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MASTER

THE POTENTIAL OF MEDIATION FOR RESOLVING ENVIRONMENTAL DISPUTES RELATED TO ENERGY FACILITIES

AMERICAN MANAGEMENT SYSTEMS, INC.

PREPARED FOR:

U.S. DEPARTMENT OF ENERGY

ASSISTANT SECRETARY FOR ENVIRONMENT

OFFICE OF TECHNOLOGY IMPACTS

POLICY ANALYSIS DIVISION

DECEMBER 1979

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AMERICAN MANAGEMENT SYSTEMS, INC.

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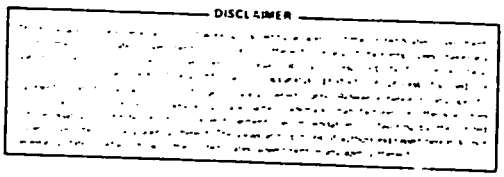

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MANAGEMENT SUMMARY

I. Purpose

The purpose of this study is to assess the potential of mediation as a tool for resolving disputes related to the permitting of new energy facilities, and to explore possible Federal government roles in stimulating the use of mediation. These disputes frequently result when parties challenge the siting or modification of an energy facility on the basis of its potential environmental impacts.

II. Background

The demand for energy in the U.S. creates the need for new energy facilities, both to replace old plants and to contribute to additional energy supplies. At the same time, increased permitting requirements resulting from environmental regulations and heightened public sensitivity to potential environmental impacts of energy development increase the likelihood that an energy facility will be challenged, and thereby possibly delayed, at some stage in its planning. Adjudication (i.e., court hearings and trials), the traditional method for handling many of these disputes, has major weaknesses in terms of achieving quick solutions that are satisfactory to all parties because:

- Court procedures are inherently slow and time consuming. The workloads facing the court system can delay the initiation of the conflict-resolution process. Once court proceedings are initiated, statutory law and civil procedures allow parties to stall and appeal.

- Adjudication allows limited opportunity for compromise. A party generally either wins or loses its case. Lack of compromise can result in solutions that do not strike a reasonable balance between energy and environmental needs.

Alternatives to wholesale dependence on the court system to resolve all disputes must be examined, and pursued if found appropriate, if new energy facilities are to be brought on-line with minimal cost and delay. Mediation is an alternative conflict-resolution method which has been used successfully for years in labor/management disputes and more recently in some environmental disputes.

III. Definition and History of Mediation

Mediation is a method of conflict resolution which has been defined as follows:

> ". . . a voluntary process in which those involved in a dispute jointly explore and reconcile their differences. The mediator has no authority to impose a settlement. His or her strength

lies in the ability to assist the parties in resolving their own differences. The mediated dispute is settled when the parties themselves reach what they consider to be a workable solution."1/

Although mediation was pioneered by labor/management negotiators, the technique has been applied to several recent environmental disputes. While environmental applications have proven somewhat more difficult and complex, success has been achieved in a few cases. Experience is still rather limited, however, especially with regard to energy-related environmental disputes. This paper examines three cases, one involving an energy facility, in detail:

- Brayton Point coal conversion, a dispute arising from a plan to convert certain New England Power company boilers from oil to coal;
- Washington highway extension, a dispute arising from a proposal to extend highway I-90 across Lake Washington into Seattle; and
- General Electric discharges, a dispute concerning what penalties should be assessed G.E. for discharging a toxic chemical into the upper Hudson River.

These cases provide ample illustration of the points presented here.

IV. Relative Merits of Mediation

If the dispute is basically suitable for mediation and the mediation effort is professionally managed, mediation can generally achieve a quicker, more satisfactory solution than adjudication. Mediation has these advantages for the following reasons:

- Conduciveness to compromise: Unlike adjudication, mediation does not pose a win-or-lose outcome for either side. The parties have complete flexibility to compromise to avoid outcomes that would seriously harm either side.
- All parties and issues are considered: Mediation is flexible with regard to: (1) who has standing to participate in the process and influence the solution; and (2) what issues may be addressed. Under adjudication, multilateral disputes can result in a series of bilateral lawsuits, which delay solution of the overall conflict. Mediation is more efficient in resolving such disputes, because it allows numerous concerns to be addressed simultaneously.

1/ Leah K. Patton & Gerald W. Cormick, "Mediation and the NEPA Process: The Interstate 90 Experience," Office of Environmental Mediation, Institute for Environmental Studies," Seattle, Washington, May 1977.

- Genuine conflicts are discussed: Under mediation there is less inclination to dwell on trivial or spurious issues. Adjudication, on the other hand, often encourages a party to base its case of such issues, if the legal probability of winning on such issues is higher than on the issue of genuine concern.

Mediation also allows face-to-face communications among the disputants, a frank exchange of technical data, and the development of constructive working relationships as a basis for resolving future disputes.

The relatively flexible and informal structure of the mediation process, however, poses limitations as well:

- Mediation does not guarantee an agreement. A mediation effort that does not produce a signed agreement to implement a solution is potentially useful only if it helps the disputants better define the issues separating them. In any subsequent efforts to adjudicate the dispute, this understanding may help eliminate trivial issues from the court's consideration, thereby making adjudication more efficient.

- In general, a mediated agreement is legally binding only on the parties signing the agreement and is applicable only to the dispute in question. Any party not included in the agreement may take action to prevent its implementation. Unlike adjudicated settlements, mediated settlements do not as a rule set precedents for other disputes. A mediated agreement can have the effect of setting a precedent only if it results in a change to a law or regulation, or if the parties explicitly agree to limit their actions in future such cases.

V. Disputes Where Mediation Is Applicable

For a dispute to be suitable for mediation, room for compromise must exist. In general, this criterion excludes disputes involving differences on fundamental policy, where only extreme choices would satisfy either party.

Compromises must also be capable of being implemented. Disputes involving national policy issues are generally unsuitable for mediation because of the difficulty of implementing an agreement at the local level. For any such agreement to be meaningful, all potentially concerned parties would have to sign it, generally an impossibility.

The above criteria limit mediation to disputes involving how fundamental, agreed-upon national or local policy is to be implemented in a specific case in a specific locality. The dispute should concern questions of "where," when," and "how much" rather than of "should or should not." Assuming that a dispute can be defined in these terms, the relative efficiency of mediation is especially great if the dispute involves several parties or issues.

VI. Related Characteristics of Energy Facility Disputes

Based on the criteria identified above, only a subset of the disputes related to energy facilities appear suitable targets for mediation. The following types of energy disputes, because they allow no room for compromise, are not promising candidates:

- Whether or not an energy facility is justified, on the basis of local energy needs or environmental costs;
- Whether or not a specific technology (e.g., nuclear) is environmentally acceptable for a facility.

Such issues reflect fundamental differences between energy and environmental policies and offer no apparent middle ground for a solution.

Likewise, many energy disputes concern issues of national policy, e.g.:

- The extent to which the U.S. should convert to coal;
- The schedule for implementing the national synfuels program.

A mediated agreement capable of being implemented would be virtually impossible to achieve on such broad issues, because of the wide-ranging cooperation needed at the Federal, state, and local levels.

The energy disputes most suitable for mediation are those where the basic need for an energy facility in a specific locality is agreed upon, and the remaining issues concern negotiable matters of implementation, such as:

- the best location for the facility;
- type of pollution controls;
- arrangements for waste disposal;
- compensation for persons inconvenienced by the facility;
- timetable for construction; and
- stipulations in permits (e.g., measurement techniques and reporting requirements).

As implied above, numerous issues can arise concerning the implementation of policy related to an energy facility. Moreover, several parties are likely to be actively involved in deciding them. Environmental public-interest groups, Federal energy and environmental agencies, and state and local agencies are invariably drawn into some stage of the facility planning ans siting process. DOE often finds itself at odds with EPA and environmental groups on certain issues. State and local agencies may have somewhat different concerns than either the Federal agencies or the environmental groups. Mediation has potential for providing an opportunity to address these numerous concerns in one set of proceedings.

VII. Views of Environmental Groups

Environmental groups are likely to be key participants in disputes concerning energy facilities. They are not only the initiators of such disputes, they are generally prepared and willing to pursue their interests through the court system. Environmental groups interviewed for this study[1] generally indicated that, under certain conditions, mediation could be an improvement over other methods of conflict resolution. Local issues related to implementation of energy or environmental policy, rather than disagreements over fundamental policy, were cited as having potential. Nevertheless, these environmental groups believed that other conditions would have to be met before they would agree to participate in a mediation effort:

- Sufficient technical staff and data resources must be available for them to negotiate on an equal basis with industry. Environmental groups believe that in adjudication and lobbying their relative weakness in this area matters less in achieving a favorable outcome.

- To the extent that environmental groups' overall technical resources are limited, a mediated agreement would offer them a high payoff in terms of setting precedents for similar disputes. (As indicated earlier, such an agreement would have to contain certain provisions either binding the parties in future such actions or changing a law or regulation.)

Although environmental groups expressed the need for financial support, for technical staff and data as well as mediation services, they desired that such funding not affect their independence or the impartiality of the mediation services. Funding totally under DOE's control was considered unsatisfactory. Funding by a coalition of agencies (DOE, EPA, and others) or through the Federal Regional Councils was considered acceptable. Their other conditions for participation in a mediation effort included:

- The parties bargain in good faith.

- Other environmental groups are willing to share responsibility for the issue.

- Participation does not jeopardize the right to sue if an agreement is not reached.

- A party to the mediation is not a funding source for the mediator. All funding sources must be revealed.

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[1] Interviews were conducted with the Washington, D.C. offices of the Environmental Defense Fund, the Natural Resources Defense Council, the Environmental Policy Center, and the Sierra Club.

- The proceedings are not publicized until an agreement is reached.
- Each party's representative has authority to make binding commitments.

VIII. Possible Target Programs for Energy/Environmental Mediation

This study examined two regulatory programs which govern implementation of energy projects at the local level and which are often a source of disputes: (1) the National Environmental Policy Act (NEPA); and (2) coal conversion programs.

Regulations generated by NEPA provide ample opportunities for energy projects to be challenged in the planning phase. The chief focus of dispute is often the Environmental Impact Statement (EIS), since projects are often challenged on the basis that the EIS is inadequate. Although NEPA regulations provide opportunities for challenges via adjudicatory means, the implementing regulations allow sufficient flexibility to parties who wish to negotiate a compromise settlement to achieve compliance. Mediation therefore has potential for resolving such disputes.

Legislation related to coal conversion, the Energy Supply and Environmental Coordination Act (ESECA) and the Fuel Use Act (FUA), often generates local disputes related to facility exemptions from coal-conversion orders. Determining whether an exemption is warranted is often a complex process involving several government agencies, the utility company, and the public. Mediation thus has substantial potential in this area and, in fact, one of the case studies presented in this paper discusses how a coal-conversion dispute was successfully mediated.

IX. A Potential Federal Role

If the Federal government chose to promote the expanded use of mediation in energy facility disputes, several avenues for such support might be considered. It is unlikely that support under the total financial control of either EPA or DOE would be appropriate, because of the perceived threat to the impartiality of the mediation process. A coalition of agencies or the Federal Regional Councils, as suggested by many environmental groups, might offer more acceptable vehicles for funding.

Environmental mediation institutions and environmental groups have suggested types of support that might be provided by the Federal government:

- Federal Mediation and Conciliation Service: This independent Federal agency has been supplying mediators for labor/management disputes for years. It seems to have the respect of many environmental groups.
- Federal Services Ombudsman: Such an organization could coordinate Federal services and grants for mediation efforts.

- Development of Skilled Mediators through Training and Licensing: It was indicated that environmental mediators need special skills to handle the multilateral negotiations that typify such disputes. Such training could be formalized through a licensing program. If the Federal government begins supplying significant amounts of funding for mediation, some control is needed over the quality of mediation services. Without minimum professional standards as prerequisites, such funding could spur the growth of marginally competent mediation organizations, established and sustained largely because of Federal money.1/

- Pilot Mediation Projects: One environmental group suggested that the Federal government support pilot projects on mediation to gather more evidence on the technique's potential for energy-related disputes. The projects would be the basis for justifying and developing any large-scale mediation support program.

- Educational Services: The Federal government would act as a clearinghouse for compiling, editing, and distributing information on mediation. This effort could include research, workshops, and seminars on environmental mediation. One representative from AAA suggested that such an effort could begin through expanding the dispute settlement project being conducted by the Department of the Interior and the Council on Environmental Quality (CEQ) for the Resource and Land Investigation Program.

- Direct Technical/Analytical Assistance: The Federal government would provide technical assistance and data to groups preparing for and participating in negotiations. Environmental groups expressed interest in this type of assistance to help them negotiate on equal terms with industry.

Except for use of the Federal Mediation and Conciliation Service to mediate disputes, the above approaches require the Federal government to play an indirect or educational role in promoting mediation.

X. Conclusion

Mediation has potential for achieving quicker and more satisfactory solutions for certain energy-facility disputes than the court system. Mediation has the fundamental advantages of conduciveness to compromise and to discussion of genuine issues, and an ability to accommodate numerous parties and issues efficiently.

1/ Labor/management mediation does have a generally recognized certifying agency, the American Arbitration Assocation (AAA). The field of environmental mediation, because it is relatively young, has not yet developed one.

Mediation has limitations, however. It does not guarantee an agreement, although the process of mediation may at least help clarify issues dividing the parties. Mediation also has a limited ability to set legally binding precedents for future disputes. Finally, mediation is likely to be successful only for disputes involving how fundamental, agreed-upon national or local energy/environmental policy is to be implemented for a specific facility in a specific locality. Disputes involving national policy are generally unsuitable for mediation because of the difficulty of implementing an agreement at the local level. Differences in fundamental local policy are not suitable for mediation because they generally lack room for compromise.

Environmental groups are generally receptive to participation in mediation efforts, if certain basic conditions are met regaring resource requirements and procedures used. Environmental groups would need financial assistance, but in a fashion that would preserve their independence and the impartiality of the mediator. Good faith bargaining by all parties and confidential proceedings are also among the conditions they generally desire.

If the Federal government elects to promote wider use of mediation, it could provide impartial funding through a coalition of agencies. Possible avenues for support would be the Federal Mediation and Conciliation Service, a Federal services ombudsman, training and licensing of environmental mediators, pilot mediation projects, educational services, and direct technical/analytical assistance.

I. INTRODUCTION

A. Purpose

The purpose of this study is to assess the potential of mediation as a tool for resolving disputes related to the environmental regulation of new energy facilities, and to identify possible roles which the Federal government might play in promoting the use of mediation. These disputes result when parties challenge an energy project on the basis of its potential environmental impacts. The paper reviews the basic theory of mediation, evaluates specific applications of mediation to recent environmental disputes, discusses the views of environmental public-interest groups towards mediation, and identifies types of energy facility-related disputes where mediation could have a significant impact. Finally, potential avenues for the Federal government to encourage use of this tool are identified.

B. Statement of the Problem

The demand for energy in the U.S. creates the need for new energy facilities, both to replace the old plants and to contribute to additional energy supplies. There is a need to bring new facilities on line with a minimum of cost and delay. At the same time, however, two developments have combined to increase the likelihood that a proposed energy facility will be challenged, and thereby possibly delayed, at some stage in its planning and siting phase.

- New procedural and permitting requirements[1/] resulting from the growth in environmental legislation. The procedural rules associated with new

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1/ Recent legislation such as the Toxic Substances Control Act and the Resource Conservation and Recovery Act passed in 1976 and the 1977 amendments to the Clean Air Act and the Federal Water Pollution Control Act are already beginning to pose new obstacles for facility developers, as the Federal government and individual states establish the new permit programs called for by these Acts. Another recent environmental law likely to have a significant impact is the Surface Mining Control and Reclamation Act. Although this law affects only new surface coal mines and the surface effects of underground mines, it represents a large increase in the regulation of these facilities in most states, and may significantly extend the time required to open a new coal mine.

permit programs not only provide opportunities to challenge proposed facilities, they also specify the means to pursue disputes (e.g., public hearings, adjudicatory hearing, and judicial review).

- Increased tendency of public parties to oppose energy projects. This trend has been due primarily to:

  -- Increased public sensitivity to the environmental impacts of economic and energy development in general, as evidenced by the growth in recent years of environmental public-interest groups.

  -- The increased magnitude of local environmental issues raised by proposed new energy facilities, which may be attributed to:

     - a growing reliance on environmentally controversial energy technologies such as nuclear power and coal, a consequence of U.S. efforts to reduce dependence on uncertain foreign oil supplies;

     - the trend to larger-scale facilities;[1/] and

     - competition from existing sources of pollution, such as automobiles and facilities already in operation.

Figure 1, derived from data collected from utility companies in early 1979, indicates that permitting and legal impediments combined may have contributed as much as 25% of the total delay experienced by new power plants. These data point to the importance of these elements of delay in bringing on-line new power plants.

1/ One large-scale design currently under study by utility firms and consulting engineers is the "flexbig" model. Plants built according to this configuration would be characterized by several relatively small generating units (of approximately 500 MW) which would combine to produce a very large total generating capacity (at least 3000 MW). Such plants would have to obtain initial siting permits which would approve the total ultimate holding capacity. Because of the size of these facilities and the geographical concentration of their environmental impacts, obtaining siting approval may be a lengthy and controversial process.

Challenges to an energy facility can be very serious (in terms of timing impacts) if they culminate in court action. In recent years, many such disputes have, in fact, been brought to state and Federal courts. Moreover, courts currently employ very liberal policies concerning who may be granted standing to bring suit against a proposed facility on the basis of its environmental impacts. The result is that the utility or mining firms planning a new facility are faced with a permitting process requiring a large and growing investment in time and money, much of which may be wasted if a third party succeeds in obtaining a court injunction. These conditions not only potentially add to the cost and delay of completing projects; they may discourage many would-be developers and their investors from attempting new projects.

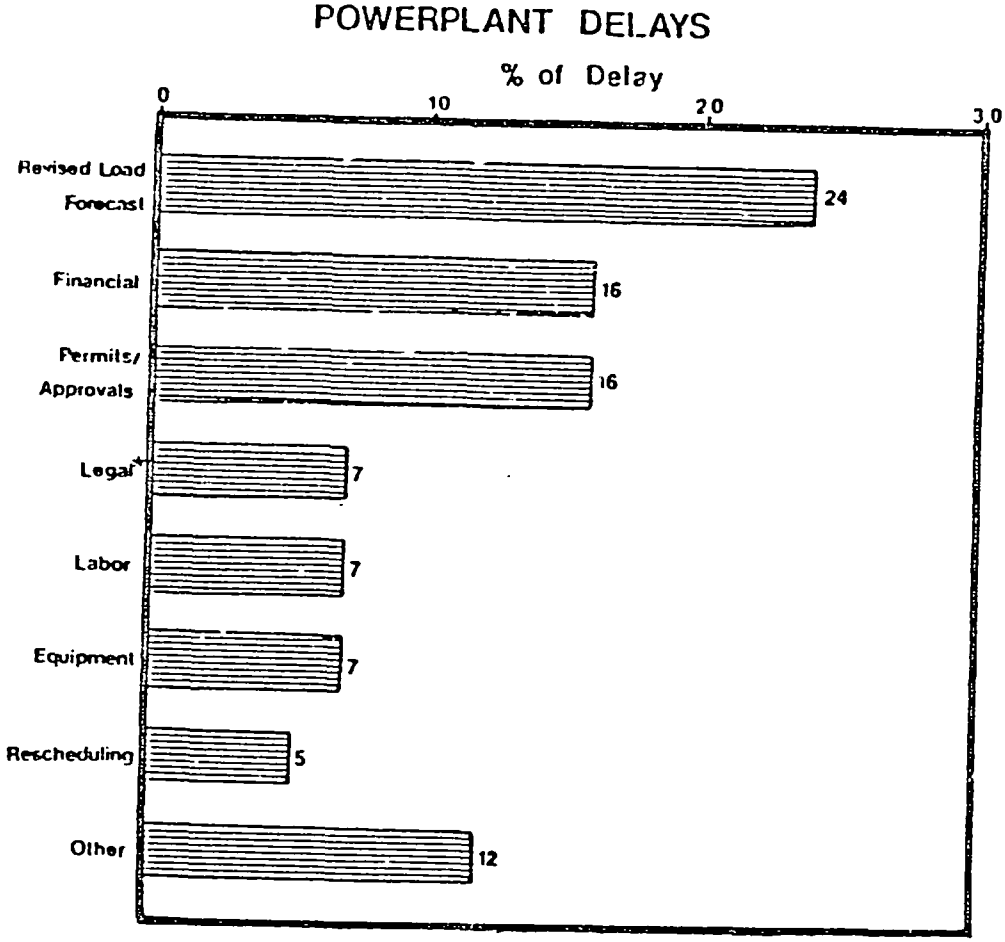
Clearly, a mechanism for conflict resolution would be helpful for dealing with challenges to energy facility development. As implied above, adjudication, which involves court proceedings such as hearings and jury trials, is a widely used approach; however, it is not at all clear that it is either the most efficient approach in every case or the one likely to strike the best balance between energy and environmental considerations.

The major weaknesses of adjudication are:

- Court procedures are time-consuming. Even after all issues and arguments have been formulated, time is required to prepare a legal brief and file suit. The workloads and backlogs frequently present in the court system may impose a long waiting period before a case is brought before a judge, and before each subsequent step (i.e., trial, appeal). Moreover, statutory law and civil procedures allow parties to use stalling tactics to prolong the process, if they feel that delays will work to their advantage.

- Litigants may, for strategic purposes, choose not to argue the real issues at question. For example, a plaintiff opposed to a power plant because of its environmental impacts may attack the project by challenging the utility firm's demand load forecast, if that type of argument seems to offer the greatest chance of success.

FIGURE 1[1/]



1/ This chart is derived from data collected by the Federal Energy Regulatory Commission from utility companies in early 1979.

*This includes court actions of all types, including environmental challenges.

- Court proceedings offer only limited opportunity for compromise. Rather than dealing directly with each other, the opposing parties present their cases to either a judge or jury, who makes a final decision in favor of one party or the other. This type of settlement generally does not seek to maximize the satisfaction of both parties, and can lead to appeals by the party not favored in the decision.

Clearly, alternatives to wholesale dependence on adjudication to resolve all disputes may offer potential benefits in bringing on line new energy facilities with minimal cost and delay. Mediation of environmental disputes, in which opposing parties use a third party to facilitate direct negotiation of the issues of concern and attempt to reach a solution in which all parties are satisfied, may represent an improvement over adjudication as a means of conflict resolution. If so, mediation may have potential for expediting the permitting and siting of energy facilities.

C. Organization

The remaining chapters of this paper will explore both the potential benefits and limitations of mediation, and assess the extent to which mediation is being used today as a means of resolving environmental conflicts.

Chapter II defines mediation, explores the theoretical advantages and limitations of mediation relative to other conflict resolution methods, and defines criteria for effective mediation procedures. Chapter III examines three case studies in environmental mediation. Chapter IV discusses the views of environmental public-interest groups on mediation. Chapter V presents conclusions drawn from mediation experiences and a net assessment of the potential of mediation for resolving environmental disputes. Finally, Chapter VI discusses potential ways for the Federal government to encourage application of mediation to energy facility disputes.

II. ENVIRONMENTAL MEDIATION: THEORY AND TECHNIQUES

This chapter reviews the basic theory of mediation from the perspective of environmental disputes. First, traditional forms of third-party intervention are defined. This is followed by a discussion of the relative merits of mediation. Next, the differences between mediating in labor and environmental disputes are described. This is followed by a discussion of environmental mediation techniques. The chapter concludes with a discussion of the basic criteria for effective mediation and an overview of existing environmental mediation institutions and projects.

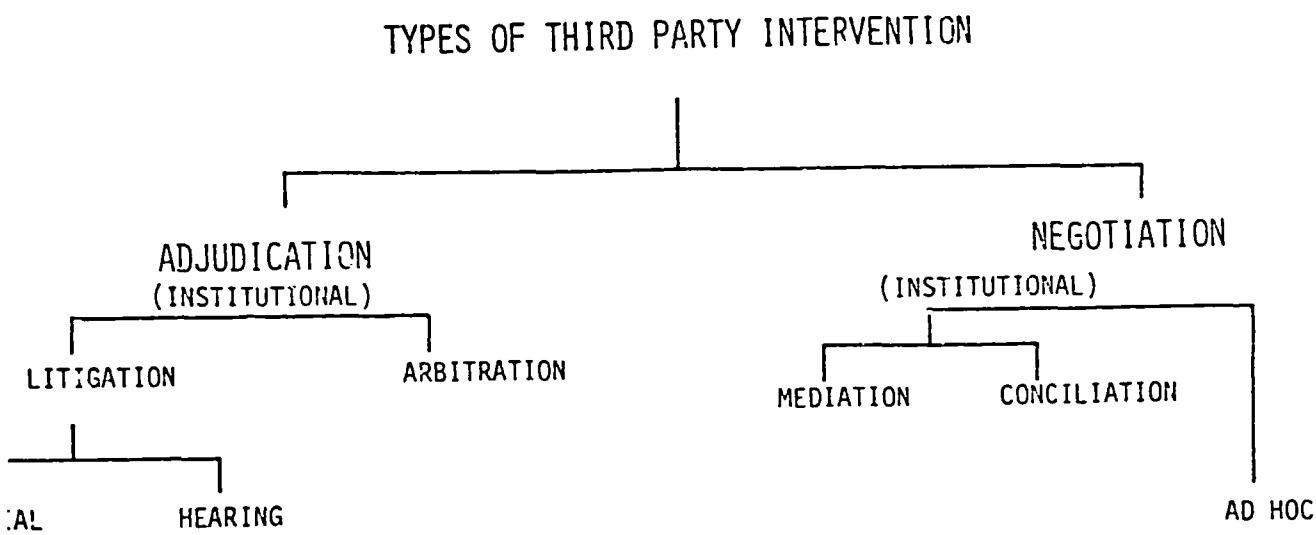
A. Types of Third-Party Intervention

Figure 2 depicts the two basic types of third-party intervention: (1) adjudication, where the third party acts as a judge in a dispute; and (2) negotiation, where the third party acts to facilitate bargaining among the parties to enable them to resolve the conflict themselves. Mediation is a type of negotiation. The fundamental difference between adjudication and negotiation is that in adjudication, the third party makes a judgment, and in negotiation, he does not. The specific characteristics and approaches used in each type of third-party intervention are discussed below.

1. Adjudication

Under adjudicatory processes, the disputants attempt to present the best possible cases for their positions before a judge or hearing officer, who then rules in favor of one party or another. The current regulatory environment has many adjudicatory processes, the most obvious example being courts of law, where many energy facility disputes are eventually heard. Both DOE and

FIGURE 2


TYPES OF THIRD PARTY INTERVENTION
ADJUDICATION
(INSTITUTIONAL)
NEGOTIATION
(INSTITUTIONAL)
LITIGATION
ARBITRATION
MEDIATION
CONCILIATION
:AL
HEARING
AD HOC

EPA have quasi-judicial hearings as well. Originally intended to be a somewhat informal forum for parties to express their positions, these hearings have become increasingly formal and have adopted many of the procedures of courts of law. Specific types of adjudicatory processes are arbitration and litigation.

Litigation is the most common form of third-party intervention, because both trial and hearing are the methods used for settling most formal disputes. Arbitration is often confused with mediation, primarily because both methods are used extensively in labor/management relations. There are great differences between them, however. Arbitration is an adjudicatory process in which the parties agree to present their cases to an impartial third party, the arbitrator. The arbitrator reaches a decision based on the hearing record, and the parties are legally bound to accept his or her decision. A mediator does not make decisions, although he may propose solutions for compromise. Parties involved in mediation are not legally bound to accept such proposals; however, if the parties accept a proposed solution and sign a written agreement to that effect, the written agreement may make the solution legally binding.

As discussed in Chapter I, the costs and delays associated with adjudicatory processes have provided new incentives to look at bargaining processes. Furthermore, the increasingly severe strain on the court system due to greatly increased caseloads accentuates the importance of finding effective alternatives to courts to resolve conflicts.

2. Negotiation

Under negotiation, the parties communicate with one another in an attempt to work out a solution, often involving compromise, that is acceptable to all parties. The role of the third party may be passive (i.e., just getting the parties to know each other) or active (i.e., getting the parties to construct an agreement). Of the two types of institutional negotiations, "mediation" is considered to be the more active approach while "conciliation" is the more passive approach.

Mediation, the subject of this paper, is perhaps the most promising new form of third-party intervention in environmental disputes. Its purpose is to develop a compromise between the parties and to construct a written, implementable agreement as the resolution of their dispute. Mediation has a long history in resolving labor disputes. For application to environmental conflicts, the following definition has been proposed by the Office of Environmental Mediation and has been accepted by many groups in the field:

> "Mediation is a voluntary process in which those involved in a dispute jointly explore and reconcile their differences. The mediator has no authority to impose a settlement. His or her strength lies in the ability to assist the parties in resolving their own differences. The mediated dispute is settled when the parties themselves reach what they consider to be a workable solution."1/

It should be noted that a mediation effort in which the parties fail to reach agreement may be beneficial as well, to the extent that new channels of communication are established and the parties gain a better understanding of one another's concerns and positions. Clarification of the positions of the two

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1/ Leah K. Patton & Gerald W. Cormick, "Mediation and the NEPA Process: The Interstate 90 Experience," Office of Environmental Mediation, Institute for Environmental Studies, Seattle, Washington, May 1977.

parties can make any subsequent adjudicatory process more efficient, in that trivial or spurious issues can be identified and eliminated in advance.

Under conciliation, the third party attempts to foster negotiation between the disputants. Many groups working in this field, including the Federal Mediation and Conciliation Service, use the terms mediation and conciliation interchangeably. Those who do make a distinction, however, view conciliation as a more passive technique in which the third party only tries to improve the attitudes of the parties and help them clarify the issues involved, with the goal of enabling the parties to begin negotiation among themselves.

B. Relative Merits of Mediation

The flexibility of the mediation process gives it several theoretical advantages over adjudication as an effective and efficient means of resolving conflicts. Whether these theoretical advantages are realized in practice depends on:

- the suitability of the dispute to mediation; and
- the skill with which the process is managed by the mediator.

Assuming that these requirements, which are discussed in detail later in this chapter, are met, mediation offers distinct advantages in the areas discussed below.

1. Parties Communicate Face-to-Face

Increased opportunities for the parties to communicate their needs and concerns face-to-face make it easier for the parties to understand one another's priorities in addressing complex issues. This is an important advantage in

cases where the parties have had little previous contact and may have severe misperceptions of their opposition's views and objectives. Resolving these misperceptions can be a significant first step in achieving a solution acceptable to all parties.

If not carefully conducted, however, this direct communication can have negative effects. For example, if the personalities of the negotiators clash, face-to-face meetings may lower the degrees of trust and cooperation from their pre-mediation levels. Further, if the parties have entered mediation with unreasonably high expectations, failure to resolve the dispute may cause frustration and damage the prospects for future uses of the mediation process by the parties. These problems should be minimized by a good mediator, however.

2. A Constructive Working Relationship Is Established

Parties may establish a good working relationship, helping to resolve future disputes more effectively.

> "Mediation allows individuals to develop the attitudes of trust and respect they need in order to tackle difficult problems. One of the often unarticulated purposes of mediation is to create a needed working relationship where none has existed previously among the disputing parties. The close working relationships forged during mediation help to ensure successful implementation of an agreement, and often create an enduring relationship within which subsequent problems can be addressed before they become conflicts."1/

3. Conduciveness to Compromise Solutions

Mediation allows more flexibility to construct innovative solutions. In mediation, the parties search for common ground in formulating solutions

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1/ American Arbitration Association, Clark-McGlennon Associates Inc. "Perspective on Adapting Mediation to an Environmental Context", pp. 5-21. National Park Service Workshop on Mediation, Spring 1979.

to their conflict. Since there is no need for one party to win and the other to lose, they can compromise to avoid outcomes that would seriously harm either party.

Adjudication is inflexible in this regard. The traditional emphasis is on complete victory for one side or the other. Facing a win-or-lose outcome, each side attempts to present the strongest possible case, often suppressing information that could be useful in the formulation of a compromise solution. For this reason, court rulings can result in long-lasting enmity between the parties.

Under adjudication, parties may bargain outside of the courtroom, but generally only after having expended considerable amounts of time and money. A party's willingness to bargain early in the process may be seen as a sign of doubt as to the strength of his or her case; thus, the party may be reluctant to bargain until relatively late in the process when the prospects for an in-court victory can be more accurately predicted. Use of mediation before deciding to go to court allows parties to bargain early in the process without conveying an image of weakness.

There is no guarantee of a result in mediation, however. Under an adjudication process, a ruling is always made; such is not the case with mediation. When parties find it impossible to reach a mediated agreement among themselves, there must be some process by which a third-party may impose a decision. Furthermore, temporary restraining orders may be necessary at times. A mediator, however, is not officially empowered to restrain a party's actions; however, he may choose to suspend the mediation effort contingent on the party's ceasing other activities.

4. Experts Debate Directly

Experts on opposing sides may deal with each other directly. Because environmental issues are often scientific and complex, the analysis of scientists

and engineers is usually needed. In adjudicatory processes, each side may produce an array of experts to testify for its case. A judge, hearing officer, or jury lacking the technical competence to understand the subtleties of the technical evidence can be misled. In a mediated dispute, opposing experts debate directly, reducing the temptation to present misleading technical information. Moreover, the sharing of technical data helps the parties reach agreement on what the principal issues are, thereby focusing their discussions.

To proceed efficiently, however, mediation also requires the presence of high-level management. Negotiations should take place between representatives who have the authority to make commitments on behalf of their organizations; otherwise, participants have to wait repeatedly while various representatives seek approval of their superiors on each decision. If the issues involved are significant, an organization is not likely to delegate such authority to a lower-level person; moreover, the complexity of the issue may preclude turning negotiations over to an outsider (e.g., an attorney). As a result, mediation may require a larger commitment by high-level personnel than they are able to give. For some parties, such as small state agencies, this time requirement could seriously disrupt other activities.

5. Stall Tactics May Be Avoided

Stall tactics can cause court cases to last for years. A party may prolong the proceedings as a strategic move, For example, if an environmental group feels that delaying a project to which it is opposed will make that project economically infeasible, it may use the courts as a means of stalling to kill the project. A judge's power to expedite a trial is limited by the rules of procedure. A mediator, on the other hand, may caution one of the parties that he feels that party is stalling. If the party continues to stall, the mediator may suspend or terminate the mediation. Thus, it is much more difficult for parties to use mediation as a strategy to delay a settlement.

If, however, the party accused of stalling fails to cooperate and thereby causes suspension of the effort, mediation in effect adds to the overall delay in reaching a solution. Adjudication of the dispute is simply postponed by the unsuccessful negotiation. Moreover, certain conditions that will lead to this effect are not always easy for the mediator to discover. For example, if all parties treat mediation as simply another obligating step in a series of confrontations, hearings, and trials, they may "go through the motions" of negotiations in order to appear cooperative. Where one or more parties has already filed suit, one party may use mediation to gather information for its court argument. Clearly, the intentions of each party must be carefully assessed by the mediator.

6. All Parties Are Considered

The informality of mediation procedures gives persons who might not have legal standing in a court case an opportunity to contribute their views to the decision. While cross-examination is permitted in the courtroom and to a limited extent in an administrative hearing, the formality of these procedures provides very limited opportunity for outside parties to influence the process. Consequently, the traditional means for solving multilateral disputes is with numerous bilateral lawsuits. Because of its relative openness to participation, mediation enables potentially numerous proceedings to be combined into one.

While the ability to include all parties is desirable, it can make mediation difficult to manage if the number of parties is large. The probability of having a large number of participants in an environmental dispute is high because of the wide pubic interest in such issues. Although the problem may be ameliorated by restricting the number of participants, deciding who has a legitimate claim on participation may be difficult. Moreover, an excluded party may resort to adjudicatory action.

7. All Issues Are Considered

As previously discussed, bilateral lawsuits are the typical adjudicatory method for resolving disputes betewen multiple parties. This practice also applies to conflicts involving multiple issues. Handling each issue as a separate case delays a satisfactory solution to the overall conflict. A single mediation effort can intercept numerous issues and address them before they are caught up in adjudication. Even if mediation fails to resolve all the issues, it can reduce their number and thereby simplify subsequent adjudication.

8. Genuine Conflicts Are Discussed

Under mediatior, parties are more likely to discuss the issues that are a genuine source of conflict and dispense with spurious issues. Under adjudication, a party opposed to a project often files suit on the grounds that a regulation or law has been violated, although that violation by itself is of little interest to the party. For example, a group may file a suit claiming that the Environmental Impact Statement (EIS) does not satisfy the National Environmental Policy Act (NEPA) requirements when, in fact, its real concern is the proposed design of the plant. If denied a forum for discussing the design issue, the group brings suit over the EIS to block the project completely. Since the court must restrict itself to the issue defined in the lawsuit, the underlying problem often goes unresolved through repeated appeals and trials. Parties engaged in mediation, on the other hand, are more likely to focus their attention on issues over which there is a genuine dispute.

9. Decisions Are More Satisfactory and Permanent

The parties are more likely to be satisfied with a decision they have developed among themselves. Under adjudication, the third party imposes a

"win or lose" ruling with which at least one party is likely to be dissatisfied. This situation leads to costly and time-consuming appeals. By definition, a successful mediation effort produces a solution which all parties voluntarily agree to sign. The disputants are more likely to be satisfied with a solution arrived at in this manner.

As indicated earlier, a successful mediation usually results in a written agreement signed by all the parties. The written agreement is the parties' determination of a feasible solution -- a good basis for implementation. From a legal perspective, this written agreement resulting from mediation is interpreted as a mutually binding contract.

Unlike adjudicated disputes, signed mediated agreements generally do not establish legal precedents governing non-participating parties or other disputes. Consequently, an issue may have to be re-debated in each case in which it arises. For a mediated agreement to have the effect of a legal precedent, it must result in a change to a law or regulation. It may set a precedent for the parties involved if the agreement explicitly limits specific future actions of the parties. In general however, prior mediated agreements are useful only to the extent that they serve as examples of successful approaches to solutions.

C. Differences in Mediating Labor and Environmental Disputes

The field of labor-management relations has pioneered the techniques and furnished the institutions for other uses of mediation, including environmental mediation. Because labor mediation has a longer history and is therefore more familiar to people, it is useful to point out the basic differences between the two applications of the technique. This section briefly discusses these differences.

1. Ease of Transition to Mediation

In labor/management disputes, the transition to mediation is easier. Usually bargaining has been underway for some period; the labor mediator enters only after these direct negotiations have broken down, with the objective of restarting them. Parties in labor/management disputes are also likely to have had prior experience with mediation. In environmental disputes the parties are unlikely to have attempted negotiations and usually will be unfamiliar with mediation procedures. Consequently, the mediator must take more time to familiarize the disputants with one another and with the process of mediation.

2. Number of Parties Involved

Labor/management disputes generally involve only two parties. Environmental disputes, on the other hand, often involve public-interest groups, private industry, and Federal, state and local governments, simultaneously. Consequently, more coordination is involved in managing the mediation effort. Although some restrictions may be put on participation, the participation of many parties may be essential to ensure that any subsequent agreement is implementable.

3. Similarity of Values

While the specific objectives of labor and management may differ, both sides generally agree on what the issues are and share a common purpose: to keep the enterprise operating to the benefit of both sides. Parties to environmental disputes are likely to have more widely divergent values and priorities. Consequently, they may have more difficulty in agreeing on what issues are important and in identifying a common purpose for the effort.

4. Balance of Power

In labor/management disputes, each side has concrete economic weapons to use against the other, and both parties are aware of them. This knowledge provides an immediate incentive to seek a compromise. The opposing sides in environmental disputes may have less tangible or more unequal levels of power. Moreover, each party may inaccurately compare its own power to that of the opposition. Consequently, some power-testing must be dealt with before the parties can establish their willingness to make concessions.

5. Continuity of Negotiating Relationships

Union and management have ongoing contractual relationships. Such relationships help to ensure that both sides will comply with any agreement they reach. The repeated meeting may facilitate future bargaining as well. Because both sides meet periodically, they realize that a concession granted in one set of negotiations may be compensated for in the next set.

Parties to environmental mediation are less likely to meet often. Consequently, more effort is required to ensure that the parties stay committed to the agreement. Because concessions are seen as irrecoverable, the parties are more cautious about offering them.

6. Permanence of Impacts

Since labor/management disputes are renegotiated periodically, the impacts of any given set of negotiations are short-lived. This is not generally the case with environmental disputes. Often, the impacts of a proposed energy facility are irreversible or long-term. This prospect dictates conservatism in offering concessions and caution in attempting innovative approaches to reaching a solution.

7. Ability to Project Costs and Benefits

The degree to which impacts may be forecast differs greatly between labor disputes and environmental disputes. In most cases, the impacts of changes in a labor contract may be predicted with a high degree of certainty. The environmental and other impacts of a proposed energy facility are felt over a longer time period and are more difficult to predict. The parties are faced with weighing the short-run economic benefits of construction jobs and increased energy availability against the future likelihood of accidents, unemployment after construction and pollution damage. Consequently, the disputants may be unable to agree on what constitutes a reasonable projection. Mediation may be necessary simply to reach an agreement on which analytical techniques, models, and data are relevant and valid.

D. Disputes That Can Be Successfully Mediated

Proponents of mediation concede that the technique is likely to succeed only under certain conditions. Pioneers in the field of environmental mediation have developed several criteria by which to determine if a given dispute is suitable for mediation.[1/] Because experience with the mediation of disputes is limited, these criteria are constantly reviewed as new cases are processed. Although experts do not fully agree about which criteria are most important or valid, the following criteria are widely suggested.

1. Room for Compromise Exists

The issues must be suitable for compromise. Agreements are unlikely where the issues offer only stark "either-or" or "yes-no" choices. Without

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1/ Lists of criteria have been developed by: (1) Office of Environmental Mediation, Seattle, Washington; (2) RESOLVE, Palo Alto, California; and (3) Clark-McGlennon Associates, Boston, Massachusetts.

intermediate choices to minimize the harmful impacts on all parties, compromises are impossible. Thus, the type of pollution control equipment that a proposed plant will have installed is much more suitable for mediation than is the issue of whether or not to build the plant at all.

2. Potential for Good-Faith Bargaining Exists

The parties must be willing to enter the mediation voluntarily and in good faith, with the objective of resolving the conflict rather than stalling. This can occur only if there is a reasonably even balance of power among the disputants. If one party is totally confident that it can win its case in court, it will be unwilling to compromise during negotiations. Similarly, if delay represents a complete victory for one party, that party can be expected to stall. For example, delay may constitute a victory for environmentalists seeking to block a project which will become economically infeasible if postponed, or for a company seeking to block the imposition of environmental regulations. All parties in the mediation must feel that it is in their self-interest to resolve the dispute in a timely manner.

3. A Feasible Agreement is Possible

The parties who are willing to enter mediation must have the backing and resources to ensure that any agreed-upon solution is politically, technically, and financially feasible. An agreement reached through mediation is a solution to a problem only if it can be implemented. To ensure feasibility, all of the relevant parties should somehow be brought into the negotiation process. The relevant groups should be reasonably well-defined at the time the mediator enters. Further, the disputants must be able to delegate authority to individual members to serve as representatives in the negotiations. These representatives must be able to make commitments on behalf of their organizations and constituents.

For this reason, mediation is not well-suited for resolving national policy issues, such as whether or not the United States should increase its use of coal. Local, site-specific issues are more appropriate targets of mediation, since the opposing parties can be more readily identified and agreements capable of being implemented are more likely.

E. Basic Techniques of the Environmental Mediation Process

The techniques and procedures for environmental mediation continue to be adapted and modified as case experience grows. For example, one of the main objectives of a project supported by DOE Region X is to develop an energy-facility mediation prototype that recognizes the special needs and problems arising in such disputes.[1/] Nevertheless, no concrete formula yet exists for every application. What follows is merely a general framework that has evolved from past experience.

1. Role of Mediator

An important first consideration is the role of the mediator. Basically, the mediator's function is to bring a fresh and objective viewpoint to the dispute and help the parties work out a solution among themselves. The mediator does not take sides or force the outcome; the disputants are the decision-makers.

There are many techniques and procedures available to mediators, and each case is unique in some respects. Unlike the labor mediator, the mediator in environmental disputes must do considerable groundwork to set the stage for negotiations. He must familiarize the parties with the process of mediation and one another and help them define the issues. Moreover, the mediator often must familiarize himself with scientific matters in order to be reasonably competent in this task.

1/ Interview with Robert Hackman, Director, DOE Region X, September 5, 1979.

2. Timing for Beginning the Process

In general, there is more danger of mediation beginning too early than beginning too late. In fact, even after a case has entered an adjudicatory process, it is not too late to use mediation to reach a final settlement. In general, mediation should not be undertaken until the parties have reached an impasse. Since the purpose of a mediator is to facilitate discussion and negotiation among the disputants, he may not be required if the parties are still making progress in discussing the issues among themselves.

The general sense of urgency concerning the need to resolve the dispute is another factor in timing. If no conditions exist to put pressure on all parties to make progress, the pace of the mediation effort will be affected. Often it is best to wait until the dispute becomes a crisis and there is outside pressure to resolve it.

3. Basic Steps of the Process

a. Get Parties to Agree to Mediation

A mediator may be brought into the conflict at the request of some or all of the disputants, or at the request of an outside party who is not directly involved in the dispute. In some cases, the mediator may learn of a dispute through the media or other sources and approach the parties on his own initiative.

Once the mediator has entered the dispute, his first task is to develop a framework in which the negotiations may be conducted successfully. This task involves familiarizing the parties with the process of mediation and with one another. It is critical to the conduct and success of mediation that the mediator establish and maintain his impartiality and that the parties perceive him as impartial. The parties will not be candid with a mediator whom they suspect is biased.

Since a successful mediation requires that parties be willing to make a sincere effort to resolve their dispute through mediation, the mediator must secure a commitment from each party to participate in good faith. Obtaining such a commitment is not an easy task. Since many parties in environmental conflicts have had no prior exposure to the mediation process, they may be suspicious or skeptical. For example, the parties may fear that the mediator will try to impose a solution on them, or they may believe that their participation will jeopardize their positions if they later resort to adjudication.

Once face-to-face negotiations have begun, breaking them off is costly to at least some of the parties. Thus, before negotiations can take place, the parties need assurance of a reasonable chance of success. The parties must believe that all sides are willing to make a sincere effort to reach an agreement. Through a variety of techniques, the mediator works to foster some trust and understanding among the parties.

The mediator explains the process to the parties, emphasizing that he has no formal powers of coercion. The mediator can also help the parties work out agreements and procedures to ensure that future legal recourse is not forfeited To achieve these understandings, the mediator may meet separately with each group to learn its attitudes and values and positions and convey them to the other groups.

b. Develop Ground Rules for Mediation

During meetings with each group, the mediator helps the parties develop ground rules for the negotiations. Often as much time and effort is expended obtaining a consensus on ground rules and procedures as is spent resolving the substantive issues. The procedures on which agreement must be reached include:

- How frequently to meet, and for how long;
- What groups should be part of the negotiation process and who each party's representatives should be;
- What the real issues are and the order in which they should be discussed;
- How to formulate and present proposals;
- What deadlines should be set; and
- How to deal with the news media (e.g., should all statements be made jointly?).

c. Begin Substantive Negotiation

Once the ground rules have been established, the negotiations on the substantive issues may begin. The negotiations involve meetings at which the mediator talks with one group at a time, and meetings among the parties themselves, chaired by the mediator.

The meetings between the mediator and single parties are perhaps the most important. At these meetings, the parties may be completely candid about their strengths, weaknesses, and priorities; consequently, they help the mediator identify the potential areas for compromise.

Armed with insights into views of each party, the mediator is in a good position to be a sounding board for proposals. By checking with the mediator in advance, a party is protected from placing proposals on the negotiating table that could turn out to be completely unworkable or embarrassing, or that would be perceived as a sign of weakness. With this assurance, the parties may be more willing to suggest compromises.

The extent to which a mediator should use his substantive expertise in negotiating a technical issue is, however, limited. The mediator is expected to be sufficiently familiar with the terminology of the issue to communicate with the parties. It would, however, jeopardize the mediator's neutrality for him to take on the role of a technical expert.

Although some practitioners consider this practice potentially detrimental to the mediator's neutrality, the mediator may introduce proposals of his or her own. A more widely-accepted approach, however, is for the mediator to develop a package of contingent concessions by going back and forth between the parties. In doing so, the mediator basically presents the ideas of the parties, but in a manner that involves less risk to the parties than unilaterally offering a concession and asking for a concession in return.

At the joint meetings, the mediator serves as a neutral party to help focus the debate when necessary. He can help clarify positions and assumptions by asking basic questions that the disputants might be reluctant to ask for fear of appearing to be unsophisticated.

The mediator must be prepared to do a certain amount of prodding. If one party is rejecting every proposal while making no counter-proposals, the mediator may suspend the negotiations and work with that party to develop a more positive attitude and constructive strategy. Or, if a representative agrees to a proposal that the mediator feels might not be accepted by the negotiator's constituents, the mediator may ask that person to confer with those constituents. By suspending the negotiations to allow representatives to check with their backers, the mediator ensures that the agreement will be feasible.

d. Develop and Implement the Agreement

Once the parties have reached a mutually acceptable solution through negotiation, a formal agreement generally results. There are many possible types of agreements, including consent decrees, changes in laws and regulations,

memoranda of agreement, position papers, and joint news conferences.[1] While the form may vary, there should be a document specifying the actions to be taken by each party and the sanctions to be applied for failure to comply with the agreement. The actions specified in the agreement should be visible to all parties, to ensure that they are able to monitor one another's compliance with the agreement.

The mediator aids the implementation of the agreement in several ways. First, he guides the parties towards an agreement that is feasible and enforceable. Second, once the agreement has been reached, the mediator may enlist the support and cooperation of other groups or government agencies. Since many settlements involve issues of political significance, backing by government officials may be crucial for successful implementation. Further, such officials may be able to provide enforcement mechanisms with which to ensure compliance. Finally, the parties may have meetings with the mediator if any issues relating to the dispute arise after the initial agreement has been signed. By encouraging the parties to calmly discuss the subsequent issues in an atmosphere of cooperation, the mediator minimizes the chances of the initial agreement breaking down.

F. Environmental Mediation Institutions and Projects

The application of mediation techniques in environmental disputes has encouraged the development of environmental mediation institutions. This development has proceeded along two paths. First, several organizations involved in labor/management relations have broadened to include environmental and energy disputes. Second, entirely new organizations have been developed to provide environment/energy mediation services. Exhibit 1 summarizes the institutions surveyed, as well as their degrees of involvement in environmental mediation. These organizations and their activities are described in more detail in Appendix A.

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[1] David O'Connor, "Environmental Mediation: The State of the Art," EIA Review, Volume 2, October 1978.

EXHIBIT 1

Summary of Environmental Mediation Institutions

FULL NAME	YEAR FORMED	HEADQUARTERS LOCATION	PURPOSE	EXAMPLES OF ENVIRONMENT AND/OR ENERGY MEDIATION ACTIVITIES	FUNDING
MODIFIED LABOR INSTITUTIONS					
The Federal Mediation and Conciliation Service (FMCS)	1947	Washington, DC	Promote labor/management peace	As of 1979 -- Age Discrimination -- Conflict Resolution Training Other: Labor Mediation	Department of Health, Education and Welfare (HEW) Federal Highway Administration (FHWA) Federal Budget
The American Arbitration Association (AAA)	1926	New York City	All kinds of dispute resolutions with various methods	As of 1977 -- Pre-mediation Consensus Building -- Conflict Management in Fuel Use Act Exemption Process -- Resolve Environmental Disputes with Federal Government Other: Arbitration	Rockefeller Foundation Council on Environmental Quality (CEQ) Department of the Interior (DOI) Case fees
NEW NON-LABOR INSTITUTIONS					
Office of Environmental Mediation (OEM)	1974	Seattle, Washington	To experiment with techniques to assist disputing parties	As of 1975 -- Interstate Highway Addition -- Steelhead Sport Fishing Management -- Jetty Inland Development Other: Environmental Mediation	Ford and Rockefeller Foundations
RESOLVE, Center for Environmental Conflict Resolution	1978	Palo Alto, California	To resolve environmental disputes using various techniques	As of 1978 -- Consensus Building with USDA -- Numerous Conflict Assessments Other: Environmental Mediation	Atlantic Richfield, Ford, Hewlett, Hearst, and other foundations; Department of Agriculture (USDA)
New Jersey Office of Dispute Settlement (O.D.S.)	1975	Trenton, New Jersey	To mediate community disputes	As of 1975 -- Training in Negotiation -- DOI Taxing of Land -- Safety of Toxic Waste Facility Other: Community Disputes	State Law Enforcement Agency State of New Jersey
Clark-McGlennon Associates	N/A[1]	Boston, Massachusetts	To promote mediation in environment and energy cases where the Federal government is a party	As of 1975 -- Mediation Techniques Training for N.P.S. -- Garbage Recycling Negotiations -- Streamline State Facility Permitting -- Regional Energy Facility Siting Other: Energy-related Negotiation	Department of the Interior (DOI) N/A[1] State of Massachusetts Nuclear Regulatory Commission (NRC) and Massachusetts Energy Facility Council Client fees

[1] Data not available.

III. ENVIRONMENTAL MEDIATION: THREE CASE STUDIES

This chapter reviews three cases where mediation has been applied to environmental disputes. Experience with past cases is a source of insights for improving mediation techniques and assessing their potential for specific applications; however, it should be noted that because the field of environmental mediation is young, accumulated experience is limited. Naturally, cases involving energy facilities are even more scarce.

The three cases reviewed are:

- Brayton Point coal conversion, a dispute arising from a plan to convert certain New England Power Company boilers from burning oil to coal;
- Washington highway extension, a dispute arising from a proposal to extend highway I-90 across Lake Washington into Seattle; and
- General Electric case, a dispute concerning what penalties should be assessed G.E. for discharging polychlorinated biphenyls into the upper Hudson River.

A. Brayton Point Coal Conversion [1/]

1. Background

The Brayton Point power plant, located on the southern shore of Massachusetts and owned by the New England Power Company (NEPCO), is the largest fossil fuel-powered electric generating plant in New England. The plant consists of four boiler units, all of which were originally designed to burn residual oil.

1/ Most of the information about this case was obtained from "Conversion to Coal at Brayton Point: Final Report to the New England Energy Task Force," October 1978.

During the Arab oil embargo of 1973, NEPCO responded to diminishing oil supplies by converting boiler units 1, 2, and 3 so that either coal or oil could be burned. Unit 4 had not been completed at that time. Before installing supplemental transportation and storage equipment necessary to handle coal, NEPCO secured a temporary variance from the U.S. EPA and the Massachusetts Department of Environmental Quality Engineering (DEQE) enabling them to burn coal with sulfur and ash levels which would ordinarily violate state air pollution regulations. Coal was subsequently burned at units 1, 2, and 3 for a period of thirteen months (May 1974-June 1975).

In mid-1975, when oil once more became readily available, the EPA variance was terminated and oil combustion was resumed in all units. This move left an inventory of 266,000 tons of unburned coal on site at Brayton Point. In late 1975, the Federal Regional Council's New England Energy Task Force Coal Work Group proposed that a one-year test burning of coal without flue gas desulfurization equipment be conducted at Brayton Point. This test was intended to gather technical data for developing a permanent coal conversion process, as well as to dispose of the remaining coal stockpile. EPA, however, threatened to fine NEPCO for exceeding applicable limits on sulfur dioxide and particulates if coal were burned.

NEPCO found itself in a quandary in May 1977, when the Federal Energy Administration (FEA)[1/] sent NEPCO a Notice of Intent to issue a Prohibition Order under §2 of the Energy Supply and Environmental Coordination Act of 1974 (ESECA). This notice required the plant to convert to coal or shut down. At this point, the parties agreed to begin a mediation process as soon as possible.

2. Nature of Dispute

While all the parties involved in this case agreed on basic policy issues (i.e., the need for efficient energy production, environmental protection, and

1/ FEA is now part of DOE.

decreasing national and regional dependence on foreign sources of fuel), several critical disagreements existed concerning how these objectives should be balanced. NEPCO did not challenge FEA's policy that the plant would eventually have to convert to coal; it was the schedule of the conversion that remained to be resolved. Both NEPCO and FEA were opposed to requiring that costly and sophisticated flue gas desulfurization equipment be installed, since it would slow the conversion process considerably. EPA and DEQE, on the other hand, were unwilling to let the plant violate air pollution restrictions.

3. Parties Involved

Five parties were disputants in the Brayton Point mediation process: (1) NEPCO; (2) Region I of the EPA, (3) Region I of the FEA,[1/] (4) Commonwealth of Massachusetts DEQE, and (5) Massachusetts Energy Office. The Director of the Massachusetts Science and Technology Foundation also participated. The mediator, who was afflilated with the Center for Energy Policy in Boston, brought the total number of direct participants to seven.

4. Mediation Process

The mediation process, begun in May 1977, continued for eleven months. Eighteen meetings were held with the entire group. The mediator also held several private meetings with some of the parties to hear their candid opinions, suggest compromise positions, and help them prepare for discussions at the group meetings.

The mediation process consisted of three phases:

- First, the parties agreed to an agenda which dictated the order in which the various issues would be discussed, and which groups would participate in each phase of the discussion.

1/ Although during the course of the mediation process the FEA was absorbed into the Department of Energy, the same individual participated throughout the process.

- For the next several months, the group focused on technical and quantitative analyses. NEPCO contended that FEA's analysis had understated the costs of converting to coal, and several conflicting results were brought out at a public hearing held in accordance with ESECA. EPA performed a study of violations of the air pollution standard for particulates in the Fall River, Mass. area, and found that most violations were attributable to wind-blown road dust, rather than power plant emissions. This finding led EPA and the State DEQE to consider relaxing some emissions limits for the plant, thereby bringing the negotiations into their final phase.

- The process culminated with bilateral negotiations between NEPCO and DEQE during early 1978 which established the form, level, and duration of new particulate and sulfur emission standards for the plant. These standards and their schedule of application, in turn, dictated the timing of the coal conversion process.

By March 15, 1978, NEPCO and DEQE had reached an agreement which they submitted to the entire group. The group examined and approved the proposal in three meetings over a two-month period. In June, DEQE conducted a public information meeting to present the plan and elicit public comment. The mediation process reached a formal conclusion in August 1978, when all parties signed the agreement in a ceremony presided over by Governor Dukakis.

5. Results

The agreement reached by the five parties involved in mediation contained five major provisions:

- Limits were set on the sulfur content of the coal to be burned;

- Special particulate standards were set for the plant;

- The emissions limits were guaranteed to remain constant for a ten-year period, unless further health effects research indicated that the plant was posing an imminent hazard to the area;

- DEQE and NEPCO would solidify an agreement with a Memorandum of Understanding; and

- Providing that EPA approval of the DEQE compromise was not delayed, NEPCO would begin burning coal at unit 1 in 1981, unit 2 in 1982, and unit 3 in 1983. Unit 4 was to continue to burn oil.

None of the parties has since attempted to challenge the terms of the agreement. DOE issued a draft Environmental Impact Statement (EIS) on the coal conversion in November 1978. The final EIS was issued in early 1979.

6. Significant Points

Because several parties were able to reach agreement on a number of complex and sensitive issues, the Brayton Point case is frequently cited as a model example of how mediation can be used successfully to resolve environmental disputes. Several significant points of this case can be identified to help generalize the Brayton Point experience to other mediation procedures involving energy facilities.

- All parties already were in basic agreement on fundamental policy issues when mediation began. That is, everyone agreed that eventually coal conversion was inevitable, that air pollution emissions had to be controlled somehow, and that pollution control equipment which was prohibitively expensive had to be avoided since it would force NEPCO to shut down the three older units at Brayton Point. The timing, cost, and environmental impact of the coal conversion remained to be determined, however.

- Mediation was begun at a time when the issues were fairly clear and each party's basic objectives were known to the other parties. Since the conflict had reached an impasse, it was hoped that group negotiation would be more successful than trying to settle a group of interdependent bilateral disputes separately.

- The mediator maintained flexibility throughout the process. While the entire group attended sessions on overall policy and matters of interest to everyone, smaller bilateral meetings were used where appropriate, to address more specific technical issues.

- Due to the general agreement on fundamental policy issues existing at the outset of mediation and the urgency imposed by the FEA Notice of Intent, none of the parties attempted to delay or unnecessarily extend the process.

- Although no public-interest or environmental group was a formal party to the mediation process, several hearings and public meetings were held during and after the negotiations to ensure public acceptance of the agreements that were reached. These communications helped the parties reach a settlement which was politically, as well as technically and financially, feasible.

B. Washington Highway Dispute[1/]

1. Background

Route 90 is the longest Interstate highway in the U.S., extending from Boston to western Washington State. The highway, as initially constructed, ends in Bellevue, Washington on the east side of Lake Washington, directly across the lake from Seattle. Since much of the growth in the Seattle metropolitan

1/ Most of the information presented on this case was obtained from G.W. Cormick and L.K. Patton, "Mediation and the NEPA Process: The Interstate 90 Experience," prepared for a Conference on Environmental Impact Analysis held at the University of Illinois, Champaign, Illinois, May 22-25, 1977.

area had taken place in the suburbs east of the lake, there was considerable daily commuter traffic crossing the lake, which caused congestion on the existing bridges. To help alleviate this problem, a bus transit system was established to serve the area. Nevertheless, traffic congestion continued to increase. These conditions led to a proposal to extend I-90 across Lake Washington.

Plans to extend I-90 westward across Lake Washington were formulated almost as soon as the original highway was completed. The initial plan, approved in 1959, called for 26 lanes crossing the lake on various bridges. Over the years, financial constraints and fear of encouraging over-development in the suburbs east of the lake caused the plans to be scaled down. The 1975 Washington State Department of Highways (DOH) plan called for ten lanes: four automobile lanes in each direction and two reversible transit lanes for buses and carpools (commonly referred to as 4-2T-4). The 4-2T-4 plan then became the focus of dispute.

By late 1975, supporters and opponents of the DOH I-90 plan had begun to mobilize. The DOH prepared a draft EIS for the 4-2T-4 plan which citizen and environmental groups attacked as inadequate and suceeded in stalling in the courts. Estimates of how much longer the project could be tied up in court varied from one to five years. Meanwhile, the $500 million estimated cost of the 4-2T-4 project was escalating at an estimated $140,000 per day. When the Seattle City Council formally expressed its opposition to the plan in a resolution passed in January 1976, several parties approached the University of Washington's Office of Environmental Mediation to help resolve the dispute.

2. Nature of Dispute

All parties agreed on the need to reduce the traffic snarls crossing the lake each day. They did not, however, agree on how this objective should be accomplished. The City Council and Mayor of Seattle joined the environmental interests in advocating increased support of Metro buses and rail mass-transit facilities to meet commuting needs without encouraging increased auto use. The suburban

communities of Mercer Island and Bellevue, on the other hand, considered the 10 lanes called for in the 4-2T-4 plan the absolute minimum needed to provide their residents access to the city.

Although environmental and other public interest groups had been somewhat successful in delaying any construction by challenging the draft EIS, none of the parties were actually achieving their objectives at the time mediation was begun. Additional automobile capacity was not being constructed and no transit system of any kind was being developed to improve transportation across Lake Washington. The urgency of the situation was heightened by the threat of losing all Federal highway funds if action were further delayed.

3. Parties Involved

Six parties were directly involved in the mediation process: (1) the City of Seattle, (2) the City of Bellevue, (3) the City of Mercer Island, (4) Metro, (5) the State DOH, and (6) King County. The Governor and the Washington State Legislature maintained a neutral position in the dispute.[1/] A press release from the Governor advocated a settlement which was "in the best interest of all citizens of the state." He expressed more interest in finding some resolution to the dispute than advocating any particular alternative. This neutrality was essential to establishing the impartiality of the mediators, since they were affiliated with the State University.

Before mediation began, an assurance was obtained from the State Highway Commission that whatever agreement was reached would be implemented, provided it was legally and financially feasible.

1/ Although the State Department of Highways was one of the major advocates of the 4-2T-4 design, it was administered by a semi-independent State Highway Commission, which was not directly under the Governor's control.

4. Mediation Process

At a press conference on March 16, 1976, the Governor appointed two employees from the Office of Environmental Mediation to serve as the mediators. In addition to moderating the formal negotiating sessions, the mediators served as a communication link with outside parties, researched the issues, and worked with parties individually to help them redefine their positions in terms of broad priorities rather than narrow goals.

Although none of the public-interest groups involved in the highway dispute and in the associated lawsuits were officially represented in the mediation process, they did participate in a series of smaller meetings with one or two of the major parties. These meetings, which took place intermittently throughout the ten-month negotiation period, were arranged and attended by the mediator to ensure that all important viewpoints were reflected in the final agreement. Not only were all mediation sessions open to the public, the highlights of a few meetings were televised locally.

During the early stages of the process, the mediators sought an agreement on basic policies, such as the need for increased auto and mass transit facilities across the lake, the need to minimize the environmental impact of the highway in Seattle, and the danger of allowing unplanned suburban sprawl east of Bellevue. When a consensus was reached on these fundamental issues, specific topics were addressed. The most controversial specific issue was the exact number of lanes which would be constructed across the lake. Seattle representatives initially demanded that no more than three automobile lanes enter the city on I-90, so that commuters would be encouraged to use mass-transit facilities. Since plans called for the highway to cross Mercer Island, located in the middle of Lake Washington, officials of that community demanded that one lane of I-90 be dedicated to their exclusive use. While this was the single most debated issue, other issues were also considered, such as increased access to I-90 from the more remote eastern suburbs, the number of lanes which would be set aside for bus or carpool transit, and the design and routing of the highway within Seattle.

A breakthrough was reached in early November when the parties agreed in principle to endorse building a bridge with a 3-2T-3 design. This compromise proposal had been advocated for some time by King County.

5. Results

Although each delegate to the mediation process approved the 3-2T-3 plan, it had to be ratified by each of their constituent bodies. By the end of November, the agreement was approved by the three city councils, the County Council, the Metro Council, and the State Highway Commission without a single dissenting vote. On December 21, 1976, the "Memorandum of Agreement" was formally signed in a public ceremony arranged by the Puget Sound Council of Governments and presided over by the Governor. The major provisions of the agreement were:

- I-90 would cross Lake Washington in a 3-2T-3 configuration, with special access to the two transit lanes for buses and carpools from Mercer Island;

- The I-90 extension would be accompanied by major improvements in other traffic corridors connecting downtown Seattle with suburban areas;

- Access to I-90 would be limited during peak hours in the areas east of the developed suburban area, to discourage the growth of suburban sprawl;

- To minimize the environmental impact of the highway, it would be constructed underground and covered through most of Seattle and Mercer Island; and

- Joint committees of citizens and local elected officials would be formed to assist planning and oversee implementation.

Since these provisions were developed as a package, the Memorandum of Agreement specified that all subsequent actions should be taken in concert

6. Significant Points

The Washington highway dispute is one of the better-known environmental mediation cases, as well as one of the first disputes mediated by the Office of Environmental Mediation in Seattle, a major mediation institution on the west coast. Although the highway is not an energy facility, several aspects of this case are significant:

- The number of different parties and viewpoints involved and the ambiguity and delay inherent in the NEPA process created a dispute so complex that a group negotiation process -- mediation -- seemed the only way to reach a mutually acceptable solution;

- As in the Brayton Point case, mediation was begun after an impasse had been reached and the need for a solution became urgent;

- Although only officials from state and local governments and Metro were direct participants in the mediation process, the proceedings attracted wide outside interest. The mediators' efforts to maintain contact with local citizens and environmental groups ensured that the final agreement reached would be acceptable to all concerned parties;

- The negotiating parties gave considerable thought to eventual implementation of the agreement. Throughout the process, contact was maintained with key Federal agencies to ensure that the agreement could receive adequate funding. Moreover, the final agreement called for continued joint planning and cooperation throughout the construction period; and

- The mediation process produced better results than the protracted NEPA process and associated lawsuits in two ways: (1) an agreement was reached sooner, and (2) the agreement was satisfactory to all concerned parties, whereas a court decision would almost certainly have left one of the litigants dissatisfied.

C. General Electric Case[1/]

1. Background

The General Electric Company (G.E.) had been manufacturing heavy-duty electric transformers in plants on the upper Hudson River for over 40 years. Many of these transformers contained electrolytic fluid whose major ingredient was polychlorinated biphenyls (PCBs).[2/] Part of the manufacturing process in these plants involved discharging of waste water which contained PCBs into the river.

In 1973, G.E. applied to EPA for a National Pollutant Discharge Elimination System (NPDES) permit allowing discharge of PCBs into the Hudson. The permit was granted in late 1974, allowing 30 pounds to be discharged daily, but requiring a gradual decrease which would result in a daily discharge of only four ounces of PCBs by mid-1977.

In August 1975 the New York State Department of Environmental Conservation (DEC), which had assumed responsibility for the NPDES program within the state, sued G.E. for violation of state water quality standards prohibiting impairment of fishing on the Hudson. Court hearings were scheduled, with Abraham Sofaer of the Columbia Law School faculty appointed Hearing Officer. By the time hearings began in November 1975, numerous environmental and trade groups had requested and were granted permission to intervene in the case.

Professor Sofaer issued an interim opinion on February 9, 1976 holding G.E. liable for damage to the fishing industry caused by the PCB discharge, but

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1/ Much of the information on this case was obtained from Weinstein, "Application of Environmental Mediation to Energy Facility Siting Disputes: Prospects and Problems," a Master's Thesis submitted to the Department of Urban Studies and Planning, Massachusetts Institute of Technology, May 1979.

2/ PCBs are a family of synthetic chlorinated hydrocarbons, which, because of their chemical and thermal stability, are in wide industrial use in large batteries and transformers. Although first produced in 1929, their toxic and mutagenic effects weren't determined until the mid-1960's. Control of PCBs was the first action taken by EPA under the Toxic Substances Control Act of 1976.

acknowledging that G.E. had been unaware of the dangers posed by the chemical until recently. The opinion also acknowledged that by issuing a discharge permit, EPA and DEC had, in effect, failed to condemn the company's activities.

The complexity of the case as expressed in Sofaer's opinion made final assessment of a penalty difficult, especially since nearly every participant in the case held a different opinion about the degree of reclamation G.E. should be required to perform, and whether punitive fines should also be assessed. Because of the perceived fairness of Sofaer's opinion, several parties asked him to serve as a mediator in a negotiation process to determine a final settlement.

2. Nature of Dispute

The DEC initially proposed that a severe settlement be imposed on G.E., consisting of three requirements: (1) G.E. would immediately halt all discharges of PCBs into the Hudson; (2) the firm would undertake a cleanup and reclamation of all pollution it had caused; and (3) substantial punitive damages would be assessed. G.E. contended that government issuance of a discharge permit absolved the company of exclusive blame, thus making punitive damages unwarranted. G.E. also questioned the feasibility of conducting a thorough cleanup of the river and challenged the DEC's authority to order reclamation under New York law.

3. Parties Involved

There were only two principal parties involved in the mediation process, G.E. and the DEC; however, five groups had initially intervened in the case on the side of DEC: (1) the New York Department of Commerce, (2) the Natural Resources Defense Council (NRDC), (3) the Hudson River Fishermens' Association, (4) the Hudson River Sloop Restoration, and (5) the Federated Conservationists of Westchester County. A trade group, Associated Industries of New York, Inc., was granted intervenor status of the side of G.E. in April 1976.

4. Mediation Process

The mediation process required a somewhat unique approach because of the past role of Professor Sofaer in the case. Although he was origirally a Hearing Officer with power to adjudicate the case and set an appropriate penalty, he agreed to change the nature of the process and act as a mediator under certain conditions. First, Sofaer refused to take any action as mediator which would undermine his ability to decide the case in the event that the negotiation broke down or its results were unacceptable to all parties. Second, all intervenors had the right to review, comment on, and challenge any agreement reached by the two principal disputants. Finally, Sofaer reserved the right to review any agreement to decide whether to recommend its adoption as being "in the public interest." Neither the principal disputants or the intervenors objected to these stipulations.

Once the mediation process was underway, agreements were negotiated at a progressively greater level of detail. After a number of extended sessions, the principals agreed on a basic settlement. Next, this proposal was presented at a meeting which included attorneys from the principal groups and all the intervenors. After this basic framework was agreed to by all concerned, the principals began a second round to negotiate the details. Once again, the other groups were consulted and agreed to accept the final plan.

5. Results

The agreement finally reached consisted of six basic points:

- The DEC agreed to drop its claims for civil penalties and for immediate total abatement of discharge;
- G.E. agreed to spend $3 million on treatment facilities and phase out PCB use entirely by July 1, 1977;
- The DEC recognized that requiring G.E. to completely clean up the PCBs it had discharged was unreasonable;

- G.E. contributed another $3 million to a program to clean up the PCBs, or any other substances chosen by the DEC;

- G.E. also agreed to spend an extra $1 million on researching PCB removal techniques and the environmental impacts of PCB substitutes; and

- The DEC committed itself to matching G.E.'s $3 million contribution to the cleanup program.

While G.E.'s $7 million commitment represents one of the largest settlements ever obtained in an environmental case, the fact that the agreement was negotiated rather than imposed allowed the company to avoid the appearance of legal liability. This distinction was important to G.E., since the company had never released any discharges which were not authorized by the terms of a permit it had been granted.

6. Significant Points

An unusual feature of the G.E. mediation case was its timing vis a vis adjudication. Adjudication to reach an initial finding and assign general culpability was followed by mediation to arrive at a final settlement satisfactory to all parties involved.[1/] Some other points are important:

- The decision to proceed from adjudication to mediation resulted primarily from the complexity of the dispute. In his initial role as a Hearing Officer, Professor Sofaer was called on to decide a fairly simple question (i.e., did the PCB discharges impair fishing in the upper Hudson River?). Although G.E. was found at fault on the simple question, it had acted under the terms of a valid permit. This consideration complicated the

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1/ Conversely, it is also possible for adjudication to result from initial unsuccessful attempts to resolve disputes by mediation.

task of reaching a fair settlement. Mediation was initially agreed to by all parties because they recognized the legal complexities involved in reaching a fair settlement on this question and wished to avoid a costly and time-consuming judicial review process.

As in the I-90 case, one of the critical roles played by the mediator was as a liaison between the direct participants in mediation and the other groups which had chosen to become involved in the case.

IV. ATTITUDES OF ENVIRONMENTAL GROUPS TOWARD MEDIATION

One of the major results of the environmental movement during the last decade has been the growth of public interest environmental groups. In the past, organizations such as the Sierra Club, Izaac Walton League and National Wildlife Federation were formed to support the common interest of their members in conservation and protection of wildlife. Recently, these and newer organizations have begun to take a more active role in legal and political debates concerning a wider range of environmental issues, such as pollution control, land use, occupational health and safety, and the environmental impacts of energy technologies. Environmental groups currently participate in decisions and conflicts concerning environmental issues at the national, regional, and local level. Consequently, their willingness to participate is a critical factor in the success of any effort to promote environmental mediation.

To assess the viewpoints of environmental groups, the Washington, D.C. offices of several national environmental groups were contacted. The information presented below is the result of interviews conducted with spokesmen from the Environmental Defense Fund (EDF), the Natural Resources Defense Council (NRDC), the Environmental Policy Center (EPC), and the Sierra Club.[1/]

Representatives of these groups were asked to present their views on energy/environmental mediation at two levels: (1) their overall attitude toward mediation; and (2) specific conditions under which they would be willing to participate in an environmental mediation process. The latter topic addressed such issues as funding mechanisms, the extent of government involvement, and the ground rules which the groups felt would be required to make mediation effective.

[1/] Interviews were conducted both in person and by telephone during November 1979.

A. Views on the Potential of Mediation

Most representatives of environmental groups contacted had had little experience with environmental mediation. The one mediation experience mentioned most frequently was the National Coal Policy Project. Several major environmental groups participated throughout this effort. The exception was the Environmental Policy Center (EPC), which walked out early in the negotiations.

Most groups felt that the National Coal Policy Project had in fact accomplished little. Representatives from EDF and NRDC cited the Project as an example of why environmentalists may stand to lose more than they gain in mediating broad national energy policy questions. They felt that industry accomplished three objectives in the Project: (1) gained intelligence on the policies, plans, and tactics of the environmental groups; (2) extracted a few substantive concessions from the environmentalists on policy questions, while sending industry negotiators who had no authority to grant any meaningful concessions in return; and (3) occupied several hundred valuable man-hours of environmental lawyers' time, which could have been devoted to more meaningful efforts in court or in Congressional lobbying.

The positive experiences with mediation mentioned by environmentalists involved local issues. An NRDC lawyer, who was favorably impressed with ROMCOE's efforts in Colorado, advocated using mediation on disputes involving implementation of national environmental and energy policy at the local level. Representatives from the EPC and the Sierra Club suggested that some alternative form of conflict resolution such as mediation is needed for local disputes, since local citizen and environmental groups are becoming increasingly militant and disenchanted with litigation and other traditional procedures as a means of protecting their rights and property. They believe that dissatisfied local groups may in the future resort to "direct action" such as civil disobedience and sabotage.

According to one spokesman, the major factor in an environmental group's attitude towards mediation is likely to be its militancy. All spokesmen interviewed agreed that local environmental groups are the most militant. These groups, and some of the more militant national groups such as EPC, are skeptical of mediation. They still feel that adjudication and other tactics provide better prospects for achieving their goals. The Sierra Club a national group, exhibits a more optimistic attitude;[1/] it has participated in some mediation processes in the past and currently advocates experimenting with mediation in future disputes to assess its effectiveness.

All groups interviewed agree in principle that negotiation is more desirable than rigid adversarial procedures such as lawsuits. Nevertheless, militant groups such as EPC seem too distrustful of mediation to participate heavily in such programs. Since they have successfully used adjudication to achieve their aims, the incentive to shift to a relatively untested method is not high for them. Even the groups that are considered less militant desire more experience-based evidence that mediation can achieve fair settlements on environmental issues.

As indicated earlier, the national environmental groups believe that mediation is likely to be more successful in resolving specific, local environmental disputes than questions of national policy. The major reason for this view is the requirement that mediation be restricted to issues where room for compromise exists. They feel that the high stakes involved in national issues make both sides less willing to make concessions. Moreover, a feasible negotiated agreement on national policy is difficult to achieve because of the variety of organizations that must be involved in order to make it work.

1/ The Executive Director of the Sierra Club, Michael McCloskey, currently serves on the board of directors of RESOLVE.

B. Views on How to Support and Operate Mediation Programs

The previous section described the overall attitude of environmental groups to mediation. While many groups agreed that the technique has some potential, they also expressed ideas on how mediation efforts could be supported and operated most effectively. Their views covered two major issues: (1) the sources and types of support that would be appropriate for promoting use of mediation; and (2) the ground rules for participating in the mediation of individual disputes.

1. Sources and Types of Support

Support for mediation can include one or both of two basic components, the services of the mediator and the technical staff and data resources of the disputants. The environmental groups interviewed implied a need for support in both areas.

The current funding mix of each environmental group is summarized in Exhibit 2. Most of the groups interviewed received about 50% of their funds from membership dues and individual contributions. The remaining 50% usually comes from special fund-raising efforts, foundations, and government grants and contracts. At 60%, NRDC has the highest proportion of funding from foundations and government.

Though the groups generally have balanced funding (i.e., equal proportions from two or three sources), they believe their total funding is insufficient for them to negotiate on equal terms with industry. These groups see their overall negotiating strength as a combination of available legal and technical expertise, access to data, and persuasive ability. These resources, which depend heavily on the level and continuity of funding, are considered important to a group's ability to perform competently in a protracted negotiation. One representative of the Environmental Defense Fund therefore felt that the outcome of any mediation effort is largely dependent on the relative levels of

these resources among the disputants. This factor, in his opinion, gives industry an inherent advantage.

Although most environmental groups agree that additional funding would be necessary, they have reservations about the appropriate source of funding. They want to be insulated from any pressure that would affect their responsiveness in the eyes of their constituents. Moreover, the mediator's impartiality must be above question.

EXHIBIT 2

Current Funding Mix of Environmental Groups

ENVIRONMENTAL GROUP	CURRENT FUNDING MIX	
Environmental Defense Fund 1525 18th St., N.W. Washington, D.C.	Membership	60%
	Corporations and Foundations	40%
Environmental Policy Center 317 Penn. Ave., S.E. Washington, D.C.	Individuals	70%
	Foundations	30%
Natural Resources Defense Council 1725 I St., N.W. Washington, D.C.	Membership	40%
	Foundation	40%
	Federal Gov't.	20%
The Sierra Club 330 Penn. Ave., S.E. Washington, D.C.	Membership	95%
	Foundation	0%
	Federal Gov't.	5%

In general, the groups seemed receptive to the idea of Federal funding. Without exception, however, they opposed accepting funds from any agency that is an opposing party in a dispute. Exhibit 3 summarizes each group's reactions to a number of funding options where the funding agencies would not be involved in the dispute. In all cases, financial support from DOE alone is considered undesirable. They looked more favorably on funding by coalitions of agencies or the Federal Regional Councils.

Suggestions were made by the groups concerning the various forms that Federal support might take. For the most part, they call for Federal government to be an educator on or a beneficiary of mediation, rather than be the mediator. The group's suggestions, which are summarized in Exhibit 4, include five specific approaches to Federal sponsorship of mediation:

- Use of the Federal Mediation and Conciliation Service (FMCS):[1/] This was the only suggestion that entailed an agency of the Federal government supplying a mediator. FMCS is an established and reputable mediation institution; moreover, it is an independent agency with both its own line item in the Federal budget and legal mandate.

- Analytical/Technical Assistance: The Federal government would provide technical assistance to environmental groups who are preparing for and participating in mediations. Lack of staff expertise and data were common explanations for groups seeing themselves at a disadvantage in negotiations.

1/ The FMCS is described in Appendix A.

EXHIBIT 3

Environmental Groups' Reaction to Federal Funding[1/]

RESOURCE OPTION	ENVIRONMENTAL DEFENSE FUND	ENVIRONMENTAL POLICY CENTER	NATURAL RESOURCES DEFENSE COUNCIL	THE SIERRA CLUB	AVERAGE RATING
(1) DOE provides funding for mediation	1	1	1	1	1.0
(2) A coalition of Federal agencies (DOE, DOI, USDA, and EPA) provide equal shares of funding.	3	3	4	4	3.50
(3) DOE and EPA provide equal shares of funding.	2	2	2	3	2.25
(4) The Federal Regional Council provides funding for mediation.	4	4	3	2	3.25

Scale:
4. Preferred
3. Favorable
2. Satisfactory
1. Unsatisfactory

[1/] Assumes the Federal agency is not involved in a dispute with the group.

EXHIBIT 4

Suggestions for Federal Role

ENVIRONMENTAL GROUPS	FEDERAL ROLE
Environmental Defense Fund 1525 18th St., N.W. Washington, D.C.	a) Provide Technical Assistance
Environmental Policy Center 317 Pennsylvania Ave., S.E. Washington, D.C.	a) Encourage use of FMCS b) Provide Technical Assistance
Natural Resources Defense Council 1725 I St., N.W. Washington, D.C.	a) Encourage use of FMCS b) Provide Technical Assistance c) Create Federal Services Ombudsman
The Sierra Club 330 Pennsylvania Ave., S.E. Washington, D.C.	a) Experiment with Mediation Pilot Projects b) Provide Technical Assistance c) Encourage use of FMCS

- Pilot Projects: One of the representatives interviewed suggested that before large scale mediation services are developed, pilot mediation projects should be tried to gather more evidence on the potential of the technique. These projects would vary both the type of environmental issue and geographical location of the energy project.

- Federal Services Ombudsman: One representative stated the need for mediation that is not only insulated from partisan influence on the services provided, but is able to coordinate Federal services and grants. It was suggested that a Federal Ombudsman could serve this function.

- Development of Skilled Mediators: Although this idea was not specifically mentioned by the groups interviewed, recognized articles in the field[1/] have stated a growing need for qualified environmental mediators. The fundamental difference between labor and environmental mediators is their skill with multilateral negotiations. Training in addition to the traditional mediation skills is necessary to accommodate this difference. A related suggestion was that mediators be licensed and listed in a national directory.

The representative of the Sierra Club strongly advised that environmental groups be consulted and included in any Federal decisions related to establishing mediation programs for energy-related environmental disputes.

2. Ground Rules for Individual Disputes

In adjudicatory proceedings, rigid rules govern the actions of the disputants. These rules help maintain an orderly interaction between parties before, during and after dispute resolution. As discussed in Chapter II, mediation procedures are more informal. While this informality can allow certain conflicts to be resolved efficiently, it can be disruptive when parties have conflicting

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1/ One such article is "The Political Realities of Environmental Disputes," by Lawrence E. Susskind, Associate Professor of Urban Studies and Planning, Massachusetts Institute of Technology, May 18, 1978.

expectations concerning the management and purpose of the procedures. To minimize the possibility of such misunderstandings, the environmental groups suggested ground rules for three stages: (1) pre-mediation; (2) during mediation; and (3) post-mediation. The environmental groups seemed to be in general agreement on these rules, which are discussed below.

a. Pre-mediation

In order to consider participating in mediation of an energy dispute, the environmental groups believe the following conditions should exist:

- The energy issue should be of the type that allows room for compromise. This condition eliminates any disputes concerning nuclear powered facilities. Most environmental groups are so strongly opposed to the very concept of a national nuclear energy program, that it is not considered a negotiable issue.

- The major issues (e.g., whether or not an energy facility is justified) are agreed upon and the issues to be negotiated relate to implementation matters (e.g., the plant location, design and type of pollution control equipment).

- A solution to the dispute has a good chance of setting a national precedent.[1/]

- Other concerned environmental groups are willing to share responsibility for the issue.

- Staff, expertise and data are available for the environmental groups to negotiate on equal terms with opposing parties.

1/ As noted in Chapter II, mediated agreements generally do not set legally binding precedents. A mediated agreement can have the effect of setting a precedent only if it results in a change to a law or regulation, or if the signatories explicitly agree to limit their actions in future such cases.

- Participation does not jeopardize the right to bring suit if an agreement cannot be reached.

- A party in the mediation is not also the funding source for the mediator.

- All funding sources for mediation services are revealed.

- The mediator selected is considered impartial.

b. During Mediation

Once the above basic conditions are met, the following procedures are expected to be followed during the negotiation:

- The negotiations are kept confidential. No release of information to the media is allowed until an agreement is reached.

- Each party's representative has the authority to make binding commitments for the organization he represents.

- Each party makes reasonable proposals and negotiates in good faith.

The Sierra Club Executive Director, who is also a member of RESOLVE, described the "Rule of Reason" that parties in the National Coal Policy Project attempted to follow:

> "... they will share all pertinent facts; they will not mislead each other with unfair tricks; they will not lightly inpugn each others' motives; they will avoid dogmatism; they will simplify complex concepts so they can communicate to lay persons; they will identify and isolate subjective considerations; they will distinguish between facts and value judgments."1/

1/ Quote from Michael McCloskey in an article by Joan Nice, "Stalemates Spawn New Breed: The Eco-mediators," High Country News, Lander, Wyoming, March 23, 1979, Vol. II, No. 6.

c. Post-Mediation

The outcome of a successful mediation is a legally-binding written agreement. The following conditions are desired regarding that agreement:

- Once the agreement is reached, it is considered final, as well as respected and implemented by higher authorities who might otherwise treat it lightly; and,

- There is some assurance that once an agreement is reached in a certain area, it will provide precedents which industry and government will honor in similar future cases.

V. POTENTIAL FOR RESOLVING ENERGY FACILITY DISPUTES

This chapter presents an assessment of mediation's potential for improving the handling of environmental disputes related to energy facilities. First, the theories and case histories presented in the preceding chapters are used to summarize the basic characteristics of disputes which favor solution by mediation. These characteristics can be used as criteria to be applied on a case-by-case basis wherever mediation is being considered. Next, related characteristics of environmental disputes involving energy facilities are compared with these criteria to assess the overall potential of the technique for this application. Finally, two major regulatory programs are identified as potential sources of disputes that could be successfully handled through mediation.

A. Characteristics of Disputes Where Mediation Has an Advantage

Two basic objectives should apply to the resolution of conflicts over energy facilities: (1) achieving the best possible solution, balancing economic, energy, and environmental considerations; and (2) achieving the solution as quickly and economically as possible, so that vital energy projects are not seriously delayed. As an alternative to adjudication, mediation has a relatively good chance of achieving these objectives for disputes which have the characteristics described below.

1. Room for a Feasible Compromise Exists

It is essential that the dispute leave flexibility for compromise. In the G.E. case, the hearing officer was able to adjudicate the initial question of whether fishing had been impaired. Because this was a yes-or-no determination, no middle ground existed. But once this decision had been made, considerable flexibility existed for structuring a feasible and fair settlement. Although both sides began with somewhat extreme positions, they also exhibited willingness to compromise.

The same flexibility existed in the Washington highway dispute. Although the City of Seattle and the allied public-interest groups opposed extending I-90 across Lake Washington, all parties recognized the basic need to construct some kind of transit facility. The important issues then became the negotiable questions of how large the bridge should be, and where bridge access should be located.

Compromises, however, must be capable of being implemented. If the dispute does not involve an issue of national policy, where nationwide cooperation at the local level is necessary to make any agreement work, it has a better chance of being implemented. This criteria limits consideration to disputes involving how to implement national policy in a specific instance in a specific locality. The cases discussed in this paper all dealt with local disputes, where the parties necessary to implement the agreements participated directly in the decisions.

2. Multiple Issues Must Be Addressed

Mediation has a significant advantage over adjudication in disputes involving either a single complex issue (e.g., what settlement should be required of G.E. for having dumped PCB's into the Hudson River) or multiple issues. Mediation has worked successfully in cases where a number of priorities and concerns (e.g., energy conservation, environmental protection, and economic efficiency) may conflict or interact. Such conditions existed in both the G.E. and Washington highway disputes. In the G.E. case, the complexity of the dispute was the major factor in the parties' decision to resort to mediation. Each party realized the adjudication would not allow sufficient creativity and compromise to assure a fair settlement.

3. Multiple Parties Must Participate

While mediation is most often used to settle disputes in labor/management relations where only two parties are involved, it is an efficient way to reach settlements among three or more parties. For example, in both the Brayton Point

and I-90 cases at least five distinct parties were actively involved in the dispute and participated in the mediation process. Given that the alternatives to group negotiation in these cases were numerous lawsuits, mediation probably produced both the quickest and best solution.

The case studies also show that mediators can be particularly effective when one of the parties involved is the general public. Since the mediator is often perceived as the only impartial participant in the dispute, he or she can serve as an effective liaison by communicating with citizens and relating their comments and criticism to the principal disputants. Consequently, disputes arising from regulatory procedures that include a high degree of public participation (e.g., through comment periods and hearings) are promising targets for mediation.

B. Characteristics of Energy Facility Disputes

This section assesses the characteristics of energy facility disputes with respect to each criterion discussed above.

1. Potential for a Feasible Compromise

Not all energy facility disputes have a high potential for achieving a feasible compromise. For example, some disputes involve differences in fundamental policy, where no middle ground exists, e.g.:

- Whether or not an energy facility is justified, on the basis of local energy needs or environmental costs.
- Whether or not a major technology (e.g., nuclear) is environmentally acceptable for a facility.

Likewise, certain disputes may concern issues of national scope, e.g.:

- The extent to which the U.S. should convert to coal.
- The schedule for implementing the national synfuels program.

Many energy facility disputes, however, do not require national participation and do not present extreme choices. These disputes involve how fundamental, agreed-upon national or local policy is to be implemented for a specific facility in a specific locality. Examples of such issues are:

- the best location for the facility
- type of pollution controls
- arrangements for waste disposal
- compensation for persons inconvenienced by the facility
- timetable for construction
- stipulations in permits (e.g., reporting requirements and measurement techniques).

These questions are relatively negotiable; moreover, agreements reached on them are easier to implement because all key parties can more easily participate in the decisions.

2. Number of Parties

Disputes concerning an energy facility rarely involve only two conflicting parties. Although there may be only two basic sides to a dispute (those advocating energy production and those concerned primarily with environmental protection), many more individual parties are usually involved, for several reasons. First, energy is now a highly visible issue to the public. As was discussed in Chapter I, the size of energy facilities and their degree of environmental impact make them controversial, and, therefore, a prominent target for citizen groups concerned with the environment. Second, the extensive government regulation of energy facilities prevents government from playing a neutral role in energy-related disputes. As illustrated by the Brayton Point case, several government agencies with different or conflicting objectives can be involved.

3. Number of Issues

The interplay of energy, environmental, social and economic variables in planning energy facilities tends to make the disputes technically complex. The relatively large number of parties involved in such disputes, a characteristic discussed above, is to some extent a symptom of this complexity.

C. Target Programs for Energy/Environmental Mediation

The preceding section established that many energy-related environmental disputes could be effectively and efficiently resolved through mediation. Assuming that this general potential exists, it is necessary to consider specific Federal programs where application of mediation might have a significant impact on resolving disputes. The two addressed here are the processes resulting from the National Environmental Policy Act (NEPA) of 1969 (P.L. 91-190) and coal conversion programs.

1. NEPA

The regulations generated by NEPA provide ample opportunities for energy projects to be challenged in the planning phase. The chief focus of such challenges is often the Environmental Impact Statement (EIS). NEPA requires that a detailed EIS be prepared in conjunction with any "major Federal action significantly affecting the quality of the human environment." Although the Federal agency taking such an action (e.g., awarding a grant, issuing a permit, or leasing Federal mineral deposits) is technically responsible for compiling the EIS, most of the supporting measures and analysis are performed by the applying firm. Thus, the EIS has become a prerequisite for issuing of many Federal environmental permits.

NEPA requires that the EIS be both broad and detailed in addressing environmental impacts. It must consider alternative designs in justifying the proposed facility. NEPA regulations also provide opportunities for broad public

participation in the EIS review process. Rather than claiming a project will violate specific pollution control standards and procedures, outside parties may attack the project by claiming that the EIS is inadequate. Since no definitive analytical rules exist for preparing EISs, these disputes are difficult to resolve in a clear-cut, "right or wrong" fashion. On the other hand, NEPA and implementing regulations allow sufficient flexibility to parties who wish to negotiate a compromise settlement to achieve compliance.

2. Coal Conversion

As a result of the Arab oil embargo, Congress passed a series of legislative actions in 1973-74 designed to curtail national dependence on foreign oil supplies and increase development of the abundant coal reserves found in the U.S. The Energy Supply and Environmental Coordination Act (ESECA, P.L. 93-319), passed in June 1974, required the Federal Energy Administration (FEA)[1/] to issue coal conversion orders to power plants and other facilities which were major consumers of oil and natural gas. Although its basic mandate is simple, the remainder of ESECA is largely devoted to complex exceptions and exemptions, which are the basis for determining whether and when a particular facility should be issued such an order. Conditions which must be present for a coal-conversion order to be issued include: (1) the availability of facilities for transporting, storing, and burning coal, (2) the availability of coal at a reasonable price, and (3) the installation of flue gas desulfurization equipment or a variance from air pollution control authorities to allow coal to be burned.

In order to avoid the expense of converting to coal combustion, many utilities have requested an exemption under one or more of the above provisions. Such requests have led to extensive debates, which frequently include interagency participation and public hearings.

1/ The FEA was absorbed into DOE in 1977.

The Carter Administration brought a renewed commitment to increased coal use. The first of President Carter's National Energy Plans (NEP-1) in April 1977 called for a doubling of national coal production and use by 1985. The component of the National Energy Act which implements these policies is the Powerplant and Industrial Fuel Use Act (FUA) of 1978 (P.L. 95-620). While the objectives of FUA are generally the same as those of ESECA, its provisions are intended to be broader and more effective. The FUA applies to both new and existing plans, and contains criteria for both temporary and permanent exemptions. Like ESECA, these criteria require that economic, technical, and environmental factors be considered. Exemptions are also available under FUA on the basis of synthetic fuel use, innovative technology, and a broad "public interest" provision. Determining whether an exemption is warranted is often a rather complex process involving several government agencies, the utility company, and the public.

Conflicts arising from both ESECA and the FUA may be good targets for mediation, becuase of the flexibility included in some of the exemption provisions and the frequent involvement of several conflicting priorities and parties.

VI. THE FEDERAL ROLE

It would clearly be infeasible for the Federal government to require that mediation be used for environmental disputes concerning energy facilities. First, mediation is by definition a voluntary process. Second, as explained earlier, it is not suitable for all disputes. Therefore, any Federal effort to increase the use of mediation should be limited to providing support to parties who are interested in participating on a voluntary basis. The question then becomes the appropriate type of support.

The views of environmental groups should be a significant factor in considering the appropriate types of Federal support. First, environmental groups are likely challengers of energy projects. Second, lack of funding seems to be one of the concerns with respect to participating in mediation efforts; further, they are likely to be critical of how that support is provided.

Due to their limited technical staff and data resources, environmental groups see themselves at a disadvantage vis-a-vis industry in any negotiation process. Therefore, they have more faith in methods (i.e., adjudication and lobbying) where, in their view, limited technical resources are not as critical in achieving a favorable outcome. On the other hand, environmental groups are sensitive to the sources of funding for support. They do not wish to be supported by government in such a fashion that their constituents would question their ability to remain independent on substantive matters. Likewise, they desire that the mediation services (e.g., the mediator) be free of undue influence by energy interests.

Although the energy-oriented opponents of environmental groups may have less need for additional technical data and staff support, they too are likely to be concerned about the source of mediation services. They would desire the mediation to be free of undue influence by environmentalists.

Taking the above constraints into consideration, this chapter discusses two aspects of possible Federal support: (1) how it is funded; and (2) the type of support.

A. Funding

It is unlikely that any support under the total financial control of either DOE or EPA would be well received. Environmental groups reacted more favorably to funding by a coalition of agencies (e.g., equal contributions from DOE and EPA and other agencies). The Federal Regional Councils were mentioned as a possible vehicle.

B. Type of Support

Numerous avenues for Federal support have been identified. All of these have been suggested by environmental groups or environmental mediation institutions:

- Federal Mediation and Conciliation Service: This independent Federal agency has been supplying mediators for labor/management disputes for years. It seems to have the respect of many environmental groups.

- Federal Services Ombudsman: This person could coordinate Federal services and grants for mediation efforts.

- Development of Skilled Mediators through Training and Licensing: It was indicated that environmental mediators need special skills to handle the multilateral negotiations that typify such disputes. Such training could be formalized through a licensing program. If the Federal government begins supplying significant amounts of funding for mediation, some control is needed over the quality of education services. Without minimum professional standards as prerequisites, such funding could spur the growth of marginally competent mediation organizations, established and sustained largely by Federal money.[1/]

1/ Labor/management mediation does have a generally recognized certifying agency, the American Arbitration Association (AAA). The field of environmental mediation, because it is relatively young, has not yet developed one.

- Pilot Mediation Projects: One environmental group suggested that the Federal government support pilot projects on mediation to gather more evidence of the technique's potential for energy-related disputes. The projects would be the basis for justifying and developing any large-scale mediation support program.

- Educational Services: The Federal government would act as a clearinghouse for compiling, editing, and distributing information on mediation. This effort could include research, workshops, and seminars on environmental mediation. One representative from AAA suggested that such an effort could begin through expanding the dispute settlement project being conducted by the Department of the Interior and the Council on Environmental Quality (CEQ) for the Resource and Land Investigation Program.[1/]

- Direct Technical/Analytical Assistance: The Federal government would provide technical assistance and data to groups preparing for and participating in negotiations. Environmental groups expressed interest in this type of assistance to help them negotiate on equal terms with industry.

Except for use of the Federal Mediation and Conciliation Service to mediate disputes, the above approaches require the Federal government to play more of an indirect or educational role in promoting mediation.

1/ From comments of Donald Straus, President of the Research Institute of the AAA, at RESOLVE Conference on Mediation, January 12, 1978.

APPENDIX A

Environmental Mediation Institutions and Projects

I. Introduction

This appendix briefly describes the activities and capabilities of several mediation institutions: The first institutions discussed are essentially labor mediation institutions which are now beginning to get involved in the environmental mediation area. The second group of institutions is relatively new and is directed at non-labor social conflicts, which include conflicts involving environmental/energy issues.

II. Modified Labor Mediation Institutions

The two examples that follow are traditional labor institutions that have recently expanded to take on disputes related to environmental and energy issues. While they have applied the skills and techniques of mediation to this subject area, labor/management mediators are typically not technical experts on energy or environmental topics.

A. The Federal Mediation and Conciliation Service (FMCS)[1/]

1. Purpose and Activities

a. Labor Mediation

The Federal Mediation and Conciliation Service (FMCS) is an independent executive agency of the Federal government created in 1947 to facilitate the resolution of labor/management conflicts. Its primary duty is to promote labor/management peace. This responsibility is fulfilled by providing mediation assistance in preventing and resolving collective bargaining disputes. For this purpose, approximately 300 Federal mediators, known as commissioners, are stationed strategically throughout the country.

The FMCS mediators enter a labor/management dispute only at the request of the parties involved. The parties are, however, obligated to notify FMCS if an agreement has not been reached 30 days in advance of a contract termination or reopening date. This notice alerts the Service to possible bargaining trouble.

1/ The information on FMCS was obtained through an interview with Edward Hartfield of FMCS and from a document entitled: "Securing Labor-Management Peace Through Mediation," Federal Mediation and Conciliation Service, Washington, D.C.

If the case falls within the jurisdiction of the Service, the regional office then assigns a mediator to ask the employer and union involved if assistance is required. In about 95% of the cases in which notices are filed, the employers and unions reach agreements on their own without requiring mediation aid.

FMCS mediators are carefully selected and trained. About equal numbers have backgrounds in management and in labor, and many have had some experience in both. Mediators are picked for the job because of this knowledge and their demonstrated skills in collective bargaining. Regardless of background, they are required to maintain strict objectivity as representatives of the public interest.

b. Non-Labor Mediation

Until recently, non-labor mediation was done if the mediators had time left from labor activities. Of the 15 mediators in the national and D.C. field offices of FMCS, 3 or 4 have had experience with non-labor mediation. These mediators have handled non-labor mediation on an ad hoc basis, however, and not necessarily within their official role as FMCS mediators. In 1979, the FMCS became involved in non-labor mediation on an official basis. In general, FMCS enters new areas at the request of a Federal agency, which provides funds. Examples of cases FMCS handled are:

- The Department of Health, Education, and Welfare (HEW) has sponsored a contract to establish a mediation system for the Equal Employment Opportunity Commission's age discrimination project. Complaints about age discrimination in

federally-funded projects will go first to FMCS, although parties will retain full legal rights. FMCS will also conduct a training program. A public information brochure is being printed outlining the mediation process and its limitations.

- Federal Highway Administration (FHWA) is funding the training of management-level state and Federal employees in conflict-resolution techniques. For the most part, FHWA will handle enviromental and transportation disputes -- such as right-of-way or community/municipality opposition related to new highways.

At present, the closest example of environment/energy mediation in the FMCS is the FHWA project described above. But, according to an FMCS spokesman, potential projects may exist in the Washington metropolitan area or any of the 80 regional and field offices about which FMCS has little information. Although FMCS has not solicited work, it has recently been in touch with a few Federal agencies who are curious about: (1) mediation as a means for resolving land-use disputes; (2) the appropriateness of mediation for environmental disputes; or (3) the institutionalization of mediation.

2. Funding

In the non-labor mediation cases, the Federal agency requesting FMCS assistance provides the funds. For example, the FMCS is receiving funds from HEW and FHWA to conduct a training program for using mediation in age discrimination suits and in environment/transportation disputes, respectively.

Because it is an agency in the executive branch, FMCS receives funds for labor/management disputes through the Federal budget. Consequently, these services are provided free of charge to the disputants.

3. Experiences, Views, and Capabilities Regarding Environmental Mediation

Should a specific party (an agency of the Federal government for example) request FMCS assistance for projects applying mediation to new types of disputes, the FMCS will give the request serious consideration. FMCS is capable of reviewing and mediating such cases. Several limitations, however, govern the availability of FMCS services:

- As in the HEW program, the major obstacles are funding and associated billets. Since the FMCS funds cover only labor relations, activities beyond that scope require additional resources. In non-labor mediation cases, the Federal agency requesting FMCS assistance provides the funds. For example, the FMCS is receiving funds from HEW and FHWA to conduct a training program for using mediation in age discrimination suits and environmental/transportation disputes, respectively.

- Another concern is the legality of FMCS funding new activities. This question would have to be resolved by the FMCS General Counsel.

The spokesman suggested that energy/environmental mediation efforts not be funded through fees paid by the disputants, because environmental groups desiring mediation service would have an unequal ability to pay. Fees would be appropriate only for smaller disputes. A suggested alternative was for the involved Federal agencies to provide funds (as in the HEW case) or channel them through a neutral agency.

These considerations aside, the FMCS spokesman was confident that FMCS could handle any energy/environmental tasks. He reasoned that the mediator's role in the negotiation is common to all types of disputes, although specific techniques vary.

B. The American Arbitration Association (AAA)[1/]

1. Purpose and Activities

The American Arbitration Association (AAA) is a public-service, non-profit organization with headquarters in New York City. Its main goal is the resolution of disputes of all kinds through use of arbitration, mediation, democratic action and other methods. Founded in 1926, the AAA has more than 50,000 persons presently serving on all of its impartial panels. Only about 300, however, are experts in the environmental area.

1/ The information on AAA was obtained primarily from interviews with Donald B. Straus, President of the American Arbitration Association, and from the following publications:

- Michael Greenburg and Donald B. Straus, "Up Front Resolution of Environmental and Economic Disputes," Environmental Comment, Urban Land Institute Washington, D.C., May 1977.
- "Conflict Management in the Fuel Use Act Exemption Process," The Research Institute of the AAA, for the Council on Environmental Quality (CEQ) and DOE, July 6, 1979.
- "Developing Methods for Environmental and Energy Dispute Settlement: Project Summary," AAA, New York, N.Y., February 1979.

a. Labor Mediation

Most disputes resolved by the AAA have involved a limited number of parties (e.g., labor and management) and easily identifiable issues (e.g., wages, working conditions, and benefits). AAA became involved in these disputes at the point of impasse. Settlement was sought through arbitration, mediation, and conciliation.

b. Environmental Mediation Activities

AAA initiated environmental mediation activities about five years ago because there was a demand for them. Currently, less than 1% of all the AAA activities are devoted to this work.

The AAA is using three ongoing projects as vehicles for developing and testing its theories on environmental mediation:

- Resolving conflicts related to the Office of Coastal Zone Management (OCZM) of the New Jersey Department of Environmental Protection (DEP) activities.

- Developing a report for the Council on Environmental Quality (CEQ) on conflict management in the Fuel Use Act (FUA) exemption process. The AAA was asked to suggest ways that innovative conflict-management techniques might help expedite administration of FUA.

- Testing the use of mediation in five disputes involving public agencies with responsibilities for such issues as herbicide spraying, recreational land-use, forest management, phosphate mining, multiple use of fragil land, and endangered species protection. This ongoing effort involves CEQ and the Department of the Interior.

AAA's experiences with these activities are discussed in detail later in this section.

2. Funding

The sources of funding for the above projects are the Federal government -- Departments of Energy (DOE) and Interior and the CEQ -- and private foundations.. Since the process of environmental mediation is still in the experimental stages, funding for this kind of mediation is ad hoc; it has not be institutionalized. Some of the larger private corporations that have contracted with the AAA for environmental mediation are the Rockefeller, Ford, and Hewlett Foundations.

3. Experiences, Views, and Capabilities Regarding Environmental Mediation

As previously stated, the goal of the AAA is to resolve disputes of all kinds, through arbitration, mediation, and other methods. In environmental mediation, AAA's activities have focused on conducting the necessary research and applying those findings to practice. Interest in AAA's research projects has been high and AAA has been regarded as highly credible by the parties participating in those projects.[1/]

In the AAA's view, many disputes are not solvable by the mediator's last-minute intercession, especially when both environmental and economic tradeoffs are involved. For decisions having irreversible consequences, the sharing of information on goals, assumptions, and methods should not wait for adversary proceedings. Some disputes can be completely avoided and others settled more easily and with

1/ Op. cit., Michael Greenburg and Donald B. Straus.

less animosity if all interested parties are invited to participate in the decision-making process from the very beginning.

To test this concept, in 1977, AAA advocated that third-party intervention include consensus at the following four stages of the decision-making process:

- Clarification of goals.
- Explicit notation of the limitation of data.
- Choosing of analytical methods.
- Testing of the impact of alternative land-use patterns.[1/]

The Office of Coastal Zone Management (OCZM) of the New Jersey Department of Environmental Protection (DEP) has provided AAA a vehicle for testing these dispute settlement procedures. Under a grant from the Rockefeller Foundation, AAA has tested the four-stage resolution approach under the auspices of OCZM. OCZM's tasks were to prepare a management plan and to evaluate applications for development. These activities have produced conflict and will continue to do so. The experiment was conducted in two phases: first, data validation; and second, impact testing for various development patterns.

The experiment with data validation was not as successful as it might have been, because many parties had difficulty relating the data to possible outcomes of DEP's coastal zone program. In essence, the process was too abstract for many of the non-technical participants, who were primarily interested in the outcome of management

1/ Michael Greenburg and Donald B. Straus, "Up Front Resolution of Environmental and Economic Disputes."

plans and permit applications. On the other hand, most technically trained participants valued the opportunity to express their opinions outside the adversary process.

As for the impact testing, AAA is attempting to devise simple computer programs that can be used to respond quickly to a wide variety of questions, so that debate and negotiation can immediately follow interaction with the computer.[1/]

Using a terminal, the user enters the number of dwelling units and type of heating system. Based on national averages and local data, the computer reports back the projected air emissions caused by home heating and automobile use. OCZM as well as opponents and proponents of a proposed project can change such variables as fuel type, number of dwelling units, and miles driven per dwelling unit. An immediate response from the computer enables the parties to make alterations until the proposal falls within acceptable limits. At the same time, the AAA team will mediate issues ranging from the accuracy of a map to the interpretation of projections.[2/]

In the second case, the AAA, under a contract for the Council on Environmental Quality (CEQ) and the Department of Energy, has prepared a report on Conflict Management in the Fuel Use Act (FUA) Exemption Process. The exemption process under the Fuel Use Act provides a high potential for conflict, since there is much at stake for major fuel users and state and Federal governments. The technical complexity and uncertainty regarding fuel choices and their environmental consequences further complicate this issue.

1/ AAA is still in the developmental stages of this project, according to Donald Straus.

2/ Op.cit., Michael Greenburg and Donald B. Straus, May 1977.

The Economic Regulatory Administration's (ERA) proposed regulations under FUA provided a formal structure and detailed data requirements for processing exemption petitions. The AAA was asked to suggest ways that innovative conflict management techniques might expedite resolution of conflicts and expedite decision-making. AAA presented ERA with recommendations for inducing voluntary compliance with the FUA.[1/]

In the third case, the AAA Research Institute is working with CEQ and DOI to test the use of mediation in five disputes involving public agencies with responsibilities for such issues as herbicide spraying, recreational land use, forest management, phosphate mining, multiple use of fragile land, and endangered species protection. The objective of this research is to identify, apply, and refine new approaches to the settlement of environmental disputes in which the Federal government is a major participant. CEQ and DOI have undertaken to expand the tools available within the procedures established by the National Environmental Policy Act (NEPA) by developing methods to anticipate, analyze, and resolve multi-party disputes that unnecessarily delay Federal decisions and lead to NEPA litigation. Clark-McGlennon Associates, Inc. of Boston is associated with the AAA in this project.

The CEQ/DOI project has three major areas of activity: (1) conducting, studying, and evaluating environmental mediation for specific cases; (2) transferring information and experiences gained during the project to Federal and other governmental agencies, as well as to a broader base of professional mediators and the interested public, by means of workshops, a revised handbook on conflict resolution, and other reports; and (3) identifying and analyzing specific new environmental/energy disputes involving the Department of Energy and the Office of Surface Mining (DOI) The work will also involve , among other things, close

1/ "Conflict Management in the Fuel Use Act Exemption Process," The Research Institute of the American Arbitration Association.

attention to the agencies' NEPA regulation processes and the ways in which environmental mediation might be integrated into the process.[1/]

III. New Non-labor Mediation Institutions

The four examples that follow describe new institutions that deal with many types of disputes, including those involving environmental/energy issues.

A. Office of Environmental Mediation (OEM)[2/]

1. Purpose and Activities

The Office of Environmental Mediation (OEM) was established in 1974 to experiment with techniques for assisting disputing individuals, organizations, and agencies in reconciling their differences. Supported by the Ford and Rockefeller Foundations, it can provide resources to support joint discussions and the services of experienced mediators.

a. Non Energy-Related Activities

OEM has handled a variety of mediation cases, including flood control, wetlands protection, port development and transportation system development. Examples of these cases are:

- OEM recently resolved a dispute over a major freeway project for the Seattle metropolitan area. A dispute over the plan to construct a $500 million addition to the interstate high-

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[1/] Op.cit., "Developing Methods for Environmental & Energy Dispute Settlement: Project Summary."

[2/] The information on OEM was obtained primarily from interviews with Leah Patton, co-director of OEM, and a publication "New Approaches to Conflict Resolution," Ford Foundation Report, New York, New York, May 1978.

way system had tied up transportation planning for nearly 20 years. Although an agreement has been reached, the EIS is still tied up in appeals on its adequacy.

- In concert with the District Court's technical advisor, OEM mediators worked with Indian tribes, the State of Washington, and steelhead sport fishing groups to develop a viable steelhead management plan for the 1977-78 season, which was adopted as a Court Order.

- Late in 1976, OEM was asked by the Commissioners of the Port of Everett, the third largest in Puget Sound, to investigate a dispute over the development of Jetty Island. Environmentalists opposed the Commissioners' plans to develop the port-owned property. An agreement, signed in 1977, is now governing the development of this port.

Most recently, the OEM has been formally involved in mediating disputes involving such issues as zoning, corporate and airport expansion, and noise containment and control.

b. Environment/Energy-Related Mediation Activities

No OEM mediators have had experience with energy-related mediation. Although certain disputes related to energy facilities have been considered by OEM from time to time, the institution has not found the conditions right for successfully mediating such disputes. Either the issues have been too broad in scope and ill-defined, or the parties have lacked faith in the Federal government honoring a mediated agreement. The major energy disputes in that region typically involve pipelines or nuclear facilities.

OEM has recently contracted with the Northwest Federal Regional Council and HEW in Region X to explore opportunities for mediation within the decision-making and permitting processes of six participating Federal agencies. This planned effort is the closest OEM has come to addressing energy facility disputes. The aim of the project is to develop a prototype for energy facility mediation. This involves examining specific aspects of energy facilities that necessitate nonstandard mediation techniques.

2. Funding

As indicated earlier, OEM is funded primarily by the Ford and Rockefeller Foundations.[1/] In 1979, these foundations provided one-third of the OEM budget; in previous years, they provided two-thirds. Matching funds have been received from the Federal Regional Councils and through grants from the Pacific Northwest Regional Commission.[2/] It is hoped that these regional, Federal, and state sources will provide an increased share of future budgets, as the foundation grants are due to expire in June 1980. It is also anticipated that a diversified funding base will help OEM maintain its independence. The current mix of 1/3 Foundation, 1/3 Federal-regional, 1/3 state-regional is considered ideal from this standpoint.

1/ In the case of AAA, OEM, and other established mediation institutions, a primary source of grants for third-party approaches to conflict resolution has been the Ford Foundation. According to a Ford Foundation Report ("New Approaches to Conflict Resolution," New York, 1978), Ford presently has three objectives for improving society's capacity to manage conflicts and to streamline regulations:

- Strengthening the capacity of existing formal institutions;
- Finding better ways of handling disputes outside of the formal system; and
- Identifying specific or general reforms that may halp to avoid conflicts or simplify them.

Promotion of such research and development is not, however, peculiar to the Ford Foundation. The Rockefeller, Hewlett, and Atlantic Richfield Company foundations are also promoting environmental mediation.

2/ "New Approaches to Conflict Resolution," Ford Foundation.

3. Views and Capabilities Regarding Energy/Environmental Mediation

Since OEM is dedicated to resolving non-labor social conflicts, it believes that it can handle environmental/energy disputes of: (1) the dispute is contained within the Northwestern region; (2) funding exists; and (3) the dispute meets certain other criteria regarding suitability for mediation.

OEM believes that several criteria should be satisfied for it to mediate energy facility disputes:

- Clear identification of the parties and decision-makers;
- Assurance that the disputants agree on the basic need for the energy facility;
- Specification of the geographical boundaries of the dispute; and
- Assurances by governmental agencies that they will cooperate in implementing any agreement.

The OEM spokesman also expressed concerns about approaches to funding. Since most of the private foundations are linked (at least in name) to major U.S. corporations, there may be suspicion of the motives of the grantors. Not only might this suspicion stifle the atmosphere of trust in mediation proceedings, it might cause the resulting agreement to be challenged in court.

Suspicion can focus on the Federal funding. Institutions like OEM might be perceived as pro-government, since all levels if government are likely to be both the providers of grants and parties

in mediation. For example, when OEM was asked to mediate a dispute between local county residents and local Native Americans, it spent considerable time convincing the Native Americans that they were not fact-finders for the Department of the Interior, which had final say in the use of the island the Native Americans inhabited.

According to the spokesman, the alternative of having mediation services paid for on a fee basis also has its drawbacks. Because there is an imbalance in financial resources between environmental groups and industry and government groups, having the parties pay for mediation could be burdensome and thereby discouraging to participation.

The spokesman suggested that an improvement in the Federal funding process would be for the Federal Regional Councils to coordinate and channel grants. Under this approach, organizations like OEM could more easily maintain their flexibility and independent image.

B. RESOLVE, Center for Environmental Conflict Resolution[1/]

1. Purpose and Activities

RESOLVE is a new nonprofit organization created by a cross-section of leaders from the environmental movement, industry, and labor. Its purpose is to create a coordinated national effort for resolving environmental disputes through fact-finding, conciliation, and mediation techniques. RESOLVE's goal in promoting use of these techniques is not only to speed up the process of environmental decision-making, but to produce more equitable and environmentally sound decisions.

1/ The information on RESOLVE was obtained primarily from interviews with Richard Livermore, RESOLVE Director of Conflict Resolution Services, and:

- John Busterud: "Its Better to Mediate," EPRI Journal, December 1978.
- "Innovative Approaches in Settling Environmental and Resource Disputes," RESOLVE, Center for Environmental Conflict Resolution, Palo Alto, California, 1978.

RESOLVE intends to be flexible in responding to specific opportunities in this field. It will act as (1) a promoter in furthering of voluntary conflict-resolution techniques; (2) an experimenter in the use of various innovative processes; and (3) a broker in arranging for environmental dispute settlement services.

a. Non Energy-Related Activities

RESOLVE has participated in the following experimental field projects:

- In the summer of 1978, RESOLVE assisted in identifying issues during the public participation phase of an EIS on the U.S. Forest Service's designation of wilderness areas in Colorado. Representatives of the oil and gas producers, recreational vehicle users, hiking and skiing interests, water suppliers, ethnic groups, environmentalists, and many others participated. RESOLVE's report, submitted in the fall of 1978, was expected to "enable the Forest Service to identify the primary issues and get a sense of the degree of concern on these issues from each of the interests groups."[1/]

- RESOLVE has analyzed the feasibility of using negotiation in specific disputes. This testing has been applied to such issues as: historical preservation; endangered species; ski area vs. local residents and Native Americans; and water development and water procurement. The parties involved have been varied: ad hoc chambers of commerce, Native Americans, environmentalists, U.S. Forest Service, local and state governments of California, and legislative delegations of Congressmen and Senators.

1/ John Busterud: It's Better to Mediate," EPRI Journal.

b. Environmental/Energy Mediation Activities

At present, RESOLVE does not have any projects directly related to energy or energy-facility issues. According to the Director of Conflict Resolution Services, RESOLVE has avoided projects in which its Board of Directors has a financial interest in the outcome.[1/] This policy was established to maintain RESOLVE's image of impartiality.

RESOLVE's Board has balanced representation. Approximately half of the members are educators and environmentalists, while the other half are commercial, utility, and construction trade representatives. Because RESOLVE places a premium on maintaining its image of overall impartiality, it limits its case load to a manageble level.

2. Funding

Grants from the Atlantic Richfield, Ford, Hewlett, and Hearst Foundations provided at least 70% of the RESOLVE budget in 1973. Atlantic Richfield contributing at least 40% of that total.[2/] Other foundation grants come from EXXON, Fleishman, Cowell, and the Sierra Club. RESOLVE has numerous contracts with the U.S. Department of Agriculture and the Forest Service.

RESOLVE's grants, like OEM's, have expiration dates. The Atlantic Richfield grant will expire in 1982. Although the requests for RESOLVE mediators from state and public officials are numerous, no state

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1/ Of the thirteen RESOLVE Board members, one owns a lignite plant. A funding source is the Atlantic Richfield Foundation.

2/ Op.cit., EPRI Journal.

funding has been provided. Consequently, no such disputes have been settled directly by the institution. The question of total subsidies for dispute settlement services after 1982 remains unresolved, although RESOLVE is attempting to obtain grants for at least 50% of its annual operations.

3. Views and Capabilities Regarding Energy/Environmental Mediation

The RESOLVE spokesman saw some obstacles to its effectively handling energy facility disputes:

- The difficulty of maintaining an image of impartiality. As in the case of OEM and AAA, RESOLVE believes the funding source can affect the neutral image of the mediator and the institution. Unlike OEM and AAA, RESOLVE has deliberately avoided disputes where such doubts are likely to be raised. This policy has had one side effect: the caseload has been constrained. Disputes related to a coal-fired power plant or offshore oil are most likely to be rejected by RESOLVE, at least in the near term. Although RESOLVE is very interested in energy facility disputes, it prefers caution to avoid public suspicion.

- The need for additional personnel. Energy facility disputes, because they often involve multiple parties and issues, take time to resolve.

In spite of its reservations about participating in such disputes, RESOLVE has access to in-house technical and non-technical personnel for handling environmental/energy matters. A branch of its services has been established for that purpose. In the Colorado project, RESOLVE quadrupled its permanent staff to six. Temporary and part-time staff members, recruited from the localities involved in the dispute, are, however, the preferred means of obtaining additional personnel. Once the staff is available, RESOLVE typically sets up a four-person mediation team (mediators, researchers, and an accountant).

C. New Jersey Office of Dispute Settlement[1/]

1. Purpose and Activities

The New Jersey Office of Dispute Settlement (ODS) is located in the Department of the Public Advocate. Established in 1975, it is the only state agency that mediates community disputes. There are full-time mediators on the staff. They enter by request of the disputants, a state agency, or on their own initiative. The Office has a program of regular consultations with public and private groups. ODS provides mediators for community organizations, state government, and businesses -- group mediation only. It is the only state agency that can sue the state government in disputes. The Office also provides training for the negotiation process.

a. Non Energy-Related Mediation Activities

ODS has handled disputes such as:

- The taking of land by the Department of the Interior;
  - ODS mediated a land-use dispute between a shore community and the Department of the Interior. The issues involved the acquisition of and usage restrictions placed upon local land, and inadequate compensation to the town. The agreement reached specified a wildlife program, EIS requirements for new developments, and a joint approach to revising the compensation plan.
  - The safety of a toxic waste disposal facility. Following an explosion at the Rollins toxic waste disposal facility, ODS began a seven-month mediation process to bring together

1/ The information on ODS was obtained primarily from interviews with J. Stanley Husid, Chief of ODS and "The Coastal Development Review Process in New Jersey: Avoiding Disputes and Resolving Conflicts," Environmental Comment, Urban Land Institute, Washington, D.C., May 1977.

the company, Logan Township, federal, state and local government agencies, and a citizen group. An agreement, reached in June 1978, enabled the plant to reopen under improved safety and emergency procedures, and with greater cooperation between the parties.

- A school boycott on a discrimination issue;
- A complaint by mothers of school children about the safety of bus routes;
- The need for road services and maintenance; and
- The blockage of an entrance to an industrial park by a center median.

b. Environmental/Energy Mediation Activities

ODS has received no requests to mediate energy facility disputes. Another state agency, the Division of Public Interest Advocacy in the Department of the Public Advocate, would be more likely to handle energy facility cases, such as the siting of a nuclear plant.

The Department of Environmental Protection (DEP) recently instituted new procedures to avoid disputes and resolve conflicts before they arise from the state's resource management law, the Coastal Area Facility Review Act (CAFRA). CAFRA gives DEP final jurisdiction over specific major construction proposals -- including residential projects of more than 25 dwelling units, marine terminals, and nuclear power plants -- in an area encompassing 18 percent of the state. The permit

application and development review process under CAFRA has five major pre-decision phases providing opportunities for resolving disputes. It also has a post-decision stage, where conflicts can be resolved administratively without recourse to the courts. DEP instituted new project design and development review procedures in an attempt to be flexible and responsive during the process.[1/]

2. Funding

ODS is financed by the State of New Jersey. Only mediation services, however, are state funded; training must be provided by other means. The State Law Enforcement agency, with money from the Federal government, provides funds to ODS to train individuals on negotiation methods.

3. Views and Capabilities Regarding Energy/Environmental Mediation

ODS has provided the state and its communities with a mechanism for resolving disputes successfully. Although the Office has not taken on any energy facility disputes, a spokesman indicated that it would be capable of and interested in doing so, especially if it were a residential community issue. The spokesman also suggested that the Division of Public Interest Advocacy (mentioned above) could do the same. This office, he suggested, could handle the larger, more complex disputes.

In both cases, it was suggested that the size and complexity of the case, as well as its potential length, would determine ODS's ability to handle it. Little state money is available, however, for such issues; supplemental funding would be necessary.

1/ Op.cit., "The Coastal Development Review Process in New Jersey: Avoiding Disputes and Resolving Conflicts."

D. Clark-McGlennon Associates[1/]

1. Purpose and Activities

Clark-McGlennon Associates is a private, profit-oriented environment/energy consulting firm established to promote mediation in cases where the Federal government is a party. It sees its role to be more as an information clearinghouse than as a source of mediators.

a. Non Energy-Related Mediation Activities

Typical activities for this firm have been:

- Training National Park Service employees in mediation techniques; and
- Facilitating "resource recovery" (garbage recycling) negotiations.

b. Environment/Energy Mediation Activities

In two cases, Clark-McGlennon has examined energy issues on its own. In the other cases, the firm has teamed up with the AAA or the Energy Exchange (described later) to tackle energy problems. These efforts have not, however, concentrated on negotiation, per se. Recent activities, for example, involved:

- Examining ways to streamline the state facility permitting process; and
- Working with the Nuclear Regulatory Commission and the Massachusetts Energy Facility Council to explore the idea of developing an integrated regional approach to energy facility siting.

1/ The information on Clark-McGlennon Associates was obtained primarily from interviews with Suzan Carnduff of Clark-McGlennon.

Clark-McGlennon is interested in applying rational decision-making mechanisms, including negotiation, to energy-related issues.

2. Funding

Since Clark-McGlennon is a private, profit-oriented firm, its source of funds is client fees. Its typical clients are the U.S. Department of the Interior (with its many bureaus and agencies) and the Massachusetts Facility Siting Council. According to the Clark-McGlennon spokesman, foundation money is not available for a profit-oriented firm.

3. Views and Capabilities Regarding Energy/Environmental Mediation

The spokesman stated that her firm is capable of handling energy facility disputes, since 30 percent of the staff has knowledge of the intricacies of facility siting issues. The only constraint is that the dispute be confined to the New England region.

APPENDIX B: Sources

SOURCES

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B. Environmental Mediation Institutions

Institution Address & Phone Number	Source & Contact Date
The American Arbitration Association 140 West 51st Street New York, New York 10020 (212) 977-2084	Donald Straus 10/17 and 11/5/79
Center for Energy Policy 1000 Statler Office Building Boston, Massachusetts 02116 (617) 482-8660	T. P. Schwartz 10/26/79
Clark-McGlennon Associates, Inc. 148 State Street, Suite 800 Boston, Massachusetts 02109 (617) 742-1580	Susan Carnduff 10/26/79
The Energy Exchange 142 Pleasent Street Brookline, Massachusetts 02146 (617) 742-1580	David O'Connor 8/23 and 10/30/79
The Federal Mediation and Conciliation Service 2100 K Street, N.W., Room 402 Washington, D.C. 20427 (202) 653-5290	Edward Hartfield 9/17, 10/16 and 10/23/79
Ford Foundation 320 East 43rd Street New York, New York 10017 (212) 573-5060	William Pendleton 10/31/79
Office of Environmental Mediation Institute for Environmental Studies University of Washington 230 Engineering Annex, FM-12 Seattle, Washington 98195 (206) 543-6713	Leah Patton 8/29 and 10/30/79

Institution Address & Phone Number	Source & Contact Date
RESOLVE, Center for Environmental Conflict Resolution 2010 Massachusetts Avenue, N.W. Washington D.C. 20036 (202) 347-3767 or (415) 329-1525	Richard Livermore 10/26/79
State of New Jersey -- Department of the Public Advocate Office of Dispute Settlement P. O. Box 141 Trenton, New Jersey 08625 (609) 292-0275	J. Stanley Husid 10/26/79

C. Environmental Public Interest Groups

Group Address & Phone Number	Source & Contact Date
Environmental Defense Fund 1525 18th Street, N.W. Washington, D.C. 20036 (202) 833-1484	William Butler 11/6/79
Environmental Policy Center 317 Pennsylvania Avenue, S.E. Washington, D.C. 20003 (202) 547-6500	Robert Alvarez 11/9/79
Natural Resources Defense Council 1725 I Street, N.W. Washington, D.C. 20006 (202) 737-5000	Jonathan Lash 11/7/79
The Sierra Club 330 Pennsylvania Avenue, S.E. Washington, D.C. 20003 (202) 547-1144	Jonathan Gibson 11/20/79

D. Other Contributors and Their Affiliations

Contributors	Affiliations
Cortese, Commissioner	Massachusetts Department of Environmental Quality Engineering (617) 727-2690
Curran, Chuck	Coal Policy Project (202) 833-1930
Emrich, Wendy	Council on Environmental Quality (202) 395-4522
Hackman, Robert	U.S. Department of Energy, Region X (206) 442-7280
Kaslow, John	New England Power Company (617) 366-9011
Lake, Laura	Adjunct Professor or Political Science -- UCLA (213) 825-4331
Masilli, David	Friends of the Earth (202) 543-4312
My Gatt, Sam	Executive Office of Environmental Affairs, Commonwealth of Massachusetts (617) 727-5830
Olentine, Chuck	U.S. Department of Energy, Office of Licensing & Siting (202) 633-8600
Sanderson, Debra	Energy Impacts Project, Massachusetts Institute of Technology (617) 492-8207

Contributors	Affiliations
Schroeder, Christopher	Faculty at Duke University Law School (919) 684-3062
Sheets, Edward	Special Assistant to Senator Magnuson (No phone number available)
Stein, Robert	Environmental Mediation International (202) 457-0457
Whysong, Karen	U.S. Department of Energy, Region X (206) 442-1746
Woodcock, Ken	U.S. Department of Energy, Economic Regulatory Administration (617) 254-6030

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