The reduction in salaries and expenses reflects a shift of activities to another office (the Office of Legal and Enforcement Council) and greater state efforts. Improvements in state enforcement activities also are assumed to permit a reduction in extramural funding (the use of outside contracting). Nevertheless, although funding is significantly lower in 1983 than in 1982, EPA anticipates that compliance inspections and administrative orders issued will be commensurate with 1982 levels.

Mobile source enforcement funding increases slightly in 1983 due to an increase in extramural funding that more than offsets a reduction in salaries and expenses. Thus, while agency funding of this element increases, staffing is lowered significantly. The increase in extramural funding is designed to assist states in assuming greater program responsibility, while the reduction in EPA staff reflects a lowering of federal enforcement objectives. For example, federally supported confirmatory and surveillance recall tests will decline from 635 in 1982 to 490 in 1983, and fleet tampering and fuel-switching inspections will fall from 1,013 in 1982 to 590 in 1983. States will have to make up this difference if total program effort is to be maintained.

Research and Development. The research and development subprogram consists of research activities in four major areas: oxidants, hazardous air pollutants, mobile sources, and gases and particles. The requested budget for each of these elements is less than in 1982; for all of them together it declines by 21 percent in 1983.

The major budget changes in this subprogram reflect a shift in emphasis from long-term health effects research conducted by the agency to increased scientific assessment of existing information in support of standards development. For example, research involving the pollutant group oxidants will be lower in the areas of human and animal exposure model development, but greater in the area of assessing existing scientific data. This shift in emphasis is designed to accelerate preparation of the ozone criteria document due in 1983 or 1984, forming the basis of subsequent standards. Similarly, some budget reductions will occur in health effects research concerning mobile source air pollution; in certain cases, these reductions reflect completions of previously scheduled major programs.

Not all health effects research will experience budget reductions. Research on the health effects of gases and particles will be accelerated although the budget level for overall gas and particle research will decline (in real terms) approximately 15 percent in 1983.

Outstanding Issues

- In the abatement and control subprogram, substantial increases in efficiency are assumed in the processing and technical review of state implementation plans. The reasons underlying these efficiency gains are not clear.

- In the abatement and control subprogram, resource assistance to states in the form of state grants and direct training programs is significantly reduced (state grants under Section 105 and training programs are reduced 26 and 34 percent, respectively, in real terms). A reduction of such assistance may be contrary to the intent of shifting a greater share of program responsibility to the states, a shift that requires proper training of state technical personnel and adequate funding of state efforts.

- In the enforcement subprogram, compliance inspections and administrative orders directed at stationary sources are expected to occur at a rate similar to 1982 efforts, but with decreased funding (a 41 percent real reduction from 1982 levels). The source of efficiency gains precluding a parallel reduction in the level of these activities is not clear.

- In the enforcement subprogram, federal efforts directed at mobile source enforcement (compliance surveillance inspections and fleet tampering checks) have been sharply reduced. Increased state efforts are assumed to offset this drop in federal activity, but federal assistance to the states in this area has been reduced.

HAZARDOUS WASTE

The hazardous waste program is the third largest of the media programs in EPA's operating budget. Obligations reached a peak of $141 million in 1981, declined to $114 million in 1982, and are projected to decline to $106 million in 1983. Over 80 percent of the 1983 reduction occurs in the area of financial assistance to states.

BACKGROUND

The problem of hazardous waste has grown in recent years due to several factors. First, the nation is increasing its consumption of all materials, including hazardous materials. Second, when toxic substances are banned from use, or as awareness increases of the hazard posed by the substances in question, existing stocks may be disposed of at a more rapid rate than usual. Finally, as air and water pollution controls increase, hazardous waste residues result; this problem is aggravated by regulators often failing to take into account cross-media effects when setting standards.

Although the technology for environmentally sound treatment, storage, and disposal of hazardous waste is often available, there is no economic incentive to utilize this technology. The most common damage that results is to groundwater, followed by surface water contamination. According to EPA, approximately 43 million metric tons of hazardous wastes were generated in 1981. 4/

Policy Action

Congressional Mandate. The Resource Conservation and Recovery Act of 1976 (RCRA, Public Law 94-580) requires EPA to develop a manifest system for tracking wastes, a list of hazardous substances, and standards of performance for generation, transportation, treatment, storage, and disposal of hazardous wastes. EPA was required to promulgate by April 1978 rules describing a manifest system for "cradle to grave" tracking of hazardous waste from the time it leaves the generator to its final disposal site. RCRA also required EPA to promulgate by April 1978 criteria to define hazardous waste and a list of particular hazardous wastes. Also by April 1978, EPA was required to develop standards of performance for generators and

4/ Justification of Appropriations Estimates for Committee on Appropriations, Fiscal Year 1983, p. HW-6.

transporters of hazardous waste and for facilities that treat, store, or dispose of hazardous wastes.

RCRA permits states to assume primary responsibility for hazardous waste programs if they meet certain requirements. States that receive this authorization are then eligible for federal grant assistance for the development and implementation of the state program.

Program Accomplishments. The hazardous waste program has missed most, if not all, of the major legislation deadlines under RCRA, but significant progress has been made. The manifest system was promulgated in May 1980 under Sections 3002, 3003, and 3004 of the act, and went into effect in November 1980. The rules identifying and listing hazardous waste were also promulgated in May 1980. Standards for generators and transporters were promulgated in February 1980.

The standards for treatment, storage, and disposal of hazardous wastes are more complex, and interim final rules have been issued for storage and treatment facilities, incinerators, and new land disposal facilities. Standards for existing land disposal facilities were required by court order to be issued by February 2, 1982, and their proposal is expected shortly.

The entire schedule for issuance of major RCRA regulations is shown in Table 6. According to this schedule, EPA should complete issuance of final RCRA standards by 1983. In addition, EPA has granted authorization to a number of states to administer hazardous waste programs. Interim authorization was granted to 27 states in fiscal 1981 to administer a program similar to the Phase I rules listed in Table 6.

Obligations by Budget Function

Obligations by budget function are shown in Table 7 for hazardous waste programs, for the years 1975-1983. Obligations for "superfund" are not included.

Future Program Direction

EPA's future efforts will consist primarily of development of final rules, delegation of responsibility to the states, and issuance of permits to facilities. EPA is conducting a major regulatory analysis of the RCRA program before issuance of final rules. One possible outcome of this analysis may be to incorporate cost/benefit considerations into the RCRA rules, such as classifying wastes by degree of hazard rather than as simply hazardous or non-hazardous. Second, delegation of responsibility to the states will continue. EPA projects that by fiscal year 1983 states with Phase I interim authorization will rise to 39, and 11 states will acquire

TABLE 6. SCHEDULE FOR PROMULGATION OF MAJOR RCRA REGULATIONS

		Promulgation Date a/
PHASE I		
S 3002	Standards for Generators	February 1980
S 3003	Standards for Transporters	February 1980
S 3001	Identification and Listing of Hazardous Wastes	May 1980
S 3004	Interim Status Standards	May 1980
S 3005	Consolidated Permit Regulations	May 1980
S 3006	State Program Requirements	May 1980
PHASE II		
S 3004	Financial Responsibility Requirements	
	Interim Final	January 1981
	Final	September 1983
	Technical Standards for Storage and Treatment Facilities	
	Interim Final	January 1981
	Final	September 1983
	Technical Standards for Incinerators	
	Interim Final	January 1981
	Final	October 1983
	Technical Standards for New Land Disposal Facilities	
	Interim Final	February 1981
	Final	October 1983
	Technical Standards for Existing Land Disposal Facilities	
	Interim Final	February 1982
	Final	October 1983

a/ The promulgation date represents the date the proposed regulation is printed in the Federal Register (thus satisfying the RCRA deadline). It is followed by a minimum six-month public review and comment period.

TABLE 7. HAZARDOUS WASTE PROGRAM OBLIGATIONS, 1975-1983 (In thousands of current dollars)

	Total	Abatement, Control, and Compliance	Enforcement	Research and Development
1975	20,184	12,180	—	7,374
1976	15,405	12,594	—	2,811
1977	18,688	14,456	3	4,229
1978	35,766	27,743	618	7,405
1979	62,521	52,554	1,515	8,452
1980	109,775	90,624	6,038	13,113
1981	141,428	101,705	11,391	28,301
1982*	114,087	75,904	7,863	30,320
1983*	106,408	74,292	1,897	30,219

* Estimate of obligations, including carry-over funds as estimated by EPA.

Phase II interim authorization. Finally, EPA will be issuing permits to facilities. EPA estimates that approximately 11,000 hazardous waste storage, treatment, and disposal facility permits will be required, and 1,020 permits will be issued in fiscal year 1983. Only 1 permit was issued in fiscal year 1981, and the 1982 budget estimate of 360 has now been revised downward to 100. The issuance of facility permits, therefore, represents a major new effort.

HAZARDOUS WASTE AND THE 1983 BUDGET

The requested 1983 budget for the hazardous waste program is approximately $103 million. This is a 10 percent reduction in real terms from the 1982 level of $107 million.

The largest real decrease occurs in the enforcement subprogram (56 percent), accounting for 21 percent of the entire funding decrease for the hazardous waste program. The smallest decrease (9 percent) occurs in the abatement and control subprogram, accounting for 61 percent of the overall program budget reduction. Budget reductions in the research and development subprogram account for the remaining 18 percent of program cuts.

Full-time employment also is reduced from 1982 levels (by approximately 9 percent). Like the funding changes, the anticipated major reductions in staff occur in the enforcement subprogram (47 percent). The research and development subprogram staff, on the other hand, is increased by 27 percent. These data are presented in Table 8. To reflect the transfer of the permit issuance activity from enforcement to abatement and control in 1983, permit issuance funding and employment for 1982 appear under abatement and control. Comparisons of 1983 to 1982 levels include this adjustment.

Explanation of Changes

Abatement and Control. The abatement and control subprogram consists of three activities: waste management, regulations, guidelines, and policies; financial assistance; and waste management strategies. The first activity is directed at regulatory development. Financial assistance provides funding to states for developing and implementing hazardous waste management programs. The waste management strategies activity coordinates EPA regional responsibilities for overseeing and operating hazardous waste programs.

In 1983, regulatory development guidelines and policy activities will receive a 17 percent real funding increase. EPA indicates the higher funding will be directed at larger efforts in regulatory reform, including risk mitigation studies and regulatory impact analysis. In contrast, activities

TABLE 8. HAZARDOUS WASTE PROGRAM SUMMARY, 1982-1983
(Budget authority as reported by EPA)

	1982 (EPA Current Estimate)	1983 (EPA Request)	Percent Change
		Thousands of Dollars	
Nominal Dollars, Total	107,228.1	103,343.7	-4
Constant 1981 Dollars			
Abatement and control	68,543.5	62,309.6	-9
Enforcement	3,770.1	1,644.3	-47
R&D	27,430.0	25,645.2	-7
Total	99,743.6	89,599.0	-10
		Permanent Full-Time Employees	
Abatement and Control	421	381	-9
Enforcement	86	46	-47
R&D	103	130	+27
Total	610	557	-9

providing financial assistance to the states will experience a 21 percent real decrease (over $6 million in nominal reductions). The decrease reflects the agency's belief that states are now more capable of funding their own hazardous waste programs than in the past.

The waste management strategies activity will undergo a 31 percent budget increase ($2.6 million). Permitting of facilities and negotiation of cooperative arrangements with the states (delegating portions of the hazardous waste control program) will be the focus of 1983 activities; the funding increase in these activities is limited to extramural funds (outside salaries and expenses), allowing regions access to additional technical expertise to evaluate hazardous waste facilities.

Enforcement. The enforcement subprogram consists of two activities for which funding will be combined with or transferred to another activity. Hazardous waste permit issuance will be combined into the waste management strategies activity in 1983 and a portion of the enforcement activities will be transferred to the Office of Legal and Enforcement Counsel. Overall, approximately $6 million will be cut or transferred from the 1982 budget level for this subprogram, and enforcement staff will be reduced by 47 percent. EPA expects its regional offices to be capable of conducting 2,950 compliance inspections in 1983, approximately 250 less than those estimated for 1982.

Research and Development. The research and development subprogram consists of scientific assessment, technical information, monitoring and quality assurance, health effects research, and control technology development. The primary reductions in this subprogram will occur in the area of control technology development. Extramural funds in this area are reduced, while in-house research efforts are increased, and continuing development of some technology is left to the private sector.

The emphasis in the research and development subprogram will be on regulatory development and implementation, as well as regulatory reform efforts. To this extent, more emphasis will be placed on test methodology used to develop and implement regulations, rather than long-term health effects research. Moreover, more emphasis will be placed on in-house research, rather than on extramural funding of such efforts.

Outstanding Issues

- Enforcement for the hazardous waste program has been transferred to the Office of Legal and Enforcement Counsel, while monitoring activities will remain with the enforcement office within the hazardous waste program. The extent to which hazardous waste enforcement activities are reduced depends on the allocation of funds and manpower within the Office of Legal and Enforcement Counsel. This allocation is yet to be determined.

TOXIC SUBSTANCES

The toxic substances program is one of EPA's newest. A small program existed in the mid-1970s, but obligations have grown dramatically due to enactment of the Toxic Substances Control Act (TSCA) in October 1976. The program ranked fourth among EPA's regulatory programs in terms of 1981 obligations at a level of $94 million. However, the number of regulations issued to date has been limited because of the delays involved in implementing a novel regulatory program. The 1983 budget for toxic substances includes a 17 percent real decrease in total activity, half of which occurs in the area of research and development.

BACKGROUND

TSCA was passed in response to the proliferation of chemical compounds with unknown health and environmental effects. There are over 4 million known chemical compounds, and an estimated 55,000 are in commercial production, with 50 produced in quantities greater than 1.3 billion pounds per year for total industry sales of nearly $150 billion. 5/ The environmental and health effects of most of these substances have not been adequately studied. The toxicity and persistence in the environment of chemicals have often been discovered after their widespread use and after they have become important to industrial, commercial, or agricultural processes. Over two dozen major federal laws exercise control over toxic substances in various forms and places, from pesticides to foods, from the work place to the nation's air and water, 6/ but there are a number of important gaps of authority in these laws. Perhaps most notably, no authority exists for premarket screening of chemicals unless they are pesticides, drugs, or food additives.

5/ Environmental Quality: The Ninth Annual Report of the Council on Environmental Quality (December 1978), p. 178; Administration of the Toxic Substances Control Act (1980), OPA 100/0 (April 1981), p. 1.

6/ Environmental Quality: The Tenth Annual Report of the Council on Environmental Quality (December 1979), p. 174.

Policy Action

Congressional Mandate. The enactment of the Toxic Substances Control Act in October 1976 was the end result of nearly six years of executive and Congressional deliberation. There are four major sections in the act--Sections 4, 5, 6, and 8. Section 4 authorizes EPA to promulgate testing requirements for particular chemicals, with testing to be conducted by the manufacturers or processors of the chemicals. Under Section 5, manufacturers of new chemicals, and manufacturers and processors of chemicals for significant new uses, are required to give EPA at least 90 days' notice before beginning manufacture. Section 6 allows EPA to regulate the manufacture, processing, and distribution in commerce of chemicals that present unreasonable risk to human health or the environment as determined by EPA. Section 8 permits EPA to require industry to maintain and report information concerning uses, production levels, number of workers exposed, and health and environmental effects of chemicals.

Program Achievements. The major accomplishments to date have been the publication of the Section 8(b) inventory of existing chemicals, the establishment and operation of the Section 5 premanufacture notification system, and the regulation of polychlorinated biphenyls (PCBs) and chloroflurocarbons (CFCs) under Section 6. The Section 8(b) inventory was published June 1, 1979. The Section 5 system began July 1979. Final rules were issued under Section 6 in February 1978 for marking and disposal of PCBs, in March 1978 for prohibition of use of certain CFCs for all nonessential aerosol applications, in April 1979 for prohibition of manufacture, processing, distribution, and non-totally-enclosed uses of PCBs, and in March and May 1980 for control of wastes contaminated with dioxin.

Several chemical control rules have also been proposed. In May 1980, EPA, in conjunction with other agencies, banned the use of PCB-containing equipment from food and feed-processing plants and storage facilities; federally inspected meat, poultry, and egg product establishments; and agricultural chemical facilities where pesticides and fertilizer are manufactured or stored. In September 1980, EPA proposed a rule requiring all primary and secondary schools to identify friable (crumbling) asbestos.

The toxics program has also experienced several delays. Although the TSCA deadline for publication of the inventory of existing chemicals was set for October 1978, EPA decided that rather than publish a simple list of existing chemical substances, the inventory should be the cornerstone of a chemical information system for regulation of existing chemicals. This delayed publication until June 1, 1979. Another significant delay has occurred in the Section 4 testing program, which has not issued any final rules requiring testing of particular chemicals.

Obligations by Budget Function

Obligations by budget function are shown in Table 9 for toxic substances program elements, for the years 1975-1983. Of the regulatory programs discussed in this report (air, water quality, hazardous waste, and toxics), toxics spent in 1980-1981 the highest percentage among the four programs on research and development, and the lowest on enforcement.

Future Program Direction

Activities are underway in all four of TSCA's main regulatory sections. In the Section 4 testing program, EPA has proposed test rules for a number of chemicals and issued advance notice of proposed rulemaking initiating test rule development for others. EPA will be developing final rules for some of these chemicals, and making decisions not to require testing for others. In January 1981, a court issued an order requiring EPA to respond to the backlog of testing recommendations issued by the Interagency Testing Committee (ITC). Eleven individual chemicals or categories of chemicals were required to be considered for rulemaking in 1981, with another 13 required for each of 1982 and 1983. In addition to this backlog, EPA must respond to new recommendations by the ITC that are issued every six months. EPA must respond to these recommendations within one year.

In Section 5, the premanufacturing notification system is expected to process between 600 and 1,000 chemicals per year.

Under Section 6, EPA is required by a court order to complete work by October 1982 on two parts of the PCB ban rules that were remanded to the agency for further proceedings in October 1980. 7/ There is also renewed interest in promulgation of the asbestos-in-schools regulation. Under Section 8, several reporting rules are in various states of completion--general assessment of approximately 250 chemicals, asbestos reporting, reporting of existing health and safety studies, and the generic small business reporting exemption.

A number of possible changes may occur in the program that could significantly affect the workload. Under Section 4, EPA hopes to negotiate voluntary test agreements for testing of chemicals rather than promulgating test rules. This has the potential for workload reduction, since development of test rules has been extremely expensive to date. Under Section 5, EPA is currently reviewing the amount of information that should be required from industry. EPA is also reviewing, in conjunction with the Presidential Task Force on Regulatory Relief, the extent to which certain chemicals would be exempted from the process. Some proposals would exempt up to 90 percent

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7/ EPA had exempted from the ban regulations certain commercial uses that are "totally enclosed" and had limited the applicability of the regulations to materials containing PCBs in concentrations greater than 50 parts per million.

TABLE 9. TOXIC SUBSTANCES PROGRAM OBLIGATIONS, 1975-1983 (In thousands of current dollars)

	Total	Abatement, Control, and Compliance	Enforcement	Research and Development
1975	4,888	3,834	—	1,054
1976	5,491	4,732	—	759
1977	8,700	7,058	243	1,399
1978	21,693	11,582	1,250	8,861
1979	61,531	41,450	3,259	16,822
1980	90,237	55,897	3,434	30,906
1981	94,104	58,773	5,019	30,298
1982*	86,712	47,019	4,757	34,936
1983*	73,155	41,511	2,653	28,991

* Estimate of obligations, including carry-over funds as reported by EPA.

of the new chemicals currently subject to the process. Under Section 6, although assessment activities are underway, it is unclear whether any additional regulatory activities will be forthcoming in the near term, and thus a workload reduction in the rule development area may occur.

TOXIC SUBSTANCES AND THE 1983 BUDGET

The requested 1983 budget for EPA's toxic substances program is approximately $68.6 million. This represents a 17 percent reduction in real terms from the 1982 level of $77.4 million. The largest real decrease occurs in the enforcement subprogram (45 percent), although reductions in this subprogram account for only 15 percent of the total toxic substances program decrease. On the other hand, nearly one-half of the total program reduction is due to a 20 percent cut in the research and development subprogram budget.

Full-time employment in the toxic substances program is reduced by 11 percent from 1982 levels. The greatest reduction (28 percent) occurs in the enforcement subprogram, while a 9 percent decrease in abatement and control accounts for one-half of the total staff reductions at the program level. These data are summarized in Table 10.

Explanation of Changes

Abatement and Control. The abatement and control subprogram is comprised of several activities: testing and evaluation, chemical control, Toxic Substances Control Act (TSCA) information, and toxics integration. The overall funding for these activities decreases in 1983, although some activities will receive slight increases in their budgets.

In the majority of circumstances, budget reductions in chemical testing, evaluation, and control reflect a shift in emphasis from the regulatory approach for controlling chemicals toward more voluntary efforts, and the completion of some program objectives such as chemical guidelines encouraged for industry. Investigating new chemicals will be the highest priority for the EPA toxics program in 1983, while greater responsibility for testing those chemicals already in use will be encouraged for industry. Estimated activity in the new chemicals program includes 40 risk assessments for potential orders in 1983 as opposed to only 25 in 1982, and 1,000 premanufacture notifications processed as compared to 800 in 1982. While these activities will be increased, existing chemical program activities will be reduced. Risk assessments for existing chemicals will drop from three in 1982 to one in 1983, while regulatory analyses will fall from seven to two.

TABLE 10. TOXIC SUBSTANCES PROGRAM SUMMARY, 1982-1983
(Budget authority as reported by EPA)

	1982 (EPA current estimate)	1983 (EPA request)	Percent Change
		Thousands of Dollars	
Nominal Dollars, Total	77,377.8	68,604.0	-11
Constant 1981 Dollars			
Abatement and control	38,803.2	34,092.4	-12
Enforcement	4,173.8	2,282.7	-45
R&D	28,999.8	23,104.5	-20
Total	71,976.8	59,479.7	-17
		Permanent Full-Time Employees	
Abatement and Control	429	390	-9
Enforcement	89	64	-28
R&D	169	154	-9
Total	687	608	-11

Changes in the proposed distribution of funds also reflect a shift in emphasis in the chemical testing and control activities. Reduced salaries and expenses for testing and chemical control indicate a lower level of agency activity, to be offset by an assumed greater cooperation by industry in the testing program. By utilizing voluntary agreements, the agency anticipates that it will be able to initiate testing of chemicals with fewer agency resources than would be required to promulgate testing rules.

The TSCA information activities include all the information collection and management activities needed to implement the Toxic Substances Control Act. Efforts at recordkeeping show a shift in emphasis from chemicals in use to new ones. In addition, although the overall budget will decline in the TSCA information activities, premanufacture review efforts are expected to increase. Assumed efficiency gains, including an anticipated greater number of exemptions from the review process, are cited as supporting this increased activity level in the face of reduced funding.

The toxic integration activities are designed to coordinate chemical control programs and information within the United States and the other OECD countries. Extramural increases will provide for an expansion of the Chemical Substances Information Network data base to achieve international coordination of toxics activities. Public participation grants have been terminated for 1983, but assistance to states will concentrate on providing technical knowledge and data information to those establishing toxics management programs. Overall, the 1983 budget for this element does not change in real terms from 1982 levels.

Enforcement. The 1983 budget for the toxic substances enforcement subprogram is greatly reduced in all areas. Most of the legal activities are to be transferred to the Office of Legal Enforcement and Counsel. Nevertheless, federal inspections are expected to decline from 2,018 in 1982 to 1,480 in 1983. The toxics compliance activities cutbacks are due to anticipated greater responsibility by the regions in implementing chemical control strategies. The toxic substances enforcement grant activities, which provided $500,000 in 1982, are eliminated from the 1983 budget. States can no longer receive financial assistance to develop their own chemical control demonstration programs, but information generated by the federal program will be available to those states that desire it.

Research and Development. The toxic substances research and development subprogram consists of eight research activities concerning health effects, environmental processes, and scientific assessments. Both funding and employment for the overall subprogram will decline in 1983, although salaries and expenses will increase due to a rise in laboratory costs.

The major budget changes in the research and development subprogram reflect a shift in emphasis from long-term health research to improving the usefulness of present data and testing methodologies. The

1983 budget reductions occur primarily in developing new testing techniques, and reflect the completion of efforts needed to implement current test guidelines. Moderate reductions also will occur in developing predictive techniques and in support for the National Center for Toxicological Research, which conducts long-range research. Overall reductions in research objectives and fundings, however, will lead to greater dependency of the EPA on in-house research capabilities concerning toxic substances. The EPA will focus these efforts on asbestos and new chemicals. Management efficiency gains are assumed in all areas.

Outstanding Issues

- In the enforcement subprogram, the budget will be reduced by 45 percent in real terms, and the staff by 28 percent. The number of federal inspections will decline from 2,018 in 1982 to 1,480 in 1983, a decrease of 27 percent. The reason behind this reduced federal effort is not clear, particularly since states have little responsibility in the area of enforcement.

- In the abatement and control subprogram, the EPA is encouraging voluntary testing of toxic substances by industries. Such cooperative agreements are being encouraged to save agency money without affecting the goals of the testing program. The expected output from this program shift is unknown, however, and it is not known if agency funds will be sufficient to conduct such evaluations in the absence of large-scale industry cooperation. Furthermore, negotiation of such cooperative agreements can involve significant staff resources.