

OFFICIAL REPORT OF PROCEEDINGS

Before The

DEPARTMENT OF THE INTERIOR

Docket No.

In the matter of NATIONAL PETROLEUM COUNCIL MEETING

Place WASHINGTON, D.C.

Date 7 MARCH 1 957

Pages _____

ACE REPORTING COMPANY

261 CONSTITUTION AVE., N. W.
WASHINGTON 1, D. C.

Official Reporters

MEtropolitan 8-4780

National Petroleum Council Meeting
March 7, 1957

C O N T E N T S

	<u>Page</u>
Introduction of New Members - Chairman Hallanan	5
Approval of Minutes of Last Meeting	6
Remarks of the Honorable Joseph C. O'Mahoney	6
Remarks of Larry Allen, Associated Press	12
Report of Secretary-Treasurer	16
Nominating Committee	
Motion and Appointment of	17
Report of	18
Election of Officers	18
Report of Agenda Committee and Approval	17
Remarks of W. M. Halladay	20
Report of Committee on Tanker Requirements - Approval	21
Report of Committee on Underground Storage	22
Approved	26
Remarks of Assistant Secretary Wormser	26
Remarks of Mrs. Hugh A. Stewart	33
Remarks of Major General Cotulla	36
Remarks of Rear Admiral Lattu	43
Approval of Budget	45
Remarks of Doctor Arthur S. Flemming	46

C O N F I D E N T I A L

2

NATIONAL PETROLEUM COUNCIL MEETING

March 7, 1957

Conference Rooms A & B

Departmental Auditorium

Washington, D.C.

MEMBERS PRESENT:

Walter S. Hallanan (Chairman) Presiding

Jack Abernathy

B. C. Graves

Hines H. Baker

Jake L. Hamon

Munger T. Ball

B. A. Hardy

Fred E. Bergfors, Sr.

John Harper

Reid Brazell

Cash B. Hawley

J. S. Bridwell

Harry B. Hilts

Bruce K. Brown

G. B. Hunter

Russell B. Brown

A. Jacobsen

H.S. M. Burns

B. Brewster Jennings

Howard A. Cowden

Charles S. Jones

Robert L. Crawford

W. Alton Jones

Fayette B. Dow

Paul Kayser

Waywick M. Downing

W. W. Keeler

Gordon Duke

Richard G. Lawton

Rainey Elliott

Augustus C. Long

Paul Endacott

N.C. McGowen

Stark Fox

O. B. Maxwell

MEMBERS PRESENT: (Continued)

R. L. Milligan	Roland V. Rodman
George T. Naff	A. H. Rowan
S. F. Niness	Reese H. Taylor
Frank M. Porter	S. M. Vockel
Maurice G. Powers	J. Ed Warren
C. Pratt Rather	Albert H. Weil
M. H. Robineau	W. C. Whaley

John H. White

Robert L. Wood

John Wrather

OBSERVERS FOR COUNCIL MEMBERS:

J. W. Lackey for Robert O. Anderson

E. F. Wells for Paul G. Blazer

Donald O'Hara for Charles A. Chipman

Harold Healy for William H. Curry

Clayton Orne for J.C. Donnell, II

M.S. Eisberg for James P. Dunnigan

M. S. Shiller for Max M. Fisher

C. E. Spahr for Clyde T. Foster

B. H. Faulkner for Russell S. McFarland

Fred Robinson for William G. Maguire

Ralph Booker for Joseph L. Nolan

Cecil Morgan for M.J. Rathbone

J.E. Dyer for P.C. Spencer

OBSERVERS FOR COUNCIL MEMBERS: (Continued)

Mr. Parsons for D.T. Staples

L. A Webb for Henderson Supplee, Jr.

Allen James for William K. Warren.

ALSO PRESENT:

The Honorable Joseph C O'Mahoney, U.S. Senator

Larry Allen, Associated Press Correspondent

W. M. Halladay, Deputy Assistant Secretary of Defense

Assistant Secretary of Interior Felix Wormser

Mr. Hugh A Stewart, Office of Oil and Gas

Major General Cotulla

Rear Admiral Lattu

Doctor Arthur S Flemming, Office of Defense Mobilization

P R O C E E D I N G S

CHAIRMAN HALLANAN: The Council will please come to order.

The Secretary will now call the roll.

(Whereupon, Mr. Brown proceeded with the roll call.)

CHAIRMAN HALLANAN: Mr. Crawford, will you please rise, sir. Gentlemen, I desire to present a new member of the council, Mr. Robert Crawford, President, Independent Oil Men's Association of New England, Inc. of Fall River, Massachusetts.

We are happy to welcome you as a member of the Council.

(Applause.)

CHAIRMAN HALLANAN: Mr. Long, will you please rise, sir. It is quite presumptuous for me to introduce you to any oil group, Mr. Long, but gentlemen, I desire to present a new member of the Council, Mr. Augustus C. Long, Chairman of the Board of the Texas Company.

(Applause.)

CHAIRMAN HALLANAN: Mr. Rather, would you please rise, sir. Gentlemen, I desire to present Mr. C. Pratt Rather, President of the Southern Natural Gas Company. We welcome you as a new member of the Council, Mr. Rather.

(Applause.)

CHAIRMAN HALLANAN: A quorum is present, gentlemen. We will proceed with the order of business. May we have consideration of the minutes of the last meeting of the

Council held on December 14, 1956.

(Whereupon, it was moved and seconded from the floor that the minutes be approved, put to a vote and carried unanimously.)

CHAIRMAN HALLANAN: Senator O'Mahoney, we are delighted to have you here this morning and if you are under pressure to return to the Senate, we will be glad at this time to have you speak to us.

Senator O'Mahoney.

(Rising Ovation.)

REMARKS OF THE HONORABLE JOSEPH C. O'MAHONEY

SENATOR O'MAHONEY: "Thank you. At 10:30 this morning in the Senator Office Building our committee, the sub-committee of the Judiciary, will have some representatives of the Gulf Oil Corporation before it. I am not going now to deliver a lecture, of course, but again to say that I feel the petroleum industry, in war and in peace, has done a great job for America. I have watched particularly what was done by this group, the National Petroleum Council, during World War II and during the Korean war. It displayed the basic patriotism of the leaders of this industry and although I have held many hearings on petroleum, I have never taken my father's black thorn stick to the hearings. I have never wanted to beat any oil man over the head.

(Applause)

" I do feel, however, that it is important for everybody, everybody in business, in the professions, and in civilian life, to understand that we have got to make a decision before very long as to what sort of a world we want to live in when these troublesome times have ^{passed,} ~~past.~~ This whole century has been devoted to the struggle among nations, with respect to the philosophy of government.

" In the United States, for the first time on this planet, there was drafted a constitution based upon the premise that the right to govern belongs to the people and not to any group or class or man among the people.

" The history of the world has been the history of the struggle to control government for the benefit of those who sought to have that advantage. We have been witnesses of the results of this struggle in two world wars. We have seen great nations disappear, wiped completely off the slate of world history. The Austria-Hungarian empire for example has been completely destroyed in our time. The German empire has been destroyed. Others have been destroyed, and there is left now astride the world two great leaders, the Soviet government, headed in the Kremlin, and the Government of the United States. They represent two different theories of government. We know it, but we don't pay much attention to it.

" The Soviet government is the representation of dictatorship, based upon the theory that the masses of the

people are unable to know what to do with their lives, with their government. The other is our theory of government, announced by every great leader we have ever had, from George Washington down, a government of the people, by the people and for the people, as Lincoln phrased it.

"When this period of strain is over, we want to be sure, I think, that the theory of government by the people shall remain. So we cannot hope to realize that ambition, that conviction, unless we work together to maintain the independence of opportunity for all of the people, not only in the United States, but in the world.

"I think that in the petroleum industry there has been competition by and large and I remember when Chief Justice White handed down the decision in 1911 breaking up the old Standard Oil Company. I know, as you all know, that the parts into which that old Standard Oil Company was divided are now themselves each greater than the old company itself was at the time of that split-up.

"We all believe in free enterprise. Mr. Rathbone, testifying before our Committee only yesterday, stated unequivocally that the Standard of New Jersey wants to see the independent prosper. I think that most of you here want to see the independent prosper, but we must know that there is no real possibility of competition between an independent producer of crude oil, an independent refiner of crude oil, and

the giant individual companies which do business across the continents and across the seas.

" Now how we are going to preserve the good of integration without losing the good of independence is the problem that is before you and before government, those of us who are temporarily at least, by the election of the people, the representatives of the people. "

" I just will conclude with saying that we must all remember that when the constitution was drafted, the founding fathers stated in the first article of that constitution that all legislative power existing under the new government was vested in the Congress of the United States and among the powers granted to Congress was the power to regulate commerce among the nations, among the states, and with the Indian tribes because the Indians were separate nations at the time the constitution was drafted.

" But there is no question about it, if we believe in constitutional government, we believe that the Congress of the United States has the power to regulate all commerce among the nations of the world.

" A great Chief Justice, John Marshall, who was no Bolshevik, he was no revolutionist, wrote in a very important decision on this question of what the constitution means about regulation, that the power of Congress to regulate commerce extends to all commerce that affects commerce among the states

and commerce with foreign nations. So our task here and up on the hill, is to do justice in regulating this commerce so that it may be beneficial to all and again I say to you that so long as I serve on the Judiciary Committee in the place that I do, my only purpose will be not to find any victims, to prosecute, but to find the road to the future in which we can live in domestic peace, domestic harmony in trade and commerce.

"I am glad to have had the opportunity of greeting you again."

(Applause.)

CHAIRMAN HALLANAN: Senator O'Mahoney, it is gratifying to us, I assure you, to have you come here as a representative of the great legislative body and to speak to us as members of the Council and I am sure that these exchanges of ideas and thoughts that we may have in this way are all conducive to the best interests of the public welfare. We want you to feel free to come any time this Council is in session.

SENATOR O'MAHONEY: I thank you very much, Mr. Hallanan. And will you excuse me now while I go up to the boiling pots?

CHAIRMAN HALLANAN: Yes, sir. We are very glad to have had you here.

SENATOR O'MAHONEY: I am very happy to be here. Thank you for the invitation.

CHAIRMAN HALLANAN: "Gentlemen, I have some sense of personal privilege at this moment in inviting here as my guest a distinguished young American who has risen to a point of eminence as the most outstanding war correspondent in America, a Pulitzer prize winner, a young man whom I knew as a reporter in my own City of Charleston, West Virginia, and who for the past 22 years has been on every battle front throughout the world starting with the war in Spain back in 1936.

"None of us who knew him in those early days ever dreamed, however, that he would become a Pulitzer prize winner and be generally recognized as the world's most famous war correspondent.

"Larry Allen went to Spain to report the civil war there for the Associated Press and since that time he has been on the scene of every war and revolution on the face of the earth. Mr. Allen had the unusual and quite terrifying experience of having been on eight ships that were torpedoed during the World War and despite the fact that he couldn't swim, he is here with us today. He was a prisoner of war in both Germany and Italy during the last World War and has interviewed every important military and civilian leader in the world in the last 20 years. He has just returned from five years with the French Army in Indo China and is leaving in the next few days for the trouble spots in Algeria and the Middle East as the Associated Press representative.

" I asked him to come here and to observe the operations of this government-industry team and I want to present to you a man who is recognized as our outstanding war correspondent, Mr. Larry Allen of the Associated Press. ["] Larry.

(Applause.)

~~REMARKS BY~~ LARRY ALLEN, ASSOCIATED PRESS

MR. ALLEN: " Members of the National Petroleum Council, my fellow Americans: To me it is always a tremendously great pleasure to get back in the United States of America after so many years abroad watching how the peoples of other countries live and what armies of other countries do to protect those peoples.

" It is a particular source of gratification to me to find in ~~this~~ United States of America a body such as yours which in effect is a fact-finding body to advise the Government of this country as to what goes on in the oil industry. Certainly no agency can perform a greater patriotic and more valuable duty to the Government of this country and the people of this country. There is hardly any single commodity in the world today that is more important than oil. I have seen it flow in over 64 countries in peacetime uses and I have seen it go into the military machines of dozens of nations. I think the Government is fortunate to have a body like this that will keep it up to date on what is going on in the petroleum industry because I greatly fear, gentlemen, ~~but~~ that the demands that

have been made upon you in the past are going to be vastly increased in the future.

" I am not going to attempt in this brief time to try to give you even a bird's eye picture of all that happens in 23 years of going around the world. That is utterly impossible to do, but I would like to make one observation to you, and that is this.

) In my opinion, gentlemen, I find here in the United States of America so many people who complain about how much it costs to live in this country any more, the rising rate of taxation. Now we all know that a large part of that is going for the national defense. I would like to say to each and every one of you that if 80 cents out of every dollar you earned had to go for the defense of this country, it would be cheap at the price to escape what you would have under any form of Communistic rule.

" In this world today, gentlemen, I find ~~that~~ a little less than half free and a little more than half slave, I personally am convinced that the men in the Kremlin are intent upon world domination. They have so far been much smarter than attaining their objectives than Hitler ever was. They have done by subversion, by threat and by occupation, they have taken far greater stretches of territory than Adolph Hitler ever dreamed of. I think, gentlemen, they will continue to do that as long as that will serve their purposes.

" When the time comes that they think that they can no longer get what they want by terror, by secret police, by subversion, by infiltration, then I think, gentlemen, they will try the other way.

" The Russians I have met in Russia, the Poles I have met in Poland, the Russian occupation troops in Eastern Europe, have never, at least to me, made any pretense of hiding their great dream that some day they will attack the United States of America and will win. To me, gentlemen, I think it is a most important thing in the world or one of the most important things in the world today that here in the United States, if my own beloved American people would spend a little more time attending civilian defense schools instead of going to bridge clubs, they might be awfully glad some day that they did.

" If this horrible thing comes -- and of course we all hope it never will come -- but from every single bit of evidence that we can find, it certainly is going to come -- then this country must be prepared to let Soviet Russia know that any blow delivered against this country is going to be answered with far greater crushing and destructive force. When that war comes, gentlemen, we are going to win it, but I have great fears but that this time we are going to be seriously hurt before we win it.

" That is where you gentlemen and all the rest of the American people fit into this picture, as you gentlemen are

going to supply the liquid that is needed to keep a war machine going.

"As I said, gentlemen, I am very happy to know that there is in this country a body such as yours that is ready to step into the breach and tell the United States Government any time it asks what we can do to protect this country. I shly know, gentlemen, after travelling over 500,000 miles on war assignmants for the Associated Press, that there is no country in the world where one enjoys or could ever enjoy greater security, greater happiness, and a cleaner way of life than in this United States of America. When I come home, gentlemen, I can't find anything in this country to complain about. I only want it to be so prepared that no one dare attack it and if they do attack it, they themselves will be destroyed. I only know, gentlemen, that nowhere in the world can you find a scintilla of the happiness and security and contentment that you have here in the United States.

"For that reason, gentlemen, I thank God and I know that you do, that you were born in the United States of America and I know that you and that He will always protect it so that there shall always be in the world one place where you have an inalienable right to life, liberty, and the pursuit of happiness.

Thank you very much."

(Applause.)

CHAIRMAN HALLANAN: Thank you very much, Larry.

When Larry gets through with his war assignments and comes back, it has been gratifying to me to know that he wants to come back to Charleston, West Virginia.

Now, may we have the report of the Secretary-Treasurer.

SECRETARY-TREASURER'S REPORT -- MR. BROWN

MR. BROWN: I will first report on the calendar year that closed the end of December. Our assets totalled \$108,875. Our disbursements were \$117,587. We started out with \$33,488, and that permitted us to over-spend a little and we wound up the year with \$24,776, which again starting in our two months' period, we added to that transfers from reserve funds in the neighborhood of \$16,900. We spent in these two months \$15,700. We have in our general fund at the moment \$26,529. Our reserve funds have been reduced to meet these extra expenses while we are waiting for the contributions of this year, but we still have in reserve \$132,000.

CHAIRMAN HALLANAN: You have heard the report of the Treasurer. Any remarks?

If not, it will be filed.

Gentlemen, this is the first meeting of the duly appointed Council in 1957, and it follows that this is an organization meeting for the election of officers for the ensuing year and in line with our procedure, the Chair recognizes Mr. Hamon to make a motion for the appointment of a nomination

committee.

MR. HAMON: Mr. Chairman, I move that the Nominating Committee be appointed to nominate officers and committee members for the ensuing year.

CHAIRMAN HALLANAN: Is there a second?

(The motion was seconded from the floor, put to a vote and carried unanimously.)

CHAIRMAN HALLANAN: The Chair will appoint Mr. Hamon as Chairman, Mr. Harper, Mr. Burns, Mr. Milligan, and Mr. Powers.

Mr. Chairman, will you proceed to have a meeting of your committee and submit your report. In the meantime, we will proceed with the report of the Agenda Committee, Mr. Jacobsen.

REPORT OF AGENDA COMMITTEE

MR. JACOBSEN: The Agenda Committee submits the following report.

(Whereupon, the report was read by Mr. Jacobsen)

MR. JACOBSEN: Mr. Chairman, I move the approval of this report.

(The motion was seconded from the floor, put to a vote and approved unanimously.)

CHAIRMAN HALLANAN: I will now ask Mr. Lawton to preside temporarily.

MR. LAWTON: I understand the Nominating Committee is

ready to report. Mr. Hamon, will you come up, please.

REPORT OF NOMINATING COMMITTEE

MR. HAMON: In order to save time, I am going to nominate the Chairman, the Vice Chairman, and members of the Agenda Committee, and Appointment Committee and make those nominations all in one motion.

Your Committee felt and I am sure all of you feel that this Council has achieved in a large part the success it has due to the untiring efforts of our first and only chairman, Mr. Walter Hallanan. He has been unselfish in his devotion to the Council and he is a great patriot, a great oil man, and a great chairman. It is true, as I told Mr. Allen, that he is a little partial to West Virginians, but we can't do anything about that. But aside from that one weakness, we are very fortunate in having a great chairman like Mr. Hallanan and we take great pleasure in renominating him.

Now as Vice Chairman, and he isn't here today unfortunately, but he has served unselfishly and he is a great fellow, Mr. R. G. Follis, or Gwynn as we call him, and we nominate him as Vice Chairman.

The Agenda Committee we feel that it couldn't get along without its great chairman, Mr. Jacobsen and the other members of the Committee: Hines Baker, Russell Brown, Paul Endacott, E.A. Hardy, W. Alton Jones, B.L. Majewski, J. Howard Marshall, L.F. McCollum, J.R. Parten, and P.C. Spencer.

On the Appointment Committee, certainly Mr. Porter asked me to make quite a speech about his efforts on this, but I am going to just say: Mr. Porter has performed competently and let it go at that. So we renominate Mr. Porter as Chairman, Mr. J S Bridwell, J.C. Donnell, II, Brewster Jennings, Augustus C Long, N.C. McGowen, M.H. Robineau, Roland V. Rodman, D.T. Staples, Reese H. Taylor, and Robert F. Windfohr.

Mr. Chairman, I move that those names be placed in nomination and the nominations be closed.

I further move that the Secretary be instructed to cast one ballot for the election of the nominees as reported.

MR. BARNES: I second it.

(Whereupon, the motions were put to a vote and carried unanimously.)

CHAIRMAN HALLANAN:: A good democratic election.

(Rising ovation for Chairman Hallanan.)

CHAIRMAN HALLANAN: And in recognition of that tribute, gentlemen, I want to say to you I am not going to make any acceptance speech.

(Applause.)

I do want to express my appreciation of your renewed confidence, and certainly it shall be my purpose to carry on the work of this Council in the future as I have attempted to do in the past. I am proud of the record that we have made and for those who may feel that the Council has no

important function, I need only point to the record of today, wherein the Government has requested this organization to make studies of five important subjects dealing with production, refining, transportation, storage and liquefied gases, all in relation to the problems of our national defense.

I know that this Council will respond by providing the best talent that the industry can give in furnishing the Government the information which it seeks upon these important matters.

I am very happy that the Council's value has been recognized by representatives of the legislative body such as Senator O'Mahoney, and that he feels that there is a forum where he can come and speak to us as a group along with the representatives of the military, the Department of Defense, and other agencies of our Government.

Gentlemen, we have a distinguished visitor this morning from the Office of Defense, the Honorable W. M. Holladay, Deputy Assistant Secretary of Defense, in the Division of Research and Development.

We are delighted to welcome you here and we will be pleased, Mr. Secretary, to have you speak to us. Mr. Holladay.

(Applause.)

~~REMARKS OF~~ W. M. HOLLADAY, DEPUTY ASSISTANT
SECRETARY OF DEFENSE

MR. HOLLADAY: "Gentleman, since at the present time I seem to get mixed up on the front pages of the paper, I find

it is much better if I do not speak than if I do speak.

I think it is much better if I do not attempt to talk about my work. Thank you a lot.

~~(Applause.)~~

CHAIRMAN HALLANAN: We will proceed now, gentlemen, to the reports of special committees.

First, the Committee on Tanker Requirements, Mr.

B. Brewster Jennings, Chairman. Mr. Jennings.

REPORT OF COMMITTEE ON TANKER REQUIREMENTS

MR. JENNINGS: Mr. Chairman, and gentlemen: I would like to present the report of the Committee on Tanker Requirements. This is a rather difficult report to abbreviate, so it isn't very long and I think I better read it to you.

(Whereupon, Mr. Jennings read the above report.)

I would like to move the adoption of that report Mr. Chairman.

MR. HAMON: I second the motion.

(Whereupon, the motion was put to a vote and the report approved unanimously.)

MR. JENNINGS: I would like to, if I may, express the appreciation of my Committee for the excellent work done by our subcommittee of which Mr. Jim Howard is Acting Chairman, and I would like to ask him to stand please, if he is here today.

(Applause.)

CHAIRMAN HALLANAN: The report is unanimously accepted Mr. Jennings, and we are grateful to you for a splendid job.

Mr. Burns, may we call on you at this time to submit the report of the subcommittee on Underground Storage.

REPORT OF COMMITTEE ON UNDERGROUND STORAGE

MR. BURNS: Mr. Chairman, and fellow members of the National Petroleum Council: The report on Underground Storage of Petroleum is, as you can see, quite large. Essentially it is highly technical and is not one that I think one can read. I have, however, a rather short summary which I will present to you.

In October of 1955 Mr. H.A. Stewart, Director of the Office of Oil and Gas, Department of the Interior, requested the National Petroleum Council to bring up to date the NPC's Underground Storage Report of 1952 and review the present status and technology of underground storage. The report before you is the result of this request.

As predicted in 1952, this new analysis of underground storage has turned out to be a report of industry's rapid progress in the field. Thus, it is shown that over 25,000,000 barrels of underground storage is now available-- as of last July -- and the amount continues to expand. Solution cavities in salt structures account for 75 percent of current capacity, and these are mainly for storage of LPG. Cavities dug in lime, shale or chalk total some 1,000,000 barrels and the cost is

normally less than large volume surface storage for propane and butane. Contamination and losses are the chief deterrents to use of depleted oil and gas reservoirs and water sands.

This new report has been developed by a Technical Subcommittee which included experts in each phase of underground storage. Industry experience was secured by means of a questionnaire. Some experimental data on underground storage were made available to the subcommittee by the U.S. Air Force.

This report includes a map and statistical summary to show the location, size, type, and product stored in each underground storage project (exclusive of military) in the United States as of July 1956. In addition there are detailed technical appendices on various aspects of underground storage, the highlights of which are as follows:

Site Selection: Tentative selection may be made by use of published geological information, but for final acceptance a detailed geological survey is required to ascertain depth of storage zone, thickness of formation, permeability, impurities and structural strength.

Design and Construction: These depend, of course, on the product to be stored, the type and size of storage required, nature of local geological conditions, and mode of operation. Construction costs as reported via the questionnaires are charted with calculated costs superimposed, and a comparison is made with calculated costs for aboveground storage.

This shows that solution cavities may be competitive in construction cost with both cone and floating roof storage, provided the project capacity is greater than 100,000 barrels. Most solution storage is thus more economical to construct than aboveground pressure storage of comparable size. Mined caverns in the 10,000-barrel and over class are shown to be usually cheaper than aboveground storage for butane and propane and perhaps competitive with spheroids for natural gasoline. The report also outlines approved construction methods for various types of underground storage, methods of shape control for solution cavities and typical problems encountered.

Operation and Maintenance: Out-of-pocket operating costs reported via the questionnaires show considerable variation, but a typical installation of anywhere from 100,000 to 750,000 barrel capacity would show a cost of about 15 cents /barrel withdrawn if the inventory is turned over once per year. Reported losses range from approximately two percent for solution and mined cavities up to perhaps 50 percent for depleted oil and gas sands and even higher for some water sands. Open pit storage (with floating roof) for furnace oil showed only 0.3 percent loss. Most common maintenance problems are tubing failures, plugging of tubing, flotation entrapment of products, and attrition due to corrosion.

Contamination, Deterioration and Alteration: Industry and experimental military experience in storing LPG, avgas

and jet fuel has been good in solution cavities. Dehydration of LPG is necessary in many cases, and additives in the products must not be water soluble. Mined cavities for LPG and a slate quarry for heating oil are also successful. On the other hand, products stored in depleted oil and gas sands and water sands are usually contaminated with residual crude oil, light gases and water. The products so stored must usually be reprocessed on withdrawal from storage.

Mr. Chairman, I know this gives a very horseback approach to what I consider is a very fundamental, thorough report. I would like to express my great gratitude to the technical subcommittee under the chairmanship of Mr. Russell Knapp of the Gulf Oil Corporation for the great work. I believe Mr. Knapp is here. He came all the way from Tulsa. May I ask him to take a bow?

(Applause.)

Mr. Chairman, I wish to move the adoption of this report and I venture to suggest that if this report gets the study in the oil industry which it deserves, it will no longer be any excuse for any oil man's failure to know the difference between any part of his anatomy and a hole in the ground.

(Laughter.)

CHAIRMAN HALLANAN: Are there any questions, gentlemen, in connection with this report? Certainly the report speaks for itself as representing a great and very wonderful

service performed and thank you for directing it.

(Whereupon, the motion was seconded from the floor, put to a vote, and approved unanimously.)

CHAIRMAN HALLANAN: Gentlemen, we had expected Secretary of the Interior Seaton to be with us this morning, but on account of some difficulty with his back, he is laid up at his home and will be unable to be present with the Council. However, we are pleased and happy to have his good right arm, Assistant Secretary Felix Wormser, who is always a close contact man with this group and who followed the work and with whom we have had a very highly desirable relationship in the Interior Department.

Secretary Wormser.

(Applause.)

~~REMARKS~~ OF THE HONORABLE FELIX WORMSER

MR. WORMSER: Mr. Chairman, and gentlemen: Before I begin, may I have the privilege of introducing to you the new Director of the Bureau of Mines, who is with us today for the first time, Mr. Marlin J. Ankeny,

(Applause.)

Let me also, Mr. Chairman, express on behalf of the Government, our appreciation for these really brilliant reports. To my mind, they are a complete justification for the work of the Council. To get the information that you provided in this tanker report and this underground storage for petroleum would

be an almost impossible task for the Government and to get the industry's cooperation with the professional competence that it represents to my mind is priceless in helping the Government discharge its responsibilities.

"My comments today will be a little longer than they usually are, but I hope you will bear with me because I am going to recite a little bit about our recent history.

"Officials of Government outlined to this Council on December 14 the problems in easing the oil shortage in Europe caused by the closure of the Suez Canal and the interruption in petroleum pipeline transportation to the Middle East. At that time oil companies individually had already begun the redeployment of tankers and movement of oil from the western hemisphere to Europe.

"The Middle East Emergency Committee was just starting its operations in the effort to alleviate this shortage. At this stage it was estimated that 75 percent of the normal petroleum requirements of Europe, North and West Africa, could be supplied through coordinated efforts under the plan of action and its implementing schedules.

"As administrator of the plan of action, I approved the first two schedules December 7. These schedules have been in effect three months today, so I will outline the progress which has been made.

"Early in January it was apparent that the oil lift

to Europe was exceeding all estimates. However, in doing so, the crude oil being moved from the United States was in effect coming out of inventories, even though domestic production had been increased to 7,400,000 barrels per day as compared with 7,000,000 barrels per day pre-Suez.

(1) Imports of Middle East oil to the East Coast of the United States and Canada were sharply reduced. I might say almost to the point of elimination. Most of the Middle East oil previously imported was diverted to Europe. By the end of January, domestic crude oil inventories went down by 32,600,000 barrels, reaching a level of 254,000,000 barrels. Domestic production was rising above 7,400,000 barrels daily. There was an increase of 70,000 barrels daily in imports into the United States of crude oil from the Caribbean.

(2) It became obvious that crude oil shipments to Europe ~~could continue~~ at anything approaching a satisfactory rate without endangering the United States' supply only if one or preferably both of the following were done: One, the United States crude oil production increased, and two, domestic refining runs reduced.

(3) The Middle East Emergency Committee reports indicated that the oil supply for the area west of Suez was approaching 90 percent of normal requirements, plus the abnormal demand for bunkers. The Committee also forecast that the supply for the entire first quarter would approach 90 percent provided that

the oil lift from the United States could continue with the same level.

" Continuation of this country's contribution to the oil lift to Europe would now appear to be assured. Domestic production in February averaged about seven and a half million barrels per day, and the Texas Railroads Commission's increase of 211,000 barrels per day in production allowance for Texas for the month of March should make available additional crude oil for export.

" These facts are set out particularly to emphasize how effective the oil lift to Europe has proven to be. All of the operations under the Voluntary Agreement and its plan of action are, of course, a part of the overall effort to meet the petroleum requirements of the area west of Suez. An industry advisory committee was established in Europe, a counterpart of the Middle East Emergency Committee, to coordinate operations of the European oil industry and with which the Middle East Emergency Committee could cooperate. This is known as the OEEC Petroleum Emergency Committee, or OPEC. This group is advisory to the OEEC Oil Committee which has the responsibility of allocating petroleum supplies among member countries. The OEEC oil committee was proposed as the most competent existing agency in Europe to perform this function because it was already accustomed to estimating European petroleum requirements. It was also in a position,

through its member representatives to coordinate allocation by appropriate authorities of petroleum within each country.

// The OEEC oil committee assumed this responsibility and arranged for the collection and appraisal of information on current and prospective petroleum requirements. This information is compared with program of supply developed by OPEC with MEEC cooperation as a basis for determining the appropriate allocations. The first decision of the OEEC committee was that the oil made available would be distributed as equitably as possible among the countries in the ratio of each country's requirements.

// The committee recognized that the allowance had to be made for hardship areas, hardship cases, and decided to set aside for this purpose 200,000 metric tons for each 10-day period before allocating available supplies pro rata to member countries. The emergency supplies were assigned to individual countries on the basis of claims approved by the oil committee.

// This procedure has been quite successful in taking care of the needs of individual countries. It appears to us that the entire operation for allocating the oil supplies has proved beneficial because the European countries themselves, working through OEEC, made the allocations among countries with no outside interference. In order to assure close coordination of the Middle East Emergency Committee with its European counterpart, and with the oil committee of OEEC, the

Director of the Voluntary Agreement, Mr. Ralph S. Fowler, the Chairman of the Middle East Emergency Committee, Mr. Stewart P. Coleman, and other representatives of the Committee went to Europe early in February to look at the status of the European oil situation and to compare notes with the OEEC oil committee and its industry advisory group, OPEC. OEEC issued a comprehensive report on the oil situation in Europe on February 7. That report focused attention primarily on three types of products: motor gasoline, gas oil distillates, and heavy fuel oil. According to the report, 80 percent of the inland demand for these three products was being met. Heavy fuel was in the shortest supply.

// This report appeared to indicate a discrepancy between the effectiveness of the oil lift as reflected by the OEEC report and reports of the Middle East Emergency Committee.

(The study in Europe made by Messrs. Fowler, Coleman and other representatives from this country brought out the fact that OEEC was working on the basis of oil receipts in Europe whereas MEEC was working on the basis of shipments. In addition, the normal demand estimates by OEEC were somewhat higher than the demand forecast of the MEEC. Considering the time lag between shipments and receipts and the difference in the estimates of normal demand, the two sets of figures were in reasonable agreement.

" With the help of consultants from the petroleum industry, we in Government have watched closely the domestic petroleum situation during this critical period to assure adequate supplies of oil for all United States consumers' needs in accordance with the principles stated to this Council by the Secretary of Interior Seaton on December 14.

" It is evident now that requirements have been fully met and sufficient product inventories maintained. Rapidly moving developments in the Middle East within the past two days have reached a point which indicates that the Suez Canal and the Iraq pipelines will soon be available for petroleum transportation, perhaps even yet in this month of March. How long it will take for the Suez Canal traffic to reach the level of last fall is not clear, but substantial restoration should be effective in April or May.

" It likewise appears that repairs to the Iraq pipelines in Syria may quickly restore that pipeline system to a capacity of 200,000 barrels per day. Complete restoration will require many months.

" As petroleum transportation through the Middle East improves, it will be possible to at first curtail operations under the plan of action and then terminate the plan. It is our intention to do this in an orderly manner and as early a time as the situation will permit.

" In closing, I wish to express our appreciation for

the efficient and effective operations carried out by the companies making up the Middle East Emergency Committee and by the companies and staffs who have done so much work in providing the Government with the basic information needed and the assistance given in carrying out the Government's decisions.

"This is again an indication of the willingness of the oil industry to cooperate with the Government in meeting petroleum emergencies which might have drastic effects upon our national security. Thank you."

(Applause.)

CHAIRMAN HALLANAN: Mr. Stewart, Director of the Office of Oil and Gas.

~~REMARKS OF MR. HUGH A. STEWART~~

Director, Office of Oil & Gas

MR. STEWART: "Gentlemen: When Secretary Wormser outlined our recent history, I think he covered most of the problems with which we have had to deal in the past three months. We have had some other problems in the past two months which most of you perhaps have followed in the papers and I think some of you were even present at one time or another, but I don't think it will be necessary to take your time going into any of our experiences on Capitol Hill.

" We have had two things happen in the Office of Oil and Gas. One, we lost Mr. William M. McEldowney, who was our specialist in petroleum supply and transportation. Mr.

McEldowney has resigned to go into business for himself. We had the benefit of his assistance for some two years, and I want to assure you he brought to us a very fresh approach to all of our problems. I think in the time he was with us, he did a fine service.

" Now when we talked to you last we told you we were short a refining specialist. I can now say that we have at least recruited a refining specialist who has had just the type of experience which we find so valuable in this office. This is Mr. Gale Rogers, whom I believe is here, and whom I would like to have stand so that you can see him.

(Applause.)

" Mr. Rogers was recently employed by the Sun Ray Oil Company.

(Beyond this, I would comment on the five requests which the Council this morning accepted. These are all elements in the renewed study which we now must take up on the United States petroleum capabilities. The problems which came out of the disruption of transportation in the Middle East, with the resultant draft on the western hemisphere for petroleum supplies, has focused our attention and I think yours on our own capabilities. I am sure that the reports which the Council will produce as a result of these five requests will be of great help to us in working out our overall capabilities for another wartime study. Now some of you

may have wondered at times why we were so much concerned with these wartime studies.

" I think in listening to Mr. Allen this morning, you got some reflection of his concern based upon his long experience as a war correspondent all over the world. It is the same impression, the same understanding, that we have from all of the reports and intelligence which comes into Washington. And while I don't stay up nights fearing an attack, yet, we are bending every effort we can to make sure that we have proper understanding of our own oil capabilities and what must be done to insure that those capabilities, what must be done by government to assure that those capabilities can function properly.

" Here again the only way that that can be done is through the close cooperation of government and the petroleum industry as we have experienced it at least since the beginning of World War II, and again in this minor phase of the oil lift to Europe.

" I have been closely in touch with all of that oil lift operation and I know perhaps better than most how many man hours were devoted to the work in connection with the operation of the Middle East Emergency Committee. We necessarily had to follow that closely because we were directly responsible for seeing to it that the operations undertaken were the ones which we wanted carried out and for which we had issued an

authorization. At this stage I can assure you that the comments Secretary Wormser made in complimenting that committee are actually weak words; I wish I knew stronger ones to emphasize what he said.

(I have two other comments. One is on this excellent tanker report which has this morning been presented. This report grew out of the concern in the Government last October of where the world would stand for big tankers if the Suez Canal closed. The pressure for such information was of course focused very sharply when the Canal did close. The President himself became concerned and he directed the Director of Defense Mobilization, Doctor Flemming, to call in a group of representatives from this Council who were intimately connected with tanker operations to get their opinion on tanker problems and on whether or not that it might be necessary for this Government to launch into a tanker building program of big tankers. That group held two meetings and out of those two meetings grew the conclusions on our part that the scope of the study was actually beyond the few individuals who had been called into the first meetings and that it was definitely an industry-wide and a national petroleum Council-wide problem. It was on that basis that we asked the Council to make this study and I think, as you study the report, any of you who are interested in tankers, you will be impressed first by the large number of tankers on which contracts have been

made, and secondly, you will be impressed with the large number of big tankers. We have gotten past the point of calling tankers super-tankers because when I came to Washington a super tanker was any tanker half again as big as a T-2 and I have only been here six years, but we have graduated from calling the 20-24 thousand ton tanker a super tanker.

" You note in the report the number of tankers in the 60,000 ton class either on order or definitely planned, and the number of 80,000 ton tankers and the number above a hundred thousand tons, all of which indicates a definite concern on the part of industry to put the industry worldwide in the position where it is no longer dependent exclusively on the whims of some nations or some rulers who may think they have some sort of a grip on the petroleum arteries.

" The underground storage report has brought up to date a great mass of information which until now was almost completely wanting. We had the initiation of the underground storage activities back in the PAD days, during the Korean War, and the interest was to get storage that didn't take quite so much critical steel, aboveground storage that was required.

" One of the early questions we asked the Council on that was to make a review of the feasibility and we found that as that review progressed, the interest in underground storage progressed and now we find that even at this early

date there is I believe upwards of 25,000,000 barrels of storage capacity already in the United States. That is of course of great interest to us in Government because underground storage where it can be used and where it is feasible has the maximum security either from sabotage or from enemy attack.

// Now it is perfectly obvious that we can't have all storage underground, but as we have this study of underground storage and with the advancing knowledge of its usability, I think we can foresee an even greater application of it.

// Now since this is the first meeting of the 1957 Council, and since you have re-elected your friend and ours, Walter Hallanan, I want to express on my part thanks to you for electing him and thanks to him for accepting, because I can assure you that I have felt that Walter Hallanan was my principal mainstay in the industry and many of these problems which face us and I can assure you at times we have some problems. Thank you, gentlemen. " (

(Applause.)

CHAIRMAN HALLANAN: Thank you very much, Mr. Stewart. We had expected Doctor Flemming to be here this morning. Dr. Flemming is retiring as Director of the Office of Defense Mobilization. He may be here before we adjourn.

On this rapidly changing situation, we will be interested to hear about the military petroleum requirements. Major General Cotulla, are you ready to speak to us?

REMARKS OF GENERAL COTULLA

GENERAL COTULLA: "Gentlemen, let me at the outset comment very briefly on the proposed studies which Mr. Stewart mentioned to you that are coming up for your consideration during the next year. He was kind enough and of course it was implicit in his statements, that the military can make up their collective minds as to what they are going to have to have during an emergency situation. I am happy to tell you that the wheels have started grinding and we hope to come up with a statement of our emergency needs in sufficient time to be able to pass it on to the proper bodies for an analysis against your studies of the productive capacity of this country.

"Now it is historically -- at least it has been since the eight or nine years I have been here, starting back in 1948 -- for the first meeting of the Council for the military to give you some idea of what the trend is in military requirements of the various petroleum products. That I propose to do very briefly this morning.

"I assure you it is not a precise rundown of the various products, but it will illustrate just how the military demand is going.

"Now as you all know, I am sure the U.S. Military is your larger single customer. Now it has gone from five percent of the total U.S. demand, volume-wise here a few years ago to something on the order of six percent immediately

after Korea, and now it approximates seven percent of the total U.S. demand, volume-wise. That despite the fact that the U.S. production and throughput, refinery throughput, has increased very very substantially in the last six or seven years.

Now primarily this increase in military requirements is due to the increase consumption of jet fuel. I don't need to dwell on that, but we have certain aircraft now that consume jet fuel at the rate of about 60 barrels an hour and you can easily understand if you have many of those types of aircraft in the air, the demand for jet fuel goes up in a pretty sharp curve.

While I am on the subject of jet fuel, I am a little bit reluctant to say this in the presence of Mr. Holladay who knows more about it than I do, but I think if you gentlemen would like to question him afterwards, perhaps he privately would confirm this, that in the use of atomic power and new high energy fuels which the military has been devoting some time to, it is in my own personal opinion, very very doubtful if that contribution will result in any significant change in the demand for conventional fuels in military aircraft and military equipment any time in the near future.

Now to go back to the jet fuel requirements. Six or seven years ago our jet fuel requirements were roughly 10,000 barrels a day or about three percent, I suppose, of the total

military requirements. Now this jet fuel requirement is expect to increase to about 350,000 barrels per day or about half the total U.S. Military petroleum requirement sometime in the next six or seven years, say about 1965.

This military demand for jet fuel, along with the civilian jet fuel requirements which are expect to increase up to an order of about 150,000 barrels per day in this same fiscal year 1965, can result in quite a problem for industry, particularly when you take into consideration that there will be a substantial military requirement for special tailor made kerosene based jet fuel probably of the order of some 30,000 barrels per day.

((Now of course you have got a problem there in the fact that by virtue of the fact that industry hasn't as yet decided on precisely the type of jet fuel that is going to be used in commercial aircraft. Let's say the aircraft industry hasn't made a decision as yet.

((Now I would like to mention in passing that this increase in jet fuel is not going to be entirely at the expense or have an accompanying decrease in conventional aviation gasoline. We expect that the military requirement for aviation gasoline will decrease from its current 120,000 barrels per day to perhaps a hundred thousand barrels per day in the next couple of years, or by 1960, but with the number of conventional piston engine aircraft on order, on the books

now, I am quite confident that there will not be any significant decrease in the aviation gasoline requirement. And it is going to be a little tougher because the increases are going to be predominantly in the high octane, aviation gas, the 115, 145, and 108 and 135.

Now military requirements for the other products that we use, motor gasoline, diesel oil and navy specials, I don't think you can anticipate any particular or any significant changes in those requirements as they exist today. There probably will be certain minor decreases.

Now if you add them all together, we are looking at an increase of perhaps seven or eight percent in the military requirement and perhaps as much as 10 percent over the period of the next five years. The military requirement will represent a demand on industry of somewhere between 675,000 and 700,000 barrels per day let us say at the end of a five-year period.

One point which is getting away from the military requirements, but it is related, which I would like to call to your attention is that we in the military have substantial mobilization reserves of fuels scattered first in one part of the world and then the other. We would like to get that in protected storage. It was called to my mind by the report of the Underground Storage Committee this morning that we need protected storage and protection can be secured from

our point of view by various means, one of which of course is the dispersment. We find so much of our storage is concentrated in port terminal areas. Last year we were successful in getting language into the Construction and Authorization bill to permit contracts for a period longer than one year. As you know, the military departments in common with other government agencies operate on an annual budget. However, then this encouraged the private contractors to offer to the military under a contract more suitable storage, more suitable from the standpoint of being better protected storage either through dispersal or better shields or cut and cover storage. We have gotten this language and I urge any of you who have any interest in providing storage under contract to the military to contact the military departments or more particularly the Military Petroleum Supply Agency and go into this particular field because I am quite sure that there are a number of areas where the military does not have as much protected storage as it would like to have.

Thank you very much.

(Applause.)

CHAIRMAN HALLANAN: Thank you. Rear Admiral Lattu, Executive Director of the Military Petroleum Supply Agency.

REMARKS OF ADMIRAL LATTU

ADMIRAL LATTU: "Gentlemen: My problems of procurement, particularly in JP 5, Navy Special, avgas 115, 145,

have disappeared. The ones that I was very much worried about in December and January. There is only one particular problem, and I presume that in the next month or two that will disappear and that is on bunker on the west coast. We are still having difficulty in San Francisco and San Diego for bunker fuel. We have a requirement of 140,000 barrels at San Pedro and about 500,000 at San Francisco. We hope we can solve the problem in the next two or three months.

U We also on The West Coast have a shortage of approximately 600,000 barrels of number 6 fuel. In certain areas we have already authorized them to use Navy Special because we are unable to get it.

U Now that the critical Middle East crisis has also vanished, I am hoping the situation will improve on that product also.

U So, I am very happy to report that I have no problems and thanks to the outstanding help and cooperation from the petroleum industry, we are in very good shape. U

Thank you.

(Applause.)

CHAIRMAN HALLANAN: I understand Doctor Flemming is expected to be here within a few minutes. In the meantime, gentlemen, may we have approval of the budget for the coming year in the amount of \$85,000, the same as for last year. May we have a motion for approval?

(Whereupon, it was moved and seconded from the floor that the budget be approved; put to a vote and carried unanimously.)

CHAIRMAN HALLANAN: Is there any business, new business?

(No response.)

May I suggest then that we recess for a few minutes pending the arrival of Doctor Flemming. I would like the members of the Council to remain because he is anxious to be here and I know that we are very anxious to have an opportunity to hear him.

(Whereupon, a short recess was taken.)

CHAIRMAN HALLANAN: Gentlemen, we are very happy to have with us this morning a distinguished American who has given much of his time to public service and is on the verge of retiring and returning to his private professional activities. As Director of the Office of Defense Mobilization he has been thrown in very close contact with many of the problems of the petroleum industry and their relation to the organization of our national defense. We have found him eminently fair and considerate in every respect, and it is a matter of deep regret to this whole industry that Doctor Flemming is retiring from the position which he has so capably filled, but I am happy to know that he can be with us on the even of his retirement and we want an opportunity to express

our appreciation to him for the invaluable service he has rendered and to express our good wishes for his good health and prosperity in the future.

I am honored to present at this time Doctor Flemming, Director of the Office of Defense Mobilization. (1)

~~(Rising ovation.)~~

REMARKS OF DOCTOR ARTHUR S. FLEMMING

DOCTOR FLEMMING: "Thank you very much Mr. Chairman and I can assure you that I appreciate very much the invitation to come in and speak to you for just a few minutes. I appreciate your willingness to wait until I had a chance to get down here because after all I am in the lame duck category at the present time, just winding up some of the problems that have faced my office over a period of the past few years.

I think probably some of you in the past anyhow have heard me refer to a comment that I used to hear the President make every now and then in the early days of the Administration, when he would say that his political education had been short, but intensive. Well, I have felt that way as far as my relationship to the oil industry is concerned. My education in this particular area has been short, but certainly at times rather intensive.

I was here of course during World War II functioning as a member of the Civil Service Commission, but more particularly as a member of the War Manpower Commission, so

that I had the opportunity of becoming well acquainted with the way in which various industries cooperated with the Government in dealing with that emergency. And then when Charles Wilson, that is, Electric Charlie, came in to head up the Office of Defense Mobilization during the period of the Korean hostilities, he asked me to come in and assist him with the manpower problems that were tied into that particular crisis. So again I had the opportunity of observing from a very advantageous point of view the way in which various industries worked with the Government in dealing with that particular emergency.

" I have often heard people say, during those days, during World War II and the period of the Korean hostilities, that there wasn't any industry in American that cooperated more fully and more completely with the Government in dealing with those particular emergencies than this industry.

(1) Now on the basis of my own experience over a period particularly of the past few months, I certainly can give testimony to the same effect. We have been moving through a crisis situation and an emergency situation, and again we have appealed to the industry for help and assistance and again the industry has given that help and assistance without any question whatever and I can't begin to express to you adequately my own deep appreciation for that help and assistance and I am sure that when I express it to you, I am

expressing not only my own views, but the views of all of my colleagues in Government and the views of the people of this nation as well.

((I, of course, have been close enough to the industry over a period of the past few years to be very conscious of the fact that there are currents and cross currents at work within the industry itself. I appreciate the fact that those of you who are working in the industry at times find it difficult to deal with some of these currents and cross currents and yet I want to say this, that on the basis of my own observations, I believe that there is a common meeting ground and I have discovered that all of the various segments of the industry are willing to meet on this common ground and that common meeting ground is doing everything that we possibly can to keep this nation of ours where we can deal with the forces of international communism from a position of strength rather than from a position of weakness.

((One cannot go through the experiences that I have had during the past four years, one cannot participate in all of the briefings that I have participated in during the past four years, both in connection with my own work and also in connection with my membership on the National Security Council, without being very very much aware of the fact that man has brought himself to the place where he has the capability of literally destroying himself.

(I, of course, am impressed with the capability of the potential enemy. I am likewise impressed with our own capability and I know that those capabilities all add up to a capability to destroy literally millions if not tens of millions of our fellow human beings. And consequently as a result of those briefings I am more convinced than ever before that not in the next generation, but that in this generation we must make sure of the fact that we are doing everything we can to prevent such a tragedy from happening. And I am sure that you agree with me that one way in which we can prevent such a tragedy from happening is to keep ourselves in a position where we are constantly dealing with the forces of international communism from strength rather than from weakness.

(It is conceivable that that may deter an aggressor. I think some of you have heard me refer to our total mobilization program as a program of defense through deterrence and I simply stole that particular expression from an address that Sir Winston Churchill delivered in the British House of Commons on March 1, 1955. The reason I stole it and the reason I use it so often is that I like its connotation. The suggestion is that while we do everything that we possibly can to keep ourselves in a position of strength, to plan for something that we hope and pray will never happen, it is all together possible that the act of preparation itself, that our preparedness program itself, may deter the aggressor.

((There is no doubt in my mind at all but that with all of the currents and cross currents that are a part of this industry, that all who are associated with it are perfectly willing at all times to face the question of what is it that we can do or should do to contribute to the strength of the United States and to the strength of the free world.

((I have discovered that whenever it becomes clear to this industry as to what needs to be done, what should be done in order to contribute to the strength of America, in order to make an d keep America strong, that there is no hesitancy on the part of any segment of the industry to play its part in achieving that particular objective.

(I believe that if this industry and all other industries approached the problems that confront our nation in that spirit, that there is no doubt at all but that we will be able to keep ourselves where we will be dealing with international communism from a position of strength rather than weakness.

((If we do that, we may deter the agressor, we may be able to buy time until there takes place what I like to refer to as a spiritual break-through that will make it possible for us to ultimately travel down a pathway that will lead to peace. Just as I have faith in the fact that we will remain strong and that we will deal with the forces of international communism from a position of strength, I also have faith enough to believe that that spiritual break-through will take place,

not in the next generation, but in our generation, and will take place because our nation will demonstrate to the other nations of the world that we are not only ready and willing to preach in behalf of great spiritual truths, but that we are willing to practice what we preach and by our deeds to demonstrate to the world our belief in those spiritual truths.

“ May I say to you that it has meant more to me than I can possibly express in words to have the privilege and opportunity of association with this industry, to come to know many of you, to consult with you from time to time on the problems that for me at least have always been rather baffling problems. I am sure I do not need to say to you that this has been a challenging and stimulating experience for me. Naturally, as I return to my duties as President of a university, I do so with some regret because this has been such a challenging and stimulating experience and yet I likewise do so with enthusiasm because of my conviction of the role that education can and must play in the future of our country.

“ Again, thanks a lot for all of the help and assistance that you have given me and best wishes as far as the future is concerned. Thank you. “

(Applause.)

CHAIRMAN HALLANAN: Thank you so much for coming Doctor to be with us.

Before adjournment, I should like to request Mr.

Jennings and Mr. Burns, as chairmen of the special committees to remain with me to meet the representatives of the press.

We have completed our agenda for the meeting. If there is no further business, a motion to adjourn is in order.

(Whereupon, it was moved and seconded to adjourn and carried unanimously.)

(Whereupon, at 11:45 a.m. the meeting was adjourned.)