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As of 9-16-83

WILLIAM D. RUCKELSHAUS

ACID RAIN MEETINGS

May 23 - Governor Robert Orr, Indiana

May 26 - Senator Jennings Randolph, West Virginia

May 27 - John Roberts, Minister of Environment/Canada

June 13 - Carl E. Bagge, National Coal Association
J. L. Mahaffey, Shell Oil Company

June 13 - Robert H. Quenon, Peabody Coal Co.

June 14 - Edison Electric Institute (EEI):
William McCollam, EEI
Frederick L. Webber, EEI
William Megonnell, EEI
Edward L. Addison, Southern Company
Walter J. McCarthy, Jr., Detroit Edison
A. Joseph Dowd, American Electric Power
William Harrison, Southern Company
Glen Bjorklund, Southern California Edison Company

June 15 - Environmentalists:
Dr. Jay D. Hair, National Wildlife Federation
Kenneth S. Kamlet, National Wildlife Federation
David Hawkins, Natrual Resources Defense Council
Dr. Michael Oppenheimer, Environmental Defense Fund
Leslie Dach, National Audubon Society
David Gardner, Sierra Club

June 16 - Electric Power Research Institute:
Dr. Richard Balzhiser
Rene Males
Kurt Yeager

June 16 - Senators Byrd/Ford/Huddleston/Percy/Warner/Heinz

June 16 - United Mine Workers:
Richard Trumka
John Jarvis
Mike Holland
Michael Buckner

June 16 - Senator Richard Lugar, Indiana

June 21 - Senator Ted Kennedy, Massachusetts

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ACID RAIN MEETINGS

June 22 - John Kebblish, Ashland Coal Co.
S.D. (Bud) Ogden, Sunedco
Dan Snyder, Westmoreland Coal Co.
Charlie Drevna

June 27 - Bill Nierenberg, Scripps Institution of Oceanography

June 27 - Frank Press, National Academy of Sciences
Jack Calvert, National Academy of Sciences
Dr. Bob White, International Academy of Engineering
Dr. Ruth Patrick, Academy of Natural Sciences, Philadelphia, PA
Dr. Kenneth Rahn, University of Rhode Island

June 27 - Senator Dan Quayle

June 30 - Chicago, Illinois - James O'Connor, Commonwealth Edison

July 8 - AFL/CIO:
Jack Sheen
William Klinefelter
George Rodbinson
Nolan Hancock
Liz Smith

July 8 - Canadian Coalition on Acid Rain
Ambassador Gotlieb
Robert Slater
James Bruce
Danielle Wetherup
Bruce Jutzi

July 8 - Governor Sununu, New Hampshire

July 13 - Governor Dick Thornburgh, Penn.

July 18 - Governor Scott Matheson, Utah

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ACID RAIN MEETINGS

July 18 - U.S. Geological Survey

July 19 - Governor James Thompson, Illinois
Lt. Governor Kerry, Massachusetts

July 20 - National Academy of Sciences
Dr. Jack Calvert, NCAR
Dr. James Galloway, Dept. of Env. Science
Dr. Steve Guerini, Tetra-Tech, Inc.
Dr. George Hendrey, Brookhaven National Lab
Dr. Glen Hilst, EPRI
Dr. Arthur Johnson, Univ. of Penn.
Dr. Noye Johnson, Dartmouth
Dr. Volker Mohnen, ASRC
Dr. Michael Oppenheimer, EDF/NYC
Dr. Ruth Patrick, ANS
Dr. Kenneth Rah, Univ. of Rhode Island
Dr. David Schindler, Freshwater Research Institute
Dr. John Seinfeld, Cal. Tech.
Dr. Jack Shannon, Argonne National Lab.

July 26 - White House/Edwin Meese

July 27 - Natural Rural Electric Association

Ted Lennick	Robert Partridge
Dean Norris	Chuck Robinson
Robert Cleveland	Bradley Koch
Rae Cronmiller	

August 1 - National Governors Association/Portland, Maine

Governor Dukakis	Governor Matheson
Governor Rockefeller	Governor Lamm
Governor Thompson	Governor Bond
Governor Sununu	Governor Snelling

August 1 (PM) Presentation to the NGA

August 3 - Senator George Mitchell

August 3 - Congressional Coal Caucus
Congressmen Luken, Kasich, McCloskey, Durbin, Mollohan, Rahall, Bevill

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ACID RAIN MEETINGS

August 5 - Public Utility Commissioners
Andrew Varley, Iowa
Larry Wallace, Indiana
Tom Fitzpatrick, Connecticut
Joe Cresse, Florida

August 8 - Drew Lewis, Warner Amex Communications

August 10 - White House/Edwin Meese

August 11 - Dr. Jay Hair, National Wildlife Federation

August 11 - Boyden Gray, White House

August 11 - Non-ferrous Smelter Meeting
Richard Osborne, President, ASARCO
Jack Thompson, President, Newmont Mining Company
John Austin, Vice President, American Mining Congress
Charles Burns, Vice President-Governmental Affairs, Phelps Dodge
Emil Romagnoli, Manager, Regulatory Affairs, ASARCO

David Ridinger, Vice President-
Government Affairs, Newmont Mining Co.
David Swan, Representative, Inspiration
Robert Malone, Director of Env. Affairs, Kennecott
David Litvin, Associate Director,
Federal Government Affairs, SOHIO

August 11 - Tennessee Valley Authority w/David Freeman
C.H. Dean, Jr., Chairman, TVA Board of Directors
S. David Freeman/Richard Freeman

August 16 - Nancy Risque (Duberstein's office)

August 24 - Governor Sununu (New Hampshire)

August 26 - Clarence "Bud" Brown of Ohio

August 26 - Dr. John Deutch, MIT

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ACID RAIN MEETINGS

August 29 — Meeting with Bud Lawrence/Nancy Umbach, American Gas Association

August 29 - Meeting with Scientists
Dr. Volcker Mohnen, Director
Atmospheric Sciences Research Center
State University of New York
Albany, NY

Dr. John H. Seinfeld
Louis E. Nohl, Professor and
Executive Director
Department of Chemical Engineering
Cailfornia Institute of Technology
Pasadena, Ca.

Dr. Jack Calvert, Senior Scientist
National Center for Atmospheric Research
Boulder, Colorado

Dr. Lester Machta, Director
Air Resources Laboratory
National Oceanic and Atmospheric Administration
Rockville, Md.

September 1 — William Reilly, Conservation Foundation

September 6 — Governor John H. Sununu, New Hampshire
Wally Stickney, Governor's Office, New Hampshire
Ned Helms, National Governors' Association

September 7 — Joe Browder, Joseph Browder, Inc.

September 7 — Bill Butler, National Audobon Society

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ACID RAIN MEETINGS

September 8	Charles Caccia, Minister of Environment/Canada
September 8	David Stockman, Fred Khedouri, Chris DeMuth, OMB
September 8	Eugene M. Trisco, Stern Brothers, Inc.
September 8	Scottsdale, Arizona - Arizona Public Service Keith Turkey, Chairman of the Board and Chief Executive Officer
September 12	Senator Howard Baker
September 12	Senator David Durenberger
September 12	Congressman Henry Waxman
September 12	Senator Jennings Randolph
September 13	Secretary Jim Watt, Interior
September 13	Honorable Gaylord Nelson, Wilderness Society
September 13	Governor Dick Thornburgh, Pennsylvania
September 13	White House Meeting w/Meese/Watt/Baker/ Darman/Fuller/Stockman/Svahn
September 14	Scientists: Professor Jack George Calvert Ohio State University Professor James Neville Galloway, III University of Virginia Dr. Gene E. Likens Cary Arboretum Dr. Volker Mohnen Atmospheric Sciences Research Center Professor William A. Nierenberg University of California

WILLIAM D. RUCKELSHAUS

ACID RAIN MEETINGS

September 15	Congressman Bob Michel, Illinois
September 15	Scientists: Professor Jack George Gilbert Ohio State University Professor James Neville Galloway, III University of Virginia Dr. Gene E. Likens Cary Arboretum Dr. Volker Mohnen Atmospheric Sciences Research Center Professor William A. Nierenberg University of California
September 15	Cabinet Council for Natural Resources and Environment with the President
September 15	Mike Deaver, Craig Fuller, William Sittman
September 15	Congressman John Dingell, Michigan
September 15	Congressman James Broyhill, North Carolina Congressman Edward Madigan, Illinois
September 16	Senator Robert Byrd, West Virginia w/Senate Coal Caucus
September 16	Senator James McClure, Idaho

Executive Office of the President

NEWS

for release: June 28, 1983

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PRESS ADVISORY: INTERIM REPORT FROM OSTP'S ACID RAIN PEER REVIEW PANEL

The White House Science Office today released a report summarizing findings to date by a panel of nine scientists who have been conducting a review of the state of knowledge about acid rain. The group was appointed in 1982 by Presidential Science Advisor George A. Keyworth, II, to review U.S.-Canadian scientific studies and to provide an independent assessment of the acid rain problem.

The summary being released now will be part of a larger report to be submitted to the Science Advisor later this year. It includes a discussion of cause/effect relationships associated with acid rain. Notwithstanding the generally limited knowledge about how sulfur and nitrogen emissions are specifically transported and converted into acid precipitation, the Panel has concluded that the phenomena of acid deposition constitute a problem for which solutions should be sought. In this regard the Panel has recommended reduction from present levels in the emissions of sulfur compounds into the atmosphere, beginning with those steps that are most cost-effective in reducing total deposition.

The OSTP Panel is chaired by William A. Nierenberg, Director of the Scripps Institution of Oceanography. Copies of the five-page summary are available from the Office of Science and Technology Policy, Executive Office of the President, Washington, D.C. 20500.

GENERAL COMMENTS ON ACID RAIN
A Summary by the Acid Rain Peer Review Panel for the
Office of Science and Technology Policy
Executive Office of the President
June 27, 1983

The United States and Canada together are emitting annually more than 25,000,000 tons of sulfur dioxide (SO_2) and a comparable amount of nitrogen oxides (NO) and (NO_2), abbreviated as (NO_x), and these oxides can be converted by atmospheric chemical processes into sulphuric (H_2SO_4) and nitric (HNO_3) acids. The emissions are large enough to increase appreciably the acidity of natural rainfall, and rain in most of eastern Northern America is considerably more acid than that expected from natural processes alone. The Clean Air Act of 1970 marked the formal recognition by the U.S. government of the importance of reducing the emissions of sulfur to the atmosphere, and new power plants constructed since that time do control such emissions to lower levels. Such controls were a prudent first step. We recommend that additional steps should be taken now which will result in meaningful reductions in the emissions of sulfur compounds into the atmosphere beginning with those steps which are most cost effective in reducing total deposition.

The incomplete present scientific knowledge sometimes prevents the kinds of certainty which scientists would prefer, but there are many indicators which, taken collectively, lead us to our finding that the phenomena of acid disposition are real and constitute a problem for which solutions should be sought:

(1) The emissions of SO_2 and NO_x in eastern North America are at least ten times larger from human activities than from natural processes.

(2) A substantial fraction of such emissions are observed to return as sulfate ($SO_4^=$) and nitrate (NO_3^-) in rainfall; a probably comparable amount returns as "dry" deposition through surface interaction processes which are more difficult to monitor than the "wet" deposition in rain.

(3) In eastern North America the areas receiving the largest amounts of these acid rains are found within and downwind from the major source regions.

(4) The acidity of precipitation, some streams and some lakes in these major receptor regions are greater than the "natural" levels.

Acid Rain Peer Review Panel General Comments

(5) Although some kinds of lakes have been acid throughout their known history, others located in principal receptor areas have become appreciably more acid during the past ten or twenty years.

(6) These changes in lake acidity have been accompanied by major changes in the biological activity within them, often including the disappearance of some species of fish.

(7) The largest of such aquatic effects have occurred in regions in which acidity is not "buffered" by the presence of alkaline minerals.

(8) Major areas of eastern North America have been identified whose geological composition is characterized by the absence of any important buffering capacity.

(9) Extensive evidence exists for increasing forest damage in eastern North America during the past few decades. Evidence of acid deposition as the primary cause for such harmful ecological effects on forests and other non-agricultural soils is, at present, much less compelling than that for aquatic damage.

The overall scientific understanding of the various aspects of acidic precipitation is quite incomplete at the present time, and will continue to have major uncertainties well into the future. Some of these gaps in our knowledge are permanent because the necessary measurements were not made ten, twenty, or fifty years ago before the potential future utility of such information was recognized. Other gaps exist because the needed scientific techniques have not yet been perfected or have not been adapted to the scale required for measurements covering much of the entire Western Hemisphere. Some of the important information will require at least ten or twenty years of additional data collection to take full cognizance of atmospheric variability and atmospheric cycles. Biological systems are extremely complex and variable. Response and recovery of many of these systems to external stress will require long-term (decades) detailed study for full evaluation. For these reasons, any current scientifically-derived recommendations must be based upon an imperfect, always increasing, body of pertinent data whose quality and completeness can be expected to improve for decades. Recommendations based upon imperfect data run the risk of being in error; recommendations for inaction pending collection of all of the desirable data entail even greater risk of damage.

The chemical processing of SO_2 and NO_x into acids in the atmosphere potentially involves a very large number of chemical

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in sensitive areas. The increase of acidity can reach levels which result in the release or "mobilization" of aluminum from solid minerals raising the possibility of toxic metal effects on biological species in both lakes and forest soils. There is strong evidence for damaging effects on limestone monuments, bridges and buildings, and other structures, but there is no good estimate of the economic magnitude of these effects.

The effect of air pollutants on agriculture may be important but the quantitative evidence is scanty. (An estimate for ozone damage to agriculture in the United States is five percent of the cash value. We anticipate that the overall effect of acid precipitation on crops could be comparably significant.)

There is a tendency in the scientific literature to speak of "long-term" and "short-term" effects, or of "irreversible" and "reversible" changes. Damage to fresh water lakes, where it exists, may require a recovery time varying from a few years to tens of years when the stress is removed. This variation depends upon the availability in the environment of species for colonization, the extent to which trace element composition has been altered, and similar factors. The recovery time of a stressed sylvan environment is probably several decades or more in New England and Canadian latitudes. With both forests and lakes, the term "irreversible" might be used for a recovery time which stretches beyond a few decades.

We as a committee are especially concerned about possible deleterious effects of a sustained increase in the acidity of unmanaged soils. Its microorganism population is particularly sensitive to a change in acidity. But it is just this bottom part of the biological cycle that is responsible for the recycling of nitrogen and carbon in the food chain. The proper functioning of the denitrifying microbes is a fundamental requirement upon which the entire biosphere depends. The evidence that increased acidity is perturbing populations of microorganisms is scanty, but the prospect of such an occurrence is grave. It may take many years of accumulation of acidity, from wet or dry deposition, before measurable consequences would be observed. Such an effect is "long-term" or "irreversible." It may take at least that many years or longer for the soils to revert to their original condition. It is this possibility which provides us with the greatest concern.

reactions, and the relative importance of these various reactions changes drastically with time and location, often in response to varyng meteorological conditions. Sulfur and nitrogen can be removed from the atmosphere in various chemical forms, and by both dry processes at the surface and wet processes in rainfall. Measurements of $SO_4^=$ and NO_3^- in rainfall are now widespread, but do not have a long historical base. Measurements of dry deposition are so scattered (and experimentally doubtful) that quantitative assessment is essentially not possible even now.

The modeling of atmospheric emissions, transport and deposition has been confined almost entirely to the sulfur cycle, leaving nitrogen (and all else) to the future. The existing models do not agree with one another, and cannot be verified by comparison with observation because of the scarcity of good field data. They actually do not do very well in reproducing the observations on gaseous SO_2 that are available. Such models cannot be relied ukpon for (a) estimation of how much material emitted at A will be deposited at B; and (b) how much SO_2 will have been first converted to H_2SO_4.

There exists now no acceptable method for the determination of source/receptor relationships on a scale much smaller than "eastern North America." With a very large effort in laboratory atmospheric chemistry, in field measurements, and in atmospheric modeling, it might be possible within ten years (but certainly not five years) to produce a source/receptor model for eastern North America. We have great hope that methodology based on the use of natural tracers in fossil fuels may bypass some of these difficulties and perhaps reduce the time needed to elucidate this complex of problems. When a verified model exists in the future, there is a possibility that the source/receptor relationship will be sufficiently complex and variable that similar emission controls would still need to be assigned over rather large areas rather than locally.

Reduction below present SO_2 emission levels would reduce total sulfur deposition levels and as a consequence both reduce the probability for major changes in additional acid sensitive lakes or forests and allow the possibility for a return toward the original biological conditions existing in recently acidified areas.

The effects of acid deposition on biological systems in North America varies from certain to speculative. There is no question that some fresh water bodies have been altered

"Acid rain" or acid precipitation belongs to a socially very important class of problems that have the superficial aspects of being amenable to a permanent solution achieved by a straightforward sum of existing technological and legislative fixes. This is very deceptive. Rather, this class of problems is usually not permanently solved in a closed fashion, but is treated more commonly to accommodate a steady increase in knowledge and understanding, taking various actions that appear most effective and economical at any given time.

It is in the nature of the acid deposition problem, that actions have to be taken despite incomplete knowledge. We have earlier given estimates of how long it may take to understand the "wet" chemistry, or the biological response. Reasonably accurate models incorporating relevant meteorology, chemistry, minerology and biology take even longer. If we take the conservative point of view that we must wait until the scientific knowledge is definitive, the accumulated deposition and damaged environment may reach the point of "irreversibility."

We feel that the proper initial approach is to select particularly economically effective steps to begin to reduce our concerns in the light of gross transport and deposition features that have been identified, associated with seasonal and geographical variation. Purely as an example, it may be useful to consider having fuel of different sulfur content during different seasons since the efficiency for wet sulfuric acid deposition seems to be much less in winter. As other examples, first "least cost" steps might be gross reductions in sulfur emissions from non-ferrous smelters and intensifying coal washing.

John Glenn

REMARKS OF SENATOR JOHN GLENN
KEENE STATE COLLEGE
MONDAY, SEPTEMBER 12, 1983
KEENE, NEW HAMPSHIRE

I've come to Keene this evening to talk about an issue of interest to all of you as residents of New Hampshire -- and to me, as a Senator from Ohio and a candidate for President. And that issue is America's environment.

In many ways, what is happening to America's environment -- and to the world environment -- is one of the most fundamental challenges we face. How we respond to that challenge will define our relationship to nature. It will preserve -- or betray -- the heritage passed down to us by our ancestors. And it will improve -- or it will diminish -- the quality of life we pass on to future generations.

From the time humanity first discovered fire and forged the first tools, we have struggled to balance our need to make a living with our need to preserve and conserve the natural resources that make life possible. Today, our advanced industrial society possesses both the power to create a complete living environment -- and the power to destroy our environment completely. America has proven that it can generate affluence. Now we must prove we can control our effluents.

And let there be no mistake: time is running out. Because even as we move to control the basic kinds of air and water pollution we have known about for decades, new products and processes are creating a second generation of environmental problems even more difficult to solve. Cities with dreamy-sounding names like Times Beach and Love Canal have become a national nightmare -- and vividly demonstrated the dark dangers posed by hazardous wastes. Acid rain is eating away our forests and draining life from our lakes -- and dividing our Nation against itself in needless political warfare.

Clearly, these are difficult problems. Environmental protection is costly. As much as we might like to, we cannot blindly promote environmental values without careful attention to the economic effects. But our problems are not insurmountable. After all, we're the same people who tamed a continent, crossed frontiers, put a man on the moon, and led the world into the Age of Information. And we're also the people who cleaned up rivers so polluted they were fire hazards. We brought life back to Lake Erie -- and we brought salmon back to the Connecticut River. And with the right resources, commitment and leadership, I say we can solve the next generation of environmental problems as well.

Since the time of Theodore Roosevelt, American Presidents have understood the importance of preserving America's natural heritage for future generations. The basis of that understanding has been both moral and practical, for as Teddy Roosevelt himself put it:

> "As a people, we have the right and duty, second to none other but the right and duty of obeying the moral law, to protect ourselves and our children against the wasteful development of our natural resources."

With one exception, every American President since Roosevelt -- Democrat and Republican alike -- has honored that commitment. The one exception is Ronald Reagan.

His Administration still apparently does not understand that our relationship with nature today is vastly more complex than at the turn of the century. They do not understand that just as $200 billion budget deficits will erode the health of our economy, an environmental policy born of the frontier ethic will degrade the heritage of our country.

Budget cutbacks in environmental research and development will leave future generations ignorant of problems, let alone solutions. And when it comes to the environment, what we don't know can hurt us. Reduced enforcement of environmental laws will force tomorrow's children to pay the price for today's misconduct. And the Interior Department's giveaway programs are taking away resources the next generation may need to survive.

I think it's fair to say that many of you who are students at Keene State today would not be here had your parents not worked, saved, and even sacrificed so that you could attend college and get an education. Well, just as parents must have the foresight to provide for their children, so must a President have the vision to see the future consequences of his actions. The decisions a President makes -- and the decisions a President avoids -- alter the lives of Americans for years to come. The task and the test of leadership lies not just in building on the legacy of the past, but in identifying and meeting the challenges of the future. And in my judgment, a sound environmental policy for the '80s must be based on four overriding principles.

First, a President's role is to provide national leadership in managing our relationship to nature. True leadership does not reject the values of conservation. True leadership does not politicize the stewardship of our environment. And true leadership does not pit one region's economy against another region's ecology. Instead, true leadership ensures that the values of conservation and the ethics of stewardship are beyond partisan debate. It understands that protecting nature is nothing less than preserving the American heritage. It gives the guardians of that heritage the resources they need and the respect they deserve. And true leadership seeks to balance the concerns of every region of this country -- while it promotes the research and technology we need for a safer workplace, a healthier environment, and a more productive economy.

A second principle that should guide our policy in the '80s is the realization that environmental problems respect no national boundaries. We are not alone on this earth. We do not live in splendid isolation from our neighbors. We live and work in a fragile balance of nature, and all of nature -- ourselves included -- is protected by a very thin band of life-giving atmosphere.

Third, the next President must realize that our natural resources are both a heritage handed down from previous generations and a trust we must hold for future generations. We have both a moral and economic responsibility to preserve finite resources and to pass along the knowledge and tools that will enable those who follow us to use them wisely.

Finally, the next President must understand that our relationship to nature -- like nature itself -- is dynamic. New technologies and new ways of living pose new environmental challenges every day -- and new problems can only be met with new solutions.

In the next few years, the President of the United States will face at least four critical environmental challenges -- and the four principles I've just outlined must guide him in making decisions.

His first task must be to rebuild the environmental institutions of the Federal Government by returning to a professional, nonpartisan approach to environmental protection. The EPA and the Department of the Interior must no longer be political footballs. EPA must have both the money it needs for research and the people it needs for enforcement. Incredibly, the Reagan Administration has slashed the EPA budget by nearly 50% over the last two years. Expecting EPA to protect the public health and our environment without carefully collected and thoroughly analyzed data is like expecting doctors to cure disease without allowing them to run medical tests. In both cases, unnecessary and possibly fatal health problems will likely result. And when it comes to protecting the public health and environment, there is simply no substitute for the finest scientists, attorneys and engineers who understand and support their environmental mission.

Second, our next President must end irresponsible environmental isolationism and explore every avenue for international cooperation to control dangerous technologies. By opposing international standards for testing toxic chemicals, by refusing to address the issue of hazardous chemical exports, and by refusing to support international action on acid rain, the Reagan Administration has forefeited America's leadership role.

Common sense and simple morality alike demand that we use what leverage we have to control the harmful effects of the technologies we develop. We set a standard for the world when we passed the Nuclear Nonproliferation Act -- a law that I am proud to have coauthored. But whether we use a similar legislative approach for the environment or whether we pursue our obligations through international channels, we must recognize that we can't export our environmental problems -- and that we have a responsibility to help other nations address theirs.

I believe that international leadership is especially important when it comes to energy -- and in this country, our energy needs can't be considered without regard for the environment. That's why I've advocated a least cost energy strategy to phase out unnecessary subsidies and encourage conservation and renewable energy sources. And let me say that I strongly disagree with President Reagan's shocking suggestion that nuclear proliferation is "none of our business." I believe that any nuclear agreements we sign in the future must contain strict provisions both for environmental protection and for actively assisting other nations to manage their spent nuclear fuel.

The third challenge our next President will face involves the management and preservation of public lands and resources. Over the next few years, crucial decisions will have to be made regarding wilderness areas and mineral exploration. On these issues -- as on so many others -- we must reverse the mindless mismanagement of Interior Secretary James Watt. His continuing attempt to place millions of acres of public lands into private hands is shortsighted, incredibly naive, and just plain wrong. And as policy, it is simply unacceptable.

Instead, we need a sane oil, coal and gas leasing policy -- a policy that permits leasing only when the value of the resources is clearly greater than the damages of development; a policy that ensures the government gets fair market value for its leases; and a policy that makes every effort to protect the environment when exploration or production is necessary.

With respect to wilderness areas, I believe we need more of them -- and I would grant full protection to all potential wilderness areas until Congress makes a final decision on their status. And let me say that I support making those decisions on a state-by-state basis -- just as you've done with the Pemigewassett wilderness area here in New Hampshire.

And let me add that we face other problems that must be addressed: vanishing wetlands in the South, a decreasing water supply in the West -- and endangered species that are disappearing in every region of the country.

Fourth and finally, our next President must develop a plan to address the next generation of environmental problems. The environmental laws we passed in the early 1970s addressed visible air and water pollution problems we had known about for decades -- but while we knew that sulfur dioxide emissions presented public health problems in our atmosphere, we've only recently come to understand their role in creating acid rain.

Complex problems like these cannot be solved by the states alone. Nor will pointing our fingers at one region or segment of our society provide us with any answers. But we can meet the challenges of hazardous wastes and acid rain with new approaches -- and with new technologies that build on existing programs.

I'm sure you've seen that television commercial where the mechanic warns the motorist: "You can pay me now or you can pay me later." Well, if we fail to control hazardous wastes and acid rain now, we will all be paying for them later -- in destruction, in disease, and even in death. Tragedies like Times Beach and Love Canal -- and the incredible personal suffering they have caused -- graphically illustrate the price of procrastination.

The time has come for action. Fuels, synthetic fibers and plastics, fertilizers, pesticides, specialty metals, and a host of other products all release hazardous substances into the environment. These deadly chemicals, which can cause cancer and other severe health effects, are leaching into the ground, washing into our lakes and streams, and poisoning our drinking water. We need the products -- but we can't afford the by-products. That is why we must reduce toxicity if we can -- or find substitutes for the substances if we must. We must also find better ways of disposing of the hazardous wastes that <u>are</u> produced -- by making the Superfund work the way it was intended -- and by bringing swift and certain punishment to those who break the law. To minimize the

impact of wastes already in the environment, we must increase our knowledge of their effects on human health. To minimize problems with new toxic chemicals, we must beef up our ability to identify, monitor and control them. And that is why I believe that only a "cradle to grave" hazardous waste program will do the job.

And that brings me to the issue of acid rain. No one knows better than I do how controversial this issue has become. It has divided our country along regional lines -- and it has permitted a few self-serving politicians to exploit these divisions for their own advantage.

Well, in my opinion, acid rain is much too important an issue for political gamesmanship. What's at stake is nothing less than the health of our industries, the livelihood of our citizens, and the future of our environment.

So instead of assuming a posture, I have taken a position. And I have proposed a solution that I believe is rational, fair and responsible. Even the President's own ad hoc committee recognized that there is a problem -- and the National Academy of Sciences recently called for corrective action. I reject the Administration's assertion that we do not yet know enough about acid rain to create a policy. I have a policy -- and I have a program.

Briefly, the bill I will soon put before Congress would require fossil-fuel burning plants in 31 eastern states to reduce sulfur dioxide emissions by 8 to 10 million tons over a 12-year period. To pay the capital costs of adopting the new control technologies available today, a small surtax -- between 25¢ and 75¢ a month for consumers here in New England and slightly more in other parts of the country that are more dependent on fossil fuels -- would be added to electric bills in each of the 31 states.

My proposal would provide the people of New England and all the states east of the Mississippi with the benefits of a cleaner, healthier environment <u>without</u> imposing unfair burdens on already depressed regions of the country. By sharing the benefits as well as the costs, it gives the people of the Midwest and Northeast a common ground on which we can meet and solve the problem of acid rain once and for all. And by encouraging the development of new technologies to control pollution, it enables us to move forward together in our quest for a cleaner, healthier and more productive America.

And now let me close my remarks with one final thought. To paraphrase H. L. Mencken's famous observation about human problems, responsible stewardship of our environment is not painless, simple or cheap. Reducing air and water pollution and controlling hazardous waste are expensive propositions -- and the money must be spent today. The costs are calculable -- but many of the benefits are not. In fact, they often may not be apparent for years or even decades, as in the case of reduced rates of cancer. But if the results do not always come as fast as we would like, that is no excuse for delaying our efforts. As in the battle to restore excellence in our schools, so it is in the effort to restore our environment. It is not enough merely to <u>pray</u> for what you want, you must also be willing to <u>pay</u> for it.

Similarly, although we cannot -- and should not -- preserve every undeveloped tract of public land, we must not forego this last, best chance to preserve the few remaining wilderness areas of our country and the fragile systems which support life on this planet.

Just as the promise of equal opportunity is the birthright of all Americans, so too is our unique natural heritage an American birthright.

Perhaps Adlai Stevenson put it best. Just a few days before his death in July of 1965, the Ambassador gave what proved to be his last speech to the United Nations.

> " We travel together," he said, "passengers on a little spaceship, dependent on its vulnerable reserves of air and soil: all committed for our safety to its security and peace: preserved from annihilation only by the care, the work, and I will say the life we give our fragile craft."

Few Americans have seen this fragile craft we call earth the way I have been privileged to see it. I have seen its majestic beauty against the blackness of space -- and I have seen its tiny silhouette against the vastness of infinity. And no one -- no one on the face of this planet -- appreciates more than I the need to preserve and protect the only home we've got. As one of my fellow astronauts put it, we have solved the problems of leaving this earth. Now you and I must work to solve the problems of living on it.

Thank you very much.

JOHN GLENN ENVIRONMENTAL POLICY FRAMEWORK

PRINCIPLE	GOAL	POLICY
Leadership	• Rebuild environmental institutions.	• Appoint respected professionals who understand and support agencies' missions. • Resume nonpartisan, cooperative approach to environmental issues. • Restore funding for research and enforcement.
Global	• Resume America's leadership in promoting increased international cooperation.	• Renew support for United Nations and OECD environmental agreements. • Ensure that foreign assistance programs are environmentally sensitive. • Encourage developing countries to increase indigenous nonnuclear energy supplies. • Strong enforcement of Nuclear Nonproliferation Act provisions regarding environmental protection. • Better coordination among Cabinet-level departments to ensure that U.S. role in international affairs is consistent with environmental protection. • Implement least-cost energy strategy.
Heritage	• Reverse policies of James Watt. • Restore sound environmental planning to Department of the Interior.	• Development a sane policy for oil, coal and gas leasing. --Ensure fair market value for public resources. --Provide environmental protection when exploration or production is necessary. • Grant full protection to potential wilderness areas. • Encourage designation of additional wilderness areas.
Dynamic	• Reduce sulfur dioxide by 8 to 10 million tons within 12 years. • Effective "cradle to grave" control of toxic substances.	• Implement acid rain reduction program. • Negotiate acid rain agreement with Canada. • Increase research into causes and health effects of acid rain and hazardous wastes. • Renew emphasis on identification of health and safety problems in the workplace. • Aggressively enforce existing programs. • Develop an integrated toxic substances control strategy involving effective implementation of the Superfund and incentives for proper disposal of wastes. • Encourage development of technologies to reduce generation of waste, discourage land disposal of waste, employ substitutes for and destroy potentially toxic substances.