

The RCRA Subtitle D Program in U.S. EPA Region III

A History and Prognosis

EPA Contract No. 68-01-6003

August 1981

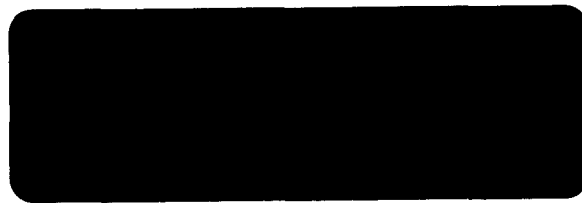
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Regional Center for Environmental
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1.0 INTRODUCTION AND EXECUTIVE SUMMARY

The Federal role in the Subtitle D program mandated by the Federal Resource Conservation and Recovery Act of 1976 (RCRA) will be largely discontinued in FY82 through the elimination of Federal funding for State programs and severe cutbacks in EPA resources for solid waste. In the past five years, state and Federal solid waste management activities initiated by Subtitle D of RCRA have resulted in significant improvements in the level of solid waste management in most of the Region III states. Through the provision of Subtitle D grant money, grant oversight, solid waste management plan review and comment, program guidance and technical assistance, EPA has played an important part in the development of comprehensive state solid waste management programs for Pennsylvania, Maryland, Delaware, West Virginia, Virginia, and the District of Columbia. However, the future of these state programs is in doubt. The premature removal of Federal support for state programs has left the states in Region III at various levels of program development and self-sufficiency. While some state programs have sufficient state support to carry out RCRA activities to completion and to implement measures developed in their state plan, other state programs in the Region will not have sufficient resources to complete adequate state plans, much less implement those plans. The purpose of this paper is to discuss the development and current status of the state programs in the Region, and to project the effect of the end of the solid waste grant program on state programs.

1.1 THE FEDERAL SUBTITLE D PROGRAM

The Federal Subtitle D program authorized by RCRA focuses on two programs for improving solid waste management practices at the local level:

- the State Planning Program, and
- the Open Dump Inventory.

Subtitle D provides for grants in support of states which choose to develop state plans in accordance with guidelines developed by EPA. Through this planning program, Congress intended to insure that the states developed solid waste programs, which would protect human health and the environment in the future, under Federal guidance. This guidance would be provided through technical assistance, financial assistance, project oversight, interstate coordination, and information dissemination.

The Open Dump Inventory was initiated to address existing disposal facilities which threatened human health and the environment. The program requires the states to inventory solid waste facilities in their state, and either close or develop compliance schedules to upgrade those facilities classified as open dumps.

To carry out this program and guide the activities of the states, EPA Headquarters developed guidelines for the preparation of State Solid Waste Management Plans and the Criteria for the Classification of Solid Waste Disposal Facilities. These regulations, developed in accordance with the requirements of RCRA, outline the minimum standards acceptable for State Plans to satisfy RCRA, and the standards to be used in evaluating facilities for the Open Dump Inventory.

The Federal program provided for grants to the states for preparation of State Plans and performance of the Open Dump Inventory. These grants were administered through the Regional offices. Additionally, RCRA provided for technical assistance in solid waste management and resource recovery to state and local governments through the Technical Assistance Panels program. This program provided assistance, through the Regional offices, to eligible governments by providing the use of EPA personnel, expert consultants, and peer matches in resolving problems in solid waste management.

1.2 THE REGION III SUBTITLE D PROGRAM

The Subtitle D program administered by EPA Region III involves the interaction of regional, state, and contractor personnel in a dynamic planning process.

The Subtitle D program is currently administered by the Hazardous Materials Section, Hazardous Materials, Toxics and Pesticides Branch, Air and Hazardous Materials Division, in Region III. A RCRA State Coordinator has been designated for each state in the Region, whose responsibilities include working with the states in the development of their Subtitle D programs, reviewing State Plans, and serving as the liaison between the states and the Region III office. Further, the Section is divided into two teams, each with specific responsibilities in RCRA program oversight.

There are four major elements which are included in the range of services provided by Region III:

- Subtitle D Grants program,
- Technical Assistance Panels program,
- State Plan and Open Dump Inventory (ODI) oversight, and
- Coordination and Information Dissemination.

Each of these services is discussed in more detail below.

The solid waste state grants program in the Region was initiated through the provision of funds, as mandated by the Solid Waste Disposal Act of 1965, and other general solid waste technical assistance and guidance. Following the passage of RCRA in 1976, the program increased in structure and scope. As mandated by RCRA, each state was allocated a "not to exceed" grant based upon a formula which considered population, waste generation, and state acreage. These funds were provided to the Regions to be passed through to the states. Through fiscal year guidance documents provided to the Regions and to the states, the states determined which of a series of activities they wished to undertake in exchange for all or part of the grant money. In addition, each state is required to address two key Subtitle D activities: (1) the development of a comprehensive solid waste management plan consistent with Federal guidelines, and (2) the conduct of the Open Dump Inventory (ODI) for the purpose of identifying and correcting indiscriminate waste disposal practices. In Region III, each state has always requested the maximum amount of its available Subtitle D grant.

In support of these Subtitle D program efforts, RCRA also created the Technical Assistance Panels program. These panels are composed of experts in waste management, including peer matches and consultants, whose services the Region has provided to numerous state and local governments in the 2½ year history of the program. Access to this program has been provided to local governments with a variety of waste management problems, but has been most significant with respect to State Solid Waste Management Plan development in the Commonwealth of Pennsylvania and the State of West Virginia, where state resources and/or expertise have not been sufficient to properly address all planning issues in a timely manner.

State planning and ODI activities have proceeded at varied paces over the past several years, with Region III providing guidance, review, and comment on state efforts to fulfill the conditions of their grants. Figure 1 shows the current status of State Plan activities in each of the Region III states. Originally, State Plans were to have been submitted by January 31, 1981, but due to conflicting demands placed on State Directors reflecting a shifting of program emphasis to Subtitle C activities, deadlines for all the states have been delayed, as indicated. Even though Subtitle D funding is expected to be eliminated, Region III still anticipates that all of the states in the Region will receive plan approval during FY82, although due to funding reductions plans are not expected to be as comprehensive in scope as previously planned. The Region III states completed their scheduled Open Dump Inventory evaluations for FY80; those classified as open dumps were included on the list published in the Federal Register during May, 1981. Second year (FY81) listings will be optional, at the discretion of the individual states.

Other Subtitle D support functions the Region has provided include the coordination of the various state Subtitle D programs, pass-through of relevant information from EPA Headquarters to the states, and sharing useful information and techniques developed in one state with the others in the region. One of the most useful exercises has been the quarterly meeting of State Solid Waste Directors held in Philadelphia. This meeting has served as a forum for information exchange, constructive program criticism, and problem resolution.

1.3 SUMMARY OF FINDINGS AND CONCLUSIONS

The states in Region III vary greatly in size, population, economic strength, and resources available for state programs. State solid waste programs have historically reflected this diversity in Region III, covering a range of program development stages at the time of the enactment of RCRA. Although none of the states in the Region had a state program of sufficient sophistication prior to 1976 to meet Congress' goals under RCRA, several states had relatively advanced programs requiring few alterations. Others in the Region have had further to go to meet RCRA objectives.

State	Optional Draft Received	Region's Comments Forwarded	Public Hearing Held by State	State Adopts Plans	Final EPA Comments Received	State Incorporates Final Review Comments	EPA Makes Approval/Non- approval Decision
West Virginia	6 June 81	12 August 81	8,9 July 81	October 81	September 81	December 81	February 82
Virginia	30 September 81	11 November 81	No Schedule	March 82	April 82	May 82	June 82
Maryland	None	N/A	No Schedule	October 81	January 82	February 82	April 82
District of Columbia	31 August 81	14 October 81	No Schedule	30 November 81	September 81	January 82	February 82
Pennsylvania	31 January 81	13 May 81	December 80	17 August 81	October 81	November 81	December 81
Delaware	31 January 81	5 May 81	April 81	September 81	October 81	November 81	December 81

Figure 1: SUBTITLE D STATE PLAN STATUS AS OF SEPTEMBER 1, 1981

The states in Region III have responded to Federal guidance and financial support for solid waste management activities. Planning, enforcement, and regulation development activities have all improved in the states, although most of the states have not been as responsive to RCRA initiatives as Congress had envisioned in setting a schedule for RCRA implementation. In evaluating state performance in meeting RCRA objectives, it is important to note that state solid waste agencies must be responsive to the political environment in which they exist and, therefore, must take local conditions into account when trying to implement a Federal program initiative. Given the constraints of limited state resources, enabling legislation, and the level of program development prior to RCRA, most states in Region III have made significant progress in improving the overall level of solid waste management practices in their respective states.

Termination of Federal support for state solid waste programs will seriously affect the states in Region III. At least one state in the Region relied on the grant program for 50 percent of the entire state solid waste program budget. Unless state governments are able to make up the lost funds, most state programs in Region III are unlikely to meet the Congressional aims put forth in RCRA. For several of the more heavily dependent states, termination of these funds will probably mean that much of the progress made to date will be lost, as state plan objectives are unable to be met and enforcement activities decline due to budgetary measures.

1.4 ORGANIZATION OF THIS PAPER

This paper will examine in greater detail the Subtitle D program in each of the Region III states, and where and how this program can be expected to change or continue in FY82 and beyond. Specifically, these issues will be addressed in the following sections:

- Section 2: History, Current Status, and Projections of Subtitle D Implementation in Region III States
- Section 3: Conclusions

2.0 HISTORY, CURRENT STATUS, AND PROJECTIONS OF SUBTITLE D IMPLEMENTATION IN THE STATES

This section traces the evolution of state solid waste management and Subtitle D programs in Region III. For each state, several phases of the development of Subtitle D programs are described, including:

- the pre-RCRA period of solid waste management
- the 1976 to present state Subtitle D program development period
- the projected continuation of the Subtitle D program under conditions of restricted financial resources.

In these discussions, the successes and failures of the states in meeting the goals of RCRA to date, and the probable future success or failure of the state programs in carrying out their remaining RCRA Subtitle D activities to completion, are described.

2.1 DELAWARE

2.1.1 Delaware's Pre-RCRA Solid Waste Program

Until the early 1970's, solid waste disposal in Delaware was regulated solely under provisions of the State Sanitary Code. The Bureau of Environmental Health carried out the regulatory provisions of the Code, which included regulating activities at landfills along with other public health measures. Regulatory efforts generally focused on control of open burning and disease vectors at dump sites, and paid no attention to disposal operation effects on groundwater and surface waters.

Events at the Llangollen landfill altered this regulatory stance in 1973. This landfill, which served New Castle County from 1960 to 1968, was found to be contaminating the underlying Potomac aquifer. The water supply for much of New Castle County was taken from this aquifer, and one of the major pumping fields was located near to, and down gradient from, the Llangollen landfill. The contamination problem focused a great deal of public interest on solid waste disposal, and the Delaware General Assembly responded by including a solid waste facility regulatory and permit program in the Delaware Environmental Protection Act of 1973. This statute gave the Department of Natural Resources and Environmental Control (DNREC) responsibility for solid waste management and authorized the development and

implementation of regulations governing construction, operation, and monitoring of landfills. DNREC adopted its Solid Waste Disposal Regulation in 1974. The regulation established engineering and hydrological standards for landfills, basically requiring a liner and cap to reduce infiltration and contain leachate. Existing facilities were given two years to comply with the regulation.

In 1975, the State took a major step towards consolidated waste management when the formation of the Delaware Solid Waste Authority was authorized by the adoption of Chapter 64 of the Delaware Code. The Authority was mandated to develop and operate regional solid waste disposal and resource recovery facilities for municipal wastes; was authorized to direct all collected residential solid wastes to facilities designated by the Authority; and was granted other powers necessary to establish a centralized waste system, including the licensing and regulation of waste haulers.

2.1.2 1976-1981 Subtitle D Program Development

DNREC was actively permitting solid waste facilities under its 1974 solid waste regulation in 1976. Although most facilities in the State operated under permitted status, several in the southern counties never attained permitted status, primarily due to age and low remaining capacity. These county-run facilities were supervised by DNREC, through facility monitoring and written orders, to minimize environmental damage through the end of their life.

In addition to these county landfills which handled municipal solid waste, certain other landfills were allowed to operate without permits. These landfills were exempted from permit requirements under a regulatory provision for "inert approvals." Generally, they handled only demolition wastes, fly ash, and water treatment sludges. These wastes were considered inert by DNREC because leachate generated from them exhibited contaminant levels considered by DNREC to be "low," generally ten times the drinkingwater standards. These inert approvals are a serious deficiency in the program, given current information on the hazards of open dumping water treatment sludges and fly ash, which generally have high heavy metal concentrations.

By 1977 all Department permits for solid waste disposal facilities required their operators to install groundwater monitoring systems and report the results of groundwater sample analysis to the Department, with the intent of determining the impact of landfills on groundwater. DNREC also has conducted its own groundwater tests of these landfills to determine compliance with the Delaware Solid Waste Disposal Regulation. By 1978 the Department began requiring implementation of the engineering standards contained in the Solid Waste Disposal Regulation. These standards, including the use of liners, gas venting systems, leachate collection and treatment systems, and daily and final cover, were established to prevent the migration of landfill leachate into the groundwater, and to minimize other environmental impacts.

DNREC addressed planning for the preparation of its State Subtitle D Plan and carrying out the Open Dump Inventory for the first time in its 1978 RCRA grant application. In 1979, the State started State Plan development and preparations for actually carrying out the Open Dump Inventory. In January, 1980, the Department hired a person to carry out inspections for the Open Dump Inventory. As a result of Open Dump Inventory activities in 1980, the Department classified Sussex County Landfill #3 at Angola and the Pigeon Point Landfill in New Castle County as open dumps. Recently, however, the Department had requested that these classifications be postponed since DNREC did not believe it had sufficient statutory authority to make these classifications on behalf of the Environmental Protection Agency. Region III's Regional Counsel disagreed with this evaluation of the Delaware Statutes, and determined that they do provide sufficient statutory authority to make these classifications. On the basis of that opinion, DNREC did formally classify the Angola landfill as an open dump for inclusion in the list of open dumps. The Pigeon Point landfill was upgraded and has been delisted.

DNREC completed its draft State Plan for submission to EPA Region III and submitted it on January 29, 1981. The plan addressed solid and hazardous waste, the permitting program and Open Dump Inventory, and solid waste facility planning and resource recovery.

An additional RCRA activity in Delaware during this period was the study and implementation of remedial actions for groundwater contamination at the Llangollen landfill. This activity, partially funded by EPA

Headquarters under Subtitle H of RCRA, resulted in the development of a leachate interceptor system of groundwater withdrawal wells, located between the landfill and the nearby water supply pumping field. The dilute leachate collected is currently discharged, untreated, into a nearby creek.

The Solid Waste Authority actively initiated planning and project development to meet its mandate during this period. Under Authority licensing regulations, adopted in 1979, haulers have been licensed in all three counties. The authority has most vigorously pursued providing for long-term disposal of wastes from New Castle County, where the overwhelming majority of the State's waste is generated. The Authority prepared extensive feasibility studies on the development of a resource recovery facility for New Castle County, and in 1979 broke ground on the construction of such a facility at Pigeon Point. In Kent County, the next most populous, the Authority has purchased and contracted out operation of a Central Solid Waste Facility at Sandtown. The facility is the first land disposal facility in the State designed and constructed to meet DNREC regulations.

2.1.3 Current Status of the State Program and Projections for Future Completion of Subtitle D Activities

The Department plans to inventory six additional facilities by the end of FY81. DNREC currently believes itself to have limited statutory authority in classifying and developing compliance schedules for open dumps, and is currently active in seeking amendments to the Delaware Environmental Protection Act which would give DNREC the powers necessary to assume full responsibility for all RCRA activities at the State level. It is hoped that these amendments will be passed during the 1981 General Assembly, which would allow DNREC to develop its upgraded solid waste regulations in 1981. DNREC intends to adopt EPA's 4004 criteria. The Department is considering other regulatory changes to be made between 1981 and 1983, concerning detailed specifications for engineering standards, revised definitions of inert, industrial, and solid wastes, and detailed standards for landspreading of municipal waste water treatment sludges.

Delaware has submitted its State Plan for EPA comment and, based upon the relatively minor nature of required revisions, expects to submit their adopted State Plan for EPA approval by the end of FY81. DNREC has a limited solid waste staff, which has particularly been evidenced in the development of the State Plan, a document severely limited in scope when compared with EPA guidelines. However, without further Federal support, personnel will not be available at the State level to improve upon the content of the plan. The DNREC staff has attempted, to the extent possible considering its limited resources, to develop a document consistent with EPA goals.

Delaware has relied heavily on EPA funding to develop its State Plan and initiate its inventory of open dumps. Personnel have been hired to carry out these activities under the State's Subtitle D grant. DNREC is unsure of its ability to meet even the limited objectives developed in the plan without Federal assistance. Solid waste activities without Federal funding will be cut back to DNREC's permitting role. Development of new regulations consistent with EPA's criteria, and classification of open dumps, will probably be halted. This represents a real loss since DNREC has scheduled approximately half of its landfill evaluations, and part or all of 55 surface impoundment evaluations, for FY83 and '84. Due to its limited resources, DNREC has completed only two evaluations to date.

Additionally, DNREC studies for developing sludge application guidelines are jeopardized. DNREC considers the development of these guidelines a high priority, given current sludge disposal problems in the State.

2.2 DISTRICT OF COLUMBIA

2.2.1 District of Columbia's Pre-RCRA Solid Waste Program

The District of Columbia has historically looked upon solid waste management from the perspective of a municipal government. As such, the District's primary concern has been to carry out the service delivery function, providing collection and disposal services for residents. Secondly, the District has carried out local regulatory functions, such as licensing and inspecting private haulers. Landfills in the District have generally been operated by the District government; for this reason, the exercise of state regulatory powers, such as the development of regulations

for landfills to protect public health and the environment, have generally been of minor concern. As owner and operator of all of the substantial landfills in the District, the District government has maintained and operated its landfills in a manner it believed to be consistent with the protection of public health. The development of specific regulations would have left the District in the awkward position of regulating its own facilities.

As a provider of services, the District has planned solid waste activities since the 1950's. Such planning has generally been involved with the specifics of operating a municipal collection and disposal system, such as delineating equipment and landfill requirements, determining collection routes, and evaluating resource recovery potential. These plans have not been of the comprehensive nature required by RCRA.

The District has historically disposed of its wastes through incineration and landfilling. Generally, incinerators have been located within the District, while landfills have been located in adjacent political jurisdictions, and were, therefore, subject to regulations of other states. Solid waste regulations of the District have restricted open burning and required permits for landfill operation since the 1960's.

The District government provides collection service for all three or less unit residential buildings. Larger residential buildings and commercial establishments are required to have refuse removed, generally through contract services provided by private haulers. Federal installations generally have had refuse removed for disposal, although dumps for brush and other land clearing debris have occasionally been operated at Federal facilities in the past.

2.2.2 1976 - 1981 Subtitle D Program Development

From 1976 to 1977, the District's Department of Environmental Services developed a comprehensive description and evaluation of its solid waste functions, providing the first overall picture of its service network. This evaluation was prepared as a means towards planning future methods for providing collection and disposal services. However, it did not meet the needs of RCRA in outlining regulatory policy.

The Department of Environmental Services solid waste section's role as provider of services has resulted in the development of a large staff. However, most of this staff is involved in the physical aspects of waste management - collection, landfill operation, and street cleaning. These operations require a significant expenditure of Washington's resources. Staff and funding has not been available to carry out regulatory and planning functions of the comprehensive nature envisioned in RCRA.

Funding through the RCRA grant program has allowed the District to initiate the development of planning and regulatory capabilities required under RCRA. The Department of Environmental Services utilized its grant to establish its hazardous waste and solid waste planning program, using money to fund a staff (one person) responsible for both activities. Staff activity has focussed on enacting the District's hazardous waste program as EPA developed Federal guidelines, and secondarily, has carried out Subtitle D activities as necessary. The District completed its Open Dump Inventory, in which the three existing sites in the District were evaluated according to the Federal criteria. The District does not have landfill regulations equivalent to the Federal criteria in place at this time. This may be a moot point since the District currently prohibits the development of any landfills within the District. However, it is possible that this policy could be reversed, and for this reason development of equivalent regulations may be desirable. The District planned to enact the Federal criteria by adoption, but it is not clear at this point that such adoption is allowable. The District has preferred to focus its limited RCRA implementation resources on more pressing matters, particularly hazardous waste problems.

The Department of Environmental Services has initiated the preparation of a Subtitle D plan but has not completed any sections of the plan to date. Unresolved issues regarding hazardous waste and sludge, and lack of resources, have delayed plan development. A major problem facing the District to be addressed in the Plan is the short- and long-term disposal of sludge from the Blue Plains Wastewater Treatment Plant. The regional nature of this plant, which treats wastewater from the District, Maryland, and Virginia, has made the sludge disposal issue a controversial part of regional politics, a condition exacerbated by the lack of sludge disposal capacity within the

District itself. Sludge is currently disposed of on a shared basis in surrounding political jurisdictions, most of which do not have suitable disposal facilities for the large volume of sludge generated. The Department of Environmental Services is investigating, under an Urban Policy Grant and a Clean Water Act 201 Grant, the feasibility of establishing a large scale sludge/municipal solid waste co-disposal facility within the District. The development of this grant has required a great deal of time due to the need to meet the application requirements of both the Urban Policy and Construction Grants programs.

The Department of Environmental Services believes that the completed Subtitle D Plan would be more meaningful if the resolution of the sludge issue, at least for the short-term, can be included. Therefore, they have focussed their resources in the interim on completing the Subtitle C portion of the plan, developing a hazardous waste program capable of receiving interim authorization. The Department's entire staff for preparing Subtitle C and D plans and regulations consists of one person, funded under the District's RCRA grant, whose time has been devoted to Subtitle C issues pending resolution of the sludge question.

2.2.3 Current Status of the State Program and Projections for Future Completion of Subtitle D Activities

The District has completed its Open Dump Inventory, has permitting authority, and does not have legal obstacles to the District government entering into long-term contracts. In these areas, the District's Subtitle D program satisfied Federal objectives.

The District does not have a solid waste management plan, nor have drafts of the plan been prepared. Work on the plan has been fragmentary to date. Current work on the plan has been suspended, pending resolution of the sludge management issue, and staff time has been directed towards completion of the District's interim authorization package under Subtitle C. If the sludge issue is not resolved prior to the deadline for solid waste plan submission, the Plan will probably give the alternatives for sludge disposal under consideration at that time. The District does intend to present a State Plan, but will probably not have sufficient resources after FY81 to accomplish this task, in a manner consistent with EPA guidance.

The District had originally planned to complete all Subtitle D activities by FY82 and to terminate its Subtitle D program at that time. The District did not foresee the development of objectives in its State Plan which would require ongoing efforts outside its normal collection and disposal services. This, coupled with the reliance of the District on Federal funding for carrying out Subtitle D activities, makes it unlikely that any activities left undone when Federal funding is terminated will be satisfactorily completed. This includes development of the State Plan and of regulations equivalent to RCRA.

Regulatory programs in the District are of uncertain status at this time. The District government is contemplating the establishment of a Department of Regulatory Affairs, under which all regulatory programs, including RCRA Subtitle C and D, would be consolidated, removing C and D responsibilities from the Department of Environmental Services. In such an event, the future of the Subtitle D program after FY81 will be even more uncertain. If this event does not transpire, District personnel assigned to hazardous waste work would probably be available on a very limited basis to handle some Subtitle D problems. However, completion of the State Plan or of the solid waste regulation would probably be outside of the limited scope of such involvement. Solid waste programs in Washington after the end of FY81 will continue along the lines of a municipal or city approach to solid waste management, operating or overseeing collection and disposal systems, regardless of the status of the Subtitle D program in regards to overall completion of goals.

2.3 MARYLAND

2.3.1 Maryland's Pre-RCRA State Solid Waste Program

Maryland's first real involvement in solid waste management commenced in 1914 with the enactment of legislation which established a permitting system for disposal facilities. In 1916, the State Department of Health issued the first landfill permits under this landmark legislation. These permits, although advanced for their time, were extremely permissive by today's standards and allowed virtually uncontrolled pollution of air (open burning), groundwater, and surface water, by open dumping operations.

As awareness of the importance of solid waste disposal as an environmental and public health problem increased, the state program expanded to provide more regulatory control. In 1966, the Department of Health created a separate Division of Solid Waste. At that time, the Division's first priority was to replace the State's 127 open, burning dumps with sanitary landfills. Landfills were inspected and required to cease open burning and comply with additional requirements if they were to continue operation. Although still not at a level consistent with today's standards, these regulations provided some control over the most egregious solid waste land-filling problems, although effects on groundwater and surface water were not considered.

In 1970, water and sewer legislation existing at the time was amended to require that counties formulate solid waste management plans by 1974, and keep them updated thereafter. Also in 1970, sewage sludge was added to the waste types the Department of Health was empowered to permit under the original 1914 legislation.

2.3.2 1976 - 1981 Subtitle D Program Development

The record of Maryland's Subtitle D activities begins, ironically, with the 1976 passage of the State's first hazardous waste law. Based on its experience in permitting industrial wastewater discharges under the NPDES program, the Department of Natural Resources (DNR) received authority for implementing the new law and promulgated regulations in 1977. Based in turn on this investment of responsibility, the Department of Natural Resources was selected later in 1977, over the Department of Health and Mental Hygiene (DHMH), as the State RCRA lead agency. Thus, while DHMH retained state responsibility for sludge disposal and solid waste landfill permitting, DNR expanded its operation to cover solid waste management through implementation of Subtitle D of RCRA. This division of responsibility in solid waste management, and in other environmental areas, between the Department of Natural Resources and Department of Health and Mental Hygiene, led to problems in coordination of environmental control activities. This problem was addressed in 1979 through the consolidation of all state environmental activities into a new Office of Environmental Programs within the Department of Health and Mental Hygiene.

Maryland was slow to initiate its Subtitle D program. Existing staff was not sufficient to carry out the Solid Waste Division's normal functions and Subtitle D activities at the time that Federal grants were made available to the State. DHMH had difficulty acquiring staff to carry out Subtitle D activities, even though Federal funding was available to do so, due to the State Personnel Department's skepticism regarding the longevity of Federal funding programs. DHMH eventually was able to hire a planner to carry out State planning for both Subtitle C and D.

It has been only in the last 12 to 18 months that the Department has been active in conducting the Open Dump Inventory. Additional personnel were hired using grant dollars to carry out this inventory work. State personnel have visited all of the 65-70 municipal landfill sites in the state, although evaluations are not complete, and exclude groundwater, gas, and bird hazard evaluations. Most of the Section 4004 criteria are covered by existing Maryland regulations except for bird hazard. However, the State has problems concerning the location of tests consistent with 4004 to determine compliance with groundwater and gas standards (e.g., waste boundary or property boundary), due to restrictions in state law regarding property and entry rights.

2.3.3 Current Status of the State Program and Projections for Future Completion of Subtitle D Activities

Maryland plans to complete its Open Dump Inventory for municipal landfills by the end of FY81. This will involve completing the evaluation of the approximately 70 identified sites for all criteria except bird hazard. Sites have been ranked for evaluation according to EPA criteria. At the present time, 2 sites have been submitted for inclusion in the list of open dumps, and have been issued compliance schedules. Evaluations of industrial landfills, private landfills, and surface impoundments have not been initiated at this time. Evaluation of municipal landfills has been given priority by the Department, while the inventorying of these privately-owned facilities had been scheduled for later in the implementation period.

The State's Subtitle D Solid Waste Management Plan is significantly behind schedule. No progress was made on the Plan from June to September, 1980, since the principal author had to be reassigned to work on the State's

application for Subtitle C Interim Authorization. As a result, new staff have had to be hired and oriented. Work is just now resuming on the plan, and a complete plan has not been finished in even a preliminary draft form. Only fragmentary, handwritten sections of the plan have been drafted to date. These were not available for review at the time of preparation of this paper.

Prospects for the State in completing the Open Dump Inventory for facilities other than municipal sanitary landfills are not good. The State will not be able to inventory any of these facilities prior to the cut-off of Federal funding, and resources are not available within the State for inventorying these facilities at the accelerated rate needed to inventory all the sites in the foreseeable future. Activities in this area will probably be limited to the worst offenders as made known to DHMH and as resources are available. Additionally, Maryland does not intend to develop regulations fully equivalent to the RCRA Section 4004 criteria at this time: a regulation for bird hazard will not be developed, and monitoring points for groundwater and methane will not be equivalent to those in RCRA Section 4004.

Maryland does plan to complete its State Solid Waste Management Plan. An evaluation of the adequacy of this plan in regards to EPA guidelines is impossible at this time due to the unavailability of a completed draft. The Department of Health and Mental Hygiene has identified objectives to be expressed in the plan, but is doubtful of its ability to implement programs to meet these objectives in the absence of Federal funding. Maryland desires EPA review and comment on the plan, but would not seek EPA approval due to budgetary restrictions which will limit their ability to respond to EPA comments and the belief that State resources will not be available to meet ambitious programmatic goals such as those outlined in the EPA guidelines. The Department will generally continue to carry out its permitting and inspection roles as funded by the State. Personnel hired under Subtitle D grant dollars will be transferred to the Subtitle C program as appropriate.

2.4 PENNSYLVANIA

2.4.1 Pennsylvania's Pre-RCRA Solid Waste Program

At the State level, the government of the Commonwealth of Pennsylvania has been involved in solid waste management since 1929. The Administrative Code adopted in that year assigned the Commonwealth's Health Department, as part of its broad public health responsibilities, the responsibility to abate nuisances which could affect public health arising from improper solid waste practices. The vague nature of this grant of responsibility did not provide the Health Department with the mandate necessary to comprehensively manage solid waste, nor was improper solid waste management generally considered a serious threat to public health at that time. Staff for handling solid waste problems was limited and Department resources were targeted toward more pressing public health problems.

As knowledge of the adverse effects of improper solid waste disposal on public health developed, the Health Department expanded its efforts in this area. In the early 1960's, Department staff began inspecting the State's landfills. In 1965, the Health Department received a grant from the Federal government to do a statewide survey of solid waste management in the Commonwealth. The results of this survey and increased knowledge of solid waste problems led to the development and adoption of the Pennsylvania Solid Waste Management Act of 1968 (Act 241).

The Act greatly expanded the legal authority of the Health Department for overseeing solid waste management practices in the Commonwealth. The Act required solid waste facilities to receive Health Department permits; authorized the Department to develop regulations governing solid waste facilities, inspect facilities, and initiate prosecution for violations; required municipalities with population densities greater than 300 people per square mile to prepare solid waste plans by 1971; and established the Solid Waste Advisory Committee to the Governor.

The Health Department's Solid Waste Section developed regulations for sanitary landfills based upon this statutory authority. The Department's regulatory program was oriented towards protection of ground and surface

water resources, and State requirements in these areas, similar to those in the Federal criteria, predated RCRA.

At the municipal level, approximately 1000 municipalities were required to provide plans based upon the requirements of the Act. The majority of these municipalities authorized their county governments to prepare their management plan, adopting the plan by resolution. This gave the county plans the appearance that they applied to entire counties, when in fact they only applied to municipalities required to plan under the Act. These municipalities represent only four percent of the land area of the Commonwealth; thus, for the overwhelming majority of the land area of the Commonwealth, coherent solid waste planning did not exist.

The Department provided both technical and financial assistance to local governments for plan preparation. Grants of up to 50 percent of eligible costs were made, totaling more than \$2 million. However, the plans developed have varied greatly, in quality and degree of comprehensiveness, in general being inadequate due to lack of local expertise and interest on the part of local officials.

In 1971, responsibility for regulating solid wastes and otherwise carrying out the provisions of the Solid Waste Management Act of 1968 were transferred to the newly-created Department of Environmental Resources (DER), Division of Solid Waste Management. The Division established seven regional offices, usually with one person in each region. The regional personnel inspected facilities in their respective regions and provided technical information for facility owners and operators.

In 1976, the Commonwealth passed the Solid Waste Resource Recovery Development Act to encourage resource recovery activities in the State. The Act was designed to provide a state loan program to resource recovery projects, but the loan program was not funded. In 1976, the program was changed to provide grants instead of loans, and a total of \$4 million has been provided for grants through two separate fundings.

2.4.2 1976 - 1981 Subtitle D Program Development

In response to Federal requirements under RCRA, and utilizing financial and technical assistance from EPA, the State has expanded its solid waste program over the last five years. A separate hazardous waste program has been developed within the Division of Solid Waste Management, authorized by the new Solid Waste Management Act of 1980 (Act 97), and the Division, with a staff of over 100 by 1979, was upgraded to a Bureau within DER. The new Act, developed largely in response to RCRA, expands DER's authority and strengthens enforcement capabilities on solid waste issues, and addresses the development of a hazardous waste regulatory and facility siting program.

Regional staffs have been enlarged to as many as 15 persons, whose responsibilities include both solid and hazardous waste activities. Regional and headquarters inspectors have been responsible for carrying out the RCRA mandated Open Dump Inventory. Through their past activities, DER was aware of the locations of the majority of open dumps in the Commonwealth. However, attempts to close such facilities had been limited due to difficulty in obtaining adequate legal resources from the Commonwealth's Attorney General's Office. The provision of Federal criteria for evaluating open dumps, of Federal money for carrying out the Open Dump Inventory, and of the mechanism of compliance schedules for achieving site upgrading, has been invaluable to the State in addressing the open dump problem. Using Federal guidance provided by the Subtitle D program, DER has upgraded its regulations to be substantially equivalent to EPA's for most of the RCRA Section 4004 criteria, and through the authority of Act 97, will have the authority and enforcement capabilities to issue compliance schedules

The Commonwealth plans to evaluate 400 identified solid waste landfills under the inventory. Seventy facilities were evaluated in FY80, of which 25 were determined to be open dumps and issued compliance schedules. In FY81, DER plans to evaluate an additional 140 sites. The evaluation of these open dumps has been made possible largely due to the availability of grant dollars from EPA.

Pennsylvania has prepared a draft State Plan in accordance with Subtitle D, utilizing financial and technical support provided by EPA Region III. The Commonwealth has been active in statewide solid waste planning since 1970;

however, the plan developed in response to Subtitle D is the most comprehensive plan prepared to date. The Plan presents a historical review of solid waste management in Pennsylvania; details legislative, regulatory, and administrative frameworks for solid waste management; discusses resource recovery and state and local planning; presents a summary of the current solid waste situation in each of the seven regions of the State, including current practices planning, activities, and solid waste problems; and presents recommendations. Recommendations made are of limited scope due to the degree of autonomy granted municipalities under State law. DER has little authority to interfere with local solid waste planning prerogatives, due to State law, other than to regulate facilities. Therefore, objectives identified for the State in the plan are general in nature and limited by the need for voluntary cooperation by local governments. Additionally, the provision of authority for solid waste planning in the state at the municipal, county, and State levels, has presented problems in terms of the continuity of plans prepared at the various levels. Still, the State plan is comprehensive in its scope, as compared to previous plans for Pennsylvania, and corresponds fairly well with EPA guidelines. EPA Region III provided technical assistance in developing the summaries of solid waste activities in the Regions, as well as providing financial support for the two planners who prepared the plan at DER.

The planning process has helped DER focus its efforts on problem areas so as to maximize benefits from the use of state resources. For example, preparation of regional data for inclusion in the Plan highlighted the need for improving the quality and consistency of local plans. DER has developed an approach toward reaching this goal, involving the development of modules for use by local officials in assessing their solid waste situation. These modules are designed to inform local officials, who normally have no training in solid waste, on solid waste problems, and allow them to assess, through relatively simple criteria, their solid waste situation; e.g., the suitability of developing a small modular incinerator with heat recovery versus developing a new landfill to address a shortfall in disposal capacity. EPA Region III is providing assistance to DER, through the Technical Assistance Panels program, in developing these modules.

2.4.3 Current Status of the State Program and Projections for Future Completion of Subtitle D Activities

Pennsylvania is currently revising its State Plan to reflect EPA comments. Specifically, although the draft Plan presented recommendations for the state program over the 5-year planning period, no plans or milestones were presented for carrying out these recommendations. Additionally, DER authority with respect to closing and upgrading open dumps, and prohibiting the establishment of new open dumps, was not presented in sufficient detail. Appendices dealing with plans for meeting objectives, and DER's statutory authority, are being developed for inclusion in the Plan. DER expects to complete plan revision and present the Plan to EPA for full plan approval before the end of FY81. If that goal is met, the State will have met EPA Subtitle D planning requirements prior to the end of EPA funding. If not DER is required to complete a state plan by Act 97 and will probably revise the Plan again so as to receive EPA approval. DER strongly desires to receive EPA approval of the State Plan.

DER's solid waste regulations have provisions equivalent to some, but not all, of EPA's RCRA Section 4004 criteria. DER intends to develop provisions equivalent to the Federal criteria for those areas where existing state regulations are deficient. However, there is a question as to whether or not DER is authorized to regulate bird hazards and endangered species as specified in the RCRA Section 4004 criteria. Current regulations are also not equivalent in the areas of methane gas and sludges applied to food chain crops.

DER is carrying out its FY81 Open Dump Inventory activities and expects to complete the scheduled 140 sites. By end of FY81, 210 of the originally proposed 400 sites should have been evaluated for inclusion in the inventory. DER plans to continue an open dump inventory using state funds once Federal funds are exhausted. However, the inventory would proceed at a slower pace, and facilities would not be submitted for publication in the list of open dumps.

DER has used excess funds from existing Subtitle D grants for FY79 and FY80 to develop a computerized data base on solid and hazardous waste activities throughout the State. DER feels that this expenditure of grant dollars has been the most effective way of using these "rollover"

dollars to carry out the intent of RCRA, since it has provided the State with the means of tracking and regulating solid and hazardous waste activities in the State for long after the Subtitle D program's scheduled phase-out.

The State expects to complete use of technical assistance from Region III for developing modules for local governments by the end of FY81. Assistance to local governments faced with solid waste problems through the Technical Assistance Panels program has been helpful to DER in the past in that localities have been able to develop better local plans which presented realistic goals for facility implementation. DER believes such help to be extremely useful in enabling local governments to carry out solid waste activities in a manner reflecting the intent of RCRA, particularly since the lack of ability to properly plan at the local level is a major problem in the State.

Projecting future Subtitle D activities, the State will complete its State Plan and will continue inventorying open dumps. Although not in DER's budget for FY82, DER expects to continue Subtitle D activities, including implementation of programs to meet objectives identified in the plan, and is expecting to receive renewed funding for solid waste from the legislature in 1983. DER runs a large solid and hazardous waste program, which should be able to meet most Subtitle D goals, albeit at a slower pace, without further Federal funding.

2.5 VIRGINIA

2.5.1 Virginia's Pre-RCRA State Solid Waste Program

Prior to 1970, responsibility for solid waste management in Virginia was left primarily to the cities and counties, with assistance from the Commonwealth through planning grants provided by the Federal Public Health Service. Virginia first focused serious attention on solid waste management with the passage in 1970 of Title 32 of the Code of Virginia. This legislation provided the State Health Department with the authority to regulate solid and hazardous waste disposal and required the cities and counties of the State to plan for and provide solid waste disposal facilities.

In 1971, the State Health Department promulgated regulations governing solid waste disposal which are still in force today. These regulations established a permit system for solid waste disposal facilities, with provisions for permit application, approval, denial, compliance schedules and withdrawal. Under the regulations, open dumping or dumping in State waters is forbidden, while approved facilities include properly sited, designed, and operated sanitary landfills, incinerators, and any other "new and unique" methods which will not degrade the environment or cause risks to public health and safety.

The 1971 State Department of Health regulations define proper siting and design of sanitary landfills through provisions dealing with adequate landfill size, all-weather access roads, cover availability and quality, and prevention of ground and surface water pollution. Landfill operational requirements deal with equipment availability and daily operations; cover frequency and thickness; and control of burning, litter, dust, scavenging, pests, animal grazing, and hazardous waste. Incinerator requirements in the regulations cover designer credentials and review of plans and specifications, compliance with applicable air and water pollution regulations, disposal of residue, operator training, and control of hazardous waste. Finally, the regulations stated that hazardous waste "shall be disposed of in a manner approved by the Health Commissioner."

The primary intent and effect of these initial regulations was to eliminate or control open dumping. At the time of promulgation, the Health Department had identified approximately 8000 open dumps receiving any and all waste types. Under these same regulations, the State has successfully curbed open dumping and consolidated the number of disposal facilities down to an estimated 300 larger or regional landfills. These remaining facilities taken as a whole, however, presented a broad range of design and operational quality, and consequently a range of potential risk to the environment and public health.

Solid waste management authority in Virginia is also derived from the State Water Control Board's regulation of water, wastewater, and industrial treatment sludges, and of groundwater quality; the State Air Pollution

Control Board's regulation of emissions from stationary sources, including incinerators and sanitary landfills; and the Division of Mined Land Reclamation's regulation of refuse disposal associated with the mining industry.

2.5.2 1976 - 1981 Subtitle D Program Development

In attempting to fulfill Subtitle D, Section 4008 of RCRA, the Division of Solid and Hazardous Waste Management of the State Department of Health used EPA Subtitle D grant money to prepare a statewide Solid Waste Management Plan. The Plan was adopted by the State Board of Health May 24, 1979, and became effective October 15, 1979.

The Plan provided for the development of a statewide waste management system through designation of the 22 Regional Planning Districts in the state as substate agencies responsible for solid waste planning and disposal. Cities and counties within each council area are responsible for approving council plans and implementation.

The Plan provided numerous goals for the State in solid waste management, including goals in waste reduction, resource recovery, regional planning, and inventorying open dumps. However, it was prepared prior to the development of EPA guidelines for State plans, and, although an extensive plan, it is being revised to better follow EPA guidance.

In February, 1979, the General Assembly enacted the recodified version of the Virginia Health Code, and in so doing, upgraded the status of solid waste management in the Code. The new legislation contains several major provisions relating to non-hazardous solid waste management, including:

- expansion of the Department of Health's regulatory authority over solid waste
- designation of the Department as the agency responsible for setting up a permitting system for solid waste disposal facilities, and granting of the authority to revoke or place conditions on permits in cases where facilities pose risks to public health or the environment
- prohibition of open dumping and granting of authority to the Department to place a disposal site on a schedule for either closing or upgrading

- designation of the Department as the agency responsible for setting regional boundaries, considering certain factors, for solid waste management
- provision of civil penalties of up to \$5,000 for violations of the Department's regulation

The Department initiated the development of new regulations, based on this law, which will be substantially equivalent to the 4004 criteria. Additionally, the state began evaluating municipal landfills for inclusion in the Open Dump Inventory. There are currently 300 landfills in the State of various quality, some of which the Department believes qualify as open dumps, although generally these facilities meet the existing State regulations. Certain parts of the state pose difficult problems for sanitary landfills in terms of soils, geology, and the availability of proper cover material. Facilities in these areas generally try to meet State standards, but do fall short in some instances.

2.5.3 Current Status of the State Program and Projections for Future Completion of Subtitle D Activities

At the present time, the Department of Health is writing regulations to implement the solid waste management portions of the legislation enacted in 1979. It is anticipated that the regulations will be promulgated by August of this year. These regulations should bring the State regulations into equivalency with the Federal regulations.

Since the State's original solid waste management plan was adopted prior to publication of EPA's Subtitle D state planning guidelines, a contractor is currently revising the Plan to ensure EPA approval. The precise date of its anticipated adoption is unknown, and will depend on when the next State Board of Health meeting is held.

If both the new regulations and the revised Plan for solid waste management are in place by the end of FY81, then it can be concluded that Virginia will have made substantial progress towards the development of a Subtitle D program conforming with EPA's guidelines. It is also accurate to conclude that the Subtitle D state planning money granted to Virginia played a significant, if not critical, role in allowing the Commonwealth to achieve the progress noted above.

In the event Subtitle D funds allocated for state planning are exhausted before completion of the Plan, the State would not continue work on the Plan. In such an instance, the State would submit the Plan to EPA, as it stood, for review and comments, but would not submit it for the purpose of approval. (Since Virginia is a Commonwealth, the Department of Health interprets its role as most appropriately being that of the "regulator" while local government's role is most appropriately that of the "implementer.")

The Department expects to continue the inventory of solid waste disposal facilities. In proceeding into FY82 the Health Department expects to complete the landfills inventory in-house and contract out up to \$200,000 for an inventory of surface impoundments.

Finally, the Department has allocated up to \$200,000 for the development of regional solid waste management plans under contract to each of the State's 22 Regional Planning Districts (RPD). This effort has been delayed, however, due to confusion among the RPD's about the intended purpose for the contracts. (According to a Department spokesman, the RPD's see the contracts more as grants, and the Department fears this indicates that the RPD's will use the money to maintain a staff which otherwise will have to be eliminated given recent reductions in their usual sources of on-going support.)

Generally, Virginia has sufficient resources to carry out Subtitle D activities to what the State considers an acceptable conclusion. The Department has funds available to carry out programs to meet goals identified in the Plan, regardless of whether the plan receives approval. State regulations will be substantially equivalent to the Federal criteria, and the State will continue inventorying open dumps along the lines of these regulations. Additionally, the State has the authority to issue compliance schedules to facilities as necessary to upgrade identified open dumps.

2.6 WEST VIRGINIA

2.6.1 West Virginia' Pre-RCRA Solid Waste Program

As a predominantly rural state, West Virginia has historically managed solid wastes at the municipal or individual level. No governmental entity in the state is required to provide collection or disposal services, although

counties and municipalities may provide such services if they so desire. Generally, wastes have been managed at point of generation, through open dumping on unused land or open burning, or have been disposed in small municipal or private open dumps, where open burning was practiced up until the early 1970's.

The geology and demography of West Virginia pose serious obstacles to comprehensive solid waste management. The rugged Karst terrain, steep slopes, and lack of clays make it difficult to develop large landfills. Additionally, the dispersed nature of the population makes collection economically unattractive due to high cost of service and the relatively low income of the populace.

The State Department of Health has been responsible for overseeing sanitary landfill operations, initially under nuisance provisions under public health laws, and more recently under explicit statutory provisions. Generally, the Department has only acted on cases presenting an immediate threat to public health due to lack of personnel and financial resources, public and government apathy, and the lack of explicit regulations. An initial set of regulations were developed in 1967, but the Health Department experienced difficulties, due to the problems described above, in enforcing even these minimal standards.

The Health Department received a grant from the U.S. Public Health Service in 1970 to develop a solid waste survey and prepare a State Solid Waste Plan. The results of the survey indicated an appallingly low level of solid waste management. Collection services were available to only 55 percent of the population. Of 293 disposal sites surveyed, 242 were open, burning dumps. Only seven qualified as sanitary landfills under the then existing, rather lax, regulations. These regulations required some protection of ground and surface water (although monitoring was not required) limitation of access, availability of fire control equipment, application of daily cover, and special handling of sludges and septic tank pumpings. Although the regulations themselves were fairly extensive, enforcement of such regulations was virtually impossible due to the limited resources of the Health Department.

In addition to the problems posed by those publicly and privately operated disposal facilities, the State faced serious problems with open burning and/or dumping at point of generation (usually farm or rural homesites), and promiscuous roadside dumping. State surveys conducted since 1970 have indicated the continued prevalence of this promiscuous dumping which has resulted in the creation of hundreds of these road or stream-side dumps.

In the period from 1970 to 1976, little was done to address these problems. Due to lack of resources and commitment by the state's elected government, the Health Department was only able to address those facilities which posed the greatest threat to public health. Open burning was greatly diminished at public and private facilities, but in other areas only minimal improvement was realized.

2.6.2 1976 - 1981 Subtitle D Program Development

West Virginia has made slow but significant progress in solid waste management since 1976. Through increased staffing (to six full-time personnel), made possible by their EPA grant, the State has been able to:

- upgrade its regulations to meet the Federal criteria (several regulations still in draft phase),
- inventory 30 disposal sites for compliance,
- attempt the development of a comprehensive State Plan for the first time in the State's history.

These activities have been carried out in addition to the Department's day-to-day functions in answering citizens' complaints and responding to emergency situations, which occur quite frequently.

In 1977, the legislature authorized the development of the West Virginia Resource Recovery Solid Waste Disposal Authority. This Authority was developed to plan solid waste activities, assist communities, and implement resource recovery and solid waste disposal facilities in the state. Funds have been provided through the State's Subtitle D grant to support the activities of the Authority. Additionally, the Authority is evaluating the feasibility of developing a waste-to-energy facility in West Virginia under an Urban Policy Grant.

The Health Department is the designated agency for the development of the State. The Department's solid waste staff is small and primarily operations-oriented, with little experience in planning. EPA Region III is providing additional assistance, through the Technical Assistance Panels program, to the Health Department, so as to enable the Department to prepare a plan consistent with EPA guidelines.

The State has continued to face a critical shortage of landfill capacity. Of for the Open Dump Inventory, 25 were classified as open dumps and placed on compliance schedules. Most facilities in the state are near capacity. At least 20 new landfills and 12 transfer stations will be needed to provide adequate disposal capacity.

2.6.3 Current Status and Projections for Future Completion of Subtitle D Activities

The Health Department has completed the evaluation of 30 facilities for the Open Dump Inventory and intends to evaluate an additional 32 facilities by the end of FY82. Of the first 30 facilities, 25 were classified as open dumps. The facilities evaluated were generally the largest and best run in the state; therefore, an even higher proportion of open dumps would be expected in the 32 currently under evaluation.

Completion of the evaluation for the 32 sites would bring the number of facilities evaluated to 62. There are approximately 200 publicly and privately operated landfills in the state, of which only 70 operate under Health Department permits. Clearly, the inventory work completed by end of FY81 will fall far short of meeting EPA goals for the life of the program, having evaluated approximately one-third of the existing landfill facilities and no surface impoundments.

The original draft State plan has been completely rewritten to more accurately reflect EPA guidance on State plans. A draft more consistent with EPA guidance, but narrowly conceived in light of the magnitude of West Virginia's solid waste problem, was presented at public hearings in July, 1981. As a result of comments received, an Interim Solid Waste Advisory Committee,

Composed of representatives of involved state agencies, and public and economic interest groups, was formed to assist in revision of the plan. Additionally, EPA Region III provided contractor assistance, through the Technical Assistance Panels program, to the Health Department for plan revision. As now conceived, the plan will provide broader goals for the state and outline a comprehensive solid waste program, consistent with EPA guidance, to be acted upon by the state legislature, involved state agencies, and the public.

West Virginia plans to continue the Open Dump Inventory beyond FY81, although without Federal funding ODI activities will probably be significantly curtailed. The Department of Health believes the inventory has been very beneficial in attacking the massive open dumping in the state. Compliance schedules will be issued and names sent to EPA for listing.

Cessation of Federal funding at this point will severely effect the West Virginia solid waste program. The Solid Waste Division currently receives 50 percent of its limited resources through the Federal grants program. Without these grants, the State will not be able to implement the programs outlined in its draft State plan for meeting solid waste goals. Promiscuous and open dumping will probably continue indefinitely in the State without the support needed to address issues of sufficient landfill capacity and increased collection system participation.

3.0 CONCLUSIONS

EPA Region III is made up of states spanning a wide range of demographic, geologic, and economic conditions. The level of development of solid waste management in the different states reflects this diversity. The larger, more highly developed and populated states in the Region had significant solid waste programs for many years predating RCRA. The smaller and more economically depressed states have had only minimal state solid waste programs which were able to address only the most basic solid waste issues, such as prohibition of open burning, prior to RCRA. In almost all states in the Region, statewide waste planning to ensure adequate disposal of wastes was rudimentary at best and non-existent at worst.

The RCRA Subtitle D program, through Federal funding and EPA guidance, provided the states their first opportunity to plan solid waste activities comprehensively at the state level. Additionally, through the Criteria for the Classification of Land Disposal Facilities, EPA provided the states with a state-of-the-art paradigm for regulating solid waste disposal facilities. The development of regulations for sanitary landfills, of the level presented in the RCRA Section 4004 criteria, was beyond the technical capabilities of several of the states in the Region without such assistance.

Although slow to respond at the start to the Federal initiative presented in Subtitle D, state programs have, with the help of Federal grants, gained momentum in Subtitle D program development over the last two years. Many states are nearing completion of their state plans, which represents substantial progress in light of the general lack of data on solid waste in the states at the start of plan development. The states are actively carrying out their inventory of solid waste disposal facilities. Some states are near completion, while most are less than 50 percent complete. The number of open dumps in states such as West Virginia indicates the size of the inventory task in some parts of the Region. Additionally, all the states in the Region have utilized the guidance of the RCRA Section 4004 Criteria to upgrade their regulations, albeit not all to full equivalency with the Federal regulations.

Generally, the Region III Subtitle D program has been successful in raising the level of solid waste management practiced in the Region III

states. Success in reaching the overall goals of Subtitle D varies among the states, and none has fully reached the objectives. In considering the progress of individual states in the Region, it must be noted that some states have had a considerably greater distance to go than others in attempting to reach Subtitle D objectives. However, all the states have utilized Federal guidance and grant dollars to improve their programs in accordance with Subtitle D.

In accordance with the diverse level of state program development in the Region, the termination of Federal support will have different levels of impact on the states in the Region. States with large, well developed programs, such as Pennsylvania and Virginia, will probably continue on to improve their state programs and meet plan objectives until they are roughly equivalent to the state program envisioned by Congress in Subtitle D. States with smaller, but still effective, programs, such as Maryland, will probably hold their ground at the level they are currently at, with possible improvements as they move slowly towards meeting the objectives outlined in their plans as resources become available. Thus, they will not readily meet the level of environmental protection sought in RCRA. For the states with the smallest programs which have relied heavily on EPA for basic funding support, such as West Virginia, termination of funds will be disastrous. In all probability, the state programs will shrink, promiscuous and open dumping will continue, and the state planning program will have made little impact. This presents serious ramifications for the overall environmental quality in these states, and for the successful implementation of other environmental programs which are related to the Subtitle D program, such as the Subtitle C Hazardous Waste Program and the National Pollutant Discharge Elimination System.