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DEPARTMENT OF INTERIOR

In the Matter of:

NATIONAL PETROLEUM COUNCIL MEETING

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NATIONAL PETROLEUM COUNCIL

MEETING

Department of the Interior
Auditorium,
18th and C Streets, N.W.,
Washington, D.C.
Friday, July 17, 1970

The meeting was convened at 9:09 o'clock, a.m.,

Mr. Jack H. Abernathy, Chairman, presiding.

PRESENT:

JACK H. ABERNATHY,
Chairman,
National Petroleum Council

HONORABLE WALTER J. HICKEL,
Secretary of the Interior

GENERAL G. A. LINCOLN,
Director,
Office of Emergency Preparedness

HONORABLE HOLLIS M. DOLE,
Assistant Secretary - Mineral Resources

DR. WILSON M. LAIRD,
Director,
Office of Oil and Gas

CARROL M. BENNETT

VINCENT M. BROWN,
Executive Director,
National Petroleum Council

OTTO N. MILLER,
Chairman,
Committee on Possible Future Petroleum
Provinces of the U. S.

E. D. BROCKNETT,
Chairman,

PRESENT: (Continued)

**Committee on Petroleum Resources under the
Ocean Floor**

W. W. KEELER,
Chairman,
Committee on Environmental Conservation - The
Oil and Gas Industries

O. M. TURNER,
Chairman,
Technical Subcommittee,
Committee on Petroleum Storage Capacity

M. A. WRIGHT,
Chairman,
Committee on Crude Oil Deliverability

AND OTHERS.

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P R O C E E D I N G S

THE CHAIRMAN; Will you please come to order? Will the members of the Council please come to order and take your seats?

I wish to open -- let's see, which session of the National Petroleum Council is this that we are calling to order? It is certainly the beginning of the twenty-fourth or twenty-fifth year at any rate, and possibly the twenty-fifth that I now call to order.

I want to commend all of you for finding this, after a quick shift of location. I hope that there aren't too many members who got lost this morning. I was very astonished; I am afraid that if Vince hadn't come by and picked me up this morning I would have gone to the wrong place.

Well, as most of you know, this is my last session as your Chairman, and so my remarks are couched at least partly to reflect that fact.

Two years ago as your newly elected Chairman I anticipated an era of change and challenge, and in that anticipation I have not been disappointed. I have been wrong about many things but not about that because there have been a great many changes and a great many challenges.

There have been changes, for example, in the government itself, and with this change, new men with new ideas and new faces have occupied the seats and places of power.

There have been changes and there have been tremendous problems. There have been problems of pollution and environmental imbalance -- someone was talking about that last night, the new language that he has learned. There have been problems of pollution and environmental imbalance, and some of these problems have been real and some of them have been imaginary, but nevertheless they have been problems.

There have been problems of political and financial crises here and abroad, attacks on the school system, and on our own business, by the way, our own government, and even our own way of life -- a shocking thing to me, but not by aliens who have been enemies for many years, but more seriously, far more seriously in my judgement, by some of our very own people.

In this same period, however, we have also been witness to, and in some cases parties to many positive things, too -- I think sometimes we dwell too much on the negative -- in both "inner" and "outer" space:

We have seen men walk on the moon, and sometimes I think that is already forgotten.

We have explored and exploited our ocean resources at an ever increasing depth.

I was thinking last night, after I took that non-onto home -- or rather to the hotel, and set it on my dresser there in my room, and began to look at it, the more I thought

about it, the more impressed I was. Imagine being given a token or a trophy that is bored from many millions of years of age under eleven thousand feet of water and, oh, something like, oh, a hundred meters of deposit on the bottom of the ocean! It is an incredible thing, and that is the business I am in, and I still don't know how in the world that can possibly be accomplished!

Well, these are kind of positive things.

And it is true that the Glomar Challenger in the Deep Sea Drilling Project has found oil below eleven thousand feet in the open waters of the Gulf, and there is a brand new map of the Northwest Passage, you know, which was written by the Manhattan.

Well, these are stirring events, and I submit, myself, that in the light of history, a hundred years from now, many of the things that trouble us so acutely will seem unimportant, and perhaps be only footnotes on the pages of that day, but these voyages and these discoveries and these things that they are talking about will loom larger as time passes; I know they will.

Now during these two years the National Petroleum Council has tried to remain alert to its responsibility to the nation as an adviser to the government and to the people of the nation through the Secretary of the Interior. The capabilities and resources of the petroleum industry have

been applied in depth to the definition and solution of national energy problems.

It has completed and submitted to the Secretary very carefully developed reports on Petroleum Resources Under the Ocean Floor; on U. S. Petroleum Imports -- and the report under the Chairmanship of Charile Mitchell, which was completed in record time, I think, something like thirty days from the time it was requested for submittal, I may add; an interim report on Environmental Conservation -- the Oil and Gas Industries; a report on the Skills and Occupations of People in the United States Oil and Gas Industries, which had details including the census of the worldwide industry and their skills, an invaluable resource; and the report on the Materials Requirements for Petroleum Exploration and Production. These things didn't just happen; they were the result of great effort and dedication.

And in addition to these five projects, which have been wrapped up, sealed, and delivered to you, Mr. Secretary, the Council has also undertaken and carried out extensive studies in many vital areas of concern to both industry and government, including three reports in practically finished form, which are being considered today. And these include, these three reports include:

A monumental work entitled the "Possible Future Petroleum Provinces of the United States," done in cooperation

with the A. A. P. G., the American Association of Petroleum Geologists.

A report on "U. S. Petroleum Inventories and Storage Capacity".

A report on the "Capacity of Crude Oil Gathering Systems and Deep-Water Terminals".

The Council has also -- and there will be more about all three of these later -- the Council has also continued its interest in helping maintain an effective readiness posture in the area of petroleum industry emergency preparedness, within a framework of national cooperation.

To you, General Lincoln, I would like to say, sir, that this industry has prepared and spent more new energy to meet its responsibilities in the event of an emergency which could well ensue -- we pray not, but it might -- in the next few months or years. We stand as ready as, I believe, any industry in this nation today.

This last, you notice that I said this was done within a framework of national cooperation. There is an organization chart drawn; mapping the energy resources of the petroleum and the natural gas resources of this nation -- and not only is an organization chart a necessary job for our people, but our people actually undergo training about this. This is administered under Secretary Michel's Department, and it is, I think, a fantastic example of the kind of beneficial

thing which industry can do under the guidance and with the cooperation of the government.

And now then that leads me to this word "cooperation". I want to repeat a statement that I have made to the Council before, and I want to re-emphasize it:

The National Petroleum Council has but one purpose -- to advise and inform and make recommendations to the Secretary of the Interior in respect to any matter relating to petroleum or the petroleum industry. Now this advice or information is submitted to him solely upon his request -- we don't originate anything -- and in the interest of the government and the nation.

The members of the National Petroleum Council, Mr. Secretary, that you see before you, sir, have all been appointed -- not as representatives of themselves or of their individual companies, but as representatives in the national interest with some degree of personal expertise, of one or more segments of the oil and gas industries of the United States.

When we meet in any official N. P. C. endeavor like this, and more particularly and perhaps more importantly, when we meet and act in our Committees, where the work is done, we act as a quasi-governmental body, not as an industry group. In all of its operations the National Petroleum Council has been genuinely and consistently non-partisan and non-political.

functioning through twenty-four years and five administrations with the same spirit of cooperation and the same dedication to the vital concerns and interests of the nation.

And again we have prepared some 170-odd of the type that I have described, eight of which I have mentioned so far this morning, and those I know will have had a considerable influence and be of considerable benefit to our government as it considers the interests of our country.

Well, as your Chairman these past two years, I have been particularly impressed with the response of Council members to individual assignments and Committee appointments, which I have mentioned earlier. The willingness with which such assignments have been accepted and carried out, quite often under great pressures of time and circumstance and certainly under conditions of great personal sacrifice, has really been exemplary.

I might mention here that the study on the Possible Future Petroleum Provinces -- which we will discuss here this morning -- alone involved sixty-eight working Committee members and over a hundred contributing geologists. This may be taken as an example of the kind of response about which I am speaking.

As one retires from an office such as this, it is customary to praise the staff and, of course, I do so now. But there is nothing perfunctory or customary about my thanks

to the staff of the National Petroleum Council.

Vince Brown has assembled in Max McKnight, our Counsel, in Sol Signorelli, our Office Manager, in Ed Farrington, and in the lovely girls and lovely ladies who keep things running so smoothly and so pleasantly, he has assembled a nine-person group that I will put up against any nine people anywhere, in your companies or mine. Believe me, I don't think I ever saw such a bunch of non-clock watchers. And believe it or not, it is an actual fact that they cranked through last week, four reports in four days, including the monumental Future Petroleum Provinces Study -- they produced one of these things a day; I still don't believe it was done! Vince and his people have been consistently and continuously productive, thoughtful, and cooperative. I don't see how we could possibly do better or be better represented in the Nation's Capital.

I commend them all to you, and to the incoming Chairman.

Well, continuing these personal thoughts, I want to thank all of you for your continued faith in the purpose and function of the National Petroleum Council, and for your individual and collective labors to the end of maintaining the Council's effectiveness as a vital working part of the government - industry machinery.

I am convinced that the continued operation of this

machinery is vital to the nation, and it has been your generosity, your knowledge and experience, your dedication of purpose and, most of all, your integrity, which has kept it running smoothly.

I look forward to my continued association with all of you, and I have, and I here now publicly pledge my cooperation in any way and at any time he asks for it to my more than worthy successor.

Finally, one last word:

I have been immensely impressed, Mr. Secretary, by the quality and the capability of the government people in the Department with whom it has been my privilege to work. I have worked for them and we have given to them, I believe, and they have certainly given to us -- we have given again reciprocally a considerable amount of education and know-how. And Assistant Secretary Belo, Gene Morrell, Dr. Wilson Laird, John Rice, and many others -- I can run down the whole list -- these are good men; they are sincere men; they are hard-working men. Most of all, they have strong American convictions in the very best sense. I am proud to call them my friends as well as fellow workers.

And now, gentlemen, as we enter this -- now I come to the number -- as we enter into the 63rd meeting of the National Petroleum Council, I would like to present to this assembly our distinguished Secretary of the Interior and Co-

Chairman of the Council, the Honorable Walter J. Hickel.

(Standing ovation.)

SECRETARY HICKEL: Mr. Chairman, distinguished guests, and members of the National Petroleum Council:

Jack, I think that was a wonderful analysis of not only the makeup of the National Petroleum Council as to members, but their intent and direction as you outlined. I have found that intent and the analysis that you gave very appropos to the problems that we have to face.

I congratulate you for an excellent job, and not only presenting your side of the story, but the way in which you did it.

I think without a doubt -- as Jack touched on a little bit -- our country is in the middle of a transformation which is nearly revolutionary. There is hardly an institution in America today which is not undergoing some sort of a radical change, whether it is government, industry, universities, the church, or even our families.

And if some of these changes are not viewed in the right perspective, they can really be frightening because they are so fundamental. Our very values many times are being questioned.

Work itself -- the thing that our parents taught us that we had to do to keep from starving to death, the very pillar of society -- is now being redefined. Work, for a grow-

ing percentage of Americans, seems to need an added dimension. It must provide fulfillment, personal satisfaction, and challenge. No longer is the reasoning to work to keep from starving to death the total picture.

Nearly every day we read the press and watch T. V., and the things that are happening on our campuses, the traditional concept of patriotism is being re-examined as well. A great debate has begun. Each side is tempted to latch onto some small part of the truth, mass produce it on a bumper sticker, or whatever they might do, and chant it in the streets. The role of the United States as a great nation is many times in question.

Now our global commitments will not de-escalate, not in the immediate future. But their performance in the minds of most Americans has radically changed.

Now personally I see this national transformation as a positive force.

The average American is concerned more than ever before with how he lives his life. I don't think this is isolationism. Instead it is an awareness that as the architects of the twentieth century affluence, it is our responsibility to make it whole.

We have a dream that progress can be achieved without exploitation of others or of our environment. And I think that, I know that I am personally proud that those of

us in industry and government still have the capacity to dream. Our people are more and more convinced that the next step in the American experiment must be to clean up our own back yard and meet the enormous challenges of creating a pollution-free planet.

For one may ask how valid is individual freedom when you drive down a highway and see the hopelessly ensnarled cars choked with fumes?

But you might want to ask a question:

What meaning has the pursuit of happiness in a ghetto which is really environmentally starved? You know, we can solve the problems, we think, of these ghettos by tearing down some physical environment and adding "X" amount of money to replace that physical environment, but until we really try to reach the inner man, and solve the environment of the heart, mind, and soul, until we address ourselves to that part of the inner man, we will never, in my opinion, solve the problem of the inner city.

You know, more than a century ago, the noted French political philosopher, Alexis de Tocqueville, visited the United States to get a first-hand view of a dynamic new democracy. He looked around and he marvelled at the clear skies, the inviting streams, the endless expanse of country in forests and plains, and the vigor and the enthusiasm of its thirteen million people.

Then he wrote: (And I quote)

"A democratic power is never likely to perish for lack of strength or of its resources,

"But it may very well fall because of the misdirection of its strength and the abuse of its resources."

Well, I think that we will all agree that there has been some misdirection, some of you, sometimes in great measure, but now as the oldest of all the democracies, America must prove to itself -- as well as to others worldwide -- that it has the ability to clean up all of that garbage that it has left in its wake, to quit heaping disgraces on the total environment, and to take a civilized approach in managing its remaining resources.

You know, pollution is like the common cold. It strikes the rich, and it strikes the poor, the people in the cities and the people in the country, the people all over America and all over the world. There really isn't any place you can run to escape to.

As the Secretary-General of the United Nations said -- and I quote:

"The time has come when nations must realize that each of them has responsibilities toward the state of the natural endowment of the earth as a whole."

The Secretary-General underscored a point I have often made:

"Concerned preventive action now -- is far less costly than to repair the damage after it has occurred."

Having failed to apply the ounce of prevention in past years, we're now faced with applying several pounds of cure.

In the past, as we raised our smokestacks, and as we went from an agricultural society to an industrial society, there really wasn't any problem because there seemed to be just an abundance of everything. But now we have found out that the right to produce whatever it is, is not the right to pollute.

Whether it is industry or government, or whatever programs we might have, these people that use the resources are welcome to such things as the air and the water from the ocean, even without charge, as long as they return these resources just like they found them.

And in order to be fair, anti-pollution laws and regulations must be universal, and those violators of the universal regulations will be prosecuted.

But it need not be, and should not be, a dog-eat-dog struggle between industry and conservation. Let's find new ways -- better ways -- of doing business so that our industries can prosper -- and our environment can flourish -- and do it all at the same time.

I think an example of this involves the Santa

Barbara Channel. I don't think if I live to be a thousand years old that I will ever forget the Santa Barbara Channel!

(Laughter.)

If Fred Hartley lives to be three thousand years old, he won't! When I leave this office, I am going to try to find some kind of a handle that we can put together that Fred and I can both use and still be friends because we are.

You know, just the last few weeks the President has asked for legislation to permit the federal government to buy back twenty oil and gas leases issued in the Santa Barbara Channel in 1968. These are the twenty tracts, as you might know, in the federal portion of the channel lying directly seaward of the state oil sanctuary.

You know, the fact is that the federal government failed to respect the decision of the State of California and its people when they created that sanctuary several years back in what was a beautiful section of the coastline. And what we are really trying to do now is to respect the purposes for which that coastline was set aside.

And I mentioned before that when you put a value on natural beauty and recreation and sports fishing and pleasure boating, or just the right to roam and look and see, and when you put a value on that, then the value, the highest value that we thought this stretch of beach might be worth may not be really so.

And I think that the regulations and orders now in effect for drilling on the O. C. S. will permit the safe exploitation and exploration and development of the remaining acreage in the Santa Barbara Channel. And drilling will be permitted when we have thoroughly examined the geological and engineering and environmental factors.

Now I think this is not a negative thing. With this new approach the tremendous resources of the Santa Barbara Channel can be developed with little threat to its ecology or scenic beauty. And I think that it is a logical thing to do.

Now let's move the spotlight to another situation where we are having to balance resource development with environmental protection: the Trans-Alaskan Pipeline.

Now here again is a tremendous need for early development of vital resources. I don't have to tell you people that we are losing our spare productive capacity in the "lower forty-eight" so fast that we'll be out of it inside of three years.

And the North Slope at the moment is by far the best hope we have for the supplies of domestic oil and gas that will keep us somewhat from being dependent upon foreign sources. Completion of the T. A. P. S. line would be a tremendous shot in the arm for further development of North Slope resources.

But we -- I say "we" collectively, industry and government -- cannot afford to make mistakes. You know, it is something like parachute jumping; you have got to do it right the first time. I think it is especially so in this case.

But there is no question in my mind that the permit will be issued and the pipeline will be built. The question to ask is not "if", but "how".

Before moving, certain things have to happen:

When the construction criteria satisfies us that the line can be built safely and without damage to the terrain and ecology of the area we will proceed. And I expect that will happen in the not too distant future.

There are legal requirements of both the federal government and the State of Alaska that have to be met.

These things take time, and they cost money.

One more case that I would like to mention is the largest hydrocarbon deposits in the world -- the Green River oil shales in Colorado, Utah, and Wyoming.

In their present state they are worthless. But with proper development they could make the United States self-sufficient in oil and gas for generations. The energy potential of our oil shale reserves are just about that great.

But for every barrel of oil, of shale oil, pro-

duced, it means that two tons of rock has to be mined, crushed, retorted, and disposed of. And just to produce a million barrels of shale oil a day -- only seven per cent of our current requirements -- we would have to handle over 700 million tons of rock a year.

Now this is more tonnage than all of the coal mined in the whole United States last year. The spent shale could cover an area the size of the District of Columbia to a depth of twelve feet. So I think that you can all recognize the magnitude of the environmental challenge.

But that isn't going to stop us because we now are in the process of resolving these issues of environmental impact with the States of Colorado, Utah, and Wyoming. Our people met with them in early June, and are to return later this month to meet with them again.

And when the last of the big problems is solved, we can proceed with the program for developing the Green River shales. Like the Alaska Pipeline, the real question is not "if" but "how".

I have used these examples to illustrate a basic fact of our existence today: That is, energy and environment are impossible to separate. We must solve our energy problems and our environmental problems together.

As you are aware, on top of the environmental crisis, we have an energy crisis.

But the first -- as you know and I know -- has been getting a lot more publicity than the second, but more and more people are beginning to realize that shortages may occur in electric power, natural gas, coal, and low-sulfur fuel oil.

I think in the hearings just concluded in New Orleans, it was pointed out conclusively and, I think, clearly, for the benefit of industry, government, and the American public, that it is necessary that we proceed. We are beginning to see the connection between the things we have to do to protect our environment and the things we have to do to keep two hundred million American people working, fed, clothed, housed, transported, and otherwise provided for.

This means that hard thinking is needed to mesh these two vital jobs so that both can be done immediately and efficiently. And at the government level, we must coordinate the total energy picture so that it can be lined up against the total environment picture.

To do this I have asked Dr. John McKetta of the University of Texas to head a study panel to look at the national energy situation.

The connection between energy resources and the environment shows up in two studies the Council has undertaken to do at Interior's request.

I have received a copy of your interim report on

environmental conservation and the oil and gas industries, which spells out the key issues that need attention, and need attention now.

We are faced with some tough problems, as I learned through my experience with the Cabinet Task Force on Oil Import Control. The experience showed me, and showed me very clearly, that we really have no national energy policy. And perhaps, we may not need one.

But we need, we do need to review the various separate energy policies and determine their influence on the overall energy picture:

You know, we have a policy on gas and atomic power. We have some thoughts on oil. And we recognize the existence of coal and water power. But I believe that it would be wise to look at the interrelation of all of the several forms of energy.

Further, this new variable -- the environment -- has become so much more important in the whole energy picture within the last few years.

So in the light of these circumstances, I have had my staff explore the attitude of you people, and other governmental agencies, and public groups, on the question of the energy policy.

Historically, the energy industry has been reluctant to support the concept of a national energy policy. I

was pleased to learn that all were in agreement that one group should analyze present U. S. industry policies.

Accordingly, I asked my staff to organize the national energy study using industry experts to supply the basic data and university and public groups to assist in analyzing the data. Because I consider it so important and because it involves other departments of government, it is being conducted in the Office of the Secretary where it will receive my personal attention.

With your cooperation and support, we will work for a national energy policy which permits each segment of the industry to make its maximum contribution, a contribution determined by interfuel competition and by environmental forces.

Now we are not going to wait for a five-year study, and yet we are going to give it enough time to do a job thoroughly. So I have asked the group to complete their study within eighteen months, and I am hopeful with the results of their deliberations that we will have a useful recommendation in which the government can make decisions that are concerned with energy policy matters.

And so not only your ideas, but the ideas of all interested parties and industries, we welcome those ideas.

So with that I would like to take the time again to extend my thanks to Jack, the outgoing Chairman of the

Council. And I am delighted that he will still be with us as a Council member, so that we can call on him for his talents and his ability to communicate, for his drive and desire to serve his country, as he has done for so many years. I thank you.

(Standing ovation.)

THE CHAIRMAN: Thank you, Mr. Secretary.

Those were inspiring remarks. I hope that you will forgive me for a perhaps vague and certainly irreverent thought that crossed my mind when you talked about filling the District of Columbia to a depth of twelve feet. Some of us think that might not be such a bad idea!

(Laughter.)

That is annually. And I think it would take that much!

I would comment also, you have made a comment about the national petroleum policy -- I mean, about a national energy policy, which is very thought provoking, the result, I know, of a great deal of thought.

I would like to comment at this juncture that it seems to me, Mr. Secretary, that one of our current energy problems lies in the fact that we really have had a policy, relative specifically to natural gas, which has had a somewhat unfortunate result of an over-consumption of and under-development of natural gas.

This has also had -- this has also contributed, and I don't want to make a speech about it, toward the underdevelopment of oil and of coal.

That is one reason, that is the real reason, in my judgement, for the possibility of fuel, of energy, difficulties that you spoke of. So we have had a policy that kind of grew out of the lack of an overall review of the mutual fuel situation you were discussing. It is a very thought provoking point.

I wonder, Mr. Secretary, if you would mind answering a question, if there are one or two? We can only allow time for one or two in here, but if there are one or two questions for Secretary Hickel, why, if the Secretary would agree to take a crack at them?

SECRETARY HICKEL: I will be glad to. I am glad there aren't any problems!

(Laughter.)

THE CHAIRMAN: Thank you very much, Mr. Secretary.

SECRETARY HICKEL: I see Mike Wright holding his head. Maybe the stock market went down!

(Laughter.)

THE CHAIRMAN: I think they are all stupified!

I think perhaps now that I would remind you that most of you were here in the July meeting when Bruce Brown -- or rather in the December meeting -- when Bruce Brown made

his comments that he thought that the Councils should involve more give and take.

And I think that probably you might be thinking a little bit of that as you hear the remainder of the speakers during the morning, and I think you could be prepared to ask a question or two, if you wish. I think most of them are well prepared to do it. It is a good idea to have more dialogue than we have had in the past.

Our next speaker -- and we are grateful to have him with us -- is General George Lincoln, who is Director of the Office of Emergency Preparedness.

He is furthermore, as you all know, the Chairman of the Oil Policy Committee, which has been much in the news, and certainly been much in our thoughts.

George, you are at the center of our interests these days, and we look forward with great interest to hearing your comments.

General George Lincoln.

(Applause.)

GENERAL LINCOLN: Mr. President, ladies and gentlemen:

Mr. President, I noticed that when you said that I was very much in the minds of some people here, you omitted saying that I was very much in their hearts!

(Laughter.)

I am honored and a bit awed to be asked to talk to this distinguished gathering. I will only talk for a few minutes, and I am going to talk about oil and national security, which are two related matters, that I find take a great deal of my time nowadays -- which, by the way, are both in my mind and in my heart.

And I am not going to talk about the management of the mandatory oil import program -- of which some of you may have heard:

(Laughter.)

I note by your charter and also by your President's remarks that you have the important mission of advising the Secretary of the Interior and, as I understand it, you do it for nothing, and you are very busy and important people. I think I should confess to him and this association some moonlighting, also without recompense, and a hundred of you or so, give or take fifty, have undertaken to counsel me in the last four months.

(Laughter.)

I can certify by the way the suggestion made by your distinguished President quite seriously that no industry is more ready for an emergency in our government than the petroleum industry is. And I do congratulate you on that readiness, and I particularly congratulate the leaders who are responsible for that readiness.

Now national security to each individual is generally what he thinks it is. I have found that probably most of you recognize that individuals think about national security in rather personal terms, particularly when their measure relates to their means of livelihood.

But more sophisticated and knowledgeable people, be they systems analysts or businessmen, do usually provide some element of professional analysis, and in my case, a great deal of professional analysis.

The elements of national security become more comprehensible when the nation is immediately threatened. But when the threat becomes obvious to all it is usually too late to prepare. And an aftermath, I think, that is dependent upon the purchase of insurance at the time of a fatal illness is not the best policy.

There is no doubt in my mind, I want to assure you, as to national security insurance, our supply of energy fuel -- and if this supply is once impaired or interrupted, it is a very serious matter indeed, and it is a very serious problem to set it right.

The supply of petroleum for the United States and for vital overseas interests, such as our allies, which we cannot forget, is a vast and complicated enterprise. This is true whether you measure the problem at one point in time, or whether you look at it over, let's say, a decade of pre-

paredness, and the best minds, the most experienced, are bound to differ on what constitutes absolute security in this milieu.

Part of the problem, I will say, is that these top-notch people are generally associated with the oil industry, I have found, and hence they are subject to the suggestion of self-interest in their advice and its effect. But more important is the fact that the oil industry is many-faceted and does not always speak with one voice.

We are all familiar with the overly simplified categorization of history into ages -- the stone age, the iron age, et cetera. And some of us have suggested that we are now in the atomic age, particularly with regard to warfare. Perhaps we are in the atomic age in warfare, but warfare today relates and seems dominated with political and psychological and -- to use a simple word -- guerilla or non-orthodox aspects, as illustrated by Vietnam and, also, by the Middle East.

This places the atomic aspects in the background for a good many people, and in some cases a policy. In non-military applications it is going to be a long time before nuclear energy production expands enough to meet our increasing energy needs, and there lies, of course, the heart of our petroleum problem.

I do suggest that historians of the future may

we speak of the twentieth century as the "energy age", for today's civilizations are based on a harnessing of energy from fossil fuels.

As petroleum has increasingly replaced coal, the greater part of these fuels now come from petroleum. And there may some day be a petroleum age -- our age -- recorded in the history books.

And the problem that I had as I prepared these thoughts, as I prepared these notes, because I did spend some years as a professor of the social sciences, which enabled me to wander across such related subjects of history and political science and economics in my teaching and professional endeavors -- and I will admit to leaning rather heavily on history in my deliberations.

The statistics on petroleum are impressive, and they are sobering:

Some 75 per cent of our U. S. energy comes from oil and gas. U. S. consumption is nearly 40 per cent of all free world consumption.

And I could go on with these figures, which are familiar, I am sure, to most of you.

It is against, however, these expanding requirements that we need to look at security considerations as they relate to petroleum. Equally we need to view the security problem in relationship to potential supply.

It is, of course, usual to have vast reserves in the Middle East. Very few of the people of our energy age, or of our petroleum age, live in the Middle East. The vast majority are some place else, but still increasingly dependent on oil, and hence on access to and on transportation from the source of supply.

So how do we, or should we, analyze our U. S. oil security problem?

Now, as you know, the panel and the task force undertook such an analysis. No one pretends that the analysis was perfect. Only divine vision could give such assurance. Our membership did not include that type of personnel.

(laughter.)

Although some of us, undoubtedly, did pray over the problem, and some of us still do!

I thought, and I still think, that we were in the right ball park in our security analysis. The security problem can be divided into:

Short-term emergencies.

And long-term assurance of supply.

The short-term problem was last illustrated and met during the brief cut-off of the Middle East oil in 1967. The short-term emergency has to be handled by doing the best we can with what we have at the time. In such a situation we depend upon preparedness and management by you people here

today, who are the oil industry. Such matters as the quick rearrangement of tankers and so on can only be done by the industry.

But what about the long-term security problem?

Here the analysis moves into confusion and controversy. Our country can, of course, provide the energy requirements that it needs for a long while. The situation is a matter of price paid measured in money, and also measured in such intangibles as the environmental aspects, foreign relations, and the political will of our people to accept the costs.

One of the categories of the costs is the strain within our body politic between those economically benefitted by our national security program, and others not so benefitted.

We already have enough problems described by the word "polarization". We do not need a geographical polarization in our country based on our oil energy security program. Meeting the requirement of national security in any problem area is a risk-taking judgement for which the calculations of problems are multiple controversies, and bound to be, not only as to how much risk is taken, how much should be taken, how and when it is taken.

All of you are undoubtedly aware that both the cabinet task force report and the so-called minority report recommend that the oil import program should be changed. So

the question is what constitutes under-insurance and what constitutes over-insurance?

In striving to determine the national security program, an estimate of present conditions and of the problems of the future is required. That estimate is particularly difficult for petroleum, despite all of the studies and the funds expended thereon by industry and government.

Our task force found that the data did not exist in manageable form, while the task force, one of the task force's more undramatic and important recommendations, by the way, was to get a data bank available for use in management, and I do have, at the present time, a data report toward getting back quick, reliable answers, to our computer on the "bread and butter" questions which have to be answered, in order to know better what we should be doing. And it is not easy.

The estimating process for national security seeks to outline the situations which might arise which would restrict the availability of imports from foreign sources. So we build scenarios of what might occur:

War of the World War II type is hard to visualize.

Nuclear war -- I have mused over this contingency from the standpoint of oil preparedness. I note that we do not in our country spend a great deal on civil defense and other programs of civil emergency preparedness, over which

my office has practically no policy supervision. So what can we say for expenditures for energy preparedness?

And then there are, of course, in the national security scenario accidental disruptions such as civil wars and natural disasters. It is possible for the natural gas and oil industries to be counted on to be as resourceful, I think, as suggested.

Political restraints and interruptions -- question mark. Whatever probability exists, it does not seem to be lessened nowadays. And I believe that we should try to safeguard ourselves against such action by any country or group of countries anywhere.

Now, obviously, we should attempt to rate for reliability our sources, foreign sources. And the task force did that. And, obviously, the United States is the most reliable.

And I hope, by the way, that the people who have the responsibility will be going forward and solving the conflict of the requirements that we have for energy and for conservation, and will get the oil flowing out of Alaska.

But as to foreign countries, a rating should not be on whether countries today like us more or less, but on their self-interest in maintaining an uninterrupted supply on a reasonable basis, and on the long-term likelihood that they will continue to perceive their self-interest.

On that basis the task force rated Canada and Mexico the most secure foreign sources -- but, of course, these are still foreign countries -- rated the Western Hemisphere oil as more secure than Eastern Hemisphere, and proposed even then a tariff system, a ceiling put on Eastern Hemisphere oil.

One of the factors in the complicated equation is, of course, oil supply for our allies, who are much more dependent than we are on foreign sources.

From the estimate of the security program must be adopted or continued, whether the one in existence pertains or some variation -- the present program, as you know, stems from 1958, and is based mainly on quantitative limitations of import, largely determined on percentage of domestic production and little distinction as to the relative security of foreign sources of imports.

Certainly the national security analysis must place as much emphasis on "how" as on "how much", which is a point also made by Secretary Hickel, and which I had already underlined in my notes.

Under the heading of "how", one cannot help but wonder about the extent to which the most critical element of our energy economy, to my mind -- and here I move to the specific problems on my mind, generated -- that might become dependent on foreign sources for a specialized form of petroleum -- residual oil.

My friends in the Department of the Interior tell me that some eighty-five per cent residual fuel used to generate electrical energy on the East Coast is important.

Now to go from general statements to a particular case, to indicate some of the things that I worry about:

We have received reports from utility companies regarding their problems in renewing contracts for residual fuel oil. I will say principally the District of Columbia. And I do urge the people who are the industry, who have the responsibility to give your personal attention to this matter, and ask on a voluntary basis that if it can be done, that everything possible be done to see to it that the essential needs are met.

I am getting ever into the responsibility that I have acquired for preparedness against the prevention of a problem like blackouts this summer, on which I hope this to peck on wood, on which I will knock on wood right now! (Knocking hand on the rostrum.)

(Laughter.)

We have that real possibility and danger because of lack of fuel oil.

Some of the characteristics of this energy age have contributed a great deal to the environmental problems, as all of you here are very much aware. And as Secretary Hickel stressed, we are now vigorously moving to deal with

these problems on a systematic basis. Petroleum and its products are a central factor.

This environmental challenge adds still another dimension to those which are shaping the national security aspects of oil and energy policy, so as to be compatible with our other national objectives, and hopefully to further those other national objectives.

The attainment of the objectives is inevitably sometimes in friction and even in conflict. It is very dependent upon the resourceful initiative of the oil industry.

I am, by the way, familiar with your interim report on environmental conservation measures, which Secretary Hickel also lauded, and it shows the systematic seriousness with which you are attacking these problems.

Now in closing these remarks, I return to the long view, and my suggestion that our time will be referred to historically as the "energy age", or more particularly the "petroleum age". Some day, perhaps, we may have an "atomic age" or a "solar power age", but not in my time, and not -- for some of you people who are also senior -- in yours. The privilege of living in this age carries with it the hazards of depending upon certain critical resources, of which petroleum, in my judgement, is probably the most critical.

It also carries with it -- your President and I, by the way, were talking before this meeting, and I would like

to mention that we got on this subject, and he adds two other critical resources -- food and people. But I think that we are doing pretty well in food, and we are also doing pretty well in people, despite the population control. So I come back, in my judgement, that petroleum is the most critical. And in dealing with this problem, and in living with this age, we have attendant responsibilities, each of us, to insure the continuation of our way of life, without serious interruption.

And we have to weigh any and all decisions concerning petroleum in very real and concrete terms with our national security.

And thank you very much, Mr. President, and gentlemen.

I stated, by the way, that I would attempt to answer questions. I will not promise to solve the problems that may be presented in the questions.

(Applause.)

THE CHAIRMAN: General Lincoln, thank you very much.

I was quite interested in the comments that you made that it hasn't always been recognized, either by the public or by those in government, even those charged with the responsibility of working with the petroleum industry -- and that in the comment that we do not always speak with one

voice.

I must say that one of the things to which I personally am sensitive is the charge that this business is a monolith. It isn't. And it would be improper to represent it as a monolith. It is the diversity which we have which is, I think, our greatest strength -- the diversity of source of supply.

And our nation is a good source of strength, and the fact that we have all types of people with all kinds of values conducting this search is also a source of strength. So that we cannot speak with one voice, and don't.

And if I may refer again to the activities of the Petroleum Council, one of the reasons that certainly most of what we have done has been pretty good work, I think, lies in the fact that the real duty of the Chairman of this organization is to see that when the organization directs itself to the assessment of a problem to frame a report thereon, that he appoints a committee that surrounds the issue. And by the time those guys get through heating on each other, why, you have a pretty good report, and it does pretty well occupy and it does represent the best judgment of a wide spectrum of views, not any one company or any one attitude or view. That is the way we try to strive for, and I think, in most cases, get a pretty good degree of objectivity.

I also want to thank you, sir, for what to me, at

any rate and, I am sure, to the rest of the group, were some really fresh insights into the problem of this entire business of energy security and energy supply, and how those in government must assess and balance and judge these, and how to go, and what you have got to consider, as you make your decisions then.

And we may not agree with what you arrive at, but at least we do appreciate this insight into how you go about it.

And I am certain that the Council in its future years, I think a real careful and thoughtful study of the remarks that you have made will be quite helpful to us as we try to sharpen our conclusions to more nearly answer some of the questions. You have got to answer your own before you can arrive at the conclusions.

And we will do our best to take into account some of those points that you have covered so clearly. And I appreciate it.

Now, gentlemen, are there any questions for General Lincoln?

(No response.)

General, we are very grateful to you for coming, for your thought provoking talk, and we appreciate it more than we can say. Thank you.

GENERAL LINCOLN: May I make a comment?

I am sure that silence doesn't mean that I have convinced everybody. But I do want to say again that I very much appreciate your courtesy and the honor of being here. And I regret that because of some of the business that I am in, I have to go off back to meet another industry group, and will be unable to continue with this meeting this morning.

THE CHAIRMAN: Thank you again, General.

(Applause.)

We are again honored by a gentleman who in the past has -- by the presence of a gentleman who at our last meeting was a speaker, and who has, I can tell you, been very gracious to and considerate of, and thoughtfully concerned with the problems that we in the industry and certainly those connected with the Petroleum Council deal with.

And I would like for Chairman John Nassikas, of the Federal Power Commission, to stand and be recognized.
Chairman Nassikas.

(Applause.)

Mr. Chairman, we appreciate your presence and your continued interest in the work of this Council. Do you have anything to say to us?

CHAIRMAN NASSIKAS: No.

(Laughter.)

THE CHAIRMAN: It would be all right. I can see that we wouldn't ask you any questions!

(Laughter.)

We are privileged to have as our next speaker --
in resuming the agenda -- the Honorable Hollis M. Dole, Assistant Secretary for Mineral Resources.

And let me say, Hollis, that it has been a great pleasure working with you since you have been in Washington. Thank you, sir.

Mr. Hollis Dole.

(Applause.)

MR. DOLE: Gentlemen of the National Petroleum Council, Mr. President:

And Jack, I appreciate a great deal your working with us the past year. I have enjoyed it and I want to tell your membership that there was never a time when Jack could not be reached.

It is sometimes a little bit difficult. I remember one time I got him down in Mexico. But he always responded. And I don't believe I have ever enjoyed the free interchange that we have had, that I have had with Jack -- I don't think I have ever enjoyed it any more with anyone else.

We greatly appreciate, and I know that Secretary Hickel greatly appreciates, all of the very fine work that you have done. And I look forward to your continued work on the Council.

Federal offshore oil and gas leases have been

much in the news lately, and this would seem to be an appropriate time for me to give a status report on where we now stand with regard to upcoming lease sales on the Outer Continental Shelf.

The large new element in the picture is the National Environmental Policy Act of 1969, which was signed into law as President Nixon's first official act of the current year. The new law establishes a national policy aimed at restoring and maintaining the quality of the environment, and provides for a national Council on Environmental Quality to assist in implementing this policy.

The Environmental Policy Act as it has been interpreted has already had a number of effects upon oil and gas leasing on the Outer Continental Shelf. Specifically, before any major Federal lease sale is conducted, in any new or undeveloped area of the Outer Continental Shelf the Secretary of the Interior is required to develop a detailed statement as to its impact on the environment.

This statement is to be submitted to the President and the Council on Environmental Quality, as a public document, and is to reflect the comments of all parties at interest, including other Federal agencies, State and local officials and agencies, and the industries affected, as well as private citizens.

The first instance of leasing under the new law is

the drainage sale to be held next week, on the 21st. This is the acreage originally scheduled for last fall, which was then pushed over into this Spring to accommodate the earlier drainage sale scheduled for February of last year but postponed until December because of the Santa Barbara incident. The second sale date was in turn postponed as a result of Chevron's Main Pass fire. All told, we lost about nine months on this particular sale.

Although this is not a major Federal lease sale in a new undeveloped area, in compliance with the spirit of the Act, we solicited written comments from all interested parties with a closing date of June 11. We submitted a statement to the Council on Environmental Quality of June 15 and published the required 30-day notice of sale in the Federal Register on June 20. On the recommendation of the Bureau of Commercial Fisheries, one tract of some 937 acres was dropped from the sale, so that 36 tracts, aggregating 76,000 acres, are now open for bids. Nineteen of the tracts will require the approval of the Director of the Geological Survey if the lessees desire to set platforms on them.

The general sale of leases on the O. C. S. off Western Louisiana which covered 127 tracts or 593,000 acres will, of course, be the real test of the new law's operation. The process of analyzing the comments received at the public hearings held earlier this week -- as a matter of fact, just

concluded yesterday morning -- in New Orleans, is now underway.

Since the first date for this sale was set for May, this represents about a seven-month delay, chargeable mainly to the Main Pass accident.

It is too early to tell just what the real impact of the National Environmental Policy Act upon oil and gas leasing and operating on the O. C. S. will be. On the positive side, it has forced us all to think, in specific and definitive terms, of all the possible effects that oil and gas leasing might have upon the particular marine areas involved. It has permitted all interested parties to participate in the decision-making process, and this in turn has given us access to information we might not otherwise have had. It formalizes a number of essential relationships among government agencies that until now have been casual and haphazard.

On the negative side, the meaning and intent of the Act in places are vague and undefined -- a common characteristic, I might add, of a new law; until administrative and judicial rulings clarify the points at issue, these still will be somewhat vague and undefined.

Perhaps the most difficult part of the new law may be the opportunities it may present for capricious or uninformed actions to delay or even effectively veto the leasing of acreage vitally needed for oil and gas development to

supply the nation's requirements. To date this has not happened, and if all sides act responsibly, it will not happen. But as I have already mentioned, it is early in the game.

This brings me to an important point: the critical need for a proper understanding by the public of the importance of continued development of the mineral resources of the Continental Shelf.

An editorial in the Sunday edition of a Washington newspaper a few weeks ago brought this abruptly to my attention. The editorial was moderate in tone and constructive in its approach, but the substance of its comment reflected the deplorable lack of understanding which grips so large a segment of an otherwise well-informed public. Essentially, the brief of the editorial was that the Santa Barbara leak, the Main Pass fire, and the Galveston Bay explosion were proof that offshore oil and gas operations continue to be a menace to our coastal ecology and environment.

Therefore, ran the argument, until the industry can demonstrate conclusively that such instances will not recur, all future leasing should be suspended and consideration given to the recapitalization of existing leases in addition to those proposed for re-purchase under the President's recent proposal to the Congress.

Such a proposal, if acted upon, would quickly bring to a halt all further exploration on the Continental Shelf,

and, shortly thereafter, a peaking-out of production on existing offshore leases. Yet of all the remaining prospective acreage in the contiguous United States, the portion comprising the continental shelf offers the best outlook for large undiscovered accumulations of oil and gas. The conjunction of three spectacular accidents within little more than a year's time, set in the context of a general uneasiness about our environment, has undone the record of twenty years of safe and responsible operations of 13,000 other oil and gas wells on the continental shelf.

During this period strong elements of public opinion have developed which are committed to the objective of no further development of mineral resources offshore.

These elements now have access to the mechanism of the Federal leasing process in a way and to an extent that did not exist prior to the Environmental Policy Act. It therefore becomes of critical importance to the orderly development of the minerals underlying the continental shelf that the public, on as broad a base as can be devised, be informed that such development is both necessary and feasible.

It is the responsibility of government to make the case for the necessity of developing the nation's own resources rather than becoming unduly reliant upon foreign suppliers for materials critical to our economic growth and

military strength. This is clearly a matter of national concern, of national security. Much persuasive power has been devoted to this purpose, and more will be forthcoming.

It is likewise the responsibility of government to provide rules and standards for the health and safety of workmen and for the protection and restoration of the natural setting in which mineral extraction operations take place. This too is being done.

But it is up to the extractive industries -- and I speak to this audience with particular reference to the oil and gas industries -- to demonstrate that the mineral wealth of the nation, on and offshore, can and will be produced in a way that will leave the environment undamaged and available for the purposes of other users, both concurrently and in the future long after mineral operations have ceased. This is done by operating responsibly, by developing effective measures for preventing accidents and most importantly, devising the means for quick and thorough containment and cleanup of any spills which may occur; and by insuring that the public is kept fully informed of all steps being taken to preserve and protect its interest in the environment.

If we each do our part, the sound, orderly, safe development of our resources on the Continental Shelf can proceed unimpeded under the new law. But the key, in my opinion, is an informed public, sympathetic to the need for developing

these resources, and confident that it can be done in harmony with the other aspirations it holds for one of our greatest natural resources.

Mr. President, I thank you and your group for this opportunity to appear before you. I will be available for questions, if you wish.

And I would say, Jack, that I look forward to your successor coming in office and working with him as I have with you, and I pledge to him the same cooperation given to you. Thank you very much.

THE CHAIRMAN: Thank you, Hollis. No one could expect more.

(Applause.)

Hollis, that was a thought provoking, and a precise, and a rather explicit talk, I thought. Surely, there are people involved here in the outer Continental Shelf who might have a question?

(No response.)

If not, I guess we have answered them all. Thank you very much, Mr. Secretary.

It is now our privilege to hear from Wilson Laird, the Director of the Office of Oil and Gas. And for your information, gentlemen, Wilson is in charge of the office with which we really have what might be called our day-to-day contact. He has always been cooperative. He is thoughtful,

persuasive sometimes, and in some cases, and has certainly always been, while a good friend, certainly not one with his eyes closed. He has been very helpful. It is a pleasure to have you, Wilson.

(Applause.)

DR. LAIRD: Thank you, Mr. Abernathy. Secretary DeLo, and distinguished guests:

I have another topic which, I am sure, is in the forefront of our minds today, in addition to those which you have already heard about from other speakers. I am dealing primarily with the situation in the Middle East.

The steadily worsening relations between the Arab nations and the State of Israel keeps our attention focussed on the supply and demand of the Free World's oil. This year we expect demand in the Free World abroad to exceed 24 million barrels a day, and as of June, the Arab nations were supplying almost two-thirds of it. Bright as our hopes may be for discoveries in the North Sea and the North American Arctic, the fact remains that the bulk of the oil going to the Free World outside our own country is now being supplied by the Arab nations, and will be for as far into the future as we can reliably foresee.

Like it or not, we must deal with reality, and the reality is that 15 million barrels of oil a day, including eighty per cent of Europe's supply -- comes from the nations

of the Arab world.

The closure of the Suez Canal has continued to exert pressure on tanker rates ever since the Arab-Israeli war even though supply patterns had adjusted to the closure by the end of 1967.

In May of 1967 -- just before the hostilities began -- the average spot tanker freight cost to move a barrel of oil from the Persian Gulf to our East Coast was 52 cents. By July, following the six-day war, the spot rate was \$2.72, and the lowest it ever got back to after that was 56 cents in April of 1968. By April of this year, just before the TAPline shutdown, the rate had climbed back up to \$1.68 per barrel. The subsequent closure of TAPline, plus the cutback in production from Libya, brought the rate to \$3.30 as of last week -- 31 per cent above the crisis high of 1967.

The jump of \$1.60 a barrel over a period of two months reflects a real strain in tanker availability precipitated by the two events I just mentioned. And this, let it be remembered, was in early summer. While it is true that the spot market only accommodates about ten per cent of total tanker movements, I think the only conclusion we can draw from the evidence we have is that rates generally are going to rise as longer term charters are renewed in the context of a tight market.

These conditions in turn are translatable into

other effects, such as higher delivered prices for crude oil and a corresponding decline in the value of import tickets, together with a profit pinch on small refiners. Imports from Eastern Hemisphere sources will decline and an added demand will be felt by domestic producers.

This, as you know, has already been reflected in the situation as far as the Texas Railroad Commission is concerned, and the Louisiana Commissioner of Conservation.

The supply of residual fuel oil, which is already tight, will be further aggravated, with increases in the delivered price of that commodity.

Up until this week we were telling ourselves to cheer up, that things could be worse. So we cheered up, and sure enough, things did get worse.

(Laughter.)

The TAPline closure threw a gratuitous burden onto the world tanker pool, and this was followed the next month by the need to make up the 420,000-barrel-a-day cutback in Libya from more distant sources -- most of it, in fact, from the Persian Gulf.

As you know, recently -- and since these remarks were prepared -- the situation in Libya has worsened. In case you have forgotten the relative distances involved, let me just say that in so far as Europe is concerned, one ship in the Libyan trade is worth at least six from the Persian

Gulf by way of the Cape.

This left a very delicately balanced, but still feasible, relationship between shipping availability and requirements, as of last week. Came Monday of this week, however, and the news that Libyan production had been ordered reduced by an additional 150,000 barrels a day. The problem is still workable, for the time being, with the additional shipping requirement that the new cutback imposes. But the margin is just that much thinner and we are two months closer to the winter heating season than we were when the closure of TAPline signalled the beginning of the current round of difficulties.

As regards our own oil supply from the Arab world, the situation is not markedly different from what it was in 1967. Then we were importing three and a half per cent of our total supply from Arab nations, and that figure remains about the same -- probably a little more. Then, as now, East Coast refineries depended upon Arab crude sources for about 20 per cent of their needs.

The new element in the balance is that air purity standards of East Coast metropolitan centers meanwhile have created a substantial and growing market for residual fuel oils made from low-sulfur crudes originating in the Arab nations of North Africa. In 1969, residual oil from these sources amounted to about 175,000 barrels a day, most of it

going to power generation plants in the New York - Philadelphia area.

Thus, while the knowledge that Arab oil accounts for only three and a half per cent of our total supply is comforting on the surface, it is deceptive in the implication that no difficulty would be encountered by the loss of so small a portion of the whole. The problems would be local and regional, but they would be serious to those who felt their full impact.

There is another difference between our ability to respond to an oil crisis today and the capability that we had in 1967. Then the fields in Texas and Louisiana were able to increase production by a million barrels a day over a period of seven weeks, which adequately supplied our own requirements and eventually made some 25 million barrels available to Canada and Western Europe. Today, however, production in Texas and Louisiana is already well above the peak rates achieved in August, 1967.

We are caught in the bind between steadily rising production rates and declining productive capacity, and I will say that the two reports which will be presented later at this meeting could not have been more timely in their appearance.

We were fortunate in 1967 in that the additional demand was satisfied before the limits of deliverability were

reached. As a result, we never ascertained what our true deliverability was. The reports that your committees have prepared on three vital links in the U. S. petroleum supply system will be of great assistance to us in assessing just what the nation's oil delivery capabilities are. We shall know where and to what extent production will be limited by gathering capacity and we have been given vital information on terminal capacity.

These data are complemented by a comprehensive survey of storage capacity by region and by product. We have been greatly in need of this vital information. It will materially enhance the quality of our planning for supply contingencies, and I am looking forward to receiving these two fine reports.

Thus, it is that quite apart from the general threat to world oil supply posed by the Arab-Israeli confrontation, we continue to have troubles which may be only tangentially related to that conflict. We have not as yet fully assessed the implications of the takeover of certain company marketing and distribution affiliates by the Libyan government earlier this month. It doesn't take a detailed assessment, however, to know that this bodes no good for the future.

We have accordingly kept intact the emergency organization assembled under the Voluntary Agreement Related to Foreign Petroleum Supply in 1967 to deal with the crisis

of that year. The Emergency Petroleum Supply Committee and its two subcommittees on Transportation and Supply and Distribution remain in standby status. They could be activated on a day's notice if a new emergency should demand it. By keeping this organization in being, as we have, we can save several days of precious time in the event another emergency should arise.

In the Office of Oil and Gas we are in addition keeping a continuing watch on the world supply - demand situation in petroleum, updating our figures as new information becomes available, and keeping in close contact with people in key positions in the international companies.

Late last month the Petroleum Security Subcommittee met with the representatives of the Office of Oil and Gas and other Federal agencies to consider the potential requirements and supply of petroleum for national security programs. A classified report of the committee's findings has gone forward to the Department of Defense.

So we continue to watch and wait as the thunder continues to roll out of the Middle East. We can assuredly hope that the preparations we have made for the range of contingencies that may develop will never have to be implemented. If they do, however, there is some satisfaction in knowing that we did the best we could during the waiting period.

In the interest of brevity I shall only touch on

the subject of the Emergency Petroleum and Gas Administration. I do want to stress as strongly as I can do so the importance we in the Federal Government attach to this vital organization. It is difficult to think about the conditions under which we would need this agency because they are so horrendous in their implications for our personal affairs. This in itself, however, is the most cogent argument I can summon for its need, and for the related need to make every effort to insure that E. P. G. A. is in all respects ready for the job it may be called upon to do.

In this regard I would like to alert you to some recent changes in plans involving the members of E. P. G. A. The National Defense Executive Reserve meeting scheduled to have been held in September of this year has, as some of you know, been cancelled.

In lieu of this, we in Interior are considering the possibility of proceeding with our own national meeting of these Executive Reservists assigned to the E. P. G. A., in Washington, in the same general time period as the cancelled meeting. This may or may not be a practicality given the general instability of the world oil situation. However, should such a meeting turn out to be feasible, I urge you all to give your whole-hearted support to it, and to those reservists in your companies who would be expected to attend, and I can't emphasize this too strongly.

It has been a pleasure to be here with you this morning, and thank you all very much for all of the many courtesies extended to me and my staff.

Thank you very much.

(Applause.)

THE CHAIRMAN: Thank you, Dr. Laird, and I assure you that we all appreciate the clear and lucid way you have described some of the problems of today and not, hopefully, of tomorrow.

I particularly appreciated your stressing the Emergency Petroleum and Gas Administration, which as all Council members will recall, the design and the structure, the Council was the architect of the E. P. G. A. Some of you members will recall that there is -- I think it is nine volumes of organization charts and instructions under which an E. P. G. A. would operate.

You also recognize that most of those slots within the E. P. G. A. are staffed and filled.

Now the next agenda item, as you see, is a report by Carrol Bennett on the Emergency Petroleum and Gas Administration. You will see Carrol later at this meeting today, but at the moment he is appearing on behalf of the Emergency Petroleum and Gas Administration, and he is going to call on at least one additional individual to speak to this.

Now we have no more, to me -- we have made a great

deal, in our industry, of talking about the importance of petroleum to the national security. I think that it is a fair comment that if we don't do our part to be sure, to be absolutely certain, within so far as it is humanly possible in the event of an emergency, we really can't provide the security we say we can -- we haven't done our job, and we do not deserve the protection of the national security label.

So it is absolutely incumbent -- I can't tell you how important it is -- that we do our part under the E. P. G. A. setup.

So, Carrol, I hope I haven't said too much about what you intended to say. But I feel very strongly about it. And we welcome your remarks.

Carrol Bennett.

(Applause.)

MR. BENNETT: Mr. Chairman, Dr. Laird, Jack, ladies and gentlemen:

I really haven't very much left to say. But I would like to say a few words to remind many of you and perhaps inform some of you about the Emergency Petroleum and Gas Administration, which, as Jack has pointed out, has long been supported by the National Petroleum Council, and in fact they have helped raise it.

The E. P. G. A. is an organization designed to respond to any national emergency situation, whether it be

limited war or nuclear. Established by the Secretary of the Interior in 1963 upon Executive Order of the President of the United States, the E. P. G. A. has two primary purposes:

One is:

"To have an organization, in being and known to Federal and state government agencies and to the industry, which is ready and authorized to discharge promptly the defense responsibilities of the Secretary of the Interior for oil and gas in the event of a civil defense emergency or an attack upon the United States. In this type of emergency, E. P. G. A. would be activated automatically; in others, the extent of its operations would be specified by the Secretary of the Interior."

And, two, its function is:

"To aid the Department of the Interior in its emergency preparedness functions relating to oil and gas as assigned to the Secretary of the Interior by the President."

E. P. G. A.'s primary function in an actual emergency is to assist, coordinate, and direct, where necessary, activities of the oil and gas industry, in order to assure that domestic and foreign supplies of oil and gas meet essential military and civilian requirements of the nation and its allies. Its organization is flexible so that it will fit the needs of any kind of national emergency.

It also provides a far-reaching structure, all or any part of which could be readily activated, and which parallels the functional lines of the petroleum industry, with staff and line units comparable to those found in a typical large, vertically integrated company.

The National Petroleum Council has been deeply concerned with emergency preparedness during the past twenty-four years and has worked closely with the Interior Department on all aspects of emergency planning, to the extent that they have involved petroleum and gas. This includes assistance and advice in the development of the N. P. C. A. structure and program.

Some thirty-one recommendations were presented to the Department of the Interior in a two-volume report by the N. P. C. issued in July, 1964. All of these recommendations were accepted by the Department.

The N. P. C. then prepared an information handbook in 1966 which set forth the elements of company emergency planning, with emphasis on cooperative pre-emergency planning, whereby Government and Industry could back up the efforts of individual companies.

The response to this handbook (75,000 were printed by the Office of Civil Defense and distributed) prompted the preparation of detailed operating manuals, which Jack referred to, for each major organizational unit of N. P. C. A.

Twenty of these manuals -- rather than nine -- were completed in January of 1967, and presented in ten consolidated volumes to the National Petroleum Council for approval. They were approved at the January, 1967, meeting, and recommended to the Secretary of the Interior for use by the E. P. G. A.

The National Petroleum Council has also been instrumental, working with the Office of Oil and Gas, in the staffing of E. P. G. A. through direct effort and contact with individual companies. The response of Council members and their companies has been most encouraging. As of this date, there are 510 active E. P. G. A. Reservists, with 74 more in process.

And I might say that the '70 Roster of the National Petroleum Council showed that all but about seven or eight members who were representing companies capable of supplying executive reservists were represented, all the way from one up to thirty members.

Since the preparation of the E. P. G. A. operating manuals, some fifteen exercises have been held, with an aggregate participation of around 1,700.

These P. E. T. E. K. exercises have simulated both limited and nuclear attack situations and have involved all regional organizations of the E. P. G. A. -- and for those of you who are not familiar, here is a map showing how these regions are divided.

(Indicating large map.)

I think that it is self-explanatory. Can all of you see it?

Each region has held at least one exercise, and in some instances more. Our particular Region Five has had three now, and others have had as many as two. I think only one other has had three.

Now all of the E. P. G. A. members, therefore, have participated in one or more exercises, and that includes the staff of the National Petroleum Council, the staff of the Office of Oil and Gas, and members of the state regulatory agencies.

As a result of these exercises, the N. P. C. Tank Force which prepared the original operating manuals is now in the process of revising them in the light of the experience gained in the use of them.

I would like at this time to single out and commend the dedication and efforts of the other regional administrators working in the E. P. G. A. program:

In Region 1, it is Harry J. Peckholzer of Mohil.

In Region 2, Alexander S. Chamberlain of Ashland.

In Region 3, Emmett A. Vaughney -- Independent of Jackson, Mississippi.

In Region 4, Layton E. Kinsannon of Rock Island Refining.

In Region 6, Ovis B. Hooker of Texaco.

In Region 7, Darius N. Kerton, Jr., of Signal.

And in Region 8, Wilton I. Martin, Independent Consultant.

As I mentioned earlier, the N. P. C. and the oil and gas industry have been in the business of emergency planning for some time. And as General Lincoln so graciously stated, we are the leading industry in the national emergency planning effort.

Being in this position puts upon us the responsibility of continued endeavor. It is incumbent upon us -- all of us -- to support the N. P. C. A. program at all levels. We must keep an eye to the constant turnover in personnel -- and incidentally, this is running about twenty per cent a year, and not necessarily people leaving the reservists' program, but transfers, retirements, things of that sort. So we do have the constant staffing program, you might say.

And we must give our continued attention to participation in the planning effort, and the exercises, particularly in the light of current world conditions.

I would like to say that the efforts of the National Petroleum Council have not gone unnoticed. At our last meeting on January 21st of this year, the Council was presented with the highest award given by the Department of Defense, the Distinguished Service Citation, in recognition

of outstanding cooperation and assistance in the national civil defense program.

We can all be proud of that honor.

Now I believe you will agree that my comments to date have been complimentary. However, it is not all "beer and skittles". We do have problems in the E. P. G. A., and there is another regional administrator here who would like to point to a few of these, and perhaps tell you how they can be solved.

He has been in the E. P. G. A. program since its inception, and dates back even to P. A. D. and P. A. W. days, so he is well versed in what he is about to say.

Emmett, come forward. He asked that I introduce him as Mr. Vaughney?

(Laughter.)

You can take the floor here.

MR. VAUGHNEY: Mr. Laird remarked on the importance of the E. P. G. A., and Carrol was a good guy and told you about some of the things we have done, and I got the black hat to tell you some of the things that we felt had about.

I will admit that in an era when you gentlemen tell about environmental and international imports and profits and problems, that I feel a little foolish bringing up a minor problem that we consider serious:

I am talking about the absenteeism of oil company

personnel from the E. P. G. A. exercises. Last April in our regional exercises we got thirty per cent attendance.

These exercises are held once a year for a two-day session, and are certainly not enough to strain any one individual for any company. They are extremely well prepared in the Office of Oil and Gas. They present problems in damage repair and statistical moving of materials, products, under emergency conditions, coordination of our industry with the federal or the military and with the state and with the citizens.

We don't think that we can make an expert of anybody in two days' exercises. But remember that these gentlemen have been trained by the industry, and they are already expert in the fields to which they are assigned.

The ones that do show up show an instant interest in the knowledge that what they are doing is very important. Of course, the ones that don't show up will never know.

Now the fault could be that these men are ill-informed, and think that this is a bunch of government bureaucrats or "governmentees" playing war games just to give themselves a reason for existence. It could be that these men's bosses or department heads think that what they want their men to do is more important than showing up for the exercises, but I am afraid to say that the real reason is with you gentlemen out there, because somehow or other the message hasn't

gotten down through your organization that you think that this is important.

You have created this organization and approved it in these halls, but somebody in your organization is not calling up to see that the planning is implemented.

I am very proud of the past action of our industry in times of national crisis. We all know about P. A. W. and P. A. D., and how these industry - government organizations worked closely together while other industries, at the same time, were floundering in red tape -- I have heard that they have observed, and I have heard them comment about our liaison in government, and they envied us our foresight in setting up these organizations.

And, of course, as has been referred to today, we are all witnesses of close industry - government cooperation in very numerous area supply problems.

So the E. F. G. A. is nothing except a continuing of something that is working. I have told you what I think it is worth. Maybe you gentlemen had better re-evaluate it. Other industries -- I want to say to you that there are hardly any other industries that have given their executive reserve program any effect, and even some of our own government departments have questioned us about it. I regret that, and they might seriously -- they could seriously regret it.

But the only way -- even we who are working with

E. P. G. A. and believe in it cannot go on unless we have from you gentlemen some manifestation of your concurrence and the full backing of not only yourselves, but your organizations.

Thank you.

(Applause.)

THE CHAIRMAN: Thank you, Carrol, and thank you, Emmett.

Gentlemen, this is an unusually sincere appeal for your considered action within your own companies, to tell your people to get with it.

I guess there is nothing more to be said about it. It is either worth doing or it isn't. If it is worth doing, it is worth your support and your cooperation, and that can only come by instructing your own people that this is important and we expect it to be done.

Well, thanks very much, Carrol, again. And thank you, Emmett Vaughan.

And by the way, let me tell you that Emmett knows what he is talking about. He says he has heard government say thus and so. In those days of crisis, Emmett was here. He was a part of it. So he knows first-hand what he is talking about.

We appreciate both of you doing this.

We now come to the time in our program when we call

on Mr. Vincent M. Brown, our Executive Director, for several items involving what might be called the "housekeeping functions" of the Council.

Vince Brown.

FROM THE FLOOR: Mr. Chairman.

THE CHAIRMAN: Yes?

FROM THE FLOOR: You didn't ask for questions this time, and I happen to have one:

(Laughter.)

THE CHAIRMAN: Well, please do!

FROM THE FLOOR: This is directed to Mr. Bennett and Secretary Dele as well.

And perhaps I should say that first I would like to tell you something, and then I would like to ask you some thing:

One of our people who is a reservist, and who has recently been on an exercise, also happens to be a member of the Technical Subcommittee on Petroleum Storage. And he came in and told me that in both instances a fair amount of confusion, and a lot of awkwardness arose, owing to the difference between the Bureau of Mines' layout of Districts and the P. A. D. Districts.

And he said that there was a good deal of talk within both of these working groups concerning the desirability of bringing this into conformity.

Now the question: Is it practical and will it make things more efficient around here to try to bring those together?

MR. BENNETT: Charlie, of course, it would be much better if they could be brought together.

In fact, there are other defense agencies that I would like to see taking a more active part in our affairs. Now they are invited to each exercise. In some instances they come; in others they don't. They don't take an active part normally, except in the national ones.

But we do try and work with the Bureau of Mines particularly and other agencies that make themselves available to us. And I quite agree that it would be very helpful if we got a much closer cooperation from the other agencies.

Hollis, would you like to add to that?

MR. DOLE: Well, if there is a problem existing here, it doesn't sound like a problem that cannot be overcome.

And I think, if you would call it to our attention, we certainly would get at it.

THE CHAIRMAN: Any further questions?

Charlie, thanks for your addition to this. And thanks for breaking the ice on the discussion problem. I had almost forgotten!

All right, now are there any other questions? If

not, Vince, your turn.

MR. BROWN: I would like to introduce at this time several new members. We have several new members on the Council, and if I might just introduce them, and they could stand up, and you might just hold the applause until I have completed, because there are quite a few names:

Orin Atkins, President of Ashland Oil and Refining Company.

Dewey F. Bartlett of Oklahoma, Chairman of the Interstate Oil Compact Commission.

Jack D. Berry, President, Thomas N. Berry & Company, Stillwater, Oklahoma.

Edgar W. Brown, Jr., Chairman of the Board, County National Bank of Orange, Orange County, Texas.

Fred Chambers, and independent from Houston.

W. B. Cleary, from Oklahoma City, President of Cleary Petroleum Corporation.

David F. Dorn, Vice President of Forest Oil Corporation.

Northcott Ely, prominent international attorney of Washington.

Ross R. Floyd, a producer from Jackson, Mississippi.

John A. Kaneb, North East Petroleum Industries in Boston.

Cary M. Maguire, President, Maguire Oil Company of Dallas.

Charles B. McCoy, President of E. I. du Pont de Nemours & Company.

John McLean, President of Continental Oil Company.

Ernest B. Miller, President of Shelly Oil Company.

Cordell Moore, whom you may recall, of Washington, D.C.

T. B. Pickens, Jr., President and Chairman of the Board of Mesa Petroleum Company of Amarillo.

John Shabben, President of Shabben Natural Resources of New York City.

Howard E. Stover, an independent from Jackson, Mississippi.

Henry A. Thouron, Chairman of the Board, Hercules, Inc., of Wilmington, Delaware.

Ken Vaughan, President of Western Oil & Gas Association.

A. W. Winter, President of the National Petroleum Refiners Association.

J. D. Weather, Jr. from Beverly Hills, California.

Joe E. Wright, President of the Natural Gas Producers Association.

Thank you. Have I missed anybody?

(Applause.)

We sent to you a proposed amendment to the by-laws for your consideration. I have received some comment on these and made a slight revision in it.

I would like to read the by-law as it would stand now and offer it for your consideration. This has to do with Article 4, which the Agenda Committee -- the composition of the Agenda Committee, composition of the Appointment Committee. It reads:

"The Council shall elect at its organizational meeting each year an Agenda Committee and an Appointment Committee to serve until the next organization meeting of the Council.

"Each Committee shall have no more than eleven elected members.

"In addition to the elected members of the Agenda Committee, the Council Chairman and Vice Chairman, and all former -- former Council Chairmen shall serve on the Agenda Committee ex-officio.

"All persons, whether elected or ex-officio, serving on either of these Committees, shall be members of the Council. No elected person shall serve on both the Agenda and the Appointment Committees at the same time. An ex-officio member of the Agenda Committee other than the Council Chairman or Vice Chairman incumbent may be elected Chairman of that Committee."

I offer that proposed amendment to the by-laws.

THE CHAIRMAN: You have heard the reading of the proposed amendment to the by-laws.

May I say that it is an attempt to, well, conform the actuality -- conform the by-laws to the actual practice, which works well. And I hope that we may have a motion to approve those changes.

FROM THE FLOOR: I so move.

THE CHAIRMAN: Is there a second?

FROM THE FLOOR: Second.

THE CHAIRMAN: Further discussion?

(No response.)

All in favor, please vote "aye".

(A chorus of "ayes".)

Contrary?

(No response.)

It is so ordered. We have the amendments change.

Vince, you are a persuasive speaker.

Please continue.

FROM THE FLOOR: That is rather heartening!

MR. BROWN: I would like also to offer the proposed budget for fiscal year 1971. As you know, we operate on a fiscal year basis; July 1.

Last year, we took in by way of contribution from you members -- and, as you know, the Council is solely sup-

ported by those contributions -- we took in \$371,000. We had some \$11,000 in other receipts. So we had \$382,000 to work with.

This year we propose for your consideration contributions from you on the order of \$450,000. We anticipate other receipts of \$34,000 this year from publications sales and interests, which will give us \$484,000 overall to work with.

We will require about \$439,000 actually, and we have a commitment to another association for \$45,000, which gives us a total requirement of \$484,000.

Jack, that is --

THE CHAIRMAN: I believe a little more explanation for that is probably in order. I will yield to questions in a moment.

But the extra forty-five is to the A. A. P. C. for services and expenditures in connection with the Petroleum Provinces, the Petroleum Provinces Report. You will recall that we have had -- it seems that we have had every other year an extraordinary requirement, and this is one. The Council has never been able to establish a contingency reserve of any consequence. We have a few thousand dollars, but just not many.

We had a Budget Committee of Mr. Brockett and others, who were a party to -- to go over this, and the real increase

in through this necessity for the forty-five thousand dollars, and we have no contingency fund to pay the cost.

With that, if you have questions, why, please address them to Vince!

(Laughter.)

I take it there are no questions. May I have a motion to approve the proposed budget?

FROM THE FLOOR: I so move.

THE CHAIRMAN: Thank you. All by yourself! Can we now elicit a second?

FROM THE FLOOR: Second.

THE CHAIRMAN: You have heard the motion and the second.

This is an important matter, and I heard the low whistle. I whistled myself when I looked at it yesterday. And I just don't know how we operate in an environment as busy as we have been, and I assure you if my successor here finds as much going on during his term as I have during mine, he is going to have some budgetary problems, and we have too. All I can say is that we get an awful lot of output for what seems like a considerable amount of input, but at least the output does match the input in my opinion, and I have thought so up to now anyway. And I am sure it will continue that way, so long as we keep our staff as small as it is.

Are there any additional comments? Brockett, would

you like to comment? Did you shake your head?

MR. BROCKETT: I commented yesterday.

THE CHAIRMAN: You have heard the motion and the second.

All those in favor of the adoption of the proposed budget will please say "aye".

(A chorus of "ayes".)

Opposed?

(No response.)

Thank you.

Mr. Brown, is that all?

MR. BROWN: There is one gentleman that I overlooked that I would like to introduce:

The new President of the Association of Oil Well Servicing Contractors, Ralph L. Clark.

(Applause.)

THE CHAIRMAN: Ralph, we reserve individual attention for oil well servicing contractors and oil well drilling contractors.

FROM THE FLOOR: Thank you.

THE CHAIRMAN: Thank you very much.

Now you will be pleased to note that you are at the point of a ten-minute recess time, and please don't stretch it.

I want to remind you now that as a result of Bruce

Brown's remarks, and an attempt to make these more open meetings, that the remainder of the program will be the presentation of and the discussion of -- and I hope that the discussion is free and uninhibited -- of the reports which are being -- which you have gotten copies of in the last few days. The press will be admitted at the time you are back, so the discussion will be on the record.

And, of course, they always get everything anyway, and they properly should, but this time they will get it directly from the horse's mouth! So I wanted you to know that that is the situation.

I have just been advised that Governor John Davis, who is head of the Office of Civilian Defense, just arrived. Governor Davis, where are you? We would like to welcome you to our meeting.

(Applause.)

Thank you.

I hope, Governor, that you were in time to hear a portion of the discussion about the Emergency Petroleum and Gas Administration, which has been directly in point with your very fine and sometimes frustrating work.

Now then, gentlemen, we have a ten-minute recess, and we will start the reports when you return.

(At this point a short recess was taken, after which the meeting was resumed.)

THE CHAIRMAN: Gentlemen, will you please come to order?

MR. DONWELL: The Chairman and the Vice Chairman of the Council have gone for a few minutes to the Secretary's office and have asked me to carry on with and initiate the reports of the various Committees.

As you recall, the Chairman stated before the recess that the press had been admitted, I believe for the first time, during the Council session.

The first report will be given by the Chairman of the Committee on Possible Future Petroleum Provinces of the United States, Mr. Otto Miller.

MR. MILLER: Mr. Chairman, gentlemen:

Our Committee on Possible Future Petroleum Provinces of the United States reports completion of our assignment. As of today, we are submitting our final report. We have changed the title a little bit, the title of our Committee -- it will be entitled "Future Oil Provinces of the United States - A Summary".

This report represents the combined efforts of about 135 distinguished geologists from industry and government and from education, and these gentlemen have served as members of the Coordinating Committee, which was chaired by Mr. Ira Cram. Mr. Cram contributed a summary, and also an analysis to the study, and a report which includes eleven

regional summaries prepared by the regional coordinator.

Now the scope and the nature of the work follow the guidelines that were suggested by the Assistant Secretary of the Interior and subsequently these guidelines were further defined by our highly qualified and effective Advisory Committee under the Chairmanship of Morgan Davis.

Our Committee and the effective Advisory Committee, I think, feels that this is one of the finest studies that has ever been developed on this subject and it is the most knowledgeable estimation of the undiscovered oil and gas reserves of the United States that can be made at the present time.

The two Chairmen who worked on this project, Ira Cram, Chairman of the Coordinating Committee, and Morgan Davis, Chairman of our Advisory Committee, and many members of their Committees, and Kenneth Crandall, who served as Special Assistant to the Chairman of our Committee, are indeed deserving of our highest praise for this important work.

Now as I mentioned earlier, the report is in the nature of a summary, and it is intended for those who are largely concerned with the country's crude oil and natural gas potential, and only secondarily interested in the geology.

However, a much larger report -- I understand this may run fifteen hundred or two thousand pages -- going into

considerably more geological detail, is now in preparation by the American Association of Petroleum Geologists and under the sponsorship of the National Petroleum Council. This volume will be published early in 1971. It will include, I understand, some eighty-four separate geological reports, and it will probably be the first complete and comprehensive study ever made of the petroleum geology potential in the United States.

Now what I would like to do now is to call on Ira Cram to give us a short summary of the content of this report and then following that, ask Morgan Davis to comment further on any points.

Ira.

MR. CRAM: Mr. Chairman, ladies and gentlemen:

As Mr. Miller said, this is a summary report, and a summary report of a very large volume, and it is in the essence of a digest of the report's findings, the large report's findings, that bear particularly on the petroleum potential of the United States.

Chapter 3 through Chapter 13 of the Summary contain the basic data on the eleven regions. These chapters begin with a summary of the existing conclusions of the authors and leaders or coordinators of the regions. The areas within each region are discussed in the order of prospectiveness determined by the coordinator. The discussion following the

summary in each chapter is the coordinator's summary of his authors' reports.

The prospective area, the hunting grounds, is large indeed:

The basinal area, which contains most of the resources of oil and gas, covers approximately 3.2 million square miles and is underlain by approximately six million cubic miles of sedimentary rock above basement or 30,000 feet. Forty-four per cent of the area and volume lies offshore. Large, geologically complex areas bordering parts of the basinal area and some isolated areas elsewhere are also considered prospective, but of secondary importance.

The more thoroughly explored areas, in which the oil and gas fields are located, cover about half the basinal area on land, and about one-fourth of the total area.

Neither the more thoroughly explored nor the less explored provinces have been tested adequately. Extensions to old fields and discovery of new fields at conventional tests and deeper are forecast for all provinces.

Many high potential areas are indicated by the geology and extent of exploration onshore, particularly in parts of Alaska, California, Colorado, Louisiana, Mississippi, Montana, New Mexico, North Dakota, Oklahoma, Texas, Utah, and Wyoming, and in parts of the offshore, off Alaska, California, Louisiana, and Texas.

The future of the land area east of the Mississippi River and North of the Gulf Coast province is particularly dependent upon deeper discoveries, the prospects of which are considered favorable.

The prospective Atlantic, Florida, and Alaska Continental Shelves, and the entire Continental Slope, barely have been touched by drilling. And other prospective areas and depths on land and the Continental Shelf remain largely unexplored.

All of the coordinators of the eleven regions elected to present estimates of potential reserves, although they were not obligated to do so. Potential reserves are recorded on an oil in place or ultimate recovery basis or both. Different methods of calculation were used. And the oil potential of certain areas within the regions was not mentioned.

The larger areas excluded from calculation are the offshore of Alaska outside the Cook Inlet and Bristol Bay, the onshore of Washington and Oregon, the Pacific Coast offshore north of the Santa Barbara Channel, and certain cretaceous areas in Utah, North Dakota, and South Dakota, and practically all the areas outside the marginal area.

Because gas estimates were not reported consistently, the estimates of the Potential Gas Committee were utilized.

Obviously, enormous time and energy were spent by many authors. Thus a serious effort was made to express largely geological opinions in numbers.

Of course, all such estimates are far more speculative than estimates of proved reserves, and some of the estimates are, admittedly, highly speculative.

The relative potential of the regions is indicated only approximately because of variations in available data, different methods of calculation, and different people. It is assumed that the optimistic and the pessimistic estimates average out in the totals.

A reasonable interpretation of the estimates indicates that 55 per cent of the discoverable oil and 66 per cent of the discoverable gas remain to be discovered, or 141 billion barrels of oil and 1,227 trillion cubic feet of gas, at the present rate of recovery of 32 per cent of the original oil in place.

Assuming median estimates we get lower figures of 107 billion barrels of oil and 911 trillion cubic feet of gas. It is believed that these reduced figures are too low, too small, partly because it excluded areas in the case of oil. Using the median estimates and assuming that sixty per cent recovery of the potential and known original oil in place -- that is 720 billion barrels eventually will be achieved -- then the ultimate petroleum potential of the United States may

exceed approximately 432 billion barrels of oil, 40 billion barrels of natural gas liquids, and 1,543 trillion cubic feet of gas.

Now even though these numbers are merely estimates, they are informed estimates arrived at by knowledgeable geologists after careful study of the geology and other exploratory factors. They are additional evidence of the high petroleum potential of the country.

No attempt is made in the summary to forecast the amount of oil and gas that will be found. Political and economic factors are involved beyond the purview of this study. However, it is obvious that capturing the potential reserves will take a great deal more drilling than has been done in the last decade, partly because a significant percentage of the visualized undiscovered oil and gas is in stratigraphic traps, combination stratigraphic and structural traps, reefs, and complex structural situations.

The additional drilling required to find stratigraphically controlled fields is only a part of the standard drilling needed. Many other exploratory wells are essential in the prospective, unfilled, wide open spaces, onshore and offshore.

Without serious question, however, drilling, finding, technology and understanding of the habitat of oil, backed up by expanding drilling, cannot fail to discover a

high percentage of the potential reserves visualized by this study.

Thank you.

(Applause.)

I would now like to ask Morgan Davis to make whatever comments he would like to.

MR. DONNELL: Mr. Miller has asked now Mr. Morgan Davis to comment.

MR. DAVIS: Mr. Chairman, gentlemen:

I wish to express my real appreciation for having had the opportunity to serve with Chairman Miller and Vince Brown of the National Petroleum Council on this project, and to voice my pleasure at having had the privilege of working with the very outstanding explorationists and outstanding government and state geologists who contributed to this work, and who made up the membership of the Executive Advisory Committee.

Mr. Ken Crandall, who served as the liaison between our Committee and the main Committee was of particular assistance to us.

I would like to also add my thanks to Ira Cren, who is both a member of the Executive Advisory Committee and Chairman of the Coordinating Committee, which was, of course, the real seat of activities throughout this study, which has extended over a period of about two years or more. In my

opinion, Mr. Cram and his coordinators have done an outstanding job.

Now I find myself in the position of becoming a little bit repetitive, but I believe that it may be justified in the light of the nature of this summary:

Since the Executive Advisory Committee was assigned the duty of assisting in the technical aspects of these studies, we formulated guidelines which, of course, were fashioned after the request of the Secretary -- we formulated guidelines to assist the regional coordinators and geological authors in determining the scope of the numerous papers which made up the nationwide geological examination.

And those guidelines, which are found on page E-1 in the Appendix of the Summary, you will note that among the various other data requested, we asked for calculations of volumes of hydrocarbons in place or estimates of ranges of such volumes where feasible.

At meetings of our Committee we discussed at some length the question of quantification and we decided to give our geological authors -- which finally numbered about 135 -- a rather wide latitude in determining to what degree they should use the quantitative data, as a result of their studies of the various provinces.

In the beginning most of us felt that many authors would not attempt estimates, to make estimates, either as to

the units of hydrocarbons recoverable or even in place. But we found, as time went on, that more and more of the geological authors seemed to prefer some sort of quantified expression of potentials of the future petroleum provinces that they were investigating.

Therefore, you will note that estimates of additional recoverable crude oil yet to be discovered in one part of the Summary there range from 74 billion barrels to 262 billion barrels, depending on the amounts found in stratigraphic areas, where we have very limited knowledge, and also depending on the percentage of oil in place, as Mr. Cram has indicated, the percentage of oil in place which can ultimately be recovered.

In other words, if we take this particular figure, this estimated future findings would be more than twice the amount of recoverable crude oil already found and estimated by A. P. I. to be 117 billion barrels at the end of last year, with about twenty-nine and a half billion barrels remaining.

As to gas, our authors found that the additional gas presumably to be discovered and used ranges between 595 and 1,287 trillion cubic feet of gas, depending upon these variations which have already been stated. Thus, we may find in the future about twice what we have accomplished to date in our finding of 632 trillion cubic feet of ultimately recoverable gas.

(At this point, the Chairman returned to the room and resumed the Chair.)

Estimates of natural gas liquids yet to be found are similar in scope and in range.

Now these are very big numbers and very wide ranges. On certain assumptions which you can find in the summary, the numbers go even higher, but our time here doesn't permit going into more detail.

The wide range of these estimates for the future is indicative both as to our lack of precise geologic knowledge, even after these latest studies, and the fact that the estimates were made -- and I would ask your particular attention to this -- the fact that the estimates were made without fitting them into the economic or technological backgrounds that we know today.

Also, there was no limitation on the time involved in finding these reserves.

It should be remembered, I think, and repeatedly pointed out, just what the potential reserves as set out in this study really are and are not:

They are attempts to estimate the possible potential reserves in the ground, but these reserves are not now available for use by the consumer, and indeed, much of them may not be available in this century.

I believe at this particular point in time that

the estimate set out in the future provinces summary that you have in your hand should be regarded as indicators or rather as a relative measure of the potentiality of the areas examined, rather than as finite barrels of oil or cubic feet of gas.

At the same time I cannot refrain from calling to the attention of this distinguished and informed group the fact that nearly all of the estimates of future findings of petroleum which were made in the past, going back before World War I and coming on well into this decade, all of these estimates have proved to be too conservative, when sufficient time has elapsed to evaluate them. Therefore, I would express a word of caution against completely rejecting even some of the higher numbers as being too extravagant to accept under the circumstances I have attempted to outline.

Whether and how much of these large potential supplies of petroleum can be made available depends upon the positive or negative effects of a long list of factors:

Prominent in this list are taxes and other governmental deterrents, policies, and restrictions.

Education of the public as to the proper balance between environmental concepts and energy needs.

The progress of technology in dealing with production and transportation in hostile and difficult environments.

Improved technology and new concepts in exploratory activities and recovery of petroleum.

Availability of capital for exploration.

Economic competition of fuels of different types or from foreign sources.

And last, but certainly not least, an adequate supply of trained managerial, technical, and scientific manpower.

And in conclusion I would like to say again what has been said several times already, but, I believe, bears repeating:

This Summary of the Future Petroleum Provinces of the United States, together with the supporting geological papers on which it is based, represents the most comprehensive study of its kind which has ever been made in this country, and should -- I hope and believe -- continue to be of value to the petroleum industry for many years to come.

Thank you.

(Applause.)

MR. MILLER: Well, we were indeed fortunate to have these two outstanding gentlemen, Morgan Davis and Ira Cram, to head these two very important Committees on this study.

As you have already heard, I think you will conclude that the results of this study indicate a high petroleum

potential for the United States. And I will re-emphasize some of the points which Morgan Davis has just made:

I think that we just cannot over-emphasize that the existence of sizeable petroleum deposits does not necessarily assure their availability. As has been pointed out, these resources must be located by extensive, very expensive exploration. And the facilities to produce and transport and refine and market these resources, also, of course, are essential.

And the fulfillment of these requirements, to a very large extent, are dependent upon adequate economic incentives, and very carefully considered governmental policies, and then also, as has been mentioned, continuing development and technological capability.

It was not the intent of this study to address itself to these very extremely important factors. It is my understanding that the H. P. R. A. study now beginning on the U. S. energy outlook will do this, and use this geological study as a foundation.

Now, Mr. Chairman, I would like to move the adoption of the report on the Future Petroleum Provinces of the United States. I make that motion subject only to minor editing prior to its publication.

THE CHAIRMAN: Thank you, Mr. Miller.

You have heard the motion. Is there a second?

CHORUS OF VOICES: Second.

THE CHAIRMAN: At this point then it is appropriate too, Mr. Miller, that if there are comments or discussion, it should come at this time -- or questions to Mr. Miller, it seems to me that they should come at this time. Now Mr. Miller, will you accept questions?

MR. MILLER: Indeed.

THE CHAIRMAN: All right, are there any? Mr. Hunt, I believe.

MR. HUNT: Would you verify for me and the group here, does this include or exclude the potential area beyond 200 meters water depth?

MR. MILLER: It included the entire Continental Shelf.

Now this specific definition --

FROM THE FLOOR: It goes to the edge of the Continental Slope, which has been defined as 2,500 meters of water, or 8,200 feet.

MR. HUNT: Thank you. That is what I wanted to know.

THE CHAIRMAN: Thank you.

Next question?

FROM THE FLOOR: Jack, I don't have a question, but I do have a comment:

I have read a lot of reports of the National

Petroleum Council over the years. If this isn't the best one, it comes pretty close to it. And I had the pleasure of reading it from cover to cover yesterday, coming up on the plane, and I think this is one of the best jobs in this field that the Council or anywhere else has done.

(Applause.)

THE CHAIRMAN: Mr. Dick Gonzales.

MR. GONZALEZ: Mr. Chairman, I think that the Committee should be congratulated for a most comprehensive and excellent report.

I believe that we ought to bring out its significance in relation to the fact that we have been experiencing a decline in the rate of discovery and development of oil and gas in the United States. The report should set at rest any questions that government officials and the public have had that the decline is due to any lack of places to hunt or opportunity to find more oil and gas in this country.

Instead, it makes it pretty clear that the reason for the decline is an economic one, and that in order to change the situation and increase the rate of development of oil and gas resources, we must have an improvement in the economic climate.

THE CHAIRMAN: Thank you, Mr. Gonzales.

(Applause.)

Yes?

MR. CHIDES: Mr. Chairman, my name is Bob Gerdas, and I am with the Pacific Gas and Electric Company, a major distributor and user of gas on the West Coast. I have only a few brief comments that elaborate, perhaps, on what the last speaker indicated:

A reading of the report is, obviously, very encouraging to those of us in the gas industry.

On the other hand, we do know that right at this time there are certain areas in the country where the supply situation is in more or less crisis stage, and others where it is rapidly becoming so.

So, therefore, it would appear that government and the gas distributing and transmission industries, as well as the producers, should direct their attention to getting this discovery rate started up again, and whatever is necessary to do that certainly should be done and done very promptly, because the time element here is highly crucial to our whole country, because I believe that if this is let run for any length of time, it is going to be -- there are political and economic repercussions of an increasingly diminishing supply of gas when we need an increasing supply could be very, very serious.

So I have only commented on the obvious, but it is also obvious that something should be done about it.

THE CHAIRMAN: Mr. Gerdas, thank you.

Your company is, as you say, a major distributor of gas, and we are well aware of its role. That is one of the reasons you, sir, as representing a major in your field, are on the Council, and we appreciate your advice.

We have all been worried to death about that, frankly, we with basically producer interests. And I appreciate your comments, and I am sure that they will be taken note of.

Are there any comments? Are there any further comments or questions?

MR. MILLER: Could I make a comment on that, that I don't believe requires an answer?

But certainly, meeting the energy needs of the United States is extremely important, a monumental task, and you have heard earlier this morning that at the present time the energy consumed in the United States, applied to the petroleum industry, continuing to make these tremendous requirements, requires a very viable petroleum industry, to a very large extent, and is dependent and will be dependent on the business, economic, and government climate under which we have to function.

And at times this looks very discouraging, and a number of times, but I think in the long run we can anticipate that we will continue with a very strong, viable industry, and supply the energy needs.

THE CHAIRMAN: Are there other comments or questions for Mr. Miller?

(No response.)

If not, Otto, we want to thank you, and great praise is, of course, due to Morgan and to Ira Cram and to the hundred or more geologists who did the work. I want to personally thank you for your own self sacrificing effort that I know something about; in order to organize and staff this kind of an arrangement, it is virtually impossible -- for example, how do you get Morgan and Ira, who are both in retirement, to start working again? I think this takes some doing!

Thanks again, Otto. We are proud to have you.

(Applause.)

The next Committee report is -- I don't believe Del Buckett is back; he is still tied up with the Secretary.

Oh, excuse me. Thank you very much. Our counsel reminds me that we didn't vote on that!

(Laughter.)

All in favor? You have heard the comments. All in favor of the motion, which is to adopt the report subject to minor editing, will please vote "aye".

(A chorus of "ayes".)

Opposed?

(No response.)

It is so ordered.

Thank you. Thank you very much, Max! That was what we were here for, wasn't it?

The next report is the report of the Committee on Petroleum Resources --I think we might pass that. I know that Del will be back in just a moment.

Bill Keeler, are you ready to speak?

MR. KEELER: I am ready.

THE CHAIRMAN: To speak to the Committee on Environmental Conservation?

MR. KEELER: I am ready.

Mr. Chairman, ladies and gentlemen: In my last report to you on the progress of the Committee on Environmental Conservation - The Oil and Gas Industries, I indicated that I would be able to present to the Council at this meeting a report, an analysis, together with appropriate recommendations, which will be of assistance in the development of sound governmental policy on environmental quality.

And I also indicated that some aspects of our study lend themselves more readily to analysis and conclusions than others, and that, therefore, some aspects might not lend themselves to complete analysis within my self-imposed reporting time frame.

Now events have proven to justify this last report to you because, with your strong approval, we have already

transmitted to the Secretary of the Interior an Interim Report of the Council entitled "Current Key Issues Relating to Environmental Conservation -- the Oil and Gas Industries". In his letter of transmittal our Council Chairman, Jack Abernathy, indicated that this Interim Report was designed to call attention to those environmental issues and related fundamental problems affecting our society, in which the domestic oil and gas industries have a vital interest, and which they consider most crucial at this time.

Thus we have presented a report and analysis, together with appropriate recommendations, which I hope will be of material assistance in the development of sound government policies on environmental quality.

This is not to say, however, that we have fully discharged the task which you have set us. As I mentioned in my report to you in January, when the Council accepted the request -- the Department of the Interior faithfully recognized that the subject to be studied was important, timely, and very complex.

Now our Interim Report seems to provide timely comments on the currently most important aspects. But we still have before us the responsibility of completing a fully comprehensive response, which goes into much greater detail, on the complexities of the subject.

In this regard, we all know that the subject of

environmental conservation is constantly changing its character, as new events and new proposals for solutions to problems emerge from all of the elements of our society, including government, industry, and, of course, the general public. It is, therefore, probable that our final report will include consideration of facts and proposals which did not exist as we compiled and analyzed information during the past fifteen months.

Thus our final report, which I now expect to be completed in the latter half of this year, will provide a more sophisticated review of the problems than was possible even six months ago.

Much has occurred in the period between our last meeting and this one, particularly in the extensive consideration being given by government at all levels -- federal, state, and local, executive, legislative, and judicial, international and national -- to requirements for energy and objectives for achieving environmental quality.

In his remarks to the Council at its meeting a year ago, Secretary Hickel said, and I quote:

"I see my role as one of working with industry to assure an adequate energy supply without destroying the environment."

As I reported to you in January, our Committee too felt the need to put requirements for energy and for achiev-

ing environmental quality in proper perspective.

As you noted in approving our Interim Report, we devoted considerable attention to this relationship and strongly supported an expanded, integrated system approach to the total problem of interrelating high rates of energy consumption with the maintenance of satisfactory environmental standards.

We went further to indicate that the Council is ready to contribute its expertise and active participation in such endeavors.

Our further work over the next few months in the composition of our final report will be such a contribution, and my Committee stands ready to consider any facets of the problem with which it may be asked to deal. Our general plan for the composition of the entire report remains essentially as I have described it to you last January.

We propose, for example, to give relatively great emphasis to the economic aspects of environmental conservation, and to an examination of the adequacy of knowledge upon which to base a decision.

Because an understanding of our technical and operational capabilities and limitations is important, we propose to go into some detail on these aspects in our coverage of sources of pollution and ways to control it. Here we will cover not only petroleum industry operations, but also par-

ticularly complex problems of utilization of petroleum products.

Finally, we expect to deal comprehensively with the legal factors of environmental policies encompassing not only domestic, but also existing international law and regulation and proposals for the future.

However, even for a final report, we must pay attention to keeping a useful, and therefore manageable, size. While we will recognize all sources of pollution danger within our terms of reference, we must limit extensive study to only those sources of relatively great concern.

Now that we have published an Interim Report, we may have raised some questions in the minds of its readers to which we can provide answers, yet which we have not considered so far. In view of the wide distribution of the report, consistent with the interests in environmental conservation, we may have raised these questions in an equally wide variety of places.

The report was initially broadly distributed within the federal government. In addition, we have responded to many special requests for the report, often resulting from the prominent coverage of this by the industry press.

To illustrate the extensive interest, we have received requests from throughout our industry, other industries, regulatory agencies, foreign governments, research organiza-

tions, academic institutions, and from just plain citizens. Now I welcome this interest and invite requests for copies from any persons who have a sincere concern for adding to their understanding of the role of the oil and gas industries on this important subject.

As I have previously explained, we expect the coverage of our final report to respond fully to the express needs of the representatives of the government.

However, where the urgency is more immediate, my Committee, and Mr. Leo McReynolds' Coordinating Subcommittee stands ready to provide such supplemental details as may be necessary to clear up questions that may arise in the minds of policy makers from a reading of our Interim Report.

I believe that our Interim Report has provided useful comment to the government as to environmental conservation matters of most immediate and urgent concern to the oil and gas industry generally. And I look forward to providing in the next few months further advice and assistance requested by the Secretary of the Interior.

Before I respond to any questions that you may have, I should like, Mr. Chairman, that you recognize Mr. J. K. Jamison, Chairman of the Board of Standard Oil of New Jersey. As the Council members present knew, Mr. Jamison is a member of the National Petroleum Council, and of our Committee on Environmental Conservation of the Oil and Gas Industries.

And he is also a member of the recently formed National Industrial Pollution Control Council.

I believe that he would like to acquaint us with the program of the National Industrial Pollution Control Council concerning our industry.

THE CHAIRMAN: Thank you, Bill. Welcome to the mike here.

MR. JAMISON: Thank you, Bill.

I thought that I should give you a very brief report on this National Industrial Pollution Control Council, because on the face of it, it seemed like it could be a complete duplication of the work that is being done under Bill Keeler's Committee.

The Council, as you know, was created by Executive Order on April 9th of this year. Bert Cross, Chairman of the Minnesota Mining and Manufacturing Company, was named Chairman, and Al Rockwell of North American Rockwell was named Vice Chairman.

The Council is composed of sixty-two members, with thirty Sub-Councils, embracing all areas of industrial activities. One hundred and thirty-six additional leaders of industry have been appointed as Sub-Council members. It is a rather impressive "Blue Ribbon Council", representing a complete cross-section of industry. The heads of the leading companies of all of our segments, from airlines to wood pro-

ducts, is represented.

The Petroleum and Gas Sub-Council is made up almost entirely of people who are also members of this Council:

As Bill Keeler indicated, I am the Chairman.

Bob Anderson is the Vice Chairman.

Cornet of Ashland, Calvert of Calvert Exploration, Charlie Vince of City, Jim Pittinger of Ashville, Charlie Murphy of Murphy Oil, are members. Members of the natural gas industry we will be having very soon.

If any of you are interested in the list of the Council and Sub-Council memberships, they will be available at the door.

Commerce Secretary Stans has said that the Council was formed to give practical help to United States Government agencies in coming to grips with the complex problems of pollution control, and further, that top U. S. corporation executives provide an organized source to give industry advice and friendly counsel on environmental quality to the proposed environment protective agency and the national oceanic agency on industrial programs to clean up pollution and improve the quality of the environment.

The charge of the Council is threefold:

First, to be responsive to the Secretary of Commerce's requests for information or advice on particular topics.

Second, to initiate corrective recommendations by surveying pollution problem areas.

And third, to initiate voluntary action with industry within each of the industry groups.

Obviously, the new Sub-Council will be ready to respond to the first charge. The work being done by the A. P. I. and other trade associations, and by this National Petroleum Council Committee which has just reported, are all clearly responsive to the second charge of the Sub-Council. There is no need for this new group, of which I am Chairman, to duplicate the efforts already underway.

Specifically we plan to wait for the final report of the National Petroleum Council Committee for the full inventory of industry activities. The A. P. I. has agreed to act as liaison to other trade associations, and will report to the Sub-Council on reports.

The charge to initiate voluntary industry action seems inappropriate for our industry, due to the great amount of work that has been done and will continue to be done in this area.

After one meeting of the Sub-Council and two meetings of the full Council, it seems that the oil and gas industry and other resource industries are up front of most of the other areas, of the others in the area of pollution involving manufacturing facilities.

However, we all know that we still have a long way to go in very important major areas, namely large oil spills and auto emissions.

On the progress of this Petroleum and Gas Council I would be glad to keep you posted, and I would like to repeat again that the one thing that we are going to be very careful to do is not to duplicate the efforts that are already underway.

Thank you.

(Applause.)

THE CHAIRMAN: Thank you, Ken Jamison, for bringing us down on some of the other activities.

I am wondering, Mr. Keeler, if -- I don't want to exclude other questions after all, I just wondered, because the device of an Interim Report has been used only once before in the history of the Council, to my knowledge, and I am wondering, do you feel that you need any kind of a motion approving the action, approving the Interim Report, in so far as the Council is concerned?

MR. KEELER: Yes --

THE CHAIRMAN: As far as I am concerned, it really isn't needed because you have already stated that you will consider questions and everything else on the adoption of the final report.

But perhaps you --

MR. KEELER: We had over sixty-five answers to our request for review of the report approved and I have considered that as the Council action, but I will be glad either way.

THE CHAIRMAN: I see. But I see Mr. McKnight. Now do you think that we need any formal action on the Interim Report?

MR. MC KNIGHT: No, I do not, Jack. We have had sufficient replies approving the report already by the Council members so that there is really no further action required here.

THE CHAIRMAN: Very well. Thank you.

Are there any other questions to be directed to either Mr. Jamison or Mr. Keeler?

(No response.)

Thank you very much, Bill, for cranking out the Interim Report in a very timely manner. The interest in that has been phenomenal. I forget how many -- you said a press run of fifteen hundred or two thousand was virtually exhausted already, I think?

MR. KEELER: Yes.

THE CHAIRMAN: Well, thank you very much.

Then we will now turn back to Mr. Brockett Committee on Petroleum Resources under the Ocean Floor. Now, Del, are you going to do it, or is Cecil? How are you going

to handle it?

MR. BROCKERTT: I will.

THE CHAIRMAN: Thank you, Cecil, for standing by. I appreciate it.

MR. BROCKERTT: Mr. Chairman, gentlemen;

As Jack says, I have a good stand-in.

You will recall that last year we issued a report, "Petroleum Resources Under the Ocean Floor". Development of seabed resources has continued to engage the active attention of the U. S. and other governments.

The U. N. Seabeds Committee will again be in session in August at Geneva and undoubtedly the 26th General Assembly in New York this Fall will again deal with this matter.

On May 23rd, 1970, the President issued a statement setting forth the policy of the Executive Branch of the Government on seabeds and oceans policy. In this statement he proposed a treaty whereby coastal states would renounce their claims over the natural resources of the seabed underlying the high seas beyond the 200-meter depth mark of the superjacent waters (that is, the 200-meter depth line or the seaward edge of the territorial sea, whichever is farther from shore). The coastal state would retain full rights to seabed resources underlying its territorial waters.

Beyond the 200-meter depth line this treaty would

establish an international regime for the exploitation of the mineral resources of the underlying seabeds. Under this regime a portion of the revenues from the production of minerals from the seabed would be destined for international community purposes, particularly economic assistance to developing countries.

As part of this regime there would be general rules for four specified purposes:

One purpose would be the prevention of unreasonable interference with other uses of the oceans.

A second purpose would be the protection of the oceans from pollution.

A third purpose would be to assure the integrity of investments.

The final purpose would be to provide for the peaceful and compulsory settlement of disputes arising from ocean uses.

With respect to that portion of the seabed underlying the high seas between the 200-meter depth and the outer limit of the continental margin, an international trusteeship zone would be established. Beyond the 200-meter depth line the treaty would set up international machinery authorizing and regulating exploration and development of seabed resources. The coastal state would be given certain defined rights in the trusteeship zone subject to the overriding provision

of the treaty.

An part of the proposal, there would be a treaty provision establishing a 12-mile limit for territorial seas and providing for free transit through and over international straits with appropriate recognition of the special interest of developing and other nations in the conservation and use of high seas fisheries resources off their coast.

By contrast, gentlemen, our 1969 National Petroleum Council report recommended:

"* * * that the United States, in common with other coastal nations, now has exclusive jurisdiction over the natural resources of the submerged continental mass seaward to where the submerged portion of that mass meets the abyssal ocean floor and that it should declare its rights accordingly."

Upon receipt of the proposals of the President and in anticipation of a request for views, a Task Force of the National Petroleum Council Seabeds Subcommittee was established to review preliminarily these proposals in the light of the earlier National Petroleum Council report and the concern of the oil and gas industries with being able to discover and develop the petroleum resources necessary to meet this Nation's energy requirements in the years ahead. This unofficial preliminary Task Force memorandum, prepared on July 1, 1970, was directed toward implementation of the Pres-

ident's proposals so as to accommodate the vital needs of this Nation.

Assistant Secretary Dole scheduled a meeting on July 1, 1970, of industry representatives for consultation on the seabeds problem at which the National Petroleum Council was represented and at which this memorandum was presented to representatives of the governmental departments concerned with this matter.

Since the meeting at the Interior Department on July 1st informal consultations at the request of the Department of State have continued and are directed toward providing a basis for implementation of the President's proposals so as to assure this Nation's control over the exploitation and development of the petroleum resources of the continental margin off its shores.

By way of reporting to the Council, the views of the National Petroleum Council have been presented fully during the past year to three sub-committees of the United States Senate concerned with this matter and we intend to continue to follow it closely as further developments occur.

We are responding to requests from our Government colleagues to provide whatever assistance we can in pursuit of our common goals.

Mr. Chairman, that is what I have.

THE CHAIRMAN: Thank you, Mr. Brockett. You know,

I think you would almost welcome getting another job here, pretty soon, because you have had a full-time one on your sea committee.

I would like to inquire, Del, would you care to respond to questions?

MR. BROCKETT: I probably am not the one to respond to questions.

We have one of the experts here.

THE CHAIRMAN: You can feel them and give them to the experts.

MR. BROCKETT: Yes.

THE CHAIRMAN: Are there any questions of Mr. Brackett or his experts?

MR. BLAUSTEIN: Mr. Chairman.

THE CHAIRMAN: Yes, Mr. Blaustein.

MR. BLAUSTEIN: I take it that no action is asked for.

If so, I would like to be recorded as voting "no". The position of the N. P. C., as I have frequently stated at previous meetings -- I was a member of the President's Commission on Marine Resources, and in certain respects it differs and, I think, vitally, from the report and the view of the N. P. C. and its staff.

I don't want to elaborate on the report. I did that before an N. P. C. meeting some time ago, and I don't

think that is necessary.

But do vote me "no", please, as against the position that the Council is taking, based on that report.

THE CHAIRMAN: Mr. Blaustein, you are one of the few people that I know that the Council will respect and give them two votes!

Thank you, sir. Is there any need for a vote on anything that was introduced?

MR. BROCKETT: No, Mr. Chairman. This was simply a report on what has happened since the report was approved by the Chairman.

MR. BLAUSTEIN: The thing that I can't understand, Mr. Chairman, is that the N. P. C., knowing my views on this thing, and representing the President's views on this thing, when these meetings recently held were called, that we weren't invited to state our position.

I don't think that was so -- frankly, since I rarely have differed with the position of the N. P. C. in these many years, I think that in this instance the N. P. C. has not acted in proper order.

THE CHAIRMAN: I see. Thank you, Mr. Blaustein. Are there any further comments?

MR. HUNT: Mr. President, I would like to speak to this matter, if I may.

THE CHAIRMAN: Mr. Herbert Hunt.

MR. HUNT: My name is Herbert Hunt, and I am a member of the Petroleum Council, and I am permanent President of the American Association of Drilling Contractors, and I would like to go of record here at this meeting in this matter.

When the President proposed the treaty which Mr. Brackett has just discussed here, there was great concern among our members within our American Association of Drilling Contractors. And accordingly, as President of our Association, I wrote a letter to the President, in which I pointed out several things:

First of all, the 1958 Geneva Convention states that the coastal states should own up to 200 meters or to that depth, which admits to the feasibility of exploration. And in my letter I pointed out that Humble Oil Company already had discoveries at 1,000 feet and 1,200 feet of water, and that they were preparing to go ahead and to develop.

I also pointed out that the size of this area that we are talking about renouncing our national claim to is a tremendous area; to the best I can calculate, it is approximately 660,000 square miles. This is mainly an all-sedimentary area, and it is equivalent in size to the states of Texas, Louisiana, Mississippi, Oklahoma, New Mexico, and Wyoming.

This is equivalent to twenty per cent of the lower

forty-eight states' surface area.

I also pointed out that the U. S. G. S. has made an estimate of the reserves outside of the 200-meter mark, between the 200-meter mark and the edge of the Shelf, of 640 billion barrels of oil, 1,590 trillion cubic feet of gas, along with 60 billion barrels of natural gas condensate. This is equivalent to twenty-one times our present proven reserves of oil and approximately six times our present proven reserves of gas and natural gas condensates.

Now since writing that letter, I have been told that the Defense Department -- the main one plugging for the ceding of these rights -- it was their original intention that they felt we should cede these rights because they did not want to give up the right of placing of listening devices into the subsoil areas of the ocean bottoms around the world; I think that from what I am told that they have now determined that this is not a necessity due to other methods of survey and surveillance.

However, I am also told that the Defense Department at this time has changed their reason for opposition, due to the fact that they don't want to limit their submarine ability to go into these waters.

This draws out of the -- now let me point out that we are talking about the sub-surface rights here, and we are talking about the water rights, but their concern is that

If the nations of the world perfect their claim to these sub-surface rights, that ultimately it will be extended to the waters above.

Also, I think -- or I have been told -- that in addition to wanting to keep these areas open to access by U. S. subs, that they really do not want the obligation to police and to defend these territorial waters here off our U. S. coast.

Now, very frankly, gentlemen, I feel that this is an extremely tremendous give away of this country's territory and resources. And I feel that I would be a traitor to my country and to every man, woman, and child in this nation, if I did not go of record in this matter.

Of course, a lot of it boils around to what is the difference between jurisdiction and ownership and control. Well, I very frankly think that we should retain ownership, control, and jurisdiction.

Thank you very much.

(Applause.)

THE CHAIRMAN: Thank you, Herb. For a maiden speech, that was a dandy!

(Laughter.)

Are there any other comments on this point?

Since no action was required, I believe, on this, does that complete your discussion, Mr. Brckett?

We will now pass to the agenda item, the Committee on Petroleum Storage Capacity. Mr. O. M. Turner is Chairman of the Technical Subcommittee.

Mr. Turner,

MR. TURNER: Mr. Chairman, gentlemen:

I am acting on behalf of Mr. Charles E. Spahr, who is the Chairman of the Petroleum Storage Capacity Committee.

On his behalf, I wish to present to you the proposed report on the United States Petroleum Inventories and Storage Capacity. Due to the excellent industry response to the survey requirements, this report is based on more than 95 per cent coverage of total inventories reported to the Bureau of Mines.

Now while the members of the N. P. C. have received an advance copy of the final report, I should like to take just a few moments to refer briefly to a few of its salient points:

First, I would like to remind some that this is the second report of its kind, having been commenced back in 1948, so there is a great deal of continuity in so far as statistical analysis is concerned.

In our final report, you will find that one per cent of the total crude oil, clean products, and residual fuel oil inventories, are not available for consumption for

certain reasons, such as pipeline fuel requirements, and the minimum volumes required for continuous processing and volumes in transit at any given point in time. These qualifications have been in the prior sub -- six reports.

For purposes of this report, the remaining sixty per cent of our total oil inventory is available, with some qualifications:

For example, the transportation of desired quantities to the right place at the right time must be reckoned with.

Inventory figures at any given point in time include build-up for seasonal requirements.

And substantial operational storage capacity must be dedicated to the support of transportation operations, which require considerable flexibility to meet demand variations.

Since the last M. P. C. study in 1963, crude oil inventories have expanded about ten per cent, crude oil pipeline fill volumes have increased by about eight and a half million barrels, and the percentage of "unavailable" inventory has decreased noticeably. However, the ratios of products unavailable and available to total inventories and the percentage of products it takes to assign storage capacity have not changed significantly over the last seven years since the last report.

You will note in the report a brief discussion on the cost of storage capacity for emergency standby volumes, and on the phase of supply concept. We believe that observations and suggestions being made about these subjects warranted our treatment of them in this report.

A rather striking revelation of the study is the reporting of jet fuel separately for the first time, because of the growing significance of jet fuel volumes.

Also for the first time, the report expanded coverage to include the regional data which is not reported to the Bureau of Mines.

I should like to express the appreciation of our Committees -- the Main Committee and our Technical Subcommittee -- for the fine staff work that was provided us by the National Petroleum Council office and for the excellent response from the companies that participated in the survey. That concludes my report, Mr. Chairman, and I move the report be adopted.

MR. BROCKETT: It looks like we have lost the Chairman.

The recommendation has been made that the report be adopted. Is there any discussion before the vote?

(No response.)

Any question? Is there a motion for approval?

CHORUS OF VOICES: So move.

MR. BROCKETT: Second?

CHORUS OF VOICES: Second.

MR. BROCKETT: All in favor?

(A chorus of "ayes".)

Opposed?

(No response.)

Thank you very much.

(At this point, the Chairman returned and resumed the Chair.)

THE CHAIRMAN: Thank you very much, Mr. Turner.

We appreciate this. This is a phenomenal amount of work that you have done.

Does that complete everything?

The next report will be from Mike Wright, Chairman of the Committee on Crude Oil Deliverability, the final report.

Mike.

MR. WRIGHT: Mr. Chairman, ladies and gentlemen:

My comments this morning will be directed to the central findings of the Committee on Crude Oil Deliverability. A copy of this Committee's report was entitled "Capacity of Crude Oil -- Gathering Systems and Deep-Water Terminals"; it has been furnished to each one of you.

One of the principal uses of the production and capacity aspects is the studies and the analysis of the

capabilities of the domestic industry to respond to the increasing demand for crude, which might be placed upon it during times of emergency.

However, the ability of the petroleum industry to produce this required crude is, in the final analysis, only one part of the problem. The more important question is, how much domestic raw material can be produced and delivered to the proper location where it is needed during the time of the emergency.

In order to measure any potential restrictions in total field gathering systems capacity, screening studies were first conducted to identify those areas which contain the extra spare production capacity.

The spare production capacity, as used in this study, is the difference between the actual crude oil production achieved in June of 1969 and the A. P. I. estimate of the emergency production capacity which existed on March 31st, 1969.

It was our reasoning that gathering systems are obviously adequate in those areas where no spare productive capacity exists, and hence the gathering system problem can be isolated to a limited number of fields.

The Committee then found 205 fields in the United States, which contained approximately 82 per cent of the total of 2.9 million barrels a day, as the emergency spare pro-

duction capacity as of March 31st, 1969.

The remaining 18 per cent of the spare production capacity was found to exist in several thousand fields, none of which contain as much as 1,000 barrels a day spare capacity.

It made a survey of the operators of the producing properties of the 205 fields of interest, and this indicated that only seventeen of these fields had restrictions in their field-gathering facilities which could not be removed within ninety days in the event of an emergency. These restrictions aggregated 523,000 barrels a day, or about eighteen per cent of the total spare capacity.

And the results of the survey also confirmed our judgment that the gathering system capacity would not represent any real limitations on emergency deliverability in the numerous fields which were of less than the spare capacity of 1,000 barrel potential.

Now I think that a few additional words of explanation on the subject of spare production capacity might be helpful here:

The total crude oil productive capacity of the United States, which the A. P. I. estimated could be made available in the event of an emergency, was twelve million barrels a day as of March 31st, 1969.

Now in June, 1969, the aggregate production

reached its highest level of the year at 9,100,000 barrels a day. This left an indicated spare producing capacity of 2.9 million barrels a day, which I mentioned earlier. Now this total spare capacity of 1.7 million barrels a day -- 59 per cent was in Texas, 895,000 -- 31 per cent was in Louisiana, and 83,000 barrels a day or three per cent was in New Mexico.

Now in addition, we have 230,000 barrels a day which is located in the Elk Hills Naval Petroleum Reserve in California.

And the remainder of the United States, during this period of 1969, was essentially producing at capacity. Now spare producing capacity has been declining steadily in recent years, and in 1960 it was about two million barrels a day below the peak of 1965, when we recorded something like five million barrels a day under the A. P. I. definition. And over this past year, since mid-1968, production capacity, according to the A. P. I., has declined an additional 400,000 barrels a day, reducing spare capacity by the A. P. I. definition to about 2.5 million barrels a day.

Now the gathering system limitation which we identified, and I mentioned earlier, reduces this estimated spare to about two million barrels a day.

Now I would like to call your attention to the fact that these emergency capacity figures are on the basis

of A. P. I. definition -- that is, the capacity that could be reached in a ninety-day period following a crisis, and during the ninety-day period very explicit action would be taken by producing operators and regulatory authorities, in order to maximize production.

Now by way of inference I think it is significant at this point, let me say that our own company estimate of normal spare capacity as the capacity which could be made immediately and drawn upon at short notice without emergency operating and regulatory measures, is only about 800,000 barrels a day at the present time, of which something like 600,000 barrels a day is in Texas.

And as you can see, this is substantially less than the two million barrels a day which is indicated as being obtainable with a ninety-day period within which to implement emergency measures.

Now port capacity is another segment of the supply system which your Committee was asked to evaluate. And in the context of a supply emergency, only Texas and the Louisiana Gulf Coast ports have any relevance because it is only through those ports that spare United States crude oil could be moved to other refining centers.

The existing capacity of these ports to handle crude oil tanker loading was determined to be about four and a half million barrels a day. This capacity quickly devel-

oped through a survey of the tanker loading facilities on the Gulf Coast is well in excess of the additional port capacity which would be required to handle the maximum volume of crude oil which would be made available for tanker movement in the Gulf.

In an emergency, or even in normal operations, it is necessary to first satisfy the raw material requirements for local refineries -- and this runs around four million barrels a day -- and after meeting these requirements, the total crude oil which might be available for tanker movement through the Gulf Coast ports would only be two and a half million barrels a day. So you can see that this is substantially less than the tanker loading capacity of four and a half million barrels a day in the Gulf.

Now the timing of this study that we have completed makes it necessary to link the field gathering capacity and the port capacity into the production capacity, which was estimated back on March 31st, 1960. And subsequent to that time the A. P. I. has recently released its most recent report on productive capacity, which is dated March 31st, 1970.

Before submitting this report to you gentlemen, I want you to know that the Committee went back through this new report, and examined the conclusion we had in its relationship to these latest numbers, and whereas some changes have

occurred, these have been in the way of both increases and decreases in production capacity in a number of fields -- and the net effect of these changes has essentially been off those.

We also did the same thing in relationship to gathering systems, and the indicated restrictions that we have in the latest numbers turned out to be 552,000 barrels a day instead of 522,000 barrels a day, which we have based on last year's numbers.

So we would say that the report that we have submitted to you is certainly relatively current.

Now in conclusion, I would like to reiterate the appreciation which the Committee has expressed in its report for the cooperation received from the A. P. I., and particularly from the working members of the Committee on Reserves and Production Capacity. Without the cooperation of this group, and without them making available to us information which they had hitherto kept very confidential, we would not have been able to conduct this study.

And I would also like to express our appreciation to the Committee itself and to the Subcommittee, which, of course, did practically all of the work, which was chaired by Mr. W. T. Slick.

Mr. Chairman, I would like to recommend that the Council approve the report of the Committee on Crude Oil De-

livability.

THE CHAIRMAN: Well, I suppose that is a motion subject to the usual minor editorial cleanup? Is that correct?

MR. WRIGHT: Yes.

THE CHAIRMAN: You have heard the motion. Is there a second?

FROM THE FLOOR: Second, and comment.

FROM THE FLOOR: I have a question.

THE CHAIRMAN: Yes, now is the point, when we have heard the motion and the second -- are there any more questions or discussion?

MR. LEET: I have read the report. It is an outstanding report.

THE CHAIRMAN: Identify yourself, sir.

MR. LEET: John Leet, National Petroleum Industries Foundation.

I have read the report and it is an outstanding report, and the Subcommittee which did most of the work should be congratulated on it. I do have a question, however:

In the report, we talk about estimates of productive capacity, we use primarily -- in fact, exclusively -- the A. P. I. estimates of productive emergency capacity. I wondered why we had to rely so heavily on the A. P. I. estimates, and also, when we talked about "emergency", this is

an extremely flexible term conceptually.

What kind of an emergency are we really talking about, when we talk about future emergencies and availability?

These are my two points that I want to clear up.

MR. WRIGHT: All right, let me say this, John:

As you know, there are a number of groups that have studied this question:

The N. P. C. does it.

The I. P. A. A. does it annually.

And the A. P. I. Committee on Reserves and Production Capacity started three years ago making this kind of reports.

But when we looked around at the kind of information that we felt we needed in this case, we found that the A. P. I. work seemed to fit our problem best, the reason being that the A. P. I. work is worked on a grass roots basis, with the geologists, the fellows working their data up field by field. And heretofore, in these kinds of studies, there have been numerous cases where, in their endeavor to stick to the gathering system or trunk line system, they would simply take the total producibility of the oil wells and lump that together, and they would lump together the gathering system capabilities into another figure and the trunk line capabilities in another, and come out and see if they balance, or where statistically there might be bottlenecks.

But we thought, in this case, that we had to get something from the individual fields so that we could compare the producibility of an individual field with the gathering line serving that field. And the only place that we seemed to be able to find this kind of data was in this very detailed work of the A. P. I. group, in which we all participated, of course.

And I must say that up until we went to the A. P. I. and asked for their permission to utilize this data in order to solve this problem, why, they had never made this data available in as much detail. So that was the reason that we went to the A. P. I. for these kinds of data.

Now then the various people who have studied this problem over the years have used various kinds of definitions as to what this emergency might be or what it might mean and how you should or what kind of numbers you should use:

Some people have used an annual average of produced oil versus demand.

Others -- and I think the I. P. A. A. used this -- I think that they used in their numbers on producibility the average sustained rate which could be carried on for one year, as I remember it. And I think maybe this also says that assuming no additional drilling in the meantime.

Now then, the A. P. I. number, in addition, it is an individual number based on what can be accomplished in

opening up all of the fields in the United States within 90 days after the emergency exists.

Now then, that is probably a peak number -- 90 days and that will start declining, and in a year from then it will probably be a percentage less, but I think that we just have to recognize the thing that we are working with, and actually, if we went back and compared a number of these numbers between these various approaches, and actually they are all of the same magnitudes and they are very close when you really get the definitions there.

MR. LEEF: Thank you. That answers it.

THE CHAIRMAN: Are there other questions for Mr. Wright?

(No response.)

If not, will those who are in favor of the motion, which has been seconded, and which involves the adoption of the report, please say "aye"?

(A chorus of "ayes".)

Opposed? Contrary?

(No response.)

Thank you very much.

To you new members of the Council, I was a little afraid -- you were here for the first time and I was a little afraid that you might get the wrong impression of what the Council does, because you got such a nice party last night.

Now we only do one of those every two years, when we celebrate the departure of an incumbent Chairman! That is what that really is -- that is a celebration of the departure!

And you can plainly see through this morning's session that the National Petroleum Council is about a half of one per cent pleasure and ninety-nine and a half per cent hard work. And you will find that out as time goes on. And you will only serve your role, as a new member of the Council, by, when you are asked to take an assignment:

Number one, accepting it.

And number two, doing it.

That is a charge, and a responsibility, that each of you has now, and you probably have more of a charge and considerably more of a responsibility than you realize at this stage. At least, the rest of us have all found this out. And you can see that the kind of thing that you have heard reported this morning is not done easily, and it is not done gratuitously, and it is not done shallowly. It is the result of hundreds and hundreds and hundreds -- and I can say thousands -- of man hours of the hardest kind of work.

And you are going to have some fun, and you are going to learn a great deal, believe me, not only about the industry, but about yourself, by this.

Now with that small admission, we welcome you, we certainly welcome you aboard and we hope that you have en-

joyed your first meeting of the National Petroleum Council.

The next agenda item is the presentation of the National Petroleum Council Certificates of Achievement, and I will turn this over to -- who does this? Will the Co-Chairman do that, Vince?

MR. BROWN: You should.

THE CHAIRMAN: Do you think I should do that? All right.

We have the Certificates; will Ira Cram please come forward?

Gentlemen, those of you who heard Ira speak this morning know already what this is for, so Ira, without any -- the wording of the Certificate, and these Certificates are identical, and I will read this first one:

"The National Petroleum Council, an industry advisory body to the Secretary of the Interior, takes pleasure in presenting this certificate of appreciation to Ira H. Cram for the outstanding personal talents and effort which he devoted to the deliberations and activities of the Council, thereby rendering a most valuable service to the United States oil and gas industry and to the United States Government.

"Awarded this seventeenth day of July, 1970."

(At this point the award was presented to Mr. Ira H. Cram.)

Ira, congratulations and thank you. Thank you very much, Ira.

(Applause.)

Now the one I got last night, I don't quite know what to do with it, but thank you. We are very grateful.

The next award is for Charles L. Moore. Charles isn't here. And Vince Brown, would you accept this and deliver it to Mr. Moore with our appreciation for all that he has done?

(At this point, the award was given to Mr. Brown for delivery to Mr. Charles L. Moore.)

Now I should announce that there will be a press conference in Room 1058, five minutes after we adjourn, and that will give you time for a short rest stop on the way. All Council officers, Committee Chairmen, are requested to be present, in Room 1058, five minutes after this is over.

We have one more item on the agenda. That is the Report of the Nominating Committee -- Mr. Carroll Bennett, Chairman.

MR. BENNETT: Mr. Chairman, your Nominating Committee, consisting of Mr. Mike Wright, Mr. Bill Vaughey, Mr. Charles Spahr, Mr. Baxter Goodrich, and myself, would like to nominate the following:

For Council:

Chairman - E. Del Brockett.

Vice Chairman -- H. A. (Dave) True, Jr.

Executive Director -- Vincent M. Brown.

For the Agenda Committee:

Jake L. Hamon, Chairman.

Jacob Blaustein, Howard Boyd, J. Howard Rambin,
Frank N. Ekard, J. K. Jamieson, John M. Kelly, Harold M.
McClure, Jr., Bob Burch, John E. Swearingen, Dean A. McGee,
and W. W. Keeler.

For the Appointment Committee:

Charles E. Spahr, Chairman.

George F. Getty II, Baxter D. Goodrich, Fred L.
Hartley, F. Allen Calvert, Clyde McGraw, Charles H. Murphy,
Jr., Rawleigh Warner, Jr.

Mr. Chairman, I move the adoption of this report.

THE CHAIRMAN: Thank you, Mr. Bennett. Is there a
second?

FROM THE FLOOR: Second.

THE CHAIRMAN: Are there additional nominations?

(No response.)

If not, those in favor of accepting the slate as
proposed as a whole will please say "aye".

(A chorus of "ayes".)

Opposed?

(No response.)

It is so ordered.

Congratulations, Del.

CHAIRMAN BROCKETT: Thank you very much.

(Applause.)

Thank you very much, gentlemen; if I could have just one moment to say a few words?

Certainly my sincere thanks to you gentlemen for your confidence. I look forward to working with you and working for you.

It has been my privilege over the past two years to be associated with Jack Abernathy. Certainly I can attest to the fact that Jack has given unstintingly and unselfishly of his time, and certainly we are proud, Jack, of what you have accomplished.

My congratulations to you, Dave. I am certainly looking forward to working with you, and leaning on you, as I will on Vince Brown and the very excellent staff of the Council.

And gentlemen, I thank you again.

(Applause.)

CHAIRMAN ABERNATHY: Well, if this guy is half as good a Chairman as he has been a Vice Chairman, I will assure you that the Council and the industry and the government and our nation are in good hands.

Del, it has been a pleasure.

Now the "sweep up" item is "Other business". I

understand now -- do you want to do this? You are the Chairman.

CHAIRMAN BROCKETT: No, you wind up the meeting.

CHAIRMAN ABERNATHY: All right. Like a ping pong ball, back and forth!

The Chair has received a request from the National Oil Jobbers Council that it place a paper on the record relative to the fuel oil situation.

Now this gives me an opportunity to explain that the Council can only put items on the agenda that the government representative approves. Mr. Dole, as representing the Secretary, Secretary Dole has seen this request and has approved this action.

So, therefore, Mr. Gregg -- Mr. Gregg, I can't read your name.

FROM THE FLOOR: Potvin.

MR. POTVIN: Potvin.

CHAIRMAN ABERNATHY: Secretary Dole has approved your presentation of this paper, so please come forward.

MR. POTVIN: Thank you, Mr. Chairman. It had not been my intention, Mr. Chairman, to do anything orally, other than submit it.

Let me say, however, for the information of those present, that I am here as the alternate for our President, Bill Jones, who had hoped to submit the statement of Mr.

Walter Macauley, Chairman of our Fuel Oil Committee, concerning the shortage of Bunker "C", Number 2, and other heating oils.

Mr. Macauley calls for an in-depth study of the western hemisphere supplies, the supplying of additional quotas for the period of January 1, 1970, through June 30th, 1971, and further suggests the possibility of the offering of "a bonus for additional residual oil production in the form of additional crude oil imports".

Thank you very much, Mr. Chairman.

THE CHAIRMAN: Thank you very much.

Will you deliver that to Mr. Brown, and the paper will be on the record and be incorporated in the minutes of the meeting.

(At the direction of the Chairman, the papers referred to are copied in as follows:

"National Oil Jobbers Council

"1701 K St., N. W., Washington, D.C. 20006

"202-363-7198

"July 16, 1970

"Mr. Jack M. Abernathy

"Chairman

"National Petroleum Council

"1625 K Street, N.W.

"Washington, D.C. 20006

"Dear Chairman Aherneathy:

"As a member of the National Petroleum Council, I am in my capacity as President of the National Oil Jobbers Council submitting, on behalf of NOJC members, the attached statement of Walter P. Macauley, Chairman of the NOJC Fuel Oil Committee.

"You will note that Mr. Macauley outlines the urgent and distressing shortage of distillate and other petroleum heating fuels. Mr. Macauley calls for an in-depth study of the western hemisphere supplies, the supplying of additional quotas for the period of January 1, 1970 through June 30, 1971, and further suggests the possibility of the offering of 'a bonus for additional residual oil production in the form of additional crude oil imports.'

"One of the prime reasons for the present shortage of No. 2 and other fuels is the enormous amounts of these fuels being consumed by electrical utilities. No. 2 and allied products are currently a scarce resource to the extent that unless something is done soon, there is the overhanging possibility that many families may go without heat this winter. It would seem both prudent and in the public interest to insist that this scarce resource be utilized in the most efficient manner possible. Mr. Donald Holtzman of Emmaus, Pennsylvania,

a member of the Pennsylvania Petroleum and Fuels Association (a member association of NOJC) has estimated that it takes approximately four times as much No. 2 fuel oil to heat an average home by burning the fuel to produce heat to produce steam to produce electricity as it would to heat the home directly by a residential oil-fired furnace. (The precise ratio is 3,214 as compared to 822 gallons.)

"It is realized, of course, that the consumption of No. 2 oil by electrical utilities is taking place only because of the unusual shortages. This would not be a usual practice. Nonetheless, it does point up a shocking misallocation of a scarce resource, particularly since many oil marketers are unable to obtain product to meet needs of long-standing users. It must be noted that, simultaneously, electrical utilities are being given special consideration by having vast quantities of No. 2 oil made available to them.

"It is my hope that the National Petroleum Council and the Department of the Interior will study Mr. Macaulay's suggestions, give them their utmost consideration and take prompt and corrective action in line with them.

"Sincerely,

"/s/ Wm. S. Jones

"Wm. S. Jones, President"

"STATEMENT OF

WALTER P. MACAULEY, CHAIRMAN

FUEL OIL COMMITTEE

NATIONAL OIL JOBBERS COUNCIL

BEFORE THE

NATIONAL PETROLEUM COUNCIL

"At the present time, the oil industry is faced with a possible shortage of residual oil, No. 4 oil, and distillate products. It is felt that, in the coming season, unless immediate steps are taken to correct the situation, many areas will be faced with very serious dislocations of supply. A good part of the current problem has been caused by the enormous demands which have been abruptly thrust on the industry for lower sulfur fuels. While everyone in the industry is very anxious to have available, as soon as possible, sufficient supplies of low sulfur oil, it seems physically impossible to satisfy all of the present demands and, day after day, we are faced with additional states putting into law very stringent sulfur regulations. In order to provide the lower sulfur fuels, it has been necessary to use some distillate oil in order to bring down the sulfur of the normal Bunker 'C' oil.

"Another complication has been that caused by the

public utilities who, approximately five years ago, indicated that a good part of their expansion would be taken care of by nuclear energy. However, due to problems with plant sites, delays in obtaining equipment, and local ecology objections, the public utilities industry, suddenly in the last year, has made unreasonable demands on the oil industry to provide product Bunker 'C' oil for them.

"The increased usage of residual fuel oil by utility companies has increased 34 per cent during the first quarter of this year. This has significantly affected the supply and demand balance.

"It appears that there is no additional Bunker 'C' oil available in Venezuela and, if we are to meet the present demands, provisions must be made to provide incentives for domestic refiners to produce Bunker 'C' oil at an economic price. There are many ways that this could be accomplished. One method would be to subsidize the additional production. Another might be to offer a bonus for additional residual oil production in the form of additional crude oil imports.

"We are fearful that, if steps are not taken soon, by this administration, to finalize a constructive program for the next heating season, many important industries would be affected by shortage in supply in

supply in both gas and oil.

"At the present time, there are many utilities that are not covered for their fuel oil requirements and there are also public institutions which are unable to secure an adequate supply of fuel for this heating season. The problem has been aggravated by the increased European demand which has siphoned off part of the supply of Venezuelan oil which would normally be shipped into our markets. It would seem that an in depth study of our present western hemisphere supplies should be made so that we can accurately determine what oil is being used in this hemisphere and what is being exported to Europe.

"With reference to distillate fuels, the recent 40,000 barrel per day quota for No. 2 fuel for independents in District I is really insignificant in relation to the demands of the independents. However, the industry is very thankful to the administration for at least recognizing the problem and doing something about it, even though the amount awarded is much less than is required. Also, the very disturbing thing is that the award is only through the end of this calendar year and, obviously, an immediate quota should be issued for the period January 1st through June 30th, 1971. It will be impossible for independent terminal operators

to make plans for the next heating season since their requirements for this heating season have not been fully met by their suppliers and they, therefore, have a large deficiency in supply. It is, therefore, hoped that immediate steps will be taken by this administration to provide, at this time, a quota for the period January 1st through June 30th, 1971 so that the independent terminal operators can be adequately protected for their requirements for this heating season.

"We are confident that the oil industry will once again rise up to the challenge of meeting its requirements regardless of the insurmountable problems with which it is faced but it certainly will require the closest cooperation with the government agencies involved in order to satisfy the large demands which have been placed on the industry for this coming season.")

CHAIRMAN ABERNATHY: Mr. Chairman, is that all? If so, gentlemen, thank you for your attention, and we are adjourned.

(Whereupon, at 1:10 o'clock, p.m., the meeting was concluded.)