THE WHITE HOUSE

WASHINGTON

December 15, 1983

MEMORANDUM FOR: EDWIN MEESE III
JAMES A. BAKER III
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RICHARD G. DARMAN
JOHN A. SVAHN
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FROM: CRAIG L. FULLER CLF

SUBJECT: Acid Rain Meeting

Attached is an outline of the acid rain proposal that will be discussed on Friday, December 16, at 5:00pm in the Roosevelt Room.

Also attached is a draft announcement of acid rain action.

attachments

TRANSBOUNDARY ACID RAIN CONTROLS

Proposal

Make a public commitment to enter into negotiations with Canada to reduce pollution that causes acid rain damage in both countries. These reductions would be pursued under the international air pollution Section (Sec. 115) of the Clean Air Act (CAA). Although Section 115 provides legal authority to address transboundary pollution, it has not been tested in the courts and would most likely be challenged. A treaty, which could be more time-consuming and politically contentious, could supplement Section 115, if the legal obstacles seemed insuperable.

Process

- President announces in State of the Union address the beginning of cooperative discussions with Canada.
- Draft finding that emissions in the U.S. are causing acid rain damage in Canada.
- Develop a finding that Canada has the authority to make reciprocal reductions.
- Negotiate an agreement with the Canadians on environmental goals to be achieved through reductions of transboundary pollution.
- Develop a joint control program to achieve these goals.
- Require each State to modify its State Air Plan to provide for reductions necessary to meet international target.
- Develop a financing plan to pay for pollution controls and/or provide miner protection (which would need to be passed by Congress).
- Federal enforcement and compliance monitoring.
- Audit environmental results to determine need for further reductions.

Advantages

- Administration taking positive action independent of Congressional debate although financing would ultimately require Congressional action.
- Control program would probably be more limited and better focused on sensitive areas than if Congress passed new legislation.
- The process is compatible with the pursuit of a treaty.
- Can be expanded if research shows need for additional control.

Disadvantages

- Section 115 subjects EPA to a number of regulatory findings and opportunity for legal challenges.
- Canada has publicly called for a major pollution reduction
  and may be unable to compromise on a more realistic goal.
- Even with a financing package, midwestern States may perceive they bear an unfair burden and some may refuse to comply with Federal orders to revise State Air Programs forcing Federal action.
- Potentially high cost to Treasury or a departure from polluter pays principal.

Today I have instructed the Administrator of EPA to begin negotiations with Canada on a program to reduce the acid rain pollution across our borders. These negotiations will lead to substantial reductions in sulfur dioxide emissions in both countries.

We are pursuing this approach because it offers the earliest solution to the acid rain damage presently being experienced in the northeastern United States and southeastern Canada. Acid rain recognizes no borders. Emissions from U.S. power plants and other sources are contributing to acid rain damage in Canadian lakes, and Canadian emissions are contributing to the acid rain falling on our vulnerable lakes -- particularly in the Adirondacks and New England.

This joint effort will help protect the most vulnerable environmental resources in both the United States and Canada. Moreover, by taking these steps, we can learn more about the acid rain problem, which will help us better understand the need for further efforts to control acid rain.

(1) pkg =
(2) sell =
(3) goal-setting (GSP modific) problem
(4) Congress ? (treaty could be worst of both worlds)

A NEGOTIATED SOLUTION TO ACID RAIN

The Administration can deal effectively with the acid rain problem by negotiating transboundary emissions reductions with the Canadians. This approach would address the acid rain problem in those regions of North America with documented environmental damage from acid rain, namely the northeastern United States and southeastern Canada. Any program that protects sensitive Canadian lakes would substantially reduce those emissions causing damage in the northeastern United States.

Negotiated emissions reductions could be acheived with authority already contained in Section 115 of the Clean Air Act or through a treaty. Each approach has distinctly different advantages and disadvantages but procedurally both approaches could be initiated through a similar process. The decision on how to implement a negotiated emissions reduction agreement with Canada could actually await completion of the agreement, although it would be far better to make that call as early as possible.

I. THE INITIAL STEP - Negotiate Common Goals and Optional Control Plans

The process would begin with an announcement by the President that he was commencing negotiations with the Canadians to (1) mutually establish the environmental goal of reducing the transboundary pollution causing acid rain in the United States and Canada and (2) devise emissions reduction strategies for each country which could attain that environmental goal. These negotiations would take from 1 to 2 years and would focus on:

a. the geographic regions where mitigation of acid rain is appropriate,

b. the level of reduction in acid rain in each region that is adequate to prevent or eliminate environmental damage,

c. the relative burden to be carried by each country in reducing emissions to attain the appropriate goal for each region, and

d. options available to each country in allocating emissions reductions to their states and provinces.

II. IMPLEMENTATION - Use of Section 115 or a Treaty

Implementation of a negotiated agreement can be acheived through either a Section 115 regulatory program or through a treaty.

A. Section 115

Section 115 of the Clean Air Act authorizes EPA to require states to reduce emissions to prevent or eliminate health or welfare problems in a foreign country caused by pollutants from the United States. The use of this authority to implement an acid rain control program would require the following actions:

1) Make a finding that SO_2 emitted in the U.S. may "reasonably be anticipated to endanger public health and welfare". The finding could be based upon the report of a "duly constituted international agency" or on an allegation of environmental harm made by the Secretary of State.
2) Establish that Canadian law gives the United States the same rights as those provided to Canada by Section 115.
3) Require states which are the sources of the offending SO_2 emissions to revise their emissions control plans so as to prevent or eliminate the specified environmental damage.

If the 115 process is chosen as the appropriate path to follow in implementing an agreement with Canada, the following steps (showing the time required for each step) would need to be followed to ultimately bring about emissions reductions:

1) Propose a Finding of Environmental Damage (issue immediately upon completion of the negotiations described on page one)

Based on either an appropriately worded report of an international agency or on the allegation of the Secretary of State, EPA would issue a proposed finding that SO_2 emissions from the United States are causing environmental damage in Canada. Since the final issuance of this finding makes EPA vulnerable to a citizen suit calling for emissions reductions adequate to eliminate such damage, issuance of a final finding will be made only when EPA has developed the regulatory program needed to attain the negotiated emissions reductions.

2) Reciprocity Finding (also issued upon completion of the negotiations)

EPA would establish that Canadian law (in particular House of Commons Bill C-51, An Act to Amend the Clean Air Act, First Session, Thirty-second Parliament, 29 Eliz. II, 1980) provides the United States with essentially the same rights provided to Canada by Section 115. If such a finding could not be made, the Canadians would have to put such authority in place or the treaty option would have to be pursued.

3) Propose Guidance to the States on Techniques to be Used in Attaining Optional Levels of Emissions Reductions (issued 1 year after completion of negotiations)

EPA would invite public comment on the alternative SO_2 control plans negotiated with the Canadians and on the proposed regulations describing the steps to be taken by states in modifying their SO_2 control plans to acheive the alternative levels of control. This proposal would include the federal actions (perhaps in the form of uniform emissions limits for power plants in each state) that would be enforced if states did not comply with the requirements of the control plan revision process.

4) Propose Financing Legislation (forward to Congress when the proposed guidance to states is issued)

EPA would propose legislation which would address the financing of the control options presented in the proposed regulations. The financing package would provide for financing adequate to cover an estimate of the entire cost of the proposed emissions reductions, including the costs of capital, operations and maintenance and fuel premiums. However, this estimate would be a "least cost" estimate and as such would not provide funds adequate to cover control plans that relied heavily on expensive technologies such as scrubbers. The funds necessary to meet the costs of this proposal would be generated through some combination of an SO_2 tax, an electricity generation tax and/or general revenues. Because of the length of the regulatory process required under Section 115, the financing of control costs would not begin until the early 1990's.

5) Final Regulations (issued 1 year after proposal or approximately 4 years from now)

If affirmative Congressional action is taken on financing, EPA would finalize its finding of transboundary environmental damage and promulgate a final emissions reduction allocation plan and final guidance to states on the contents of acceptable state plans to meet the emissions reductions allocated to them. These state plans would be due to EPA 12 months later, which is about 5 years from now (early 1989). EPA would take final action on these plans within six months, promulgating a federal plan if the state plan is found to be inadequate (promulgation by EPA would add perhaps a year's time).

States would be given up to 3 years to implement their final plans. This would result in emissions reductions beginning in the 1992 to 1993 time period which is a timeframe similar to many of the proposed Congressional bills on acid rain.

B. Treaty

Section 115 has the virtue of being an available authority and one under which EPA could move ahead to deal with the acid rain problem without new Congressional legislation. But it has drawbacks. It requires a number of legally challengeable individual procedures, i.e., making findings of environmental damage and legal reciprocity, developing the control options, establishing the procedures for state control plan revisions and finally EPA approval. The sheer number of steps, coupled with the novelty in the use of this as yet unutilized provision, raises a host of serious legal questions.

Obviously legislation would solve this problem, but might raise a host of other problems during its consideration by Congress. Another option, which would not require normal legislative consideration, would be the conclusion of an agreement through the treaty process. That approach might work as follows. Similar to the 115 process, the United States would negotiate common goals and

a control plan with Canada. This process, as discussed earlier, would take from 1 to 2 years. At this point, however, instead of moving forward by proposing guidance to the states on state control plan revisions, a treaty would be drafted. Drafting the treaty would take an additional 6 months after completion of the negotiations on common goals and control options.

Congressional consideration of a treaty would take another legislative year. Since a treaty would involve all of the controversial elements associated with acid rain legislation, a major legislative effort would be necessary to acheive the two-thirds majority required in the Senate. In addition, financing legislation would have to pass both Houses of Congress, roughly at the same time.

After the treaty is approved by the Congress, it will be necessary to activate the regulatory steps discussed earlier. EPA would need to propose and finalize regulatory procedures (under Section 115 or new implementing legislation) to be followed by the states in acheiving the goals or specific emissions reduction targets set forth in the treaty. This process would take approximately 2 to 3 years.

In theory, the passage and implementation of a treaty would take slightly longer (perhaps an additional year) than implementation of Section 115. Approval of a treaty, however, greatly diminishes the legal risks inherent in a Section 115 action and as such could greatly reduce the amount of time necessary to achieve acid rain controls. A treaty poses greater political risks, although financing legislation may be necessary for both alternatives.

The policy question relates to the certainty the Administration attaches to avoiding legal obstacles and to the visibility the President wishes to give to a committment to Canada to deal with the acid rain problem.

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THE WHITE HOUSE

WASHINGTON

December 7, 1983

SUBJECT: Acid Rain

Objective:

- Develop a program to address public, Congressional and Canadian concern with both the environmental and economic consequences of acid rain.
- Provide Ronald Reagan with a credible response to calls for major new regulatory initiatives and taxing programs.

Program:

- ✓ Encourage scientific research on the cause, ~~and~~ effect of acid rain and mitigation.
- Determine acidity trends, areas of sensitivity, and significance of various acidic compounds (SO_2, NOx, H+) on the environment.
- ★ Adopt interim measures to mitigate harmful effects of acid precipitation in sensitives areas (such as state grants for lake liming).
- Review state implementation plan limits and compliance.
- The Clean Air Act (CAA) presently provides authority for interstate and transboundary air pollution control. The EPA in conjunction with the Canadian government should use the present provisions to develop appropriate response actions. These provisions include: (1) the interstate control requirements established by Section 110(a)(2)E; (2) the remedy provision under Section 126, 304 and 307(b)(1); and, (3) the transboundary control requirements established under Section 115.
- Begin work under authority currently provided in Section 108 and Section 109 to designate sulfates and nitrates as criteria pollutants for which

maximum air concentration standards should be established and implemented.

- o Institute a program of universal coal washing/ preparation for medium and high sulphur coals with nonorganically bound sulphur.

- o Allow favorable tax benefits and pollution control bonds for coal preparation and other environmental precombustion processes. Encourage alternative and innovative controls.
- o Use reasonable available control technology to impose a 4 lb/mmbtu SO_2 national cap equivalent by 1990 and provide for a 2 lb/mmbtu SO_2 national cap equivalent 1995 if research shows that emissions are resulting in significant secondary welfare effects.

- o Under Section 108/109 authority develop a secondary SO_2 standard for zones of sensitivity.

Financing:

- o Impose a tax on all fossil fuel based on sulphur content. Develop a mechanism to provide credits for both precombustion and post-combustion SO_2 and NOx reductions beyond those required to meet legal limits.

- o Impose a 2 mill KWH fee on all foreign electricity.

- o Use general treasury funds to continue payment of Federal research and enforcement.

ACID RAIN STRATEGY

Use of Section 115 allows for a flexible system to deal with Canadian and State concerns over acid rain while preserving maximum flexibility to the President. It would allow the President to announce that EPA would begin negotiations with Canada on the control of sulfur emissions -- with each country being required to make reductions.

EPA and the State Department would negotiate with the Canadians on overall reduction goals, such as deposition loading targets or percentage reductions. These goals would assure a two-stage program, evaluating the impact of the initial reduction on the environment before commencing the second stage.

EPA would then translate these goals into State emission reduction targets. In doing so, EPA would present regulatory options, providing a basis for gaining public comment on the options. This evolutionary and inclusive process would be far preferable to legislation, where only a limited number of groups participate in the process. By involving the Canadians, State and local governments and citizens in the decision-making process, the chance for better understanding and consensus is enhanced. Overall, the process gives the President a chance to rise above sectional interests by providing a mechanism in his Administration for resolving the acid rain issue.

Acid Rain Control Under Current Clean Air Act Authority

If EPA pursued an acid rain control strategy under its current legislative authority that (1) reduced the United States contribution to acid rain falling in Southeastern Canada, and (2) measurably reduced acid rain in the northeastern section of the United States where acid rain related damages have been documented, it could ease the existing tensions with Canada on the acid rain issue and forestall additional acid rain damage in the Northeast.

In the 1977 amendments to the Clean Air Act, Section 115 was added to the Clean Air Act to provide EPA with the authority to address transboundary pollution problems such as acid rain. The broad language of section 115 would allows EPA to pursue an SO_2 reduction program in states upwind of sensitive Canadian receptor regions. Control in these states would also significantly reduce acid rain in the northeastern United States. Perhaps as importantly, reciprocal reductions in Canada upwind of sensitive receptor areas in the United States would contribute to the reduction of acid rain in the one area of the country that we know is presently being damaged by acid rain.

How Section 115 Works

Section 115 authorizes EPA to require revisions to state implementation plans (SIPs) to prevent or eliminate health or welfare problems in a foreign country caused by pollutants from the United States. The section establishes two procedures for requiring SIP revisions, one triggered by EPA findings after receipt of reports of international agencies, and another triggered by findings by the State Department and EPA. The two procedures share many common elements. Generally, the required findings are framed in broad language, which gives EPA considerable discretion in implementing the provision.

EPA must begin Section 115 proceedings if (1) an international agency has submitted information, (2) the Administrator has reason to believe that a pollutant emitted in the United States "may reasonably be anticipated to endanger public health or welfare" in another country, (3) the Administrator determines that the country has given the United States reciprocal rights and (4) the Administrator identifies the state or states where the emissions originate.

The findings on the harm caused by a pollutant do not require conclusive proof of harm, in accordance with the general precautionary policy of the Clean Air Act. However, there must be a reasoned basis for concluding that a pollutant may be causing harm in another country, and that the pollutant comes from the United States. In addition, the EPA would have to be able to identify the state where the sources of the pollutant are located, in order to determine which State Implementation Plan (SIP) must be modified to correct the problem. The amount of information needed to make these determinations would have to be decided on a case-by-case basis.

The reciprocity finding requires the Agency to conclude that the foreign country has given the United States the same rights that Section 115 gives the foreign country. Making this finding requires the Agency to understand the regulatory scheme used by the foreign country. In some cases, reciprocal rights may be created by statutes, while in other cases a statute followed by implementing regulations may be required. In any event, the Agency must be satisfied that the United States in fact has reciprocal rights under the foreign country's regulatory scheme, whatever form these rights take.

Section 115 proceedings can also be initiated by State Department and EPA findings. In this case EPA must initiate Section 115 proceedings if (1) the Secretary of State requests the Agency to do so, after in effect making findings on harm comparable to those described above, (2) EPA has concluded that the country in question has given the United States reciprocal rights and (3) the Administrator has identified the state(s) where the emissions originate.

If the requirements of one of the procedures described above are satisfied, EPA must notify the Governor of the state(s) in which the pollutant is emitted. This notification requires the state(s) to revise its SIP to address the problem. Section 115 requires the foreign country to be invited to appear at any public hearings associated with the SIP revision. If a state fails to revise its SIP, EPA is required to promulgate the necessary changes.

Making 115 Work

As a practical matter, initiating a 115 action to deal with the transboundary movement of acid rain from the United States to Canada is not difficult. Given the reciprocity provisions of the Canadian Clean Air Act and the findings of transboundary pollution damage that have already been made by the International Joint Commission, the major challenge to the effective use of section 115 would be the resolution of major technical issues.

The first issue that would need to be addressed would be the development of the goal to be achieved by the 115 action. Although a broad range of goals should be considered, the best candidates are likely to be framed either in terms of a (1) deposition loading target (such as kilograms of wet sulfur per hectare per year) or (2) a percentage reduction in our contribution to acid rain in the sensitive regions of Canada.

Having set the goal for action, the emissions reductions necessary to attain that goal would be derived by identifying the relative contribution of (probably through the use of source receptor models) states, provinces or regions of the United States and Canada to the existing acid rain levels in each country. The assignment of emissions reduction targets to each state would depend on the degree of emissions control projected in Canada and on the criteria or formula used to set the level of emissions reduction appropriate for each state. Tools are available to allocate emissions reductions targets to states so that the reductions are achieved at least cost. However, other criteria, such as interstate equity and the joint impact of some reductions on both U.S. and Canadian areas, would need to be considered and could result in some modification in a true least cost emissions reduction program.

Additional procedural steps in the process would include:

(1) Development of the regulatory guidelines for states to follow in revising their State Implementation Plans.
(2) Negotiations with Canada on the emissions reductions to be achieved in the U.S. and Canada.
(3) Development of a legislative package for financial assistance to the states required to reduce emissions and/or to the miners likely to be affected by fuel switching.

Impact of Section 115

As a practical matter any reductions in SO_2 called for under Section 115 will fall most heavily on the Midwest and the Northeast simply because they represent the nearest upwind sources contributing to deposition in Canada. Reductions in States further south or west will not contribute much to acid rain reductions in Canada (or our sensitive northeastern areas) and therefore would not be pursued under this policy.

The cost of a Section 115 action is largely a function of the total size of the emissions reductions called for, although the way these reductions are allocated to States and the time allowed to achieve them will also be important.

Timing

Implementation of this approach would probably involve the following elements:

--Announcement of the intention of the Administration to pursue this approach.

--Development and announcement of the specific environmental goal of the program

--Negotiation of targets for Canada and the United States

--Allocation of the reduction among the states

--Development of a legislative package for financial assistance

--Publication of guidance to the States concerning the preparation of acid rain plans

--Submission and approval of State plans

--Installation of controls

Development of the specific environmental goal of the program could take as little as 2 to 3 months, if the Agency were to do it unilaterally, i.e. without extensive Canadian or public review and comment. With such involement, the time frame for establishing the specific goal could be 8 to 10 months.

It is possible that interests in both this country and in Canada would insist on knowing the economic consequences of setting any specific goal before accepting it. In that case, the setting of a specific environmental goal could be folded into the reduction target effort. This would not significantly shorten or lengthen the overall schedule.

Final state allocations could be set in 2 to 3 years depending on the analytical complexity and controversy of the options pursued. Although development of guidance to the states on how to write reduction plans would begin during the state allocation process, the guidance probably could not be finalized until the allocations are set. Assuming publication of proposed guidance soon after allocations are set, final guidance could be given to states 3 to 3 1/2 years after the beginning date of this program.

If the States are given 18 months to prepare, adopt, and submit an acid rain plan, and EPA is given 12 months to review, propose approval/disapproval, and take final action (including triggering default limits should the plan be deficient), the total time for having acceptable state acid rain plans would be 5 1/2 to 6 years.

Although some control actions could be taken within a few years after approval of the state plan, a better minimum estimate for the more complex measures would be 5 years. This would bring the total implementation time, from the time of the announcement to the time when the controls in place, to 10 1/2 to 11 years.

Financing

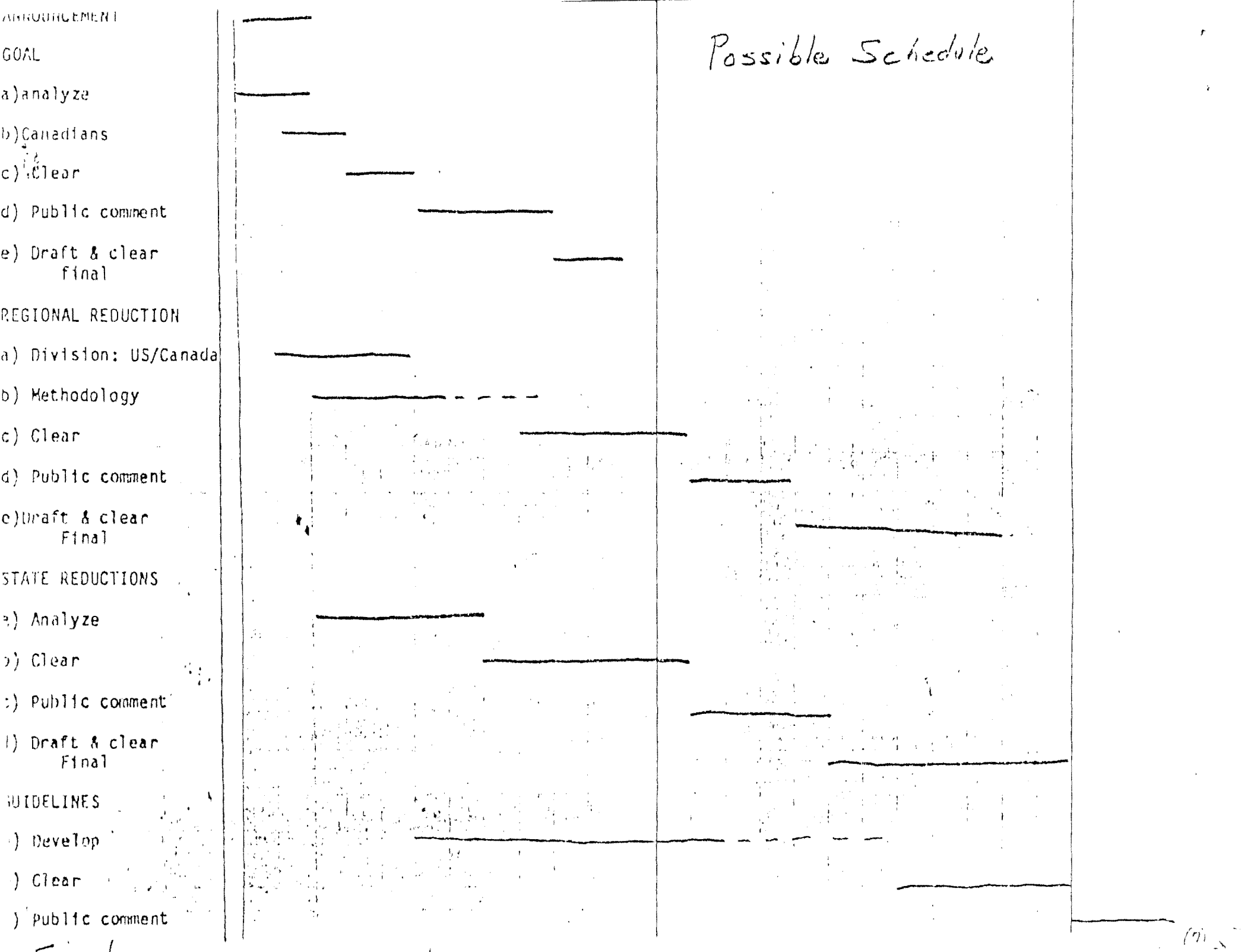
The ultimate success of any acid rain control program, especially one that limits reductions to a relatively small number of states, depends in large part on the financial relief made available to the states asked to reduce their emissions. The cost differentials created by the emissions reduction targets that could be assigned to some of the larger emitting states would almost certainly lead to significant political and legal opposition to even the most equitable solutions to the acid rain issue. Without the full cooperation of the states any action designed to address the acid rain problem, either internationally or domestically, is doomed to failure.

Financing programs relying on some combination of SO_2 tax, generation tax and general revenues have been analyzed in detail by the Cabinet Council Working Group.

	Minimum-Maximum Times (in months)	Most Likely Time
1) Develop concept for announcement	1 - 3	2
2) Determine goal		
a) Categorize and analyze choices	1 - 2	2
b) Discuss goal with Canadians	1 - 6	2
c) Clear proposal through Administration	1 - 4	2
d) Propose goal and take comment	2 - 6	4
e) Make final decision on goal, clear, and announce.	1 - 2	2
3) Determine reductions for regions		
a) Decide division of control responsibility between U.S. and Canada.	2 - 6	4
b) Determine methodology for working backward from the goal to reduction for the region. (e.g. models, percent reduction, etc.)	2 - 6	4
c) Propose methodology and results and take comment.	2 - 4	3
d) Clear proposal through Administration	3 - 6	5
e) Make final decision on regional rollbacks, clear and announce.	4 - 10	6
4) Determine methodology for allocating regional rollbacks to individual states.		
a) Analyze options	3 - 8	5
b) Publish proposals and take public comment	3 - 6	4
c) Clear proposal through Administration	4 - 10	6

	Minimum-Maximum Times (in months)	Most Likely Time
c) Make final decision and notify individual states	2 - 6	3
5) Develop and guidelines for SIP content (including default mechanism)		
a) Analyze and propose	8 - 12	9
b) Clear proposal through Administration	3 - 8	5
c) Propose and take comment	2 - 4	3
b) Final decision,clear, and announce.	3 - 10	7
6) Submission of state plans	12 - 24	18
7) Verify through discussions and possibly public hearings that Canadian reductions (for benefit of U.S. sensitive areas) are appropriate and will be enforced.	1 - 9	3
8) Approval of state plans by EPA (proposal and final) [disapprovals & triggering of default]	9 - 15	12
9) Achievement of reduction	3 - 8 years	5 years

Possible Schedule



More Realistic Schedule

GOAL

a) analyze

b) Canadians

c) Clear

d) Public comment

e) Draft & clear final

REGIONAL REDUCTION

a) Division: US/Canada

b) Methodology

c) Clear

d) Public comment

e) Draft & clear Final

STATE REDUCTIONS

a) Analyze

b) Clear

c) Public comment

d) Draft & clear Final

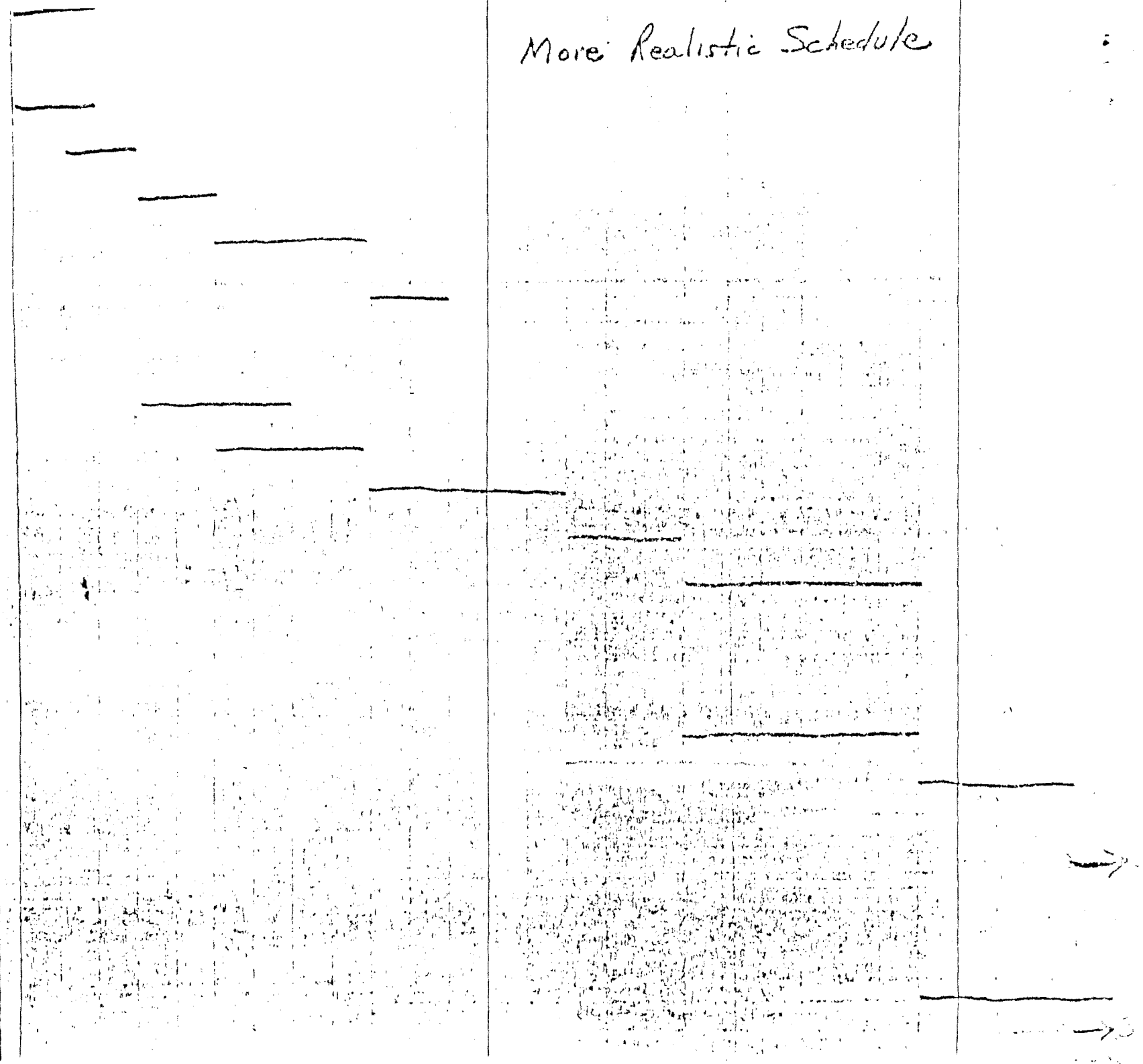
GUIDELINES

a) Develop

b) Clear

c) Public comment

d) Final



A. ACCELERATE EXISTING PROGRAM

Components:

1. Interagency research
2. Technology research and development
3. Remedial program for sensitive lakes
4. Continue consultation with Canada under MOI
5. Cooperate with states
6. Review impediments to new plants

Costs: $140 million in FY 85

Advantages:

Not committing to expensive control program.

Disadvantages:

1. Congressional critics criticize this as inadequate. Not even following recommendation of the President's science advisors report.
2. Poor political position for New England and New York.
3. Undermines Administrator Ruckelshaus' public posture and standing -- beaten by White House.

(perhaps add "C" and "D" in with "A".)

B. NEGOTIATIONS WITH CANADA TO REDUCE POLLUTION THAT CAUSES ACID RAIN DAMAGE IN BOTH COUNTRIES.

Components:

1. President announces in State of the Union address the beginning of cooperative discussions with Canada.

2. Negotiate an agreement with the Canadians.

3. Develop a joint control program to achieve reductions.

4. Develop a financing plan to pay for pollution controls and/or provide miner protection (which would need to be passed by Congress).

5. Audit environmental results to determine need for further reductions.

Costs: $2-3 billion annually.

Advantages:

Reduces negative environmental press, although environmentalist/Democrats may call this a stall.

Disadvantages:

1. Commits the country to a multi-billion dollar control program -- unlikely that a bill would be forthcoming in 1984.

2. EPA bureaucrats will take control of program with less public review than would occur through legislation.

3. All the substantive and political problems associated with an acid rain control program remain: high vs. low sulfur coal, union vs. non-union mining, near vs. far source, controls vs. coal switching, financing, etc.

4. Congress enacts legislation, present deadlock is broken based on Administration finding of damage from acid rain.

C. INSTITUTE LEAST COST REDUCTIONS AS RECOMMENDED BY OSTP REPORT

Components:

1. Insure compliance with state plan limits
2. Recommend in-stack monitoring or coal washing at 50 largest polluting plants
3. Revise stack height regulations
4. Shorter averaging time for SIP compliance

Cost: $1-1.5 billion annually

Reductions: 2-3 million tons annually

Advantages:

1. Positive actions to accelerate reductions of SO_2.
2. Consistent with OSTP report.
3. Cost-effective reductions which may not require new legislation.
4. Publicly defensible -- phased reductions without major economic dislocation.

Disadvantages:

1. Acknowledges that acid rain is a problem requiring new controls.
2. Could open congressional process for more draconian programs.
3. Will not satisfy critics.
4. Legality will be challenged if undertaken under existing Clean Air Act (CAA).

D. USE SYNTHETIC FUELS CORP FUNDS FOR CLEAN COAL TECHNOLOGIES

Components:

1. Modify Great Plains Project to produce methanol and use to overfire coal burners to reduce NOx and SO_2.

2. Fund regenerable technologies which reduce emissions and produce salable by-products and reusable reagents.

3. Revise legislation to provide for clean coal technology development such as FBC, LIMB, and methanol.

Costs: No new costs -- would be redirecting existing $15 billion program.

Advantages:

1. Provides a better use of already committed Federal funds.

2. Would provide guarantees for presently uneconomic clean burning technologies.

3. Provides a creative approach to the present acid rain deadlock.

Disadvantages:

1. Provides Federal funds for private technology development.

2. Massive government subsidy for coal industry.

E. Go to Hill w/ legislation: ask for 5 m. ton reduction but, say we'll veto any funding provision other than "polluter pays"

THE WHITE HOUSE

WASHINGTON

December 16, 1983

MEMORANDUM FOR JAMES A. BAKER, III

FROM: JAMES W. CICCONI JWC

SUBJECT: Proposal for Transboundary Acid Rain Controls

The proposal we have formulated for controlling acid rain presents, I feel, a good framework for dealing with this problem next year. Having participated in the discussions which led to the recommendation, I would offer the following additional thoughts on its strengths and potential liabilities as an option:

1. The proposal allows us to offer a definite commitment for action (i.e. moving beyond research only) in the State of the Union speech.

2. We should characterize our interaction with Canada as "discussion" or "consultations," and not as "negotiations." This distinction is important, and is left unclear in the current paper. The term "negotiations" implies a more formal process and raises expectations for a mutually agreed conclusion, but in this case agreement may not be possible. Also, implying that agreement is necessary allows the Canadians to hold out for a much greater reduction in what will be a highly charged U.S. political atmosphere. We should assume that the Canadians might see some benefit in public relations pressure to achieve their objectives, and use of a term like "discussions" leaves us less vulnerable to such pressure.

3. Our discussion group felt that a series of interim steps, such as lake liming grants, should be announced at the same time we announce the commencement of consultations with Canada. Interim steps send a clear signal that the Administration recognizes the seriousness of the problem, and is committed to action. Unless some immediate remedial action is announced, the Canadian talks, may be viewed as simply another delaying tactic. Coupling the two allows us to characterize our approach as entailing both a short-term and long-term attack on the problem.

4. Suggestions that we negotiate a treaty with Canada should be avoided, if only because of the Congressional problems it presents.

5. In our public explanation of this option, we must avoid the implication that we are addressing the acid rain problem solely because of the damage in Canada, even though that is the legal basis for our action. (The draft statement attached to the recommendation demonstrates a way of dealing with this.)

6. The EPA Administrator's discussions with Canada should be accompanied by parallel discussions with governors of affected states and with Congressional leaders. We will not only need their cooperation at a future point, but will also need to impart a sense of forward movement on the issue as 1984 progresses.

Components of a Non-legislative Acid Rain Program

1. Interagency Research

   - o Accelerate ongoing program.
   - o Cost: Propose $55 million FY 85. Almost double the FY 84 level of $27.6 million.
   - o Scientifically sound. Will appear to be stonewalling a "solution" to problem -- not politically acceptable by itself.

2. Technology Demonstration

   - o Build demonstration plants for clean coal combustion.
   - o Cost: Propose $64 million in FY 85. A major increase over FY 84 level of $45.5 million.
   - o Ignore principal that private sector should make this investment.

3. Liming of Sensitive Lakes

   - o Periodically add lime to neutralize acid rain to those lakes that lack natural buffering capacity.
   - o Cost: $5 million/year in grants to States.
   - o Immediate interim action, although it may not solve problem, and could cause other environmental problems. Does not address deposition on soil. Will be called a "band-aid" solution.

4. Stock Lakes

   - o Fund fish hatcheries and stocking programs.
   - o Cost: $500,000 per year.
   - o Provides an immediate positive action once lakes are limed.

5. Tighten Existing Regulatory Programs

   - o Revise stack height regulations; require continuous monitoring; modify 30 day rolling average; improve modelling.
   - o Cost: $1 billion per year.
   - o Reduction: 1-2 million tons SO_2.
   - o Subject to legal challenges and would required extensive staff resources.

THE WHITE HOUSE

WASHINGTON

December 15, 1983

MEMORANDUM FOR: EDWIN MEESE III
JAMES A. BAKER III
MICHAEL K. DEAVER
DAVID A. STOCKMAN
RICHARD G. DARMAN
JOHN A. SVAHN
FREDERICK N. KHEDOURI

FROM: CRAIG L. FULLER

SUBJECT: Acid Rain Meeting

Attached is an outline of the acid rain proposal that will be discussed on Friday, December 16, at 5:00pm in the Roosevelt Room.

Also attached is a draft announcement of acid rain action.

attachments

TRANSBOUNDARY ACID RAIN CONTROLS

Proposal

Make a public commitment to enter into negotiations with Canada to reduce pollution that causes acid rain damage in both countries. These reductions would be pursued under the international air pollution Section (Sec. 115) of the Clean Air Act (CAA). Although Section 115 provides legal authority to address transboundary pollution, it has not been tested in the courts and would most likely be challenged. A treaty, which could be more time-consuming and politically contentious, could supplement Section 115, if the legal obstacles seemed insuperable.

Process

- President announces in State of the Union address the beginning of cooperative discussions with Canada.
- Draft finding that emissions in the U.S. are causing acid rain damage in Canada.
- Develop a finding that Canada has the authority to make reciprocal reductions.
- Negotiate an agreement with the Canadians on environmental goals to be achieved through reductions of transboundary pollution.
- Develop a joint control program to achieve these goals.
- Require each State to modify its State Air Plan to provide for reductions necessary to meet international target.
- Develop a financing plan to pay for pollution controls and/or provide miner protection (which would need to be passed by Congress).
- Federal enforcement and compliance monitoring.
- Audit environmental results to determine need for further reductions.

Advantages

- Administration taking positive action independent of Congressional debate although financing would ultimately require Congressional action.
- Control program would probably be more limited and better focused on sensitive areas than if Congress passed new legislation.
- The process is compatible with the pursuit of a treaty.
- Can be expanded if research shows need for additional control.

Disadvantages

- Section 115 subjects EPA to a number of regulatory findings and opportunity for legal challenges.
- Canada has publicly called for a major pollution reduction
and may be unable to compromise on a more realistic goal.
- Even with a financing package, midwestern States may perceive they bear an unfair burden and some may refuse to comply with Federal orders to revise State Air Programs forcing Federal action.
- Potentially high cost to Treasury or a departure from polluter pays principal.

Today I have instructed the Administrator of EPA to begin ~~negotiations~~ discussions with Canada on a program to reduce the acid rain pollution across our borders. These ~~negotiations~~ discussion will lead to substantial reductions in sulfur dioxide emissions in both countries.

We are pursuing this approach because it offers the earliest solution to the acid rain damage presently being experienced in the northeastern United States and southeastern Canada. Acid rain recognizes no borders. Emissions from U.S. power plants and other sources are contributing to acid rain damage in Canadian lakes, and Canadian emissions are contributing to the acid rain falling on our vulnerable lakes -- particularly in the Adirondacks and New England.

This joint effort will help protect the most vulnerable environmental resources in both the United States and Canada. Moreover, by taking these steps, we can learn more about the acid rain problem, which will help us better understand the need for further efforts to control acid rain.

CELANESE

Use of Methanol in Electric Utility Boilers

Background

Methanol is an organic compound which is widely used as a chemical solvent and in the production of a broad range of industrial chemical products. It is produced through a well-established chemical process. Most of the world's current methanol capacity is based on surplus natural gas. However, methanol also can be produced from a variety of other raw materials, including coal, petroleum, and biomass.

Although the properties of methanol as a fuel have long been recognized, its use as a fuel in industrial boilers has become attractive in recent years as a relatively low-cost way of reducing emissions levels. Because it burns more cleanly than other boiler fuels, methanol offers significant environmental and other advantages.

Advantages of Methanol in Industrial Boilers

Electricity production from utility boilers is achieved by combustion of a fuel (generally petroleum, natural gas or coal) to convert water to high-pressure steam which drives a turbine. Combustion emissions vary with the characteristics of the fuel used. Tests using methanol as a substitute for natural gas or fuel oil show it to be a significantly cleaner fuel with respect to emissions of nitrogen oxides (NOx) and particulates.

Primary Fuel. A 1981 study conducted by Southern California Edison in cooperation with the Electric Power Research Institute (EPRI) compared the heating and emissions characteristics of methanol to those of No. 2 fuel oil and natural gas in a 44.5 MW power boiler. Results were monitored over more than 70 hours, using over 400,000 gallons of methanol. As reported by EPRI, the results showed that methanol's lower combustion temperatures produced a 50–60 percent reduction in NOx emissions compared to both natural gas and fuel oil. With water injection, methanol's advantages were even more marked. Particulate emissions were also reduced compared to fuel oil. Although the study showed methanol to be slightly less efficient (6 percent) than fuel oil as a primary boiler fuel, it concluded that "methanol can certainly be recommended as an alternative to conventional fuels if adequate supplies are available and costs are comparable to conventional fuels."

Overfiring. An alternative and potentially more promising use of methanol in boiler applications is as a secondary fuel in "overfiring." This concept divides the boiler into two stages—the lower stage burning a "dirty" fuel (coal or fuel oil) and the upper stage burning a "clean" fuel (methanol). Under this system, NOx emissions from the combustion of the "dirty" fuel are, in effect, "consumed" through the chemical interaction of the two stages. Laboratory demonstrations indicate that this interaction has the potential for reducing uncontrolled NOx emissions by up to 85 percent compared to

METHANOL

the "dirty" fuel and up to 40 percent below levels produced by burning methanol alone. This should yield emissions reductions of 20—30 percent over current alternative control systems. Test data suggest that this can be achieved where methanol accounts for 30 percent or less of fuel input on a Btu basis.

This technology has important implications in areas experiencing severe NOx problems. For example, NOx emissions from oil-fired utility boilers are a serious problem in the South California Coast Air Basin. A recent California Energy Commission consultant report has estimated, however, that methanol overfiring could reduce NOx emissions by 10,000—15,000 tons per day (15—25 percent reduction below current average emissions) in the Basin if used at all boilers with the required configuration. Depending on actual operating characteristics in full-scale boiler operations, the cost of NOx removal through methanol overfiring can be reduced by 50—90 percent compared to conventional alternatives. Additionally, by reducing particulate emissions, methanol overfiring should reduce unit fouling, *thus lowering maintenance costs.*

These emission reductions could have important local as well as interregional implications. Locally, NOx reductions could assist non-attainment areas to meet national ambient air quality standards. NOx emissions have also been identified as a precursor of *acid rain*, contributing as much as one-third or more to total depositions in the United States. While sulfur-type emissions are a major concern with coal-fired boilers generally, NOx reduction has also been identified as an important goal.

Economics of Methanol Overfiring

The cost of modifying existing fossil fuel boilers to take advantage of methanol overfiring would be limited to:

- Costs associated with additional storage and piping for methanol delivery to the boiler, and
- Costs associated with replacing burners in the upper stage combustion section to accommodate conversion to methanol.

Small-scale tests indicate that NOx reduction is maximized when the volume of methanol used is equivalent to approximately 30 percent of the thermal input to the boiler. Due to methanol's lower Btu (energy) content per unit of volume, this would require approximately 6 gallons of methanol to every 10 gallons of fuel oil in a typical boiler. This could be readily accommodated by adding approximately 20 percent more storage capacity dedicated to methanol as well as the addition or replacement of existing burners with higher capacity units to achieve the volume flow rates required. The basic technology is not difficult. Actual hardware costs should be relatively minor.

Demonstration Projects

The environmental and economic benefits of methanol overfiring have been demonstrated on a small scale. Further tests are needed, however, to confirm these results in medium to large-scale utility and industrial boilers. The purpose of these tests would be to:

- o Confirm reductions in NOx and other harmful emissions, and
- o Develop technical data capable of establishing boiler efficiency ratings as well as determining the most efficient operating procedures.

The demonstration tests should cover methanol overfiring over natural gas, fuel oil and coal.

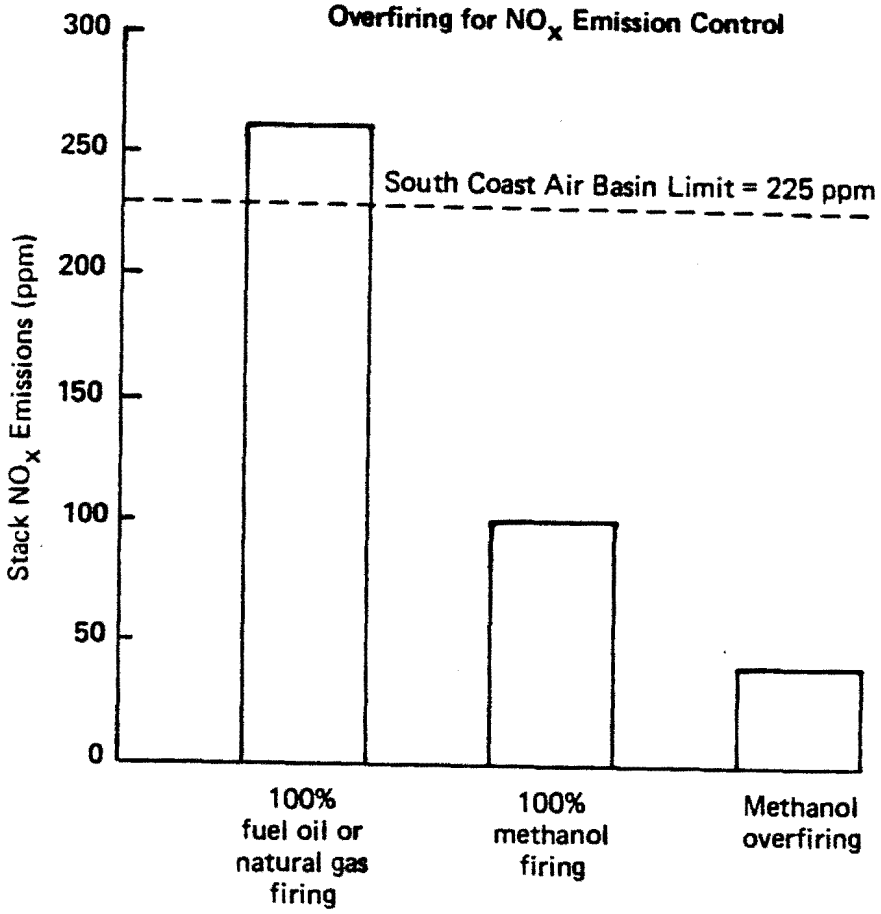
Boiler surveys in Southern California have already been performed to define the most promising sites for the use of methanol overfiring. These surveys should be extended to other parts of the country. *Federal financial and technical support for a series of two or three demonstration projects* through the Environmental Protection Agency or the Department of Energy should be considered in the FY 1985 budget. It is anticipated that these projects could be completed for less than $1 million.

Summary

Methanol overfiring in industrial boilers appears to hold substantial promise as a relatively low-cost alternative to other, more expensive control technology. In particular, its potential for reducing NOx emissions and the possible benefits of these reductions in addressing the problem of acid rain should be carefully explored. Federal support of a limited number of overfiring demonstration projects would provide needed large-scale confirmation of the benefits of methanol overfiring.

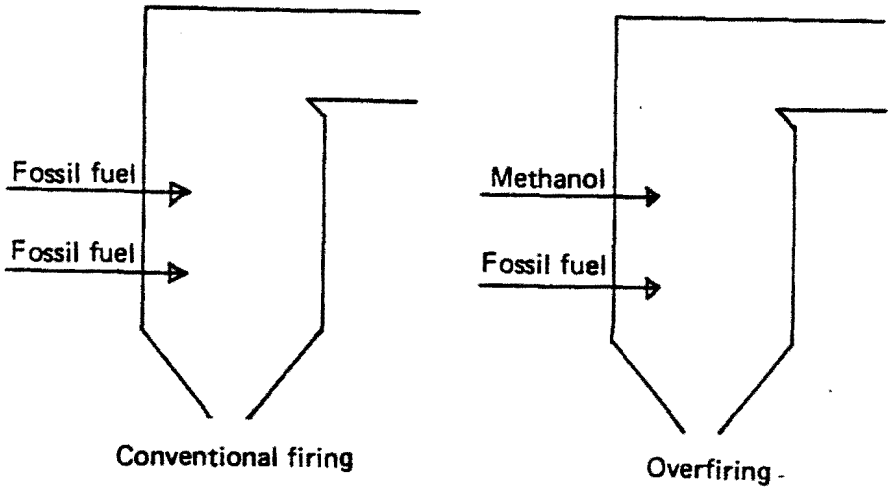
Attachment

Overfiring for NO_x Emission Control



Source: Electric Power Research Institute report, 1981; California Energy Commission consultant's report, 1983.

Overfiring Concept



THE WHITE HOUSE

WASHINGTON

December 20, 1983

MEMORANDUM FOR JAMES A. BAKER, III
MICHAEL K. DEAVER

FROM: LEE L. VERSTANDIG

SUBJECT: CONEG REQUEST REGARDING ACID RAIN

I am aware of the recent efforts between the White House and EPA to address the issue of Acid Rain.

As a result of the recent Coalition of Northeastern Governors (CONEG) meeting, Governor Thomas Kean (R-New Jersey) as Chairman of CONEG, has requested a meeting of CONEG members with the President to discuss Acid Rain. I talked with Governor Kean recently and he stresses the importance of having such a meeting prior to the upcoming National Governor's Association meeting and the seriousness of CONEG's request.

Governors Mario Cuomo (D-New York) and Michael Dukakis (D-Massachusetts) were leaders in gaining the unanimous request from the Governors. CONEG members are reacting to the Acid Rain attention generated by extensive and persistent coverage in the major media markets of the Northeast.

- o School children have been sent out in Vermont and Massachusetts to collect rain samples in cups to test for acidity.

- o Elderly volunteers routinely check the acidity of lakes in Maine, Connecticut, New York, Massachusetts and New Hampshire.

- o "Acid Rain trees" have been "decorated" with fish skeletons in each of the capitols of the Northeastern states.

There is unanimity among the governors of New England, New York, New Jersey and Pennsylvania that Acid Rain is a national problem and one that should be addressed by the Administration.

The Acid Rain political pressures are building. Without any action, the Administration will generate hostility from CONEG and prompt strong Acid Rain Resolutions at the February National Governors' Association meeting.

Because the issue has such symbolic importance, I recommend that the President meet with a delegation of CONEG members such as: Thomas Kean (R-NJ), Chairman of CONEG, J. Joseph Garrahy (D-RI) Chairman, CONEG Energy and Environment Committee, and John Sununu (R-NH), Chairman of the NGA Task Force on Acid Rain. However, This request may prompt other governors to seek meetings with the President to discuss the Acid Rain issue. Therefore we might want to consider that this meeting on the subject include other governors as well.

I strongly urge that an Acid Rain meeting with the President and a delegation of governors take place prior to the State of the Union Address.

THE WHITE HOUSE

WASHINGTON

SCHEDULE PROPOSAL

December 20, 1983

TO: FREDERICK J. RYAN
SPECIAL ASSISTANT TO THE PRESIDENT
AND DIRECTOR OF SCHEDULING

FROM: LEE L. VERSTANDIG

REQUEST: Oval Office meeting with the President and Governors Thomas Kean (R-New Jersey), J. Joseph Garrahy (D-Rhode Island), and John Sununu (R-New Hampshire)

PURPOSE: This would be an opportunity for the Governors to present the Coalition of Northeastern Governors (CONEG) position regarding acid rain and to talk with the President about acid rain.

BACKGROUND: CONEG met in New Jersey on December 4 and 5 to discuss the acid rain problem and unanimously passed a resolution requesting this meeting with the President to discuss acid rain.

PREVIOUS PARTICIPATION: None by CONEG

DATE: Open but prior to January 25, 1984
DURATION: 15 minutes

LOCATION: Oval Office

PARTICIPANTS: Governor Kean (R-New Jersey)
Governor Sununu (R-New Hampshire)
Governor Garrahy (D-Rhode Island)
Lee L. Verstandig

OUTLINE OF EVENTS: Informal discussion

REMARKS REQUIRED: None

RECOMMENDED BY: Lee L. Verstandig

OPPOSED BY:

PROJECT OFFICER: Andrew H. Card, Jr.

THE WHITE HOUSE

WASHINGTON

December 16, 1983

MEMORANDUM FOR JAMES A. BAKER, III

FROM: JAMES W. CICCONI

SUBJECT: Proposal for Transboundary Acid Rain Controls

The proposal we have formulated for controlling acid rain presents, I feel, a good framework for dealing with this problem next year. Having participated in the discussions which led to the recommendation, I would offer the following additional thoughts on its strengths and potential liabilities as an option:

1. The proposal allows us to offer a definite commitment for action (i.e. moving beyond research only) in the State of the Union speech.

2. We should characterize our interaction with Canada as "discussion" or "consultations," and not as "negotiations." This distinction is important, and is left unclear in the current paper. The term "negotiations" implies a more formal process and raises expectations for a mutually agreed conclusion, but in this case agreement may not be possible. Also, implying that agreement is necessary allows the Canadians to hold out for a much greater reduction in what will be a highly charged U.S. political atmosphere. We should assume that the Canadians might see some benefit in public relations pressure to achieve their objectives, and use of a term like "discussions" leaves us less vulnerable to such pressure.

3. Our discussion group felt that a series of interim steps, such as lake liming grants, should be announced at the same time we announce the commencement of consultations with Canada. Interim steps send a clear signal that the Administration recognizes the seriousness of the problem, and is committed to action. Unless some immediate remedial action is announced, the Canadian talks, may be viewed as simply another delaying tactic. Coupling the two allows us to characterize our approach as entailing both a short-term and long-term attack on the problem.

4. Suggestions that we negotiate a treaty with Canada should be avoided, if only because of the Congressional problems it presents.

5. In our public explanation of this option, we must avoid the implication that we are addressing the acid rain problem solely because of the damage in Canada, even though that is the legal basis for our action. The draft statement attached to the recommendation demonstrates a way of dealing with this.

6. The EPA Administrator's discussions with Canada should be accompanied by parallel discussions with governors of affected states and with Congressional leaders. We will not only need their cooperation at a future point, but will also need to impart a sense of forward movement on the issue as 1984 progresses.

THE WHITE HOUSE

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