OFFICIAL REPORT OF PROCEEDINGS

BEFORE THE

U.S. DEPARTMENT OF THE INTERIOR

OFFICE OF THE SECRETARY

Docket No. _____

In the matter of NATIONAL PETROLEUM COUNCIL MEETING

Place Washington, D.C.

Date March 25, 1965

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UNITED STATES DEPARTMENT OF THE INTERIOR

MEETING OF THE

NATIONAL PETROLEUM COUNCIL

Conference Rooms A & B
Departmental Auditorium
12th and 14th Streets on
Constitution Ave. N.W.
Washington, D.C.

Thursday, March 25, 1965

APPEARANCES:

HON. STEWART UDALL,
Secretary of the Interior

HON. JOHN M. KELLY,
Assistant Secretary of the Interior

MR. JAKE L. HAMON, Chairman

MR. VINCENT M. BROWN, Secretary

CHAIRMAN HAMON: The meeting will come to order.

The Secretary will read the roll call, please.

ROLL CALL AND INTRODUCTION OF NEW COUNCIL MEMBERS

MR. BROWN: Mr. Malcolm D. Abel, President, Texas Independent Producers & Royalty Owners Association.

Mr. Jack H. Abernathy.

Mr. G. M. Andersen.

Mr. Baldridge.

Mr. Bass.

[redacted].

Mr. Benedum.

Mr. Bergfors, Sr.

MR. BERGFORS: Here.

MR. BROWN: Mr. Blaustein.

MR. BLAUSTEIN: Here.

MR. BROWN: Mr. Howard Boyd.

MR. BOYD: Here.

MR. BROWN: Mr. Reid Brazell.

MR. BRAZELL: Here.

MR. BROWN: Mr. Bridwell.

Mr. Brockett.

MR. BROCKETT: Here.

MR. BROWN: Mr. Bruce K. Brown.

MR. B. K. BROWN: Here.

MR. BROWN: Mr. Bruce.

Mr. Buck.

MR. BUCK: Here.

MR. BROWN: Mr. Burlingame.

Mr. Burnette.

Mr. Carpenter.

Mr. Copeland.

Mr. Donnell.

MR. DONNELL: Here.

MR. BROWN: Mr. Elliott.

MR. ELLIOTT: Here.

MR. BROWN: Mr. Endacott.

MR. ENDACOTT: Here.

MR. BROWN: Mr. Follis.

MR. FOLLIS: Here.

MR. BROWN: Mr. Fox.

Mr. Gammelgard.

MR. GAMMELGARD: Here.

MR. BROWN: Mr. Getty.

MR. GETTY: Here.

MR. BROWN: Mr. Graham.

MR. GRAHAM: Here.

MR. BROWN: Mr. Graves.

Mr. Hamon.

MR. HAMON: Here.

MR. BROWN: Mr. Harper.

Mr. Hellums.

MR. HELLUMS: Here.

MR. HAMON: Mr. Hellums, will youstand,please? Mr. Hellums is another new member of the Council. He is the President of the American Association of Oilwell Drilling Contractors.

We are glad to welcome you.to the Council, Mr. Hellums.

MR. BROWN: Mr. Hope.

Mr. Howell.

MR. HOWELL: Here.

MR. BORWN: Mr. Hurd.

MR. HURD: Here.

MR. BORWN: Mr. Ikard.

MR. IKARD: Here.

MR. BROWN: Mr. Jackson.

Mr. Jacobsen.

Mr. Charles Jones.

MR. C. JONES: Here.

MR. BROWN: Mr. J. Paul Jones.

MR. J. P. JONES: Here.

MR. BROWN: Mr. W. Tom Jones.

CHAIRMAN HAMON: Is Mr. W. Tom Jones here?

He is a new member of the Council. He is the President of the National Oil Jobbers Council, Inc.

I am sorry that he is not here but I do want to say while I am on my feet,we are glad to welcome Brother Charles Jones back here. He has had a siege of bad health. We are all delighted to see him again.

MR. BROWN: Mr. Keeler.

MR. FENTRESS: C. D. Fentress, representing Mr. Keeler, here.

MR. BROWN: Mr. Kiltz.

MR. KILTZ: Here.

MR. BROWN: Mr. Levy?

MR. LEVY: Here.

MR. BROWN: Mr. Loomis?

MR. LOOMIS: Here.

MR. BROWN: Mr. Ludwig.

MR. LUDWIG: Here.

MR. BROWN: Mr. McClure.

MR. MC CLURE: Here.

MR. BROWN: Mr. McCollum.

MR. MC COLLUM: Here.

MR. BROWN: Mr. McGee.

MR. MC GEE: Here.

MR. BROWN: Mr. McGraw.

MR. MC GRAW: Here.

CHAIRMAN HAMON: Mr. McGraw will you please stand? Mr. McGraw is another new member of the council. He

represents the Independent Natural Gas Association of America.

Welcome to the Council, sir.

MR. BROWN: Mr. Maguire.

Mr. Majewski.

MR. MAJEWSKI: Present.

MR. BROWN: Mr. Marshall.

MR. MEYERS: Norman Meyers representing Mr. Marshall.

MR. BROWN: Thank you.

Mr. Miller?

MR. MILLER: Here.

MR. BROWN: Mr. Milligan?

MR. MILLIGAN: Here.

MR. BROWN: Mr. Morton?

Mr. Charles H. Murphy?

MR. O'NEIL: James O'Neil representing Charles Murphy.

MR. BROWN: Mr. Nickerson?

MR. NICKERSON: Here.

MR. BROWN: Mr. Nielsen?

MR. WIZENREID: J. D. Wizenreid, representing Mr. Nielsen.

MR. BROWN: Thank you.

Mr. Niness?

MR. NINESS: Here.

MR. BROWN: Mr. Parkes?

MR. PARKES: Here.

MR. BROWN: Mr. Parten?

Mr. Potter?

Mr. Rambin?

MR. RAMBIN: Here.

CHAIRMAN HAMON: Mr.Rambin, will you please stand? The Chair wishes to recognize that Mr. J. Howard Rambin, Jr., Chairman of the Board, Texaco Inc.; welcome to the Council, Mr. Rambin.

MR. BROWN: Mr. Rathbone?

Mr. Rather?

Mr. Reistle, Jr.

MR. REISTLE: Here.

MR. BROWN: Mr. Ritchie?

Mr. Robineau?

MR. DRYER: Dryer, representing Mr.Robineau.

MR. BROWN: Mr.Rodman?

Mr. Rowan?

MR. ROWAN: Here.

MR. BROWN: Mr. Rubel?

MR. RUBEL: Here.

MR. BROWN: Mr. Thomas J. Scott?

Mr. Shumway?

MR. SHUMWAY: Here.

MR. BROWN: Mr.Spaght?

MR. HAYES: Frank J. Hayes for Mr. Spaght.

MR. BROWN: Thank you.

Mr. Spahr?

MR. SPAHR: Here.

MR. BROWN: Mr. Steiniger?

MR. CARSON: Matthew V. Carson representing Mr. Steiniger.

MR. BROWN: Thank you.

Mr. Supplee?

MR. SUPPLEE: Here.

MR. BROWN: Mr. Swearingen?

MR. SWEARINGEN: Here.

MR. BROWN: Mr. Taliaferro?

MR. TALIAFERRO: Here.

MR. BROWN: Mr. Tollefson?

Mr. True?

Mr. Vockel?

MR. VOCKEL: Here.

MR. BROWN: Mr. Guy M. Wadsworth?

MR. WADSWORTH: Here.

CHAIRMAN HAMON: Mr. Wadsworth, will youplease stand? Mr. Guy M. Wadsworth, Jr., President of the American Gas Association. Welcome to the Council.

MR. BROWN: Mr. Wagner.

CHAIRMAN HAMON: Do you have a quorum?

MR. BROWN: Mr. Chairman, there is a quorum present.

CHAIRMAN HAMON: Thank you.

The Chair recognizes Mr. Everett Wells to present a Memoriam.

RESOLUTIONS IN MEMORIAM
By
EVERETT F. WELLS
W. W. VANDEVEER

MR. WELLS: Mr. Chairman, Mr. Secretary, Members of the National Petroleum Council, on October 31, 1964, W. W. Vandeveer, Oil industrialist leader, American patriot and unassuming philanthropist, died in Cleveland, Ohio.

With profound sorrow, his passing is hereby recorded by his friends, the Members of the National Petroleum Council.

Throughout his more than 40 years in the oil business, Mr. Vandeveer consistently demonstrated the qualities of keen judgment, loyalty, vision and imagination. He was an unpretentious man, yet, at the same time, a leader of rare effectiveness.

Born in 1887, on a farm near Hobstadt, Indiana, Mr. Vandeveer -- better known to thousands as "Van" --- was educated at Southern Illinois Normal University, now

Southern Illinois University.

His association with the petroleum industry began in 1922 when he joined a brokerage firm as a salesman. Just three years later, he became a co-founder of the Allied Oil Company, Inc., of Cleveland, serving with exceptional ability as its president until it merged with the Ashland Oil and Refining Company, in 1948.

Van met the challenges of World War II with determination and selfless zeal. Appointed Director of the 15-State District II of the Petroleum Administration for War. He worked from 1943 to 1946 to help assure the providing of adequate supplies of petroleum products for America's war effort.

His service was recognized by citations from two Secretaries of the Interior and the Petroleum Industry.

From 1948 until his death, Van was a Director of the Ashland Oil and Refining Company.

In 1951, in association with his son, Jim, Van established the Van-Son Production Company and Van States Oil Corporation, and served on both as Chairman of the Board.

His association with Southern Illinois University was unique. He was the first known graduate ever elected President of its Alumnae Association; the first man ever elected for a second term, and in 1950, was granted

the first honorary degree awarded by the University in its 75-year history.

His concern with business education led Van to endow a Chair of Economics at the University. His generosity was great."He was perhaps Cleveland's most unobtrustive philanthropist," a newspaper there noted editorially.

"He was", said the Cleveland Press, "as industrious about giving his money to worthy causes, as he had been in earning it."

Mr. Vandeveer quietly gave fortunes to colleges, churches, and hospitals. He once said, and I quote Van:

"God has been good to me and I am thankful to be in a position to help people."

Van was a member of the National Petroleum Council from its establishment in 1946 until his death; and for 17 years, beginning in 1947, was a member of the American Petroleum Institute Board of Directors; a fine oil man; a fine American; a fine friend.

W. W. Vandeveer was all of these.

With sincere admiration for the wealth of his achievements, and with a sense of great loss, now, therefore,

BE IT RESOLVED: That the deepest sympathy of the Members of the National Petroleum Council be extended on this 25th day of March 1965, to the widow and family of

W. W. Vandeveer.

IT IS FURTHER RESOLVED: That this Resolution be entered upon the permanent records of the Council and that an appropriate copy thereof be delivered to his family as a remembrance of the Council's esteem and deep sympathy. (2)

CHAIRMAN HAMON: Will the Members of the Council please stand and remain silent for a moment.

(Moment of silence by Members of Council)

CHAIRMAN HAMON: Thank you.

I am going to call on Arch Rowan for another Memorial Resolution.

RESOLUTION IN MEMORIAM
to
ROBERT WINDFOHR

~~MR. ROWAN: Mr. Chairman, Members of the Council.~~ In Memoriam, Robert F. Windfohr, of Fort Worth, Texas, a prominent independent oil operator, business man, philanthropist, member of the National Petroleum Council, and an outstanding leader in the oil industry, died October 20, 1964 in Albuquerque, New Mexico.

Mr. Windfohr, born January 27, 1894, in Quantico, Maryland, was the son of George and Eileen Windfohr.

He was survived by his beloved wife, Anne Barnett Windfohr; his daughter, Mrs. W. W. Meeker; his sister, Baroness Lillian von Schlotheim, and his nephew, Robert H.

Zeigler.

After graduating from the Baltimore College, he attenxded the University of Maryland and obtained his degree in law.

During World War I, he served his nation in the Army Artillery, attaining the rank of Major.

Early in his long career, as a successful business man, Mr. Windfohr moved to Texas to engage in the oil business. From 1921 until his untimely death, he was a partner in the firm of Nash and Windfohr.

He was a Director of the Champlin Oil and Refining Company; the Fort Worth National Bank, and many civic and cultural organizations.

His fundamental concepts of government and relations between the business and private sectors of our economy and his knowledge of all industrial affairs, made him a valued member of the National Petroleum Council.

Among his other accomplishments, he was the honored recipient of the Distinguished Service Award of the Texas Mid-Continent Oil and Gas Association, aswell as Past President of that organizstion.

He served on the Executive Committee of the American Petroleum Institute.

The loss of Mr. Windfohr's services to this Council will be felt singularly by each member, since his vast knowledge of the oil industry and government

enabled him to render impartial and valuable assistance to the Council.

His community, his industry, and his nation have all been enriched by the life of this man who shaped a most successful career, predicated upon charity to those less fortunate than himself, and abounding in desire to contribute to the civic, industrial and cultural development.

BE IT THEREFORE RESOLVED by the National Petroleum Council, now convened in Washington, D.C., that our sincere and deepest sympathy be extended to all members of his family and that a copy of this Resolution unanimously adopted by the National Petroleum Council, be tendered tohis beloved wife and all other members of his family, as a memorial of our high esteem and acknowledgement of appreciation of Robert F. Windfohr, andthat this resolution be placed on the minutes of the National Petroleum Council at Washington, D.C., this 25th day of March, 1965.

CHAIRMAN HAMON: All right. Will the members please stand for a moment in tribute?

(Moment of silence by Members of the Council)

CHAIRMAN HAMON: Thank you.

I am going to call on Mr. John Winger, Chairman of the Special Nominating Committee, for nominations to fill vacancies on one of our standing committees -- the

Appointment Committee.

Mr. Winger, please.

NOMINATION AND ELECTION OF TWO MEMBERS TO FILL VACANCIES ON NPC APPOINTMENT COMMITTEE

MR. WINGER: Mr. Chairman, Mr. Secretary, Members of the Council, I would like to propose for nomination to fill these vacancies, the names of Mr. J. Howard Rambin, Jr., and Mr. Arch Rowan.

CHAIRMAN HAMON: Is there a second as to those nominations?

VOICES: Second.

CHAIRMAN HAMON: All those in favor signify by saying Aye.

(AYES)

CHAIRMAN HAMON: Opposed?

(None)

CHAIRMAN: HAMON: The motion is carried.

Thank you.

We will have the report of the secretary, please.

MR. BROWN: Before I give my report, there are a few council members that walked in a few minutes after the roll call.

Could I have your names for the record?

MR. ABERNATHY: Jack H. Abernathy.

MR. BURLINGAME: M. V. Burlingame.

MR. BROWN: Mr. Bridwell?

MR. BRIDWELL: Here.

MR. MORTON: Warren A. Morton.

MR. TRUE: H. A. True, Jr.

MR. BROWN: Mr. George Bruce.

MR. BRUCE: Here.

MR. BROWN: Mr. True.

MR. TRUE: Here.

MR. BROWN: Any others?

REPORT OF THE SECRETARY-TREASURER
VINCENT M. BROWN

MR. BROWN: I would like to give a brief report onthe finances of the Council.

At the beginning of the year 1965, we had a cash balance in the General Operating Account of $4,953.00.

During the eight-month period ending February 29, 1965, our receipts have totaled $133,825; $130,740 of this came from contributions by Members of the Council and the remaining $3,085.00 were receipts for interest on savings and sales of NPC publications.

In this same eight-month period, July 1 to February 29, a total of $84,503.00 was expended for our operations, which in addition to the usual staff functions, involved expenditures in connection with four special committee assignments.

The balance in the General Operating Fund, at

the end of February, stood at $54,275.00.

The value of securities in our contingent reserve fund remains unchanged since my last report to you: $60,000.

That concludes my report, Mr. Hamon.

CHAIRMAN HAMON: Thank you.

Varying the program a little, I am going to call on Mr. Barney L. Majewski to read the Resolution which was adopted at the last Council meeting, which he has formalized, and which he will -- after the Council has passed this Resolution -- present to Mr. Jacobsen, who is unable to be here today.

RESOLUTION IN COMMENDATION OF A. JACOBSEN
By
B. J. MAJEWSKI

MR. MAJEWSKI: Thank you.

It is always good to remember the dead but it is a real pleasure to say something about a fellow when he is still alive, and one of the worthy fellows, in my opinion -- and I have been around along while, is for a guy like Jake. The reason he is not here today is because he was afraid I was going to read the Resolution, which I am about to do.

WHEREAS: Alfred Jacobsen has been an active member of the National Petroleum Council since its establishment on June 18, 1947, and

WHEREAS: During the entire period he served as a member

of the Council's Agenda Committee from January 1950 to July 1964, leading thatmost vital Council group with a gentle but very firm hand, allowing no deviation from the rules which govern the National Petroleum Council; and

WHEREAS: Alfred Jacobsen has chosen to retire as Chairman of the Agenda Committee after fourteen years of dedicated service in that capacity;

NOW THEREFORE, BE IT RESOLVED: That the members of the National Petroleum Council in meeting assembled at Washington, D.C., this 28th day of July 1964, commend Alfred Jacobsen for his devotion to the purposes of the Council and for his fine guidance and steadying influence which he has applied to the many tasks undertaken by the Council and the propriety thereof.

The Members of the Council hereby express their sincere and warm appreciation to Alfred Jacobsen -- a leader, a gentleman, and a friend, who by his retirement from this Chairmanship moves us to call for more men such as he. God give us men, at a time like this, with strong minds, great hearts, true faith, and ready hands; men whom the lust of office does not kill; men whom the spoils of office cannot buy; men who possess opinions and a will; men who have honor; men who will not lie; men who can stand before a demagogue and damn his treacherous flatteries without thinking. Tall men;

sun-crowned, who live above the fall, in public duty and in private thinking;

The members of the National Petroleum Council direct that an appropriate engrossed copy of this resolution be prepared, noted in the Council records, and presented to Mr. Jacobsen. (6)

I move the adoption of this formal Resolution, in any fitting manner, Mr. Chairman.

CHAIRMAN HAMON: Is there a second to that?

VOICES: Second.

CHAIRMAN HAMON: May you all stand, all in favor of the Resolution.

(The Members of the Council took a Standing Vote which was unanimous.)

CHAIRMAN HAMON: Thank you gentlemen, and Barney, we want you to be sure to deliver that to Mr. Jacobsen.

MR. MAJEWSKI: You know what he will say -- "It is a lot of damn rot", -- but if you say so, I will do it. It will be presented in the morning.

CHAIRMAN HAMON: Gentlemen, it gives me great pleasure to call on my Co-Chairman, the Honorable Secretary of the Interior, Stewart Udall, for remarks.

STATEMENT OF HON. STEWART L. UDALL
SECRETARY OF THE INTERIOR

SECRETARY UDALL: I am going to be brief this

morning. I have several ulterior motives, one of which is that you have had an opportunity for me to inflict my remarks on you last evening and you should not have to have too many talks from one person.

Another one is that Congressman Aspinall is going to follow me as a speaker, and he has a Bill that is very important to him, and very important to me, that he has to be up before the Rules Committee on in a few minutes. I don't want to take his time; but I did want to add a few thoughts this morning to what I had to say last evening, because I think that there are some new factors in the picture that represent a very fine opportunity for this Department and this Administration and this industry to work together on.

One problem that probably Congressman Aspinall is going to discuss -- I have not seen his text; I don't know what he is going to talk about -- it would not surprise me if he were going to talk about oil shale, because there has been a lot of interest in oil shale, and the remarkable thing of course, is that once we can get the research done, get the answers, however this is to be accomplished, and I think that some of us can see daylight on this problem and you are going to hear -- some of you I hope are going to be talking and working with us on this soon; but this can be done in terms of the national reserve, in terms

of the strategic reserve.

This country a few years from now, may be in the most secure and strong position it possibly could be in terms of this great and vital resource that is so vital to the well being of our economy, and to our military strategic position.

I am not ready to make any startling announcements, or pronouncements here today, except to say that the report that we have received a few days ago from the Committee that we had appointed, was not nearly as difficult or does not present us with difficulties; I think some of the differences were over-played, and some of the points of agreement were under-played, by the Press, and I think that we can and must work out a sound program or programs and move on down the road in an orderly way.

I want to reiterate again what I think I said to some of you earlier, that I think one of the greatest tasks that we face in this Department in the next decade, is of determining ways and means whereby we can in an orderly way, phase in this new part of the petroleum industry, without disrupting the orderly and on-going effort that is being made.

The one other main thing that I wanted to comment on, and I am repeating myself, a bit, for those of you who were at the oil hearings a couple of weeks ago, I see a great

opportunity for the petroleum industry, and those of us that are in the conservation-resource field, for a partnership in terms of what I think is an ever increasing concern in this country, with use of leisure time, with outdoor recreation, with having an opportunity for the American people to see and enjoy their own country.

I have been delighted and pleased with some of the things I have seen in the last couple of weeks; some of the material that the A.P.I. sent over; some of the petroleum companies, your programs, to help tell the country the conservation story, to help tell them about the wonders of this country.

I think this is a very fine opportunity for you to be a partner of this Department in one of its important programs, that of conserving and protecting an outdoor heritage, and I would like to say to Congressman Aspinall here, that I think that the present leaders in Congress in this field have done a tremendous job and I think that President Johnson quite rightly last year called this Congress -- or that Congress --- the outstanding conservation Congress in many decades.

But there is a lot of work to be done. In fact, when some of us look at what we think can be done to open up new opportunities for the American people to enjoy their country, to see more of their history, I think if

we can add to our great inter-state highway system, a system of scenic roads and parkways which State and Federal Governments have put together, that we cannot only open up a whole new set of opportunities for the American people to see and enjoy in their country, but this can be as beneficial to your industry as anything that I can think of.

I was a little bit surprised and I must say I was proud and delighted, too, at the figures that one of the Executives of one of the largest international petroleum companies gave us at the hearings, with regard to the balance-of-payments problem, which has to be a concern of all of us.

This country is confronted with it. I was proud and delighted with the contribution on the plus side of this industry. It is perhaps -- unless you simply lump all manufacturing together under a heading -- the biggest contribution on the plus side that is made to our overall national balance sheet.

So I hope you continue to raise a flag of concern in this whole area of conservation and that we increasingly develop a partnership in this field of helping the American people see and enjoy and understand the wonders of this country.

With those general comments, I will leave the

meeting temporarily if I may, because I have another Cabinet level meeting that I have to attend this morning, and besides, I want to get out of Congressman Aspinall's way so he can get on up tothe Hill.

Thank you very much this morning.

(Applause)

CHAIRMAN HAMON: The Chair will call on Mr. Dave True of the Independent Petroleum Association of America, former President of the Rocky Mount Oil and Gas Association, to properly introduce our next speaker.

Mr. True.

INTRODUCTION OF HON. WAYNE N. ASPINALL
By
MR. DAVID TRUE

MR. TRUE: Thank you, Mr. Chairman.

Congressman Aspinall got off to a bad start in life. He had the misfortune of being born in Ohio; but he soon recognized that adversity and moved to the Rocky Mountains some 60 years ago at a very young age.

Congressman Aspinall has been a public servant since 1931, having served in the Colorado House of Representatives, where he acted both as Party Whip and as Speaker of the House.

He served ten years in the Colorado State Senate where he served as Democratic Whip and both Majority and Minority Floor Leader.

He served the Colorado Democratic Party in almost every political post in the State.

He was elected to the United States Congress in 1948 and has served continually since that time.

He has become a real student of the public lands of the west and of the minerals which are so important to the public land states.

He is Chairman of the House Committee of the Interior and Insular Affairs and is Chairman of the Sub Committee on Raw Materials; of the Joint Committee on Atomic Energy.

He sponsored the Public Land Law Review legislation of the last Congress and is now a leading member of the Commission created by that legislation.

Our industry is indeed fortunate to have such a knowledgeable man serving the entire mineral industries, and it is a real pleasure for me to introduce my neighbor in the Rocky Mountains, Honorable Wayne N. Aspinall.

(Applause)

HON. WAYNE N. ASPINALL: Thank you very much, Mr. True.

HON. WAYNE N. ASPINALL,

MEMBER OF CONGRESS FROM COLORADO

HON. WAYNE N. ASPINALL: Co-Chairman Hamon,

Co-Chairman Kelly; this always loses me. As soon as Secretary Udall gets beyond the door, then Kelly becomes the Co-Chairman. I will get used tothis sometime, I suppose.

Members and friends of the National Petroleum Council. My friends in Government.

I did not make that early decision to leave Ohio but I made several decisions since that time to stay in Colorado and I am glad to be a neighbor of the gentleman who introduced me this morning; and I am very glad to be present here at this meeting and to talk to you for a few minutes from a manuscript that has been prepared for the occasion.

I was especially pleased to be with you last evening as you honored one of your great servants of the Council, and it was not only an occasion where we were able to pay due respect and tribute to the services of a leading individual of the oil industry but also where we could play and visit with each other.

The invitation to speak to you this morning affords me, as the only Member at this time of Congress on your program, an unusual opportunity to present for you a consideration or a view from Capitol Hill of many of the problems thatconfront you.

In doing this, I recognize that quite ov

obviously, that I cannot tell youwho are specialists in a technical field, anything new about our own business. I think however, that we can both benefit if you will share for a few minutes with me my views of these overall problems.

In this connection, let me make it clear that I have strong confidence and faith in the use of industry advisory councils and boards in the functioning of government. Just as you advise the Secretary of the Interior, it is always necessary for Congressional Committees as well as individual Congressmen, to receive sound advice and help from sources other than from their own staffs.

When our representatives go to Executive agencies, or come to Congressional committees as individuals instead of as a part of a group such as the American Petroleum Council, you are called lobbyists. It is unfortunate indeed, that the term Lobbyist has taken on connotations that reflected adversely on both the individual and those he represents, and sometimes, because of the situation, those with whom he comes in contact.

The fact is that a lobbyist as in any other field, he must be a good lobbyist of course, can be helpful to a Congressman or to a Committee seeking to obtain information needed to evaluate conflicting thoughts and

data relative to pending legislation.

It is against this background that I have chosen, as the topic of my remarks today, Energy At The Cross Roads and I am not raising any alarm, a subject that I shall discuss in the context of the background to which I have just referred.

Starting with the rather narrow portion of the broad subject, let me first refer to the situations existing on the public lands in the United States.

As I looked over the membership of the National Petroleum Council, I recognized among you many who have operations on public lands; others who are in indsutries affiliated with those who may or may not have operations on the public land; and some who are in areas where the term "public lands" is relatively unknown and possibly brings to mind uncertainties as to what is involved.

Although the bulk of the remaining public lands are concentrated in eleven western states and Alaska, all of you should be interested in them, their use, and their disposition when disposition is made.

Not only do the public lands offer opportunities for development by the petroleum industry as well as some of its competitors in the energy field, but the future use and disposition of these public lands which belong to all the people, may hve a tremendous influence on many

other aspects of the American development and American life in the years ahead.

One of the problems is that the term "public lands" itself requires definition every time we use it.

Each time we enact legislation referring to the public lands generally, we are reminded by both government and non-government witnesses, of the need to define that to which we refer.

You will also find that the definition is not necessarily identical, in two separate pieces of legislation, even when enacted contemporaneously.

While it is true that land owned by a county, state or Federal government are public in nature, the term, "public lands" is actually a term of art, referring to the public domain lands.

Public domain is that land in which the Federal government received either from the thirteen original states, when they relinquished their claims westward as part of the formation of the Union, or through acquisition from other sources. The acquisition of public domain ended with the purchase of Alaska from Russia in 1867.

Of the approximately two and three tenths billion acres constituting the fifty states, the Federal government has at one time owned approximately 80% of this area.

At this time, approximately one and one tenth billion acres of the public domain has been transferred over the years to individuals, to businesses, and to other non-federal agencies under Congressional authority, loosely referred to -- and I repeat again -- loosely referred to as the Public Land Laws.

We still have in the United States, 719 3/10ths million acres of public domain lands, of which 365 million acres are in Alaska and 354 3/10ths million acres are within the contiguous Continental United States.

Much of this land has been reserved for specific purposes, but much of the 271 million acres in Alaska and 170 million acres in 27 states, with the greatest portion in 11 western states, have not been committed as of this time, to any specific use and perpetuity.

With 70 percent of Americans living in urban and semi-urban communities, is there wonder that in recent years, a new awareness has arisen concerning the need for the proper use and development of our remaining uncommitted public lands?

It is not difficult to understand why many city people far removed from the public lands states, respond readily and eagerly to the suggestion of those who say that none of the remaining lands in Federal ownership should be disposed of or developed further.

On the other extreme, we have those who would have us dispose of all the public lands; just as in other situations, the fact is that we must strike a balance, that the existing public lands did not contemplate.

Without going into detail concerning this phase of laws or of the variety of competing demands that entered into my determination, I sponsored legislation which has been enacted to established the Public Land Law Review Commission. The Commission has a broad charter that will permit it to study all facets of public land laws; past and present procedures; and the role that the public lands must play in the future development of America.

In addition, because of the close relationship to public lands or development; in addition to the public land development preblems, we included as part of the study, the disposition,or restriction and disposition of the mineral resources in the outer Continental Shell, in which many of you, I may say, are interested.

Advising the Commission in its work will be an Advisory Council comprised of Federal Department Liaison Officers and representatives of groups interested in the use of public lands including oil and gasinterests.

It is also gratifying to know that the oil and gas industry is looking ahead and has organized an Inter-Association Public Lands Steering Committee that will work

with the Public Land Law Review Commission.

There are some aspects of the Commission organization and study that must be resolved before we can get under way. These have been receiving attention and I am optimistic that the Commission will be able to organize and start its work before the end of this fiscal year.

Let me assure you of this.

The Commission is a creature of Congress and Congressional responsibility will be exercised in the formation of the Commission, and in its operational structure and before any changes in existing law can be affected, of course, it will be necessary for Congress to enact legislation.

The establishment of the Public Land Law Review Commission, however, does not mean that all problems involved in the public lands must await the completion of the Commission's study.

Granted that the Congressional Committees involved will be reluctant to consider general legislation during the period of the study, we have made it clear from the time that the study was originally proposed, that matters of urgency should be and will be considered as they arise.

A good example involves the projected development of the Oil-Shale deposits of Colorado, Utah and Wyoming.

While there are some privately owned lands that can be and are being utilized, the bulk of the most promising deposits of oil-shale are in the public land areas.

Technological advancement led to the request for leases of public lands. This indicated that the time had come to consider the course to be taken to permit the public lands to be utilized in the production of oil from shale.

To me, it meant more. It meant that a means must be found to permit the establishment of an oil shale industry under private enterprises and auspices.

At the beginning of these remarks, I stated that we in Government, all need advice from those outside of Government to help us determine the course of action we should take. What I did not mention is the bigger problem of determining where to look for advice; whose advice one takes and whose advice one rejects.

We cannot, and I think must not accept advice blindly merely because it is given by either an expert in some particular field or industry, or because it is given by a well known individual whose past performance has earned him a good reputation.

Recommendations must be documented in each case so that we can evaluate what has been said, while keeping in mind any particular interest group with which the proponent is, now, or was formerly associated.

Obtaining divergent viewpoints increases the opportunities for complete analysis.

Recognizing the need for advice, the Secretary of the Interior last fall appointed an Oil Shale Advisory Board. The members of the Board are outstanding citizens in various fields of American life.

Last month, the Board issued what it called an Interim Report. Sometime in the next 45 to 90 days, the Sub Committee on Mines and Mining of the House Committee on Interior and Insular Affairs, plans to hold hearings on the question of Oil Shale Development, and will probe into the findings and recommendations of the various members of the Advisory Board.

Until we made our inquiry, I cannot comment in detail as to which of the various recommendations we should follow but I would like to make some observations concerning certain aspects of the report.

We all recognize, I think, that the Advisory Board was not a decision making body and was not charged with the responsibility of coming up with specifics for an Oil Shale Development Program.

The Board was charged with the responsibility of advising the Secretary of the Interior concerning the broad general principles that the United States should adopt in order to permit and I quote, "the most

meaningful and useful development" of this important and valuable energy resource.

The divergent views contained in the report, however, reveal a cleavage -- a definite cleavage -- I believe in the basic philosophies among the members of that Board. I shall focus attention on just two concepts presented in the report that go to the heart of everything that we do in the fuels and energy field.

As Members of the Petroleum Advisory Council, you cannot ignore the needs and demands of competitive industries. While oil derived from shale is not competitive to other fuels at this time, its emergence as a competitive source of energy will obviously displace crude oil and possibly other fuels sometime in the future.

Congressional Committees and individual members of Congress must at one time or another, cast votes that in effect give preference to a particular source of energy. A vote for appropriations to finance research, seeking to produce an economic means of manufacturing gasoline from coal, presents a direct competitive threat to the petroleum industry.

The refusal to sponsor legislation or grant funds for further government research into means of producing oil from gas or oil from oil shale, might be

construed as helping both the coal industry and the conventional oil and gas industry.

Daily, we are called upon to choose courses of action that involve alternatives ranging from the conventional uses of oil and coal, for example, to the very unconventional sources of energy, such as utilization of solar energy to provide power in connection with space exploration.

The utilization of solar energy to facillitate a launcher problem, might lead to its utilization for less glamourous pedestrian activities here on earth in direct competition with more conventional sources of energy.

Thus the solar energy might become an ultimate competitor with more conventional enterprises and energies. Who among us would deny that the Federal government must invest its funds to further exploration into outer space? The basis of this assumption is rather simple. If a Federal government does not do it, nobody in the United States will do it. There is no incentive for private industry to undertake space exploration and there is no reason, no principle that I know of, that would permit private industry to use its investors' funds for such a purpose.

At the other extreme, I think it would be improper for the Government to seek to preempt oil and gas research

programs, a field in which the private sector of our economy has shown a willingness and an ability to carry the major burden with relatively small Federal activity; and all Members of Congress know this, my friends.

They know what your industry, and those of you who are associated in the industry, have done in this respect, in research, and we congratulate you and commend you.

While I am not sure that you see the problem that I am enfolding for you, let me state it another way.

As a Congressman from Colorado, representing as I do, a large geographic part in that area and that State, in a large area, two thirds of a state, 69,000 square miles, I count among my constituents producers of coal and uranium and oil and gas; all competitors in the fuels and energy market.

In addition, we do have in my part of Colorado, as well as in other parts of the State, hydroelectric power projects.

Then, as if this were not enough, we have in my District, the richest deposits of oil shale.

It is also possible that some of the geothermal steam in my District may likewise be suitable as in other geothermal steam areas, for the generation of electricity sometime in the future.

To me, it always seemed that the primary factor in determining the sources of energy and the fuels that we use will be the normal operation of our private enterprise system. I say this recognizing as we all must that the private enterprise system in our era includes government participation in many programs, and limited controls in others.

Government has not remained aloof from matters of business and particularly the petroleum industry. While the industry bears the brunt of research and development in petroleum, the Bureaus of the Department of the Interior have conducted research and made significant contributions to the industry through the decades.

The controversy that flared from time to time over the Oil Import Program in connection with which we are awaiting decisions by the Department of the Interior presently, bears witness to the fact that Government directly and indirectly, exercises substantial influence on the markets for our fuels and energy sources.

In approaching any study of government policy, I think, therefore, in the fuels and energy field, there are two central issues.

First, we have the question of Government participation or possibly, of usurpation, of a field of research and development.

Then we have a direct question of whether the Government should, under our economic system, step in and purposely stifle a competitive fuel.

President John F. Kennedy was concerned about these problems, just as I have been. In early 1963, the President called upon his Science Advisor to undertake an energy study to guide him in the consideration of research and development programs being advanced by various groups. We understand that this study is nearing completion by the Office of Science and Technology and that it will be reviewed by an inter-agency group concerned generally with fuels and energy programs in the Government.

I earnestly hope that the study will shed light on some of the matters that daily concern us in Congress.

For example, what are the coal reserves of the nation and the world?

What are the uranium reserves and the anticipated life of nuclear power based on our known reserves?

Studies such as these, and those which the Council has made on the oil and gas reserves in the United States, in our capacity to produce, are very valuable source data when Congress considers proposals before it.

Not all estimates come to us with the approval of a group but many reputable members stand frequently on opposite sides of a specific question. Technicians come before

our Committee on Interior and Insular Affairs, forecasting coal reserve adequate to provide heat and power far into the distant future, and that the Government should therefore, send such research and development funds as it has in furthering the potential of this specific commodity, rather than putting into the untried and untested atomic power program.

A news item date lined Geneva, informed us that the third international atoms for peace conference had been warned that the world's coal and oil reserves can be expected to last no more than 30 years. Only nuclear power, they were told, will be able to fill mankind's increasing energy requirement for the future.

We do have of course, reliable statistics concerning known reserves; whether they may be tapped or untapped. It is doubted that the proved known reserves of oil and gas are all that we could ever rely on, for the future. The fact is that nuclear power is daily becoming an increasingly important part of our energy picture.

Without going into details that will encroach upon the fields of our next speaker, my good friend Commissioner Ramey of the Atomic Energy Commission, I would like to make a few points concerning nuclear energy.

For example, we have heard the United States now has the ability to enrich all the uranium likely to

be needed for any foreseeable amount of power required for the entire free

Others have told us unless we find a new source of urnaium, we will not be able to meet requirements for the United States alone.

These are estimated to involve an increase in nuclear energy share of the domestic energy market from its present position of less than one percent to possibly as much as 50 percent of the electricity used in the United States by the end of this century.

A representative of the coal industry has told the Joint Committee on Atomic Energy, on the other hand, that we risk exhausting our reserves of low cost uranium within 15 years by encouraging the construction of inefficient atomic power plants. This is the other side of the coin.

The developmant of atomic power originated as a war time necessity. It required government sponsorship for research and development. Even then, when the United States Government was the sole customer and the only applications were in the sphere of government operations, we relied on private capital to build and maintain the industry required to extract uranium and make it available for use. Those that did so expected and received a profit for their efforts, just as they should have under our system of economy.

Likewise, now that we are embarking on a new phase of atomic energy utilization, we have relaxed government controls in order to permit private ownership, with theraw materials with which to produce nuclear power.

Power produced by private utility companies from nuclear power, must be competitive with power that can be produced in he same area from other sources.

In an era when we are ready to furnish electricity to the City of Los Angeles from the waters of the lacific and Northwest; when we are thinking of coal mined, in the generation of electricity; when we are told that electricity generated in Labrador may be competitive economically, 15 miles away, in New England, and possibly New York, and as we approach the day that oil from shale will compete in the market place on a price basis with oil produced from conventional deposits, it is no admission of weakness to observe that we in Congress need assistance to help guide us in making the decisions that we, and we alone, must make, regarding the role that Government is to play in shaping the future availability of such energy; to maintain our industrial and defense machineries.

The report of the Oil Shale Advisory Board, to which I made previous reference, contained two astounding recommendations by one of the members of the Board with whom another member concurred.

In his statement of separate views, this member came up with several conclusions, and recommendations, which centered around the propositions that (1) the Government should virtually take over the field of research and development relative to the methods of mining and processing shale oil; and (2) there is no need to proceed with the actual development and production at this time because, and I quote: "There is no pressing peace time need for oil from shale." And further, that because of the state of the technology and I quote again, "It will not in the foreseeable future, be an important war time resource, replacing any prominent present source of petroleum."

These arguments, that are, as I say, at the core of certain reports of the Oil Shale Report, are contrary to the entire history of the growth of our nation, based as it is on the philosophy that Government enters fields normally reserved for the private sector only when that private sector of the economy is unwilling or unable to act constructively.

The Government engaged in oil shale research for many years and the Government is still engaged in some oil shale research.

The time came however when Congress reduced the funds appropriated for oil shale research, because those efforts were not in the opinion of the Congress -- and I

may say also, of the Executive Department, producing results in proportion to the funds invested, and this must always be the yardstick. There have been new advances in the technology, partially as a result of government research, and partly as the result of privately financed research.

Private industry is now ready and willing to assume a greater share of the research and development costs.

Accordingly, the government-owned plant near Rifle, Colorado, was made available last year for industry research through the use of private capital under a lease that will permit the people of the United States to share in the process developed in the government owned facilities, and permit the government employees, representatives of the Executive field, to find out what is going on.

If another -- if private industry is ready and willing to undertake greater portions of research, we should encourage it. This has been my view towards all government research whether it is in the field of oil and gas, coal, atomic energy, or the development of a process to obtain potable water from brakish and saline water.

Likewise, it is my position, and I believe it to be the traditional philosophy of our economic system, that private industry should be encouraged rather than restrained; when private industry is willing, for example, to produce

a new form of energy, or to risk capital investments because it is believed that a product can be produced that will be economically competitive withother products in the market place.

This latter issue, I submit, is not and should not be -- whether we need oil from shale today -- but whether private capital is ready to start an industry that is able and willing to undertake this task.

If an oil shale industry is started, and oil from shale can compete with other forms of energy, it will compel the producers of the more conventional products to meet that competition with the end result that the consumer should obtain from one source or the other, a better product at a lower price.

Now, I have used oil shale primarily because it happens to be a great new energy source in my District but what I have said about oil shale refers to all other forms of energy.

Let us also make no mistake about it. If private industry is ready and does develop an oil shale industrially, fromwhich shale oil will be available in the event we needed it, and I hope that time never comes, for our national security, this aspect cannot be dismissed lightly, merely by having a layman express his opinions, that can be used as a basis for proposed action, because the individual

group advancing it would find it to be in their economic interest.

It is with great anticipation that we look forward to the study to which I have referred to earlier, being prepared in the President's Office of Science and Technology.

At the same time, I recognize that this will probably be a rather limited study, aimed primarily at research and development requirements and the extent to which the Government should participate in energy research and development.

I understand that this Council has been requested to review its 1949 Report on the National Oil Policy for the United States and give its current judgment on the subject. This, too, will be an important addition and contribution to our knowledge in the field.

The varied and substantial influence that the government, State as well as Federal, has had in the fuels field, led me a few years ago to support a proposal for a study directed at establishing national fuels policy; a limited study was made but we have never moved closer to a definitive policy position that would be applicable to all fuels. As an advocate of the oil - fuel study, at a time when there was much opposition to it, I was interested to note that a publication serving the oil and gas industry, has endorsed the National Oil and Fuels Study, and as Secretary Udall stated, there would be a need for an energy study to

establish overall national policy.

While such study may be required, it cannot be used as the basis for further delaying the start of an oil shale industry or any other new industry.

The National Petroleum Council has occupied an important position as a liaison group between the oil and gas industry and the Federal Government, by furnishing advice on matters referred to by the Secretary of the Interior. It is my hope that groups such as yours, will continue to work hand in hand with Government. We need as much advice as we can get from technically qualified people.

I hope that the oil and gas industry all agree on the person to be named to represent the Advisory Council of the Public Land Law Review Commission. This will facillitate our task both in making the appointment, and in being able to rely on the advice and views expressed in Council meetings, as being representative of this industry's position.

Having received advice, I am confident that both the Public Land Laws Review Commission, and the Congress, will act not only in what it considers to be the public interest but within the framework of our free enterprise, private capital business system.

In the energy field, this means that we shall do that which we think is necessary to permit all forms of

energy to compete, one with the other, with a minimum of government participation, interference, or control.

It has been nice to have been with you.

CHAIRMAN HAMON: Thank you, Congressman Aspinall.

I see in my typical manner, I have overlooked to have a motion that we have approval of the minutes of the last meeting.

APPROVAL OF MINUTES OF LAST MEETING

July 28, 1964

CHAIRMAN HAMON: You have all been furnished copies of the minutes of the last meeting and I don't think you want to have them read, so will somebodymake the usual motion?

VOICE: I so move.

VOICE: Second.

CHAIRMAN HAMON: It has been moved and seconded. All in favor signify by saying "Aye".

(AYES)

CHAIRMAN HAMON: Dontrary?

(None)

CHAIRMAN HAMON: The motion is carried.

I will next call on the chairman of the Agenda Committee, Mr. R. G. Follis.

AGENDA COMMITTEE REPORT
By
R. G. FOLLIS, CHAIRMAN

MR. FOLLIS: The Agenda Committee met in New York on February 3, at which time they reviewed and acted upon four requests, submitted to the Chairman of the National Petroleum Council by the Honorable John Mr. Kelly, Assistant Secretary of the Interior.

These four requests are as follows -- and the Agenda Committee's recommendations on them have been submitted to the membership for your review.

To refresh your memory I will read these four requests so that you can take final action on them individually.

The first request is dated November 23, 1964 and it reads:

"Dear Mr. Hamon:

"The Office of Oil and Gas is continuing its preparation and development of effective plans for emergency management of petroleum and natural gas. In this endeavor the Department appreciates the advice provided by the National Petroleum Council in its recently completed report entitled 'Petroleum and Gas in a National Emergency".

"One of the recommendations contained in this report is that, in order to achieve a pre-emergency readiness posture for the Emergency Petroleum and Gas Administration,

certain manuals should be prepared for the use and guidance of EPGA should it be activated.

"Therefore, the National Petroleum Council is requested to draft for Department consideration the following studies based on the Council's analysis of Government planning:

1. A 'General Information Handbook' about the EPGA.

2. Detailed emergency operating instructions and procedures for use post-attack by the EPGA designed to meet practical operating problems EPGA might encounter.

"The Office of Oil and Gas stands ready to provide advice and guidance on any aspect of this assignment.

"Sincerely yours,

"John M. Kelly,

"Assistant Secretary of the Interior."

Gentlemen, the Agenda Committee unanimously agreed to recommend to the Council, the appointment of a Committee to carry out this assignment, and I so move.

CHAIRMAN HAMON: Is there a second?

VOICE: Second.

CHAIRMAN HAMON: All those in favor, signify by saying "Aye".

(AYES)

CHAIRMAN HAMON: The motion is carried.

MR. FOLLIS: The second request we had from Secretary Kelly was dated January 12, 1965 and it reads as follows:

"Dear Mr. Hamon:

"In January 1949, the National Petroleum Council submitted to the Secretary of the Interior a report entitled, 'A National Oil Policy for the United States'. This report was based upon a comprehensive study of the many elements and broad principles that underlie such a policy and that must be appropriately interpreted by national and state governments as well as by leaders of the industry in order to attain optimum results.

"It is obvious to all of us that fundamental changes have occurred since 1949 affecting to a critical degree broad strategic, economic and political aspects of the industry and the interest of government in it, both domestic and foreign.

"We can agree, I feel sure, that changes have tended to magnify the importance of the industry on all fronts and to promote its progressive involvement more deeply in the affairs of all nations.

"This trend of events has required of this Government an increasing concern with and knowledge of your complex industry as it relates to the fundamentals of national security,

and wellbeing in a broader economic and political sense.

"It is requested, therefore, that the National Petroleum Council review in depth its earlier report and the factors related thereto and report its views based upon its appraisal of conditions as they are today and as they may be anticipated to evolve in the future, making available to this Department its considered judgment.

"Sincerely yours,

John M. Kelly

Assistant Secretary of the

Interior."

The Agenda Committee unanimously agreed to recommend this assignment to the Council and I so move.

CHAIRMAN HAMON: Is there a second, gentlemen?

VOICE: Second.

CHAIRMAN HAMON: Now, before I call for a vote on this, you notice that we have varied the usual procedure. Normally, the Agenda Committee met a day or so before the Council meeting and then presented its recommendations and in this case as Chairman Follis said, the Committee met on February 5, and you were all furnished copies of their actions as well as the content of the Secretary's request to the Council.

Is there any discussion of this problem before I put it to a vote, or does anybody want to comment

on the matter?

(None)

If not, all those in favor signify by saying Aye.

(AYES)

CHAIRMAN HAMON: Opposed?

(None)

CHAIRMAN:HAMON: The motion is carried.

MR. FOLLIS: The third request is dated January 12, 1965 and reads as follows:

"Dear Mr. Hamon:

The rapid advance in technology related to the development of crude petroleum and its processing has, since World War II had very significant influence upon these branches of the industry. In view of the importance of these activities to the economy and the wellbeing of the United States, it is highly desirable that the Government be adequately informed of the many significant advances made by scientists and engineers, with particular reference to their impact upon industry operations. It is therefore requested that the National Jetroleum Council appoint a special committee to study this highly specialized field to evaluate the impact of new knowledge and procedures upon (a) productive capacity to produce petroleum and the recovery factors in oil fields; (b) yields of petroleum

"product at petroleum refineries and related product quality changes.

"It is requested that the study include such conclusions and expert industry opinions as to future technologic trends as seem appropriate and helpful.

"Further details as to the scope and orientation of the study will be supplied as desired by the Office of Oil and Gas.

"Sincerely yours,

John M. Kelly

Assistant Secretary of the Interior."

The Agenda Committee recommends that the Council accept this assignment and I so move.

CHAIRMAN HAMON: Is there a second?

VOICE: Second.

CHAIRMAN HAMON: Gentlemen, again, you have all been furnished a copy of the request and the action of the Agenda Committee.

Is there any comment or discussion of this or does anyone want to elaborate on it in any way?

(No response)

CHAIRMAN HAMON: All those in favor of the motion signify by saying Aye.

(AYES)

CHAIRMAN HAMON: Opposed?

(None)

CHAIRMAN HAMON: The Ayes have it. The motion is carried.

MR. FOLLIS: The last request presented by Secretary Kelly is dated February 3, 1965 and reads as follows:

"Dear Mr. Hamon:

"With the growing emphasis on planning for the future on the part of Government and private industry, projections of probable future events are being made more frequently and with greater attention to trend analysis. One of the key series of data throughout the years, insofar as oil and gas are concerned, is that measuring the capacity to produce.

"The Council, as you know, has studied proved discoveries and productive capacity of oil and gas at the request of this Department, and currently is engaged in the second of two similar studies. The current and the earlier study together will provide, we believe, a better basis for making projections of productive capacity than has been available in the past.

"In view of the importance of knowing present and future capabilities, to produce oil and gas in the United States, it is requested that the National Petroleum Council, using its studies as a basis, as well as other sources within the limits of Executive Order 11007 that it may consider helpful, make projections to 1970 of the capacity to

produce crude oil, natural gas liquids, and natural gas; (a) under normal peacetime conditions; (b) under conditions of maximum production rates that might be required in major emergency.

"To the extent that appropriate assumptions and clarification may be needed, the Office of Oil and Gas will be available for consultation.

"Sincerley yours,

"John M. Kelly

"Assistant Secretary of the Interior."

The Agenda Committee recommends that the Council accept this assignment. I so move.

CHAIRMAN HAMON: Is there a second?

VOICE: Second.

CHAIRMAN HAMON: Again, gentlemen, the matter is open for any comments or discussion by the members of the Council, if they care to do so.

(No response)

CHAIRMAN HAMON: All those in favor of the motion signify by saying "Aye."

(AYES)

CHAIRMAN HAMON: Opposed?

(None)

CHAIRMAN HAMON: The motion is carried.

Thank you very much.

I am now going to ask Everett Wells to introduce the next speaker.

MR. WELLS: Mr. Chairman, gentlemen.

It is indeed a pleasure for me to have the opportunity of presenting to you, our next speaker, Honorable James T. Ramey, a member of the Atomic Energy Commission.

Mr. Ramey is a Kentuckian, and he is one of those Kentuckians that we can ill afford to lose, but we are mighty proud of what he has done since he has left Kentucky.

Commissioner Ramsey was born in Eddyville, Kentucky in 1914, and I am sure he is aware of the fact that waterway improvements are threatening to submerge the town of his birth, or at least a part of it.

Be that as it may, we will just have to see what happens there.

I won't try to cover all of his illustrious career, but I am sure you will be very much interested in hearing a little of it.

Mr. Ramey went to Amherst College. He graduated there in 1937. He was a Phi Beta Kappa and a member of the varsity basketball team, and basketball players we can ill afford to lose in Kentucky, too.

He then went to Columbia, where he obtained his degree in law in 1941.

From 1947 to 1952, Mr. Ramey served as Assistant

General Counsel of the Atomic Energy Commission. In this capacity, he supervised the legal work of the Commission's Chicago operations office, and participated in the negotiation and administration of contracts for most of the Commission's atomic power development projects, including the Nautilus submarine prototype; the Shippingport atomic power plant, and the Argonne Experimental Breeder Reactor No. 1.

In 1956, he was appointed Executive Director of the Joint Committee on Atomic Energy, Washington, D.C. In this capacity, he initiated and provided staff leadership for a series of studies and hearings concerning the accelerated atomic power program; basic research and advanced concepts; organization and administration of the regulatory program; the hazards of fallout and other radioactive hazards; and the weapons "custody" problem, including technical means of safety and control of U. S. nuclear weapons.

In August 1962, Mr. Ramey was appointed a Commissioner of the Atomic Energy Commission, filling the unexpired term of Commissioner John S. Graham.

In June 1964, he was appointed to a full five-year term.

Mr. Ramey's wife, Estelle, who earned her PhD at the University of Chicago, is an Associate Professor at Georgetown University Medical School. The Rameys have

two children, James, a student at the Columbia University Medical School, New York City, and Drucilla, a student at Radcliffe College.

Commissioner Ramey, it is indeed a pleasure to hve you with us and we are looking forward to hearing from you.

STATEMENT OF HON. JAMES T. RAMEY,

COMMISSIONER ATOMIC ENERGY COMMISSION

COMMISSIONER RAMEY: Mr. Wells, Co-Chairman Hamon and Co-Chairman Kelly; ladies and gentlemen.

It is a privilege to be invited to speak to so distinguished and nationally important advisory group as the National Petroleum Council. it is also a pleasure to appear on the same program with Congressman Aspinall, who is here today in his capacity as Chairman of the House Interior Committee, butwho is also the Chairman of the Subcommittee on Raw Materials of the Joint Committee on Atomic Energy, and was one of my bosses when I was working for the staff of that Committee.

I have some knowledge of and appreciation for the role you play in the formulation of the Government's petroleum policy from my association with the late Robert E.Wilson, who, I am sure, was well known to you from his participation in the work of this Council while a Standard Oil of Indiana executive, as well as from his visits with you after he became an Atomic Energy Commissioner. His

work greatly enriched the development of atomic energy and undoubtedly had a beneficial impact on the petroleum industry.

I also have gotten to know some of your other companies.

Back some years ago, around 1950, when we were very concerned with the H Bomb Program, I got to know the Standard Oil Company of California and their research corporation -- Mr. Follis's -- where they handled a classified project for us and did an excellent job, only to find that the technology went a little different way, and we were not able to take their devices into production.

Energy, as each of you is acutely aware, is one of man's most important resources. In my remarks today, I will touch on the enormous potential energy resource we have in the at atom, and particularly bring you up to date onatomic energy programs, with special emphasis on projects of interest to the petroleum industry.

My appearance before you today reminds me of a story my wife tells me about the annual meeting of the American Dental Associatiou. As Mr. Wells mentioned, she is a physiologist, and she goes to these meetings, and each year, they invite a research man who surveys the field of dental research, and he always concludes at the meeting that no remedy for tooth decay has been discovered; whereupon everyone at the Dental Association breaths a sigh

of relief and settles down to business.

To change the metaphor a bit, I believe what I have to say will indicate that your industry will not have an atomic toothache.

To set the stage, I will briefly review some trends in energy consumption and the extent of our energy resources.

THE ENERGY PICTURE

Energy consumption in the United States is currently equivalent to about nine billion barrels of crude oil annually, or, if you prefer, 25 million barrels per day. This is about 1/2 Q where one Q equals one quintillion Btu or 10 to 18 power. Energy consumption will increase throughout the remainder of this century and is expected to triple by the year 2000. If the demand increases as expected, consumption of all fuels -- coal, natural gas, oil and nuclear -- can increase for many years to come.

Supplying the energy required for electricity generation in central station power plants is an area for ultimate competition between nuclear and fossil fuels. We expect that nuclear power will gradually supplement, but not supplant, the fossil fuels in the years to come. In any event, the extent of competition insofar as the petroleum industry -- oil and gas -- is concerned, is quite limited. Your industry does currently furnish about 75% (crude oil and natural gas liquids 45%; natural gas 30%)

of the total energy consumed inthe United States. However, almost all of this is used for purposes other than electric power generation; indeed, it has been estimated that only about 7.5% of the oil and gas consumed in 1964 was used in central station utility plants.

Even in the electric power generation area, it is expected that the demands for oil and gas will substantially increase although your relative share of this market is predicted to decline somewhat. The Federal Power Commission, in its recently issued report, stated that of the total amount of electricity generated in 1963, coal produced 54%; natural gas 21%; hydro 1%; oil 6%; and nuclear 0.1%. The Federal Power Commission's estimate of fuel use to meet the 1980 increased demand for electricity, as compared with 1963, indicated that the use of coal will be 2 1/2 times greater and its share will be about 47% ; of the market, oil will double in volume, and its share will be 4%; natural gas will more than double in volume, and its share will be 17%; nuclear is expected to grow about 19% with the balance of 13% provided by hydro.

Two points should be clear fromthis discussion:

First, unless someone develops an acceptable rechargeable battery powered automobile, homes and industrial buildings begin to use electrical heating on a very much larger scale, and a significant portion of the transportation industry is electrified, the area for competition

between nuclear and fossil fuels for some time to come is likely to be limited to that 20% to 30% of the total energy market which represents electric power. Gurther, in this electric power area, competition from nuclear energy will be of much more significance to the coal industry than it will be to the petroleum industry.

Second, assuming that the F.P.C. estimates of increased demand for electricity production are reasonably valid, there will be an expanding market for all energy fuels - including coal - for use in central station power plants.

It is, of course, also important to emphasize that, in any event, in locations where coal, natural gas, or oil is cheaper than nuclear fuel, they should provide the fuel for power plants - now and in the years to come. We believe, as I understand you do, thatcompetition is a good thing in the energy field as well as elsewhere.

Competitiveness of Nuclear Power

What is the competitive position of nuclear power? The 13 central station nuclear plants operable today are developmental prototypes and first generation demonstration units. None are truly competitive, but most are doing better than originally expected. Several of the five plants which are under construction, and most of those firmly planned are expected to be competitive over their lifetimes in their particular locality.

Whether or not these plants will in fact prove to be economic as expected remains to be demonstrated. But the fact that private utility executives in New Jersey, New York and just last month, in Illinois, where Commonwealth of Edison announced a new plant, have decided - on economic grounds and without Government assistance - - to go nuclear is a good omen for the future of nuclear power.

The plants that I am referring to are in the range of 500,000 to 790,000 electrical kilowatts and the power caused from these plants is estimated to be between four and five millions per kilowatt hour.

This brings us to the general energy resource picture.

There is a general recognition of the need to develop, conserve, and more efficiently utilize all energy resources. Although there will be no shortage of coal for many decades and petroleum and natural gas resources are extensive, future generations will need them equally as much as we do. Fossil hydrocarbons have many important uses other than generating electricity. They are, of course, essential for industry, transportation and home heating and they are precious raw materials for the chemical industry.

How much fossil fuels do we have in our reserves? How long will they last? Resource estimates, as you know, vary considerably, but our analysis of various

stidoes omdocates fpsso; fie; reserves eqiova;emt tp abpit 1.5Q to be recoverable at current costs.

When I use the word "Q" I cringe a little because in the atomic energy field we have a "Q" clearance for security purposes, of persons, for access to classified information. Perhaps in this resource field, where these differences are going on, we ought to have a "Q" clearance there, on our experts who estimate what our reserves will be.

About 20 Q more is reasonably assured at up to four times current costs with present technology. That is, of the fossil fuel reserve.

Additional amounts are available at still higher costs. Without nuclear energy, we would use up about one-half of these resources in the next 75 years and all in 100 years.

Ghe amount of energy in nuclear fuel resources on the other hand, is many hundreds of times that of the most optimistic estimates of fossil fuel reserves. With nuclear breeder reactors, nuclear energy resources are in the hundreds of thousands of Q!s. Assuming that we learn to use it efficiently - and this is one of the A.E.C.'s major objectives, - nuclear fuel can supply as much energy as this country can use for many centuries to come. For further details, I would refer you to the A.E.C.'s 1962 Report to the President on Civilian Nuclear Power.

That briefly, is the energy consumption and resource picture and the role that nuclear energy is expected to play as a fuel resource. Now, I would like to briefly bring you up to date on the A.E.C. programs of interest to the oil and gas industry.

AEC PROGRAMS OF INTEREST TO OIL AND GAS INDUSTRY

Radioisotopes: One of the most versatile features of atomic energy is its use in the form of radioisotopes. The petroleum industry has been very active in developing applications; you can find radioisotopes being used anywhere from well drilling to an evaluation of the final product. Just to enumerate the multitude of ways in which your industry applies radioisotopes would consume more time than has been allotted. Therefore, I will note only the principal areas of use and cite some examples in each area.

In looking at your industry at least four major areas of multiple use of radioisotopes become apparent: In the field as an asset in exploration, well logging, and gas and oil recovery operations; in the refinery to develop and improve processes, control production, analyze maintenance and loss problems, and maintain product quality; in pipeline operations to mark the interface of products in transport as well as in leak testing; and in the laboratory for product development and testing.

The results of various surveys indicate that the petroleum industry has been and continues to be a frequent user of of radioisotopes and has perhaps reaped greater benefits from their use than has any other industry. For example, a recent project involving the use of radioisotopes to estimate the oil remaining in a "depleted" Oklahoma field revealed the presence of $100 million worth of oil. One refinery reported annual savings of $240,000 through reduction of catalyst stack losses, and another estimated savings of almost $200,000 in research costs alone by using radioisetopes in a study of catalyst mixing. Still another company estimates it has saved $340,000 per year since 1952 using cobalt-napthenate for velocity profile determinations which allow them to separate different grades of lube oil in pipelines.

I hope similar applications have been and will be equally beneficial to the companies you represent.

Radioisotope Fueled Generators.

A promising use of radioisotopes is as a fuel for generating electricity in situations where reliable, unattended, maintenance-free operation is mandatory or desirable. Our extensive Snap, as it is known, or systems for nuclear auxiliary power, program is developing units for a wide variety of space and terrestrial applications. Several units are already in service inbo th environments. One unit in space is in its fourth year of operation and

another in the Arctic has been operating since August 1961.

A recent event in this area of interest to the petroleum industry is our cooperative program with the Phillips Petroleum Company, acting on behalf of the Off-Shore Operators Committee. The objective here is to demonstrate the commercial feasibility of isotopic generators for powering flashing lights and foghorns on offshore platforms. An agreement for a two year cooperative program was signed last month.

Our cooperative program with Phillips and the Off-Shore Operators Dommittee will provide the data needed to determine the economic practicality of nuclear generators for similar future uses.

Peaceful Nuclear Explosives

Background: An area of development that holds considerable promise for the petroleum industry, another area, is peaceful nuclear explosives; and the promise is for the near term future. Our work in this area is carried out under the Plowshare program initiated in 1957 and is literally an effort to "beat swords into plowshares." The basic premise underlying the program is that the tremendus amount of relatively low cost energy available from nuclear explosives can be used in a variety of natural resource development, earth moving and scientific projects. Some of these possibilities are applicable to the oil and gas industry.

We have yet to demonstrate a practical industrial use for nuclear explosives. Much has been done, however, in terms of laboratory research and analysis; the design, development and testing of explosives and emplacement techniques; field experiments; safety; and application studies.

At present we are concerned with research, development and, in the near future, the demonstration of economic practicality. Many suggestions have been made for the peaceful use of nuclear explosives and we have had discussions with a number of industrial groups. It is quite likely that within the next year we will receive an industrial proposal for a demonstration project; hopefully from the oil and gas industry.

A promising application of Plowshare is to develop natural gas deposits in deep, low permeability rock formations. It is estimated that by fracturing the rock, many trillions of cubic feet of gas may be recovered from tight formations in New Mexico's SanJuan Basin and other Rocky Mountain fields which cannot be profitably tapped by conventional techniques. Continental Oil and El Paso Natural Gas have studied the possibilities of using nuclear explosives to stimulate gas reservoirs. They have concluded that such stimulation is not only technically feasible, but also sufficiently attractive economically

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to warrant a field test in reservoir rock.

Another interesting possibility is the use of nuclear explosives to create underground gas storage facilities near market areas. In this case the permeable zone created by a nuclear explosive could in some instances provide a gas storage facility near a market for satisfying peak demands at a cost below that of using a depleted gas field remote from the market.

Possibilities also exist for recovering the tremendous hydrocarbon reserves trapped in the oil shale formations of Colorado, Utah and Wyoming which Congressman Aspinall spoke about. Such deposits might be fractured by nuclear explosives to facilitate in-situ retorting. The U. S. Bureau of Mines and several oil companies are studying the possibilities. It might also be feasible with nuclear explosives to fracture and increase the permeability of deeply buried host rocks containing petroleum and thereby increase the rate and amount of recoverable reserves.

Each of these potential applications poses technical and safety problems. However, it is believed that solutions of these problems will be developed through research, development, experiments and experience from demonstration projects in the Plowshare program.

Chemonuclear Reactors :

Fossil hydrocarbons are not only fuels for energy

production; they are of course, also raw materials for the chemical industry. It may therefore be of interest to note briefly the potential and developmental status of nuclear reactors for chemical synthesis.

A number of firms, including some from the petroleum industry, are looking at chemonuclear processes and reactors. The possibilities for such reactors, among others, include ozone production, ethylene glocol synthesis, carbon monoxide polymerization, production of hydrogen peroxide and hydrogen from water, and hydrazine from ammonia. One of the most interesting for commercial application is nitrogen fixation, either directly from air or indirectly through the use of ammonia which, inturn, requires hydrogen or upgraded methane.

Currently our efforts are directed towards the development of basic technology and an understanding of the fundamentals involved. Research and development activities on fissiochemical processes supported by the A.E.C. are carried out at Rensselaer Polytechnic Institute, Brookhaven National Laboratory and, just this past January we entered into a 50-50 cost sharing contract with the industrial team of Aerojet-General Nucleonics and Union Carbide Corporation.

The objective of work now in progress is to define the mechanisms, process requirements, product yields of fissiochemical systems and the basic technology required to

evaluate the feasibility of producing chemicals commercially by this means.

Many roblems require resolution but those close to the work do not see any inherent technical barriers to chemonuclear plants that can produce 180 to 900 metric tons of fixed nitrogen per day. Whether such a facility is commerciallypractical remains to be seen. The next step depends on the results of work now under way. If the technology development program is successful and if markets for products look promising, a pilot plant may be appropriate in the 1970's.

Central Station Power Reactor Development

Of course, some of the chemical companies on their own have been exploring this field rather extensively also. I talked to the DuPont people for example. They developed some rather interesting processes, they indicated to me, but every time they find out they can use nuclear energy for chemical processes, their chemists figure out a way of making it cheaper with chemicals. So we have a moving target in the field of chemical work as well as in the field of centralistation atomic energy.

As I indicated earlier, the atom has enormous potential as a heat source for the generation of electricity. But if we are to fully realize this potential we must learn to use our nuclear fuel resources more efficiently than

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times more energy for the same amount of mineduranium.

The A.E.C. is also sponsoring development of two other advanced converters: the High Temperature Gas Cooled Reactor and the light water moderated and cooled Seed Blanket Reactor. The Commission has requested Congressional authority to enter into cooperative arrangements for the development, construction, and operation of prototypes of these reactor concepts.

We have proposed that the Seed Blanket Reactor be built under Admiral Rickover's direction through cooperative arrangements with the State of California. The High Temperature Gas Reactor is proposed to be built under cooperative arrangements with the Public Service Company of Colorado and the General Atomic Division of General Dynamics Corporation.

Breeders are our ultimate goal, but their development poses manyproblems having no easy solution and they are several decades off -- the middle or late 1980's or early 1990's. Breeders are vitally important, however, since they promise a hundred-fold increase in the amount of fission fuel available from any given quantity of ore, and may make even granite rock useable as a virtually inexhaustible source of nuclear fuel.

Nuclear Desalting

In addition to developing reactors for electric

power generation, the A.E.C. is also participating with the Interior Department in a program for the use of reactors for combination power and water desalting plants -- a development in which President Johnson as you undoubtedly know, is vitally interested. You appreciate, of course, that the desalting program includes considerable work on energy sources other thannuclear and on a wide variety of desalting processes.

The A.E.C.'s programhas two major areas of endeavor. One, which is in the near term, is to provide appropriate nuclear energy sources to support desalting needs in the next five to fifteen years by determining optimum coupling of present nuclear reactor systems with desalting plants. The other major area of endeavor, which is in the longer term, involves reactor development programs aimed at developing the technology of the large nuclear energy sources required for regional water supply systems, enabling water planning groups to consider nuclear desalting as a proven technical and economic alternative to more conventional water supply systems.

We, of course, must walk before we run in this field, particularly in relation to the scale-up of desalting technology. But it is our earnest hope that we can achieve the prediction madeby President Johnson to the Geneva Conference last fall when he stated:

"The time is coming when a single desalting plant, powered by nuclear energy, will produce hundreds of millions of gallons of fresh water -- and large amounts of electricity -- every day."

In view of the considerable progress that has been made toward achieving economic nuclear power, the A.E.C. has taken several steps to place this relatively new industry into the normal pattern of private enterprise. For example, the Commission is helping to make private processing and reprocessing of nuclear fuels a reality, through an A.E.C. guarantee of a base load for the private plant.

Private Ownership of Special Nuclear Material

Perhaps the most important step in this direction, and one which emphasizes the growing maturity of the nuclear industry, is last summer's legislation enacted on the private ownership of special nuclear material used as power plant fuel. It is the most sweeping amendment since the Atomic Energy Act of 1954.

The 1964 amendment is a monument to Commissioner Bob Wilson. In 1960 Dr. Wilson initiated a review to investigate the practicality of eliminating mandatory Government ownership and permitting private ownership of

special nuclear material in the United States so that civilian nuclear power could develop along more normal lines.

As a consequence of the amendment, nuclear fuel will eventually be handled in the free-market place and the nuclear industry can plan on a long term basis in the context of normal economic conditions. Another significant consequence is the elimination of the need for large Government inventories of nuclear materials for civilian power needs. With continued mandatory Government ownership, the Government-owned inventory in possession of private firms would have reached about $ 1 billion by 1957 and about $3 to $4 billion by 1980. Also, in view of the relatively early termination of A.E.C. guaranteed purchase of plutonium, there will be increased incentive for utilities to recycle plutonium as a fuel in their power reactors.

An essential feature of the Act is that it provides an orderly transition from mandatory Government ownership to mandatory private ownership before a large scale expansion of nuclear power occurs. And an expansion is anticipated. Our installed nuclear capacity is now only a little over one million kilowatts. When plants firmly committed are completed in 1970, it will exceed the five million kilowatt mark. By 1980, we expect this capacity to be around 70 million kilowatts. At the turn of the century, we expect it to be around 730 million kilowatts -- about

half of our total electric power capacity.

Based on our past experience and data from safety research and engineering test programs under way, we have every expectation that the continually growing number of nuclear central station plants will be operated safely without adverse effect on man, his environment or his natural resources.

Nuclear Merchant Ships

While the technical feasibility of the nuclear merchant ship propulsion has been demonstrated -- I thought you might be just a bit interested on our Merchant Ship Program -- by the N.S. SAVANNAH, economic practicality is yet to be achieved. However, this milestone should be attained in the next decade. One of the most promising immediate applications appears to be in high-speed, full-automated express cargo ships.

On the A.E.C. side of the nuclear ship program we have considered several types of maritime reactors in terms of economy of fuel cycles and safety. Our conclusion is that primary emphasis should be on the pressurized water reactor to exploit this technology and achieve significantly lower capital and operating cost with increased reliability. We are considering a program for a test facility to be placed in operation hopefully as a parallel to construction of nuclear ships for operation in the late 1960's or early

1970's. We will also continue basic research and development on advanced concepts that have potential for the more distant future.

Now for my conclusions:

You realize of course, that each of the nuclear developments -- radioisotopes, nuclear explosives, chemonuclear reactors, central station nuclear power and merchant ship propulsion -- having a potential impact on the petroleum industry is rich in detail and could easily have been the topic for my entire discussion.

There are many other interesting development efforts including auxiliary power and propulsion reactor systems for the exploration and future exploitation of outer space, as well as basic research in such important fields as high energy physics, life sciences, controlled thermonuclear reactions and the properties of transuranium elements. Some of these developments in time may also have an impact on your industry.

There are, of course, many reports available that discuss these nuclear developments in much more detail. If you are interested in any particular program, we would of course be happy to provide you with the appropriate reports.

In closing, I would like to emphasize again that in view of the increasing use per capita, the energy demands

over the next 50 years are bound to increase enormously. Thus, in the coming years we shall need all the energy we can produce from all sources of fuel. We, in the atomic energy program, are proud that nuclear energy will be taking its place along side the fossil fuels - oil, gas and coal - and hydro in helping supply this large energy demand.

Thank you very much.

(Applause)

CHAIRMAN HAMON: Commissioner Ramey, I thank you for that address. I am noi putting you on the spot, and I don't want to bother you but I wondered if you would mind answering questions if any of the audience has any?

COMMISSIONER RAMEY: I would be happy to.

CHAIRMAN HAMON: Thank you.

Are there any questions that any of you gentlemen want to ask Commissioner Ramey while he is here?

VOICE: Mr. Chairman, will we be given copies of this paper?

CHAIRMAN HAMON: We have copies, yes.

I would like to ask you a question.

What happens to nuclear power generated plants like the one that is supposed to have had that disaster in Idaho?

I mean, you say the safety factors have been increased, and you feel that there is no danger any more from a generating plant.

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COMMISSIONER RAMEY: Yes, sir. We feel that these plants can be built and operated safely.

The accident in Idaho was with an experimental plant, and it was out in the desert there, and it was in a sort of a butler-type shed, and surprisingly enough, even with that amount of containment, and it was not leak tight at all, this contained practically all of the fission products that were released, and the whole purpose and design of these reactors from a safety standpoint is to first, prevent -- to have a whole series of inter locks, engineering safeguards, that would prevent any type of accident or mal function, and a number of people think that the Commission is over-conservative in the number of engineering safeguards that we provide, and the operating requirements that we impose on the private operators. However, in addition to that, all the nuclear plants are required to have what is called containment. They have this shell that characteristically in the past, was a big dome and in the future, they may be more conventional looking, but which would be calculated to contain and prevent any nuclear accident from the fission products getting into the atmosphere and what they are proposing now in the nuclear plants is

what they call double containment. So we are quite well satisfied that the plants that are built and licensed in accordance with these safety standards will be safe. (10)

CHAIRMAN HAMON: Does anybody have any other questions?

Commissioner Ramey, again, I want to thank you. You seemed to have satisfied everyone's curiosity and thoroughly covered the subject.

Thank you.

I am going to call on my Co-Chairman, the Honorable John M. Kelly for some remarks.

HON. JOHN M. KELLY, ASSISTANT SECRETARY OF THE INTERIOR FOR MINERAL RESOURCES

ASS'T. SECT. KELLY: Thank you, Mr. Chairman.

You see before you a very jealous man. After listening to Jim Ramey, I would almost be willing to bet Jim a world series ticket for the year 1980 if I could get 10% of his budget and the same ground rules that he operates under; so that instead of this 20 Q's of fossil fuel reserves, I could probably be expansive and say we have hundreds of Q's of fossil fuel reserves at that time.

I congratulate you on being a good salesman in getting your money, Jim.

Mr. Chairman, if I may at this time make

reference to the other Governmental Departments that are present with us.

We have from the Department of Defense, General William O. Senter. I believe he is on our program a little later.

Capt. C. Lovell, who is in charge of the Naval Oil Reserves and the Oil Shale Reserves.

Virgil Couch, who is the Assistant Director of Civilian Defense.

Joe Muir; Eugene P. Bowler, and Lt. Gerald Witucki of their staff.

Lucille Batts, who is the Chief of the Mineral Leasing Section of the Forrest Service of the Department of Agriculture.

George Donat, Administrater of B.D.S.A., and also present, Frederick F. Magnussen, Chief of the Chemicals and Allied Products Branch, B.D.S.A.

The Department of Labor, Dr. Seymour L. Wolfbein, who is a Special Assistant to the Secretary.

In the Atomic Energy Commission we have two members of the Commissioner's staff: Mr. Norman T. Clug and Mr. Milton Searle.

The Federal Power Commission, we have my old co-worker, the Hon. Lawrence J. O'Connor; the Vice Chairman and also Frank F. Waters, the Chief of the

Natural Gas Bureau.

From the Office of Emergency Planning, we have Joe Lerner, the Special Assistant for Petroleum and Charles Primoff, the Program Officer for Fuels and Energy.

From C.I.A. we have Robert Ebel who is the Resource Division man.

From the Department of State, I think we have Mr. Andrew S. Ensor. I believe I saw him come into the room.

Up on the Hill, we have Milton Pearl from Congressman Aspinall's staff.

From the Department of Justice, we have William J. Lamont.

From the Select Committee on Small Business of the House, we have Counsel Justinus Gould.

And I want to assure you, Mr. Chairman, the Department of Interior is fully represented in all their different agencies.

I won't bother to read off the names of these gentlemen.

It is a sincere pleasure, Mr. Chairman, to visit once again with the National Petroleum Council membership and I would like today to discuss briefly, the impact on the economy of your industry of research and development funded from governmental and industrial sources.

I think we are fortunate to have both Congressman Aspinall and Commissioner Ramey talk on the different aspects of this subject earlier this morning.

This nation, as we know, is blessed with its substantial national energy resources among which petroleum occupies a dominant position. Unfortunately, policies for energy research and development do not fit into a neat little package according to a scientific formula. The edges of the policies are frayed and hazy and many of their packages nest together.

In the development of a program, careful study must be given to the conservation of all natural resources, the impact on the natural beauty of the country, and the economic and social implications of any successful research effort must be taken into consideration.

This is essential, without regard to whether the program is conducted by Government, by Industry, or at the academic level; but each type of institution, quite understandably, places different values on each of these criteria.

More than any other single factor, the accelerator ot today's events, in today's industrial society, has been research; the systematic persuit of new knowledge in both pure and applied form. It has dramatically changed the character of our institutions of higher learning. It has become a significant item, line item, in our gross national product. It has created new industries and millions of new jobs and it has involved the Government in a partnership with industry that grows more intimate and complex as the years go by.

I believe the reasons for this development are not hard to discover. Lhe cost of research and development is enormous; over $15 billion last year and much of it -- most of it -- really was oriented not to industry profits, but to national security.

Many facets of it are high risk ventures, where failure is the rule and success is the exception in the every day routine of operations, and when one success is achieved, it may be years before it can be turned to beneficial account for the industry of the nation.

In other words, research is a wildcatting operation, costly, risky, uncertain of value even when it succeeds, and it has tobe paid for before any revenue comes back from it.

Research also has this in common with wildcatting,

whether we are talking about a company, an industry, or the nation itself. It is absolutely crucial; without it, you cannot survive.

Therefore, we find Government playing an active role in energy research; for example, despite the massive research investment of your industry the Government maintains a small but viable program and a reservoir of competence in order to meet its responsibility. From time to time, one or another energy research program of the Federal government is attacked, generally by members of competing industries.

The general tenor of these objections to government activities in this sphere is to the effect that the government is taking the taxpayers' money and in particular, the tax money of the person making the complaint, and using it to assist a competing industry to be even more competitive.

It seems to me that this criticism runs to the heart of my Department's role in energy research and indeed, in a number of other programs conducted by the Interior, the Commerce Department, and other agencies of the Federal government.

To begin with, we in the Department of the Interior have a responsibility for fuel supply. We begin with the premise that any resource is only useful to the

extent that it can be applied.

We also accept as a basic part of philosophy in the conduct of our research programs, that the status quo is anything but sacred.

Further, we have a direct responsibility for minerals occurring on the public domain and finally, during periods of emergency, our rather generalized responsibility for emergency supply becomes of critical importance to the nation's welfare.

In the actual conduct of our research programs, we select projects not because they are designed to retain any preconceived notion of a balanced fuel economy but because we believe that they offer an opportunity for strengthening the national economy or for meeting one or more of the specific responsibilities placed upon us.

The Federal role in petroleum development, for example, has been extensive. The industry, as we know it, could not have been developed had not Federal tax policy, our policies with respect to interstate movement of goods and Federal research policies combined together to yield the environment in which your industry operates. Many of the basic tools for petroleum exploration were developed in this Department. These tools, quite possibly, would not have evolved had we adopted as a central point of Federal research policy, the avoidance of any action which would

affect the competitive interplay of the energy market.

The point we must bear in mind is that the research activities of the Federal government have contributed immensely to the competitive position of all the existing energy resources. I would assume that the government will continue to be in the full front in research activity, aimed towards the development of emergency resources.

Most specifically, I think we have every reason to be proud of our efforts in petroleum research in the Department of the Interior. We have done a great deal towards enhancing the capacity of a vital industry to sustain the strong and vigorous growth of our nation and prosperity, and well being of our people.

Only last year, the Research Committee of the A.P.I. reviewed the Department's research programs in depth, and gave us the benefit of its counsel and advice on each of our projects.

This week, another meeting has been held between A.P.I. and the Department, aiming at further improving the Government's research efforts. This will be a continuing effort between these groups and also, less formal but continuing arrangements are present with other interested parties such as the A.P.I.A.A. and the A.G.A.

It has been a rewarding experience for our people

to work closely with those in the petroleum industry, in this fascinating pursuit of new knowledge out of which will come an even more abundant harvest in the future than we have had in the past. That is our goal and with you, we intend to achieve it.

(Applause)

CHAIRMAN HAMON: Next, I would like to call on Mr. L. F. McCollum, Chairman of the Committee on Proved Petroleum and Natural Gas Reserves and Availability.

COMMITTEE ON PROVED PETROLEUM AND
NATURAL GAS RESERVES AND AVAILABILITY
By
L. F. MC COLLUM, CHAIRMAN

MR. MC COLLUM: Mr. Chairman and members of the Council.

I am pleased to present to you the report of this Committee which was appointed pursuant to the recommendation of the Agenda Committee at its meeting on March 19, 1964. As requested by Mr. John M. Kelly, Assistant Secretary of the Interior, this report updates, as of January 1, 1964, a similar report presented to the Council in 1961 on productive capacity and reserves as of January 1, 1960. The present Committee's assignment differed from the charge under which the 1961 report was prepared in one major respect, in that no projections of productive capacity were required this time.

Since the full report of the Committee has been

printed, I shall confine my remarks to a summary of its major points.

First, the report adds additional confirmation to the fact, shown in the last report, that fields already discovered inthe United States represent an enormous base for possible future additions to reserves of petroleum hydrocarbons through extensions of areal extent and through revisions of prior estimates.

Second, productive capacity in the United States exhibited substantial growth inthe four-year period from the beginning of 1960 to1964. The productive capacities of crude oil, natural gas liquids and natural gas in the United States on January 1, 1964 were estimated to be:

Crude Oil	11,600,000 barrels daily.
Natural Gas Liquids	2,802,700 barrels daily.
Natural Gas	98,000,000 thousand cubic feet daily

The increases in productive capacity since January 1, 1960 amount to one million barrels daily for crude oil and a like amount for natural gas liquids, and 26.1 billion cubic feet of natural gas per day.

These productive capacity estimates reflect the best informed and experienced judgment as to the aggregate maximum capability of the known fields and reservoirs in the United States to produce oil, natural

gas and gas liquids from existing wells under generally accepted production practices. Such producing rates would have been impossible of achievement under conditions actually in existence (a) because of the inadequacy of mechanical equipment or of surface facilities needed for producing, handling, processing, storage or transportation; or (b) because of limitations imposed under normal peacetime conditions by agencies of the Federal Government or of individual states. If, however, extreme measures to attain maximum production were to be required by a national emergency, some of the limitations discussed in the report could be set aside, particularly for the short term.

The present report on the productive capacity for crude oil represents the sixth in a consistent series, dating back to January 1, 1951, prepared by Douncil committees. In the thirteenyears from the first report to this latest inthe series, productive capacity has gone up from 6.73 million to 11.6 million barrels daily, or an increase of 4.6 million; of this increase, 3.14 million or 65% occurred in the first six years of the period to January 1, 1957, representing an average annual increase of 500 thousand barrels a day. This is over twice the average annual increase of 246 theusand barrels daily in the seven succeeding years from 1957 to 1964. The rate of increase from 1957 to 1960 and from 1960 to 1964 was 251 thousand barrels

a day per year, essentially the same as the seven year average.

One final word about the estimates of crude oil productive capacity, and that is that they refer to crude oil alone. Hence, they are not directly comparable with the statistics published by the Bureau of Mines on production of crude petroleum which include field condensate which is produced from gas wells rather than oil wells. The nation's capacity to produce condensate is included in the productive capacity figures for natural gas liquids.

The growth of productive capacities of natural gas and of natural gas liquids from 1960 to 1964 cannot be compared with any prior period because no estimates on a consistent basis are available. One major difference in concept between these productive capacity estimates and those for crude oil should be particularly noted. The production of natural gas and gas liquids at the maximum capacities estimated would not have been possible, even if all necessary producing, gathering, processing and transportation facilities had actually been in existence, unless crude oil production had also been at the maximum capacity rate stated earlier. This is because nearly one sixth of the total natural gas productive capacity and over 30 per cent of the total natural gas liquids productive capacity (as of January 1, 1964) are estimated to be available from

gas associated with or dissolved in crude oil in the same reservoirs, and hence dependent upon the rate of oil production. In passing, I call your attention to the fact that the natural gas estimate does not include the capacity of the many gas storage reservoirs which are now in use to provide short-term peak load-shaving capacity for gas transmission and distribution systems.

The report presents historical tabulations of estimates of discoveries, arranged by years according to the discovery dates of the individual fields or reservoirs to which the reserves were attributed, and summarized by PAD Districts. As in the prior report, these tabulations do not represent new and original findings by the Committee. They are merely a recasting of discoveries based on estimates of proved reserves previously reported by the American Petroleum Institute and the American Gas Association.

The report provides estimates of total expected recoveries from fields discovered prior to 1958. These estimates, including past production through 1963 and proved reserves remaining at the end of that year, are as follows:

Crude Oil	102,000,000 thousand barrels
Natural Gas Liquids	14,000,000 thousand barrels
Natural Gas	498,000,000 millions of cubic feet.

Those figures are so large, I don't comprehend myself, even.

As stated in the 1961 report, periodic estimates of recoverable reserves from a single field usually increase several fold over the estimate at the end of the discovery year. Such estimates continue to increase from various causes for a great many years. Comparison of total expected recoveries from fields discovered through 1954, the terminal year of the tabulation in the 1961 report, shows that such expected recoveries have increased substantially from that report to this. Crude oil up at least 6 billion barrels; natural gas liquids up 2 1/2 billion barrels, and natural gas up at least 33 trillions of cubic feet.

I wish to emphasize that the historical tabulations of estimated discoveries should not be separated from or used independently of the text. For the many reasons set out in the report, these tabulations could be misinterpreted unless thorough consideration is given to the limitations, significance, and restricted proper use of this type of historical discovery tabulation.

The conclusions that can be drawn properly from these tabulations are identical with those stated in the minutes of the Council's meeting of November 28, 1961, which referred to the findings of the 1960 Dommittee on Proved Reserves and Availability. These conclusions are summarized as follows:

(1) The estimates of proved recovery from newly discovered fields, prepared at the end of the discovery year, represent only a small fraction of the hydrocarbons that will ultimately prove to be recoverable.

(2) Fields already discovered represent an enormous base for future additions to proved reserves through further extensions and revisions.

(#) The discovery of new fields and increases in estimated addition to reserves of existing fields depend upon exploratory and development drilling and the application of improved technology. All of these, in turn, depend on economic incentives and growth in demand. Needless to say, they are influenced by prevailing government policies and regulations, both state and federal.

Now, members of the Council, the compilation and the preparation of this data was indulged in and participated in by a number of people. I would like to very much give credit to each and every one of them. Time will not permit; their names bare attached to the report.

I would particularly like to pay tribute to Carl Reistle of the Humble Oil Company, on the oil end,

Ed Parkes, of United Gas on thegas end, and Ed Parkes' work was largely done by Barney Gibbs and Carl Reistle's work was largely with Stewart Buckley, and my work was done by Mr. Ferguson.

Now, I wish they would stand up and let's give them a hand. They have done a yoeman's job.

(Applause)

I would also like to mention Mr. Fred ~~Leck~~ Lott, Co-Chairman with me. He did a great job. Is Fred here?

Let's give Fred a hand.

(Applause)

Mr. Chairman, I would like to comment in passing, as I said earlier, this is the 16th such report in the last 13 years. I have been Chairman of all of them, and of all the work done on this, I did the least amount of work as you would suppose and also, I would like to give you the rather pleasant piece of information that unless you get another report in the next two years, you will have a new Chairman of the Committee in the future, because I am retiring at the end of two years.

I move that the report on Proved Petroleum and Natural Gas reserves and Availability be adopted and the Committee fired -- I mean, discharged.

CHAIRMAN HAMON: Is there a second to that?

VOICE: Second.

CHAIRMAN HAMON: Do yuu want to ask Mr. McCollum any questions?

If not, before I put the question, Mr. McCollum, I read the report. I want to commend you on behalf of the Government and the Council on a very fine and excellent report.

All those in favor of the acceptance of the report signify by saying Aye.

(AYES)

CHAIRMAN HAMON: Opposed?

(None)

CHAIRMAN HAMON: The Ayes have it.

Thank you.

The Committee on Emergency Fuel convertibility. Howard Boyd, Chairman.

COMMITTEE ON EMERGENCY FUEL CONVERTIBILITY
By
HOWARD BOYD, CHAIRMAN

MR. BOYD: Mr. Chairman, Members of the Council. I would like to briefly summarize a written report on the progress of the Committee on Emergency Fuel Convertibility.

At the meeting of the National Petroleum Council last July,, Mr. Orville S. Carpenter, then Chairman of this Committee, reported upon the establishment of the main committee and also, the establishment of what was equally important, the technical subcommittee which was to be headed up by

Mr. W. Gibson Jaworek of the Marathon Oil Company and under the Co-chairmanship of Mr. H. J. Barton of the Office of Oil and Gas.

The Subcommittee met on July 30, 1964 and defined the topics that they were to explore and established the procedures which would be employed in the development of those topics.

The Subcommittee met again in December of 1964, confirmed the assignments that had been made to the individual members of the Subcommittee and determined the progress that was being made in the development of the subjects that had been assigned to each of the members of the Subcommittee. At that time, the Subcommittee fixed the target date of March 15, 1965 for the submission by the individual members of reports on the topics that had been assigned to them and by and large, I am happy to report, that that target date has been met.

A great wealth of material has been submitted by the individual members of the Subcommittee, that is now being analyzed. It reflects considerable effort and much progress.

The next scheduled meeting of the Subcommittee is fixed for April 20, 1965 at which time it is expected that the Subcommittee will be in a position to review in depth, a proposed final report to the council. At that

time, there will also be established procedures for the ompletion of the final report and Mr. Chairman and gentlemen of the Council, we now expect, and think that we can live up to this expectation, that we will be able to report finally, to the Council, at the next meeting of the Council and I would like Mr. Chairman, to leave with the Secretary, a more detailed written report of the progress of this Committee.

CHAIRMAN HAMON: Thank you Mr. Boyd, for an excellent progress report. Your Committee is to be commended and we are looking forward to the completion of the report.

MR. BOYD: Thank you.

CHAIRMAN HAMON: Next, I will call for an interim report from the Committee on Materials Requirements for Petroleum Refining. Everett F. Wells is Chairman of that Committee.

COMMITTEE ON MATERIALS REQUIREMENTS

FOR PETROLEUM REFINING

vy

EVERETT F. WELLS, CHAIRMAN

MR. WELLS: Mr. Chairman, gentlemen.

Like my colleague, Mr. McCullom, I feel a little guilty making this report because all of the work has been done by our very capable council officials; Jack

Hamon and Vincent Brown and his staff and the excellent technical subcommittee which I prefer to call the working committee because they do all the work that has been appointed.

I should like to tell you who this technical subcommittee is.

Roland A. Whealy, Vice President, Ashland Oil and Refining Company is Chairman of the Committee and the Government Co-Chairman is Admiral Onnie P. Lattu.

From the Department of Oil and Gas the members are D. R. Loper, Assistant Chief Engineer, Standard Oil Company of California;

Ralph D. Jackson, Senior Project Supervisor in the Manufacturing Department, the Standard Oil Company (Ohio);

Joseph T. O'Brien, Manager of the Purchasing and Traffic Department, Baton Rouge Refinery, Humble Oil and Refining Company;

R. L. Tollett, President, Cosden Oil & Dhemical Company; and

J. G. Wilson of the Manufacturing Engineering Department, Shell Oil Company.

As I mentioned, Mr. Vincent Brown's services as the Subcommittee secretary.

The Technical Subcommittee held its first meeting on March 18, 1965. It spent a full and busy day examining the scope of the assignment, which is to develop estimates of costs and materials requirements for new refinery processing and auxiliary facilities. It is intended that there shall be sufficient flexibility built into these estimates so that they may be used to facilitate the development of overall estimates for a variety of refinery prototypes.

Before proceeding with the task, it was the consensus of the Subcommittee and its Government Co-chairman that the scope of its assignment and certain basic assumptions developed during the first meeting should have the concurrence of the parent Committee. For example, the Subcommittee believes that new refining facilities would be required to replace facilities that are damaged or destroyed under severe (nuclear) emergency conditions. On the other hand, non-nuclear national emergencies would probably create requirements for new or supplemental refining facilities in order to increase production capabilities for fuels.

In the event of any type of national emergency, therefore, the demand for petroleum products would requikre a shift, in all likelihood, from a gasoline-type economy to one requiring either increased yields, or increased refining capability to make greater quantities of jet fuels, the middle distillates and residuals. This

assumption and other specific ground rules for the study are presently being considered by the Main Committee.

We plan to send out in the next few days, to the main Committee, the recommendations of the Technical Subcommittee for your comments and suggestions and hope to have them in your hands very shortly.

In the meantime, the Technical Subcommittee is studying various aspects of this assignment and have tentatively set their next meeting for May 27, at which time they will -- we hope -- have the benefit of the suggestions and opinions of the Main Committee.

I want to thank you gentlemen who have made available the excellent talent we have on our Technical Subcommittee.

I attended most of that meeting -- their first meeting -- and I assure you they are a dedicated and eager group and a very capable one, and I am sure will come up with a study that will represent the interests of our whole industry, large and small.

CHAIRMAN HAMON: Thank you, Mr. Wells, for the interim report.

I want to request that, at the end of the meeting, Mr. Wells, Mr. McCollum, Mr. Boyd and Mr. Follis remain or come up here for a conference.

Next on the agenda are remarks that we always

looking forward to, by Lt. General William O. Senter.

LT. GENERAL WILLIAM O. SENTER, USAF
DIRECTOR FOR PETROLEUM LOGISTICS POLICY
OFFICE OF THE ASSISTANT SECRETARY OF
DEFENSE - DEFENSE FUEL SUPPLY CENTER,
DEPARTMENT OF DEFENSE

LT. GEN. SENTER: Mr. Chairman, Secretary Udall, distinguished guests, and gentlemen.

This is my third appearance before you and I hope you keep asking me in to your very busy schedule.

Your past contributions and support of the Defense effort are fully recognized. What is more important, however, is we know you will always be available through the Secretary of the Interior, whenever we need you.

We listened to several speakers on many subjects. I am sure you are tired and hungry. I will talk very briefly about two areas of cufrent interest.

First, the situation in Southeast Asia and second, Off-Shore Petroleum Procurement by the Department of Defense.

During a recent Washington briefing of the new Viet Nam Material and Services Chief, General Crawley said, "My biggest logistic problem will be petroleum".

What is it about this specialized support that solicits ssuch a statement?

First, bigness. Seventy five percent of General

Crawley's incoming material, by the way, is P.O.L.

Secondly, the military forces in the Republic of Viet Nam are supported not by his own armed forces but by commercial storage and distribution systems. And I admit, very efficient ones.

Within Viet Nam, deliveries are made to 64 locations, several being in bulk, but mostly only drum products.

The biggest commercial storage terminal is at Nha Be, south of Saigon. Other important terminals are Nha Trang, Da Nang and Qui Nhon is a new commercial terminal nearing completion.

Securing these facilities in the Viet Nam distribution system against harrassment and sabotage, is certainly one of Gen. Cawley's chief concerns.

In Thailand, the support of our forces is similar. From commercial terminal storage in Bangkok, products are distributed to up country locations by commercial contractors. The material moves by rail for the most part.

This chart indicates the Thailand route.

Now, let us move away from the mainland of the Southeast Asia and into the Western Pacific.

Here, contrary to the commercial systems I have just described, the United States in this Western Pacific area has an extensive military petroleum organization.

This map shows the familiar locations of your United States forces and major bulk terminal storage locations.

The commercial sources from which this military system is re-supplied includes some refineries from within the area such as the Phillipines and Japan but for the most part, this system is fed from distant refineries of the Persian Gulf, the United States West Coast Gulf and Caribbean areas.

Now, let us note the shipping times.

Now, looking at the lower half of this chart, the time for export from either Western Pacific Military stocks or local commercial refineries requires of course, only a few days. However, we are 32 to 33 days from the Caribbean and the U. S. Gulf; 21 days from the West Coast; and 13 days from the Persian Gulf.

I think we can agree with Gen. Crawley, that his big problem is petroleum, adjusting to increases in demand within Viet Nam as well as providing security to the commercial system.

What plagues us all is the very big task of supplementing or replacing the commercial system if such a need develops.

Now, let me quickly jump to the second area of apparent interest.

The Department of Defense Off Shore Petroleum Procurement.

For several years, the return of our off-shore

procurement to the United States has been studied. The purpose: to determine the contribution that could be made to the international balance of payments; the principal consideration is the additional cost.

Speaking of cost, during a recent trip to Oklahoma City, a good friend of mine -- an independent -- said, "Oscar, when are you going to stop bringing foreign oil and shipping it into this country?"

Without wanting to go into detail, I answered, "Roy, as soon as someone gives me $30 million."

Whereupon he answered, "What is $30 million to you, Oscar?"

We always have and still consider cost in the Pentagon.

Next, the logistic impact must be evaluated with respect to extended supply lines, availability of tankers for divergent trouble areas, and the need for maintaining world-wide supply sources.

Finally, the political implications must always be weighed by our Government. Until the recent deterioration of our international balance of payments all studies and appraisals of the factors involved have precluded any returns. Now, most of you know that this overseas procurement amounts to approximately $323 million.

Let's look at that breakdown by geographical

area.

Using round figures, you can see that the Caribbean averages $120 million; the Persian Gulf, $80 million; European and Mediterranian, $70 million; and Japan and the Far East, $40 million.

In a recent exercise in the Pentagon, the Secretary of Defense analyzed this procurement, which I will now describe, this $323 million procurement.

Ke found that 78 percent of this procurement or $252 million was not susceptible to return. Therefore, he had only 22 percent of $71 million with which to work.

Let's look at the 78 percent first.

38 percent from the Caribbean was not considered eligible for various reasons.

Second, we cannot return procurements contracted for at commercial air fields or ships, to bunkers, in foreign ports. This amounts to $20 million or 6%.

Third is the procurement from local suppliers for U. S. military activities, where there is no military storage and distribution system.

To return this procurement has been likened to buying a drug store just to get an aspirin.

fourth, and last, there is residual fuel. In our case, Navy Special. I don't believe that anyone is suggesting that we procure very much residual in this

country for shipment overseas; taking the $71 million that is eligible for return, considering the additional cost, the logistics impact to the support of our overseas forces and their contingency plans, as well as other important factors, the Secretary of Defense made a decision. He decided to return $27 million at an estimated additional cost of $20 million. This is approximately a 75% premium, perhaps one of the largest premiums yet proposed by the Department of Defense to reduce our balance of payments deficit.

Arrangements are being made to implement this program.

Gentlemen, you have heard in approximately 10 minutes, about two very complicated subjects. Each could have been discussed for two hours or more. You have heard them presented from my point of view which reminds me, if I may tell a story, of a very interesting viewpoint; that of an unsuspecting wife. Her husband had come to her with a guilt conscience and a confession to make.

He announced that he had had a mistress for many years. He wanted his wife to know this. In fact, he wanted to show the mistress to his wife.

They went to the burlesque, and he pointed out in the chorus line -- he said, "See that girl next to the end? That is the one. In fact, see that one on the end?

That is Charlie Brown's, our next door neighbor, mistress."

His wife studied the two girls and said, "You know, I like ours better."

(Laughter)

Thank you.

(Applause.)

CHAIRMAN HAMON: Thank you very much, General Senter.

I am requested by the Secretary, to ask you to stay and come up after the meeting.

Next, we will have some remarks from our capable Director of Oil and Gas and I say capable because not only is he capable but I think that very fine report that he made from a study of the oil and gas, that he deserves an extra laurel for it.

Admiral, would you give us the benefit of your remarks, please?

REMARKS OF REAR ADMIRAL ONNIE P. LATTU

DIRECTOR, OFFICE OF OIL AND GAS, DEPARTMENT OF THE INTERIOR

ADM. LATTU; Thank you very much, Mr. Chairman, for those kind remarks; and Co-chairman, Secretary Udall. Gentlemen. Last July this Council approved a report. The title was, Petroleum and Gas in a National Emergency."

This was an analysis of Government Planning in

this area.

Secretary Udall called and said, then, "I know that the committee under Al Nickerson has spent many months on this assignment, which is an excellent example of joint accomplishment by Government and industry." He added that " * * * this committee has performed one of the most valuable and difficult services done by an NPC committee in many years."

I would add that, should a natkonal emergency occur, this report perhaps may be considered, in retrospect, the Council's most important paper. The report contains thirty-one recommendations and conclusions. Today, I want to bring you upte date on what we have done regarding these recommendations.

Secretary Udall accepted all the major recommendations and directed their inclusion in the emergency preparedness program of the Department ao as to achieve a satisfactory level of petroleum and gas mobilization readiness in the shortest time feasible. Many steps have already been taken, including favorable consideration by the Council today of our request for your help in preparing EPGA manuals.

A summary of the Council's recommendations, and the actions we have taken, or are taking on them, was furnished you this morning. Four of your major

recommendations have been handled as follows:

(1) Recommendation: EPGA be an independent agency headed by a National Administrator who would be the Secretary of the Interior.

Action: Secretarial Order DM 626 has been revised accordingly and is about to be published by the Secretary.

(2) Recommendation: Establishment of separate and independent legal and financial counselors and a secretariat.

Action: This has been approved.

(3) Recommendation: Subdelegation by the National Shipping Authority of "slating" authority to EPGA in order to improve tanker supply capability.

Action: Conferences have been held with Maritime Administration and sub delegation of authority is now being drafted by the Office of Oil and Gas.

(4) Recommendation: Establishment of EPGA relationships with foreign governments and international organizations.

Action: A civilian NATO Wartime Oil Agency has been established. Industry and Government personnel have been selected and assigned organization responsibilities.

I urge that you review this summary with those executives in your companies responsible for emergency planning. The assistance of the Council is important, indeed, essential, to accomplish the goal of adequate petroleum and gas preparedness. But, as the Council itself has said, the Department of the Interior, working with the cooperation of the National Petroleum Council, is not

enough. You have recommended that more active participation by the oil and gasindustries is required to do the job.

We strongly support the Council's recommendation for more active participation by the industry. To be specific: When we call upon you, encourage additional qualified industry personnel to join the Executive Reserve so as to complete the initial complement for the standby EPGA organization which will enable us tomove on with our training program.

Our Regional Administraters are helping us recruit. We want to be sure you know them and ask that you actively support them, as we know you will.

I will name them.

Region I: Harry J. Pechheiser, Executive Vice President, Mobile Oil Company.

Region 2: Alexander S. Chamberlain, Vice President, Louisville Refining Company.

Region 4: Layton E. Kincannon, Vice President, Rock Island Refining Corporation.

Region 5: Alvin C. Hope, Independent, San Antonio, Texas.

Region 6: William A. Alexander, Vice President Shell Oil Company.

Region 8: Lowell E. Hunt, Regional Manager-Western Operations, Standard Oil Company of California.

Regional Administrators for Regions 3 and 7 are in the process of being selected.

We are encouraged that the industry is prepared to step up its planning for the protection of its own people and facilities in event of an emergency. This is evident from the interest petroleum and gas companies have taken in the other report of Mr. Nickerson's committee, "Civil Defense and Emergency Preparedness for the Petroleum and Gas Industries." Average distribution of a Council report is about 750 copies. To date, some 2,250 copies of this report have been distributed by the Council alone.

In addition, the Office of Civil Defense, Department of Defense, hasarranged for a reprint of 75,000 copies. These will be distributed as follows, or have already been distributed.

17,000 - Local City Governments.

3,000 - County Governments

2,500 - Business and industrial magazines.

15,000 - Companies other than oil.

20,000 - Federal Guide - permanent records of State and Local Governments.

We are proud also of the work done by the Emergency Advisory Committee for Natural Gasunder Clyde McGraw. His committee has completed the Emergency Operations Manual for the Natural Gas transmission industry.

This will be printed in a format similar to the NPC report. It will be distributed to appropriate companies and agencies and is expected to be off the press shortly.

Normally, you do not think of a pay out on our investment.

A final bit ofinformation that will be ofinterest to you. Normally, youdo not think of a pay-out on our investment in preparedness short of an actual national emergency. But, we did have a small important return on our preparedness investment when the flood disaster struck in Northern California a few months ago. Our Region 7 Representative, Mr. E. O. Jones, at Santa Rosa, California, surveyed the disaster area. Contacting Executive Reservists and other industry people, he was instrumental in making recommendations which helped solve critical product re-supply problems, particularly supplies of LPG gas for the hard-hit Eureka area.

There is an important lesson here for us, whether we contemplate natural disasters, or the man-made variety, both of which can have dire consequences. Putting emergency planning off until tomorrow may be too late. Preparedness is actually the buying of time -- time to prepare ahead for a disaster.

With the continued assistance of the Council, and the full cooperation of the industry, I feel sure that

we shall succeed in achieving real oil and gas mobilization readiness.

Thank you.

(Applause)

CHAIRMAN HAMON: I am going to call on my Co-Chairman, Secretary Udall, for any final remarks you care to make.

HON. STEWART UDALL

CLOSING REMARKS

SECRETARY UDALL: Jack, I would only like to say -- because I either hreard or read all these papers presented here today -- that I think it has been a most productive meeting and I should like to offer a compliment, since others have been complimented, to my Co-Chairman, Jack, here, for the very efficient, effective way he handled his duties.

It has been a very fine meeting.

(Applause)

CHAIRMAN HAMON: I did not know what he was going to say or I would not have called on him.

Gentlemen, the Appointment Committee met and approved a list of appointments, yesterday, that are tentative appointments. I submitted them for membership, in these four new committees.

You will be hearing from me shortly by letter.

I want to urge all of you to accept such

appointments as I may make because the appointments were carefully studied by me and the Appointments Committee. We believe that you men can do the job and I hope you will accept when you get the letters.

Now, there being no further business, may I have a motion that we adjourn?

VOICES: So move.

CHAIRMAN HAMON: All those in favor signify by saying "Aye".

(AYES)

CHAIRMAN HAMON: Opposed?

(None)

CHAIRMAN HAMON: The meeting is adjourned.

(Whereupon, at 12:35 o'clock, p.m., the hearing was adjourned.)

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