

Originally Processed With FOIA(s):
2001-1865-F

FOIA Number:
2001-1865-F

FOIA MARKER

**This is not a textual record. This is used as an
administrative marker by the George Bush Presidential
Library Staff.**

Record Group/Collection: George H.W. Bush Presidential Records
Collection/Office of Origin: Counsels Office, White House
Series: Holmstead, Jeffrey, Files
Subseries: Environmental Subject Files

OA/ID Number: 45125
Folder ID Number: 45125-035

Folder Title:
Clean Air - Toxic

Stack:	Row:	Section:	Shelf:	Position:
G	12	7	7	3

Withdrawal/Redaction Sheet

(George Bush Library)

Document No. and Type	Subject/Title of Document	Date	Restriction	Class.
01. Paper	Early Reductions: Treatment of Higher Risk Toxics (2 pp.)	n.d.	P5	

Collection:

Record Group: Bush Presidential Records
Office: Counsel to the President, Office of
Series: Holmstead, Jeffrey
Subseries: Environmental Subject Files
WHORM Cat.:
File Location: Clean Air - Toxic

Open on Expiration of PRA
 (Document Follows)
 By Cap (NLGB) on 4/24/06

Date Closed: 8/1/2002 FOIA/SYS Case #: 2001-1865-F Re-review Case #: P-2/P-5 Review Case #:	OA/ID Number: 45125-035
MR Case #: MR Disposition: Disposition Date:	Appeal Case #: Appeal Disposition: Disposition Date:

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

P-1 National Security Classified Information [(a)(1) of the PRA]
 P-2 Relating to the appointment to Federal office [(a)(2) of the PRA]
 P-3 Release would violate a Federal statute [(a)(3) of the PRA]
 P-4 Release would disclose trade secrets or confidential commercial or financial information [(a)(4) of the PRA]
 P-5 Release would disclose confidential advice between the President and his advisors, or between such advisors [(a)(5) of the PRA]
 P-6 Release would constitute a clearly unwarranted invasion of personal privacy [(a)(6) of the PRA]

C. Closed in accordance with restrictions contained in donor's deed of gift.

PRM. Removed as a personal record misfile.

Freedom of Information Act - [5 U.S.C. 552(b)]

(b)(1) National security classified information [(b)(1) of the FOIA]
 (b)(2) Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]
 (b)(3) Release would violate a Federal statute [(b)(3) of the FOIA]
 (b)(4) Release would disclose trade secrets or confidential or financial information [(b)(4) of the FOIA]
 (b)(6) Release would constitute a clearly unwarranted invasion of personal privacy [(b)(6) of the FOIA]
 (b)(7) Release would disclose information compiled for law enforcement purposes [(b)(7) of the FOIA]
 (b)(8) Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]
 (b)(9) Release would disclose geological or geophysical information

Early Reductions

Treatment of Higher Risk Toxics

1) One category of Higher Risk Toxics or Two Categories

- EPA prefers a three category approach with **two** categories of higher risk toxics. EPA argues that the risks posed by dioxin, asbestos, and chromium compounds are significantly greater than those posed by the other higher risk toxics identified in the draft proposal. EPA also suggests that if it does not place these three "highest" risk pollutants in a separate category the proposed rule will be challenged by the environmental community, effectively stalling the early reduction program.
- OIRA believes that EPA's two category approach for higher risk toxics will severely limit trading. Small amounts of dioxin will be emitted by a wide variety of chemical processes; chromium will be emitted in trace amounts from a variety of metals smelting, refining, and coal-fired facilities. Under EPA's approach, plants would have to achieve 90 (or 95) percent control for these three toxics--trading (bubbling) to allow a less stringent level of control for emissions of these three toxics would be prohibited. As a result, OIRA believes that a single higher risk category--with unconstrained averaging within this category to meet the 90 (or 95) percent control requirements--will allow the greatest flexibility to promote early reductions.
- OIRA also believes that identifying these three substances as posing significantly higher risks (than the other higher risk substances identified by EPA) is based on a flawed methodology relying on worst case assumptions. (See discussion below.) Given the uncertainties in current risk assessment, it is not at all clear that these three substances pose significantly higher risks.
- Finally, OIRA is concerned that EPA's approach for higher risk toxics will establish an important precedent in implementing other provisions of Title III. EPA's approach of singling out these three substances as posing **highest** risks could serve as a precedent, for example, in expanding coverage of sources as "major" sources under EPA's lesser quantities rule and limiting the availability of offsets under the modifications provision of Section 112(g).

2) Identification of the Higher Risk Toxics

- EPA believes that it has adopted state-of-the-art methods for identifying the higher risk toxics.
- OIRA argues that EPA's approach relies heavily on the mechanistic application of worst case assumptions in identifying these higher risk toxics. Under its approach, EPA combines upper bound estimates of the potency of these toxics with worst-case estimates of exposure (70-year exposure at 500 yards from the source).
 - o EPA's approach appears to be inconsistent with the promise in the Reilly letter to move toward a reliance on average exposure scenarios in place of a focus on risks to the most exposed individual.
 - o OIRA has suggested that EPA base its list of higher risk toxics on an alternative approach, listing 2,3,7,8-dioxin and furans (as listed by the statute), Class A carcinogens, and certain acute toxics like phosgene (as already identified by EPA). This approach is defensible and avoids the mechanistic application of worst-case assumptions underlying EPA's approach.

3) Trading between Risk Categories

- EPA would prohibit any early reduction proposal that would allow less than 90 percent control of a higher risk toxic (in exchange for a greater control of toxics) in a lower risk category. EPA has agreed to ask for comment on approaches that limit these trades, rather than prohibiting them.
- OIRA believes that such trading would promote early reductions by increasing the flexibility to operators in designing an early reduction program. One approach would be to allow trades where the increase in average individual risk is demonstrably small (e.g., less than a risk of 10^{-4}).
 - o Carrying out this calculation requires a new risk assessment methodology (given our concern over EPA's reliance on upper bound potency estimates and worst-case exposure assumptions).

THE WHITE HOUSE
WASHINGTON

November 14, 1989

MEMORANDUM FOR THE FILE

FROM: JEFFREY R. HOLMSTEAD *JRH*
ASSISTANT COUNSEL TO THE PRESIDENT

SUBJECT: Excess Emissions Reduction Trading Program

I have reviewed the above-referenced document, which will be used in on-going discussions regarding the President's proposed amendments to the Clean Air Act. No further action is necessary.

11/14 . .
Cleanair. 1

subject file:

acid rain

WHITE HOUSE CORRESPONDENCE TRACKING WORKSHEET

☐ O - OUTGOING☐ H - INTERNAL☐ I - INCOMINGDate Correspondence
Received (YY/MM/DD) 1/1/13Name of Correspondent: Daniel J. Dudek☐ MI Mail Report

User Codes: (A) _____ (B) _____ (C) _____

Subject: EDF - Copy of letter to Mr. Goffman from
Dan Dudek re: excess emissions reduction
trading program

ROUTE TO:

ACTION

DISPOSITION

Office/Agency	(Staff Name)	Action Code	Tracking Date YY/MM/DD	Type of Response	Code	Completion Date YY/MM/DD
	<u>Cueje</u>	ORIGINATOR	<u>8/11/13</u>			<u>1/1</u>
	<u>Chat 17</u>	Referral Note: <u>R</u>	<u>8/11/13</u>		<u>S</u>	<u>8/11/14</u>
	<u>Chat 02</u>	Referral Note: <u>A</u>	<u>1/1</u>			<u>1/1</u>
	<u>Cu Gray</u>	Referral Note: <u>A</u>	<u>1/1</u>			<u>1/1</u>
		Referral Note: _____	<u>1/1</u>			<u>1/1</u>
		Referral Note: _____				

ACTION CODES:

A - Appropriate Action
C - Comment/Recommendation
D - Draft Response
F - Furnish Fact Sheet
to be used as Enclosure

I - Info Copy Only/No Action Necessary
R - Direct Reply w/Copy
S - For Signature
X - Interim Reply

DISPOSITION CODES:

A - Answered
B - Non-Special Referral
C - Completed
S - Suspended

FOR OUTGOING CORRESPONDENCE:

Type of Response = Initials of Signer
Code = "A"
Completion Date = Date of Outgoing

Comments: _____

Keep this worksheet attached to the original incoming letter.
Send all routing updates to Central Reference (Room 75, OEOB).
Always return completed correspondence record to Central Files.
Refer questions about the correspondence tracking system to Central Reference, ext. 2590.

ENVIRONMENTAL DEFENSE FUND

1616 P Street, NW Suite 150
Washington, DC 20036

Voice: 202 387 3500

Fax: 202 234 6049

MCI Mail: edfdc

EcoNet: edf

TCN/Dialcom: TCN1210

Telex: 650323147

URGENT -- PLEASE DELIVER TODAY

To: John Schmitz

Organization: White House

AT FAX NUMBER: 456-6279

FROM: Daniel J. Dudek

DATE: Monday November 13 1989 11:24 AM

TOTAL NUMBER OF PAGES, INCLUDING COVER SHEET: 4

ENVIRONMENTAL DEFENSE FUND

1616 P Street, NW
Washington, DC 20036
(202) 387-3500

November 13, 1989

Mr. Joseph Goffman
Subcommittee on Environmental Protection
U.S. Senate
Washington, DC

Dear Mr. Goffman:

Will not

The Environmental Defense Fund is extremely concerned that the excess emissions reduction trading program envisioned in both S. 1490 and in the draft Baucus-Mitchell Bill function effectively to deliver its environmental and economic promise. In the original specifications of such a program delivered to the Administration last March, EDF proposed an auction program to lubricate the market and to guard against any anticompetitive manipulation of the system. As utilities and other affected parties have marshalled their arguments against acid rain controls and the cap in particular, they have raised doubts about the functioning of a trading system. While the merits of their claims of future economically irrational behaviors may be disputed, the most direct remedy is to institute an auction system similar to that proposed by EDF.

system, which is

The need for a potential remedy as a backstop against predatory market practices has also occurred to others. In addition to an auction, under consideration in both House deliberations and by the Administration, proposals to issue allowances to greenfield sources upon proof of allowance market failure have also been developed. There are a number of variations on this theme, including a proposal by the National Independent Energy Producers. The goals of each of these proposals would ostensibly seem the same, but their potential performance may be quite different.

National Headquarters
257 Park Avenue South
New York, NY 10010
(212) 505-2100

1405 Arapahoe Avenue
Boulder, CO 80302
(303) 440-4901

5655 College Avenue
Oakland, CA 94618
(415) 658-8008

1108 East Main Street
Richmond, VA 23219
(804) 780-1297

128 East Hargett Street
Raleigh, NC 27601
(919) 821-7793

such as

While some of the ideas presented in the NIEP proposal have merit, citizen suits to guarantee free trade in allowances, there are other aspects of the proposal which are very disturbing. As with many proposals, they are designed to serve a special interest and not to create a program with environmental and economic integrity. EDF believes that the national cap on SO₂ emissions is critical to the successful environmental and economic performance of the allowance trading system. The proposal by NIEP would threaten the integrity of the system by creating a special class of "super-clean" plants exempt from the provisions of the proposed program including the greenfield offset. While NIEP claims a cap on SO₂

Recipient
November 13, 1989
Page 2

emissions should remain, ^{it} they nonetheless propose ^s to breach it through this proposal. Allowing this loophole would imply selective application of the cap.

CS
173
The NIEP proposal relies heavily upon an administrative determination of a "reasonable price ceiling." Following in the tradition of most utilities, ^{NIEP} they opt for the comfort of regulation rather than a market, yet their argument is based upon the need to foster competition in power markets. Administrative prices are poor surrogates for the price signals produced from a market. Can a price set every one or two years react to current conditions as swiftly as a continuously functioning market? The whole point to the flexibility of the emissions trading program is to alter forever decision making surrounding pollution production and to integrate such decisions with power production decisions. Further, the administrative price benchmark selected by NIEP, "a national average marginal cost of SO₂ control" would require enormous effort to calculate. This process would require the mass of paperwork that the trading system is designed to avoid. NIEP would also add to the administrative burden upon government by instituting a program to certify "good faith" efforts to purchase allowances "at or below the reasonable price ceiling." Anyone offering to purchase at \$1.00 per ton would clearly meet this test. No wonder the percentage of allowances to tap is left blank. Clearly, NIEP's proposed system would not produce a practical, politically and economically viable system for SO₂ control.

If the committee is to consider any system to supplement the emissions trading program, it should focus on two main options. The first is an annual auction of allowances held back by the EPA. The auction can take two alternative forms, the first would be open to any potential participant and would require a larger tap of allowances, e.g. 5%. The second design for an auction would use a smaller tap, e.g. 2%, but the auction would be reserved for those building greenfields. EDF prefers the former approach due to the difficulty of designing an efficient exclusion mechanism. In either case, auction revenues could be distributed back to allowance holders. The other approach discussed by EPA and CEA would provide allowances to greenfields at a fixed price, e.g. \$1,500-\$2,000/ton. The allowances sold would then be taken from existing allowance holder's next year's allocations. EDF has two main concerns with this approach. First, its integrity relies exclusively upon establishing and maintaining the \$1,500-\$2,000/ton

Recipient
November 13, 1989
Page 3

price. We are concerned that this number, so crucial to the effective operation of the system, would be altered by those without concern for the integrity of the emissions market. Second, the after-the-fact "squeeze" of allowance holders required under this approach would disrupt the longrun investment plans for emission control that the emissions trading program seeks to establish. It is for these reasons that EDF prefers the 5% auction. However, EDF finds either of these approaches more environmentally and economically acceptable than the NIEP approach.

Sincerely,

Daniel J. Dudek
Senior Economist

THE WHITE HOUSE

WASHINGTON

November 10, 1989

MEMORANDUM FOR THE FILE

FROM: JEFFREY R. HOLMSTEAD *JRH*
ASSISTANT COUNSEL TO THE PRESIDENT

SUBJECT: Material from the EDF - Draft Proposal
to Reduce Acid Rain

I have reviewed the above-referenced document, which will be used in on-going discussions regarding the President's proposed amendments to the Clean Air Act. No further action is necessary.

Cleghair. 1

11/10

2
Clean Air -
Acid Rain

Pls make copy for
subject file
(acid rain)

WHITE HOUSE CORRESPONDENCE TRACKING WORKSHEET

☐ O - OUTGOING☐ H - INTERNAL☐ I - INCOMINGDate Correspondence
Received (YY/MM/DD) 1 / 1 / 1Name of Correspondent: Dan Dudik☐ MI Mail Report

User Codes: (A) _____ (B) _____ (C) _____

Subject: material from the EDF - draft proposal to
reduce acid rain

ROUTE TO:

ACTION

DISPOSITION

Office/Agency	(Staff Name)	Action Code	Tracking Date YY/MM/DD	Type of Response	Code	Completion Date YY/MM/DD
	<u>Chase</u>	ORIGINATOR	<u>8/11/09</u>			<u>1</u> / <u>1</u> / <u>1</u>
	<u>Curt 17</u>	Referral Note: <u>A</u>	<u>8/11/09</u>		<u>5</u>	<u>8</u> / <u>1</u> / <u>1</u>
	<u>Curt 02</u>	Referral Note: <u>A</u>	<u>1</u> / <u>1</u> / <u>1</u>			<u>1</u> / <u>1</u> / <u>1</u>
	<u>W Gray</u>	Referral Note: <u>A</u>	<u>1</u> / <u>1</u> / <u>1</u>			<u>1</u> / <u>1</u> / <u>1</u>
		Referral Note: _____	<u>1</u> / <u>1</u> / <u>1</u>			<u>1</u> / <u>1</u> / <u>1</u>
		Referral Note: _____				

ACTION CODES:

A - Appropriate Action
C - Comment/Recommendation
D - Draft Response
F - Furnish Fact Sheet
to be used as Enclosure

I - Info Copy Only/No Action Necessary
R - Direct Reply w/Copy
S - For Signature
X - Interim Reply

DISPOSITION CODES:

A - Answered
B - Non-Special Referral
C - Completed
S - Suspended

FOR OUTGOING CORRESPONDENCE:

Type of Response = Initials of Signer
Code = "A"
Completion Date = Date of Outgoing

Comments: _____

Keep this worksheet attached to the original incoming letter.
Send all routing updates to Central Reference (Room 75, OEOB).
Always return completed correspondence record to Central Files.
Refer questions about the correspondence tracking system to Central Reference, ext. 2590.

ENVIRONMENTAL DEFENSE FUND

1616 P Street, NW
Washington, DC 20036
(202) 387-3500

Facsimile Telephone Number:
(202) 234-6049

URGENT PLEASE DELIVER TODAY

FACSIMILE COVER SHEET

TO: JOHN SCHMITZ
AT FAX/PHONE #: (202) 456-6279
FROM: DAN DUDEK
DATE: 9 NOV 89 TIME: 9:30 AM
TOTAL NUMBER OF PAGES, INCLUDING THIS COVER SHEET: 7

JOHN:

I hope this is
useful. My apologies
for a rude interruption
yesterday.

Dan

ENVIRONMENTAL DEFENSE FUND

257 Park Avenue South
New York, NY 10010
(212) 505-2100

November 9, 1989

Mr. Robert Grady
Office of Management and Budget
Washington, D.C.

Dear Bob:

Once again the debate over the President's proposal to reduce acid rain is at a critical juncture. The Senate Subcommittee is poised to begin mark-up of a bill which shares broad similarities to the President's program. However, it differs in at least one critical regard. The first phase of this draft proposal has targeted 20 plants for reductions. The Environmental Defense Fund has already testified before the Subcommittee concerning our preference for a larger number of affected sources in the first phase.

Our reasons for preferring the larger number of first phase plants stems from our concern with maintaining the environmental and economic integrity of trading and the cap. As we know, the search for cost sharing has dominated much of the political debate. Targeting 20 plants will concentrate costs and increase the demand for cost sharing.

1616 P Street, NW
Washington, DC 20036
(202) 387-3500

1405 Arapahoe Avenue
Boulder, CO 80302
(303) 440-4901

5655 College Avenue
Oakland, CA 94618
(415) 658-8008

1108 East Main Street
Richmond, VA 23219
(804) 780-1297

128 East Hargett Street
Raleigh, NC 27601
(919) 821-7793

ADVANTAGES OF TRADING OVER TARGETING

- Lower Costs
- Better Cost Sharing
- Forward Looking
Environmental and
Energy Policy

There are three main advantages of trading over targeting. First, overall costs are lower. Second, a robust market in excess emissions reductions provides a strong degree of cost sharing. Lastly, the systematic approach encompassed by trading under a cap will automatically coordinate environmental and energy objectives producing significant greenhouse benefits.

LOWER COSTS

- Targeting May Require Early Scrubbing
- Required Scrubbing Increases Costs by up to \$0.5 Billion/year
- Targeting Reduces Banking Opportunities and Increases Costs
- Small Number of Targeted Units Reduces Trading and Increases Costs

A targeted 20 plant system is much more likely to produce only one emission control outcome -- scrubbing. It is also much easier to legislatively mandate scrubbing with an initial phase set for 20 plants. This approach could add as much as \$0.5 billion per year according to EPA figures. Even if trading is allowed in the first phase, the market is thinner under the 20 plant approach. A thin market requires more government oversight and administration raising the cost of implementation while reducing the effectiveness of the program. Environmentally, aren't we better off bringing over 5 times the number of plants into the system?

One of the keys to maintaining the cap over time is a healthy supply of excess emission reductions. One major source of supply virtually eliminated by the 20 plant approach is first phase banking. Environmentally, these early reductions would be lost. Further, the absence of these supplies would jeopardize the cap and the Nation's investment in acid rain control.

BETTER COST SHARING

- Costs Increase
Significantly in ALL
Regions of the Country
with Targeting
- Cost Increases Will Have
to be Fairly Divided
- Trading with an
Emissions Cap is the
Best Form of Cost
Sharing
- Flexibility of Trading
Substantially Reduces the
Costs to be Shared

Ironically, the 20 plant proposal desired by Midwestern interests is likely to worsen the burden of costs by shifting them to a few units and states. Beyond the obvious concentration of costs, reduced trading and the increased likelihood of scrubbing will further escalate costs. The outcome is greater costs, greater demand for cost sharing, and a greater need to distribute those costs in a "fair" cost sharing. In our view, the most direct remedy is to reduce the costs needing sharing in the first place. As ICF's analysis has shown, any restriction of trading can significantly increase costs particularly to the Midwestern region. By 1995, costs under limited trading are 58% greater.

FORWARD LOOKING ENVIRONMENTAL AND ENERGY POLICY

- Opportunity for Early Reductions Through Banking
- Robust Trading and the Cap Promote Energy Efficiency, Energy Conservation, and Emissions Reductions Innovations
- The Flexibility of Trading coupled with a Cap Could Result in a 10% Cut in Utility CO2 Emissions

The most underrated virtue of the Administration's program is its systematic coordination of the Nation's environmental and energy objectives. By harnessing the power of the market, the economy can grow, energy production can expand, and emissions reduced. Banking will encourage early reductions producing accelerated environmental benefits not available under a limited target program. A thick, robust market will put American ingenuity to work in developing new solutions rather than freezing utilities into current technologies and foreclosing future options. Innovation is a key ingredient in the American success story and we should encourage it more than ever now.

Global warming arches over all of these concerns. However, little in the way of constructive solutions has been proposed. The acid rain program embraced by the Administration would transform energy conservation and efficiency from a platitude into a potent emissions reduction tool. The EPA's base case analysis uses a high and low emissions path. Some of the main differences between these alternative futures are lower energy growth and different relative prices for oil and natural gas. The differences between these paths are striking in emissions terms. By the year 2000, the high emissions track is 2.3 million tons of SO₂ greater than the low track. The differences in CO₂ emissions are equally striking. If energy efficiency becomes an emissions control tool of choice, we will be on that low track with a saving of about 10% of utility CO₂ emissions.

The advantages of a robust market in emissions reductions coupled with an emissions cap are striking. It would be tragic if in the search for cost sharing we disabled the best engine for that purpose and simultaneously lost an opportunity to take action on a pressing global environmental issue.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Dan Dudek', with a long horizontal line extending to the left.

Daniel J. Dudek
Senior Economist

THE WHITE HOUSE
WASHINGTON

November 9, 1989

MEMORANDUM FOR THE FILE

FROM: JEFFREY R. HOLMSTEAD *JRH*
ASSISTANT COUNSEL TO THE PRESIDENT

SUBJECT: Material from the Environmental Defense
Fund - Re: Acid Rain

I have reviewed the above-referenced document, which will be used in on-going discussions regarding the President's proposed amendments to the Clean Air Act. No further action is necessary.

~~Clean air. 1~~

11/9

Clean Air -
Acid Rain

please note subject

File copy

WHITE HOUSE CORRESPONDENCE TRACKING WORKSHEET

☐ O - OUTGOING☐ H - INTERNAL☐ I - INCOMINGDate Correspondence
Received (YY/MM/DD) 1 / 1Name of Correspondent: Richard L. Schmitz☐ MI Mail Report

User Codes: (A) _____ (B) _____ (C) _____

Subject: Material from the Environmental Defense
Fund re: Acid Rain

ROUTE TO:

ACTION

DISPOSITION

Office/Agency	(Staff Name)	Action Code	Tracking Date YY/MM/DD	Type of Response	Code	Completion Date YY/MM/DD
<u>Quat</u>		ORIGINATOR	<u>8/1/05</u>			<u>1 / 1</u>
		Referral Note:				
<u>Quat 17</u>		<u>A</u>	<u>8/1/05</u>		<u>5</u>	<u>8/1/10</u>
		Referral Note:				
<u>Quat 02</u>		<u>A</u>	<u>1 / 1</u>			<u>1 / 1</u>
		Referral Note:				
<u>Quat 17</u>		<u>E</u>	<u>1 / 1</u>			<u>1 / 1</u>
		Referral Note:				
			<u>1 / 1</u>			<u>1 / 1</u>
		Referral Note:				

ACTION CODES:

A - Appropriate Action
C - Comment/Recommendation
D - Draft Response
F - Furnish Fact Sheet
to be used as Enclosure

I - Info Copy Only/No Action Necessary
R - Direct Reply w/Copy
S - For Signature
X - Interim Reply

DISPOSITION CODES:

A - Answered
B - Non-Special Referral
C - Completed
S - Suspended

FOR OUTGOING CORRESPONDENCE:

Type of Response = Initials of Signer
Code = "A"
Completion Date = Date of Outgoing

Comments: _____

Keep this worksheet attached to the original incoming letter.
Send all routing updates to Central Reference (Room 75, OEOB).
Always return completed correspondence record to Central Files.
Refer questions about the correspondence tracking system to Central Reference, ext. 2590.



COUNCIL OF ECONOMIC ADVISERS
EXECUTIVE OFFICE OF THE PRESIDENT
WASHINGTON

Bayden Gray

MEMBER OF THE COUNCIL

November 7, 1989

MEMORANDUM FOR INTERESTED PARTIES

FROM: RICHARD L. SCHMALENSEE

A handwritten signature in dark ink, appearing to be 'RS' or 'Schmalensee', written over the printed name.

I thought you might find the attached interesting and, possibly, useful.

ENVIRONMENTAL DEFENSE FUND

257 Park Avenue South
New York, NY 10010
(212) 505-~~300~~ #1: (212) 505-2375

U R G E N T

PLEASE DELIVER TODAY

TO: Richard Schmalensee
FAX NUMBER: (202) 395-6947
COMPANY: CEA
FROM: DJ DUDEK
DATE: 7 NOV 89
TIME: 4:25 PM
CHARGE TO: 477
TOTAL NUMBER OF
PAGES INCLUDING
THIS SHEET: 8
NOTES: I chatted with Bob
Hahn today about Acid
Rain issues and he thought
the attached memos might
be of interest.

(Signature)

PLEASE CONTACT THE SENDER AT THE PHONE NUMBER
LISTED ABOVE WITH ANY QUESTIONS REGARDING
THIS TRANSMISSION

1616 P Street, NW
Washington, DC 20036
(202) 387-3500

1405 Arapahoe Avenue
Boulder, CO 80302
(303) 440-4901

5655 College Avenue
Oakland, CA 94618
(415) 658-8008

1108 East Main Street
Richmond, VA 23219
(804) 780-1297

128 East Hargett Street
Raleigh, NC 27601
(919) 821-7793

ENVIRONMENTAL DEFENSE FUND

257 Park Avenue South
New York, NY 10010
(212) 505-2100

October 24, 1989

Hon. Max Baucus
Chairman, Subcommittee on Environmental Protection
Senate Committee on Environment and Public Works
U.S. Senate
Washington, D.C. 20510

Dear Senator Baucus:

Once again, I would like to thank you for permitting EDF to testify at the Subcommittee's acid rain hearings on October 4th. Due to the press of time, I was unable to address several issues that might be important to the Subcommittee's deliberations. Accordingly, I would like to add some points to my testimony and request that this letter be added to the hearing record.

Several of the questions you asked me reflected the skepticism that many have already expressed about the allowance trading system. That skepticism can be allayed by a consideration of three aspects of allowance-trading: 1) the mechanics, 2) the cost-saving and cost-sharing benefits available from active allowance trading relationships and 3) the ease with which the current legislation can be altered in order to assure that there will be plentiful allowance exchanges and that offsets for new sources will be available and affordable.

* The Mechanics of an Allowance Trade

At the hearing you asked me to describe the actions a utility executive would take when faced with both emissions reduction requirements and the opportunity to engage in allowance trading. After reviewing the technological options available at each location, the executive in our example would quickly determine the cost of each ton of sulfur dioxide his or her company would have to remove from its smokestacks in order to comply with the company's reduction requirements. Let's say that the cost is \$1000 per ton. Before committing to undertake on-site emissions reductions at that price, though, the executive would make an educated guess about what other utilities would have to pay to meet their reduction requirements.

Let's say that our utility is part of a multi-utility power pool that has been "trading" power. That would certainly allow our utility to know a lot about other utilities' practices and costs. Perhaps our utility executive estimates that another utility in the power pool can reduce its sulfur dioxide at \$500 a ton and that, at

1616 P Street, NW
Washington, DC 20036
(202) 387-3500

1405 Arapahoe Avenue
Boulder, CO 80302
(303) 440-4901

5655 College Avenue
Oakland, CA 94618
(415) 658-8005

1108 East Main Street
Richmond, VA 23219
(804) 780-1297

128 East Hargett Street
Raleigh, NC 27601
(919) 821-7793

that price, the other utility could remove even more tons than it was obliged to. At this point our utility executive would probably try to take advantage of emissions trading. He would go to the other utility and offer to negotiate a contract to purchase some of the emissions reductions that the other utility could achieve at the lower cost of \$500 per ton. Once the two utilities began negotiations with each other they could determine the best way that they together could achieve the maximum amount of emissions reduced. For example, our utility could offer to help pay for the other utility's investments in low-sulfur fuel or energy conservation or scrubbing technology. With the proper investments the other utility would be able to achieve more reductions than required and would then transfer the extra reductions to our utility. Thanks to this form of emissions trading both utilities together would be able to achieve the necessary total of emissions reductions at the lowest cost.

This example illustrates several key aspects of emissions trading. First, the market for emissions reduction credits or allowances would not be left to speculation. Instead, the utilities themselves could participate in the market with a high level of certainty by entering into comprehensive contracts with each other. After all, the "power pooling" arrangements that groups of independent utility systems have created already is nothing more than a form of trading. Emissions reductions or allowances could be treated in the same way. In fact, emissions reductions would have to be traded in the same fashion. What utility would sell power across state lines without receiving compensation, in the form of money or allowances, for the SO₂ and NO_x produced? Long-term emissions or allowance trading contracts between companies, made early in the program, lend themselves to the long-term planning and contracting processes ((e.g), fuel contracts, power sales) that utilities already engage in.

Second, the example discussed above demonstrates that allowance trading allows both parties to the contract to reduce their costs in complying with their reduction obligations. Our utility could achieve some of its reductions by purchasing extra emissions reductions or allowances from the other utility at a lower price than our utility would have to pay if it tried to reduce all the required emissions on-site itself. At the same time, the other utility would benefit from an offset of its total costs in the form of the payments it received from our utility.

Third, since these kinds of contracts mean that utilities can realize real cash value and/or cost-savings from producing extra reductions, allowance trading creates incentives that do not otherwise exist for finding innovative ways to cut pollution. "Producing clean air" becomes profitable, and, as a result, investment will be made to do it.

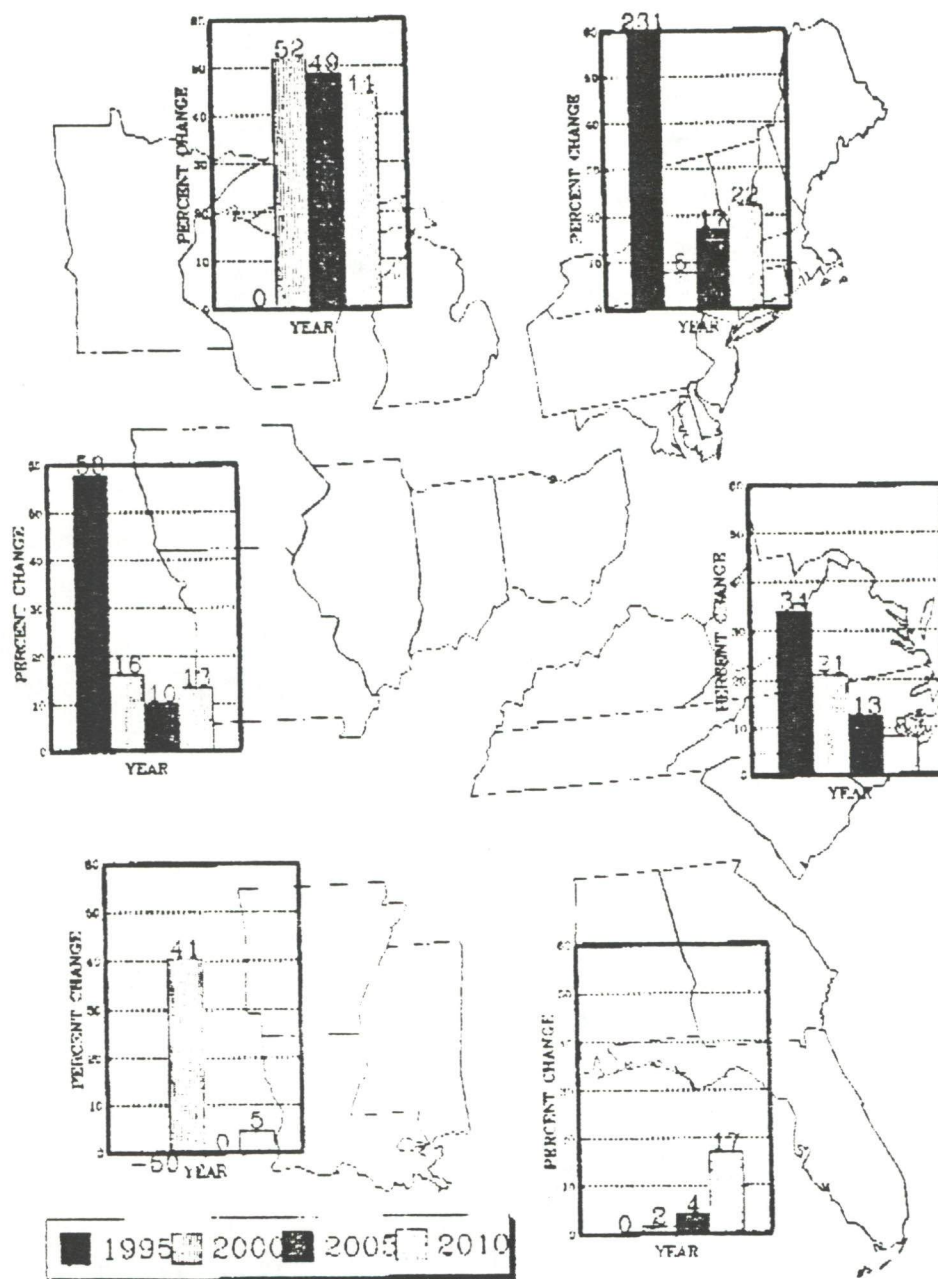
Finally, once contracts for exchanging allowances are entered into, cost-savings are demonstrated and investments in extra emissions reductions are stimulated, a more fluid market will come into being. Utilities will see concrete demonstration of the actual value of creating extra allowances through achieving extra emissions reductions and making these allowances available for lease and sale. As a result, new sources seeking to obtain allowances to offset their emissions will find allowances available in the market.

* Cost-Savings and Innovation

A system that permits individual utilities to enter into contracts that allow one to obtain emissions reductions at a lower price than it would have to pay for reducing its own emissions and another to offset some of its total reduction costs will simply cost less in the aggregate. That is, through allowance trading, the entire national acid rain reduction program will carry a lower price tag than if no such trading occurs or is permitted.

As I stated at last week's hearing, I have developed an analysis comparing the costs, on a region by region basis, of Title V of the President's bill if utilities comply without engaging in robust allowances trading, with the costs of the same program with utilities engaging in active allowances trading. The results are summarized in the bar graphs below. As those graphs depict, costs are generally and substantially increased if trading is restricted. For example, the Midwestern states would experience cost increases of 58% in 1995, 16% in 2000, 10% in 2005, and 13% in 2010. Robust interstate trading would produce exactly these cost reductions for these states. This is much more potent cost sharing than these states are likely to pry from the rest of the Nation.

Cost Changes If Trading is Restricted



When EDF was developing the initial acid rain emissions proposal it submitted to the Bush Administration, we did a similar analysis, comparing our program with one that mandated scrubbing for the 20 largest emitting plants. In addition to quantifying the significant cost-savings available under a trading program (at least \$5 billion difference in present value costs), we identified some of the variables that led to such cost-savings.

For example, the development of new technologies spurred by the incentives created through emissions trading would be much greater under a trading program. One such technology, sorbent injection, could bring many of the benefits associated with so-called clean coal technologies, but at much lower costs (a conservative 10% reduction).

Cost-saving and technologic innovation are the likely results of a successful acid rain allowance trading system. The desire on the part of utilities and public utility commissions to realize these benefits for themselves and ratepayers will ensure that an allowance-trading program will in fact work in practice.

Consider, again, the simple contract example discussed above. Since both utilities in the negotiated trade will be able to realize real financial benefits from contracting with each other to transfer allowances or excess emissions reductions in exchange for payment, the utilities themselves will have powerful incentives to ensure that robust emissions or allowance trading does in fact occur. At the same time, contrary to testimony that public service commissions will encourage "hoarding" of allowances, PSC's will in fact be hard put to disallow such contracts for transferring allowances simply because such transfers bring such obvious benefits to utilities and ratepayers.

Finally, our analysis, as well as the EPA's, reveals another likely effect of interstate emissions trading: interregional cost-sharing. In fact, interstate sales and purchases of allowances can help Mid-Western utilities offset some of their reduction costs without resort to a federal subsidy program. Those utilities, such as those located in the Mid-West, with the greatest reduction requirements are in a position to achieve the greatest reductions, including reductions greater than required, at a relatively low per-ton cost. As a result, utilities in other areas facing higher per-ton costs for achieving required reductions would find it economical to pay Mid-Western utilities to produce extra emissions reductions -- again, at a lower per-ton price -- rather than have to pay for their own reductions. Investments in more-than-required emissions reductions and sales of those extra reductions by utilities in the Mid-West would bring funds into that region. Accordingly, the EPA's analysis of Title V of the President's Clean Air bill shows virtually all Mid-Western states as producing and selling excess emissions allowances. Reallocating allowances away from the Mid-West will reduce the effective cost share inherent in this program and increase the possibility of a federal subsidy with attendant weakening of environmental incentives.

Key to the success of this cost-sharing is an active emissions trading market. The widest possible market is ensured by requiring virtually all sources to participate, not by restricting the market to a few, large, politically vulnerable sources.

* Ensuring Robust Allowance Trading

As you can see, acid rain legislation that not only allows, but promotes, allowance trading can bring about two crucial benefits: lower costs and greater innovation. We urge the Committee, then, not to yield to skeptics and abandon the marketable allowance system, but rather to ensure that such a system works, precisely in order to ensure these benefits.

Two changes to the bill you are considering introducing will help promote a robust allowance trading market. First, the number of sources required to make reductions in Phase I should be expanded to include at least the number specified in Title V of the Administration's bill. With more sources required to reduce in Phase I, the opportunities for individual sources to enter into agreements to generate and transfer additional allowances -- the essence of market trading -- will be greatly increased. In fact, permitting numerous sources to trade on a fully interstate basis will maximize such opportunities.

With these changes even more emissions reductions would occur in Phase I. These added reductions would be produced in response to the opportunity to bank these extra reductions for future use. Banking opportunities not only get emissions out of the air sooner, a distinct environmental plus, they also provide a source of offset credits to supply greenfield source needs under the cap.

Once actual allowance transactions occur and the financial value of a marketable allowance is established incentives to "hoard" allowances, if any such incentives exist, will be negated.

Similarly, if the Committee does conclude that "hoarding" may prevent the robust transfer of allowances or frustrate those new sources required to seek offsets, then the program should include a way of creating a public reserve of allowances that could be made available in an open market not controlled by existing utilities (i.e., existing allowance holders). We suggest a provision that would require the EPA to retain 5% of the allowances each affected source is entitled to under the reduction requirements of the bill. The EPA would then be required to auction those allowances to any source that wanted to participate. This would not only guarantee a supply of allowances even in the event that existing sources engaged in hoarding, but it would also "kick-start" the market in such allowances.

In the alternative, some of these allowances could be reserved for utilities and independent power producers seeking offsets for the operation of new plants. The result is that new source offsets can be produced and the cap maintained without recourse to emissions trading at all. The final element would be a mandate that the EPA distribute, on a pro rata basis, the proceeds of the auction to the sources who were originally entitled to the allowances.

One other option is to enable EPA to create and sell allowances at a fixed price, e.g. \$1500 per ton, to new sources unable to secure offsets through trading. At the end of the year, the Administrator would total these transactions and subtract these emissions on a pro rata basis from existing sources receiving allowances. In each case, the cap is maintained and the market administratively lubricated. Of course, the market really will be robust, but current political arguments mounted by industry necessitate this type of guarantee.

* "Capping" Total Sulfur Dioxide Emissions By Requiring Offsets for New Plants

As Chairman of both the Subcommittee and the Senate's Global Warming Task Force, you are acutely aware of the importance of capping total utility sulfur dioxide emissions once the required reductions have been achieved. Obviously, this is necessary to ensure that the acid rain program actually succeeds in bringing an end to a devastating environmental blight.

At the same, time by requiring new sulfur dioxide emissions sources to seek offsets from existing sources, the cap will promote energy efficiency and the attendant benefits of reducing all the pollutants associated with fossil fuel burning, particularly carbon dioxide. Thanks to the offset requirement, utilities and other power producers and energy service providers will look to investments in energy efficiency before seeking to build new power plants.

Interstate emissions trading clearly can play a crucial role in the cap's efficacy in promoting energy efficiency. First, emissions trading provides the ultimate assurance that a cap will not impair economic growth. Regions experiencing high growth in energy demand will be able, through the allowance market, to tap reductions from other regions. Second, since trading implies that sources have maximum flexibility in selecting the means for emissions control, energy efficiency, as opposed to costly control technologies, will be able to emerge fully as the method of choice for emissions reduction. Finally, emissions trading will ensure that the cap, which is strictly necessary for accomplishing the environmental protection goals of the program will not create excessive costs.

Sincerely,

Daniel J. Dudek
Senior Economist

THE WHITE HOUSE
WASHINGTON

November 7, 1989

MEMORANDUM FOR THE FILE

FROM: JEFFREY R. HOLMSTEAD *JRH*
ASSISTANT COUNSEL TO THE PRESIDENT

SUBJECT: Two Draft Points for the Hill - Re: Acid Rain

I have reviewed the above-referenced document, which will be used in on-going discussions regarding the President's proposed amendments to the Clean Air Act. No further action is necessary.

CLEAN AIR. 1

Nov. 7.



pls make copy

for

subject file.

C.A. - Acid Rain

WHITE HOUSE CORRESPONDENCE TRACKING WORKSHEET

☐ O - OUTGOING☐ H - INTERNAL☐ I - INCOMINGDate Correspondence
Received (YY/MM/DD) 1 / 1 / 1Name of Correspondent: Don Klerman☐ MI Mail Report

User Codes: (A) _____ (B) _____ (C) _____

Subject: Two draft prints for the Hill - not good
main

ROUTE TO:

ACTION

DISPOSITION

Office/Agency	(Staff Name)	Action Code	Tracking Date YY/MM/DD	Type of Response	Code	Completion Date YY/MM/DD
	<u>Quirk</u>	ORIGINATOR	<u>8/11/07</u>			<u>1</u> / <u>1</u> / <u>1</u>
	<u>Quirk 17</u>	Referral Note:	<u>8/11/07</u>		<u>S</u>	<u>8/11/07</u>
	<u>Quirk 52</u>	Referral Note:	<u>I</u>	<u>1</u> / <u>1</u> / <u>1</u>		<u>1</u> / <u>1</u> / <u>1</u>
	<u>Quirk 62</u>	Referral Note:	<u>I</u>	<u>1</u> / <u>1</u> / <u>1</u>		<u>1</u> / <u>1</u> / <u>1</u>
		Referral Note:	<u>1</u> / <u>1</u> / <u>1</u>			<u>1</u> / <u>1</u> / <u>1</u>
		Referral Note:				

ACTION CODES:

A - Appropriate Action
C - Comment/Recommendation
D - Draft Response
F - Furnish Fact Sheet
to be used as Enclosure

I - Info Copy Only/No Action Necessary
R - Direct Reply w/Copy
S - For Signature
X - Interim Reply

DISPOSITION CODES:

A - Answered
B - Non-Special Referral
C - Completed
S - Suspended

FOR OUTGOING CORRESPONDENCE:

Type of Response = Initials of Signer
Code = "A"
Completion Date = Date of Outgoing

Comments: _____

Keep this worksheet attached to the original incoming letter.
Send all routing updates to Central Reference (Room 75, OEOB).
Always return completed correspondence record to Central Files.
Refer questions about the correspondence tracking system to Central Reference, ext. 2590.



Assistant Administrator
for Air and Radiation
Washington, D.C. 20460

Attached are 2 draft

plans for the Hill or Trading
vs. cost sharing.

Let me know what you think

Tom K

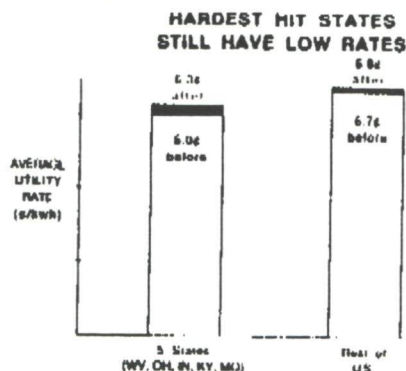


UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

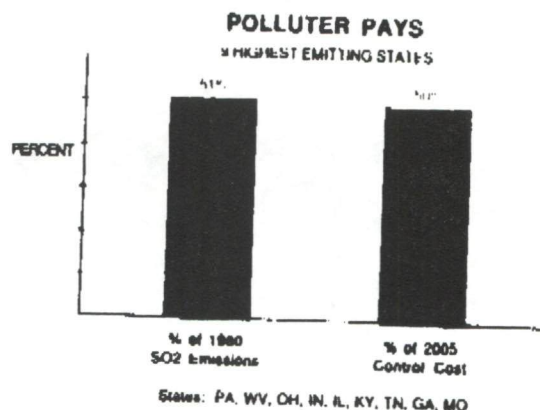
POINT #1:
ADMINISTRATION ACID RAIN BILL IS FAIR

OFFICE OF
AIR AND RADIATION

- States making the greatest excess reductions receive at least \$500 Million annually in support from other states.
- For the states with the highest rate increases, rates will still be lower than rest of United States.



- For the states with the greatest SO₂ emissions, costs are proportional to emissions.



POINT #2:
ADMINISTRATION ACID RAIN BILL IS COST EFFECTIVE

- Trading and banking save at least \$1 Billion per year in utility rates.
- 48 states have Phase I rate increases under 0.5% (Ohio at 0.8% and Illinois at 1.1%)

How the Administration bill shares the cost of acid rain control

- Freedom of choice approach keeps costs down in both Phases
- The simplicity and accountability of the allowance trading and banking system means that the total cost of compliance will be at least \$1 billion less than without such a system
 - sources can bank excess reductions from Phase 1 or 2, sell them, or use them to offset emissions from new sources
- National cap with allowance trading provides burden sharing
 - by 2010, we expect 500 to 600 thousand allowances and over \$400 to 500 million per year to be transferring between states
 - Midwestern states can reduce their region's control costs by \$200 million per year by 2010 by generating and selling 200 to 300 thousand allowances per year to other states
 - the rest of the country can reduce its control cost by at least \$700 million by 2010 by buying allowances from any State including the 200 to 300 thousand allowances available from Midwestern states
- Phase 1 costs, where much of the attention on cost-sharing is focused, are spread over 20 states with substitutions and trading allowed
 - rate impacts are small: only two states in Phase 1 have average rate increases over 0.5%--Ohio (0.8%) and Illinois (1.1%)

THE WHITE HOUSE
WASHINGTON

November 9, 1989

MEMORANDUM FOR THE FILE

FROM: JEFFREY R. HOLMSTEAD *JRH*
ASSISTANT COUNSEL TO THE PRESIDENT

SUBJECT: Proposed Acid Rain Amendments

I have reviewed the above-referenced document, which will be used in on-going discussions regarding the President's proposed amendments to the Clean Air Act. No further action is necessary.

Cleanair. 1

②

~~11/9~~

~~Subject File:~~

Clean air -
acid rain

WHITE HOUSE CORRESPONDENCE TRACKING WORKSHEET

☒ O - OUTGOING☐ H - INTERNAL☐ I - INCOMINGDate Correspondence
Received (YY/MM/DD) _____Name of Correspondent: Tom Korman☐ MI Mail Report

User Codes: (A) _____ (B) _____ (C) _____

Subject: Proposed Acid Rain Amendments

ROUTE TO:

ACTION

DISPOSITION

Office/Agency	(Staff Name)	Action Code	Tracking Date YY/MM/DD	Type of Response	Code	Completion Date YY/MM/DD
	<u>Chafe</u>	ORIGINATOR	<u>8/1/01 A</u>			<u>1 1</u>
	<u>Chat 17</u>	Referral Note: <u>A</u>	<u>8/1/01 B</u>		<u>S</u>	<u>8/1/01 Z8</u>
	<u>Chat 02</u>	Referral Note: <u>I</u>	<u>1 1</u>			<u>1 1</u>
	<u>Ch Gray</u>	Referral Note: <u>I</u>	<u>1 1</u>			<u>1 1</u>
		Referral Note:	<u>1 1</u>			<u>1 1</u>
		Referral Note:				

ACTION CODES:

A - Appropriate Action
C - Comment/Recommendation
D - Draft Response
F - Furnish Fact Sheet
to be used as Enclosure

I - Info Copy Only/No Action Necessary
R - Direct Reply w/Copy
S - For Signature
X - Interim Reply

DISPOSITION CODES:

A - Answered C - Completed
B - Non-Special Referral S - Suspended

FOR OUTGOING CORRESPONDENCE:

Type of Response = Initials of Signer
Code = "A"
Completion Date = Date of Outgoing

Comments: _____

Keep this worksheet attached to the original incoming letter.
Send all routing updates to Central Reference (Room 75, OEOB).
Always return completed correspondence record to Central Files.
Refer questions about the correspondence tracking system to Central Reference, ext. 2590.

Proposed Acid Rain Amendments

H.R. 3030

Proposed
Amendments

oil & gas below 1.2	'85 rate w/unlimited utilization	(.4)	'85-'87 rate w/unlimited utilization	(.55)
coal below 1.2	'85 rate w/unlimited utilization	(2.7)	'85-'87 rate w/unlimited utilization	(2.7)
units less than 75MW	'85 rate w/unlimited utilization	(.5)	2.0 lb. rate times 65% utilization	(.25)
units on line 86-90	must meet NSPS/PSD limits	(.2)	must meet NSPS/PSD limits	(.2)
unit over 1.2	1.2 lbs. times '85-'87 utilization	(5.1)	1.1 lbs times '85-'87 or '80-'82 utilization	(5.0)*
TOTAL		(8.9)		(8.7)

* Allowing use of '80 -'82 utilization increases allowances by .35 mm but using 1.1 rate decreases allowances by .45

Allowances for
greenfield plants

Administrator sells
at \$1500/ton

KPA attempts to buy
back in market

KPA taps allowance
holders if buy back fails

Note: Numbers in parentheses are the level of allowances for each category of plants not the level of reduction.

ID #

CAA - Acad Rail
CUWHITE HOUSE
CORRESPONDENCE TRACKING WORKSHEETrec'd
5:30pm

- ☐ O - OUTGOING
☐ H - INTERNAL
☐ I - INCOMING
 Date Correspondence Received (YY/MM/DD) 1/1

Name of Correspondent:

Tom Kiernan☐ MI Mail Report

User Codes: (A) _____ (B) _____ (C) _____

Subject:

① Accept class of '85 amendment as proposed by the Administration; ② Adoption of compromise proposal regarding distribution of allowances; ③ Retain the NO provisions as under S. 1030; and ④ Clean Coal Technology

ROUTE TO:

ACTION

DISPOSITION

Office/Agency	(Staff Name)	Action Code	Tracking Date YY/MM/DD	Type of Response	Code	Completion Date YY/MM/DD
	<u>Cube</u>	ORIGINATOR	<u>9002.27</u>			<u>1/1</u>
	<u>Cuat 18</u>	Referral Note: <u>A</u>	<u>9002.27</u>			<u>R 90103102</u>
	<u>Cuat 17</u>	Referral Note: <u>I</u>	<u>1/1</u>			<u>1/1</u>
	<u>Cuat 02</u>	Referral Note: <u>I</u>	<u>1/1</u>			<u>1/1</u>
	<u>Cugag</u>	Referral Note: <u>I</u>	<u>1/1</u>			<u>1/1</u>

ACTION CODES:

A - Appropriate Action
 C - Comment/Recommendation
 D - Draft Response
 F - Furnish Fact Sheet
 to be used as Enclosure

I - Info Copy Only/No Action Necessary
 R - Direct Reply w/Copy
 S - For Signature
 X - Interim Reply

DISPOSITION CODES:

A - Answered
 B - Non-Special Referral
 C - Completed
 S - Suspended

FOR OUTGOING CORRESPONDENCE:

Type of Response = Initials of Signer
 Code = "A"
 Completion Date = Date of Outgoing

Comments:

Keep this worksheet attached to the original incoming letter.
 Send all routing updates to Central Reference (Room 75, OEOB).
 Always return completed correspondence record to Central Files.
 Refer questions about the correspondence tracking system to Central Reference, ext. 2590.



OAR/IMMEDIATE OFFICE Facsimile Cover Sheet

Facsimile No. (202) 475-7155
Confirmation No. (202) 382-7400

TO: John Schmitz

OFFICE: _____

TELEPHONE: _____

DATE: 2/27/90 NO. OF PAGES 37

FROM: Tom KierNAN

MESSAGE/INSTRUCTIONS: _____

FVI

TCK

ACID RAIN PROPOSAL

- ✓ 1. Accept class of '85 amendment as proposed by the Administration.
2. Adoption of compromise proposal regarding distribution of allowances (see attached).
3. Retain the NOx provisions as under S. 1630.
4. Clean Coal Technology:
 - OK a) waive New Source Performance standards for temporary demonstration projects.
 - b) for clean coal repowering units emitting at a rate not greater than 25% above the NSPS for sulfur dioxide an extra three years will be granted to comply with the standard.

172

COMPROMISE PROPOSAL ON ACID RAIN
to address the Domenici proposal, Byrd-Bond and the Class of '85

The compromise addresses:

- *The growth concerns of the Class of '85, preserving the basic EPW/EPA approach while adding options.

- *The request by the Midwest for "bonus" allowances to tap the cost-sharing potential of the allowance market.

- *Units that have to reduce to 1.2 lbs/mmBtu multiplied by baseline that were operating at low capacity during the 1985-87 baseline period.

- *Class of '85 units that were operating at low capacity during the 1985-1987 baseline years.

- *The need for flexibility in fuel use for units that use a mix of oil and gas and for those whose fuel use is gas-dominated.

- *Fears that utilities will "hoard" allowances.

- *The need for assurance that allowances will be available at ascertainable, market price to new units that must secure offsets.

- *Relief for units on-line by the end of 1995 that have made substantial commitments prior to enactment.

"Banking" Year-2000 Emissions Reductions.

As suggested by Senator Domenici, emissions reductions achieved in the year 2000, the first year of Phase II under S.1630, will be treated as "extra" reductions to be put in a bank and distributed in 10% increments over 10 years: approximately 4.5 million tons distributed as "bonus/adjustment" allowances as 445,000 allowances per year in addition to the basic allocation of allowances.

These allowances will be distributed both to plants emitting above 1.2 lbs/mmBtu and to those in the Class of '85 (i.e., emitting below 1.2).

The Distribution.

- *To assist plants with reduction obligations that operated at low capacity in the baseline period, allowances would be

issued to make up 50% of the difference between a unit's operating factor and a 60% capacity factor for units emitting between 1.2 and 2.5 in 1985.

*To address the growth needs, fuel fluctuation problems or baseline problems of coal plants emitting below 0.6, allowances would be issued to permit units to increase their rates to the lesser of 0.6 or SIP and to permit units, at company choice, either to increase their emissions by an additional 20% or to bring their baselines up to a 60% capacity factor.

*To meet the growth needs or baseline problems of coal plants emitting between 0.6 and 1.2, allowances would be issued to permit units, at company choice, either to increase their emissions by an additional 20% or to bring their baselines up to a 60% capacity factor.

*Oil and gas plants emitting between 0.6 and 1.2 would receive allowances to permit a 20% emissions increase.

*Oil and gas plants emitting at less than a 0.6 rate would receive allowances both to increase their rates to 0.6 or SIP and to increase their emissions by an additional 20%.

*Gas-burning plants would be permitted to increase their 1985 rates to 0.5 for 10% of each year, and to use allowances, if they needed to increase emissions further.

*Plants under construction would also receive allowances.

*A quarterly auction system would ensure that allowances were available with certainty and at market price for all who sought them, including new units seeking offsets.

*Beginning in 1992 or 1993, periodic auctions of future excess allowances would help utilities seeking to achieve cost-sharing through the sale of allowances.

SPECIFICATIONS

Plants Emitting above 1.2 lbs/mmBtu Required to Reduce.

All plants larger than 75 megawatts emitting at a higher than 1.2 rate and all plants smaller than 75 megawatts but part of systems greater than 250 megawatts and emitting above 1.2:

Basic Allowances -- 1.2 lbs/mmBtu X baseline (average fuel consumption 1985-87).

PLUS:

Bonus/Adjustment Allowances -- for plants emitting between 1.2 and 2.5 operating at low capacity in 1985-87, allowances equal to 1.2 multiplied by half the difference between actual baseline fuel consumption and fuel consumption if operating at 60%.

Class of '85.

0 < Coal Plants < 0.6

Basic Allowances -- lesser of 0.6 or SIP X baseline.

PLUS:

Bonus/Adjustment Allowances -- Companies have a choice between:

(1) lesser of 0.6 or SIP X 100% of difference between baseline operating capacity and 60% operating capacity,

OR

(2) 20% of Basic Allowance allocation.

0.6 < Coal Plants < 1.2

Basic Allowances -- 1985 rate X baseline.

PLUS:

Bonus/Adjustment Allowances -- Companies have a choice between:

(1) 1985 rate X 100% of difference between baseline operating capacity and 60% operating capacity,

OR

(2) 20% of Basic Allowance allocation.

0.6 < Oil and Gas Plants < 1.2

Basic Allowances -- 1985 rate X baseline.

PLUS:

Bonus/Adjustment Allowances -- 20% of Basic Allowance allocation.

0 < Oil and Gas Plants < 0.6
(using less than 90% gas during 1985-87)

Basic Allowances -- lesser of 0.6 or SIP X baseline.

PLUS:

Bonus/Adjustment Allowances -- 20% of Basic Allowance allocation.

More-than-90% Gas Plants

These must maintain their 1985 rates for 90% of the year, but may increase their rates to 0.5 10% of the year reflecting use of oil for that period of time. These units may acquire allowances to offset tonnage emissions increases that result from rate increases beyond this rate restriction.

Pre-Enactment New Units

These units receive allowances equal to fuel consumption at a 60% operating capacity multiplied by the lesser of their actual or allowable emissions rates.

Under-Construction New Units On-line by 1995

These units receive allowances equal to fuel consumption at a 60% operating capacity multiplied by the lesser of a 0.3 or allowable emissions rate.

3% Reserve Auction

To facilitate market activity and the acquisition of allowances by new units that must offset their emissions and by gas units that are seeking a greater margin of flexibility to use oil, the Administrator would reserve 3% of all allowances and distribute them by means of quarterly auctions, with the proceeds, and unsold allowances, being returned to units pro rata at least annually.

Early Sale Future-Allowance Auction

To tap the cost-sharing potential of the allowance market, units that were planning to overcontrol their emissions and generate excess allowances could designate excess allowances that are to be issued to them in future years for sale in a public auction, to be held periodically beginning in 1992 or 1993 -- before such units made expenditures for emissions control.

FEB 20 1990

Revision of Agreement on Air Toxics

Residual Risk

1. On page 344 on line 14 before the period insert:
"except that a source otherwise subject to subsection (f)(1), may in the alternative, seek approval of an alternative emissions limitation under subsection (i)(4)(B)."
2. On page 344, line 18, and page 344, line 24, after the word "standard", delete the comma and insert the following: "or alternative emissions limitation,".
3. On page 345 beginning with line 1 strike all through line 25 on page 345 and insert in lieu thereof:
"(3) With respect to standards established pursuant to subsection (f)(1)(A), if the owner or operator of an existing source provides a site-specific health risk assessment to the Administrator (or a State with an approved program), performed in accordance with rules promulgated by the Administrator pursuant to paragraph (7)(A), the Administrator (or State with an approved program) shall, after consultation with the State in which the source is located, establish an alternative emissions limitation for the source in a permit issued under Title V, based on the results of the site-specific health risk assessment. Such alternative emissions limitation shall be established to provide that actual persons living within the vicinity of the source, who are most exposed to emissions of a hazardous air pollutant from

1 the source (as identified in the site-specific health risk
2 assessment) will not experience an individual lifetime risk of
3 cancer exceeding one in ten thousand as a result of such
4 exposure. The alternative emissions limitation shall be reviewed
5 at the time the permit for the source is renewed to ensure that
6 such controls and mitigation measures as are being employed
7 continue to be effective. No alternative emissions limitation
8 authorized by this paragraph shall be less stringent than an
9 emissions limitation established pursuant to subsection (d).".

10 4. On page 346, delete lines 1 through 8 and insert in lieu
11 thereof the following:

12 "(4)(A) With respect to standards or alternative emissions
13 limitations promulgated pursuant to subsections (f)(1)(B) or
14 (i)(4)(B), the Administrator, or a State with an approved permit
15 program, may grant an existing source a temporary exception from
16 the standard, if the Administrator (or State) determines, based
17 on specific information provided by the owner or operator of the
18 source and other information, that the standard or alternative
19 emissions limitation cannot be achieved".

20 5. On page 346 beginning at line 12 strike "For purposes of
21 this subparagraph the phrase 'all available technology and
22 operational controls' shall include all measures that are
23 technically feasible including process modifications and
24 materials substitution to reduce emissions of hazardous air

1 pollutants from the source.".

2 In lieu thereof insert:

3 "For purposes of this subparagraph, consideration of costs
4 is implicit in the term "available".

5 6. On page 346 after line 22 insert the following new
6 subparagraph and redesignate succeeding subparagraphs
7 accordingly:

8 "(B) With respect to standards established pursuant to
9 subsection (f)(1)(B), if the owner or operator of an existing
10 source provides a site-specific health risk assessment to the
11 Administrator (or a State with an approved program), performed in
12 accordance with rules promulgated by the Administrator pursuant
13 to paragraph (7)(A), the Administrator (or State) shall, after
14 consultation with the State in which the source is located,
15 establish an alternative emission limitation for the source in a
16 permit issued under Title V, based on the results of the site-
17 specific health risk assessment. Such alternative emissions
18 limitation shall be established to provide that actual persons
19 living within the vicinity of the source, who are most exposed to
20 emissions of a hazardous air pollutant from the source (as
21 identified in the site-specific health risk assessment) will not
22 experience an individual lifetime risk of cancer exceeding one in
23 one million as a result of such exposure. The alternative
24 emissions limitation shall be established to provide that actual
25 persons who are most exposed to all hazardous pollutants from the

1 source will not experience an individual lifetime risk of cancer
2 exceeding one in one hundred thousand as a result of such
3 exposure. The alternative emissions limitation shall be reviewed
4 at the time the permit for the source is renewed to ensure that
5 such controls as are being employed continue to be effective. No
6 alternative emissions limitation authorized by this paragraph
7 shall be less stringent than an emissions limitation established
8 pursuant to subsection (d).".

9 7. On page 346, at line 25, after the word "standard" insert
10 "or alternative emissions limitation".

11 8. On page 346 at line 24 strike "six months" and insert in
12 lieu thereof "one year".

13 9. On page 347 after line 23 add the following new paragraphs
14 and redesignate succeeding paragraphs accordingly:

15 "(5) The owner or operator of any source seeking an
16 alternative emissions limitation under paragraph (3) or (4)(B)
17 may employ mitigation measures to reduce expected risks of cancer
18 to the actual person(s) living in the vicinity of the source,
19 except that the stack height credit used in a modeling
20 demonstration shall not exceed the credit permitted by the stack
21 height regulations promulgated in accordance with Section 123 of
22 the Act. To the extent that mitigation measures include
23 relocation of persons living within the vicinity of the source or

1 a greenbelt around the source, the Administrator shall assure
2 whenever a permit for such source is renewed, or at five year
3 intervals if no permit is required, that such measures continue
4 to be effective.

5 "(6) Any request for an alternative emissions limitation
6 under paragraph (3) or (4)(B) shall be submitted within one year
7 of the date on which an emission standard applicable to the
8 source is promulgated pursuant to subsection (f) and shall
9 include supporting information as required by rule, necessary for
10 the Administrator (or, where appropriate, the State) to make a
11 determination with respect to the eligibility of the source for
12 an alternative emissions limitation. The site-specific health
13 risk assessment submitted by the owner or operator of the source
14 in support of a request for an alternative emissions limitation
15 shall comply with rules for preparing such health risk
16 assessments promulgated by the Administrator pursuant to
17 paragraph (7). The Administrator (or the State) shall make a
18 determination upon any request one year before the date of
19 compliance established for the emissions limitation promulgated
20 pursuant to subsection (f) and the alternative emissions
21 limitation shall be effective upon the date of compliance, or
22 within one year after the date the Administrator (or State with
23 an approved program) establishes an alternative emissions
24 limitation, whichever is later. The Administrator (or a State
25 with an approved program) may grant an extension permitting an
26 existing source a period of up to two additional years to comply

1 with an alternative emissions limitation, if the Administrator
2 (or State) determines, based on specific information submitted by
3 the owner or operator of the source demonstrating good faith
4 compliance efforts, that, in the absence of such extension the
5 source would be forced to shut down."

6 "(7)(A) Not later than five years after the date of
7 enactment of this paragraph, the Administrator shall, after
8 notice and opportunity for public comment, promulgate rules for
9 the preparation of site-specific health risk assessments to be
10 prepared in support of requests for alternative emissions
11 limitations pursuant to paragraphs (3) and (4)(B). In
12 promulgating such regulations EPA shall provide methods for
13 submitting and including in the health risk assessment
14 information concerning such factors as configuration of the
15 facility, meteorology and terrain of the site, dispersion
16 modeling and monitoring, exposure pathways, emissions factors,
17 and the typical lifestyle (including length of residency within
18 the vicinity of the source) and patterns of activity of the
19 residents of the area. The site specific health risk assessment
20 may consider all or a subset of the above factors as provided in
21 the rules. However, the rules shall require that all data
22 collected in the assessment must be available for inspection by
23 EPA (or a State with an approved program).

24 "(B) The health risk assessments shall determine the
25 maximum exposure to emissions of hazardous air pollutants from
26 the source that could be reasonably anticipated for persons

1 residing in the vicinity of the source and shall estimate
2 associated cancer risks to such persons. To the extent that
3 mitigation strategies are used that relocate any such persons,
4 the health risk assessment shall include the cancer risks to the
5 actual persons after all mitigation measures are implemented,
6 including an estimate of the alternative emissions limitation
7 which would be necessary to provide that actual persons living
8 within the vicinity of the source, who are most exposed to
9 emissions of a hazardous air pollutant from the source (as
10 identified in the site-specific health risk assessment) will not
11 experience an individual lifetime risk of cancer exceeding one in
12 ten thousand or one in one million as a result of such exposure.

13 "(8) Any permit incorporating an alternative emissions
14 limitation authorized by paragraph (3) or (4)(B) shall be issued
15 in accordance with the provisions of Title V of this Act.

16 10. On page 340, insert a semicolon after the word
17 "promulgation", and insert thereafter the following:

18 "(3) The Administrator (or a State with an approved program)
19 shall establish an alternative emissions limitation if the owner
20 or operator of an existing source provides a site-specific health
21 risk assessment, performed in accordance with regulations
22 promulgated by the Administrator under subsection (1)(7)(A).
23 Such alternative emissions limitation shall be established to
24 protect public health with an ample margin of safety, based on
25 the results of the site-specific health risk assessment."

Leak Detection

1
2 11. On page 400 beginning at line 9 strike all through page 400
3 line 16 and insert in lieu thereof:

4 "(g) Detection. Within thirty-six months of enactment, the
5 Administrator shall conduct a study and report to the Congress,
6 assessing the best available technology to monitor devices and
7 systems (including, but not limited to pumps, compressors,
8 valves, flanges, pipes, and pipelines, connectors, processes,
9 containers and vessels), storage facilities, and transfer points
10 adequate to detect immediately and report concurrently to the
11 facility operator accidental releases of such substances from
12 covered facilities. Such study shall include an assessment of
13 the cost effectiveness and feasibility of each technology. The
14 study shall build upon and not duplicate work conducted pursuant
15 to section 305(b) of the Emergency Planning and Community Right-
16 to-Know Act of 1986. After reviewing the findings of this study,
17 the Administrator shall, within twenty-four months after
18 completion, promulgate cost effective and technologically
19 feasible regulations relating to accidental leak detection
20 monitoring requirements.

Electric Utility Boilers

21
22 12. Beginning on page 335 at line 22 strike all through line 2
23 on page 336 and insert in lieu thereof:

24 "(5) (A) The Administrator shall conduct, and transmit to
25 the Congress not later than three years after the date of

1 enactment of this paragraph, a study of emissions of hazardous
2 air pollutants that are particulates from electric utility steam
3 generating units.

4 "(B) The Administrator shall conduct, and transmit to the
5 Congress not later than four years after the date of enactment of
6 this paragraph, a study of mercury emissions from electric
7 utility steam generating units considering the rate and mass of
8 such emissions, the health and environmental effects of such
9 emissions, and identifying whether there are feasible
10 technologies to control such emissions and the costs of such
11 technologies.

12 "(C) (1) Notwithstanding the requirements of subsection (e),
13 standards under subsection (d) for the control of emissions of
14 hazardous air pollutants that are particulate emissions from
15 electric utility steam generation units shall be promulgated not
16 later than five years after the date of enactment of this
17 paragraph. Such electric steam generating units shall be in
18 compliance with such standards not later than eight years after
19 the date of enactment of this paragraph.

20 "(2) Notwithstanding the requirements of subsection (e),
21 standards under subsection (d) for the control of emissions into
22 the air of mercury from electric utility steam generating units
23 shall be promulgated not later than five years after the date of
24 enactment of this paragraph, if the Administrator concludes,
25 based upon the study described in (B) above, that controls are
26 required and are technically and economically feasible. Electric

1 steam generating units subject to any standards promulgated under
2 this paragraph shall be in compliance with such standards not
3 later than eight years after enactment of this paragraph.

4 "(D) Nothing in this section shall be construed to
5 authorize the Administrator to promulgate standards requiring use
6 of flue gas stream scrubbing technology by electric utility steam
7 generating units for the control of hazardous air pollutants.

8 "(E) Emissions of organic and inorganic gases shall be
9 included in determining whether an electric utility steam
10 generating unit is a major source emitting twenty-five tons or
11 more of hazardous air pollutants under this section."

12 [Coke Ovens Insert Senate Committee fix]

13 **Mandatory MACT for All Source Categories**

14 13. On page 318 at the end of line 20 add "Notwithstanding the
15 provisions of this paragraph, emissions from any oil or gas
16 exploration or production well and emissions from any pipeline
17 compressor station shall not be aggregated with emissions from
18 other similar units, whether or not such units are in a
19 contiguous area or under common control, to determine whether
20 such wells or stations are major sources."

21 [This amendment is unchanged from the Senate staff draft]

22 14. On page 329 after line 14 add the following new paragraph:

23 "(7) Notwithstanding the provisions of paragraph (1), the

1 Administrator may remove from the list of source categories, or
2 decide not to add to the list, any source category for which no
3 source in the category emits a hazardous air pollutant in
4 quantities that may reasonably be anticipated to cause a lifetime
5 cancer risk greater than one in one million to the person or
6 persons most exposed to emissions of such pollutants from a
7 source in the category, and in addition, for which no source
8 presents more than a negligible risk of other adverse health or
9 environmental effects."

10 **Area Sources and Monitoring**

11 15. On page 318, line 22, strike "or mobile".

12 16. On page 360, at line 19, add a period after the word
13 "sources", and strike the remainder of that line and lines 20 and
14 21.

15 [This amendment is unchanged in substance from the Senate staff
16 draft.]

17 17. On page 364 add at the end of line 18, "The strategy shall
18 be designed to achieve a goal, considering control of emissions
19 of hazardous air pollutants from all sources regulated under
20 federal law, including controls of emissions of hazardous air
21 pollutants from stationary sources required under this or other
22 statutes administered by the Agency, controls of mobile sources,

1 and requirements for use of clean fuels under this Act, of
2 reducing the incidence of cancer attributable to emissions of
3 such pollutants from all sources by 75 per centum."

4 18. Beginning on page 361 at line 24 strike all through line 10
5 on page 363 and redesignate succeeding paragraphs accordingly.
6 [This amendment is unchanged from the Senate staff draft]

7 19. On page 365 after line 9 insert the following:
8 "(G) As part of such strategy the Administrator shall
9 provide for ambient monitoring and emissions modeling in urban
10 areas as appropriate to demonstrate that the goals and objectives -
11 of the strategy are being met."

12 Accidental Releases

13 20. On page 388 at the end of line 21 insert "The Administrator
14 (or the State) shall conduct compliance audits of hazard
15 assessments prepared pursuant to this subsection, reviewing not
16 less than 1.4 per centum. The requirements of this subsection
17 shall be enforced in the same manner as the requirements of
18 section 114. The Administrator is authorized to issue
19 administrative orders pursuant to section 113 to assure
20 compliance with the requirements of this subsection."
21 [This amendment is unchanged in substance from the Senate staff
22 draft]

1 21. On page 385, strike lines 9 and 10 and insert in lieu
2 thereof the following:

3 "the Administrator shall consider the extent to which each
4 of the following elements should be required:".

5 22. On page 386, strike lines 7 through 14, and renumber
6 subparagraphs (G) and (H) as (E) and (F) respectively.

7 23. On page 386, line 15, insert "readily available" before
8 "information".

9 24. On page 386, line 24, after the word "subsection", insert
10 the following:

11 "for a facility with emissions of substances listed under
12 subsection (c) in amounts of 100 tons per year or more".

13 25. On page 386, line 24, after the word "biennially.", insert
14 the following:

15 "Each hazard assessment prepared pursuant to this subsection
16 for a facility with reported emissions of substances listed under
17 subsection (c) in amounts less than 100 tons per year shall be
18 updated every five years."

19 26. On page 386, strike lines 20 through 22.

20 **Definition of MACT**

21 27. On page 331 beginning at line 6 strike "if the Administrator

1 determines that the level of control applicable to new sources is
2 generally technically or economically infeasible for existing
3 sources in the category or subcategory and, considering,
4 sequentially, the level of control achieved by existing sources
5 in the category or subcategory beginning with the most stringent
6 such level, establishes an emissions limitation which is
7 generally feasible and assure the maximum total reductions in
8 emissions from all sources in the category or subcategory. The
9 Congress finds that a reduction of 90 per centum (95 per centum
10 in the case of particulates) from uncontrolled levels is an
11 appropriate benchmark for emissions standards applicable to
12 existing sources under this subsection."

13 Insert in lieu thereof:

14 "provided, that, the emissions limitations for existing
15 sources in the category or subcategory shall be at least as
16 stringent as the emissions controls achieved in practice by the
17 best controlled similar sources. The Congress finds that a
18 reduction of 90 per centum (95 per centum in the case of
19 particulates) from uncontrolled levels or the average control
20 achieved by the best controlled 10 per centum of similar sources
21 in a large category of sources is an appropriate benchmark for
22 emissions standards applicable to existing sources under this
23 subsection."

New Source Compliance Date

1
2 28. On page 352 after line 20 add the following new paragraph:

3 "(13)(A) A source for which construction or reconstruction
4 is commenced after the date an emissions standard applicable to
5 such source is proposed pursuant to subsection (d) but before the
6 date a final emissions standard applicable to such source is
7 issued pursuant to subsection (f) or (g) shall not be required to
8 comply with the emissions standard under subsection (f) or (g)
9 until the date ten years after the date construction or
10 reconstruction is commenced.

11 (B) Except as provided in paragraph (D), any source for
12 which construction or reconstruction is commenced after the date
13 an emissions standard applicable to such source is issued
14 pursuant to subsection (f) or (g) shall be required to comply
15 with such emissions standard on the date of commencement of
16 operations.

17 (C) A source for which construction or reconstruction is
18 commenced after the date an emissions standard applicable to such
19 source is proposed pursuant to subsection (d) but before the
20 date a final emissions standard applicable to such source is
21 issued pursuant to subsection (f) or (g), may request an
22 alternative emissions limitation in accordance with subsection
23 (i)(D)(6).

24 (D) A source for which construction or reconstruction is
25 commenced after the date an emissions standard applicable to such

1 source is issued pursuant to subsection (f) or (g) may request an
2 alternative emissions limitation before commencement of
3 operations, and shall include supporting information as required
4 by rule, necessary for the Administrator (or State) to make a
5 determination with respect to the eligibility of the source for
6 an alternative emissions limitation. The site-specific health
7 risk assessment submitted by the owner or operator of the source
8 in support of a request for an alternative emissions limitation
9 shall comply with the rules for preparing such health risk
10 assessments promulgated by the Administrator pursuant to
11 paragraph (7). The Administrator (or the State) shall make a
12 determination upon any request one year before the source would
13 be required to comply with an applicable emissions standard
14 promulgated pursuant to subsection (f) or (g). The alternative
15 emissions limitation or, if the request is denied, the applicable
16 emission standard under subsection (f) or (g), shall be effective
17 upon the date of compliance, or within one year of the date the
18 Administrator (or State) acts on the request for an alternative
19 emissions limitation, whichever is later. The Administrator (or
20 the State) may grant an extension permitting a source a period of
21 up to two additional years to comply with an alternative
22 emissions limitation, if the Administrator (or State) determines,
23 based on specific information submitted by the owner or operator
24 of the source demonstrating good faith compliance efforts, that,
25 in the absence of such extension the source would be forced to
26 shut down".

Permits

1

2 29. On page 352 beginning with line 22 strike all through line 5
3 on page 360.

4 [Explanation: the substance of these permit provisions
5 unnecessarily duplicates the permit program established by Title
6 V of the Senate Bill.]

Sentence from
committee report.

(cont)

for purposes
of substitution

The term "available" with respect to a control technology or method or a mitigation method means that such technology, including process modifications or material substitution, or method could be installed or carried out at a source without imposing costs which would force the closure of the source or which would severely impair continuation of the source as an economic entity."

For purposes of this substitution the determination
of cost is implicit in the deter. of avail.

actual persons who are most exposed
1 ~~assures that the additive cancer risk to the most exposed person~~
2 ~~from all hazardous air pollutants emitted by the source~~ *to an expected risk of cancer* shall not
3 exceed ^{1/100,000} one in one hundred thousand. The alternative emissions
4 limitation shall be reviewed at the time the permit for the
5 source is renewed ~~to determine whether further controls or~~
6 ~~mitigation measures are available, and to ensure that such~~
7 measures as are being employed continue to be effective. No
8 alternative emissions limitation authorized by this paragraph
9 shall be less stringent than an emissions limitation established
10 pursuant to subsection (d).". *@ compl date or 1 yr after promul.*

Wait some compliance date
11 4. [On page 346 at line 24 strike "six months" and insert in
12 lieu thereof "one year"; and on page 347 at the end of line 7
13 add "Any source for which an alternative emissions limitation is
14 established under this paragraph shall be in compliance with such
15 limitation on the date for which compliance would have been
16 required with respect to a standard promulgated under subsection
17 (f) in the absence of such alternative emissions limitation.".]

18 5. On page 347 after line 23 add the following new paragraphs
19 and redesignate succeeding paragraphs accordingly:

20 "(5) The owner or operator of any source seeking an
21 alternative emissions limitation under paragraph (3) or (4)(B)
22 may employ mitigation measures to reduce expected risks of
23 cancer to the actual person(s) living in the vicinity of the
24 source, except that the stack height credit used in a modeling
25 demonstration shall not exceed the credit permitted by the stack

3
*after date, 1 yr if shutdown
3 yrs if try*

1 air pollutants that are particulates from electric utility steam
2 generating units.

3 "(B) The Administrator shall conduct, and transmit to the
4 Congress not later than four years after the date of enactment of
5 this paragraph, a study of mercury emissions from electric
6 utility steam generating units considering the rate and mass of
7 such emissions, the health and environmental effects of such
8 emissions, and identifying whether there are feasible
9 technologies to control such emissions and the costs of such
10 technologies.

11 "(C)(1) Notwithstanding the requirements of subsection (e),
12 standards under subsection (d) for the control of emissions of
13 hazardous air pollutants that are particulate emissions from
14 electric utility steam generation units shall be promulgated not
15 later than five years after the date of enactment of this
16 paragraph. Such electric steam generating units shall be in
17 compliance with such standards not later than eight years after
18 the date of enactment of this paragraph.

19 "(2) Notwithstanding the requirements of subsection (e),
20 standards under subsection (d) for the control of emissions into
21 the air of mercury from electric utility steam generating units
22 shall be promulgated not later than five years after the date of
23 enactment of this paragraph, if the Administrator concludes,
24 based upon the study described in (B) above, that controls are
25 technically and economically feasible. Electric steam generating
26 units subject to any standards promulgated under this paragraph

Leak Detection

6. On page 400 beginning at line 9 strike all through page 400 line 16 and insert in lieu thereof:

"(g) Detection. -- Within thirty-six months of enactment, the Administrator shall conduct a study and report to the Congress, assessing the best available technology to monitor devices and systems (including, but not limited to pumps, compressors, valves, flanges, pipes, and pipelines, connectors, processes, containers and vessels), storage facilities, and transfer points adequate to detect immediately and report concurrently to the facility operator accidental releases of such substances from covered facilities. Such study shall include an assessment of the cost effectiveness and feasibility of each technology. The study shall build upon and not duplicate work conducted pursuant to section 305(b) of the Emergency Planning and Community Right-to-Know Act of 1986. After reviewing the findings of this study, the Administrator shall, within twenty-four months after completion, promulgate cost effective and technologically feasible regulations relating to accidental leak detection monitoring requirements.

Electric Utility Boilers

7. Beginning on page 335 at line 22 strike all through line 2 on page 336 and insert in lieu thereof:

"(5)(A) The Administrator shall conduct, and transmit to the Congress not later than three years after the date of enactment of this paragraph, a study of emissions of hazardous



OAR/IMMEDIATE OFFICE Facsimile Cover Sheet

Facsimile No. (202) 475-7155
Confirmation No. (202) 382-7400

TO: John Schmitz

OFFICE: _____

TELEPHONE: _____

DATE: 2/27/90 NO. OF PAGES ~~37~~ 6

FROM: Tom Kiernan

MESSAGE/INSTRUCTIONS: _____

FYI - cont'd

To Do:
1) Call Powell re: []

TEK

1 Draft -- February 12, 1990

2 Revision of Agreement on Air Toxics

3 Residual Risk

4
5 1. On page 345 beginning with line 1 strike all through line 25
6 on page 345 and insert in lieu thereof:

7 "(3)(A) With respect to standards established pursuant to
8 subsection (f), ^{(1)(a)} if the owner or operator of an existing source
9 provides a site-specific health risk assessment to the
10 Administrator (or a State with an approved program), performed in
11 accordance with rules promulgated by the Administrator pursuant
12 to paragraph (7)(A), the Administrator (or State with an approved
13 program) shall, after consultation with the State in which the
14 source is located, establish an alternative emissions limitation
15 for the source in a permit issued under Title V, based on the
16 results of the site-specific health risk assessment. Such
17 alternative emissions limitation shall be established to ^{protect} ensure ^{wide} ~~that~~
18 ~~that no~~ actual person ^{are most} living within the vicinity of the source,
19 who ^{is} ~~is~~ exposed to the emissions of ^{of} hazardous air pollutants ^{from}
20 the source (as identified in the site-specific health risk
21 assessment) ~~will experience a risk of cancer exceeding one in ten~~
22 ~~thousand as a result of such exposure.~~ ^{with not more frequent exposure an individual} The alternative emissions
23 limitation shall be reviewed at the time the permit for the
24 source is renewed ~~to determine whether further controls or~~
25 ~~mitigation measures are available,~~ and to ensure that such
26 measures as are being employed continue to be effective. No
27 alternative emissions limitation authorized by this paragraph

Revised to other pages

1 shall be less stringent than an emissions limitation established
2 pursuant to subsection (d).".

3 2. On page 346 beginning at line 12 strike "For purposes of
4 this subparagraph the phrase 'all available technology and
5 operational controls' shall include all measures that are
6 technically feasible including process modifications and
7 materials substitution to reduce emissions of hazardous air
8 pollutants from the source.".

9 [This amendment is unchanged from the Senate staff draft, except
10 "that are technically feasible" is substituted for "which are
11 technically feasible".]

2. On page 346 after above text insert text attached here
as p. 2.

12 3. On page 346 after line 22 insert the following new
13 subparagraph and redesignate succeeding subparagraphs
14 accordingly:

15 "(B) With respect to standards established pursuant to
16 subsection (f)(1)(b), the Administrator (or the State) shall,
17 after consultation with the State in which the source is located,
18 establish an alternative emission limitation for the source in a
19 permit issued under Title V, if the Administrator (or the State)
20 determines, based on a site-specific health risk assessment
21 provided by the owner or operator of the source and other
22 information, ^{to protect} ~~that no actual person~~ living within the vicinity of
23 the source who ^{are most} ~~is~~ exposed to the emissions of hazardous air
24 pollutants from the source ^{to an expected} ~~will experience~~ a risk of cancer not
25 exceeding one in one million as a result of such exposure. The
26 alternative emission limit shall be ^{established to protect} ~~set at a level that also~~

change
to
exactly
parallel
to 3(a)
construction
lines 7-17

1 height regulations promulgated in accordance with Section 123 of
2 the Act. To the extent that mitigation measures include
3 relocation of persons living within the vicinity of the source or
4 a greenbelt around the source, the Administrator shall assure
5 whenever the permit is renewed for such source that such measures
6 continue to be effective.

7 "(6) Any request for an alternative emissions limitation
8 under paragraph (3) or (4)(B) shall be submitted within one year
9 of the date on which an emission limitation applicable to the
10 source is promulgated pursuant to subsection (f) and shall
11 include all of the information necessary for the Administrator
12 (or, where appropriate, the State) to make a determination with
13 respect to the eligibility of the source for an alternative
14 emissions limitation. The site-specific health risk assessment
15 submitted by the owner or operator of the source in support of a
16 request for an alternative emissions limitation shall comply with
17 rules for preparing such health risk assessments promulgated by
18 the Administrator pursuant to paragraph (7). The Administrator
19 (or the State) shall make a determination upon any request one
20 year before the date of compliance established for the emissions
21 limitation promulgated pursuant to subsection (f) and the
22 alternative emissions limitation shall be effective upon the
23 date of compliance.

24 "(7)(A) Not later than five years after the date of
25 enactment of this paragraph, the Administrator shall, after
26 notice and opportunity for public comment, promulgate rules for

1 the preparation of site-specific health risk assessments to be
2 prepared in support of requests for alternative emissions
3 limitations pursuant to paragraphs (3) and (4)(B). In
4 promulgating such regulations EPA shall ^{provide methods} ~~take into account the~~
5 ^{for submitted} ~~extent to which~~ information is required concerning ^{such factors as} configuration
6 of the facility, meteorology and terrain of the site, dispersion
7 modeling and monitoring, exposure pathways, emissions factors,
8 and the typical lifestyle (including length of residency within
9 the vicinity of the source) and patterns of activity of the
10 residents of the area. ^{to the extent necessary to support the request.}

11 "(B) The health risk assessments shall determine the
12 maximum exposure to emissions of hazardous air pollutants from
13 the source that could be expected for persons residing in the
14 vicinity of the source and shall estimate associated cancer risks
15 to such person(s). To the extent that mitigation strategies are
16 used that relocate any such person(s), the health risk assessment
17 shall include the cancer risks to the actual person(s) after all
18 mitigation measures are implemented, including an estimate of the
19 alternative emissions limitation which would be necessary to
20 protect persons from expected risks of cancer exceeding one in
21 ten thousand and one in one million that result from exposure to
22 emissions of hazardous air pollutants from the source.

23 "(8) Any permit incorporating an alternative emissions
24 limitation authorized by paragraph (3) or (4)(B) shall be issued
25 in accordance with the provisions of Title V of this Act.

1 shall be in compliance with such standards not later than eight
2 years after enactment of this paragraph.

3 "(D) Nothing in this section shall be construed to
4 authorize the Administrator to promulgate standards requiring
5 aqueous or dry scrubbing by electric utility steam generating
6 units for the control of hazardous air pollutants.

7 "(E) Emissions of organic and inorganic acid gases shall be
8 included in determining whether an electric utility steam
9 generating unit is a major source emitting twenty-five tons or
10 more of hazardous air pollutants under this section."
11 [Coke Ovens - Insert Senate Committee fix]

12 Mandatory MACT for All Source Categories

13 8. On page 318 at the end of line 20 add "Notwithstanding the
14 provisions of this paragraph, emissions from any oil or gas
15 exploration or production well and emissions from any pipeline
16 compressor station shall not be aggregated with emissions from
17 other similar units, whether or not such units are in a
18 contiguous area or under common control, to determine whether
19 such wells or stations are major sources."

20 [This amendment is unchanged from the Senate staff draft]

21 9. On page 329 after line 14 add the following new paragraph:

22 "(7) Notwithstanding the provisions of paragraph (1), the
23 Administrator may remove from the list of source categories, or
24 decide not to add to the list, any source category for which no

1 source in the category emits a hazardous air pollutant in
2 quantities that may reasonably be anticipated to cause a lifetime
3 cancer risk greater than one in one million to the person or
4 persons most exposed to emissions of such pollutants (or stream
5 of pollutants) from a source in the category, and in addition, no
6 source in the category emits any such pollutant in quantities
7 that may be reasonably anticipated to cause any other adverse
8 health or environmental effects.".

Area Sources and Monitoring

10 10. On page 360 beginning at line 19 strike "including a
11 reduction of not less than 75 per centum in the incidence of
12 cancer attributable to emissions from such sources".

13 [This amendment is unchanged from the Senate staff draft]

11. On page 364 add at the end of line 18, "The strategy shall be designed to achieve, considering control of emissions of hazardous air pollutants from major sources required under this section, controls of emissions of hazardous air pollutants from stationary sources required under this or other statutes administered by the Agency, controls of mobile sources, and requirements for use of clean fuels under this statute, a reduction of not less than 75 per centum in the incidence of cancer attributable to emissions of such pollutants from all sources."

1 12. Beginning on page 361 at line 24 strike all through line 10
2 on page 363 and redesignate succeeding paragraphs accordingly.
3 [This amendment is unchanged from the Senate staff draft]

4 13. On page 365 after line 9 insert the following:

5 "(G) As part of such strategy the Administrator shall
6 provide for ambient monitoring and emissions modeling for
7 Metropolitan Statistical Areas with a population exceeding two
8 hundred and fifty thousand persons sufficient to demonstrate that
9 the goals and objectives of the strategy are being met."

10 **Accidental Releases**

11 14. On page 388 at the end of line 21 insert "The Administrator
12 (or the State) shall conduct compliance audits of hazard
13 assessments prepared pursuant to this subsection, reviewing not
14 less than 1.4 per centum. The requirements of this subsection
15 shall be enforced in the same manner as the requirements of
16 section 114. The Administrator is authorized to issue
17 administrative orders pursuant to section 113 to assure
18 compliance with the requirements of this subsection."
19 [This amendment is unchanged in substance from the Senate staff
20 draft]

21 **Definition of MACT**

22 15. On page 331 beginning at line 6 strike "if the Administrator
23 determines that the level of control applicable to new sources
24 is generally technically or economically infeasible for existing

1 sources in the category or subcategory and, considering,
2 sequentially, the level of control achieved by existing sources
3 in the category or subcategory beginning with the most stringent
4 such level, establishes an emissions limitation which is
5 generally feasible and assure the maximum total reductions in
6 emissions from all sources in the category or subcategory"

7 Insert in lieu thereof:

8 "provided, that, the emissions limitations for existing
9 sources in the category or subcategory shall be at least as
10 stringent as the emissions controls achieved in practice by the
11 best controlled similar sources.

12 change lines 16-20 p.331 to read

13 The Congress finds that a reduction of 90 per centum (95
14 per centum in the case of particulates) from uncontrolled levels
15 or the average control achieved by the best controlled 10% of
16 similar sources in a large category of sources is an appropriate
benchmark for emissions standards applicable to existing sources
under this subsection.

17 16. On page 331 at line 16 strike "that a reduction" and insert
18 in lieu thereof "that an average reduction"; and on page 331 at
19 line 19 insert "in the category or subcategory" after "existing
20 sources".

21 **New Source Compliance Date**

22 17. On page 352 after line 20 add the following new paragraph:

23 "(13) A source for which construction or reconstruction is
24 commenced after the date an emissions standard applicable to such

1 source is proposed pursuant to subsection (d) but before the date
2 an emissions standard applicable to such source is proposed
3 pursuant to subsection (f) or (g) shall not be required to comply
4 with the emissions standard under subsection (f) or (g) until the
5 date ten years after the date construction or reconstruction is
6 commenced.".

7 [This amendment is unchanged from the Senate staff draft]

8

Permits

9 18. On page 352 beginning with line 22 strike all through line 5
10 on page 360.

11 [Explanation: the substance of these permit provisions
12 unnecessarily duplicates the permit program established by Title
13 V of the Senate Bill.]