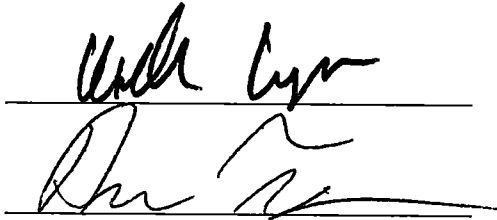


To the Graduate Council:

I am submitting herewith a thesis written by George Jason Jolley entitled "Second-Generation Conflict in the Tennessee Valley: A Case Study." I have examined the final copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Arts, with a major in Political Science


Michael R. Fitzgerald, Major Professor

We have read this thesis
and recommend its acceptance.



Accepted for the Council:



Associate Vice Chancellor and
Dean of The Graduate School

SECOND-GENERATION CONFLICT IN THE TENNESSEE VALLEY:

A CASE STUDY

A Thesis
Presented for the
Master of Arts
Degree
The University of Tennessee at Knoxville

George Jason Jolley
August 2000

DEDICATION

This thesis is dedicated to my parents,
George and Rae Jolley.

ACKNOWLEDGEMENTS

There are many people to whom I am grateful for the completion of the M.A. program in political science and this thesis. I am eternally grateful to my major professor and friend, Dr. Michael "Doc" Fitzgerald for his contribution to my development as a scholar both in and away from the classroom. I would also like to thank my assistantship advisors Dr. William Lyons and Dr. John Scheb for their support. In addition, I would like to thank Dr. Bruce Tonn for serving on my thesis committee.

ABSTRACT

The purpose of this study is to determine if government can regulate itself in the public interest. Using the Environmental Protection Agency's (EPA) regulation of the Tennessee Valley Authority (TVA) over implementation of air pollution control policy as the analytical focus, this study systematically inquires into the interplay of social, political, and economic forces involved in second-generation conflict and regulation. This study also examines how second-generation environmental conflict between EPA and TVA differs from first generation conflict.

The first generation conflict occurred in the late 1970s when EPA and TVA had a legal dispute over compliance with air pollution control policy. The dispute involved a citizen lawsuit intended to produce TVA's compliance that was settled by a consent decree. The consent decree settlement cost TVA \$760 million in compliance costs. The second-generation conflict began in November 1999 when EPA issued an administrative order against TVA and filed suit against seven private utilities claiming the utilities made modifications to their coal-fired steam plants without proper permitting. TVA claims EPA has issued a new interpretation of an existing regulation. The conflict surrounds a "grandfather" clause in the Clean Air Act that exempts older coal-fired plants from new clean air requirements.

The study finds that government can regulate itself in the public interest and intragovernmental conflict in this case is representative of findings in

previous studies concerning intragovernmental conflict and regulation. In this case, EPA and TVA have expanded the scope of the conflict to include other political and administrative actors. TVA has also attempted to maintain agency autonomy and prevent EPA from regulation that affects TVA's ability to carry out the agency's mission: the production of low-cost power.

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LIST OF ABBREVIATIONS

AEP	American Electric Power
CAA	Clean Air Act
CCS	Constant Control System Techniques
EPA	Environmental Protection Agency
FFCA	Federal Facilities Compliance Act
ICS	Intermittent Control System
NAAQS	National Ambient Air Quality Standards
NSPS	New Source Performance Standard
NSR	New Source Review
PSD	Prevention of Significant Deterioration
SIP	State Implementation Plan
TVA	Tennessee Valley Authority

CHAPTER I

INTRODUCTION

James Madison observed in *The Federalist* No. 10 that “the latent causes of factions are sown into the nature of man” (Hamilton, Jay, and Madison 1961: 79). Perhaps Madison would make the same observation of American bureaucratic agencies in the modern era. As E. E. Schattschneider noted four decades ago, “some issues are organized into politics, while others are organized out” (1960: 69). During the past several decades the scope of issues “organized into” the political agenda have grown (Durant, Fitzgerald, and Thomas 1983). The expansion of “positive” government has charged government with responsibilities “totally foreign to nineteenth-century and early twentieth century governments” (Meier 1993: 1). Unlike early regulatory efforts, positive government brings social regulation, which is “principally concerned with the achievement of broad social goals with respect to safety, health, employment fairness, and related issues” (Cook, 1988: 4-5). As new social regulation is “organized into” the national political agenda, disparate public policies often result. James Q. Wilson (1967) described one aspect of the “bureaucracy problem” as “getting the bureaucracy to serve agreed on national goals” (4). If agencies seek to achieve disparate public policy goals, what happens when these disparate public policies place federal agencies at odds? The positive and the regulatory state will inevitably collide. The Tennessee Valley Authority is representative of the positive state and is charged with a positive mission,

including the production of low-cost power in the Tennessee Valley. The EPA, charged with protecting the environment, is representative of the regulatory state. These agencies pursue conflicting missions; EPA seeks a higher standard of air quality that raises the cost of TVA's power production.

Purpose of the Study

The purpose of this study is twofold. First, this study seeks to understand if government can regulate itself in the public interest. Using the Environmental Protection Agency's (EPA) regulation of the Tennessee Valley Authority (TVA) over implementation of air pollution control policy as the analytical focus, this study will systematically inquire into the interplay of social, political, and economic forces involved in second-generation conflict and regulation. Second, this study will examine how second-generation conflict differs from first generation conflict.

In the 1970s EPA issued notices of air pollution violations and attempted to bring 10 of TVA's 12 coal-fired steam plants into compliance with sulfur dioxide emissions regulations (Durant, Fitzgerald, and Thomas, 1983; Rivkin, 1982; Castro, 1982). TVA refused to comply and challenged EPA's authority, leading to a citizen lawsuit intended to produce TVA's compliance with the Clean Air Act (Durant, Fitzgerald, and Thomas, 1983; Rivkin, 1982; Castro, 1982). A settlement was reached in 1979, and TVA signed a consent decree settling the dispute (Durant, Fitzgerald, and Thomas, 1983; Rivkin, 1982; Castro, 1982). The

settlement cost TVA \$760 million (Durant, Rivkin, and Fitzgerald, 1983).

Subsequently, TVA complied with the requirements of the consent decree by 1983 and by 1984 appeared to be in full compliance with the Clean Air Act (TVA Annual Report 1983).

In 1999 EPA again issued an administrative order against TVA and filed suit against seven private utilities claiming violations of clean air standards (Mansfield, *Associated Press Newswires*, 03 November 1999). TVA refuted these allegations, claiming a dramatic change in the way regulations have been applied in the past (Mansfield, *Associated Press Newswires*, 03 November 1999). EPA claims that TVA made major modifications to their coal-fired steam plants without the proper permitting under New Source Performance Standards (NSPS) and New Source Review (NSR) (Schiffer, United States Court of Appeals for the Eleventh Circuit, Docket Nos. 00-12310-E and 00-12459-E).

The EPA/TVA case is an interesting study for both scholars and policy-makers for several reasons. First, the case presents an excellent example of one federal agency (EPA) holding another agency (TVA) accountable to the law. Secondly, the case presents a rare opportunity to study second-generation conflict and regulation between two federal agencies. The case also allows an examination of the problems associated with policy implementation in an adversarial environment. The conflict provides an excellent laboratory environment for studying the problems raised by Wilson and Rachel (1977) and

Durant, Fitzgerald, and Thomas (1983) in regards to intragovernmental regulations.

Regulatory Policy: The Literature

Brian J. Cook (1988) distinguished between two categories of regulation, economic and social. Economic regulation represents attempts by the federal government to control industries and economic activities, whereas social regulation relates to broad social goals (i.e. clean air and water, safe workplaces) that “cut across broad industries, social classes, and economic sectors” (Cook, 1988: 4-5). In many cases, economic regulation occurs at the request of the industry, often to protect it from competition (Cook, 1988). This type of regulatory environment has drawn criticism from many who feel the regulatory agency is often “captured” by the industry being regulated (Bernstein, 1955; McConnell, 1966; Stigler, 1971). George J. Stigler (1971) argued that regulatory agencies often promulgate regulations designed for the benefit of the industry being regulated. Others scholars disagree with the agency capture hypothesis (Wilson, 1980; Meier, 1993). James Q. Wilson (1980) stated, “if one believes that regulatory agencies are captured, one must explain why business firms so often complain of their decisions” (ix). Ken Meier (1993) also agreed, noting, “bureaus are hardly passive pawns of their clientele” (64).

Social regulation, however, rarely occurs at the request of the regulated industry; instead, it occurs because legislators are responding to the pressures of

non-industry interests (Cook, 1988). However, Ringquist (1993) found that, “organized interests representing industrial and utility concerns also exert significant influence over state air pollution control policy” (336). This case study examines the implementation of a form of social regulation, air pollution control.

Intragovernmental Regulation

Over two decades have past since James Q. Wilson and Patricia Rachal (1977) asked, “Can the government regulate itself?” Intragovernmental regulation is defined as one government agency legally charged with regulating another government agency on the same level of government (i.e. a federal agency regulating another federal agency). Wilson and Rachal (1977) reached several conclusions concerning intragovernmental regulation stating, “in general, it is easier for a public agency to change the behavior of a private organization than of another public agency” (4). Federal agencies often come into conflict because the agencies are “pursuing goals that are diametrically opposed” (Rourke, 1984: 77). Because autonomy is extremely important to federal agencies, the ability of an agency to control the behavior of another agency increases if the regulated agency does not view the “constraint as threatening its autonomy” (Wilson and Rachal, 1977: 11). The importance of autonomy leads public agencies to attempt to control other public agencies indirectly (Wilson and Rachal, 1977: 12). EPA is infringing on TVA’s power production procedures by regulating modifications to coal-fired steam plants.

Several other factors are also important during intragovernmental conflict. Wilson and Rachal (1977) noted that the “attention and support of the President” is important and highly valued during conflict with other agencies (13). The first generation conflict between TVA and EPA supports this proposition. The EPA gained the support of President Jimmy Carter in bringing TVA into compliance with clean air standards (Durant, Fitzgerald, and Thomas, 1983).

Durant, Fitzgerald, and Thomas (1983) observed that “Congress has deliberately divided the executive branch against itself” by adopting disparate public policies that place federal agencies in adversarial relationships, thus creating a modified versions of checks and balances within the executive branch itself (209). In “true Madisonian fashion,” Congress has enacted social regulation requiring federal agencies to hold other federal agencies accountable to the law (Durant, Fitzgerald, and Thomas, 1983: 215). Durant, Fitzgerald, and Thomas (1983) determined that federal agencies could be held accountable given certain conditions. First, the president can use appointment powers to place individuals who share policy preferences with the regulatory agency in key positions within the regulated agency (Durant, Fitzgerald, and Thomas, 1983). Second, the “context-defining activities of a concerned president” can also hold federal agencies accountable to the law (Durant, Fitzgerald, and Thomas, 1983: 215). Third, Congress can hold federal agencies accountable to the law by adopting legislation that corrects “flaws in the organizational infrastructure of policy implementation” (Durant, Fitzgerald, and Thomas, 1983: 215).

O'Leary et al. (1999) observed, "parties in a conflict often turn to the courts or to the legislature in the hope of resolving a dispute in their favor" (193). Parties may also press the conflict outside formal political bounds "through demonstrations, boycotts, or other direct action" (193). In this case, EPA seeks to resolve the dispute by issuing an administrative order against TVA and using the courts to bring polluters into compliance.

Policy Implementation: The Literature

Implementation is simply "the carrying out of a basic policy decision" (Sabatier and Mazmanian, 1983: 7). In theory, it is just another step in the public policy process involving the administration of a particular policy decision. In reality, policy implementation is a crucial step in the success or failure of various legislative initiatives. Ringquist (1993) called implementation "the crucial link between public policies and their associated outcomes" (1025). Rosenbaum (1998) stated that public policies are nothing more than "statements of intention" until they become "operational programs," and their impact depends upon how they are implemented (54). The implementation stage affords interest groups an opportunity to influence policy outcomes even if they failed to influence other stages of the policy process. In examining regulatory policy implementation cases involving TVA and EPA, Durant (1984) observed, "once more, implementation appears to be a bargaining process where policy is negotiated, not dictated; where participants strive to condition implementation in whatever

forum and at whatever stage of the policy process that seems promising; and where behavior is best understood as the rational pursuit of self-interests narrowly defined" (310). Francis Rourke (1969) made a similar observation concerning bureaucracy, noting, "public policy is mainly hammered out, through bargaining, negotiation, and conflict among appointed rather than elected officials" (vii). Ripley and Franklin (1986) agreed, arguing that while bureaucrats must take into account the preferences of elected officials and other actors, bureaucrats are not neutral pawns; rather their professional and organizational preferences greatly impact successful (or unsuccessful) implementation.

In examining the implementation of the 1972 California Coastal Initiative, Paul A. Sabatier and Daniel A. Mazmanian (1983) made several generalizations concerning successful policy implementation. They hypothesized that policy implementation would be more successful at the state level because federal agencies must deal with a more heterogeneous population in implementing policy (Sabatier and Mazmanian, 1983). Successful implementation rests on implementing agencies being "consistent with statutory objectives" and the regulated groups complying with those decisions (Sabatier and Mazmanian, 1983). The current EPA/TVA case that is the heart of this study provides an interesting test of this generalization, because TVA claims EPA has made a dramatic change in the way regulations have been applied in the past (Mansfield, *Associated Press Newswires*, 03 November 1999).

The courts have also become increasingly involved in policy implementation (Horowitz, 1977; Rosenbaum, 1998). Often this involvement results in the judges acting as program administrators; for example, federal district judges have drawn redistricting lines for legislative districts and become active in school desegregation (Ripley and Franklin, 1986). Seidman and Gilmour (1986) observed, "growth of the regulatory state has converted the one unelected branch of government, the Judiciary, from a relatively neutral umpire or referee to an active player in the administrative game" (132). A broader definition of "the standing to sue" handed down by the Supreme Court in the 1970s opened the door for citizen lawsuits against government agencies over enforcement of environmental regulation (Rosenbaum, 1998). Litigation became another weapon of environmental interest groups and concerned citizens forcing the courts to become a political battleground (Rosenbaum, 1998). This standing to sue was illustrated in the first generation EPA/TVA case and played a major role in settling the EPA/TVA dispute (Durant, Fitzgerald, and Thomas, 1983; Rivkin, 1982; Castro, 1982). Despite increased standing to sue and the first generation EPA/TVA case, Wise and O'Leary (1997) observed that, "for the most part, federal agencies have enjoyed immunity from civil suits enforcing antipollution laws against them under the doctrine of sovereign immunity" (157). Wise and O'Leary (1997) further note that, "the federal courts had a difficult time dealing with the federal sovereign immunity issue in environmental enforcement in part because of the differing language of federal environmental statutes" (157).

Wolverton (1991) echoed the problems of bring federal facilities into compliance with environmental regulation, noting, “much of the worst pollution in the United States emanates from facilities owned and operated by the federal government” (565). EPA must often rely on federal agencies’ “voluntary compliance with its orders” because of “the unitary executive theory” that states the executive branch is united under the President and adjudication by the judiciary violates the constitutions separation of power (Wolverton, 1991: 570-571). The courts, however, have never endorsed this theory, yet the Justice Department in the past has endorsed unitary executive theory, preventing the EPA from bringing “actions for judicial enforcement against noncompliant federal facilities” (Wolverton, 1991: 571). The Justice Department in this case is not adopting a unitary executive theory approach; instead, the EPA, with support of the Attorney General, is using the courts to bring TVA into compliance with environmental standards.

In response to federal facilities noncompliance with environmental laws, Congress passed the Federal Facilities Compliance Act of 1992 (FFCA) (Gross, 1993). The FFCA waives federal facilities’ sovereign immunity and allows states to impose fines for environmental violations (Gross, 1993). Much of the federal facilities noncompliance with environmental laws occurs in the area of toxic waste and the difficulty of compliance associated with the Resource, Conservation, and Recovery Act (RCRA) (Gross, 1993). This case study focuses on a federal facility’s compliance with air pollution laws.

Environmental Policy and Regulation: The Literature

Environmental regulation has historically relied upon a “command-and-control” or “standards and enforcement” approach to solving environmental problems (Rosenbaum, 1998: 179). Steinzor (1998) described command-and-control rules as “detailed, legally enforceable limits, conditions, and affirmative requirements on industrial operators” (104). According to Rosenbaum (1998) command-and-control is best explained as the five phases of pollution policy: “goals, criteria, quality standards, emission standards, and enforcement” (179). *Goals* refer to the objective of pollution regulations determined (at least theoretically) by Congress (Rosenbaum, 1998: 180). *Criteria* refer to the technical information, gathered by scientists, that determines what pollutants cause environmental harm (Rosenbaum, 1998). *Quality standards* determine the “maximum levels of various pollutants” that are allowed, and *emission standards* determine the acceptable amount of pollution that discharged (Rosenbaum, 1998: 179-180). *Enforcement* involves the mechanisms used to assure that the requirements for pollution reduction are achieved (Rosenbaum, 1998). Rosenbaum (1998) noted pollution control often involves technical language and expertise concealing the “political forces” involved, yet the regulatory process remains “fundamentally a political enterprise” (184).

Environmental regulations can also be costly. In a study of hazardous waste cleanup, Russell, Colglazier and Tonn (1992) observed, “most of the

cleanup efforts were begun with good intentions but with only the haziest notion of the money and resources that ultimately would be required" (12). Cahn (1995) simply stated, "the single largest constraint to clean air is the cost" (46). Cahn (1995) further observed the "main question for policy makers" is how much "the public is willing to spend on clean air, and ultimately, who should pay most" (47).

The nature of administrative discretion found in command-and-control environmental regulation also affords many opportunities for political influence (Rosenbaum, 1998). Rather than dealing with controversial or difficult policy objectives, Congress may shift the responsibility for determining how a law is to be phrased, interpreted, and enforced to the regulatory agency, creating an atmosphere of competing interests clamoring to influence the agency with their policy preferences (Rosenbaum, 1998). As Brown, Peterson, and Tonn (1995) noted regarding public involvement in natural resources decisions, "the larger public can only hope that a variety of effective interest groups, representing the full diversity of public opinion, takes part in the public involvement process" (251). Otherwise, environmental decisions may be made in a manner suitable only for a narrow, special interest.

The technical standards required in pollution regulation must also be created and revised, leading to further politicization of the process by competing interests, Congress members, and other government agencies (Rosenbaum, 1998). In the enforcement arena, the regulatory agency is granted great discretion in enforcement and flexibility for granting compliance deadline

extensions (Rosenbaum, 1998). For example, the EPA created regulations on vinyl chloride more than two and a half years after it was identified as a human carcinogen (Doniger, 1978). The EPA justified the delay as necessary to prevent economic hardship on the users and manufacturers of vinyl chloride (Doniger, 1978).

Many economists also criticize command-and-control because of inefficiency (Steinzor, 1998). Critics argue that command-and-control offers no economic incentive to comply with regulatory mandates in a more rapid or efficient manner, and the costs of compliance may outweigh the benefits generated (Rosenbaum, 1998; Andrews, 1999). Industries may find it more economically viable to pollute and pay fines rather than undergo more expensive costs of compliance with environmental regulations (Rosenbaum, 1998). Critics also complain that command-and-control “has evolved into a morass of complex, contradictory, and essentially unenforceable requirements that overwhelm regulators and regulated alike” (Steinzor, 1998: 117). Regulators may also lack the appropriate industry-specific technical knowledge to determine the most efficient manner of compliance thus eliminating technological innovation (Rosenbaum, 1998; Steinzor, 1998). Economists and other critics of command-and-control argue for incentive based regulatory approaches that foster efficiency and market-based solutions (such as emissions trading). Under an incentives approach (as opposed to command-and-control), the regulating agency alters the behavior of the regulated by making it more economically advantageous to

comply with a certain regulation given less economically viable alternatives (Cook, 1988). Bryner (1997) notes that under an incentive-based approach “clear incentives would encourage them (polluters) to change their behavior” (139). Another similar alternative to command-and-control is self-regulation. Under this method, “government typically specifies broad performance standards but leaves design of the means used to achieve those standards up to the discretion of the regulated entity” (104).

Not all studies of command-and-control concluded that regulatory efforts are ineffective, nor are all incentive-based efforts effective. In examining the effectiveness of air pollution control regulation, Evan J. Ringquist (1993) concluded, “strong regulatory programs and other regulatory efforts have had the significant effect of reducing air pollution emissions in the states” (1041). In a study of certain provisions of the sulfur dioxide trading program enacted under the Clean Air Act of 1990, Juan-Pablo Montero (1999) found the an industries ability to substitute less costly emission reductions from specific sources “had little effect on both the sulfur dioxide emissions trading program’s overall performance and sulfur dioxide emissions reductions” (1030).

The Clean Air Act

The Clean Air Act of 1970 established the federal government’s regulatory authority for determining the national ambient air quality standards (NAAQS), emissions restrictions, and motor vehicle emissions requirements (Andrews,

1999). The act forced industries to meet uniform national standards and mainly focused on the adoption of “end-of the-pipe” technologies rather than changes in production processes (Andrews, 1999). The CAA of 1970 left unclear the procedural requirements for bringing federal facilities into compliance because federal facilities were “among the worst” sulfur dioxide polluters (Durant, 1985: 34-35). The Clean Air Act filled a legitimate need for minimum uniformity in environmental standards. Nicholas C. Yost (1999) noted the importance federal environmental regulation to “ensure a ‘level playing field’ and make it more difficult for states with low environmental standards to attract industry on the basis of leniency” (568).

In 1977, Congress enacted major amendments to the act requiring State Implementation Plans (SIP) to expeditiously implement “reasonably available control measures”, especially in “non-attainment areas” (areas where national ambient air standards were consistently violated) (Cook, 1988: 36). The 1977 amendments also granted the EPA administrator authority to issue compliance orders and establish monetary penalties for noncompliance (Cook, 1988). Prior to the 1977 amendments, TVA had attempted to use “intermittent control systems techniques” (ICS) and build taller smokestacks allowing them to meet ambient air quality standards in the vicinity of their plants (Durant, Fitzgerald, and Thomas, 1983: 211). The 1977 amendments disallowed ICS techniques, instead relying on “constant control techniques” (CCS) forcing TVA to “burn low-sulfur

coal and/or install scrubbers technology at its power plants” (Durant, Fitzgerald, and Thomas, 1983: 211).

One of the major modifications in the Clean Air Act of 1990 was Title IV that created a new emissions trading program for sulfur dioxide (Rosenbaum, 1998; Andrews, 1999). This required the reduction of national sulfur emissions to half of their 1980 level by the year 2000 (Rosenbaum, 1998). Stricter standards were also set in the utility industry for the 110 largest producers of sulfur dioxide (Rosenbaum, 1998; Andrews, 1999). The CAA of 1990 established a number of additional requirements on TVA relating to sulfur dioxide and nitrogen oxide emissions leading TVA to spend \$935 million in capital expenditure through 1999 to complete “Phase I” of compliance requirements (TVA Annual Report, 1999: 25).

Study Overview

Chapter 2 of this study discusses a theoretical framework for second-generation intragovernmental conflict. Specifically, how might the EPA’s second-generation conflict with TVA differ from the first-generation? The chapter also discusses the research design and scope of the research of this case study. In addition to the previously stated research question, the study posits several propositions regarding intragovernmental conflict.

Chapter 3 of the study examines the history of the conflict between EPA and TVA. Relying upon research conducted by Durant, Fitzgerald, and Thomas,

(1983); Rivkin, (1982); and Castro, (1982), the study discusses the first generation conflict and traces the evolution of the second-generation conflict over air pollution regulation.

Chapter 4 of the study analyzes the events that occurred between TVA and EPA in the second-generation conflict, and Chapter 5 discusses the results of the study and the implications second-generation conflict has on the public interest. Chapter 6 consists of a summary, conclusion, and suggestions for future scholars studying this conflict.

CHAPTER II

A THEORETICAL FRAMEWORK FOR SECOND-GENERATION INTRAGOVERNMENTAL CONFLICT

This chapter presents a theoretical framework for second-generation intragovernmental conflict. This is done by:

1. Examining the changing political climate from 1970 to the present as it pertains to environmental policy adoption and implementation;
2. Analyzing how the changing political climate has affected the environmental regulation as it relates to the EPA's regulation of TVA over air pollution control;
3. Examining the differences between first generation and second-generation conflict in the EPA's regulation of TVA over air pollution control.

The Changing Political Climate

Walter Rosenbaum (1998) divided U.S. environmentalism into two eras. Era I began in the 1960s and lasted until the latter 1980s, and Era II began in the late 1980s and is still occurring at the time of this writing. The Reagan presidency marks the division between these "environmental eras" (Rosenbaum, 1998). Era I witnessed the formation of "the legal, political, and institutional foundations of the nation's environmental policies" (Rosenbaum, 1998: 11). During this time the National Environmental Policy Act (NEPA), Clean Air Act (CAA), and Clean Water Act (CWA) were enacted in an effort to nationalize

environmental policies (see for example, Rosenbaum, 1998; Andrews, 1999). President Nixon created the Environmental Protection Agency (EPA) under an executive order in 1970 (Rosenbaum, 1998). The main focus of environmental policy during this era consisted of dealing with “first generation” environmental problems by concentrating on more “conventional” pollutants that were affecting air and water quality (Vig and Kraft, 1997).

The election of Ronald Reagan to the White House slowed the momentum gained by the environmental movement (Rosenbaum, 1998; Andrews, 1999). Some of Reagan’s primary policy objectives included providing “regulatory relief” to business and industry and reducing the size of the federal government (Rosenbaum, 1998: 11). Little was done during the Reagan years to “advance the implementation” of existing environmental policies or address new issues (Rosenbaum, 1998: 12). Instead, Reagan focused on the economic costs and benefits of regulation and reduced the “institutional resources” for administering many environmental programs (Vig and Kraft, 1984: 22).

Era II was ushered in with the election of President George Bush and his promise to become the “environmental president” (Rosenbaum, 1998: 12). During this era, the Clean Air Act Amendments of 1990 were among the major legislation passed (Rosenbaum, 1998). Rosenbaum noted that the second environmental era arrived without the fanfare given environmental problems in the 1970s. The 1990s saw the internationalization of environmental problems

and a growing division within the environmental movement itself between environmental moderates and radicals (Rosenbaum, 1998).

Vig and Kraft (1997) defined several generations of environmental problems. The “first generation” problems consist of “conventional pollutants” and involve air and water quality (Vig and Kraft, 1997: 23). “Second-generation” problems involve “toxic chemicals, hazardous wastes, and nuclear wastes,” and the evolving “third generation” problems consist of “global climate change” and “protection of biodiversity” (Vig and Kraft, 1997: 23). Despite the advent of second and third generation problems, the first generation ecological problems are still present (Vig and Kraft, 1997). The “easy problems” of air and water quality have been the focus of earlier efforts, leaving more complex problems of air and water pollution unanswered; meaning that the marginal gains of clean air and water in the present will be more expensive than in the previous generation (Vig and Kraft, 1997: 23).

As this case suggests, the *easy problem* of air pollution remains unsolved. The conflict between EPA and TVA over compliance with air pollution control standards occurred in the late 1970s and is reoccurring again twenty years later in a similar form.

Political Climate and Regulation: First Generation Intragovernmental Conflict

In examining the media attention and issue saliency given to second-generation problems (i.e. toxic, hazardous, and nuclear waste), Bacot and Fitzgerald (1999) note, “most people are generally unaware of these threats and the problems they present” (528). Downs (1972) observed that most domestic “crises” reflect “a systematic cycle of heightening public interest and then increasing boredom with major issues” (39). Downs (1972) called this phenomenon the “issue-attention cycle” where issues are brought to public awareness and fade as the people realize the difficulty and cost associated with these environmental or other domestic problems (40).

This study uses a similar logic to examine a first generation problem, air pollution, that is reoccurring in an era of second-generation and third-generation problems; specifically, positing that citizens and interest groups maybe less aware of air pollution problems that appear to have been previously solved, at least in the first-generation EPA/TVA case.

The EPA/TVA case in the 1970s is indicative of the political environment of that era. The nationalization of environmental problems and the heightened awareness of environmental degradation, led many to term the 1970s, “The Environmental Decade” (Rosenbaum, 1998: 11). The study of the EPA/TVA conflict during this decade conducted by Durant, Fitzgerald, and Thomas (1983) demonstrates the importance that awareness and activism by citizens and

organized interests played in bringing TVA into compliance with air pollution control laws. Citizen participation can play a vital role in the success and implementation of environmental policy. Grant (1997) found that states with “right-to-sue” laws or well-funded “right-to-know” programs have “significantly lower rates of toxic emissions over time” (859). Sabatier (1977) also noted that citizen participation is a major legal resource in affecting policy with a regulatory agency, particularly when the citizens acquire “formal legal status” (431). Citizen activism led to a lawsuit filed by 11 citizen groups and the State of Alabama in 1977 to bring TVA into compliance with the Clean Air Act (Durant, Fitzgerald, and Thomas, 1983). EPA joined the lawsuit several months later in an effort to force TVA’s compliance (Durant, Fitzgerald, and Thomas, 1983). EPA lagged behind the efforts of citizen groups through out this conflict; according to an interview conducted by Durant, Fitzgerald, and Thomas (1983), one EPA administrator was urged by Marvin Durning, Deputy Administrator for Enforcement at EPA, to ‘run like hell to catch up with the citizen groups’ (as quoted in Durant, Fitzgerald, and Thomas, 1983: 213). As shown in Figure 2-1, the momentum for this regulatory effort began at the local level, involving citizen groups and states within the Tennessee Valley and expanded to included actors and administrators at the national level, even involving the president. Generalizing from the first generation EPA/TVA case, it appears that first generation intragovernmental conflict begins at the local level and expands “upwards” to the national government. The policy of air pollution control is adopted at the national level,

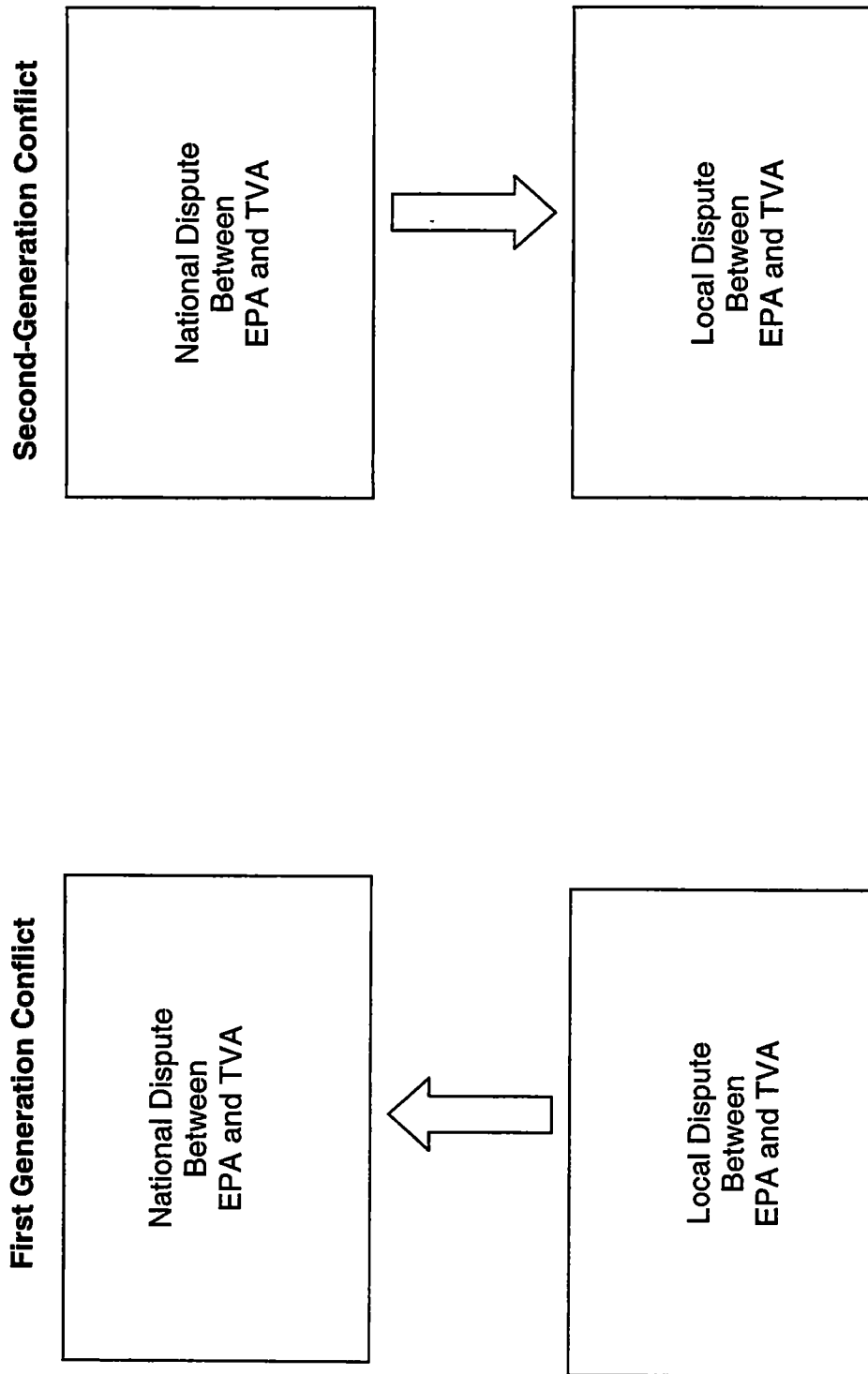


Figure 2-1: Origin of Intragovernmental Conflict

but must be implemented at the local and state level. In the first generation case, this implementation of air pollution control on TVA proved difficult at the state and local level and expanded to include the national government in reaching a solution.

Political Climate and Regulation: Second-Generation Intragovernmental Conflict

As Rosenbaum (1998) stated, the 1990s and Environmental Era II were not ushered in with fanfare of Earth Day in 1970 and the vast nationalization of environmental reforms that characterized the first environmental era. During the 1988 presidential campaign, George Bush campaigned on an environmental agenda that included passage of a new Clean Air Act, and in an attempt to invoke the image of Theodore Roosevelt, Bush proclaimed himself, “the Environmental President” (Vig, 1997; Rosenbaum, 1998). Despite the attention the passage of the Clean Air Act Amendments in 1990 brought to the environment, by 1992 most citizens were less concerned about the environment and more concerned about the economy heading into the presidential election (Vig, 1997). By 1991, the Bush Administration began to backslide on environmental issues in an effort to secure support in the upcoming election and boost a failing national economy (Vig, 1997). The Council on Competitiveness, headed by Vice-President Dan Quayle focused on provided relief to business and industry suffering from excessive regulation (Vig, 1997). The “Quayle

Council” redefined wetlands in such a manner that would cut the number lands protected under federal wetlands protection in half, eased regulations for recycling, and weakened many of the regulations involved with implementing the Clean Air Act of 1990 (Vig, 1997: 104). The actions of the “Quayle Council” sparked protest from Congress “reminiscent” of the Reagan years (Vig, 1997: 104). In his 1992 State of the Union address, President Bush further pushed an agenda of “regulatory relief” by declaring a moratorium on new regulations (Vig, 1997: 104).

While the major issue of concern to voters in 1992 was the economy, Clinton also gained the overwhelming support of environmentalists (Vig, 1997). Clinton’s running mate, Al Gore, had been a leading environmentalist in the Senate and had recently authored a book, *Earth in the Balance*, focusing on environmental issues (Vig, 1997; Rosenbaum, 1998). With Vice President Gore “formulating and coordinating” environmental policy and with a host of popular appointments to “key environmental positions,” environmentalists were generally pleased during the initial stages of the Clinton administration (Vig, 1997: 106). By the Congressional election of 1994, many considered the administration’s response to environmental problems a failure; the election of a Republican majority in Congress threatened to further thwart any attempts at expanding and implementing the environmental agenda (Vig, 1997; Rosenbaum, 1998). The election of 1996 did remove the Republican majority in Congress, further preventing Clinton the opportunity to pursue an environmental agenda

(Rosenbaum, 1998). Clinton's environmental failures were not all the result of a Republican Congress; Clinton also disappointed some environmentalists by allying with Republicans and supporting the North American Free Trade Agreement (NAFTA) and the new General Agreement on Tariffs and Trade (GATT) (Vig, 1997).

The political climate of the 1990s, coupled with TVA's claims that EPA "reinterpreted" the way regulations have been applied in the past, seems to suggest that the second-generation in the EPA/TVA case is coming from *top-down* rather than *bottom-up* as witnessed in the first generation conflict (Mansfield, *Associated Press Newswires*, 03 November 1999). The salience of environmental issues is less prevalent today than in the 1970s. The 2000 presidential election will most likely pit Vice President Al Gore, a Tennessean and noted environmentalist, against Governor George W. Bush, Jr. from Texas. Given the Clinton administration's problems with advancing a pro-environmental agenda, perhaps internal pressure exerted by the Executive Branch on the EPA is a crucial component of responding to polluters in the Tennessee Valley prior to a presidential election. A presidential election occurring during a period of sound economic expansion may focus on questions that were less important during the recession election of 1992, such as the environment. In fact, in 1997 Gore praised new clean air rules and EPA Assistant Administrator Mary Nichols claimed that, "most pollution problems can be remedied by forcing coal-burning utilities and industries to reduce harmful admissions by smokestack scrubbers";

TVA responded by claiming that new rules could force an increase in electricity rates (as quoted in Powelson, *Knoxville News-Sentinel* 17 July 1997: A4). As posited in Figure 2-1, the researcher has developed a framework of second-generation regulation positing that conflict began within the national government and spread to the local arena. Figure 2-2 represents a theoretical framework of the forces that impact second-generation conflict.

Scope of Research and Study Design

The Environmental Protection Agency's regulation of the Tennessee Valley Authority provides a unique opportunity to study second-generation intragovernmental conflict. Durant, Fitzgerald, and Thomas (1983) conducted a study of the EPA's regulation of TVA during the late 1970's when EPA encountered conflict in bringing TVA into compliance with the Clean Air Act. Chronologically, this study will begin in 1980, where Durant, Fitzgerald, and Thomas's (1983) study ended. The researcher will detail the chain of events since 1980, especially focusing on the current (second-generation) conflict over TVA's compliance with the Clean Air Act.

Research Question and Study Objectives

As stated in Chapter 1, the primary research question in this study is *can government regulate itself?* Using the EPA's regulation of TVA as the analytical framework, this study systematically inquires into the interplay of social, political,

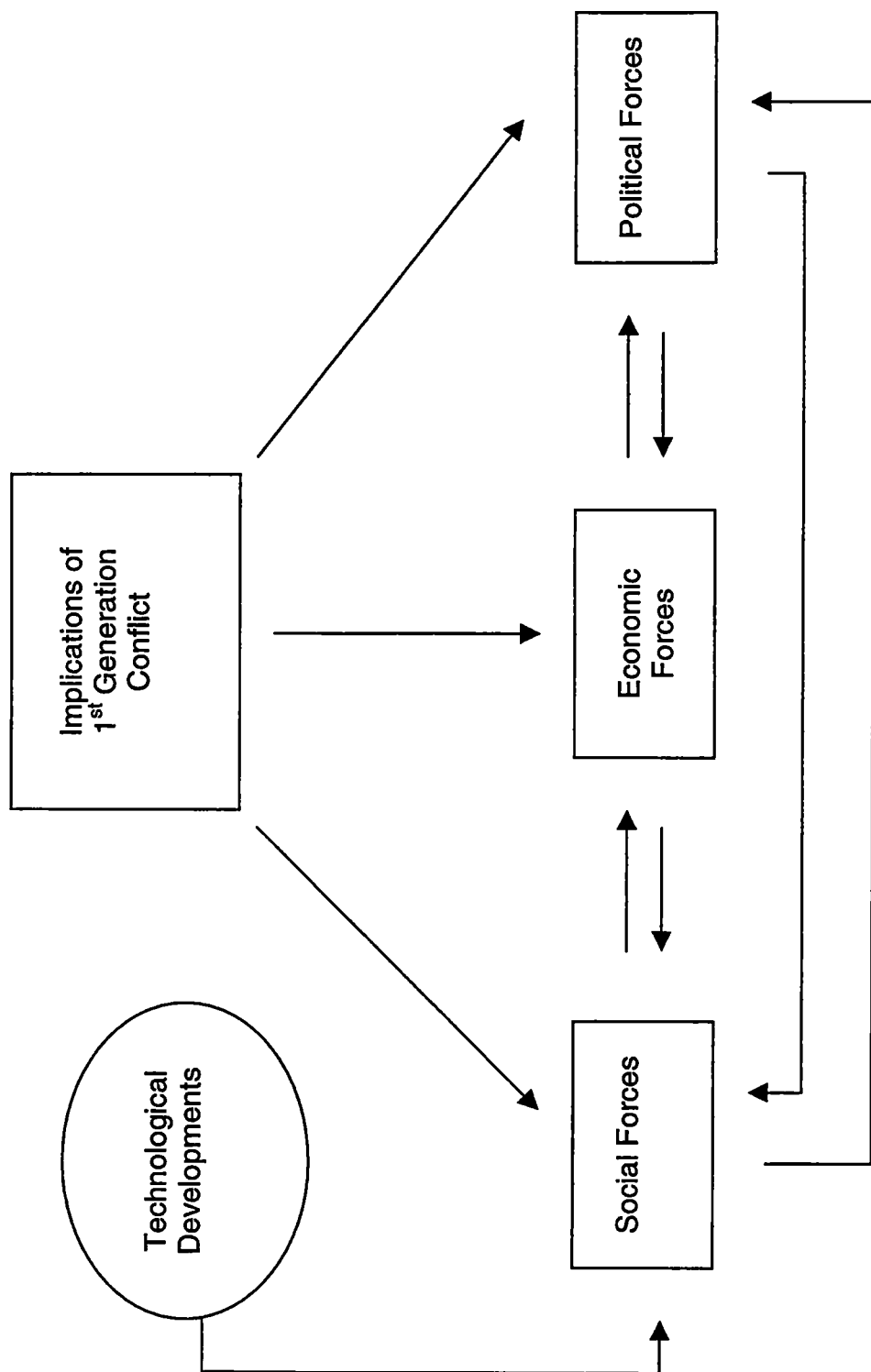


Figure 2-2: Theoretical Framework of Second-Generation Conflict

and economic forces involved in the second-generation intragovernmental conflict between EPA and TVA. The study has two objectives:

1. To understand if government can regulate itself in the public interest by examining the EPA and TVA intragovernmental conflict;
2. To examine how second-generation conflict differs from first generation conflict in the EPA and TVA.

Study Design and Limitations of the Study

This is a qualitative study conducted in the form of a single case study design. The “one-shot case study” normally consists of observing a “single event” at a “single point in time” usually following some event that has “produced change” (Frankfort-Nachmias and Nachmias, 1996: 146). The case study is an appropriate design for studying policy implementation and regulation. Palumbo and Harder (1981) note that “case studies do not lend themselves to broad theoretical generalizations, but they do often point to factors that must be considered the development of theory” (xii). This case study serves as an exercise in theory building, contributing to the general knowledge of policy implementation, intragovernmental regulation, and second-generation conflict. As with all single case studies, this study suffers from inherent limitations of external validity. Even though the generalizability of this study is limited, it provides a valuable contribution to the existing literature. While this qualitative analysis is more concerned with discovery and the generation of ideas regarding

intragovernmental conflict, rather than explicitly testing hypotheses, the study makes several propositions regarding intragovernmental conflict:

1. Government agencies subject to intragovernmental regulation seek to maintain their autonomy, leading them to resist any regulation they regard as an unnecessary intrusion. Specifically, TVA seeks to preserve its autonomy and resist the EPA regulation over air pollution control.
2. Government agencies engaging in adversarial intragovernmental relations attempt to expand the scope of the conflict to involve other administrative and political actors.
3. As the scope of the conflict expands, the ability of the original agencies to control the final outcome is reduced.

This chapter outlines the propositions made by the researcher regarding intragovernmental conflict and discusses several theoretical frameworks proposed by the researcher to explain the EPA/TVA conflict. The chapter also contains a study design and a discussion of the limitations of the study. Chapter 3 provides a history of the first and second-generation conflict.

CHAPTER III

HISTORY OF THE CONFLICT

This chapter details the history of the conflict between EPA and TVA. The chapter will begin by outlining a brief history of each agency. The chapter then discusses the first generation conflict between EPA and TVA. Finally, the chapter traces the history of the second-generation conflict.

History of the Tennessee Valley Authority

Erwin Hargrove (1994) stated that TVA has evolved through three historical periods and is currently in the years of a fourth period. The first period lasted from 1933-1945, the second 1945-1970, the third 1970-1988, and the fourth 1988-present (Hargrove's study ended in 1990) (Hargrove, 1994). Using Hargrove's definition of TVA's historical periods, the researcher will briefly trace the history of TVA.

The First Period: 1933-1945

In 1933 the people of the Tennessee Valley Authority were faced with economic hardship. The per capita income was 44 percent of the national average and the land in the area was in "poor condition" (Hargrove, 1994).

During TVA's early years, board of director's member David Lilienthal was a key figure in the fight for autonomy. Lilienthal believed that the government should "give people ways to produce" if they did not have such means (Callahan, 1980: 97). During his tenure, TVA developed an early network of electric power

distributors, educated the people of the valley on the benefits of electricity, and led the legal fight against private utility companies (Hargrove, 1994). Under Lilienthal's "grass roots democracy" approach, TVA worked with local government and the people of the Tennessee Valley to develop a "sense of purpose" and secure "justification for TVA autonomy within the federal government" (Hargrove, 1994: 4).

The Second Period: 1945-1970

During the second period, TVA witnessed an "imbalance" in programs as the agency began the construction of coal-fired steam plants and developed into a "large power company" (Hargrove, 1994: 4). The demand for more electricity and costs of constructing coal-fired plants dominated TVA's activities, contributing to the image of TVA being "just another power company" (Droze, 1983: 77-78). One significant congressional act that affected TVA occurred in 1959 when Congress permitted TVA to finance its power program by marketing bonds (Hargrove, 1994). In essence, this limited congressional oversight of TVA to basically concentrating on "low-budget programs" that were funded via appropriations (Hargrove, 1994: 4).

The Third Period: 1970-1988

Hargrove (1994) noted that the third period in TVA history is "characterized by the search for new missions to keep TVA heroic and by the technological and political failures of those missions" (4). TVA officials were "prisoners of the myths" concerning how the organization had developed under

Lilienthal, yet a changing environment and receptiveness to TVA would not allow the leaders to duplicate the political and technological success of Lilienthal's time (Hargrove, 1994: 4-5). During this era, TVA faced the first generation conflict with EPA concerning air pollution control that is to be described later in the chapter. TVA was also forced to shut down five nuclear reactors at two nuclear plants because they failed to meet the Nuclear Regulatory Commission's regulations (Hargrove, 1994). TVA witnessed threats to its autonomy from other agencies, the courts, and citizens.

The Fourth Period 1988-Present

Hargrove (1994) defined the fourth period as beginning in 1988 and his study ended in 1990; for the purposes of constructing a history, this study assumes the fourth period continues to include the present. Hargrove (1994) stated that the fourth period in TVA history occurred when Marvin Runyon became chairman of TVA in 1988. Runyon, a former automobile executive, wanted TVA to follow the procedures of a private corporation, such as "profit, cost control, service and accountability" (Hargrove, 1994: 5). In 1993, President Bill Clinton appointed Craven Crowell as the eleventh chairman of the TVA Board of Directors (TVA Annual Report, 1997). During this period TVA has faced a reoccurrence of conflict with EPA over compliance with air pollution control standards that threatens the agency's autonomy. TVA also faces possible restructuring in the electrical utility industry that could promote competition and

affect TVA's electric distribution area and procedures (TVA Annual Report, 1999).

EPA: A Brief History

The EPA was established by executive order under President Richard Nixon in 1970 and is the largest federal regulatory agency in both personnel and budget (Rosenbloom, 1998). The EPA has been mired in controversy since its inception. President Nixon hoped the EPA would balance environmental protection with economic and industrial growth, while environmental groups and Congress expected EPA to be a strong environmental advocate operating as a quasi-independent agency (Landy, Roberts, and Thomas, 1994). During the 1980's the Regan administration severely cut both budget and personnel and political controversies involving EPA administrator Anne Burford demoralized the agency (Rosenbloom, 1998). According to Rosenbloom (1998), EPA is "probably" subjected to more "relentless oversight than any other federal agency" (Rosenbloom, 1998: 86). EPA's organizational structure and independence have failed to grow, making it difficult for the agency to meet its regulatory tasks (Rosenbloom, 1998).

The EPA is charged with several major regulatory tasks related to various areas of pollution control. Listed are some examples of EPA's major responsibilities (as listed in Rosenbloom, 1998: 84-85).

Air Quality

- *Establishes national air quality standards.*
- *Set limits on the level of air pollutants emitted from stationary sources such as power plants, municipal incinerators, factories, and chemical plants.*
- *Supervises state in their development of clean air plans.*

Water Quality

- *Issue permits for the discharge of any pollutant into navigable waters.*
- *Develop criteria that enable states to set water quality standards*
- *Cooperates with the Army Corps of Engineers to issue permits for dredging and filling of wetlands*
- *Sets national drinking water standards to ensure that drinking water is safe.*
- *Regulates underground injection of wastes to protect purity of groundwater.*

Hazardous Waste

- *Maintain inventory of existing hazardous waste dump sites*
- *Tracks more than 500 hazardous compounds from point of origin to final disposal site.*
- *Sets standards for generators and transporters of hazardous wastes.*
- *Maintains a multibillion –dollar fund (“Superfund”) from industry fees and general tax revenues to provide for emergency cleanup of hazardous dumps when no response party can immediately be found.*

Chemical Regulation, Including Pesticides and Radioactive Waste

- *Maintains inventory of chemical substances now in commercial use.*
- *Regulates existing chemicals considered hazardous to people and the environment, including fluorocarbons, PCBs, and asbestos.*
- *Requires pesticide manufacturers to provide scientific evidence that their products will not injure humans, livestock, crops, or wildlife when used as directed.*
- *Monitors pesticide levels in the environment*

The regulatory burden placed on EPA detailed in the above examples in mainly a result of major legislation such as the Clean Air Act, the Clean Water Act, and Superfund and subsequent reauthorization and amendments (Rosenbaum, 1998). EPA faces a daunting disparity between increasing

administrative responsibility and available resources (Rosenbloom, 1998). In 1972, the EPA began with a staff of 8,000 employees and a budget of \$455 million; despite some setbacks in budget and personnel in the 1980's, the EPA now has a budget of \$7.6 billion and 18,000 employees (Rosenbloom, 1998: 83). Rosenbloom (1998) noted that less than half of EPA's \$7.6 billion budget goes toward "administrative activities," the majority "underwrites water treatment and Superfund grants" (83).

First Generation Conflict

The Clean Air Act of 1970 (CAA of 1970) sought to promote the public health of citizens by protecting and enhancing air quality through the national ambient air quality standards (NAAQS) determined by the EPA (Durant, Fitzgerald, and Thomas, 1983; Rivkin, 1982; Castro, 1982). Included in the act, were several features important in the first generation conflict between EPA and TVA, including specific procedural requirements, decision premises, and compliance schedules that were enforceable through the courts (Durant, Fitzgerald, and Thomas; Rivkin, 1982; Castro, 1982). Under Section 110 of the Clean Air Act of 1970, states were required to enact State Implementation Plans (SIPs) to guarantee attainment of NAAQS before the expiration of statutory deadlines (Durant, Fitzgerald, and Thomas, 1983, Castro, 1982). SIPs were subject to EPA approval and revision if deemed unsatisfactory (Durant, Fitzgerald, and Thomas, 1983). Under Section 304 of the CAA of 1970, private

citizens could file suit to assure enforcement of the law, should federal and state authorities fail to implement the CAA of 1970 in an appropriate manner (Durant, Fitzgerald, and Thomas, 1983; Castro, 1982).

The first generation conflict between EPA and TVA involved EPA's attempt to bring 10 of TVA's 12 coal-fired steam plants into compliance with established emissions standards for sulfur dioxide (Durant, Fitzgerald, and Thomas, 1983; Rivkin, 1982; Castro, 1982). TVA anticipated phasing out many coal-fired steam plants in favor of nuclear plants and viewed EPA's regulation as an infringement on TVA's "policy-making autonomy," since it interfered with TVA's conversion plans from coal to nuclear power (Durant, Fitzgerald, and Thomas, 1983: 210). According to Durant, Fitzgerald, and Thomas (1983), three issues had to be resolved between EPA and TVA: 1) Did TVA have to reduce or could the agency simply dilute sulfur dioxide emissions from its plants? 2) Because TVA was a federal agency, was it required to meet the "procedural, or only the substantive" requirements of SIPs? 3) What was the most effective way for EPA to legally bring TVA into compliance in an expeditious manner? (210).

Pollution Reduction or Dilution

The EPA was issued the task of determining if SIPs submitted for approval included "acceptable pollution control strategies" (Durant, Fitzgerald, and Thomas, 1983: 211). Central to the issue was whether Congress intended a reduction in sulfur dioxide emissions or rather the dilution of concentrations of

sulfur dioxide in the area surrounding polluting facilities (Durant, Fitzgerald, and Thomas, 1983). If EPA chose to allow dilution, TVA could comply by using intermittent control systems (ICS) and construction of tall and “relatively inexpensive” smokestacks (Durant, Fitzgerald, and Thomas, 1983: 211). This technique would allow TVA to meet NAAQS requirements in the vicinity of their coal-fired plants (Durant, Fitzgerald, and Thomas, 1983). If EPA chose reduction over dilution, TVA would only be able to comply using constant control system (CCS) techniques and using a combination of burning low-sulfur coal and/or installing scrubber technology at its coal-fired steam plants (Durant, Fitzgerald, and Thomas, 1983). For economic and technical reasons, TVA attempted to comply using a combination of ICS and tall stacks and urged the EPA administrator to approve these techniques as an acceptable method of pollution control for SIPs in Alabama, Kentucky, and Tennessee (Durant, Fitzgerald, and Thomas, 1983). As Table 3-1 illustrates, EPA waffled on declaring ICS an unsatisfactory compliance technique. In fact, in 1972 the EPA promulgated a rule disallowing ICS, but never officially issued it; EPA reversed its position in 1973 offering a rule to allow ICS and tall stacks for public comment, but the rule was never issued (Durant, Fitzgerald, and Thomas, 1983). In 1974, EPA denied ICS as a compatible technique in Kentucky and subsequently announced regulations mandating CCS as a satisfactory method of pollution control (Durant, Fitzgerald, and Thomas, 1983). During this time, TVA engaged in a public relations campaign to promote the benefits of ICS techniques and the negatives

Table 3-1**Chronology of the First Generation Conflict**

Year	Major Events
1970	• Clean Air Act of 1970 • TVA begins attempts to persuade states and EPA that ICS is superior to CCS
1972	• EPA proposes regulation disallowing ICS; calls for CCS techniques • TVA continues public relations blitz against CCS and refuses to apply for state operating permits from Kentucky, Tennessee, and Alabama • Alabama and Kentucky file suit against TVA for noncompliance with procedural requirements
1973	• TVA submits compliance plans to states asking for ICS and exemption from sulfur dioxide emissions limits • TVA gives antiscrubber testimony at EPA scrubber hearings • EPA proposes regulation permitting ICS • EPA issues invitations to states to relax pollution regulations in wake of OPEC oil embargo
1974	• EPA/TVA Joint Task Force established; report issued outlining outstanding agency differences • TVA state permit position upheld by Sixth Circuit and denied by Fifth Circuit • EPA rejects Kentucky proposal allowing ICS • TVA files suit against EPA challenging authority to disallow ICS • EPA notifies TVA of sulfur dioxide violations; issues regulations outlawing ICS
1975-1976	• Supreme Court rules EPA has authority to disallow ICS, and that Congress should clarify federal facility/ state permit question
1977	• Congress enacts CAA of 1977 reaffirming EPA's positions on CCS and federal facility compliance • EPA issues second notice of violation to TVA without taking enforcement action • Section 304 citizen suit filed against TVA for noncompliance with CAA • Marvin Durning becomes new EPA director of enforcement • President Carter appoints S. David Freeman to TVA board of directors
1978	• Interagency negotiations resume • Aubrey Wagner and William Jenkins leave TVA board of directors; President Carter appoints Richard Freeman to TVA board. • TVA board approves negotiated settlement
1979-1980	• EPA and TVA officially approve \$1.02 billion dollar settlement in public signing ceremony. • Settlement challenged as inflationary; errors discovered and settlement costs reduced to \$760 million.

Source: Durant, Robert F., Michael R. Fitzgerald, and Larry W. Thomas. "When Government Regulates Itself: The EPA/TVA Air Pollution Control Experience." *Public Administration Review*, May/June 1983, p. 211.

of CCS (Durant, Fitzgerald, and Thomas, 1983). Once the Kentucky decision rendering ICS as an unsatisfactory method of compliance was issued, in September 1974 TVA filed suit in the Sixth Circuit Court challenging the EPA administrator's authority to issue such a ruling (Durant, Fitzgerald, and Thomas, 1983). The Sixth Circuit Court upheld EPA's authority to declare ICS an inappropriate method of compliance, and despite TVA testimony in favor of ICS, Congress clarified appropriate pollution control strategies by disallowing ICS in the Clean Air Act Amendments of 1977 (Durant, Fitzgerald, and Thomas, 1983).

Federal Facility Compliance

Section 118 of the CAA of 1970 specified that federal facilities be subject to the same federal, state, and local pollution control requirements as any private facility (Durant, Fitzgerald, and Thomas, 1983). The debate involved whether or not state governments were authorized under the CAA of 1970 to specify the procedures by which federal facilities would meet NAAQS and emissions standards (Durant, Fitzgerald, and Thomas, 1983). In three states where TVA operated, polluters were required to apply for state permits (Durant, Fitzgerald, and Thomas, 1983). TVA argued that states authorities could impose air quality standards, but could not determine procedural requirements for compliance with emissions standards (Durant, Fitzgerald, and Thomas, 1983). When TVA refused to apply for permits in Alabama, Kentucky, and Tennessee, in an effort to force TVA's compliance with permit procedures Alabama and Kentucky filed

separate lawsuits in United States District Court in 1972 (Durant, Fitzgerald, and Thomas, 1983). The Federal Sixth Circuit Court ruled TVA must only comply with “substantive state emission limits,” yet the Federal Fifth Circuit Court supported EPA determining TVA must comply with substance and procedural requirements (Durant, Fitzgerald, and Thomas, 1983: 212). In 1976 these contradictory decisions were settled in the United States Supreme Court, when TVA’s position was upheld that federal facilities were not subject to state permit procedures (Durant, Fitzgerald, and Thomas, 1983). The court did suggest that Congress clarify the intent of the regulation, and Congress responded in the Clean Air Act Amendments of 1977 by subjecting federal facilities to state permit regulations and procedures (Durant, Fitzgerald, and Thomas, 1983).

In 1992, Congress passed the Federal Facilities Compliance Act (FCCA). This act allows states to impose “civil fines on federal facilities” in violation of environmental laws (Gross, 1993: 691). In regards to toxic waste, Congress has acknowledged that federal facilities cannot be fully compliant with all laws because of technological shortcomings and has exempted the Department of Energy (DOE) from civil liability (Gross, 1993).

Emissions Violation Enforcement

Interagency talks resumed once the Supreme Court decision was handed down in 1976 with TVA promising to meet sulfur dioxide standards as soon as possible (Durant, Fitzgerald, and Thomas, 1983). Yet, by spring 1977, TVA had

still failed to comply and was issued a second notice by EPA (Durant, Fitzgerald, and Thomas, 1983). Because EPA was deficient in its ability to enforce sanctions against TVA, a citizen lawsuit consisting of a coalition of eleven citizen groups and the state of Alabama was filed to bring TVA into compliance with clean air standards (Durant, Fitzgerald, and Thomas, 1983). In July 1977, President Carter intervened in the conflict by appointing "TVA critic" S. David Freeman to the three-member TVA board of directors; Carter followed this action by appointing Marvin Durning as Deputy Administrator of Enforcement for EPA (Durant, Fitzgerald, and Thomas, 1983: 213). Freeman initiated a negotiation with EPA in an adversarial atmosphere and concluded with a settlement (Durant, Fitzgerald, and Thomas, 1983). TVA board members Aubrey Wagner and Bill Jenkins refused to approve the agreement and resigned in protest (Durant, Fitzgerald, Thomas, 1983). In response, President Carter appointed Richard Freeman to the TVA board, guaranteeing quorum for the three-member board and the settlement was approved (Durant, Fitzgerald, and Thomas, 1983). The consent decree signed by Freeman and Freeman on behalf of TVA consisted of a \$1.02 billion clean air settlement (the amount was later declared inflationary and reduced to \$760 million) (Durant, Fitzgerald, and Thomas, 1983).

Citizen Implementation Committee

Section XVII of the consent decree mandated the establishment of an implementation committee (Castro, 1982). The implementation committee was

to be composed of plaintiffs from the citizen lawsuit and responsible for monitoring the implementation of the provisions of the consent decree (Castro, 1982). Some of the criticisms of the implementation committee were that the representatives on the committee would “usurp the power of TVA to regulate its own internal affairs and because the plaintiffs were not publicly accountable” (Castro, 1982: 819-820).

Implications of First Generation Conflict

Scholars who studied the first generation conflict have made several observations about the EPA/TVA case in relation to policy implementation, political conflict, regulation, and the political and legal system in general. Castro (1982) made six observations concerning the conflict:

1. The controversy exposed the dangers in centralizing too much power in a monolithic federal bureaucracy (841).
2. The controversy revealed the problems associated with placing too much reliance on complex technology to solve our ecological imbalances (841).
3. The controversy illustrated the dynamic interplay between the checks and balances built into our constitutional system of government (841).

4. The conduct of the litigation reconfirmed the importance of citizen enforcement of environmental laws as an alternative or adjunct to exclusively governmental remedies (841).
5. The consent decree itself demonstrated that it is possible to reconcile self-interest with public interest even among widely divergent groups (841).
6. The negotiation process illustrated that a result obtained by pluralistic consensus is much more satisfactory than one externally imposed through debilitating adversarial litigation (841).

Many of the implications of the conflict observed by Castro (1982) were espoused in a study of the EPA/TVA case conducted by Durant, Fitzgerald, and Thomas (1983). Durant, Fitzgerald, and Thomas (1983) concluded that federal agencies are vulnerable to regulation by other federal agencies and “can be made distinctly vulnerable if the Congress or president so desire” (215). This can occur in three ways: 1) the President can use the power of appointment to place individuals in key strategic positions within the agencies in question 2) “federal agencies can be held accountable to the law through timely, context-defining activities of a concerned president” (for example, President Carter publicly declared TVA was to become the energy and environmental ‘yardstick’ of the nation) 3) Congress can pass legislation “compensating for flaws” in the existing “organizational infrastructure of policy implementation” (215).

Second-Generation Conflict

By 1983 all TVA plants were in compliance with air quality emission standards outlined in the consent decree and by 1983-84 the consent decrees in both Alabama and Tennessee were terminated once all the requirements were met (TVA Annual Report 1983; TVA Annual Report 1984). The Citizen Implementation Committee created under the consent decree was dissolved once the final milestone of the consent decree was reached at the Paradise facility in Kentucky. By 1984 TVA appeared to be in full compliance with air quality emission standards outlined in the Clean Air Act.

In 1990, Congress passed the Clean Air Act Amendments creating a national market for sulfur dioxide (Andrews, 1999). Under the new requirements of the CAA of 1990, TVA spent more than \$1 billion to bring coal-fired plants into compliance with new federal 'acid rain' emission limits at smokestacks (Powelson, *Knoxville News-Sentinel* 17 July 1999: A4). The CAA of 1990 created an emissions trading program by allowing industries to earn "emission credits" by reducing sulfur dioxide emissions below the "minimum allowable level," and allowing companies to later sell these credits to polluting companies having difficulty curbing their emissions (The CQ Researcher, 1997: 205-206). Between 1995 and 1997 TVA had been a net seller of pollution credits by selling approximately 25,000 tons of emission allowances per year to Illinois Power Co., but in 1997 TVA raised the concerns of environmentalists by purchasing 87,000 tons of emission allowances to replenish its pollution credits (Thomas, *Knoxville*

News-Sentinel 27 March 1997: A1). Environmentalists claim TVA facilities have continually exceeded Clean Air Act requirements, and sulfur dioxide emitted from TVA's coal-fired power plants is a major cause of deteriorated air quality in the Great Smoky Mountain National Park (see for example, *Knoxville News-Sentinel* 08 June 1994: A12; Davis, *Knoxville News-Sentinel* 16 September 1997: A1). In response, in October 1999 Senator Fred Thompson (R-TN) began a hearing by a congressional panel to discuss pollution in the Smokies (Powelson, *Knoxville News-Sentinel* 20 October 1999: A4). Dr. Stephen Smith, executive director of the Tennessee Valley Energy Reform Coalition claims TVA's 11 coal-fired power plants are the regions largest industrial polluter and encouraged the congressional caucus to support legislation recently introduced to require older coal-fired plants to meet emission standards required of newer plants (*Florence Times Daily* 20 October 1999: B4). While TVA has reduced sulfur dioxide emissions by two-thirds in the last 20 years, TVA critic Dr. Stephen Smith of the Tennessee Valley Energy Reform Coalition noted that sulfur dioxide emissions at the four coal-fired plants nearest the Great Smoky Mountain National Park have increased (*Chattanooga Times/Free Press* 20 October 1999: A1).

As Table 3-2 illustrates, in November 1999 EPA issued "Notices of Violation" filing suit in federal court against seven private utilities and issuing an administrative order against TVA ordering the installation of more emissions controls (*Inside TVA* 18 January 2000). EPA alleges TVA and seven other private utilities made major modifications to older coal-fired plants currently

Table 3-2

Chronology 1980-Present

Year	Major Events
1983	• All TVA plants are in compliance with acceptable air quality emissions standards (TVA Annual Report, 1983).
1983-1984	• Consent decree in both Alabama and Tennessee cases now terminated in accordance with their terms (TVA Annual Report, 1984).
1984	• Citizen Implementation Committee expires once the final milestone of the consent decree is reached at the Paradise facility in Kentucky.
1990	• Clean Air Act amendments create national market for sulfur dioxide emissions (Andrews, 1999).
Early 1990s	• TVA spends more than \$1 billion to bring coal-fired power plants into compliance with new federal 'acid rain' emission limits at smokestacks (Powelson, <i>Knoxville News-Sentinel</i> 17 July 1997: A4).
1999	• TVA and EPA sign agreement to collaborate on improving management of natural resources, including air quality, in the Great Smoky Mountains National Park (Billeaud, <i>Knoxville News Sentinel</i> 25 August 1999: A8). • EPA engages in talks with eight major U.S. utilities to settle a dispute over changes made to older coal-fired plants that may have violated the Clean Air Act (Fialka, <i>Wall Street Journal</i> 01 October 1999: B4). • EPA issues an administrative order against TVA and files suit against seven other private utilities alleging violations of clean air standards. TVA claims this is a dramatic change in the way regulations have been applied in the past (Mansfield, <i>Associated Press Newswires</i> 03 November 1999).

exempt from more stringent emissions requirements because of a “grandfather clause” in the Clean Air Act exempting older facilities from meeting emission requirements of newer facilities (Mansfield, *Associated Press Newswires* 03 November 1999). Older facilities are exempt so long as “their generating capacity, pollution output or useful life are not increased through new investments” (Fabi, *Reuters News Service* 3 November 1999). TVA Fossil Power Group Executive Vice President Joe Bynum called this regulation “a dramatic change in how EPA has applied regulations in the past” and U.S. Representative Bob Clement of Tennessee says EPA “moved the goal posts” midway through the game (as quoted in Adair, *Inside TVA* 09 November 1999). According to EPA, TVA’s changes to coal-fired power plants require compliance with the Clean Air Act’s “new source program” and TVA has been “routinely violating the Act over the last 25 years” (Christenbury et al., *TVA’s Response to Administrative Order*. 1). TVA has challenged EPA’s allegations on several grounds (Christenbury et al., *TVA’s Response to Administrative Order*):

- 1) “TVA’s projects are not major modifications” (7).
- 2) “EPA has not met its burden of establishing a violation of the NSPS (New Source Performance Standard) modification rule” (31).
- 3) “EPA’s order requires actions that are beyond EPA’s authority and are unfair” (32).
- 4) “EPA’s order is inconsistent with sound public policy” (35).

“TVA’s Projects Are Not Major Modifications” (Christenbury et al., *TVA’s Response to Administrative Order. 7*)

TVA’s argues that projects that occurred at its coal-fired power plants were not “major modifications,” but consisted of routine maintenance projects (Christenbury et al., *TVA’s Response to Administrative Order. 7*). Among the arguments TVA makes in this section of their response to EPA’s administrative order is that “EPA has applied an unlawful legal standard” and “EPA’s new interpretation of ‘routine maintenance’ is inconsistent with the law” (Christenbury et al., *TVA’s Response to Administrative Order. 8,14*). TVA claims the Environmental Protection Agency requires that “a stationary source that undergoes a ‘major modification’ is subject to preconstruction permitting under the ‘New Source Review’ (NSR) program,” and that EPA has confirmed in 1992 Federal Regulation 57 at 32,327 that “the modification rule ‘in no way intends to discourage [routine] physical or operational changes that increase the efficiency or reliability or lower operating costs, or improve other operational characteristics of the unit’” (Christenbury et al., *TVA’s Response to Administrative Order. 8-9*). TVA argues that the “projects listed in the Order are not subject to PSD (Prevention of Significant Deterioration) or NSR (New Source Review) permitting” because they consisted of ‘routine maintenance, repair, and replacement’ and TVA operated under this understanding (Christenbury et al., *TVA’s Response to Administrative Order. 9*). In 1971 under the NSPS (New Source Performance Standard) the term ‘modification’ did not include “‘routine’ maintenance, repair, or

replacement activity,” and in 1975 EPA further clarified ‘routine’ to mean “‘routine for a source category,’” and as late as 1992 EPA observed it did not want to discourage “‘physical or operational changes that increase efficiency or reliability’” (quoted in Christenbury et al., *TVA’s Response to Administrative Order*. 10). Given these definitions, “TVA has always understood that it would be inconsistent with congressional intent and the common-sense meaning of ‘routine maintenance, repair, and replacement’ to apply the modification rule to cover projects undertaken to preserve or to optimize the reliability, availability, or efficiency of a unit” (Christenbury et al., *TVA’s Response to Administrative Order*. 11). In the past, EPA has not “considered the repair and replacement activity traditionally undertaken in the past by the utility industry” as an activity that would “trigger the modification rule” *even* if the activity involves some “life extension” of the facility (Christenbury et al., *TVA’s Response to Administrative Order*. 13).

TVA also argues that EPA’s new interpretation is inconsistent with the law (Christenbury et al., *TVA’s Response to Administrative Order*). TVA argues the new interpretation is inconsistent with “the plain language of the regulation”, “EPA’s previous application of the regulation”, and is contrary to TVA’s more than fifty years of experience with coal-fired plant operation and maintenance (Christenbury et al., *TVA’s Response to Administrative Order*. 14). EPA contends that various projects were in violation because the project constituted:

- 1) Large capital expenditures
- 2) Procedures performed infrequently at the facility

- 3) Boiler component redesign/replacement that increased the useful life of the facility
- 4) Activities designed to increase or regain lost capacity or extend the useful life of the unit
- 5) Replacement of components that were redesigned in a way that increased emissions (Christenbury et al., *TVA's Response to Administrative Order. 14*)

EPA also contends that any project costing more than \$100,000 and involves replacing a component with a useful life of more than 10 years must take place under New Source Review (NSR) (Christenbury et al., *TVA's Response to Administrative Order. 14*).

TVA formally requested "case-by-case data and analyses" from EPA on two separate occasions in November 1999, but EPA claims that information was already provided to TVA on a previous occasion; to which, TVA claims that EPA did not provide case-by-case data and did not specify a basis for determining which 'major modification' at each project listed in the administrative order is subject to NSR permitting requirements (Christenbury et al., *TVA's Response to Administrative Order. 14-15*). TVA states that EPA "now believes that any activity which restores capacity or reduces outages triggers NSR" essentially rendering all maintenance projects as "nonroutine," since the object of maintenance is to prevent outages and ensure unit reliability (Christenbury et al., *TVA's Response to Administrative Order. 15*). EPA also contends that projects

performed “infrequently at the plant” are not routine, prompting TVA to argue this is contrary to the regulatory language used in the modification rule by EPA in 1974 and TVA contends that “routine” is defined by “industry-wide practices” not by a “specific activity” at a specific facility (Christenbury et al., *TVA’s Response to Administrative Order*. 16). TVA contends that EPA weakest argue rest in EPA’s assertion that “an activity is nonroutine if it improves the efficiency or restores the lost capacity of a unit;” TVA argues this is a substantial change in the “long-standing interpretation” where EPA states in Federal Regulation 57 “that it ‘ in no way intends to discourage [routine] physical or operational changes that increase efficiency...of the unit’” (as quoted in Christenbury et al., *TVA’s Response to Administrative Order*. 17).

TVA further notes, EPA has “failed in its burden of proof” of establishing that each of the projects mentioned in the administrative order constitutes a violation of the modification rule (Christenbury et al., *TVA’s Response to Administrative Order*. 18). EPA did not begin an “emission increase analysis” before issuing the administrative order; therefore, TVA questions how EPA can determine TVA’s projects have resulted in a “significant net emissions increase” (Christenbury et al., *TVA’s Response to Administrative Order*. 23).

“EPA Has Not Met Its Burden Of Establishing A Violation Of The NSPS

Modification Rule”(Christenbury et al., *TVA’s Response to Administrative Order*. 31).

TVA asserts, “maintenance, repair or replacement activity that is routine in an industrial category is not a modification for NSPS (New Source Performance Standards) purposes” (Christenbury et al., *TVA’s Response to Administrative Order*. 31). Even if the changes to plants were “nonroutine,” “there is no modification for NSPS purposes unless the post-change emission rate (in kg/hr) exceeds the maximum hourly emission rate that could have been achieved in a representative period prior to the change” (Christenbury et al., *TVA’s Response to Administrative Order*. 31). According to TVA, EPA has failed to provide a basis for determining if TVA’s changes violated the modification rule for NSPS purposes (Christenbury et al., *TVA’s Response to Administrative Order*).

“EPA’s Order Requires Actions That Are Beyond EPA’s Authority And Are Unfair” (Christenbury et al., *TVA’s Response to Administrative Order*. 32).

Under the administrative order, TVA is required to 1) “submit a plan for compliance with nonattainment NSR requirements, 2) conduct an ‘[a]udit for potential physical changes triggering NSR and NSPS requirements,’” 3) “to surrender a number of sulfur dioxide allowances” (Christenbury et al., *TVA’s Response to Administrative Order*. 32). TVA argues that EPA has no statutory authority to issue these requirements (Christenbury et al., *TVA’s Response to*

Administrative Order). EPA may only issue “Notice of Violations” under NRS provisions of Section 113 of the Clean Air Act under certain conditions, among them finding TVA is in violation of the State Implementation Plan (SIP) (Christenbury et al., *TVA’s Response to Administrative Order*). Where there is an “applicable SIP, there are no ‘other requirements’ for EPA to enforce in a nonattainment area” (Christenbury et al., *TVA’s Response to Administrative Order*. 33). Also, TVA argues that EPA may only force TVA to “perform acts specifically authorized by Congress in the CAA” and requirements for TVA to conduct an audit or surrender sulfur dioxide allowances do not constitute congressionally authorized actions (Christenbury et al., *TVA’s Response to Administrative Order*. 33). TVA believes these actions exceed EPA’s authority and make these requirements of the administrative order “invalid” (Christenbury et al., *TVA’s Response to Administrative Order*. 33). Even if EPA has the authority to force TVA to surrender sulfur dioxide emissions, this would constitute an “administrative penalty,” and “EPA did not comply with required statutory procedures for assessing an administrative penalty” (Christenbury et al., *TVA’s Response to Administrative Order*. 32). TVA asserts that EPA is applying a “new interpretation” of the rules and is engaging in “retroactive rulemaking” which is illegal without “clear congressional authorization” (Christenbury et al., *TVA’s Response to Administrative Order*. 34). If EPA has chosen to issue a “new interpretation” of existing rules, they failed to give TVA “fair notice” of these changes (Christenbury et al., *TVA’s Response to Administrative Order*. 34-5).

TVA further argues that “civil enforcement under the CAA is subject to the general, Federal five-year statute of limitations” and all alleged violations occurred more than five years ago (Christenbury et al., *TVA’s Response to Administrative Order*: 35).

EPA’s Order Is Inconsistent With Sound Public Policy (Christenbury et al., *TVA’s Response to Administrative Order*: 35).

TVA contends that EPA’s new interpretation is an attempt to further EPA’s own policy goals by claiming TVA’s activities previously considered routine in the utility industry are now illegal; TVA also contends that the new interpretation “lacks any sense of public responsibility” (Christenbury et al., *TVA’s Response to Administrative Order*: 35-6). A delay in bringing units into compliance with EPA’s new interpretation under the administrative order would “jeopardize the utility industry’s ability to provide reliable service to the public” (Christenbury et al., *TVA’s Response to Administrative Order*: 36). TVA officials also note that the administrative order could boost electricity rates in the Valley by 14 percent (*Associated Press Newswires* 13 December 1999).

EPA’s and Environmentalists’ Response

Environmental groups inside and outside the Tennessee Valley generally supported EPA’s actions. The U.S. Public Interest Research Group issued a statement claiming “these eight utilities have thumbed their noses at the Clean

Air Act. This is just the tip of the iceberg and we expect that further investigation will uncover even more violations” (quoted in Fabi, *Reuters News Service* 3 November 1999). Frank O'Donnell, executive director of the Clean Air Trust in Washington, D.C., said EPA's enforcement action “could prevent ‘thousands of premature deaths, asthma attacks and other pollution-related health problems linked to pollution from plants’” (quoted in Fialka, *Wall Street Journal* 04 November 1999: B14). Carol Browner, EPA administrator, stated that more coal-fired plants would undergo investigation for similar violations of federal clean air violations (Fabi, *Reuters News Service* 3 November 1999). Other federal officials expressed similar sentiments, with Attorney General Janet Reno stating, “when children can't breathe because of pollution from a utility plant hundreds of miles away, something must be done” (Powelson, *Knoxville News-Sentinel* 04 November 1999: A4). As for TVA claims of routine maintenance, EPA administrator Carol Browner cited an example of a plant spending \$60 million on five new furnaces said this did not qualify as routine maintenance (*Nashville Tennessean* 7 November 1999: A26). Browner further argues the utilities “spent hundreds of millions of dollars modifying these plants—increasing their life and increasing their pollution, and they did this without applying for permits, without public notice, and without installing pollution control technology” (as quoted in *Maryville Times* 04 November 1999: A1). An editorial in the *Nashville Tennessean* stated that, “what companies are doing is like replacing the engine

in a 30-year-old car and saying because it has the same old body it's still an old car" (*Nashville Tennessean* 7 November 1999: A26).

EPA claims TVA "flouted" the statutory requirement for obtaining permits before "pollution-increasing modifications" (Schiffer, United States Court of Appeals for the Eleventh Circuit, Docket Nos. 00-12310-E and 00-12459-E). EPA notes the "central legal issue" in this dispute is over the interpretation of "major modification," and EPA asserts TVA relied on a "faulty interpretation" of "physical change" and "routine maintenance" (Jaffe, *Initial Brief of EPA Enforcement*: 19). EPA believes that the "'modification' test is very broad" and exemptions from the modification rule should be "construed narrowly" (Jaffe, *Initial Brief of EPA Enforcement*: 20). EPA further asserts that the "modification rule" affects "even the most trivial activities at a facility, such as the repair of a single leaky pipe" (Jaffe, *Initial Brief of EPA Enforcement*: 21). EPA further refutes TVA's claim of "routineness" being determined by industry wide practices and states "isolated quotations cited by the Respondent [TVA] can not reasonably be read to stand for, the proposition that whatever is done by industry is, ipso facto, routine" (Jaffe, *Initial Brief of EPA Enforcement*: 29). EPA also notes that the SIP of Tennessee requires that "no construction or operation of a modification of major stationary source occur without first obtaining a permit" (Smith, *Fourth Amended Order and Request for Information*: 6). EPA also requests an audit of all projects where a component of a steam-generating plant with a useful life of ten years or more was "replaced, enhanced, redesigned, or

otherwise physically altered” between January 1, 1977 and December 31, 1999 (Smith, *Fourth Amended Order and Request for Information*: 19).

Response By Elected Officials

During the final budget talks of 1999, Republican senators attempted to add a legislative rider to an unrelated Interior Department spending bill exempting utilities from clean air lawsuits until the existing case is settled (*Reuters News Service* 15 November 1999). Utilities involved in the suit were seeking to ensure they could perform routine maintenance during the pending suit, but Attorney General Janet Reno and EPA Administrator Carol Browner opposed the initiative, and democratic sources claimed the measure would not be supported by the White House (*Reuters News Service* 15 November 1999).

Conclusion

This chapter includes the history of the first generation conflict relying on research conducted by previous scholars, and the chapter includes a history of the present conflict. The chapter also includes several sections outlining TVA’s objection to EPA’s regulation over modifications made to coal-fired facilities and a section discussing the EPA’s and environmentalists’ arguments for the administrative order issued against TVA. Chapter 4 examines the theoretical frameworks and assumptions made by the researcher concerning intragovernmental conflict and regulation in Chapter 2. Chapter 4 also includes

an analysis of the events of the EPA/TVA case in the context of these assumptions and frameworks.

CHAPTER IV

EVENT ANALYSIS

This chapter analyzes the events that have occurred in the EPA/TVA second-generation case in the context of the theoretical frameworks and propositions made in Chapter 2.

TVA's Autonomy

The first proposition made in the study was that *government agencies subject to intragovernmental regulation seek to maintain their autonomy, leading them to resist any regulation they regard as an unnecessary intrusion. Specifically, TVA seeks to preserve its autonomy and resist EPA regulation over air pollution control.* The case meets this general assumption; TVA does view EPA's regulation as a threat to TVA autonomy. James Q. Wilson (1989) stated that TVA's resistance to compliance with the Clean Air Act during the first generation conflict was partially a result of "the agency's sense of mission: the primacy of efficient power production" (194). Wilson (1989) noted, "autonomy is valued at least as much as resources, because autonomy determines the degree to which it is costly to acquire and use resources" (195). TVA provides a unique case for studying autonomy in government agencies because TVA provides its own financial resources through power generation and bonds rather than Congressional budget allocations. A threat to TVA's ability to operate its facilities in an efficient manner to generate low-cost power would be considered an

infringement on the agency's autonomy. Gross (1992) also noted the importance of autonomy in getting federal facilities to comply with environmental laws, stating, "agencies may resist compliance because they perceive environmental regulation as antithetical to their missions" (704). TVA argues in the agency's official response to the administrative order that EPA's actions are "beyond EPA's authority" (Christenbury et al., *TVA's Response to Administrative Order*. 32). TVA is opposed to EPA's order to conduct an audit and surrender sulfur dioxide allowances, because the agency does not feel this is within EPA's realm of regulatory authority granted by Congress in the CAA (Christenbury et al., *TVA's Response to Administrative Order*). EPA's changes could force a 14 percent electric rate increase in the Tennessee Valley, further threatening TVA's ability to accomplish one of the agency's objectives of providing low-cost electricity (Flessner, *Chattanooga Times/Free Press* 11 January 2000: C2). General manager of environmental policy and planning at TVA, John W. Shipp was quoted as saying the agency was alarmed that EPA was "'taking this plant specific approach'" leading one to suspect TVA views EPA's interference at individual facilities an infringement on agency autonomy (quoted in Flessner, *Chattanooga Times/Free Press* 11 January 2000: C2).

Expansion of the Conflict

E.E. Schattschneider (1975) observed that conflict is contagious and "conflicts are frequently won or lost by the success that the contestants have in

getting the audience involved in the fight" (4). The study made a proposition that *government agencies engaging in adversarial intragovernmental relations attempt to expand the scope of the conflict to include other administrative and political actors*. The EPA/TVA second-generation conflict meets this proposition. EPA has gained the support of the justice department, the White House, and a host of environmental groups in enforcing air pollution control on TVA (see for example, Powelson, *Knoxville News-Sentinel* 04 November 1999: A4). TVA has attempted to gain the support of officials within and outside Tennessee. United States Senator Bill Frist was quoted as saying, "the victims of this squabble will be the ratepayers of the Tennessee Valley" and U.S. Representative Bob Clement of Tennessee said EPA had "moved the goalposts" "halfway through the game" (quoted in *Inside TVA* 09 November 1999). Congress members in support of TVA's position attempted to pass a legislative rider to "exempt electric utilities from clean air lawsuits until a pending case is settled" (*Reuters News Service* 15 November 1999). The study also made a proposition that *as the scope of the conflict expands, the ability of the original agencies to control the final outcome will be reduced*. Schattschneider (1975) agreed noting, "the expansion of conflict may have consequences that are extremely distasteful to the original participants" (15). The case at the time of this writing has not reached a conclusion, so the fulfillment of this assumption is more difficult to determine in this case. Yet, one could hypothesize that EPA and TVA would

have a more difficult time of controlling the outcome of a conflict involving the courts and Congressional action.

Theoretical Frameworks

The study posited in Figure 2-2 that second-generation intragovernmental conflict is a factor of the implications of the first generation conflict, social, political, and economic forces, and technological developments. Generally, the second-generation case seems to support this framework. The implications of the first generation conflict reveal that EPA can hold TVA accountable to air pollution control regulations. The social, economic, and political forces affecting EPA and TVA include environmental groups, pressure from the executive branch and Congress, the courts, and the threat of increasing electricity rates in the Tennessee Valley that could result from the current regulation. Lawmakers in the 1970s anticipated that older coal-fired plants would eventually “wear out in a decade or so,” but technological advancements have allowed the facilities to last longer than expected, preventing their replacement by newer, cleaner-burning plants (Fialka, *Wall Street Journal* 04 November 1999: B14).

Figure 2-1 states that first generation originated at the local level and expanded to the national level. Second-generation conflict evolved at the national level and expanded to the local level. This framework is more difficult to support in the EPA/TVA case. While the national level conflict is far more prominent in the second-generation case than in during the initial conflict in the

late 1970s, a local dispute over utilities' major modifications does exist. EPA Administrator Carol Browner and Attorney General Janet Reno have denounced the utility industry's modifications indicating a strong national level involvement in the dispute (see for example, Fialka, *Wall Street Journal* 04 November 1999). While the TVA case does lean towards the origination of the conflict at the national level, this is not generalizable to second-generation conflict in general, or even to the other utilities involved in the present conflict.

American Electric Power (AEP), one of seven private utilities targeted by EPA under the same allegations, was sent a letter by environmentalists just days before EPA issued there administrative order against TVA and filed suit against seven private utilities, including AEP (*Roanoke Times and World News* 30 October 1999). Nancy Marks, an attorney representing the Natural Resources Defense Council Inc. stated, "our letter invites AEP to contact us to discuss these problems before we file a complaint in federal district court" (quoted in *Roanoke Times and World News* 30 October 1999). The letter alleges that 11 of AEP's plants "violated the Clean Air Act by failing to install modern pollution controls when they were rebuilt" (*Roanoke Times and World News* 30 October 1999).

The AEP example demonstrates that actions against the utility industry by EPA was not unilateral but received the support of and was accompanied by legal challenges by environmental groups. It is more difficult to ascertain whether the National Resources Defense Council Inc. received support or

information from EPA, since the AEP case is not with the focus of this case study.

Conclusion

O’Leary et al. (1999) observed that environmental conflict is traceable to three sources: “differences in values and worldviews,” “conflicting interests,” and “technical uncertainty” (196-197). The EPA/TVA conflict is demonstrative of conflicting interests in interpretation of the modification rules and methods of pollution abatement, as well as a difference in what each agency values because of its organizational mission.

This chapter focused on examining the events that occurred in the recent EPA/TVA conflict in the context of the theoretical frameworks and propositions made in this study with regards to intragovernmental conflict and regulation. The study concluded that the case followed the propositions discussed in Chapter 2 regarding intragovernmental. Chapter 5 examines the conflict in its relation to the public interest.

CHAPTER V

IMPLICATIONS FOR THE PUBLIC INTEREST

This chapter explores the implications the EPA/TVA conflict has on the public interest. The chapter also examines the implications this conflict has on regulatory agencies and regulated agencies..

Implications for Regulatory Agencies

In his study of the first generation EPA/TVA conflict, Robert F. Durant (1985) concluded, "that federal regulators should not expect sister agencies to be more compliant or less formidable enforcement targets than their counterparts in the private sector" (133). Durant's (1985) observation is true for the second-generation EPA/TVA case under examination in this study. TVA has resisted EPA enforcement efforts under the premise that the administrative order is a reinterpretation or new interpretation of an existing regulation. In the present case, TVA has zealously refuted EPA's allegations and challenged EPA's authority in the same vain as the private utilities allegedly in violation of similar major modification rules.

Durant (1985) also observed that the success of regulated agencies partially depends upon their ability to marshal political support as the conflict expands. TVA gained the support of some congressional members when a legislative rider was nearly attached to an unrelated bill in Congress that would prevent the EPA from penalizing power plants already being sued for clean air

violations and would exempt utilities from clean air lawsuits until a pending case has been settled (*Reuters News Service* 15 November 1999; *Reuters News Service* 16 November 1999). EPA gained the support of the Attorney General Janet Reno and the White House in opposing the rider and preventing its adoption. If regulated agencies are to be successful, they must gain political support outside the agency as the scope of a conflict expands. EPA's ability to gain support from the executive prevented TVA and private utilities from undermining EPA's regulatory authority.

EPA has also been effective in gaining political support from environmentalists within the Tennessee Valley and the Great Smoky Mountains National Park (*Maryville Times* 04 November 1999: A1). Environmentalists hope that further restrictions on TVA's sulfur dioxide emissions will ease the deteriorating air quality in the Smokies. Citizen support is an important part of EPA's ability to gain political support in the Tennessee Valley to prevent TVA from skirting the enforcement order via legislative intervention.

The case also raises questions of regulatory efficiency and fairness in a federalist system. In James Q. Wilson's (1989) discussion of the Clean Air Act and State Implementation Plans (SIPs), he observed, "this arrangement—national goals, state implementation—is a common feature of federalism in the United States" (287). When an environmental group threaten American Electric Power (AEP) with a lawsuit over the same allegations EPA made to the private utility (and TVA) concerning unauthorized modifications, AEP urged

environmentalists to “ask state environmental agencies that have jurisdiction over those power plants and they’d be surprised to hear we are in violation of the Clean Air Act” (as quoted in *Roanoke Times and World News* 30 October 1999). TVA echoed similar sentiments regarding EPA’s authority to “prohibit the construction or modification’ of a major source” only if EPA finds the state is not in compliance with the New Source Review (NSR) program (Christenbury et al., *TVA’s Response to Administrative Order*. 33). Since EPA did not discover “widespread SIP violations,” TVA charges they cannot proceed with prohibition of construction or modification (Christenbury et al., *TVA’s Response to Administrative Order*. 33).

If TVA’s and AEP’s assertions are correct, federal regulatory agencies are placed in a difficult environment for compliance enforcement if their state agency counterparts find no violations. EPA could be overstepping its administrative bounds by interfering with modifications and permitting if State Implementation Plans (SIPs) are acting in compliance with the law. The dilemma raises the same difficult questions, if state agencies are subjected to tremendous local and state political pressure and allow some violations, how does EPA determine the state as a whole is not in compliance with NSR and is not enforcing SIP requirements?

Regulatory agencies must operate in a difficult political and legal environment. Successful regulation often depends on the agency’s ability to garner support from interest groups, legislators, and the executive. This second-

generation case, though unsettled, follows this logic. EPA has received the support of the executive and TVA (and private utilities), in turn, have sought the support of Congress in granting relieve during this legal battle. The outcome will most likely be decided in a federal or even the Supreme Court; an environment that is familiar to both parties involved.

Implications for Regulated Agencies

TVA's interaction with EPA represents several implications for regulated agencies. As the first-generation conflict demonstrated, TVA's status as a federal agency does not exempt it from being held accountable to the law by a sister agency. TVA was unable to rely on its expertise in the utility industry as a shield from regulatory interference. *If* EPA engaged in retroactive rulemaking, the regulation raises questions of fairness to regulated agencies. The case provides an example of a regulatory agency forcing retroactive requirements on the regulated; leading one to question the options available for a regulated agency to defend its autonomy. Regulated agencies subjected to retroactive rulemaking or rulemaking that oversteps the regulatory authority granted to the regulating agency have several means of recourse. TVA believes EPA has engaged in retroactive rulemaking and is operating beyond its statutory authority, prompting TVA to expand the conflict to other political actors within and outside of the Tennessee Valley. TVA responded by gaining political support from with

the State of Tennessee, the Tennessee Valley, and joined private utilities in seeking relief from Congress.

TVA feels its many years of experience in utilities construction and modification grants it an expertise in the area that EPA does not possess. Wilson (1989) points out that an agency can increase its autonomy “by minimizing the number of external stakeholders and bureaucratic rivals and maximizing the opportunity for agency operators to develop a cohesive sense of mission” (183). TVA has developed a cohesive sense of mission, especially low-cost power production, but the number of external stakeholders has increase. Because the negative externalities of air pollution are often felt miles away, the stakeholders concerned with pollution are often residing in neighboring states. This prevents TVA from controlling and/or minimizing the number of stakeholders. While TVA’s has no bureaucratic rivals seeking to produce electric power, it does have a rival in EPA that seeks to determine the organization’s operating procedure for producing electric power as it pertains to pollution control. TVA is also faced with a threat of restructuring in the electric utility industry that could increase competition from private utilities (TVA Annual Report, 1999).

Regulated agencies must also be well staffed to handle a multitude of legal challenges to the agency’s autonomy. Because TVA has engaged in intragovernmental conflicts with EPA in the past and because TVA has received a variety of legal challenges over the agency’s history, TVA may be more

equipped to handle challenges than other regulated agencies. TVA's experience of working in an adversarial environment allows the agency to respond quickly and effectively to legal and political challenges.

This case demonstrates that regulated agencies subjected to intragovernmental regulation can seek redress if the agency views the regulation as unfair or illegal. This allows regulated agencies to counteract the ambition of regulatory agencies in a true Madisonian fashion.

Implications for the Public Interest

Regardless of one's opinion on TVA's allegations of EPA's reinterpretation or new interpretation of an existing rule, TVA's challenge to the regulation is beneficial to the public interest. Durant (1985) observed regulatory challenges "because they are so controversial and noteworthy—can bring the sustained attention of elected officials to bear on the unintended consequences of public policies" (144). TVA's and the private utilities' challenge to the regulation expanded the scope of the conflict to the United States Congress a month after the conflict began. This regulatory challenge could result in several outcomes. If the courts find EPA's action beyond the agency's authority, Congress can remedy the problem of modifications by clarifying or rewriting the modification rule just as Congress clarified constant control system (CCS) technology and federal facility compliance when Congress passed the Clean Air Act of 1977.

If EPA did engage in a reinterpretation of an existing regulation, TVA's challenge allows the public an opportunity for education on the controversy. EPA's failure to provide adequate public notice of a reinterpretation/new interpretation was remedied by the many challenges the agency received. If TVA is in violation, the expansion of conflict allows citizens knowledge of these violations. The conflict may allow the courts to issue a ruling on the legality of EPA's actions.

The dissolution of the Citizen Implementation Committee once the consent decree terms were met at the end of the first conflict, left environmentalists without a direct method of bureaucratic oversight. The implementation committee allowed concerned citizens to oversee and provide input to TVA's compliance efforts. Perhaps another implementation committee could be used to insure TVA's modifications are within the realm of administrative legal standards.

Conclusion

The EPA/TVA second-generation case represents that the adversarial relationships of intragovernmental regulation have changed very little since the first generation conflict between the two agencies. TVA's challenge to EPA does represent a viable check on the authority of the regulatory agency's actions and brings the conflict to the attention of citizens and political actors.

CHAPTER VI

SUMMARY AND CONCLUSION

Chapter 6 summarizes the findings of the study and the conclusions reached. The chapter includes further questions raised that are beyond the scope of the current study and predictions of a possible outcome of the conflict.

Summary

This case examined the Environmental Protection Agency's regulation of the Tennessee Valley Authority of air pollution control. Using EPA's regulation of TVA as the analytical focus, this study focused on two objectives:

1. To understand if government can regulate itself in the public interest by examining the EPA and TVA intragovernmental conflict;
2. To examine how second-generation conflict differs from first generation conflict in the EPA and TVA.

The study revealed the government could regulate itself in the public interest in the EPA/TVA case. The study also discovered that second-generation conflict only differs slightly from first generation conflict in the EPA/TVA case. The pressure from the national level government was more intense in the second case and the conflict appears to partially originate at the national level. However, this was not generalizable to the other utilities involved in the conflict.

The study also made several propositions regarding intragovernmental conflict:

1. Government agencies subject to intragovernmental regulation seek to maintain their autonomy, leading them to resist any regulation they regard as an unnecessary intrusion. Specifically, TVA seeks to preserve its autonomy and resist the EPA regulation over air pollution control.
2. Government agencies engaging in adversarial intragovernmental relations attempt to expand the scope of the conflict to involve other administrative and political actors.
3. As the scope of the conflict expands, the ability of the original agencies to control the final outcome will be reduced.

The study revealed that the second-generation conflict between EPA and TVA met ^{all of these} assumptions.

Conclusion

This case study served as an exercise in theory building. The study confirmed many of the assumptions and observations made by previous scholars with regards to intragovernmental conflict and regulation. While the nature of a case study limits its external validity, the second-generation conflict is representative of the conflict that occurs when federal agencies pursue disparate public policies and their agency missions place them at odds. The study further represents the importance of autonomy to federal agencies, and the importance of other actors (i.e. the courts, Congress, the White House) as the conflict

expands. Generally, the case demonstrates that regulated agencies can defend themselves against regulation that threatens their autonomy through expansion of the conflict and the legal system.

Specifically, the case represents an excellent example of the unintended consequences of a law. Lawmakers and environmentalists believed that older-coal fired plants would be replaced with newer facilities within a decade or so of the Clean Air Act of 1970, so utilities were allowed to grandfather older-facilities and exempt them from new clean air standards. By the year 2000, much to the chagrin of environmentalists, the coal-fired plants are still operating at full capacity thanks to modifications to maintain operating capacity. TVA's claims indicate possible compliance with the *letter* of the law, but the agency appears in violation of the *spirit* of the law regarding the grandfather clause for older coal-fired steam plants. The EPA, due to internal executive branch pressure and pressure from environmental groups, enforced the modification rule to attempt gain compliance from TVA and private utilities in bringing older plants into compliance with newer clean air requirements. One EPA official speaking on a conditional of anonymity conceded TVA has made a commitment to reducing pollution and "they have been out front trying to make commitments to spend money to bring these pollutants down" (*Maryville Times* 04 November 1999: A1). The allegation of environmental degradation at the hands of utilities is also coming in an election year with noted environmentalist and Vice-President Al Gore of Tennessee as the probable Democratic nominee for president. The

EPA's and the Attorney General's pursuit of TVA would possibly be less zealous and substantially different in a non-election year or under a pro-business Republican administration.

At the conclusion of this study, the conflict between EPA and TVA remains unsettled. The conflict will inevitably reach resolution as the scope of the conflict expands to the courts and Congress. The possible outcomes include Congress offering clarification of the modification rule or passage of a new law requiring utilities to meet new clean air standards and modification procedures when engaging in specific construction projects on coal-fired plants. The courts may also issue a ruling on the accusations made against TVA and the private utilities clarifying EPA's authority. The conflict between EPA and TVA is likely to be settled in the Supreme Court, just as the Supreme Court intervened in stages of the first generation conflict.

In order to fully understand this conflict, further research must be done to answer questions not fully examined in this case study. Through interviews with key actors in TVA, EPA, state environmental agencies, and citizen groups, future scholars may better understand the dynamics involved in this conflict. An examination of TVA and EPA interaction over water and other forms of pollution regulation would reveal whether interaction in this case between the agencies was an aberration or the norm. Future scholars could also examine more thoroughly the financial impact of compliance on TVA, and what implications restructuring in the electric utility industry has on TVA's willingness to comply

with EPA's demands. Examining these questions could provide a better understanding of intragovernmental conflict and regulation.

References

References

- Adair, Dan. *Inside TVA*. "TVA Responds to EPA's Proposed Enforcement Initiative." 9 November 1999.
- Andrews, Richard N. L. 1999. *Managing the Environment, Managing Ourselves: A History of American Environmental Policy*. New Haven: Yale University Press.
- Associated Press Newswires*. "TVA Faces Fight Over Emissions." 13 December 1999.
- Bacot, Hunter and Michael R. Fitzgerald. 1999. "Issue Saliency, News Coverage, and Attention Cycles of Environmental Problems." *Southeastern Political Review*. 27: 525-543.
- Bernstein, Marver H. 1955. *Regulating Business by Independent Commission*. Princeton, New Jersey: Princeton University Press.
- Billeaud, Jacques. "TVA, EPA Join Forces in Effort to Improve Region's Air, Water Quality." *Knoxville News-Sentinel* 25 August 1999: A8.
- Brown, Thomas C., George L. Peterson, and Bruce E. Tonn. 1995. "The Values Jury to Aid Natural Resources Decisions." *Land Economics*. 71: 250-260.
- Bryner, Gary C. 1997. *From Promises to Performance: Achieving Global Environmental Goals*. New York: W. W. Norton and Company.
- Callahan, North. 1980. *TVA: Bridge Over Troubled Waters*. New York: A.S. Barnes and Company.
- Cahn, Matthew Alan. 1995. *Environmental Deceptions: The Tension Between Liberalism and Environmental Policymaking in the United States*. Albany, New York: State University of New York Press.
- Castro, Keith. 1982. "Public Power and Public Interest: An Analysis of the TVA Air Pollution Litigation." *Tennessee Law Review*. 49: 789-839.
- Christenbury, Edward S., James E. Fox, Robert C. Glinski, Harriet A. Cooper, Thomas C. Doolan, and Gregory R. Signer. United States Environmental Protection Agency Region 4. Docket No. CAA-2000-04-0008. *TVA's Response to Administrative Order*.

- Cook, Brian J. 1988. *Bureaucratic Politics and Regulatory Reform: The EPA and Emissions Trading*. New York: Greenwood Press.
- CQ Researcher. 1997. "New Air Quality Standards." 7: 193-216.
- Davis, Marti. "TVA Draws Blame for Smokies' Haze; Emissions Reduce View—Park Officials." *Knoxville News-Sentinel* 16 September 1999.
- Doniger, David D. 1978. *The Law and Policy of Toxic Substances Control*. Baltimore, Maryland: Johns Hopkins University Press.
- Downs, Anthony. 1972. "Up and Down with Ecology—the 'Issue-Attention Cycle.'" *Public Interest*. 28: 38-50.
- Droze, Wilmon H. 1983. "The TVA, 1945-80: The Power Company." In *TVA: Fifty Years of Grass-roots Bureaucracy*. Erwin C. Hargrove and Paul K. Conkin, eds. Chicago: University of Illinois Press.
- Durant, Robert F. 1984. "EPA, TVA, and Pollution Control: Implications for a Theory of Regulatory Policy Implementation." *Public Administration Review*. July/August: 305-315.
- Durant, Robert F. 1985. *When Government Regulates Itself: EPA, TVA, and Pollution Control in the 1970s*. Knoxville, Tennessee: University of Tennessee Press.
- Durant, Robert F., Michael R. Fitzgerald, and Larry W. Thomas. 1983. "When Government Regulates Itself: The EPA/TVA Air Pollution Control Experience." *Public Administration Review*. May/June: 209-219.
- Fabi, Randy. "U.S. Utilities Say EPA Pollution Charges Unfounded." *Reuters News Service* 03 November 1999.
- Fialka, John J. "EPA, 8 Big Utilities Are in Negotiations to Resolve Conflict Over Coal Plants." *Wall Street Journal* 01 October 1999.
- Flessner, Dave. "TVA Vows Less Smoke." *Chattanooga Times/Free Press* 11 January 2000.
- Florence Times Daily* (Florence, AL) "Senators Pledge Help to Clean Air in Smokies." 20 October 1999: B4.
- Frankfort-Nachmias, Chava and David Nachmias. 1996. *Research Methods in the Social Sciences, 5th*. New York: St. Martin's Press.

Grant III, Don Sherman. 1997. "Allowing Citizen Participation in Environmental Regulation: An Empirical Analysis of the Effects of Right-to-Sue and Right-to-Know Provisions on Industry's Toxic Emissions." *Social Science Quarterly*. Vol. 78, No. 4: 859-873.

Gross, Andrea. 1993. "A Critique of the Federal Facilities Compliance Act of 1992." *Virginia Environmental Law Review*. 12: 691-712.

Hamilton, Alexander, John Jay, and James Madison. 1961. *The Federalist Papers*. Clinton Rossiter, ed. New York: Penguin Books.

Hargrove, Erwin C. 1994. *Prisoners of Myth: The Leadership of the Tennessee Valley Authority 1933-1990*. Princeton, New Jersey: Princeton University Press.

Horowitz, D. L. 1977. *The Courts and Social Policy*. Washington, D.C.: Brookings Institute.

Inside TVA. "Clean Air- A Critical Disagreement." 18 January 2000.

Jaffe, Gregory. CAA Docket No. 00-6. Before the Environmental Appeals Board United States Environmental Protection Agency, Washington, D.C. *Initial Brief of EPA Enforcement*.

Knoxville News-Sentinel "Message in the Haze, Another Report Warns of Air Pollution Problems in the Great Smokies." 08 June 1994: A12.

Landy, Marc K., Marc J. Roberts, and Stephen R. Thomas. 1994. *The Environmental Protection Agency: Asking the Wrong Questions From Nixon to Clinton, expanded ed.* New York: Oxford University Press.

Mansfield, Duncan. "EPA Cites Seven TVA Power Plants as Major Polluters." *Associated Press Newswires* 03 November 1999.

McConnell, Grant. 1966. *Private Power and American Democracy*. New York: Alfred A. Knopf.

Meier, Kenneth J. 1993. *Politics and the Bureaucracy: Policymaking in the Fourth Branch of Government, 3rd ed.* Belmont, California: Wadsworth Publishing Company.

Nashville Tennessean. "Fight for Clean Air Moves to Courtroom." 07 November 1999: A26.

O'Leary, Rosemary, Robert F. Durant, Daniel J. Fiorino, and Paul S. Weiland. 1999. *Managing for the Environment: Understanding the Legal, Organizational, and Policy Challenges*. San Francisco: Jossey-Bass Publishers.

Palumbo, D. J. and M. A. Harder. 1981. *Implementing Public Policy*. Lexington, Massachusetts: Lexington Books.

Powelson, Richard. "Ashe Assails, Gore Praises New Clean Air Rules; TVA Cites Pressure On Rates." *Knoxville News-Sentinel* 17 July 1997: A4.

Powelson, Richard. "Thompson Conducts Hearings on Pollution in Smokies." *Knoxville News-Sentinel* 20 October 1999: A4.

Roanoke Times and World News. "AEP's Emissions Illegal, Group Says Controversy: Upgrade Vs. Maintenance." 30 October 1999.

Reuters News Service. "U. S. EPA, Justice Against Electric Utility Rider." 15 November 1999.

Reuters News Service. "Congress Still Considering Utility Company Relief." 16 November 1999.

Ringquist, Evan J. 1993. "Does Regulation Matter?: Evaluating the Effects of State Air Pollution Control Programs." *The Journal of Politics*. Vol. 55, No. 4: 1022-1045.

Ringquist, Evan J. 1993. "Testing Theories of State Policy-Making: The Case of Air Quality Regulation." *American Politics Quarterly*. 21: 320-342.

Ripley, Randall B. and Grace A. Franklin. 1986. *Policy Implementation and Bureaucracy, 2nd ed.* Chicago: The Dorsey Press.

Rivkin, Dean Hill. 1982. "The TVA Air Pollution Conflict: The Dynamics of Public Law Advocacy." *Tennessee Law Review*. 49: 843-883.

Rosenbaum, Walter. 1998. *Environmental Politics and Policy, 4th ed.* Washington, DC: Congressional Quarterly, Inc.

Rourke, Francis E. 1969. *Bureaucracy, Politics, and Public Policy*. Boston: Little, Brown and Company.

Rourke, Francis E. 1984. *Bureaucracy, Politics, and Public Policy, 3rd ed.* Boston: Little Brown and Company.

Russell, Milton, E. William Colglazier, and Bruce E. Tonn. 1992. "The U. S. Hazardous Waste Legacy." *Environment*. 34: 12-39.

Sabatier, Paul A. 1977. "Regulatory Policy-Making: Toward a Framework of Analysis." *Natural Resources Journal*. 17: 415-460.

Sabatier, Paul A. and Daniel A Mazmanian. 1983. *Can Regulation Work? The Implementation of the 1972 California Coastal Initiative*. New York: Plenum Press.

Schattschneider, E. E. 1960. *Semisovereign People: A Realist's View of Democracy in America*. Hinsdale, Illinois: The Dryden Press.

Schattschneider, E. E. 1975. *Semisovereign People: A Realist's View of Democracy in America*, 2nd ed. Hinsdale, Illinois: The Dryden Press.

Schiffer, Lois J. United States Court of Appeals for the Eleventh Circuit. Docket Nos. 00-12310-E and 00-12459-E. *Respondent U.S. Environmental Protection Agency's Combined Motion to Dismiss Petitioner Tennessee Valley Authority's Petitions for Review and Memorandum in Opposition to Petitioner's Motion for Stay of Agency Order*.

Seidman, Harold and Robert Gilmour. 1986. *Politics, Position, and Power: From the Positive to the Regulatory State*, 4th ed. New York: Oxford University Press.

Sher, Andy. "Smokies' Air Quality 'Worse Than New York, Atlanta.'" *Chattanooga Times/ Free Press* 20 October 1999.

Smith, Winston A. United States Environmental Protection Agency Region 4. Docket No. CAA-04-2000-0008. *Fourth Amended Order and Request for Information*. 10 April 2000.

Steinzor, Rena I. 1998. "Reinventing Environmental Regulation: The Dangerous Journey from Command to Self-Control." *Harvard Environmental Law Review*. 22: 103-202.

Stigler, George J. 1971. "The Theory of Economic Regulation." *Bell Journal of Economics and Management Science*. Spring: 3-21.

Tennessee Valley Authority. *Annual Report of the Tennessee Valley Authority*. 1983. Knoxville, Tennessee: 1983.

Tennessee Valley Authority. *Annual Report of the Tennessee Valley Authority*. 1984. Knoxville, Tennessee: 1984.

Tennessee Valley Authority. *Annual Report of the Tennessee Valley Authority*. 1997. Knoxville, Tennessee: 1997.

Tennessee Valley Authority. *Annual Report of the Tennessee Valley Authority*. 1999. Knoxville, Tennessee: 1999.

Thomas, Lois Reagan. "TVA Buys More Air Pollution Credits; Agency Has Been Reselling Them For Years." *Knoxville News-Sentinel* 27 November 1997: A1.

Vig, Norman J. 1997. "Presidential Leadership and the Environment: From Reagan to Clinton." In *Environmental Policy in the 1990s*, 3rd ed. Norman J. Vig and Michael E. Kraft, eds. Washington, D.C.: C.Q. Press.

Vig, Norman J. and Michael E. Kraft. 1984. "Environmental Policy from the Seventies to the Eighties." In *Environmental Policy in the 1980s: Reagan's New Agenda*. Washington, D.C.: CQ Press.

Vig, Norman J. and Michael E. Kraft. 1997. "Environmental Policy from the 1970s to the 1990s: An Overview." In *Environmental Policy in the 1990s*, 3rd ed. Norman J. Vig and Michael E. Kraft, eds. Washington, D.C.: CQ Press.

Wolverton, J. B. 1991. "Sovereign Immunity and National Priorities: Enforcing the Federal Facilities' Compliance with Environmental Statutes." *Harvard Environmental Law Review*. 15: 565-599.

Wilson, James Q. 1989. *Bureaucracy: What Government Agencies Do and Why They Do It*. New York: Basic Books, Inc.

Wilson, James Q. 1980. "Introduction." In *The Politics of Regulation*. James Q. Wilson, ed. New York: Basic Books, Inc.

Wilson, James Q. 1967. "The Bureaucracy Problem." *The Public Interest*. Winter, 6: 3-9.

Wilson, James Q. and Patricia Rachal. 1977. "Can the Government Regulate Itself?" *The Public Interest*. 46: 3-14.

Wise, Charles and Rosemary O'Leary. 1997. "Intergovernmental Relations and Federalism in Environmental Management and Policy: The Role of the Courts." *Public Administration Review*. 57: 150-159.

Yost, Nicholas C. 1999. "Environmental Regulation—Are There Better Way?"
Ecology Law Quarterly. 25: 564-573.

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