

**Decentralization of Environmental Enforcement:  
The Pennsylvania Air Quality Program**

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*This article examines the consequences of one organizational structure (regional decentralization) on the enforcement of environmental regulations. Using interviews conducted with the staff of and data drawn from the Pennsylvania Department of Environmental Protection, the results of this study suggest that the reporting structure in the Pennsylvania air quality program sometimes produces conflicting directives to the various regional offices while also making efforts to arrive at a common approach to enforcement more difficult.*

**Background**

The primacy which many federal environmental laws give to state and local enforcement has had significant implications for the implementation and the outcomes of U.S. environmental policies. It is evident that state and local governments have varied widely in performing these federally-mandated responsibilities (Lowry, 1992; Bryner, 1990; Mazmanian and Sabatier, 1989; Rosenbaum, 1991; Downing and Kimball, 1982; Lester and Lombard, 1990; Lester, 1994; Goggin, Bowman, Lester and O'Toole, 1990). Various systems for rating the states in terms of their commitment to environmental enforcement have been used, but all of them point to wide differences between the states, whatever measure is used (see especially Lester, 1994; Ridley, 1989).

A number of factors contribute to these differing state responses. Inadequate financing and lack of personnel are partly to blame (Lester and Lombard, 1990; Lester, 1994; Rosenbaum; Roberts and O'Farrell, 1978). Each state's cultural and political commitment to environmental protection itself must also be considered (Lester, 1994; Lowry, 1992). Third, interstate competition for business may place a lid on how stringently many states are willing to enforce these laws (Lowry, p.14). Finally, it has been suggested that the organizational structure within which environmental protection takes place may significantly affect implementation. Goggin et. al. argue that "simple structures reduce coordination costs and ease the transmission of information, thus enhancing capacity to act" (p. 38).

Whether to provide public services through a centralized or a decentralized approach is one of the critical issues of organizational structure which all levels of government must visit and re-visit, and this aspect of state enforcement of federal environmental laws has not been much explored in existing scholarship. States do

differ a great deal along this centralization-decentralization continuum in environmental enforcement. For example, in the "Tri-State" air shed which includes southwestern Pennsylvania, northern West Virginia and eastern Ohio, air quality enforcement is carried out by four very different organizational structures: a centralized program located within a county health department (Allegheny County), a centralized state approach (West Virginia), a mixed regional and state approach (Ohio), and a regional approach within a matrix reporting structure (Pennsylvania outside of Allegheny County). Does the use of one organizational structure as opposed to another have significant consequences for the enforcement of federal and state environmental laws? Is one organizational structure more likely than another to produce results more consistent with the policy goals embedded in state and federal environmental laws?

The use of a decentralized approach to enforcement creates the potential for obvious coordination problems. In his classic study of the U.S. Forest Service, Herbert Kaufman stressed that there are a number of centrifugal forces operating on any organization which relies heavily upon scattered field offices to carry out its basic policies (Kaufman, 1967). These forces include (1) directives from above which would require the field office to carry out mutually exclusive courses of action (p. 68); (2) the development of informal norms in the immediate work group which may run counter to organizational norms or directives (p. 73); and (3) the possibility that important interests and private individuals with whom the field staff have frequent contact will unduly influence his or her conduct (p. 75).

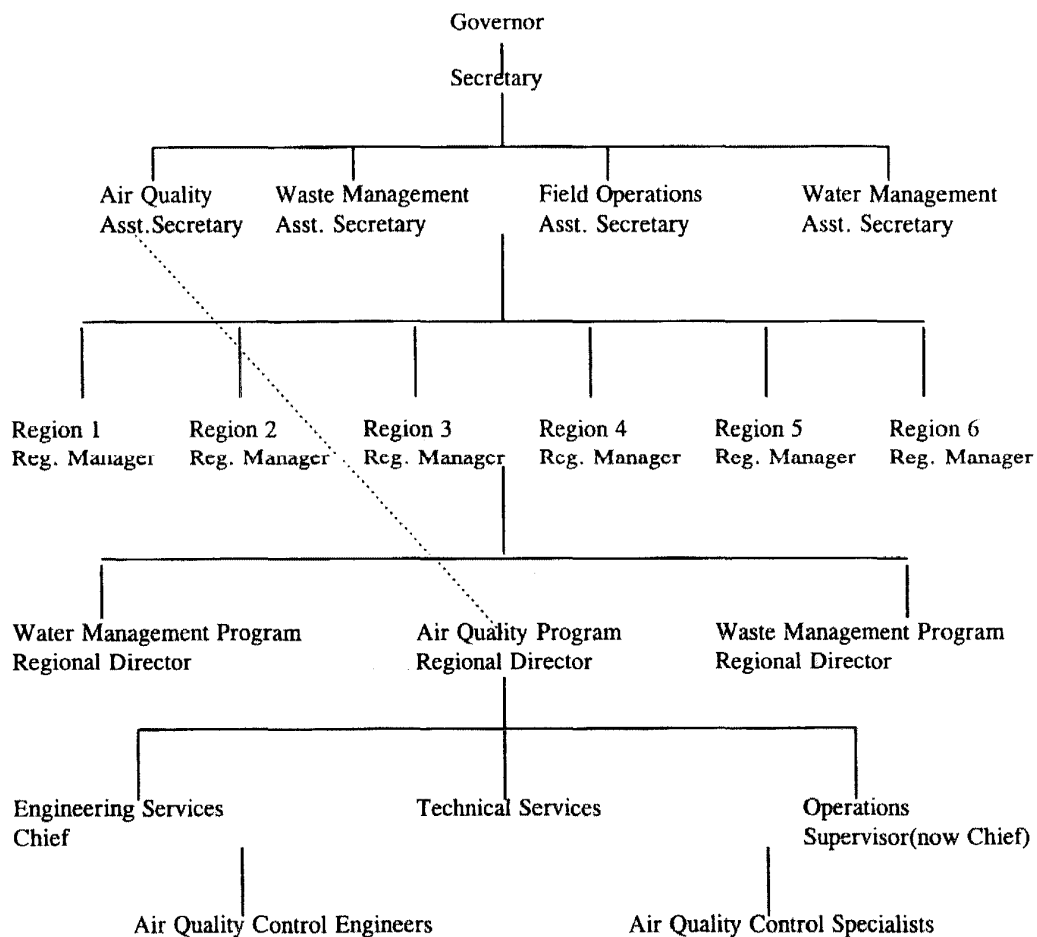
Kaufman found that U.S. Forest Service policies were carried out with remarkable uniformity and consistency, despite the widely scattered nature of Forest Service operations. He attributed this organizational success in overcoming centrifugal forces to a number of factors, including the use of budgets and reports to superiors, the elaborate *Forest Service Manual*, and frequent field inspections by superior officers. But perhaps more important was the education and socialization process which all Rangers underwent: the specialized university education, elaborate in-service training, frequent transfers from one national forest to another, and the use of symbols of identification with the Forest Service and its goals. The end product was a professional staff which identified strongly with the organization, and conformed willingly to Forest Service policy. The centrifugal forces were largely overcome.

To illustrate the impact that one organizational structure may have on state environmental responsibilities, this article explores some of the consequences of the Pennsylvania air quality program's use of a regional approach with a matrix reporting structure. At the time the research on this program was undertaken, enforcement of federal and state air quality laws was one of the responsibilities of the Pennsylvania Department of Environmental Resources. In 1995, the DER was split into two agencies, and air quality enforcement came under the new Department of Environmental Protection. However, the organizational structure for environmental enforcement remained the same; for the purposes of this article, the agency will be referred to as DER(DEP). Its responsibilities are carried out

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largely through six regional offices, which encompass the state, but exclude Allegheny and Philadelphia Counties (which have their own enforcement agencies). As has been said, the Pennsylvania environmental agency uses a matrix approach to its environmental responsibilities. In each region, the staff responsible for enforcing all environmental laws are grouped into program areas, each headed by a Manager, reporting to a politically appointed Regional Environmental Protection Director, who coordinates these responsibilities and reports to the state DER(DEP) directorate for field operations. There is a parallel state directorate responsible for air quality, the functions of which are now those of budgeting, liaison with other government agencies at the state and national level, the updating and rewriting of state regulations, and coordination of regional office air quality practices. A map of the regions and a partial organization chart of the Pennsylvania Department of Environmental Resources (Protection) follow

**Pennsylvania Department of Environmental Resources (DEP)  
Partial Organization Chart**



Are these centrifugal forces overcome in the enforcement of federal and state air quality laws within the Commonwealth of Pennsylvania? In an effort to answer this question, this article will examine two of the major responsibilities of the regional offices of DER(DEP): the issuance of permits to polluters, and enforcement actions against polluters exceeding allowable standards. At the outset of this research effort, the author spent several months as an intern in one of the regional air quality offices. Following this experience, the author interviewed air quality staff in the six regional offices in charge of permitting (in agency terminology, the Chiefs of Engineering Services), enforcement (the Supervisors of Operations), and the heads of the regional air quality programs (the Regional Managers). In some of the regions, other available staff were interviewed as well -- for example, other permitting and enforcement staff, as well as the DER attorneys who do the bulk of the legal work required in the air quality program in five of the regions. In one of the regions, access was somewhat limited, and in two other regions the Regional Managers were unavailable. In total, twenty-one air quality staff and attorneys were interviewed. Those interviewed were asked to describe their work, how they carried out their responsibilities, the priorities in air quality enforcement within their region, and how they would characterize their regional air quality program.

In addition, data were collected and analyzed relative to the six regions for the period 1990 through 1992: the number of staff in each office in this period, the number of active permits in each region as of the end of 1992, and the recorded civil actions taken by each regional office for the 1990-1992 period. This three-year period was selected both because it fell within the experience of all those interviewed, and because it was stable in terms of staffing and the counties served by each regional office. Most of the activity in terms both of permits and enforcement actions would have taken place prior to the implementation of permitting and enforcement provisions of the 1990 federal Clean Air Act, and the 1992 amendments to Pennsylvania law implementing this act. (It should be noted here that these acts led to a great increase in staffing in the regional offices after the period under study here, largely because of the pollution fees allowed by that act; however, regional enforcement through a matrix reporting structure continues within the Department of Environmental Protection to the present time.) This internal data was compared with other available regional data: the 1990 regional populations, the number of incorporated firms, and the number of manufacturing firms. These data are used to determine whether regional air quality efforts were more directly related to what might be considered the "air pollution business" or staff of each region rather than to centrifugal forces which result in lack of coordination. Knowledgeable staff within the agency suggested that data such as air pollutant levels or emissions inventories for the period in question would be unreliable measures of regional efforts, since air pollutants do not respect state or regional boundaries. In addition, the emissions inventories were then both inaccurate and incomplete, covering only sources with 100 tons or more of monitored pollutants.

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### The Air Quality Personnel Environment

It is useful to begin by laying out some basic characteristics of personnel hiring and training within the air quality program, and some features of the work environment in the regional offices, since these characteristics are important for understanding regional differences which are explored below. First, job applicants for the PA DER(DEP) apply through Harrisburg, but they are interviewed and hired through the regional offices. The opportunity for lateral transfer (from one region to another) exists within the agency, but very few employees take advantage of this opportunity, unless the opportunity exists to move closer to family roots. Secondly, to be eligible for employment in the permitting program, candidates must possess an engineering degree; however, environmental engineering degrees are not specifically required. Any college science major is acceptable for employment in the enforcement program, and there are a wide variety of college degrees here. Third, much of the post-entry training of employees is done either through EPA-sponsored courses, or "on-the-job," that is, working with older employees and mastering the federal and state codes and regulations covering air quality laws. Fourth, the state air quality directorate does not make use of systematic inspections of regional offices and programs, at least within the memory of those interviewed. Finally, the air quality program eschews the use of what might be called "badges of office:" uniforms, official cars, or other means of identification with the agency. Regional offices are tucked away in rented, out-of-the-way office quarters around the state, and employees go about their business in a variety of attire and vehicles.

### Permitting

The Pennsylvania DER(DEP) regulates the installation of new, modified or reactivated stationary sources of air pollution through the issuance of permits. The applicable requirements for the issuance of the permit (prior to changes required to implement the 1990 federal amendments) were contained in Title 25 of the *Pennsylvania Code*, Subpart C, Article III: Air Resources. Chapter 127 of that title defined for the regional permitting staff the sources which were required to obtain a permit, the information which must be submitted to the agency, and the public notification and comment that must be allowed. The chapter contemplated that applicants must first obtain an approval for the new, modified or reactivated source, and then an operating permit subject to agency inspection and periodic renewal. The chapter also contained a list of exemptions from these requirements, basically small combustion units, mobile sources, and "other sources and classes of sources determined to be of minor significance by the Department" (Sec. 127.14, Paragraph 8).

Did these statutory requirements lead to a uniform approach to the permitting task in the six regional offices during the period in question? Certainly, there were some common elements. To oversimplify somewhat, applications for

plan approval and for operating permits came into the regional office, the required fee was processed, a cover sheet was prepared, and the application was assigned to one of the permitting staff (officially called Air Quality Control Engineers). The engineers assigned to the application then dealt with the business requesting the approval or permit to obtain whatever additional information was needed. Eventually, the plan approval and later the operating permit were either granted with such operating conditions as the office might impose, or were denied. If the response was positive, the local government affected by the approval was notified, and a period for public comment took place. For the non-controversial permit, this period passed without public protest, and the plan approval or operating permit was then in effect, after approval by the regional hierarchy and publication in the *Pennsylvania Bulletin*. If the business was not satisfied with the conditions the agency attached, or if the approval or permit were denied, the business might appeal to the state Environmental Hearing Board, and eventually to the state's Commonwealth Court.

Given these common elements, it was evident from interviews that very different approaches to the task have evolved in the six regional offices. It is useful to begin with the initiation of applications itself. Some regional offices were basically reactive: they waited for applicants to initiate inquires about whether permits were needed, or for an application to be filed. At least one regional office, on the other hand, scoured the regional newspapers for information about new businesses or industrial changes in the region, and sent such businesses information about applicable regulations and the possible necessity of permits. The data presented below suggest that a higher percentage of stationary sources of air pollution received permits in the proactive regions than in the reactive regions.

A second regional difference relates to the relationship that developed between the applicant and the regional office. One regional office encouraged applicants to come to the agency for a pre-application conference, where information could be exchanged relative to the nature of the application and the requirements of the agency. Other regional offices preferred to deal with applicants by phone and discouraged face-to-face contact. Engineers in a few regions believed they were free to give a business which was struggling to come up with an acceptable application a range of advice on available consultants or on alternative pollution control strategies. Permit staff in other regions believed that it was inappropriate or even dangerous for the agency to provide such advice to applicants. Thus, depending on the approach the region in general used in interacting with an applicant, the applicant might face a rather impersonal and arms-length reception, or a friendly offering of advice.

A third difference becomes evident when we examine how each region interpreted the applicable regulations regarding permitting. The regulations themselves gave the agency some discretion in this regard, as mentioned above. At least two regional offices have had the reputation of issuing permits to every possible source, whereas other regional offices issued permits only to those sources which the applicable regulations required to be permitted. At least one of these

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regional offices issued a permit for each source of air pollution within a plant, whereas other regions have favored the issuance of a single permit to cover multiple sources within a plant.

Given the fact that the regional offices evolved rather different approaches to the permitting task, it was inevitable that some businesses and utilities with multiple sites sometimes complained about the regional differences. And in response, efforts have been made within the air quality program of the DER(DEP) to arrive at a more standardized approach to regional permitting. These efforts are largely the products of periodic statewide meetings of the Regional Managers and the Chiefs of Engineering Services from each region, in conjunction with representatives of the state air quality directorate. As the result of one such meeting a few years ago, the regions agreed to consolidate permits, so that each industry or business would have one permit per site with all necessary conditions to cover all air emissions sources. A few regions, according to interviewees, made an effort in this direction, and operated generally with this goal in mind. However, it seemed to have little impact upon the region with the history of multiple permits, and the policy was seen as a failure. There was very little the central office could do to force the regions into the same process, given the fact that the regional offices report to a different directorate. The state air quality directorate has the responsibility to coordinate regional efforts, but lacks the authority to compel coordination.

From the viewpoint of the regional offices, the more important state "directive" that influenced regional operations was the message that came down from the governor (then Casey, but the message is even stronger under Ridge) and from his Secretary of Environmental Resources(Environmental Protection) that the department become more "user-friendly," more cooperative with permit applicants and more responsive to the public of Pennsylvania. This message came down to the regional offices particularly through the politically appointed Regional Environmental Protection Director, who controls all environmental activity within the region, to the Regional Manager of air quality and the permit staff. This is a much more significant control mechanism for the regional permit staff and, in various ways, the permit operations have attempted to appear more helpful to applicants, and to process applications with greater dispatch. But this directive does not necessarily result in more uniformity across the regions. If anything, it probably has the result of making the regional offices more subject to political and business pressures within the region. Indeed, a number of interviewees pointed to examples, recent and not so recent, of regional political pressures applied on the permitting task. At times, the demand was for quicker processing of a particular application, and at times the drift was that an application should be approved which the responsible permitting engineer felt to be not justified. The Regional Environmental Protection Director sometimes served as the conduit for these demands. Usually, the permitting staff were supported by the regional hierarchy in resisting such pressures, but not always.

Perhaps the most telling evidence that differences existed in the regional air quality permitting process comes from permitting actions in 1994 in two regional

offices relating to a company which wanted to install exactly the same new industrial process in plants located in these two regions (Plan Approval #36-313-022A, Region Three; Plan Approval #04-309-035, Region Five). The region that completed its plan approval first issued a plan approval with a very brief overview and ten conditions. The second region found itself dealing with a hostile company when it attached twenty-one conditions, after a much more thorough study and review in a much more detailed document. The process and the outcomes, even the format of the plan approvals, are quite different -- not to mention the consequences for the company with its two plants in two regions.

### **Enforcement**

Enforcement constitutes the other major responsibility of the regional air quality program offices. It falls under the direction of the regional Supervisor of Operations, and a staff of field inspectors (Officially Air Quality Control Specialists). This staff is responsible for insuring that federal and state air quality requirements are adhered to within the region, and for instituting proceedings against violators of these laws. In practical terms, the field inspector is assigned a territory (in the 1987-92 period, typically a county or more in size), and within this territory, the field inspector is responsible for several related enforcement matters: the collection of data from source-based or state-run air quality monitors, inspection of permitted business for compliance purposes, investigation of citizen complaints about air quality, and the initiation of some type of action to bring within compliance those who have violated permit conditions or who have released air pollutants in excess of what the laws allow.

As is the case in other states, Pennsylvania law provides for both civil and criminal actions against those who violate clean air laws. Any violation of the acts can be treated as a summary misdemeanor or a more serious criminal offense (35 P.S.4009). In terms of civil actions, the law at the time specified a number of factors to be taken into account in assessing a civil penalty:

the department shall consider the willfulness of the violation; damage to air, soil, water or other natural resources of the Commonwealth or their uses; financial benefit to the person in consequence of the violation; deterrence of future violations; cost to the department; the size of the source or facility; the severity and duration of the violation; the speed with which compliance is ultimately achieved; whether the violation was voluntarily reported; other factors unique to the owners or operator of the source or facility; and other relevant factors. (35 P.S. Sec 4009.1 a)

Thus, the applicable laws gave considerable discretion to the agency in determining both whether to initiate a criminal prosecution or a civil penalty, and in assessing the amount of the penalty; and this discretion is exercised through the regional air quality offices.



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On the other hand, just as Pennsylvania regulations are fairly specific in terms of which businesses *must* obtain plan approval and operating permits, so federal and Pennsylvania laws are quite specific in spelling out exactly what air emissions or exceedences of permit conditions constitute violations of laws and regulations. Did this specificity lead to uniformity in how the six regions approached the task of enforcement? Certainly there are common elements. Those who served as field enforcement staff were all judged on the quality of their work through criteria developed by the Operations Section of each regional office. They were all expected to keep daily logs as they travel to sites, and these logs were subject to review by the regional Operations Chief. Any action the field enforcement staff contemplated taking in response to what was found in the field had to be cleared by the Chief of Operations, and potentially by the legal staff handling the air quality work for the region and others in the hierarchy.

But neither the law or the constraints on the field enforcement staff produced uniformity in enforcement in the six regions in the pre-1993 period. It is important in this regard that the regional offices by anyone's judgment were seriously understaffed until 1993-4. One region had as few as one field inspector for every three counties in the region, and few inspectors had less than one county as a territory. Given this problem, each region had to determine some priorities in terms of air quality enforcement, and these naturally related to how each region viewed its most serious air quality problems. For example, Region One, surrounding Philadelphia, has a large concentration of petroleum refining operations, and chemical industries. Region Four, in North Central Pennsylvania, is the most rural and least populated region, allowing it more flexibility in enforcement and permitting. It seemed natural to those interviewed that each region exercised its discretion to concentrate on its most important air quality problems, and gave lower priority to other possible offenses which the region saw as less important.

Regional discretion in enforcement actions was evident on other levels as well. Those interviewed agreed that the field enforcement staff operated with enormous discretion in their work, much of which, like the police officer on the beat, takes place outside the office in interactions with potential targets of enforcement action. How that discretion was used in the period under study here varied a great deal. It was the universal experience of Operations Chiefs interviewed that new field enforcement staff were most prone to cite every violation they found in the field. But whether this was considered appropriate field behavior varied from region to region. Some of the regions saw themselves or were seen by others as being "tough" in these enforcement situations, encouraging their field enforcement staff in this proactive, "by the book" posture toward air quality violations of any sort. Other regions saw themselves, and were seen by others, as less prone to cite all violators, and to concentrate their field effort on verbal warnings to "good guys" and more serious enforcement measures for the more serious or repeat offender.

Regional discretion is seen as well in the decisions which each regional enforcement staff made once a violation was both found and cited by the field inspector. The field enforcement staff and the supervisor might agree that no further action should be taken in a situation where the violation had been corrected, and where the problem was seen as a minor one not endangering public safety. Beyond that, the issue was whether to seek criminal prosecution of the offender or a civil penalty. Some of the regions made extensive use of summary criminal citations against violators where it was believed compliance would not otherwise take place. Other regions in the period under study preferred to operate largely through civil penalty assessments.

The civil penalty provisions of Pennsylvania law, as mentioned above, left each region with significant discretion over how to evaluate an air pollution violation and over how to assess a penalty. What evolved within the regional enforcement operations were regional civil penalty policies with some elements common to all regions. For past violations, the office would send a "letter agreement" to the violator specifying the violation and attaching a civil fine. Usually this letter was preceded by verbal negotiations between the agency and the offender, so that the fine was agreed to in advance. If the violator was unhappy with the assessment, appeal lay to the state Environmental Hearing Board. Since most regions were and continue to be litigation-averse, there was incentive to keep the amount high enough to make the company prone to comply in the future, and low enough so that the award would not be challenged. Companies preferred the letter agreement, because they did not have to acknowledge wrong-doing. Each region developed ground rules of its own for these calculations, and some regions perceived themselves to be more stringent in assessments than were others. For on-going violations, the air quality program developed a range of consent orders with assessments which, if the violator did not agree, could be enforced through the Environmental Hearing Board or through the state Commonwealth Court. Again, interviews indicated that some regions perceived themselves to be tougher in the employment of these bigger guns than was true in other regions.

As is the case with permitting, the state air quality directorate has attempted to bring more uniformity to the enforcement actions of the regional offices. These efforts have taken place largely through periodic meetings over the past ten years of the Regional Managers and the Operations Chiefs with representatives from the state air quality directorate, and have resulted in a number of policies over the past ten years relative to the assessment of penalties. For example, in 1984 the regions agreed to a policy relative to minor air pollution violations (the Pollution Incident Penalties Policy), and another relating to gasoline tank trucks (Policy for Enforcement of Violations of Sec.129.62).

In 1988, Region Three, which in general has had the reputation for the most vigorous enforcement posture, developed its own penalty policy to cover all situations and with the enthusiastic support of the legal staff serving the air quality program, the state air quality directorate advocated its adoption by the regions in general. This led to a series of drafts of such a policy by the legal staff, and in 1992 the Regional Managers agreed to the adoption of a new Regional Civil

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Penalty Assessment Procedure. The impetus for the agreement came from several directions: the perception of the legal staff that enforcement in general was lax; complaints from businesses relating to regional differences in penalties; somewhat strengthened enforcement powers made possible by the 1992 state Clean Air Act amendments; and apparently pressure from the U.S. Environmental Protection Agency. It is probably still too early to see whether the new policy will result in more uniform enforcement in the regional offices. However, when the Regional Chiefs attempted in 1993 to apply the new policy to hypothetical air pollution situations, their estimation of the civil penalties to be attached varied by hundreds of thousands of dollars when applied to the same factual situations. Given this, the policy continued to be revised.

There are, then, a number of pressures operating on the regional offices which should result in a more uniform approach to enforcement. However, it is again important to consider the fit between these pressures for uniformity and the pressures on the regional offices which come from the field operations directorate through the Regional Environmental Protection Director to the Regional Manager in charge of the regional air quality operation and to the Operations Chief. According to interviewees, the pressure on the regional offices to become more user-friendly and responsive means that the field inspectors are expected to give priority to citizen complaints. Most citizen calls relate to road dust, open burning, and malodors -- matters which some regions consider to be of minor importance -- but which, especially in warm weather, take valuable time away from inspections and more serious (from the staff's viewpoint) violations of which the public is usually unaware. Some regions respond more positively to these state pressures than other regions, and the result is not more uniformity, but rather more variability. In addition, there are from time to time political and business pressures brought to bear on regional enforcement, which occasionally have affected how regions have dealt with particular issues of enforcement, and the regional program is not always able to withstand such pressures.

### Permitting and Enforcement Actions, 1990 - 92

To determine whether objective data bear out the perceptions of those interviewed, the number of active permits per region at the end of 1992, and the arithmetic means of the civil actions taken by the regional offices in the period 1990-92 were compared to available data relative to each region; 1990 population and number of incorporated firms (from census data), the number of manufacturing firms in 1992 (from the *Harris Directory*), and the size of the regional air quality staffs in 1991-92. The civil actions taken are against a number of businesses or homeowners identified in Table 1 as Polluters, and the number of offenses lodged against them appears as Citations. Two particular offenses are singled out of the citations for attention; both are considered "optional" by hard-pressed regional offices: open burning and asbestos removal. For each region, the ratio of citations

to number of offenders was calculated for the period, as was the median civil penalty in dollars for the period for each region.

As Table 1 demonstrates, the permit and enforcement activity of the six regional offices does not correlate well with external data relative to each region. Although the relationships are positive, we cannot say that permit and enforcement activity is a product of regional characteristics -- one or more regions will not fit the pattern. For example, Regions One and Three have almost identical populations and manufacturing bases, but Region Three had almost twice as many active permits in 1992 as did Region One. Note also that active asbestos and open burning programs are negatively related to these external factors, although again not significantly. The size of the regional staff in this period is a much better predictor of activity in both permits and civil actions. But this cannot be taken to mean that each region simply did what it could with its available resources; it is just as likely that one or more regional programs used aggressive permitting and programs to justify increased regional personnel ( and there is some suggestion of this from interviews). What is probably most important in Table 1 is the strong relationship between how regional offices do permitting and how they do enforcement, as is seen by the relationship between numbers of active permits and numbers of polluters and citations (and the strong negative relationship between the citation to polluter ratio and the asbestos and open burning citations, as will be explained below). These relationships support the perceptions of regional office

**Table 1**  
**Regional Permitting and Enforcement, 1990-92**  
**Coefficients of Correlation**

	# Per.	# Pol.	# Cites	% Asbest.	% Open B.	Ratio Cites/ Pol.	\$ Med. Civ. Penalty
Population	.730	.589	.746	-.486	-.333	-.032	.591
#Firms	.550	.407	.585	-.508	-.311	.073	.779
#Manufact.	.661	.480	.682	-.569	-.507	.149	.750
Region Staff	.862	.848	.928	-.257	-.219	-.263	.075
# Permits	***	.901	.861	-.090	.280	-.385	.034
# Polluters	.901	***	.895	.197	-.034	-.568	-.094
# Citations	.861	.895	***	-.225	-.386	-.162	.155
% Asbestos	-.090	.197	-.225	***	.798	-.814	-.544
% Open Burning	-.280	.034	-.386	.798	***	-.752	-.415
Ratio Cites/Pol.	-.385	-.568	-.162	-.814	-.752	***	.459
\$Med. Civ. Pen.	.034	-.094	.155	-.544	-.415	.459	***

The multistage Bonferroni test of correlation coefficients was used. A correlation of .8114 is significant in a two-tailed test with a .05 confidence level.

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personnel that each region has used its discretion as its regional priorities and pressures dictated, rather than adopting approaches common to the whole state.

However, the end result is not really six unique postures relative to permitting or enforcement. As Table 2 indicates, the regional offices really fell into two distinct patterns in this period. These patterns were referred to earlier as "proactive" and "reactive." In the proactive regions - Two, Three, and Four - there was a higher percentage of active permits relative to the number of manufacturing plants. The ratio of citations to number of businesses and homeowners cited was lower in these same three regions because the enforcement personnel were citing more minor offenses more frequently. The more reactive regions, on the other hand - One, Five, and Six - were focusing their energies upon larger polluters with multiple violations. This regional pattern is indicated as well by the numbers of asbestos violations cited; the three proactive regions paid significantly more attention to asbestos violations than did the three more reactive regions. The same analogy almost holds relative to citations for open burning, although here Region Three has more in common with the more reactive regions. The regional proactive-reactive patterns begin to break down when we look at the median civil penalty dollar assessment in the period, reflecting the fact that there are many source-specific factors which have gone into this calculation region by region.

**Table 2**  
**Regional Permitting and Enforcement Characteristics**  
**1990-92**

Region:	Permits as % of Manuf.	Ratio Cit. to Pol.	Asbestos as % of Citations	Open B. as % of Citations	Median Civil Penalty
One	24	2.45:1	1.3	3.1	3406.8
Two	47	1.45:1	7.1	7.8	1170.2
Three	53	1.43:1	6.3	3.1	1461.9
Four	54	1.41:1	13.1	9.6	999.9
Five	42	2.38:1	2.2	4.1	966.86
Six	41	2.68:1	3.1	0	1625

The fact that the regional offices fall into two distinct patterns in some aspects of permitting and enforcement does not necessarily mean that the three most proactive regions carried out their tasks in nearly identical fashion; at least one of the "proactive" regions, as mentioned earlier, had a high number of active permits because of its preference for multiple permits, while its neighbor to the north (Region Four) got there through scouring regional newspapers for potential clients. Nor do these differences necessarily mean that the three more "reactive" regions performed their tasks less thoroughly. As the example cited above

suggests, their permits may have been written more carefully and with greater environmental sensitivity than was the case in one or more of the "proactive" regions. On the other hand, it seems to be the case that enforcement activity in the more proactive regions extended to a greater range of offenses against state and federal clean air laws. And it is certainly the case that much of the time in the period under study, the six regional offices were responding to quite different pressures and priorities than one would expect in an organization mandated to enforce a common set of laws and regulations.

### Conclusion

In the final analysis, the nature and the quality of implementation of federal and state clean air laws within the United States is unquestionably influenced by some or all of the factors mentioned as probable influences on state enforcement at the outset of this article. The effort here has been to better understand the contribution that organizational structure makes to a better understanding of state environmental enforcement by examining in some depth one organizational structure used by one environmental program within one state. This article has indicated that the use of regional enforcement with a matrix reporting structure in the Pennsylvania air quality program has resulted in sometimes conflicting directives to the six regional offices -- the one coming from the state air quality directorate, and the other through the state field operations directorate. It was clear that the regional air quality programs usually followed the lead of the field operations directorate when these conflicting messages were present, making efforts at arriving at a common approach more difficult.

The research indicates in addition that all three centrifugal forces Kaufman pointed to have had a profound affect on the air quality program in Pennsylvania. The personnel in each regional air quality program did develop their own informal norms and more routinized approaches both to permitting and enforcement, an organizational drift which began with decentralization of these tasks in the mid-1970's and persisted throughout the period in study, partly due to relatively stable staffing and the particular stamp which the heads of the regional offices put on approaches to the task. It is also evident that important regional political and business interests have influenced the way in which the regions carried out their tasks, interests which have found a frequent ally in the field operations directorate and at least some of the politically appointed heads of the DER(DEP) regional offices.

It is further evident that there have not been countervailing forces within the Pennsylvania Department of Environmental Resources (Environmental Protection) powerful enough to overcome this regional autonomy. The reporting structure does not make the regional air quality programs responsible to the state air quality directorate for the manner in which the regions carry out their responsibilities. Another contributing factor is that the state air quality directorate plays little or no role in hiring regional staff; as mentioned previously, this is done directly through the regional offices, subject to state civil service regulations. A

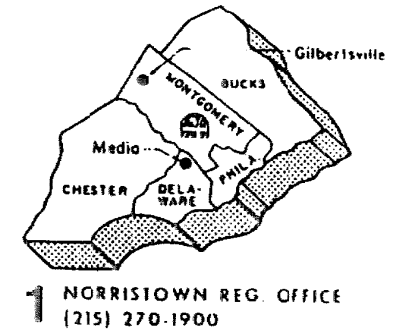
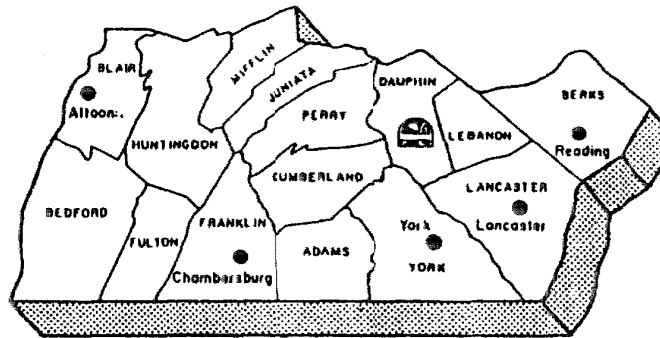
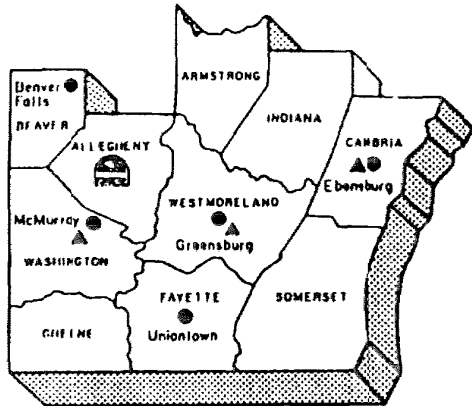
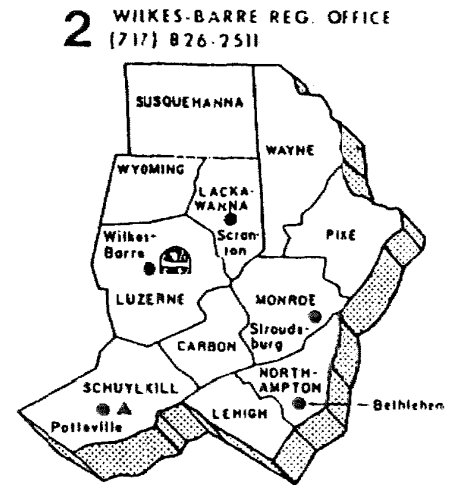
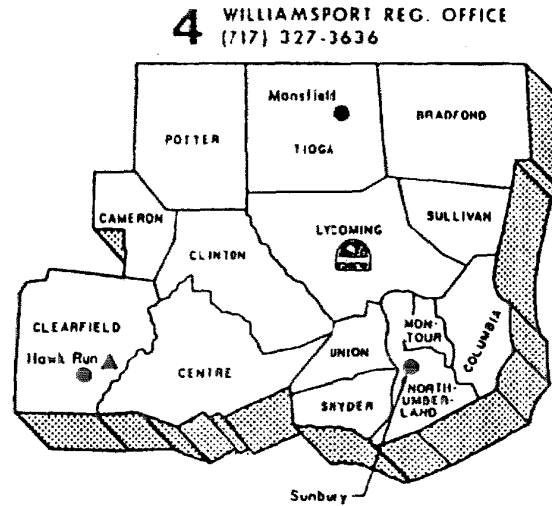
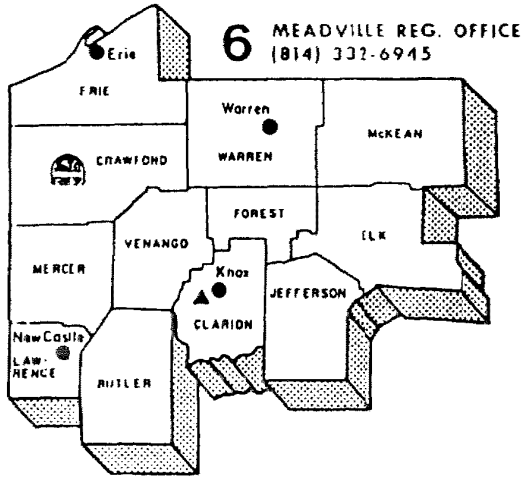
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third contributing factor is that the state DER(DEP) has not institutionalized field visits to the regional offices to examine their activity; the periodic meetings of regional heads of operations have been the major communication device, and it has been only moderately successful. Fourth, there is no systematic transfer of employees from one region to another, or even of field inspectors from one area to another within a region. Finally, the DER(DEP) makes very little use of symbols of identification except in the case of state park rangers. In sum, there were very few centralizing forces operating in the air quality program in Pennsylvania prior to 1993 to counteract the forces of regional autonomy. The regional programs evolved their own approaches to the tasks of permitting and enforcement, responding to regional concerns and political interests. An agency and staff member, commenting upon an earlier draft of this article, put it this way:

while I agree with your analysis, I think it is important to remember that Pennsylvania is an extremely diverse state. Politicians here have to run three or four different campaigns, region by region. From the perspective of the air quality program, solutions that work in one part of the state don't work in others - given regional needs and industry. I think we all try to arrive at the same result, but our approach has to differ region by region.

Between 1992 and the present time, the staff of the regional offices has more than doubled, from 82 to 187, a growth made possible by the pollution fees which can now be assessed against larger air polluters across the *United States*. This rapid growth should allow the regional programs to broaden the scope of their enforcement activity, and to deal with permit applications both more thoroughly and more speedily. At the same time, the regional programs are seeing the need for greater communication and coordination of permitting and enforcement efforts, and there is much more sharing of information than was the case two years ago. The institutionalization of regional enforcement inspections is even under consideration. But it remains to be seen whether these massively expanded regional staffs and this new spirit of cooperation will decrease the powerful centrifugal forces evident in the air quality program. The matrix organizational structure, and the decentralization of control over air quality implementation, have had and may continue to have a dominating role in how Pennsylvania carries out its air quality responsibilities.

# DEPARTMENT OF ENVIRONMENTAL RESOURCES ENVIRONMENTAL PROTECTION REGIONS



**LEGEND:** REGIONAL OFFICES DISTRICT OFFICES MINING OFFICES



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