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REMARKS PREPARED FOR DELIVERY BY  
THE HONORABLE FRANK G. ZARB, ADMINISTRATOR  
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*FINAL*

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Thank you for that kind introduction. I am happy that I was able to engineer my schedule to be with you here today -- perhaps my scheduling staff is taking lessons from IEEE.

During this Bicentennial year, everyone seems to be doing a lot of reflecting on the significance of the historical events of the Revolutionary War era, which shaped so much of our country's destiny. Both our foreign adversaries of that time -- the British -- and our allies then -- the French -- are planning major celebrations in honor of our Nation's 200th birthday.

The British have traditionally been renowned as historians, and usually their histories are fairly long-winded. The French, on the other hand, have shown a flair for brevity. And often a concise summary can illustrate the basics of a situation far better than a lengthy treatise.

One favorite French maxim exhibits much historical perspective in few words: "The more things change, the more they remain the same."



Just as in 1776, the United States is today undergoing broad, basic changes -- and facing new, critical challenges. The challenges may be different today, yet in a very basic way, they are like those faced by the founding fathers of the republic.

The challenges of 1976, like those two centuries earlier, concern our economic and political survival.

The difference is that 200 years ago the challenge involved armies, while today it involves energy -- the most pervasive element in maintaining our economic and, therefore, our political freedom.

Each challenge to an individual, a group, or a Nation presents an opportunity to succeed -- or to fail -- in meeting and mastering the problem at hand. The United States has never shrunk from challenges in the past, and we need not now -- IF we look to history for guidance.

Early in this century the philosopher George Santayana wrote that "those who cannot remember the past are condemned to repeat it." And unless we remember the crises we have faced in the past -- and do something to keep them from recurring -- we may very well be condemned to relive them, to an even more menacing degree, in the years to come.

The oil embargo of 1973-74 caught this country -- and the rest of the industrialized world -- with our collective pants down. And we got a good swift kick in the tail.

But, like a little boy who tends to forget why he was spanked last week, the country seems to have conveniently erased the memory of the embargo from its consciousness.



After all, the energy crisis is over . . . right? We can get all the gasoline, heating oil, electric power, and other energy we need . . . right? All we have to do is pay a little more . . . right?

Wrong. Wrong. Wrong.

We have been living on borrowed time for much too long, and if the countries which sell us crude oil and petroleum products decide to stop the clock again, we'll be in for a crash refresher course in what life was like during the last embargo. It will be the history of 1974 all over again.

But next time, we won't just have long gasoline lines. In fact, in some areas, we won't have any lines, because we won't have any gasoline. And there will be other areas -- regions where electricity generation depends on imported residual oil -- where the lights may simply go out.

I want to emphasize that this is not idle doomsday talk -- it is an all too real possibility.

I am personally convinced that we stand a disturbingly great chance of being subjected to another embargo. The Organization of Petroleum Exporting Countries has the oil we need, and they can be expected to make the most of the seller's market they enjoy.

Progress has been made during the past several years toward solving some of our problems, but there is much more that needs to be done.

As long as we continue to become increasingly dependent on the OPEC nations for our petroleum supplies, we will be increasingly subject to arbitrary OPEC decisions on price and supply. And



that will simply mean that we didn't learn the history lesson; that we flunked the course; that we abdicated our economic and political birthright in favor of foreign domination and control.

Unfortunately, the momentum against us was strong. We haven't turned it around yet, and, in fact, we're still losing ground. This winter, despite lingering effects of the recession, we began using more oil than we did before the embargo. And, with diminishing domestic production, more and more of that oil is coming from overseas. During one week last month, for the first time in history, we imported more petroleum and petroleum products than we produced here at home.

But, we are not irrevocably bound to that course. We can make our nation virtually embargo-proof, and we can do it by 1985.

It won't be easy -- nothing which involves the massive projects necessary to accomplish our energy objectives can ever be done without difficulty. But is realistic to say that we can regain control of our energy destiny -- if we take the initiative now, and begin restoring our ability to supply our energy needs from domestic sources.

To do it, we will need to move forward quickly on four separate -- but equally important -- tasks.

First, we must encourage optimum energy conservation efforts; second, we must nearly double our use of coal -- our most abundant domestic energy resource; third, we must accelerate the contribution of nuclear energy to our electric power supply; and, fourth, we must maximize exploration and development efforts to produce more oil and natural gas from domestic sources.



The first three of these are, of course, integral factors affecting the future of the electric power industry and all the many industries which supply the power sector of the economy.

Conservation -- and the concurrent job of improving the efficiency with which energy is produced and consumed -- are vitally important elements in reaching our energy goals.

But conservation is an answer -- and not the answer. There is no single solution, and, in fact, we need to get all the energy we can from every source -- both in savings and in additional production -- on the credit side of the ledger, if we are to meet future energy demand.

One of the Federal Government's major efforts has been to assess what can be done to improve the reliability and productivity of existing power plants. Extensive studies have shown clearly that significant improvements in efficiency are both possible and -- even more importantly -- cost effective.

Quite simply, improving the productivity of nuclear and coal-fired generating installations means lower fuel costs and reduced requirements for new generating capacity. That, in turn, holds down utility and consumer costs, contributes to environmental improvement, and provides additional domestic energy supply on the plus side of our balance sheet.

Both increased productivity and construction of efficient new plants will be necessary to meet future demand for electric power.

While electricity consumption remained essentially level during 1974, and increased by only 2 percent during 1975, the effects of consumer and industrial conservation efforts cannot continue to hold growth rates to those levels.



With economic recovery, and the permanent need to fulfill the energy demands of a growing population, the requirements for electric power will continue to grow.

During the first 15 weeks of this year -- ending on April 10 -- electricity output climbed by 5.6 percent over production during the same period last year. If oil prices remain at or near current levels, the country's total energy demand will increase by an average of 2.8 percent through 1985, with demand for electricity climbing at an annual rate of 5.4 percent.

We will have to rely increasingly on electric power to fill our total energy demand in the future. Today oil and natural gas, which make up only 17 percent of our resource base of proved energy reserves, account for 75 percent of our energy consumption.

Fully 90 percent of our energy reserves are coal, but it accounts for only about 18 percent of energy consumed.

We cannot continue to depend on our least abundant energy resources for the vast majority of our energy use. To begin to balance that equation, we must make increasing use of coal and nuclear power for efficient generation of electric power.

Congress has given specific authority to FEA to accelerate the conversion to coal of powerplants and industrial boiler installations which now burn oil or natural gas.

Converting power plants from oil and gas to coal, and requiring new plants to have coal-burning capability, could enable us to use an additional 200 million tons of coal a year as boiler fuel by 1985. If that schedule can be maintained, it will mean 2.2 million barrels of oil a day that we won't have to import in 1985.



And cutting imports of oil is only one of the benefits to consumers and industry which can result for the conversion program. Utilities which have already received prohibition orders mandating conversion to coal have discovered that their fuel costs using coal are roughly half as much as their bills when they use oil.

The costs of conversion are great, but the savings are even greater. For instance, the investment involved in converting the first 74 units that have been issued conversion orders would run approximately \$300 million -- or an annual capital cost increase to consumers of about \$50 to \$60 million.

But, at the same time, fuel cost savings for those same plants are expected to reach \$570 million a year -- providing a net annual saving of more than half a billion dollars to consumers.

Granted, the initial conversion orders were for the most readily convertible plants, and the next group won't be as cheap to convert. But even for the additional units under consideration for coal conversion orders, fuel cost savings could exceed capitalized conversion costs by \$300 million yearly.

We can and will accomplish the objectives of the conversion program while maintaining the quality of the environment by insisting on the installation of pollution control equipment where necessary.

By 1985, the use of coal in electric power generation could increase from the 1974 level of 394 million tons to more than 700 million tons per year -- both in converted units and new coal-fired facilities.



And, just as we cannot afford to ignore the energy potential of our huge coal resources, we cannot allow our proven technology for producing electric power with nuclear energy to go largely untapped.

Even if we wanted to pick one or two of the energy options open to us, we simply couldn't do it. We do not enjoy the luxury of choice. We urgently need to produce all the domestic energy we can, while preserving and improving our environment. To delay the development of any one source means postponing the time when we can once again count on secure energy supplies.

Nuclear energy can be supplying more than a quarter of our electricity needs by 1985, compared with 8.6 percent last year -- if project cancellations and deferments do not increase significantly, if financial problems can be resolved, and if licensing delays can be minimized.

To help deal with those "ifs" and other problems which have increasingly hampered major new energy development projects in recent years, the Federal government has been working closely with State governments, consumer and environmental groups, and utilities to identify the electric power projects most urgently needed, and -- to the greatest extent possible -- to help avoid delays in bringing the projects on stream.

Unfortunately, no discussion of plans for new power plants would be complete this week without reference to the untimely cancellation of plans for the Kaiparowits coal-fired generating facility in Utah. I could spend all day describing why I feel that projects of that nature are not only needed but absolutely essential to our energy future.



The opponents of the Kaiparowits plant apparently consider the decision by the utilities involved to drop the project a victory for their side, and one of them who was quoted in newspapers last week sounded very much as though they would now try to "eliminate" -- to use his word -- other energy projects planned for the Four Corners region of the Southwest.

If that's a victory, I can only recall the famous words of the ancient Greek commander, Pyrrhus: "Another such victory, and we are undone."

Perhaps the most frightening aspect of the Kaiparowits cancellation wasn't in the headlines; it was buried in one newspaper report of the issue. "Without Kaiparowits," said an executive of one of the utilities involved, "it may be that oil will be our only viable alternative in the early 1980's."

That scares me, and I hope it scares everyone. The oil he was talking about won't be domestic oil -- we can't hope for a great deal of additional production as a result of expanded exploration effort before the mid-1980's. The oil that may be the "only viable alternative" will be imported, and each cancellation of a major coal or nuclear generating facility increases our potential future reliance on imported oil.

The danger of overdependence on foreign energy supplies is not hypothetical. It is here right now, and the danger is getting worse with each passing day.

To meet the ever-increasing requirements of individual citizens and a healthy, growing industrial economy for adequate, safe supplies of energy 5, 10, 15, and 20 years from now, we must



begin now. Any delay is too long, and if we wait much longer, we may discover that achieving our goals has become far more difficult and far more expensive.

The cost of regaining energy self-sufficiency will be staggering, but it is a cost we can -- and must afford. In the final analysis, it will be much, much lower than the price tag for failure to take action now.

As I said at the outset, in the nearly three years since the oil embargo much has changed, but much still remains the same. We still have an energy crisis, we still labor under an increasing dependency on foreign oil sources, and we still need many of the same actions we needed then.

But we still have many of the same opportunities, too, and -- while it is getting more difficult all the time -- we can still make the most of those opportunities and assure secure energy supplies before ten more years have passed.

We've all got to work together to meet the energy challenge. Environmentalists, industrialists, public officials, engineers -- all of us have to come to the realization that if we succeed in minimizing our energy dependence, we will all be winners, and that if we fail, we will all lose a sizeable part of the independence we are celebrating this year.

Thank you.

