

DEPARTMENT OF THE INTERIOR

M E E T I N G

of

N A T I O N A L P E T R O L E U M C O U N C I L

- - - -

HELD AT

CONFERENCE ROOM "B", DEPARTMENTAL AUDITORIUM

WASHINGTON, D. C.

on

TUESDAY, APRIL 22, 1952.

- -

WALTER S. HALLANAN, CHAIRMAN

JAMES V. BROWN - SECRETARY-TREASURER

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Lawrence LaCharity
Official Reporter
631 Pennsylvania Ave., N. W.
Washington, D. C.
EXecutive 1851.

Reviewer Coffren

Date 8/26/52

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Date of Record: April 22, 1952

Report adopted at meeting of (Date) _____

Statement or Speech at meeting of (Date) _____

EXCERPTS "relative to exploration, production, refining, transportation marketing, or pricing of petroleum and its products outside the United States."

	<u>Exploration</u>	<u>Production</u>	<u>Refining</u>	<u>Trans.</u>	<u>Marketing</u>	<u>Pricing</u>
Pages	_____	_____	<u>35-6</u>	_____	_____	_____
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Other

- Pages 41-49 (C. E. Gately- The Foreign Voluntary Aid Program".)
- " 49-53 (Discussion - Abadan Refinery Situation)
- " 53-57 (H.A. Stewart - Petroleum Planning Committee of NATO.)
- " 122-138 (C.J. Dwyer - Petroleum's part in the Mutual Security Agency.)
- " _____

Excerpts pertain solely to petroleum outside the United States - in the rest of the world - in any foreign country and abroad. Excerpts do not include any matter dealing with petroleum inside the United States.

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P R O C E E D I N G S .

THE CHAIRMAN: The Council will please come to order.
The Secretary will call the roll.

R O L L C A L L

ANDERSON, R. B.

ANDERSON, R. O.

ARNOLD, C. H.

BAKER, H. H.

BALL, M. W. (Represented by Douglas Ball.)

M. T. BALL (Not present.)

BARTON, T. H.

BERGFORS, F. E.

BLAUSTEIN, J.

BLAZER, P. G.

BOYD, W. R. (Not present.)

BRAZELL, R.

BRIDWELL, J. S.

BROWN, R. B. (Not present.)

BURNS, H. S. M.

COLLEY, R. H.

COWDEN, H. A.

CRAIG, E. M. (Represented by Harry I. Johnson.)

CROCKER, S. M. (Represented by James S. Phillips.)

CUMMINS, J. F.

DAVENPORT, H. E.

DeGOLYER, E. (Not present.)

DONNELL, J. C., II.

DOW, F. B.

DOWNING, W. M.

DRAKE, J. F. (Not present.)

DRESSLER, J. (Not present.)

DUKE, G.

DUNNIGAN, J. P.

ENDACOTT, P.

FISHER, M. M.

FOLLIS, R. H.

FOSTER, C. T.

FOX, STARK.

THE SECRETARY: Mr. Fox is the new Executive Officer of the California Oil Agency.

Would you rise, Mr. Fox, please?

THE CHAIRMAN: We are glad to have you here, Mr. Fox. Welcome to the Council, Mr. Fox.

(Applause.)

FRANKLIN, H. K. (Not present.)

GRAVES, B. C.

GRAVES, B. I.

HALLANAN, W. S.

HARDEY, B. A.

HARGROVE, R. H.

HARPER, J.

HARTMAN, I. W.

HERLIHY, F. W.

HILL, C. S.

HILTS, H. B.

HOLMAN, E.

HULCY, D. A. (Not present.)

JACOBSEN, A.

JENNINGS, B. B.

JOHNSON, C. A. (Not present.)

JONES, C. S.

JONES, J. F.

JONES, W. A.

KECK, W. M. (Represented by Roger E. Johnson.)

LAWTON, R. G. (Not present.)

LERCH, F. H., JR.

LOVEJOY, J. M. (Not present.)

LYNCH, J. F. (Not present.)

LYONS, C. H.

MAGUIRE, W. G. (Not present.)

MAJEWSKI, B. L.

MARSHALL, J. H.

MATTEI, A. C. (Not present.)

MAYER, F. M. (Not present.)

MAYNARD, N. (Not present.)

McCOLLUM, L. F. (Represented by James J. Cosgrove.)
McGOWEN, N. C. (Not present.)
MOSHER, S. B.
NIELSON, G. E. (Not present.)
WINESS, S. F.
NOLAN, J. L.
PARTEN, J. R.
PAYNE, B. W. (Represented by Jack Woodward.)
PAYNE, W. T.
POGUE, J. E. (Not present.)
PORTER, F. M.
PYLES, E. E.
REITZ, W. R. (Represented by Mr. O'Hara.)
RICHARDSON, S. W. (Not present.)
RITCHIE, A. S.
ROBINEAU, M. H.
RODGERS, W. S. S. (Represented by J. W. Foley.)
RODMAN, R. V.
ROWAN, A. H.
SHANNON, R. S. (Represented by R. H. Shannon, Jr.)
SKELLY, W. G. (Represented by John S. Freeman.)
SPENCER, P. C.
STREETER, C. E.
TAYLOR, R. H. (Represented by Arthur C. Stewart.)
THOMPSON, A. W.

TOLLETT, R. L.

VANDEVEER, W. W.

VOCKEL, S. M.

WARREN, W. K.

WESCOAT, L. S.

WHITE, J. H.

WILLIAMS, R. S.

WILSON, R. E.

WRATHER, J.

WRIGHT, C. H. (~~Represented by Don O'Hare.~~)

THE CHAIRMAN: A quorum is present, and the Council is ready to proceed with the regular order of business.

The Secretary will give the report of the Treasurer.

MR. BROWN: // Since the beginning of the year, the contributions have totaled \$98,075, other receipts, \$883, a total of \$98,958.

Our disbursements total, into March, the period that I am covering, was \$20,635. The balance, after allowing for the \$7,280 on hand, is, at the beginning of the year, ~~is~~ \$835,604, to carry us through the balance of the year.

The reserve fund remains unchanged, at \$65,000.//

THE CHAIRMAN: You have heard the report. Any remarks?

(No response.)

If not, it will be filed and received.

The minutes of the last meeting of January 29th were forwarded to the members of the Council. What is your pleasure?

(It was moved and seconded that they be received.)

THE CHAIRMAN: It has been moved and seconded that the minutes of the last meeting be approved.

It is so ordered.

Gentlemen, since the last meeting of the Council, you are aware of the passing of former Secretary of the Interior Hon. Harold L. Ickes. Secretary Ickes laid down the pattern during World War II for this government-industry team. It was a war operation at that time, and I think that we can reasonably say that it redounded to the credit of the industry and also to the very definite winning of the war.

Secretary Ickes left no opportunity to pay respects to the oil industry for the job that it did in providing the essential ammunition of war. We feel greatly mourned by his passing, that we have lost a champion and a friend, and upon the occasion of his death I sent a telegram to Mrs. Ickes, the widow, which read as follows:

"The death of Mr. Ickes brings great sadness to the members of the National Petroleum Council who recall the magnificent service he rendered his country

as Petroleum Administrator for War. He originated the Petroleum Industry War Council out of which grew the present National Petroleum Council and in so doing he pointed the way toward the cooperation between government and the oil industry which has been fruitful of great good to our country. I know that I speak for the entire membership of the Council in extending deepest sympathy to you in your great loss."

At the same time I felt that it was entirely appropriate that a special committee of the Council should be appointed to prepare an appropriate memorial to be presented to this meeting. Mr. W. Alton Jones was named as Chairman of that committee. I would like now at this time to ask Mr. Jones to present the report of this special committee.

MR. JONES: Mr. Chairman, your Committee on Memorial Resolution for the Hon. Harold L. Ickes respectfully submit the following:

"WHEREAS, Harold L. Ickes, Secretary of the Interior and Petroleum Administrator for War, first established the Petroleum Industry War Council, which was the pattern for this present National Petroleum Council, a free and independent forum which acts in an advisory capacity to the Secretary of the Interior on petroleum matters relating to the national welfare and the

security of our country; and,

"WHEREAS, the pattern of cooperation, confidence and mutual respect between the executive arm of the Government and the Petroleum Industry was created by Harold L. Ickes and, through the Petroleum Industry War Council and the National Petroleum Council, has met the test of time during the entire decade embracing the strain and struggle of the second World War and the difficult period of readjustment and organization for defense following that war; and,

"WHEREAS, the concept of a National Petroleum Council represents a unique and important contribution to the furtherance of a sound relationship between Government and a basic industry in a free economy

"Now, therefore be it RESOLVED, by the National Petroleum Council at this its first meeting since the death of Harold L. Ickes, that this Council pay solemn tribute to his memory for

His Vision in establishing the Petroleum Industry

War Council on a free and autonomous basis;

His Courage in maintaining that Council against

all who sought to disrupt its effective

operation;

His Support of the Council and of the entire

Petroleum Industry when oil was ammunition;

His Faith in the ability of the Petroleum Industry, if accorded freedom of opportunity, to supply whatever might be required for the defense of the nation;

His Capacity to command the support and delegate authority to competent individuals drawn without fear or favor from both the Government and the Petroleum Industry;

His Integrity in all of his relationships with the Petroleum Industry War Council and the Petroleum Industry throughout the entire period of the second World War; and,

"Be it further RESOLVED, that a copy of this resolution, appropriately inscribed and signed by the Chairman and Secretary of the National Petroleum Council, be delivered to the family of Harold L. Ickes, the Secretary of the Interior and Petroleum Administrator for War with whom most of the members of this Council served during all the years of the war and for whom this Council will always entertain the deepest feelings of respect."

Mr. Chairman, I move the Resolution.

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

MR. WESCOAT: I welcome the opportunity, Mr. Chair-

man, to second the motion on behalf of my former fellow-townsmen. I think the expression of the Resolution is very clear. It covers the situation, and those of us who were present at the initial meeting at which he promised to return the industry to its former position at the close of the war and action taken at the last meeting is indicative of the character of the man. I am very happy to second the motion.

THE CHAIRMAN: May I ask for a rising vote, gentlemen?

Thank you very much, Mr. Jones. I think that is a very fine Resolution.

We will now proceed to the report of the Agenda Committee. Mr. Jacobsen is the Chairman.

Mr. Jacobsen, will you please come up?

REPORT OF THE AGENDA COMMITTEE.

MR. JACOBSEN: Under date of March 11, 1952, Mr. Bruce K. Brown, Deputy Administrator, Petroleum Administration for Defense, addressed a letter -- a copy of which is attached -- to Mr. Walter S. Hallanan, Chairman of the National Petroleum Council, requesting that the report of October 31, 1950 -- Petroleum Storage Capacity -- be brought up to date to provide additional information on petroleum above-ground storage in the United States.

With your permission I shall read the letter which

is attached to the report now being distributed to you:

"UNITED STATES

"DEPARTMENT OF THE INTERIOR

"Petroleum Administration for Defense,

"Washington 25, D. C.

"March 11, 1952.

"Mr. Walter S. Hallanan, Chairman,
National Petroleum Council,
1625 K Street, N. W.,
Washington 6, D. C.

"Dear Mr. Hallanan:

"The National Petroleum Council submitted in 1948, and again in 1950, reports on the capacity of petroleum tankage and related inventories at installations whose stocks are covered monthly by the Bureau of Mines. These reports have been of great value in appraising the industry's position during the period of mobilization for defense.

"A need for timely, comparable, information is emphasized by the continuing problems of mobilization. Hence it is requested that the report of October 31, 1950, be brought up to date to provide a third point of reference from which to view recent tankage changes, and probable future needs.

"Periods of local or regional scarcity of supply of one or more petroleum products have been experienced

in the past and the possibility of recurrence in serious degree under emergency conditions must be kept in mind in present circumstances. In order to increase the value of information to cope with such problems, I urge that the Council in its new report segregate the totals of tankage capacity into geographic areas of lesser extent than the Bureau of Mines districts formerly used.

"I have particularly in mind, for example, subdivision of the East Coast district into three parts: New England, Middle Atlantic, and South Atlantic. The advantages of data in this form as compared to the former district segregation are obvious. It would be particularly useful to divide also the Indiana, Illinois, Kentucky, and Pacific Coast districts into smaller units that would better conform to operating practices.

"I sincerely hope that the Council will give early and favorable consideration to this request for its further assistance in the public interest.

"Very truly yours,

"(s) Bruce K. Brown,

"Deputy Administrator."

I will go on with the report of the Agenda Commit-

tee:

As provided in the Articles of Organization of the National Petroleum Council, the Deputy Administrator's letter was considered at the meeting of the Agenda Committee held on April 21, 1952, in Washington, D. C., at which meeting it was unanimously agreed to recommend that the Council's Committee on Petroleum Storage Capacity be reactivated. Such Committee should bring its report of October 31, 1950 up to date and submit such report to the Council. In order to comply to the maximum extent possible with the request for greater detail and yet not go beyond appropriate bounds, the Agenda Committee recommends that the Committee on Petroleum Storage Capacity observe the following points:

1. "Proposed storage" shall be interpreted to mean storage expected to be completed during 1952.
2. The East Coast district should be divided into not more than the following parts:
 - (a) New England
 - (b) Middle Atlantic
 - (c) South Atlantic
3. The Pacific Coast district should be divided into not more than the following parts:
 - (a) Washington and Oregon.
 - (b) Balance.

4. The Indiana, Illinois and Kentucky district should be divided into not more than the following parts:
- (a) Kentucky and Tennessee
 - (b) Ohio and Michigan
 - (c) Illinois, Indiana and Wisconsin.
 - (d) Balance.

I might mention that we consulted with PAD and they expressed the view that the subdivision herein proposed would entirely meet with their requirements.

5. The Committee should not attempt to study or suggest minimum working level stocks or recommend any industry plans, programs or allocations.

Under date of April 21, 1952, Mr. Bruce K. Brown, Deputy Administrator, Petroleum Administration for Defense addressed a letter -- a copy of which is attached -- to Mr. Walter S. Hallanan, Chairman of the National Petroleum Council, requesting that the Council appoint a committee to make a study of certain aspects of the Bunker C fuel oil situation.

I should like to read that letter also:

"UNITED STATES

DEPARTMENT OF THE INTERIOR

Petroleum Administration for Defense

Washington 25, D. C.

"April 21, 1952.

"Mr. Walter S. Hallanan, Chairman,
National Petroleum Council
1625 K Street, N. W.,
Washington, D. C.

"Dear Mr. Hallan:

"In recent years the production of Bunker C fuel oil ('resid') by United States refineries has decreased when measured as a percentage of crude oil run and the supply of Bunker C fuel needed for domestic use and offshore bunkering of ships has been augmented by importation. Some demands for Bunker C fuel oil have diminished for technological reasons, as for example, a diminishing use for fueling oil-fired steam locomotives. Other usages, notably as fuel for fixed power installations, appear to fluctuate, dependent upon the relative cost of competitive fuels. Still other uses, particularly for the bunkering of ships (including naval vessels fueled with Navy Special fuel oil - a 'blend' containing Bunker C) seem to fluctuate in part with the international situation.

"In recent months Bunker C fuel oil has been in relatively short supply in coastal areas of the United

States due partly to the cessation of refining operations in Iran and partly to the 'breaking out' of reserve ships for international trade. At the same time, relative surpluses have existed in some interior areas.

"According to the best data currently available to PAD, the supply situation surrounding Bunker C fuel oil is likely to remain a vexing one in the coastal areas during the winter of 1952 and probably thereafter. Any threatened shortage is of interest not only to PAD but also to the Defense Department, the Defense Electric Power Administration, the shipping authorities and the coastal industries requiring Bunker C fuel oil.

"For the reasons suggested, the Petroleum Administration for Defense requests that the National Petroleum Council study the Bunker C fuel oil situation, including the prospects for supplies from United States refineries and by importation, and submit its findings. For obvious reasons the situation in PAD Districts One and Three, Two and Four, and Five should be considered separately where appropriate.

"To the extent found feasible, it is suggested that the report might well encompass the topics and answer the questions mentioned hereinafter, together with such other topics and questions as may develop during the

course of the study and be deemed worthy of report:

1. Summarize the trends of domestic manufacturing, importation, and individual types of usage of Bunker C fuel oil commencing with 1946 and continuing through 1952. (Basic figures are already available to PAD in summary form but it is thought that a Council Committee could amplify the available data, particularly as to usage.)

2. Assuming that the yield of Bunker C fuel oil per barrel of crude run has diminished since 1946, advise as to the reasons for diminution, including technological changes, and the net effect that has resulted in per-barrel yields of petroleum products.

3. Is the trend referred to in (2) above a continuing one and, if so, what is the probable bedrock minimum yield of Bunker C fuel oil to be anticipated from United States refineries.

4. Should the quantities of Bunker C fuel oil required in the United States exceed the quantities available from United States refinery operations and by importation, what impediments, if any, exist that would prevent an increase in yield of Bunker C fuel oil per barrel of crude oil run?

"Inasmuch as the matter of adequate supply of residual fuel oil, both bunker C and Navy Special has

a material effect on national security and national defense, I request that a committee be appointed to make the study requested herein with such comments and recommendations as may be appropriate.

"Sincerely yours,

"Bruce K. Brown,

"Deputy Administrator."

To go on with the report of the Agenda Committee:

As provided in the Articles of Organization of the Council, this letter was considered at a meeting on April 21 in Washington, D. C. The Council and its Committees have consistently adhered to the principle that they should confine their activities to factual studies. Studies involving future supply and demand relationships and studies involving future price relations in connection therewith, have always been regarded as beyond the scope of Council activity.

Future demands for and supply of Bunker C fuel oil and in fact of all petroleum products involve price relations between crude and the various products; price relations between petroleum products and competing fuels; transportation cost relations; and other factors. They, in fact, involve the entire economics of the oil industry. Any study of Items 3 and 4 of Mr. Brown's letter under discussion would necessarily require studies of a future

economic nature including possible price trends and relations.

The Agenda Committee believes that it is the duty of the Council to comply to the greatest extent possible with all requests made of it. Accordingly, your Committee unanimously recommends to the Council the appointment of a committee to make the study requested in Item 1 of Mr. Brown's letter (provided that usage studies be terminated April 30, 1952) and in Item 2 of Mr. Brown's letter. The Committee should not make any study of Items 3 and 4 of Mr. Brown's letter. //

Respectfully submitted, A. Jacobsen, Chairman,
Agenda Committee.

I move the approval of this report.

THE CHAIRMAN: You have heard the report of the Agenda Committee.

(It was moved and seconded that the report be adopted.)

THE CHAIRMAN: It has been moved and seconded that it be adopted. Are there any remarks?

All in favor of adoption will indicate by saying aye.

Contrary, no.

The report is unanimously adopted.

M. J. Jacobsen / Gentlemen of the Council, I am delighted this morning that we are honored with the presence of a distinguished statesman, and I mean a distinguished statesman in every

~~SPEECH OF GEORGE BURRELL, DIRECTOR, PROGRAM DIVISION, PETROLEUM ADMINISTRATION FOR DEFENSE, BEFORE NATIONAL PETROLEUM COUNCIL, APRIL 22, 1952~~

For Release APRIL 22, 1952

~~UNITED STATES PETROLEUM SUPPLY AND DEMAND THROUGH NEXT WINTER~~

Geor. Burrell
The world-wide petroleum industry will be called upon to operate at near capacity levels during the balance of 1952 and through next winter. Assuming that the Abadan refinery will make no contribution to world supplies and also assuming normal weather, our estimates indicate that refining operations abroad will have to continue at abnormally high levels. In the United States, refineries will have to operate near their capacity in order to meet domestic demands and exports that are still affected by the loss of products from Abadan.

Refinery construction has fallen behind the growth in demand chiefly because materials have not been available in the desired amounts. Undoubtedly the Abadan refinery shutdown contributed to the present tight refinery situation. Nevertheless the industry cannot afford to permit its reserve refining capacity to be so small that the shutdown of one large plant will almost create a world-wide shortage. Refining projects are now being undertaken at an accelerated rate, but it will be 1954 before much reserve capacity will be re-established. In order to meet local civilian and military demands and in order to cover the shortage abroad it will be necessary to run 6,900,000 B/D of crude in the United States during the 4th quarter of 1952 and the 1st quarter of 1953. This is in excess of 91% of capacity, which is very high in terms of past experience.

The estimate of refinery runs during next winter takes into account the relatively improved stock situation on April 1, 1952, as compared with the same rate in 1951. At the close of the first quarter of this year stocks in the United States of the four major products were 8.9 million barrels above a year ago. If District 5 is eliminated, where stocks declined 11.7 million barrels during the year ended

April 1, 1952, because of large military demands upon that area, stocks of the four major products in the balance of the United States actually increased 20.6 million barrels. This increase was almost equally divided between Districts 2 and 3. Stock levels in Districts 1 and 4 remained approximately the same as they were a year earlier.

(1) Crude oil stocks increased 20.7 million barrels over a year ago to a level of approximately 257 million barrels.

(1) No relief from the tanker shortages experienced since the start of the Korean War is in sight for next winter and probably not through 1953. Therefore, it is necessary that the industry maintain refining operations at high levels through the second and third quarters of this year when demands will be seasonally low in order to store products for use next winter. Preliminary estimates indicate that in the 12 months ending November 1952, approximately 65 million barrels of all kinds of tankage will have been built. While most of this will be working tankage, it will provide some additional space for seasonal stocks. In the interests of saving both refining capacity and tanker transportation, it is important that seasonal tankage be filled by the start of next winter.

(1) Crude oil producibility in the United States as a whole will be adequate through next winter, particularly when major pipelines now under construction in the United States are completed, but California will be short of crude oil and it will be necessary to divert military liftings to other areas.

(1) The foregoing is based upon an increase in total United States demand in 1952 of 4.7% in contrast to gains of 11.1% in 1950 and 9.6% in 1951. These estimates assume no material change in the international or military situations and that

Government expenditures will sustain business activity at or slightly above the present high levels. It also has been assumed that there will be no effective limitations on the manufacture of such petroleum consuming equipment as automobiles and oil burners. About 4.3 million passenger cars will be produced and oil burners in use will increase by nearly 500,000 during 1952.

Another assumption which is basic to these estimates is that there will be no price impediments which will interfere with the supply of petroleum products, particularly the movement of products from the Gulf to the East Coast of the United States.

Distillate demands during the next winter assuming normal weather are expected to be 10.5% or 180,000 barrels daily higher than last winter. In order to meet these high demands it will be necessary to obtain distillate yields of 22.1% and 23.1% in the 4th quarter of 1952 and the first quarter of 1953 respectively. These are 1.3 and 1.0 percentage points higher than were obtained during the corresponding periods last year. Also, relatively high runs and distillate yields should take place in the second and third quarters of this year in order to assure adequate distillate supplies next winter.

Motor gasoline demand in 1952 is expected to be up 4.9% over 1951. Residual fuel oil demands are estimated at 1,634,000 barrels daily in 1952, up less than 1% over 1951. If the reduction in the yield of residual this year compared with last year is less than 0.6 percentage points, there should be no problem in meeting residual demands for the country as a whole. Residual supplies, however, probably will not be distributed properly throughout the country. Indications are that there will be an excess of residual in District 2 and a tight supply condition in Districts 1 and 3.

The tendency during the past year toward excess supply in District 2 probably will continue during the year ahead unless crude runs are adjusted and residual yields are reduced.

(In District 5 civilian demands are increasing at a slower rate than for the balance of the country. Yet with production essentially at MEB and recent discoveries at lower levels there is little prospect that production will keep pace with demand. It will be necessary for ASPPA to buy from 50,000 to 75,000 barrels daily of the West Coast requirements from other areas until additional crude oil is made available in District 5 from outside sources. Completion of the Trans-Mountain pipeline from Alberta to Vancouver, B. C., is expected late in 1953.

(The important United States demand and supply statistics for the year 1951, the year 1952, and the first quarter of 1953 are given below in thousands of barrels daily:

	<u>1951</u> <u>Average</u>	<u>1952</u> <u>Average</u>	<u>First</u> <u>Quarter</u> <u>1953</u>
Total Demand for Crude and Products	7,467	7,821	8,702
Crude Oil Production	6,149	6,345	6,501
Total Imports	802	893	985
Crude Runs to Stills	6,494	6,714	6,906 //

x x x

sense of the word. Wherever oil men gather there is one man in the highest legislative body of this country who is always welcome, not that he always agrees with the positions or the policies that the oil industry takes but we always know that his conviction is one of the deepest sincerity.

" I have had occasion in several previous years to appear before a committee of the United States Senate headed by the distinguished Senator from Wyoming, Senator Joseph C. O'Mahoney.

" No man has made a more thorough or intensive study of the whole oil industry than Senator O'Mahoney. We are delighted to have you here, Senator. I am sorry you and Secretary Chapman didn't arrive earlier, because there has been presented a memorial to the passing of Secretary Ickes. It has been called to the attention of the Council this morning that when Secretary Ickes set the pattern for this industry-government cooperative team work, that he gave assurance that when the emergency was over the oil industry would be turned back as it was. That he made good in every respect.

Out of the formulae that he developed during the emergency of the last World War, this body continues to function under the auspices of Secretary Chapman. We feel that we have been able to justify our existence and to make a worth-while contribution to the tremendous and the important

problem of the national defense.

"This Council is going on just the same as it has always gone on and its work has been recognized by it having been called upon to advise as an agency of National Defense.

"I know that you watch our operations here and our work with great interest, and we are delighted to have you and gentlemen, I take pleasure in introducing a great American, Senator Joseph C. O'Mahoney of Wyoming. (Applause.)

ADDRESS OF HON. JOSEPH C. O'MAHONEY,
UNITED STATES SENATOR FROM THE STATE OF WYOMING.

"SENATOR O'MAHONEY: Thank you very much, Mr. Chairman.

"I appreciate more than I can tell you the cordial words of welcome that you have just pronounced but I cannot help remarking that as Mr. Jacobsen finished his paper and you asked the assembled members of the Council here whether there were any remarks, and not a soul opened his mouth, I knew I was not in the Senate of the United States, unless it be that it was unanimous-consent day, when everything is done by the rap of the gavel.

"I came here this morning, Mr. Chairman and gentlemen of the Council, not to occupy much of your time, but to express the deep appreciation which I feel as an observer for the splendid manner in which the petroleum industry has cooperated in the face of this great emergency. It is an emergency, much greater than many people realize.

I was reminded of the capacity of the people of America to unite to protect their freedom, their liberty to develop industrially and otherwise, when during the past week, watching on television, I saw what the residents of the Missouri Valley were doing to fight the flood.

They gathered from almost every State in the Union, they were interviewed, some of these workers, on television by the broadcasters, they were driving trucks, and filling sand bags to build up the levees to hold back the waters, they were working without thought of sleep, and without thought of compensation, because they saw a danger at their door.

Sometimes I fear that our leaders in the United States, outside of industry mostly and inside of industry, too, fail to realize that there is a great international danger immediately at our doors, greater by far than the extraordinary flood of the Missouri. When we see the danger there is no trouble in getting Americans to unite. As it happens, I am Chairman of the Subcommittee on Appropriations which handles the defense appropriation. I should like to say just a few words to you about these appropriations, because they tell the story graphically of what this country is trying to do.

Do you know that since the 1st of June, 1950, the Navy of the United States has expanded from a Navy of

200 vessels to 400?

Do you know that the military personnel wearing the uniform of the United States has expanded from about a million and a quarter men to 3,700,000 men?

Do you know that the Air Force has expanded from approximately 45 or 48 groups in June 1950 to something a little bit more than 90?

That this great expansion has taken place while our Government has deliberately sought to build up our military power with the use of every modern technology, without at the same time impairing our civilian economy?

We are engaged only in partial mobilization because no man is wise enough to tell when the Communist threat will burst forth in totalitarian vigor and horror to crush free peoples all over the world. They have been nibbling here and nibbling there but the dangerous thing which we must all bear in mind is this, that while our military power has been increasing absolutely, that is to say, we are much stronger now than we were in June, 1950, we have not been gaining relatively with Communist powers.

We are engaged in an arms race, and we have been holding back. We are not in full mobilization. We are only in partial mobilization, and that makes it a great deal more difficult to do the job that must be done because, as I say, we cannot foresee how long we must hold this line be-

fore the solution can be attained.

(It gives me a great deal of satisfaction, therefore, in the face of such a threat and such an almost insuperable problem that rests upon our shoulders to find the leaders of a great industry like the petroleum industry assembling here regularly to consider how the petroleum industry may cooperative with government to serve the United States.

It will be my purpose wherever the opportunity presents itself, as head of the Committee on Interior and Insular Affairs in the Senate of the United States, to cooperate with the petroleum industry in the effort to expand the opportunity for production.

(Applause.)

"I thank you gentlemen for what you have done, whether you are the representatives of small companies or major companies, the Petroleum Council has been giving an example of what Americans can do when they get together in the face of great danger.

"I thank you, indeed, for the opportunity to be with you for a few moments this morning."

(Applause.)

THE CHAIRMAN: Senator O'Mahoney desires me to explain to the Council that he now must go to work, so under the circumstances, Senator, we will consent to your leaving.

But I do want to tell you that we are very grateful

to you for those generous words of commendation.

Thank you so much.

Secretary Chapman, we have made some change in our order of business this morning, in order to give full opportunity for reports to come to the Council from the various Directors of the Petroleum Administration for Defense. It seems to me that in view of the fact that this Council now is Advisory Agent to the Petroleum Administration for Defense, as well as the Oil and Gas Division, that we should keep ourselves closely allied with and informed about the activities that are being carried on by the defense agencies and we would now like in the beginning of this consideration of the various problems that are in the Defense Department, to have you lead off in this discussion this morning.//

Secretary Chapman. (Applause.)

ADDRESS OF HON. OSCAR L. CHAPMAN,
SECRETARY OF THE INTERIOR.

//SECRETARY CHAPMAN: It is always difficult enough to try to appear before a council of experts, but when you have to follow such a keen-minded little Irishman as Senator O'Mahoney, it is even tougher.

The Senator has been doing, I consider, a marvelous job for his country and he is working very hard on his various committees. He was just telling me, coming over, about some of the work on the Armed Services Committee that is very perplexing and very hard, and I realize some of the

hard decisions that they have to make.

I think there is just a point there that some of you people might very well have your memories refreshed on briefly, about some of the problems we are faced with in a national point of view as reflected in Senator O'Mahoney's remarks. You know we here find ourselves talking about our immediate problem of defense, getting adequate and sufficient supplies of petroleum, not only sufficient amounts, but to have it at the right place and at the right time, which is the crucial factor we are dealing with today.

But over and above all of that, let's take a bird's eye view of what some of the problems are that the legislative branch is having to deal with today and look at the background from which they have to work; and I am going to speak only in round numbers, of figures, because I don't recall in detail exact numbers.

Let's go back to 1916 and come forward and look at our national picture:

In 1916 we had less than \$2,000,000,000 in a national debt, and we had less than \$38,000,000 in a national income. What has happened since 1916 and 1952 where we find ourselves today?

First, we went through the First World War, that left us with an unusually heavy debt, unusual for us, and then before we were hardly out of that First World War, not so very long after, we did hit a rather severe depression,

and a considerable amount of money was spent to help us in that emergency.

((Following that, we went then immediately into the Second World War, which was extremely expensive, not only in lives of our people but also in dollars to the American Taxpayer, which added up a tremendous debt for the Second World War but I want to say to you that the Second World War was nothing compared with what I think the third one is going to be in the cost if we have to face it because, as you have seen already, as we close the books on the Third World War -- I will change that remark -- we have never closed the books on the first one. We stopped the active fighting but the financial books are still open on the First World War and wide open on the second one, while we are preparing at an unprecedented speed in a peacetime era for a third war which we all hope by the grace of God may never happen but that is something that is not within our hand to determine and that is why we have to be prepared to the fullest extent that it is humanly possible for a nation to be and yet preserve the soundness of its economy so that we can meet this defense and preserve our economic stability.

What has happened under this Third World War preparation? We are going forward today with the largest budget that is ever known in a peacetime history of any nation. Certainly the largest we have ever known. What happens?

(You have to make a hairline decision when you are sitting in two positions, first, as administrators of the executive branch, and as legislators in the halls of Congress, to determine whether these billions shall be spent in support and protection of the domestic and civil economy as compared with the billions we will have to spend for military defense.

(I made only a slight reference to it last evening in my remarks, that we would certainly be lacking in our patriotism if we did not do everything in our power to meet the needs of the boys that we have sent to the battlefields in Korea and that is the thing that is disturbing everybody as of the moment.

(What has happened since that 1916 period, tracing these events of history for that period?

(As we are preparing for this Third World War, which we hope may pass, we find ourselves today with more than 277 billion dollars of indebtedness compared with less than two billion in 1916 but the brightest side of that, which is some help to us, we find our national income is more than 300 billion dollars a year, which shows the ingenuity of the American industry can produce and supply the goods for more people than any other nation had ever hoped to attain, such a level of living that we have attained in this country, and it is through the ingenuity of the businessmen of American that we have brought forward our standard of living by in-

creased production of goods, and increased markets, so that the people could buy the goods when they were made.

That is one of the problems that we are faced with and the people in the executive branch will have to make decisions to determine the values of things, which way we must go.

The same problem is faced by the Senator this morning as he goes before his committee to determine what items he shall approve or disapprove in a budget. They are anything but easy.

Then we come back to the problem we are faced with here and this industry typifies what I consider the genius of America in the industrial field.

When we think of what they have accomplished since 1916, what they have contributed to meet the needs of the industrial economy of America, and then you find yourselves today where the products that you are selling, that you are dealing in, in the highest demand ever known in history, it is apparent from the record it is no sign of slackening any time soon. That is a fact, and facing us, with this tremendous debt on our hands, but a national income that helps us balance it somewhat, we are still in the period that we have to prepare for an unknown factor, as to when our enemy might attack and as to where.

Those are things we are having to spend tremendous

amounts on to be prepared for.

Now, so much for that. As I said, I wanted to give it a little setting for some of the things we are talking about.

When I spoke about the goods you are disposing of and which you deal in, the demand for it is higher than it has been in history but all the goods of America, produced by all the industries of America, the market is greater in the United States than it has ever been before for every industrial piece of goods that is made.

Why?

One of the reasons is that you are paying a wage to the working man that he can buy your goods and that is what has happened and that is what is helping.

That brings me to the point that I hope that you people will be able to work out and I feel perfectly confident that you will work it out, and that is the problem of your labor relations. You have a problem facing you, with labor problems, and I am certain that if the Wage Stabilization Board will give you an opportunity, as I am sure they are going to, and will give you a chance to work out your relationships with labor, I hope that you will get together quickly on it and try to work it out.

I know the Wage Stabilization Board would prefer that you try to settle this yourselves within the framework

of the whole structure of the economy that we have to deal with and I believe that if both sides will enter a conference on an understanding of a give and take basis, that you will find a common ground to meet this crucial problem and I want to say it is crucial.

If we had to face a serious interruption of production and distribution of the petroleum industry at this crucial time, you can understand how some of the boys in the field might feel about our own activities in this country.

I hope, and I am certain, that you will find a meeting ground to settle this labor problem just as soon as possible because it is to everybody's interest, yours and the interests of the country, that we do it, and I only pass that on for what it is worth.

Now, I was supposed to go back to another meeting early this morning but I am going to ask if it is all right with you, I would like to stay here and hear a couple of discussions, particularly with Ed Warren and Mr. Gately and others who will talk. I would like to stay and hear it instead of trying to tell you people anything about what to do, I want to listen, to see what I ought to do.

Thank you. "

(Applause.)

ADDRESS OF BRUCE K. BROWN, DEPUTY ADMINISTRATOR.

MR. BROWN: It gives me real pleasure, that is not soft soap to introduce formally my successor, Deputy Administrator Mr. J. Ed Warren, of Midland, Texas, currently Associate Director.

Mr. Warren.

ADDRESS OF J. ED WARREN, ASSOCIATE DEPUTY ADMINISTRATOR.

MR. WARREN: Mr. Secretary, Mr. Chairman, gentlemen of the Council:

I have been in Washington almost a month dogging Bruce Brown's footsteps, trying to absorb some of the things that go on in PAD. I have done a maximum amount of listening and a minimum amount of talking. I do think, though, that it is proper and appropriate for me at this time to tell you some of the reactions that I have had since I have been here concerning the Petroleum Administration.

I have been to the NPA, the Pentagon, and to many other agencies, and I want you to know that there is nothing but compliments for the effectiveness and the efficiency of the PAD group.

Bruce Brown has done everything in his power, given the material he had to work on, to train me to take over his job in June.

Remember I have another month of that coming.

(The men in PAD, General Davis, Elmer Batsell, all of them have cooperated 100 per cent. I want to express to them now my appreciation. It has been a revelation to me that men drawn from industry and every branch of the industry, trained men for specific jobs in this complicated industry, have come to this job for a period of a year or a year and a half with a recognition and an understanding to do the job of national defense as far as petroleum and submerge their own company and personal viewpoints.

(I think that has been done to a remarkable degree and I want to say to you gentlemen in the industry who have brought these men here that you certainly ought to be complimented for that kind of a contribution.

In my trips with Bruce Brown I have seen Secretary Chapman on several occasions. I think that there is an understanding and a confidence between the Secretary and Bruce Brown that is a very important relationship. I know Secretary Chapman believes in Bruce Brown's honesty, his objectivity in running the Petroleum Administration, and I would like to say here to Secretary Chapman and to you Council members that I am going to strive and do everything I can to maintain that relationship in the future.

(Thank you very much.)

(Applause.)

MR. BRUCE BROWN: You notice the agenda says there

will be brief comment by PAD personnel.

We will start out in the order of the listing, Mr. Burrill, Director of our Program Division.

This is Cecil's last appearance before the FPC unless you have an emergency meeting because he and I will leave at the same time, the end of May. Mr. Burrill will discuss the current supply and demand situation.

ADDRESS OF CECIL BURRILL, DIRECTOR, PROGRAM
DIVISION, PETROLEUM ADMINISTRATION FOR
DEFENSE.

MR. BURRILL: Gentlemen, perhaps it is a little unfair to make a prediction at this point when my successor may have to live with it but I am sure he can change it rapidly if necessary.

The world-wide petroleum industry will be called upon to operate at near capacity levels during the balance of 1952 and through next winter. Assuming that the Abadan refinery will make no contribution to world supplies and also assuming normal weather, our estimates indicate the refining operations abroad will have to continue at abnormally high levels. In the United States, refineries will have to operate near their capacity in order to meet domestic demands, and exports that are still affected by the loss of products from Abadan.

Refinery construction has fallen behind the growth

in demand chiefly because materials have not been available in the desired amounts. Undoubtedly the Abadan refinery shutdown contributed to the present tight refinery situation. Nevertheless the industry cannot afford to permit its reserve refining capacity to be so small that the shutdown of one large plant will almost create a world-wide shortage. Refining projects are now being undertaken at an accelerated rate, but it will be 1954 before much reserve capacity will be re-established. In order to meet local civilian and military demands and in order to cover the shortage abroad it will be necessary to run 6,900,000 B/D of crude in the United States during the 4th quarter of 1952 and the 1st quarter of 1953. This is in excess of 91 per cent of capacity, which is very high in terms of past experience.

The estimate of refinery runs during next winter takes into account the relatively improved stock situation on April 1, 1952, as compared with the same date in 1951. At the close of the first quarter of this year stocks in the United States of the four major products were 8.9 million barrels above a year ago. If District 5 is eliminated, where stocks declined 11.7 million barrels during the year ended April 1, 1952, because of large military demands upon that area, stocks of the four major products in the balance of the United States actually increased 20.6 million barrels. This increase was almost equally divided between

Districts 2 and 3. Stock levels in Districts 1 and 4 remained approximately the same as they were a year earlier.

Crude oil stocks increased 20.7 million barrels over a year ago to a level of approximately 257 million barrels.

No relief from the tanker shortages experienced since the start of the Korean War is in sight for next winter and probably not through 1953. Therefore, it is necessary that the industry maintain refining operations at high levels through the second and third quarters of this year when demands will be seasonally low in order to store products for use next winter. Preliminary estimates indicate that in the twelve months ending November, 1952, approximately 65 million barrels of all kinds of tankage will have been built. While most of this will be working tankage, it will provide some additional space for seasonal stocks. In the interests of saving both refining capacity and tanker transportation, it is important that seasonal tankage be filled by the start of next winter.

Crude oil producibility in the United States as a whole will be adequate through next winter, particularly when major pipe lines now under construction in the United States are completed, but California will be short of crude oil and it will be necessary to divert military liftings to other areas.

The foregoing is based upon an increase in total U. S. demand in 1952 of 4.7 per cent in contrast to gains of 11.1 per cent in 1950 and 9.6 per cent in 1951. These estimates assume no material change in the international or military situations and that government expenditures will sustain business activity at or slightly above the present high levels. It also has been assumed that there will be no effective limitations on the manufacture of such petroleum consuming equipment as automobiles and oil burners. About 4.3 million passenger cars will be produced and oil burners in use will increase by nearly 500,000 during 1952.

Another assumption which is basic to these estimates is that there will be no price impediments which will interfere with the supply of petroleum products, particularly the movement of products from the Gulf to the East Coast of the United States.

Distillate demands during the next winter assuming normal weather are expected to be 10.5 per cent or 180,000 barrels daily higher than last winter. In order to meet these high demands it will be necessary to obtain distillate yields of 22.1 per cent and 23.1 per cent in the 4th quarter of 1952 and the first quarter of 1953 respectively. These are 1.3 and 1.0 percentage points higher than were obtained during the corresponding periods last year. Also, relatively high runs and distillate yields should take place in the

second and third quarters of this year in order to assure adequate distillate supplies next winter.

Motor gasoline demand in 1952 is expected to be up 4.9 per cent over 1951. Residual fuel oil demands are estimated at 1,634,000 barrels daily in 1952, up less than 1 per cent over 1951. If the reduction in the yield of residual this year compared with last year is less than 0.6 percentage points, there should be no problem in meeting residual demands for the country as a whole. Residual supplies, however, probably will not be distributed properly throughout the country. Indications are that there will be an excess of residual in District 2 and a tight supply condition in Districts 1 and 3.

The tendency during the past year toward excess supply in District 2 probably will continue during the year ahead unless crude runs are adjusted and residual yields are reduced.

In District 5 civilian demands are increasing at a slower rate than for the balance of the country. Yet with production essentially at MER and recent discoveries at lower levels there is little prospect that production will keep pace with demand. It will be necessary for ASPPA to buy from 50,000 to 75,000 barrels daily of the West Coast requirements from other areas until additional crude oil is made available in District 5 from outside sources. Comple-

tion of the Trans-Mountain pipe line from Alberta to Vancouver, B. C. is expected late in 1953.

The important U. S. demand and supply statistics for the year 1951, the year 1952, and the first quarter of 1953 are given below in thousands of barrels daily:

	<u>1951</u> <u>Average</u>	<u>1952</u> <u>Average</u>	<u>First</u> <u>Qtr. 1953</u>
Total Demand for Crude and Products	7,467	7,821	8,702
Crude Oil Production	6,149	6,345	6,501
Total Imports	802	893	985
Crude Runs to Stills	6,494	6,714	6,906

Thank you very much.

THE CHAIRMAN: Are there any questions, gentlemen?

MR. MAJEWSKI: I would like to direct this question: This is the kind of information that the industry can put to good use and I assume that it will be distributed as read.

Are there press releases today or at some future date? This is of no value. Here we are. If I could report all of this to whoever I can contact, that would be fine, but I think it is your job to release it and I hope you do.

MR. BURRILL: We can do that.

THE CHAIRMAN: Any other questions?

Thank you very much.

MR. BRUCE BROWN: Most of our reports are in the nature of just bringing you up to date on topics that have been discussed previously and probably will be discussed again in the Council but the next item on the program is of a different nature. It will take longer and it will cover areas that have never been covered in the Council before. I have asked Mr. Gately to do a very hard job, that is, to discuss a very complicated thing with the broad brush at least to try to bring you all up to date on what this Foreign Voluntary Aid Program is about, how it was generated and what the results have been.

Mr. Gately, Director of District I, PAD.

ADDRESS OF CHARLES E. GATELY, DIRECTOR, DISTRICT I,
PETROLEUM ADMINISTRATION FOR DEFENSE.

MR. GATELY: "The Foreign Voluntary Aid Program came into being nearly 10 months ago, a few days after the last tanker carrying oil supplies left Iran. The initial steps, however, toward effectuating the program were taken in April, 1951, following the strike which caused the almost complete shutdown of the world's largest refinery at Abadan.

Although the Mid-April strike was less than two weeks duration there were irretrievably lost to nations friendly to the United States approximately 7,000,000 barrels of petroleum. While the strike was in progress oil companies

engaged in world-wide operations, foreign and American, bought heavily in the world markets, including the United States. This activity threatened to wipe out the existing thin margin between supplies and requirements throughout the entire world.

(Apprehensive that the pending Anglo-Iranian negotiations would collapse, the interested agencies of the United States Government, civil and military, having peculiar responsibilities in international matters, agreed that the Petroleum Administrator should proceed immediately to devise some plan or mechanism to neutralize any major loss of Iranian petroleum which might recur.

(Accordingly, representatives of all the American oil companies engaged in foreign operations which it was felt could contribute anything to the solution of the problem, were invited by the Petroleum Administration to attend a meeting in the Department of Interior on April 25, 1951, to discuss the formulation of a voluntary agreement under the Defense Production Act of 1950. At the conclusion of this meeting, during which representatives of the Department of State, Department of Defense, and Petroleum Administration emphasized the seriousness of the situation and the necessity of industry help and cooperation in meeting it, the company representatives agreed in principle to the development of a Voluntary Agreement as proposed by PAD .

Thereafter there was prepared a form of agreement which after very serious and extended conferences with representatives of the Department of Justice, the Federal Trade Commission, Office of Defense Mobilization, and Defense Production Administration, emerged with the necessary approvals of all concerned as the voluntary agreement for the supply of petroleum to friendly foreign nations, dated June 25, 1951.

The basic purpose of the Voluntary Agreement is to provide a means through which the Government can effectuate its policy of assuring that friendly foreign nations get the oil supplies needed for the common defense effort.

In aid to the accomplishment of this purpose the agreement provides for the creation of committees, of the collection of information, estimates and data, and the preparation of plans of action.

The voluntary agreement does not of itself authorize the taking of compensatory actions in respect to foreign petroleum shortages but it does provide the mechanism by which such action may be taken. That mechanism is a Plan of Act.

Plan of Action No. 1, dated July 26, 1951, was formulated to authorize the taking of specific actions or measures to offset the loss of petroleum supplies from Iran. Like the Voluntary Agreement, it went through all the

steps of consultations with, and approvals by, other interested agencies of Government as prescribed in the Defense Production Act.

The action or measures which may be taken under Plan of Action No. 1 are vitalized in the form of schedules which set forth the transactions, involving one or more of the participating companies, which it is felt will help make up the loss of Iranian supplies. Each schedule originates in a Subcommittee which must approve it unanimously and forward it to the Main Committee known as the Foreign Petroleum Supply Committee. The Main Committee transmits the schedule with its approval to the Administrator, who may approve it and issue it as submitted, or revise it and issue it as revised, or reject it. If he rejects it, no action may be taken under it. If he issues it, with or without revisions, the affected participating companies are obligated to carry it into effect.

The Voluntary Agreement and Plan of Action No. 1 constitute the framework within which the Government in cooperation with the industry has attempted to minimize the loss of Iranian supplies.

In the last week of June 1951, upon the acceptance by 19 companies of requests to participate in the Voluntary Agreement, the Secretary of the Interior, as Administrator, appointed all the companies as members of the Foreign

Petroleum Supply Committee. From time to time thereafter he appointed an Executive Committee and the following subcommittees:

Supply and Distribution;

Production,

Refining,

Materials,

Tanker Transportatiin,

Pipeline Transportation,

Overseas Liaison, and

Statistical.

It is the policy of the Administrator to put any company on a committee which desires to serve on the committee.

The first meeting of the committee was held on July 5, 1951, pursuant to the call and agenda prescribed by the Secretary of the Interior.

The most serious problem which confronted the committees was the procuring of accurate, up-to-date information on the complicated and radiating effects that might be caused in many countries and the many industries because of the loss of 7 per cent of the free world's petroleum supplies which theretofore had come from Iran. Included in this loss were 150,000 barrels of crude oil a day, 18,400 barrels of aviation gasoline, 210,000 barrels a day of re-

sidual fuel oil, 46,800 barrels a day of kerosene, 95,500 barrels a day of gas/diesel oil and 87,200 barrels a day of motor gasoline.

That was the amount that this operation had to replace.

The vast amount of detailed and accurate information on the production, refining, transportation and distribution of crude petroleum and its products abroad which had been accumulated in World War II under government auspices was largely obsolete because of the sweeping changes which had since occurred in the world petroleum situation. Since the end of the war no comprehensive or coordinated effort had been made to obtain information of the kind and on the scale necessary to meet a problem of the magnitude of the Iranian deficit.

Thus the first work of the committee was the assembling and analyzing of the necessary information to determine where to start. For the first five weeks the committees met almost daily with the result that by the middle of August they were able to recommend to the Administrator the first scheduling which involved 4,554,000 barrels of crude oil and 258,600 barrels of products.

The committees have held 101 meetings to date. Most of their work has consisted in assembling information and making estimates concerning the various aspects of foreign

petroleum operations pursuant to requests from PAD. The continuous preparation and analysis of supply and requirement estimates for friendly foreign nations throughout the world at the request of PAID have constituted one of the most difficult and arduous tasks the committees have had to perform. Some of the reports rendered by the committees are the result literally of hundreds of thousands of calculations by innumerable statistical experts in the petroleum field both here and abroad.

To date, 22 schedules have been approved and issued by the Administrator. One of these is a refining schedule designed principally to remove refinery bottlenecks and make available additional refining capacity. The other 21 covering a total of 43,232,300 barrels of crude oil and products of which 26,604,000 barrels are crude and 16,628,000 barrels are products, involve for the most part sales of exchanges between only two companies, one a participant and the other one of the three companies which before the shut-down obtained its supplies directly from Iran. Up to the present it has not appeared to be necessary to schedule anything but these simple transactions.

The scheduled transactions have been equal to approximately one-third of Iran's output.

This program has been in all respects under the direction and supervision of the Petroleum Administration

for Defense. Nothing has been done except at the request or with the permission or approval of the representatives of the Administrator. All the companies have done or tried to do is to work and try to help.

Recently the Assistant Deputy Administrator in charge of foreign operations, who has direct supervision of the foreign voluntary aid program rendered a comprehensive report to the Secretary of the Interior on the program to the end of 1951. The following is his appraisal of the accomplishments:

"When the last tanker with petroleum supplies sailed from Abadan in June 1951, the defense mobilization efforts of the free nations of the world, including the United States, were in jeopardy. Consternation replaced confidence in the minds of many of those charged with the responsibility of forestalling Communistic aggression.

"Fortunately, the foreign voluntary aid program proved its effectiveness in time to prevent serious dislocations. Confidence was reestablished, and the impact of the lack of success in achieving a solution of the difficult political problems involved was modulated. s

"It is my view, heartily endorsed by my associates who have worked on the Iranian matter, that the

participating companies, the men who have served on the committees and the committee staff deserve the admiration and gratitude of the Nation for the significant contribution that has been made through their efforts under the Voluntary Agreement and Plan/ of Action No. 1 to the welfare of the country in the present emergency. This report, coupled with the report submitted by the Foreign Petroleum Supply Committee, evidences an accomplishment both by industry and by Government which by virtue of its very success has failed to receive widespread recognition or full appreciation of the difficulties overcome."

"Gentlemen, in my book, that is a gross understatement."/

MR. BRUCE BROWN: Thank you.

I was thinking that this thing he is talking about is something like the telegraph system. You don't miss it when it is running. It is only when it stops that it bothers you.

One thing, not much has been heard about this thing because it has worked.

MR. BLAUSTEIN: Have there been figures gotten up as to possible over supply if and when the Iranian refinery is opened up again?

I am asking if that information can be given? I

am wondering if both sides of this picture are being looked on currently?

MR. BRUCE BROWN: Could you express that again? I agree there is another side. What do you mean, suggest that we look at?

MR. BLAUSTEIN: We are assuming the Iran refinery will remain closed. For that reason there will be a continued build-up in the capacity here.

Now, then, if the Iran refinery opens up, what will that do, what effect will that have on the petroleum industry? Will we have too much refining capacity? Are we over-building in the face of that possibility?

I am not saying we should not prepare for the situation as it is, if it continues, but I think it would be interesting to know what the effect might be on the industry if the reverse takes place?

MR. BRUCE BROWN: We are not prepared to discuss that, Mr. Blaustein, with the completeness we are these other topics but I will say this:

In the interest of brevity, we left many things unsaid. You might go at it this way:

The total production in Iran was around 750,000 barrels a day when it was running all out. Of that, 150,000 barrels a day of crude oil was going to refineries outside of Iran. That crude oil has been found in other places.

// Crude oil production in the Eastern Hemisphere has been increased to offset that, so we can set that off as one piece.

Now, of the products produced in the refinery, about 220,000 barrels a day, or about 40 per cent, was residual fuel oil and the shut down in Abadan and the continued shut-down at Abadan is the real reason why we are having difficulty -- not why the Middle West is having difficulty but why we are having difficulties on the Coast with too little residual, because we haven't been able to quite make up that residual.

A third segment of what we lost was 18,000 barrels a day of aviation gasoline capacity. That was irreplaceable. The only way we have been able to meet that in the world-wide basis has been to meet that in the United States.

Looking at it in reverse, suppose Abadan comes back, but it has seemed to me that these were the keys to it, to what would happen:

In the first place, it is inconceivable to me that it would come back from zero to 550,000 barrels a day in one fell swoop. It will take time to get that back. For one thing they have to get tankers to move the stuff away, so I would expect that the impact of it coming back would be more gradual. I can't tell you how many months. Certainly I would expect it to take six months.

The other big factor which I don't think Mr. Burrill covered but it is true and we have many figures on it and speak on it from time to time, the increase in the demand in the Eastern Hemisphere has been more rapid than the increase in demand in the Western Hemisphere since the close of World War II so that I would think that the combination would at least very well cushion the shock that you have in mind. "

MR. BURRILL: The best British estimate is that it will take from eight months to a year to get back in full strength.

MR. MAJEWSKI: Your remarks are predicated on the assumption that when we achieve 550,000 barrels at Abadan then the impact will be felt in this country. Then you have to make another guess as to what will be the increases in this country in that interval.

MR. BRUCE BROWN: And what will be the demand increases.

MR. MAJEWSKI : Yes, that would be interesting, but it seems to me, if you were asking a leading question, that you would say, What are the companies that operate in Abadan going to do? They would have to be consulted, too, and that is none of our business at the moment.

MR. BRUCE BROWN: There is a third thing that can happen to Arabian oil. It is only a few hundred miles

further from Iran to the Caspian Sea than it is from Alberta to Vancouver. It is only about a thousand feet higher in the top mountain pass. Anybody who has control of the country and 300,000 tons of pipe and a few pumps could take care of that surplus very easily.

MR. BLAUSTEIN: I wasn't trying to say that anything should be done to minimize the effort. I just wanted to see if we are considering it.

MR. BRUCE BROWN: We worry about those things all the time.

MR. BLAUSTEIN: Thank you.

MR. BRUCE BROWN: Continuing, Mr. Hugh Stewart, Assistant Deputy Administrator, is going to discuss the Petroleum Planning Committee of the North Atlantic Treaty Organization.

ADDRESS OF H. A. STEWART, ASSISTANT DEPUTY
ADMINISTRATOR, PETROLEUM PLANNING
COMMITTEE OF NATO.

MR. STEWART: Mr. Chairman, gentlemen:

Mr. Gately has given you a short review of the work of the Voluntary Program, carried on in the past several months, in undertaking to give direct aid to the friendly foreign nations. Many of you have seen in the press comments on the Petroleum Planning Committee under the North Atlantic Treaty Organization which we commonly call NATO. Some

of you probably have noticed that C. Strinbling Snodgrass who is PAD's Assistant Deputy in Charge of Foreign Petroleum Operations went to Europe about three weeks ago to attend the initial meeting of this Petroleum Planning Committee, so we thought that perhaps it would be well to give you some slant on what that Petroleum Planning Committee proposes to do and what connection PAD has with it.

Basically, the committee is made up of delegates from each of the member countries of the North Atlantic Treaty Organization. Such a committee is designed to accumulate and coordinate and discuss the petroleum requirements of NATO primarily in the event of aggression, of war.

The countries involved, or many of them, are strictly consuming countries, with little or no supply to contribute. Some of them are large suppliers in addition to large consumers. As a result of the discussions which have been going on for some two years in various circles it was decided that a small working group would be necessary to work on the detailed figures, the detailed reports of petroleum supply and demand, just exactly along the same line that Cecil Burrill's program in PAD works within our own circle here. Then this working group would supply the Petroleum Planning Committee with the necessary information and advice.

PAD gets into the picture this way:

The Secretary of the Interior was delegated

certain responsibilities with respect to petroleum under the Executive Orders arising in order to implement the Defense Production Act of 1950. As Petroleum Administrator with responsibility for matching supply and demand under defense mobilization and under potential war requirements, he has to consider not only the domestic supply and demand but has to look at the international demand and supply at the same time because it is a trite saying that oil is global but any of us realize that very keenly, and as a result it was considered essential that the Petroleum Administrator have a hand in and a strong voice in setting up the American representation to the Petroleum Planning Committee of NATO and in the working group of the smaller number of countries under that Petroleum Planning Committee.

The matter has been worked out at the present to substantially this:

Mr. Snodgrass is the American delegate to the Petroleum Planning Committee.

Mr. Oscar Bransky of the Mutual Security Authority is his alternate.

On the working group, Mr. Charles Highland, who on June 1 will succeed Cecil Burrill as our Director of the Program Staff, is now in Europe, or has been there, and he has been set up as Chairman of the working group. In that way the working group will carry on with a little larger

international scope, of the same sort of potential wartime planning that PAD's program staff carries on here at home. That working group will have available the basic information, the experience, the judgment, that the Petroleum Administration can give him, or give them, and we will have a like benefit in getting closer information, perhaps more accurate information, on the petroleum requirements of all of the NATO organizations, under any foreseeable variety of military programs.

I think that covers the ground, Bruce. "

MR. BRUCE BROWN: Thank you.

THE CHAIRMAN: Any questions, gentlemen, of Mr. Stewart?

MR. MAJEWSKI: Who pays for this oil that is planned for NATO?

I mean, I am a little ignorant about that.

MR. STEWART: I can't answer your question positively, Barney. I can say the oil that is planned for NATO is the oil that is planned for an all-out war and undoubtedly in that event we would contribute a large part of the cost. Under the Mutual Authority work for the mobilization period the United States is contributing and will continue to contribute on that but that phase will be covered later in the program today by Mr. Dwyer who is the Petroleum Officer of MFA.

MR. BRUCE BROWN: This whole thing of Mr. Stewart is in the light of plans. It is not an operating function at all. This is a super-program division.

MR. MAJEWSKI: I understood that but going home I wanted to know how it was going to be paid for. I thought maybe I would find out.

MR. BRUCE BROWN: It is the same oil they use now.

MR. MAJEWSKI: I think I have found out. "We."

MR. BRUCE BROWN: There is a certain amount of other oil besides ours, and a certain amount of currency besides ours.

Mr. Morrison, Director of our Materials Division, will discuss the outlook.

ADDRESS OF R. M. MORRISON, DIRECTOR, MATERIALS
DIVISION.

MR. MORRISON: The materials situation continues to improve.

There is an even chance that CMP as such will be abandoned before the year is out.

This does not mean that all controls will be abandoned. From a materials standpoint it means that many items will be decontrolled entirely. A medium for directive action -- that is, governmental authority to direct the production of individual commodities or specific items -- I hope will be retained.

From a selfish and purely personal standpoint, I feel the same as I think do many of you. I know we who are on temporary loan want to go home -- back to our own companies -- our own people. If they would just "jerk the rug" out from under all controls, price controls included, we are confident we could take care of ourselves. But before we definitely recommend that all controls, except for direct Military and Atomic Energy, be removed, let us stop and take a look.

Heavy plate is one of the most critical items among the steel products. Annual plate production during the war years reached approximately 13-1/2 million tons. During 1950 this production declined to 5-1/2 million tons. Many of the facilities to produce plate were permanently converted to producing sheets for consumer durables. The annual rate of production at the present time is approximately 8-1/2 million tons. This increase is due in the main to NPA directives being placed on mills requiring them to produce plate on their wide strip mills and is not due to plate production expansion.

Plate production expansion was very nominal -- in the area of 2-1/2 per cent -- whereas sheet and tin mill products expansion ranges between 25 and 30 per cent. Production of plate on sheet and strip facilities is not only uneconomical but places a discriminatory burden on those

mills which are capable of converting. With Military and Atomic Energy being the only consumers with a priority rating and no directive powers at the disposal of any Government agency, I leave it to your judgment as to what the production of plates would be. Using a component or "B" item as an illustration, Atomic Energy's initially presented requirements would have absorbed the entire production of all manufacturers of heat exchangers in the United States for a given quarter. With that agency being the only one that could issue priorities or directives, what would happen to our Refinery and Natural Gasoline expansion program?

These two illustrations presuppose that there would be no politically "favored sons" included in the priority band. This feature requires a "listening post" constantly on the alert, so as to protect the Oil and Gas and Oil Field Equipment Manufacturers in the clinches.

During the limited time remaining, I will devote my remarks to that which is nearest and dearest to your hearts -- oil country tubular goods.

Given the favorable economic atmosphere required by the oil and gas industry, we foresee a serious shortage of oil country tubular goods for at least the next few years. These are our thoughts -- of steps that should be taken -- providing investigation and studies which are now energetically being developed prove practical.

1. Which of the mills presently producing, or those now in the process of construction of facilities to produce oil country tubular goods, would be willing to expand their productive or planned productive capacity if maximum tax amortization were granted, and how early could they be completed, given top priority assistance?

2. Could industry and military spare a portion of the production of seamless 6" line pipe? The thought being that it might be considerably quicker to obtain maximum tax amortization and directives for threading and finishing facilities and use existing 6-5/8" O. D. line pipe rolling facilities. Reactivate the A. P. I. 6-5/8" O. D. Grade F-25. Production Division of PAD to restrict shallow well usage to this grade. There would be one advantage to the 6-5/8" size in place of 7" in that in the future the difference in size would minimize the danger of inadvertently getting a few joints mixed up in a deep string.

3. Just how much oil country tubular goods can be made abroad with the cooperation of MSA, OIT and other agencies representing our foreign interests? This cooperation taking the form of utilizing mills other than those capable of producing oil country tubular goods for steel required for the NATO preparedness program -- delivering scrap to those oil country tubular goods mills and attempting to establish dependable monthly shipping schedules on

an annual or semi-annual basis. This could result in a substantial reduction in our export of oil country tubular goods from the States without affecting our foreign and Canadian drilling program.

4. Drill Pipe.

Do we actually have to have additional drill pipe facilities installed, thereby reducing a like tonnage of much needed 5-1/2" casing? Isn't the substantial increase in drill pipe shipments over the last few years sufficient to catch up with our present shortage before additional facilities could be installed? Drill pipe production has been as follows:

1950	52,000 tons.
1951	82,000 tons.
1952	-- now being produced at

the rate of 106,000 tons.

If anyone has any more ideas, or better ideas than those mentioned above, PAD would surely appreciate them.

To illustrate the necessity of exercising the utmost in thought, study, and planning during this present and next 6 to 12 months phase of decontrol and again using oil country tubular goods as an illustration.

If the CMP is suddenly eliminated, where does that put us in the equitable distribution of OCTG? Would it be desirable to take steps now to eliminate OCTG from the

CMP plan altogether, revising M-46 so that PAD would hold the complete distribution and through NPA establish the directives on the mills to produce the maximum amounts in a manner similar to the mill melt sheet formula now used for nickel alloys? This might eliminate a very hectic period that could occur over night.

Gentlemen, I hope that I have given you a brief understandable picture as to why we cannot relax in the home stretch, as a jockey did the other day when he looked back to see how close his competition was and got nosed out before he could get his mount back in stride.

If there are any questions or suggestions they will be welcome. //

(Applause.)

THE CHAIRMAN: Any questions?

Thank you.

MR. BRUCE BROWN: Mr. Foree, Director of the Domestic Production Division.

ADDRESS OF R. L. FOREE, DIRECTOR, DOMESTIC PRODUCTION DIVISION.

MR. FOREE: Mr. Chairman, Mr. Brown:

I thought for a minute Dick was going to leave me in an awful hole. He got to talking about things getting easier, controls going out of the window, a lot of material here and there.

You are not going to like what I have to say about tubular goods. I wondered if I could shift to the report on the Patent Committee before I talk about tubular goods? It might be a defense of what will happen in the third quarter.

The House Small Business Committee, as most of you know, held a hearing on March 8th to look into the allocation of oil country tubular goods, and they investigated it very thoroughly.

Prior to the hearing, two investigators, two staff investigators, came over to the village and spent about a week or ten days. They had a little trouble like I did when I first got there. They were bogged down, too, and they called in a Doctor from Austin, Texas, who had been an administrator down there. The Doctor told me he came up to Washington to look at the records of PAD, with a preconceived notion that there had been some mishandling of the allocations. He was of that opinion.

On the day of his arrival, he called to the village and said, "Will you send various files over to the Hill?"

They said, "Yes, but what for?"

He said, "Dr. Botrit is here. He would like to look at them. "

I said, "How about sending Dr. Boterit over here?"

So he came over. At the end of four days, the

Doctor said to me that:

"I want to make a confession. I came up here with the preconceived notion of something being wrong and I find none. I find you have made some mistakes as anyone would but there has been no favoritism."

So the hearing held on March 8th was held in a friendly manner. There were some suggestions that came out of the hearing for changing the standards. Those are being considered and some will be adopted. I think they will help the standards a little bit. But one of the principal things we are proud of is this statement that was given at the conclusion. I will quote:

"The investigation developed that the personnel of PAD has consistently attempted to allocate oil country tubular goods fairly and impartially within the limitations imposed by a formula which of necessity had to be developed through trial and error."

That is what the committee found.

I understand that in originating that formula there was a good deal of trial in it and of course there had to be some error.

At the opening of the March 8 hearing, Al Frayne did a good job in reading a prepared statement which Mr. Brown, Bruce Brown, had prepared, and I commend it to you, for your reading. The wind-up of that statement to me is

a very important sentence. It said, "We conceive ourselves as umpires and not dictators."

Now, we talk about the third quarter. Dick has told you that it is short and it is, looks short for some time. We have thought in the first quarter we would take a realistic approach at the allocation of tubular goods. In the past we have not paid too much attention to carry-over. We have issued tickets that DPA said we could issue, even though NPA said there may not be that much steel made, so we thought this time that the tickets would go out of PAD and all be able to find a home. There will be no swapping, no trying to find a place, we think that for each ticket there will be a ton to cover it, and that is one of the reasons that this third quarter is going to look very bad to you when you get your allocations, which are now finished. They will be mailed out possibly tomorrow or the next day.

The second quarter we issued 425,000 tons of tickets, primaries, were 75 per cent. This time we are starting out with 400,000 tons, 25,000 tons less. Off of that you have to take 23,688 tons of drill pipe, so your primary split, the 75 per cent, will be 282, the split between the B group and the A group will be, the B group getting 59.9 per cent, or 169,087 tons, and the A group getting 40.1 per cent or 113,195 tons.

The calculated need of the B operators -- 146 --

the calculated need was 276,950 tons. That had to be cut 40 per cent across the board to come within the provision of the standards.

I say you are not going to like the looks of that first ticket.

There will be 94,000 tons of supplemental, 94,000 tons to be distributed there.

There will be approximately 60,000 to 70,000 tons of conversion. That is up a little more than it has been.

We think there will be some other mills that have not been making the pipe, come into the picture, and again we will distribute conversion on an application the same as you would on your supplement.

This is the same old story, requests for 1,178,000 tons, in the third quarter. Whether that is real or unreal, we have only got 400,000 tons to take care of it.

Thirty years ago, as a greenhorn roughneck, the farm boys said to me, "Go up to the tool house and get those pipe stretchers."

Boys, I am going up to the tool house and see if I can find them. /

(Applause.)

THE CHAIRMAN: Any questions, gentlemen, that you wish to address to Mr. Foree?

Mr. Pyles.

MR. PYLES: Mr. Chairman, and Bruce, I followed with a great deal of interest the report of Mr. Burrill on supply and demand. I think on a world-wide basis there is only one place in the world from the production of crude oil that we are in short supply, namely, California.

I also noted with a great deal of interest the report by Mr. Gately, as to what had been done in solving the problem caused by the shut-down of the refinery at Abadan.

In California, we note that we are to be relieved in our shortage program by a pipe line from Canada to the Northwest. We read with interest of a pipe line to be built from West Texas to California. As to whether we are in accord with that pipe line I am in no position at this time to say.

Now, it is fine for PAD to look forward and in the future to come to the rescue of California. We believe, even though our records for the last year or so have not been too good, that we still have oil to be discovered in California. In fact, within the last two weeks it is the opinion that we have discovered a major oil field, and we also have other areas, namely, the Tidelands, in the opinion of those from California, we have a tremendous amount of oil to be discovered and produced.

Now, in the light of that shortage and the shifting

of 40,000, 50,000 or 60,000 barrels a day production from the Pacific Coast to other areas, which is at great expense to the Government, we cannot see and we do not understand if it is PAD's function to endeavor to cure the problems that exist on a world-wide basis in so far as the production of crude oil is concerned, why we cannot, even though we may be one of the bastard children, cannot receive some special consideration from PAD from the standpoint of allocation of tubing and tubular goods.

We do have and can drill a large number of production wells if we can only secure the pipe.

I realize that that is a most difficult problem. I realize that Bob, being from Texas, would be subject to being shot if he went back to Texas any way soon, if California received some special consideration. But if it is the problem and function of PAD to overcome these shortages in supply, then why cannot we get some special consideration to drill additional production wells which we cannot do, and help relieve this shortage in California, which cannot be overcome for a matter of two or three years even on your Northwest line and I don't know what the situation is on your West Texas line.

MR. MAJEWSKI: Where is Mr. Pyles from?

MR. PYLES: I happen to be from Texas. If this situation existed in Texas I would be the first fellow to

get up and say, "Give it to them."

MR. BRUCE BROWN: Go back for a minute to World War II. There was no allocation of materials as such. The controls were a spacing. Wells drilled dropped to 19,000 a year. We have a much larger program. We started this trial and error system of the oil distribution of the oil country tubular goods, we tried to set up a system to make a minimum of interference with private judgment and enterprise. Consequently, the controls that we have placed on oil country tubular goods at this time have been not on spacing, nor on where wells are to be drilled, but on an attempted equitable distribution between the applicants for goods, on the basis of their past history and their forward programs.

We are not allocating oil country tubular goods to areas, geographical areas.

Perhaps the simplest illustration is -- I remember the slogan of Texas, 44 States, and 55 for industry.

The Texas companies operate in California and other places. They come in for allocation. They don't -- Bob doesn't require -- PAD doesn't require them to promise they will drill oil wells just in the State of Texas or just in the State of California or just the State of Oklahoma or any place else. We give them the ticket to go to the steel mills and buy goods and from then on they are on their own.

Now, if we were to try to allocate oil country tubular goods to oil, to the need for oil, which I concede exists in California, these are some of the things that would happen:

First we would have to revise our system.

Second, if we allocate goods to oil, there are places where you can get more oil per ton of steel than in California or Texas.

We have tried to stand firm on a minimum of controls. I know of no way we can direct oil country tubular goods to California except to order companies to drill oil wells in California. We just have -- in fact, I had a discussion yesterday with a company.

I said, "Aren't you operating in Texas?"

"Yes."

"Well, we are not telling you where to drill these wells, whether you drill in Texas or California."

If it gets bad enough, not 48,000 barrels a day, not 80,000, but some enormous shortage in California, we would have to modify our system. Any modification we make will be in the direction to tell you where to drill your wells which we have avoided to date. It is just a race between a shortage situation in California and controls.

If all controls were off, which is being advocated, we wouldn't have the problem. As long as you have to

have controls, I think the greater good is served by having the type we have, where you exercise your own judgment.

On pipe lines, this line is in Canada. It will be a real help to the Pacific Coast situation when finished.

As to the pipe line from West Texas to California, looking down the road as supplies of pipe eased, we did not want to be in the position in PAD of standing in the way of any private enterprise doing anything because after all you spend your own money, so when we saw that pinpoint in the material situation we gave permission, not to one line, but to two, West Coast Pipe Line, which wants to build a line from West Texas to California, with its own money, with its own customers, taking its own chances, we gave them permission to construct.

They are on their own, from now on out.

As you gentlemen, I don't know whether it will be profitable. At least we got out of the way. That is all I can say.

MR. PYLES: We do not want any controls or the allocation of steel on the basis of the barrels received. That is not the point. I think everybody in the oil business knows that if you came to that, where you would allocate steel, it isn't in this country. You want the oil where you need it. The point I am making is that the oil is now needed and will be needed in California before any of your pipe lines can be built.

And relief can come from that.

Now, if it is the function -- it is not the function to allocate steel to the barrels of oil, and I don't agree with you that PAD couldn't change that, if we have the shortage, it is recognized both from the military, from PAD, from industry, that there is a short supply in California. We merely ask you to do something for California to relieve us of that condition the same as you have done for Abadan and many others that PAD has done so well. That is all we are asking.

THE CHAIRMAN: Mr. Porter.

MR. PORTER: I just want to address a question to Bob.

In the light of your report, what do you think of this 80,000 well program that we were talking about at the beginning of -- the 1st of July of 1952?

MR. FOREE: Well, at this time we are drilling at the rate of approximately 48,600 wells a year, as of today, so that would take care of the 1952.

I am looking for Mr. Morrison to provide oil country tubular goods for 1953.

THE CHAIRMAN: Any other questions?

To meet the commitments of Col. Montgomery, who is here representing Brigadier General Johnson of the Munitions Board, whom I understand, Mr. Baker, is going

to school down at Humble this week, and who is not here, I want to move further in the agenda and at this time introduce Col. Montgomery.

ADDRESS OF COL. MONTGOMERY, MUNITIONS BOARD.

COL. MONTGOMERY: Mr. Chairman, and gentlemen:

First I would like to express General Johnson's regrets at being unable to attend today. I am sure he is going to derive a lot of benefit from the Humble school, as all of your people who have attended in the past have, and also to express his appreciation for the extraordinary efforts which industry has taken and which PAD has taken to meet military demands.

Requirements of the Department of Defense for petroleum products covering the period closing 30 June 1952 have been made known to the industry through bids, invitations for bids, issued by the Armed Services Petroleum Purchasing Agents. With the exception of a small quantity of aviation gasoline these bids have been covered.

Fiscal year 1953 requirements for all petroleum products are naturally going to be subject to budgetary limitations as finally enacted by the Congress in the Appropriations Bill. As of this date, based upon a consolidation of information furnished by the three military departments, which we have used as a preliminary forecast of our requirement for fiscal year 1953, indicates that we will have an

increase in demand of approximately 18 per cent overall. The majority of the products will show an increase of about 10 per cent, with a higher percentage in aviation fuels, both for reciprocating engines and jets.

Now, the foregoing remarks, or report, I would like to emphasize, refer to programmed procurement for 1953. The actual off-take from industry during 1953 will probably vary from the procurement program. This variation will be attributable to a combination of elements, among which are incomplete deliveries, against contracts for current or future periods, and in some instances contract termination dates are extended and in other instances contracts are permitted to expire uncompleted.

We always have the bugaboo of changes in training programs due to unforeseen circumstances. Therefore the procurement program in itself does not necessarily reflect the total demand to be placed upon industry during the period. It is our best guess at this time which we thought would be of interest to you gentlemen.

For those of you present who knew Admiral Bigsey I thought you might be interested in a recent letter I had from him. He asked me to express his greetings and to say he is very busy herding some 70 ships and crafts around Far Eastern waters, and apparently enjoying himself very much.

Thank you.
(Applause.)

THE CHAIRMAN: Gentlemen, we had planned to recess the Council at 12:45 today, and the cafeteria downstairs has been alerted to take care of the anticipated requirements of a hungry group. We have in mind we will reconvene at 1:45 to conclude our session early this afternoon.

Mr. Brown, will you continue?

MR. BRUCE BROWN: Mr. Walsh, Director, Natural Gas Production & Processing Division.

ADDRESS OF MR. R. P. WALSH, DIRECTOR, NATURAL
GAS PRODUCTION & PROCESSING DIVISION.

MR. WALSH: Mr. Chairman, and gentlemen of the Council:

The Natural Gas Division is the operating division of PAD which has the responsibility of insuring the production of natural gas and natural gas liquids. In discharging these responsibilities we work in close cooperation with the Gas Branch of PAD to develop programs which will meet the requirements for natural gas. We work with the Production Division in an advisory capacity with respect to the allocation of oil country tubular goods to gas operators. This work includes investigation of and recommendations for the development of storage pools.

We work with the Refining Division to insure production of natural gasoline and allied products for essential blending uses.

We also have the job of securing an adequate supply of LPG.

The types of project to which this Division gives priorities assistance and allocates materials for are natural gasoline plants, dehydration plants, sulphur recovery plants when operated in connection with any of the above facilities, cycling and pressure maintenance projects, underground storage projects particularly for LPG.

We also allocate line pipe for gathering systems for any of the above-described projects.

We make recommendations to DPA on applications for certificates of necessity, for accelerated amortization, for types of projects described above.

As of April 1st, the Division had handled 357 applications for priority assistance and authority to construct covering projects whose total construction cost is something over \$308,000,000.

We have handled 152 applications for certificates of accelerated amortization with a total dollar value of something over \$288,000.

The capacity of new process plants completed in 1951 was approximately 24,000 B/D. Projects now approved and scheduled for completion in 1952 will have a capacity of 100,000 B/D. Projects now approved for completion in 1953 have a capacity of 54,000 B/D. For the eight quar-

ters involved the rate of construction of new capacity is about 26,000 B/D per quarter.

A point of interest is the increasing percentage of L. P. G. to be produced at natural gasoline plants. About 50 per cent of the 1951 production was L. P. G. Analysis of PAD-26 applications shows that about 60 per cent of the products to be made in plants under construction will be L. P. G.

Since L. P. G. is one of our hottest potatoes, maybe a further word is justified: It appears that there will be productive capacity to match predicted demand. Actual production is likely to be controlled by price factors and storage capacity to handle the excess summer production. At April 1st, 1952, PAD-26 applications covering 2 million barrels of underground storage capacity for L. P. G. have been approved, and was under construction.

Great strides are being made in connection with underground storage.

There were some 3,000 producing natural gas wells drilled in 1951, as compared with 2,800 in 1950. Distribution of these wells may be of some interest to you. Approximately 30 per cent were drilled in five Appalachian States; 35 per cent were drilled in the three Southwestern States, and 35 per cent in the other States where gas is produced.

It appears we are adding two new States, Maryland

and Virginia, to the list of gas producers. The best current estimate is that there are something like 65,000 operating gas wells in the United States. Under a 55,000 well per year drilling program statistics indicate that we can expect about 8 per cent will be producing natural gas wells which means that under the expanded program we will be drilling gas wells at the rate of about 1100 per quarter.

To accomplish its part in the PAD program our Division requires about 65,000 tons of steel per quarter.

MR. BRUCE BROWN: Thank you, Mr. Walsh.

Any questions?

Mr. C. E. Davis is the Assistant Deputy Administrator in Charge of Domestic Oil Operations, succeeding Al Frayne on the 1st of March last, and in that capacity he has general supervision over all of the domestic operating divisions and operating service divisions of PAD. However, this morning he will take up only two special topics, hot topics, which caused him a great deal of trouble and probably will in the future. He will talk to us about Navy special fuel oil and aviation gas and a third problem, OPS.

ADDRESS OF C. E. DAVIS, ASSISTANT DEPUTY ADMINISTRATOR IN CHARGE OF DOMESTIC OIL OPERATIONS.

MR. DAVIS: Mr. Chairman and Members:

Navy Special is one of the orphans of the mobilization program. Nobody wants it, only a few of you have had to

provide for it, and it is something that everyone would like to ignore, but in a very short time now it will be back with an insatiable appetite which somehow or other will have to be satisfied.

In October, 1951, we issued certain directives to cover a shortage of 2,000,000 barrels in the Gulf East Coast area with an understanding that delivery was subject to a determination of price agreeable to buyer and seller. The deliveries were made in good faith but it took weeks of negotiation to arrive at prices that were probably not satisfactory to either.

The U. S. Navy began this year with a shortage of 5,000,000 barrels in the same area after obtaining all they could get elsewhere. The reason why the Navy has so much difficulty in filling their requirements are two-fold:

First, stringent specifications require the production of a special product for which there is no other market and most companies either cannot or do not want to produce it.

Second, the price at which it can be sold does not represent the market value of the components required to blend it.

As long ago as last September, the PAD urged the OPS to either decontrol Navy Special or provide for negotiation of prices on the realistic basis of component

values. In this we were unsuccessful. During the first quarter of this year while the Navy was rapidly running out of fuel and we were running out of time, the price question dragged on blowing hot and cold until on his last day in office Mr. DiSalle signed an order establishing ceiling prices in all areas. The ceiling price of \$2.10 for the Gulf Coast is equivalent to selling the gas-oil or cutter stock component at 7 cents per gallon in a tight market where the lowest price was 8 cents per gallon. When this unrealistic ceiling price did not produce the required fuel oil and the position was becoming desperate an understanding was reached between Secretary Chapman and Mr. Wilson that if the requirements could be met in March and April the whole price question would be reviewed and new decisions reached without prejudice to actions taken under the existing ceiling. With this assurance, offers were made and accepted which together with a reduction in the requirements resulted in full coverage through the month of June.

The other major distortion in supply in recent months due entirely to price considerations has been encountered in connection with heating oil for the eastern seaboard. After months of frustration in our efforts to get OPS to remove the economic straitjacket caused by an unrealistic Gulf East Coast ceiling price relationship and astronomical tanker rates it was necessary to call on the major sup-

pliers to meet an estimated shortage of 3,000,000 barrels in the three months beginning in February at a substantial financial loss. We felt justified in this request when assurance was received from Mr. Wilson that the whole Gulf East Coast price question would be seriously examined with a view to taking corrective measures by June 1, 1952. The unexpected resignation of Mr. Wilson with whom the agreements concerning price review on both Navy Special and heating oil were made is of course a decided setback to the prospects of an early solution to these pressing problems. We do feel, however, that with the studies now under way in OPS there is still reason to hope that all is not lost and that favorable results can still be achieved.

On the question of aviation gasoline which is the perennial for all meetings it seems to be the one product which we started out with a decided shortage and the shortage has continued ever since the organization of the PAD. Back in 1950, before Korea, there was, of course, ample aviation gasoline to supply all the requirements. Immediately hostilities began in Korea, demands went up sharply, and over the succeeding 12 months, with everlasting tribute to the petroleum industry, aviation gasoline was more than doubled in this period.

Last year, when the position seemed to be about in balance, the Abadan refinery closed down and caused a loss

of 18,000 barrels a day of aviation gasoline from the world-wide production which placed foreign requirements of aviation gasoline in serious position. We at that time believed that although most of the surplus productive capacity had been squeezed out in the preceding 12 months that there was still considerable remaining and that we could probably over a period of months make up the deficit for the Iranian shortage without too much difficulty. Along in September we received a greatly increased demand from the military which was more than the straw -- several straws -- and the camel's back was completely broken at that time, requiring that we go all out with every possible production within the economic reason to maximize aviation gasoline, and the issuance thereafter of PAD Orders Nos. 3 and 4 with the purpose of getting the maximum production that could be obtained with existing facilities.

We have, as you probably know from press accounts, had considerable objections to PAD Order No. 4, particularly, which raises the content of the tetra-ethyl lead.

Our justification for that order is on a number of grounds:

During World War II, all aircraft used 4.4. Since World War II all military aircraft have continued to use 4.6 and these are the same aircraft that the commercial airlines are using satisfactorily with the lower lead content.

Also about half of all commercial production in the United States was at the level of 4.0 c. c. per gallon. About one-half of all of the scheduled export of aviation gasoline from the United States was at a level of 4.6 c. c. All airlines were up until 1949 using 100 per cent of 4.0 tetra ethyl lead. At the time of the order, most of the airlines were buying a mixture of part 4 and part 3 or all 4 and all 3. We were able by the use of that order to make it possible for the petroleum industry to increase the production more than a million barrels since the date of that order which went into effect on November 1st, 1951. That is aviation gasoline that would not have been produced.

The terrific controversy that has arisen in connection with this order arose from the three serious fatal crashes in Elizabeth, New Jersey. There has been considerable investigation of those crashes, both in the Government agencies and in Congress. We have attended two hearings in Congress held by the Aviation Subcommittee of the Interstate and Foreign Commerce Committee in the House, primarily for the purpose of investigating those accidents.

PAD's part has been to justify the tetra ethyl lead content of aviation gasoline as required. The hearing has been recessed. It was held on April 6th, which was an executive session entirely devoted to discussion of supply and demand position at the time the orders were issued

to justify the large shortage which was the basis of our consideration at that time.

We can't say whether or not the hearings have been completed as far as we are concerned. We think perhaps that we have given them all of the information that is appropriate and available to us in regard to our actions in that matter.

Regarding the forecast of aviation, we have, of course, been squeezing out slowly new production for the last six months, having taken all of the ideal capacity and maximized by the removal of bottlenecks in the existing plants in the preceding period. Our new facilities which involve total production of over 52,000 barrels per day of the heat component are just beginning to be felt in the production picture and between now and the end of 1953 when these plants will be in process of construction and completion, we believe from all indications, the forward estimates that we have received from the military and our appraisal of the commercial requirements, that there will be sufficient aviation gasoline production after the third quarter of this year to meet the requirements.

I believe we have made such predictions before, probably in the second quarter of 1951, where the position was fairly well balanced, and we had no indication of any immediate urgent requirements. We have since seen what

happened to the demand. It skyrocketed in the last half of 1951. It may do that in the last half of 1952, but based on our estimates we believe that our production will be fairly well in balance by the end of the second -- the third quarter -- and that we should not be too hard pressed short of an all-out emergency.

MR. BRUCE BROWN: Any questions of Mr. Davis?

THE CHAIRMAN: Any questions, gentlemen?

Thank you, Mr. Davis.

MR. BRUCE BROWN: Next we have Mr. Keeler, Director, Domestic Refining Division.//

ADDRESS OF WM. W. KEELER, DIRECTOR, DOMESTIC

REFINING DIVISION.

Mr. Chairman, and gentlemen:

To properly evaluate the tetraethyl lead situation as it is today I would like to briefly review the situation as it was prior to the order:

Right after the formation of PAD when it was necessary to find all of this aviation gasoline that you fellows know about and we were confronted with, it was obvious that one of the bottlenecks with our aviation gasoline program was going to be the matter of tetraethyl lead, the shortage of it.

Now, at the same time you will recall that in the last quarter of 1950 we were faced as a result of rationing

on the part of the manufacturers with a shortage of lead for normal civilian consumption and frankly the working stocks such as they were in the hands of manufacturers at that time were a little less than 5,000,000 pounds.

The situation as it developed, it became obvious that some steps would have to be taken to place us in a position in the event of a demolition of either part or all of manufacturing facilities and part or all of the tetraethyl lead that was in storage, to see that we built up reserve stockpiles.

The situation, it was decided, in early February, I believe, that the lead order should be placed on.

It is rather ironic that I should be up here reporting on the lead order because I was one of the severe critics of the way in which the lead order was put on. I was sure that my company and some others were going to go to pot without all this lead.

Gentlemen, I want to assure you that I just received from our management a short time ago a copy of our annual report and I find that we are very much solvent so apparently the lead order was not as bad as I thought it was going to be.

The situation, the purpose of the order, was to conserve the supply of automotive tetraethyl lead for the needs of the defense movement and also in order to enable the out-

put of aviation, military aviation gasoline to expand.

The intent of the order was to limit the use of the automotive tetraethyl lead so that the manufacturers and the users could accumulate and maintain an adequate inventory of this material for the defense requirements and in order to have material where it can be used as dictated by the aviation gasoline program of the military.

The situation is one that I should mention is confidential and I am going to present some -- a chart here -- that has not been released for publication, and no doubt will not be released for publication, and I pledge you to secrecy.

We have certain information in regard to military requirements and in regard to the consumption, and so forth, that I won't be able to answer questions on, since it falls in that category of classification of top secret, but I do want to show you this chart and show you that the objective of the tetraethyl lead order has pretty well been reached.

As you know, in February of this year, the situation had improved sufficiently that PAD relieved the order to the extent that as of March 1st, 107 per cent of the total authorized usage in 1951 would be allowed in the 12 months period starting in March, 1952. On the 1st of April, PAD released the information that Section 3 of the lead

order, that part of the order that limits the usage of tetraethyl lead, would be removed and I think that after looking at this chart you will see why we feel that in view of the fact that we had reached a first step with the military in regard to their requirements and since we were facing very shortly the additional production of both the Ethyl Corporation and the Dupont Corporation, and then early next year, of the foreign, Great Britain, plant, that we were in excellent position to take out Section 3 or stop limiting the usage of the tetraethyl lead.

I don't know whether you will all be able to see that. It is confidential information and we have had to use a size that we can get in and out of our confidential files.

Gentlemen, the green line is our production line.

Here at this point, where it becomes dotted, is the point where we have projected.

Off the record.

(Discussion off the record.)

On the record.

We plan in connection with the military to work out an additional program of dispersal of these stockpiles. We expect as of the middle of, or the first part of May, when the API mid-season meeting is in session in San Francisco, that meeting with the refiners, explain to them the program that we have, in connection with dispersal, and make

a recommendation or throw it out on the table for the discussion of your companies.

Thank you, gentlemen.

THE CHAIRMAN: Thank you very much.

(Applause.)

THE CHAIRMAN: That was a very interesting statement. Thank you very much.

We have been assured that we would have fairly good service at the cafeteria downstairs at one o'clock.

The Council will now recess until two o'clock.

(Thereupon, at 12:50 o'clock p. m., a recess was taken until 2 o'clock p. m.)

A F T E R N O O N S E S S I O N

(The Council was reconvened at 2:00 o'clock p. m.

THE CHAIRMAN: The Council will please come to order.

Mr. Brown, will you proceed with the reports of your Directors, please?

MR. BRUCE BROWN: I explained to Bob Hunter that Senator O'Mahoney took his time this morning, so we will give him the Senator's time this afternoon.

Mr. Bob Hunter, the Assistant Director of Domestic Supply and Transportation Division.

ADDRESS OF ROBERT A. HUNTER, ASSISTANT DIRECTOR
OF THE DOMESTIC SUPPLY & TRANSPORTATION
DIVISION.

MR. HUNTER: Mr. Chairman, gentlemen: I can give you just a little bit of a fill-in on the beginning, the during and the ending of our voluntary agreement relating to the supply of heating oil for the East Coast.

The need for such an agreement was an outgrowth of the situation which PAD discussed and documented last August. At that time we developed information that led us to believe that the East Coast, especially north of Hatteras, was heading into a shortage of distillate heating oils, which was being brought about by a squeeze in prices between the Gulf Coast and East Coast, a distortion in the normal

relationships based on the current transportation costs.

The voluntary agreement in principle was approved February 6, 1952, by the 12 participant companies. The 12 participant companies gathered one week later and gave final approval to the voluntary agreement.

Five days after that the voluntary agreement was issued, approved by the Department of Justice, Federal Trade Commission, and the Office of Defense Mobilization, DPA and PAD.

The same day the voluntary agreement was approved we opened offices in New York with a staff of three from PAD, started to receive applications for additional supplies from the suppliers who could no longer supply their consumers.

On February 25th we made our first distribution of oil from the voluntary agreement pool, some 750,000 barrels of oil being given out at that meeting to re-sellers in Boston, New Haven and New York.

The basic philosophy that PAD used to measure the shortage at the re-seller level was to measure the sales of these re-sellers during December and January, 1951 and 1952, and project those sales on a degree-day basis to the period of distribution in question. If the applicant applied for as much oil as we measured him, his normal demand, to be, in that period, we allowed him that much oil

out of the pool. If he asked for more we cut him back. If he asked for less we gave him what he asked for.

We were fortunate in having on our committee, our East Coast Supply Committee, many people who had gone through the shortage of 1947-1948 in the same area. It might be interesting to get into a few figures in the comparative periods:

In New York State alone during the 1947-1948 shortage there were 573 people involved in administering the giving out of oil in the amount of 852,000 barrels. Of those 537 people involved, all part time, there were 221 State employees and 252 oil people in the one State of New York alone.

In time we gave out 1,648,000 barrels of oil, roughly twice as much as was given out in New York during 1947-1948, and used 25 people, part-time, 10 from PAD and 15 from industry.

There were actually upon investigation about 12 suppliers who were short of oil. At least, that is all the applications that we had indicating shortage of oil. These 12 companies account for approximately 17,000,000 barrels of sales per year. The fact that we gave out 648,000 barrels makes it easy to indicate that they were 10 per cent short of their annual requirements, despite the fact that we did not have a normal winter.

We gave out finally, as of our last meeting, 55 per cent of the oil that was made available to PAD by the voluntary agreement, 2,930,000 barrels of oil made available to PAD by the 12 participant companies in the voluntary agreement.

We gave out 60 per cent of all the oil that was applied for by the shortage companies.

Of the oil that was given out Boston received 155,000 barrels of kerosene and 380,000 barrels of No. 2 fuel oil;

New Haven, 120,000 barrels of No. 2 fuel oil,

New York 3,000 barrels of kerosene and 990 barrels of No. 2 fuel oil.

As Chairman of the East Coast Supply Committee I have been referred to by people in high places in PAD as the world's largest oil broker. I might add that I was the world's largest for the shortest time on the record. The operation under the voluntary agreement was not without its humorous incidents. As I told you, we started in business in New York February 18th. We made our first distribution of oil from the pool February 25th. There were three of us who worked on the applications, to screen them. In that short period it was easily conceivable that we could make some mistakes and not be too sure of our figures. To cover that situation we made distribution not for the en-

tire period of shortage but for the period February 25 through March 10 with the idea that we would get another look at these figures as we went farther down the road.

Prior to March 1st we wrote to all the applicants and asked them to have their March 1st inventories certified by a licensed petroleum inspector, and send the results of that certification to us.

As of March 2 we had lost about six applicants against the pool. We had gathered further information from some of the applicants that remained indicating that they had forgotten to tell us about some of the supplies they expected to come.

In anything like this distribution we went through we feel that we were dealing with the company's money, not their oil, so we were pretty careful how we passed it out. We asked for quite a bit of information. One applicant was so profuse with his information that he damn near jolly well floundered us. It took us to 11 o'clock one night, three of us working over his figures, to get through the mass of figures he had given us by way of information to finally track down the duplications and give him 66,000 barrels out of 145,000 barrels that he had applied for.

We had another applicant explain to us that his sales were so low in December and January because he had no oil to sell but now that PAD was in business he wanted to

get back into this fuel oil business.

Another applicant called up and said, "I understand you are going to make all this distribution of oil in New York Harbor by barge."

We said that was right. Our distribution orders were issued directing the companies to release the oil to barges at their plant. This gentleman who had a shortage well in excess of 100,000 barrels said:

"There won't be enough barges in the harbor to carry it."

Fortunately, we had brought along as one of our crew PAD's barge expert. As soon as we let him know that he said, "How about lunch, now that that is solved?"

One final thing, of the amusing things that happened, one of the applicants right before we folded on March 26th called us up and said, "You have done such a fine job keeping me in oil," he said, "I am having difficulty. I am not so sure it is in your line but I would like to ask you about it. I want to go to Washington to see the cherry trees and I can't get a hotel room. What can you do for me?"

We got him a hotel room but he paid the suite price.

Any program of such short duration can only work on a cooperative effort basis and the government agencies involved must use psychology, which we tried to do, to keep

the demands down where they belonged. I for one am very happy to get out of the brokerage business.

(Applause.)

THE CHAIRMAN: Any questions, gentlemen?

(No response.)

THE CHAIRMAN: Thank you.

MR. BRUCE BROWN: Thank you, Bob.

I would like to mention the fact that when the Council next meets, Mr. Hunter will probably not be with us. He will return to Gulf whence he came.

Mr. Hunter has done a perfectly superb job. We are awfully sorry to lose him.

I am going to let you off the hook in about five minutes more. I would like to speak of some of our PAD staff who have completed their terms of servitude and probably won't be here when you next come to Washington. I am going to talk a little about each one. At the end of my observation I will ask the gentleman to rise.

We have one of the oldest inhabitants here, about to leave us, Don Teis. He fought under two flags. He has scars from both. He fought under the flag of Arkansas and since the first of the year he has been fighting under the Lone Star State of Texas as the First Assistant of Production and still appears to be in good faith.

Mr. Teis, will you please stand up?

(Applause.)

MR. BRUCE BROWN: George Knight came to us from Continental as Assistant Director of the Materials Division in charge of foreign terms, than which there is no more perplexing task in PAD. If we can find a successor to him we may let him go before we meet again. In the meantime, take your bow.

(Applause.)

Perry Peterson came to us from Allied and he has labored long and hard, first as the head man on in your Chicago office, later as a Special Assistant to the Director of Supply and Transportation Division, more recently as Assistant Director.

Perry, we will be sorry to lose you.

(Applause.)

Mr. Bob Hastings came to us from the Ohio Oil Company in our Legal Division and he has been herding Directors of Production, he likewise has been working at it for a long time and has a hard time.

(Applause.)

Did Mr. Tarver get here? I would like to talk about him. He was here this morning. He may be working somewhere.

Mr. Tarver came to us from the Federal Power Commission where he was an Assistant General Counsel and he has served as Associate General Counsel of PAD. He is

leaving PAD and it is no secret that he found a firm friendship here and is also leaving Government. He is going to be associated with the Southern Natural Gas Company.

As to newcomers, all these men except George Knight, I think we have replacements for, and we hope to get one for George.

We have a couple of replacement men I would like to introduce:

Mr. Howard Noyes, Assistant Deputy in Charge of Gas Operation.

(Applause.)

We have been kidded about these long-term plans and shifts, such as Ed Warren being knocked on the head last November, to arrive the 1st of April and take office the 1st of June, and we have here today Mr. William Simon. He hasn't started to work for us yet but effective the 1st of May, Bill will take the place of Bill Tarver and as of the 1st of September, Elmer Bazo will give two more years of his life to the Petroleum Administration.

I would like to introduce Mr. Simon.

(Applause.)

I won't be here next time, either.

(Applause.)

THE CHAIRMAN: Bruce, I want to say that that is a most revealing and interesting report that you have presented

on your various Directors. I know the Council appreciates the great value of the information which has been conveyed to us today.

We now resume our Council agenda and I should like at this time, is Mr. Max Burns here?

Mr. Burns, are you ready to present your report of the Committee on Underground Storage for Petroleum?

MR. BURNS: Yes.

THE CHAIRMAN: I don't think you have a complete report but you will indicate the conclusion.

MR. BURNS: Yes.

REPORT OF COMMITTEE ON UNDERGROUND STORAGE FOR

PETROLEUM -- H. S. M. BURNS, Chairman.

MR. BURNS: As you know, Mr. Chairman, our committee only completed its deliberations yesterday. We do not have available for distribution copies of the report. I propose to go through with the formal submission of the report indicating the conclusions and if that meets with the approval of this Council, then we will see Jim Brown gets a sufficient number of copies within a few days to send out to everybody.

(Reading.)

"Your Committee submits herewith report on the feasibility of underground storage for petroleum products. The work on this study has been very ably carried out by a Technical Subcommittee under the

chairmanship of Mr. B. F. Hake of Gulf Oil Corporation. Your Committee wishes to express its gratitude and appreciation of the excellent way in which these studies have been carried out.

"It is the recommendation of your Committee that this report be given widespread distribution throughout the oil industry. Thereby, the normal operation of individual initiative in our system of free enterprise will undoubtedly result in so much development of the underground storage of petroleum products that in a year or so a report on the subject will be essentially a record of achievement rather than a survey of possibilities and feasibility.

"As an illustration of the already existing interest in underground storage we should mention that a quick survey indicates that there is already under way or in operation underground storage facilities, mainly for liquefied petroleum gases to the extent of about 7 million barrels."

I would now like to touch the highlights of these conclusions of the report as it will be when you receive it. The conclusions and some of the reasoning are in the front part of the report, and it is supported by four appendices of a technical nature, with charts and maps.

The Committee is unanimously of the opinion that

underground storage of petroleum is feasible. It offers important advantages:

Feasibility:

First, underground storage of petroleum and petroleum products is feasible and economic under a variety of conditions. A number of such projects are in process of construction or in actual construction in the United States or abroad. Some of the processes are covered by patent.

Secondly, in five areas of the United States, which are described in Appendix 1, it appears that creation of cavities in salt will be feasible. In five other extensive areas cavities mined from hard rocks such as granites, lavas, or metamorphics would be the only available means.

Third, extensive areas, totaling more than half of the United States, are occupied by sedimentary rocks in which it will be practicable, in selected localities, to create underground reservoirs by mining in shale. Many natural underground reservoirs are also present in these areas.

Fourth, widespread in the United States are mines and natural caverns, some of which may be adaptable to storage of petroleum.

Fifth, properly constructed underground storage at suitable sites can, if necessary, meet any foreseeable need for stockpiling of crude oil or finished products, providing

the possible effects of contamination, temperature, and time -- described in Appendix II -- are recognized and compensated for. Probably the distribution of such storage should, so far as practical, be in harmony with demand for the substance stored.

Sixth, similarly, underground reservoirs could satisfy part of the industry's storage requirements occasioned by normal growth or need for replacement. In certain areas, for purposes of normal expansion of storage facilities, steel might be saved (see Appendix III) most expeditiously and effectively by constructing underground storage for crude oil and converting existing steel storage to use for products.

Seventh, purely economic considerations may, in many instances, dictate the substitution of underground for storage facilities.

Our Technical Committee attempted to reach, and they give reasons in relative order of merit, of the different types of underground storage that might be looked at:

First is the one which we all know most about, cavities dissolved from salt deposits.

Secondly, existing mines, with the problems of sealing not so great.

Thirdly, cavities created by the mining of shale where the shale deposits have the necessary strength and freedom from open fractures.

Fourth, cavities created by mining, hard rock, having due regard to the possibility that it will be necessary to seal off, that the seals might not prove to be permanently effective.

Fifth, traps in natural rock such as structural domes. These have the disadvantages of resistance to injection and withdrawal and the possibility of high initial losses from the fluid to be stored.

Six, natural caverns, which may prove, in some instances, to be readily adaptable to the storage of crude oils and petroleum products of low vapor pressure, but which may present very serious problems of sealing, since the presence of a natural cavern indicates permeability of the stratum in which it occurs. This problem is especially serious in projects involving storage of high vapor pressure products.

Seven, abandoned coal mines, which are believed to offer relatively little promise because coal normally contains substances that would contaminate finished products to an unacceptable degree, and also because coal is a relatively weak structural material and is often closely associated with permeable rocks.

How they deal with factors affecting the feasibility:

The economic success of drilling to the necessary

Careful exploration of site by core drilling and intensive study of the cores, looking out for sulphur, hydrogen sulfide, hydrocarbon gases, and hydrocarbon residues. While some of them may not harm crude petroleum, if such is to be stored, they will in one way or another seriously affect the quality of stored refined products.

We have in mind particularly such things as aviation gasoline.

Issue is made of the importance of exploring to establish the geology, including the careful analysis of the same.

Several other factors are gone into:

The question of location, which is a question of avoiding the creation of transportation problems outweighing the natural advantage of caverns.

Sixth, since it appears desirable that every underground reservoir shall have a domed or vaulted roof with relative steep inclination, it may prove unsafe to allow the horizontal dimensions of such reservoirs greatly to exceed their height. Therefore, in the construction of underground reservoirs in bedded salt deposits of limited thickness -- relatively small individual reservoirs only will be practical. The economic advantage of such construction will finally disappear with depth of overburden, making such attempts inadvisable unless economy of steel or manpower, as

such, should dictate the attempt.

Then there are some considerations relative to public safety.

They should be entirely enclosed in rocks that are effectively and permanently impervious by nature or made so by artificial means, except where the contents will be positively confined by ground water. Prominent among the impermeable rocks are salt, gypsum, igneous rock, dense limestone and shale, providing in all cases that these rocks are not cut by fractures along which fluids might migrate.

In order to guard against possible fracture of the reservoir by internal pressures, each reservoir should be under cover of more than one foot of depth for each pound of total maximum pressure -- hydrostatic plus vapor gas pump -- that may at any time exist within it, having due regard to the underground temperature in the locality and the depth considered. The additional thickness of cover that should be provided as a factor of safety must be determined for each individual case.

Competent engineering supervision should make certain that the roof of each reservoir is in rocks of sufficient strength and is designed in such manner as to preclude dangerous caving or upward fissuring.

Fourth, all connections between the reservoir and the surface should be so sealed as to preclude possibility

of any fluid leakage, either upward or downward at any level and this condition should be demonstrated by adequate pressure tests before any petroleum is introduced into the reservoir.

Fifth, reservoirs should preferably be located outside the limits of municipalities.

Sixth, each reservoir should be separated from any other reservoir, or underground excavation -- actual or potential -- by sufficient distance to preclude possible intercommunication.

Seventh, extreme care should be exercised in the construction of reservoirs to avoid rocks that could provide avenues of escape for the contained petroleum from the reservoir.

Now, obviously, as you hear this read, you will see that there is a great deal of work remains to be done and that is why we have recommended that this report be given widespread circulation because our committee is not equipped or set up to carry out field studies or research; that will have to be left to other agencies and most likely to oil companies.

A recommendation is appended here by our subcommittee to the effect that with the rendering of this report it will have discharged the responsibility delegated to it but they recognize the desirability of continued study of

the possibilities of underground storage of petroleum and refined products, in various parts of the United States, and the dissemination of useful information concerning such, and this subcommittee recommends that the National Petroleum Council should suggest to the Secretary of the Interior that, through appropriate channels, he invite each State Geologist to serve as chairman of a permanent State committee, the membership of which should include geologists and engineers drawn from the petroleum and mining industries, and that such committee in such instance should study and issue occasional reports upon the possibilities, initiation, and progress of the establishment and maintenance of underground storage of crude petroleum and refined products, and that further, the Department of the Interior should announce that it is prepared to promote this effort by consultations with the State Geologists and by serving as a clearing house for such information as their committees may collect and release.

Mr. Chairman, yesterday I gave you some misinformation. You suggested to me this is an interim report. I said it was the final report. On reconsideration I realize that such is the capacity for progress shown by our oil industry that the word "final" should not be in our vocabulary but I will say this is all for now.

I move the adoption of the report.

THE CHAIRMAN: You have heard the report.

Is there a motion for its adoption?

(The adoption of the report was moved and seconded.)

THE CHAIRMAN: All in favor of adoption of the report of the committee indicate by saying aye.

Opposed, no.

The motion is carried.

We thank you very much, Mr. Burns, for a splendid job.

I should like at this time to call upon Mr. Jones for a report from the Committee on Government Personnel.

Mr. Jones.

REPORT FROM THE COMMITTEE ON GOVERNMENT PERSONNEL,

BY MR. JONES.

MR. JONES: Mr. Chairman, there are two or three matters that I want to bring to the attention of the Council:

First, for the benefit of those new members, may I say that the Committee on Government Personnel, personnel for Government service here, was created at the time of the organization of the PAD to help the Petroleum Administrator and secure the services of men from industry to staff the various functions and activities under the direction of the Petroleum Administrator.

I think in the review which Mr. Brown has presented this morning, the Council has gotten a better idea of the

wide range of activities as carried on and directed here, than we have had at any time since the formation of the Petroleum Administration for Defense.

Mr. Brown has indicated the first group of men who were drafted to staff the PAD agencies or departments here are now finished with their period of service. With the leaving of Mr. Brown, I think we will see a complete cycle finished as of June 1st. That would mean that your committee, Mr. Chairman, has tried to be helpful to the Administrator in selection of and providing of men, and for replacement as well as initially staffing the organization.

The job will be continuing. Mr. Warren, the new Deputy Administrator, will follow the same procedure as followed by Mr. Brown, wherever possible securing by direct contact the services of men that he wants to staff his various departments. Where he finds difficulty, he will call on the Committee on Personnel, and as I have indicated to you before, we will act as an arm-twisting committee to try to make available the services of men who because of personal reasons are reluctant to leave their jobs or because the company's practices are a little selfish and they are not made available.

I want to say, Mr. Chairman, that the response of the companies has been splendid and we have had almost no

case in the two years or almost two years that we have been reactivating this work where a company executive has refused to make available the services of a desired man.

I don't think that we ought to break our arms patting ourselves on the back about it. I think it is a purely selfish matter, and I think it is definitely in the interest of the petroleum industry to see to it that important positions here are filled by men of competence and I think most of us have come to realize that we would be more than selfish if we did not approach the problem in an objective way. I think, too, that it is a part of every man's duty to render service when he is called upon, and certainly we know that many of the men who have come here to serve PAD have done so at great personal sacrifice.

As Mr. Brown was introducing some of the men who were about to retire I wished that it were possible for him to announce at the same time a medal of merit be given to them, because they get very little recognition. I know that many have not come here and served in vain, that they will go back better equipped, and I know of no case where a man has left his job and gone back to his organization that has not been a better man and usually better appreciated.

Usually, in my case, where a man has come, he has cost me more when I got him back than he did when he left.

Of course, the Personnel Committee will recommend increases in salary for all of you men that have come down.

I want to express my thanks to the men who have made these retiring executives available, particularly to Bob Wilson, who at great inconvenience to himself, made Bruce Brown available as our first Deputy Petroleum Administrator in this period.

I know that it was not convenient. Mr. Brown had just taken over the Presidency of one of the Standard of Indiana subsidiaries and had hardly gotten his feet under the desk when he was drafted to come back. It was not convenient for Bruce to come but he laid down the presidency of his job and he has been here for almost two years rendering one of the highest -- well, I think one of the best pieces of public service that I have ever seen.

It is not possible for us to always accord or express in any formal fashion our thanks and appreciation for that sort of thing, Mr. Chairman, but in the present instance your Committee on Personnel recommends that we arrange to tender a dinner to Mr. Brown on the 20th day of May here in Washington, that will be just a few days before his retirement. In due season the members of the Council and associates who have worked with him, and other company executives who have been active in this work will receive a formal invitation. I hope you will come. It is only a

token of appreciation but I think it is something that we will all get a little satisfaction out of.

The time and place, as I say, will be the 20th of May, in Washington, probably at the Mayflower Hotel, but you will find in the mail very shortly a formal invitation and I hope you will arrange to be present.

I would like to add my thanks to that of the Council for the fine services of men who have served and to alert you company executives to the point that Mr. Warren will be calling on us from time to time for additional men and there is no such thing as final in our vocabulary and neither is there any such thing as "no" when we ask you for a man.

(Applause.)

THE CHAIRMAN: Thank you very much, Mr. Jones, and may I add a few words of endorsement to your suggestion that we take such appropriate action as we can to recognize the tremendous value of the services that have been rendered to this organization by Bruce Brown, one of the finest organization pieces of work that I have ever known, and I certainly think he is entitled to the gratitude of every member of the Petroleum Industry.

I was somewhat familiar with the circumstances under which he was drafted to come here and I share the opinion expressed by Mr. Jones, it was not an easy thing

for him to do but after he came he started in to do a job and has certainly done a magnificent job which has been so thoroughly demonstrated by the reports that have come to the Council today.

I sincerely trust that while we will not have a Council meeting on that date that will bring the members of the Council here to Washington, I hope as many as can possibly come will take the time to come here on the evening of May 20th to join with us in paying tribute to the services of Bruce Brown.

Mr. Jones, as Chairman of the Committee on Government Personnel, and knowing all of the circumstances under which the men have been brought here, I hope that you will continue to function as Chairman of this committee.

MR. HERLIHY: The 20th is the API Marketing Committee in Boston.

THE CHAIRMAN: It is also the annual meeting of the stockholders of the Plymouth Oil Company, but the Committee has fixed a date.

MR. JONES: We had a terrible time on that. We were limited by many factors, one of the principal factors being the time we could get a reservation in Washington to hold a dinner. You know how many people are coming into Washington at this time of year for conventions and the 20th was about the only available date. I am just

sorry if it is an inconvenience for some of you to be here. It was the best we could do. I hope it is possible to change your commitments to be on hand.

MR. SPENCER: Mr. Chairman, I assume you also had to take into consideration that the APR Marketing Division meets in Boston on that date.

MR. JONES: I don't know what we can do about it, Spence.

THE CHAIRMAN: You have explored that to the point that there is no other date available.

MR. JONES: Yes.

THE CHAIRMAN: I am sorry but it seems to become a finality as far as that date is concerned. I made objection to it myself but was overruled.

MR. JONES: If the meeting is held in the daytime I know the flying time from Boston, maybe we can fly down.

I might say I think the members of this Council and the company executives and the government associates that have worked with Mr. Brown owe it to him to come here. I know the Chairman of the Council at great inconvenience will leave his stockholders' meeting to get here. I guess that is the most important meeting we corporate executives have each year. I urge you strongly to come down.

THE CHAIRMAN: It looks like you have done some good.

Mr. Russell Brown, from the Committee on Oil Country Tubular Goods.

Of course, this is a subject that is very dear to the heart of the members of the Council, Mr. Brown.

REPORT OF THE COMMITTEE ON OIL COUNTRY

TUBULAR GOODS -- RUSSELL B. BROWN, Chairman.

MR. BROWN: Mr. Chairman, I am sorry that the complications involved in getting all of this character of steel together has been such that we are not yet in position to make a final report. I hope that all of you realize what I think is the importance of this opportunity of letting the manufacturers of our oil country goods know the desirable types because of the limited supply. I was further warned in the reports we had this morning we are going to need to make all we can out of every pound of steel we can get.

We finished the mailing of the questionnaires. They are due in here as of today. We sent out 6,300 questionnaires, in response to the authority you gave us at the last meeting. Of this number 1,151 have been returned and of the 1,151, 717, or 62 per cent, contain information on casing ^{and} tubing in sufficient form to be useful. The others are such as we will need to return them for further development.

The reports received are from operators who have drilled and completed 4,375 wells in that quarter, the total footage of 17,944,627 feet drilled. This repre-

sents about 37 per cent of the accepted industry operations for the fourth quarter of 1951 on well completions.

In other words, we have material on about 37 per cent of the wells drilled in that quarter which represents a fairly accurate picture of the entire period. The information we have received to date is not sufficient to provide indicated desires as to sizes, weights, or grades of oil country tubular goods for the use of the industry as yet.

In that connection, the committee finds that we will need to return some of them. Some of the companies had not yet, as of yesterday, made their report. We had a number of men working here on this all the time.

The Standard of Indiana alone, Hubert Ladd, he has been assigned here for full duty, spending all of his time here working up these questionnaires. He may have to call on some of you again for some additional help because the compilation is rather difficult and may take some little time.

For that reason, we are not as yet prepared to make the final report. I am making this as tentative. I think we will have it all in shape within two or three weeks if everything goes all right.

Thank you, Mr. Chairman.

THE CHAIRMAN: Thank you.

Any questions, gentlemen, to Mr. Brown, in connection with this committee report?

(No response.)

THE CHAIRMAN: Thank you, Russell.

Mr. W. S. S. Rodgers, Chairman of the Committee on Synthetic Liquid Fuels Production Costs, is unable to be here today, because of the company meeting, but Mr. Foley, who is Secretary of the committee, is here, and we will be glad, Mr. Foley, to have any advice or report from you as to the progress of your work.

REPORT OF COMMITTEE ON SYNTHETIC LIQUID FUELS

PRODUCTION COSTS -- J. W. FOLEY, SECRETARY.

MR. FOLEY: Mr. Chairman, Council Members.

Mr. Rodgers, Chairman of the Committee on Synthetic Liquid Fuels Production Costs, asked that I express his sincere regrets that he is not able to be at this Council meeting. He is holding his Annual Stockholders' Meeting in New York today.

The Committee on Synthetic Liquid Fuels Production Costs does not have a formal report to submit to this meeting of the National Petroleum Council. The present status of the synthetic fuels study is briefly as follows:

The various subcommittees are actively engaged in a continuation of their investigations and satisfactory progress is being made on all three phases of the study.

Phase 1. The work on the alternative method of coal hydrogenation is nearing completion and a formal report should be submitted by the Subcommittee in three or four weeks.

Phase 2. The Bureau of Mines has now practically completed the design of a Fischer-Tropsch synthesis plant incorporating the suggestions and corrections of the Subcommittee. Members of the Subcommittee are scheduled for a review of these data with the Bureau of Mines, following which cost calculations will be made by the Subcommittee. It is anticipated that the report on the Fischer-Tropsch process will be completed in October, 1952.

Phase 3. The work on the alternative method of retorting and processing shale oil has been deferred until data is available from the demonstration unit retort now under construction for the Bureau of Mines. It is anticipated that this unit will be completed during July, 1952, and it is probable that the Subcommittee report on this study will be completed during the latter part of 1952.

All three studies are proceeding smoothly and relations between the Subcommittee and Bureau of Mines personnel at all levels continue to be harmonious.

Yesterday, Chairman Hallanan received from Bureau of Mines Director J. J. Forbes a copy of a report from Ebasco Services, Inc., to the Bureau of Mines, titled

"Coal Hydrogenation Plants -- A review of certain elements of the Bureau of Mines Cost Estimates for Synthetic Liquid Fuels." An analysis of the Ebasco review will be made immediately by your Committee, and a complete report will be submitted to the National Petroleum Council.

Mr. Chairman, that concludes the report."

Thank you.

THE CHAIRMAN: Thank you very much. We will look forward to a final report at the next meeting.

Mr. Baker, are you at this time in position to make a report from your Special Committee on Printing and Distribution of the Report of Committee on Oil and Gas Availability?

REPORT OF SPECIAL COMMITTEE ON PRINTING AND
DISTRIBUTION OF REPORT OF COMMITTEE ON
OIL AND GAS AVAILABILITY -- PETROLEUM PRO-
DUCTIVE CAPACITY -- HINES H. BAKER,
CHAIRMAN.

MR. BAKER: Mr. Chairman, at the last meeting of the Council you approved the report of the Committee on Oil and Gas Availability, so-called Productive Capacity Report, and a special committee was appointed to deal with the question of printing and distribution of it. That committee has had, with the cooperation of Mr. Brown, considerable contact with the printers and has arranged

for the printing of this report in two forms, first in the form of a book, with paper binding, and second, with a cloth binding.

The arrangements are that there will be approximately 2,000 copies of the cloth binding which will be available for distribution to the larger reference libraries and to some of the professors who may be called upon to use a book of this kind. Altogether it is contemplated to print about 35,000 copies, and the distribution will be made almost in accordance with the plan of distribution for the National Oil Policy Report.

These paper-bound copies will cost on a volume basis 40 cents per copy and the cloth-bound volume costs about \$1.40 a copy.

Mr. Brown has suggested that some have offered to make some contribution toward the distribution of this cloth volume to the libraries and if you would like to do that you may make your contacts with Mr. Brown for that purpose.

If you wish any further details on the extent of distribution, Mr. Brown is prepared to give it.

In conversations with the O. I. I. C., the view is brought out that that organization could assist in a part of the distribution of this volume more effectively than the National Petroleum Council, by getting it forcibly

to the attention of certain groups, notably the editors of papers and the O. I. I. C. is now engaged in the preparation of a short 18 page summary or shortened version of this which it has in mind to distribute to editors, I believe, after consultation with the editorial group of the Availability Committee, after which it is contemplated that those same editors may receive a cloth-bound copy for library reference.

I believe that is all.

THE CHAIRMAN: Thank you, Mr. Baker.

Any remarks?

Any questions in connection with this report?

(No response.)

Thank you very much, Mr. Baker.

Gentlemen, I know it will be of great interest to you to have a brief address this afternoon from a representative of the Mutual Security Administration.

At some meetings of last year, we had the benefit of very interesting discussions about the Marshall Plan and how the petroleum was being handled to those countries that were beneficiaries under the Marshall Plan. This afternoon we are privileged to have as a speaker Mr. Cornelius J. Dwyer, Chief, Petroleum Branch, Mutual Security Agency. I take pleasure in presenting Mr. Dwyer to the Council.

Mr. Dwyer.

ADDRESS OF CORNELIUS J. DWYER, CHIEF,

PETROLEUM BRANCH, MUTUAL SECURITY AGENCY.

MR. DWYER: // A little over four years ago, on April 3, 1948, the Marshall Plan, a great cooperative effort to assist Western Europe to recover from the ravages of World War II, got under way. Forty-five months later, on December 31, 1951, the European Recovery Program came officially to an end. Before it ended, however, the threat of a new world war had forced the Western World to undertake a major rearmament effort. As a result, Europe is still receiving United States aid, under the Mutual Security Act, but for defense rather than rehabilitation.

It is hard to guess concerning what might have been, but we in the Mutual Security Agency are reasonably sure that Europe, except for two or three countries, would now be on her feet and able to thrive without United States assistance, were it not for the urgent necessity of rearming.

What part did petroleum play in this recovery effort? I don't have to tell you gentlemen that the oil business is a very big one, indeed. Petroleum, therefore, was bound to be very important in the European Recovery Program.

During the forty-five months of the Marshall Plan, \$11.4 billion worth of imports of all kinds into the par-

ticipating countries was financed by ECA. During this period we calculate that the dollars spent by these same countries on petroleum account amounted to roughly \$3.8 billion -- a sum equivalent to more than one-third of the dollar aid expended.

This total of nearly \$4 billion is made up of an estimated \$1.8 billion for the f. o. b. cost of Europe's imports of crude oil and petroleum products plus something in the order of \$2 billion representing the cost of petroleum equipment, technical services, and so forth, and freight, on the oil imports, as well as the net dollar cost of the foreign operations, outside of the United States, of the British and British-Dutch oil companies. Of the \$1.8 billion of oil imports, 30 per cent represented imports from the United States. The balance came from Middle East and Caribbean sources.

Of course, the Economic Cooperation Administration, which administered the spending of most of the foreign aid, directly financed only a small portion of this \$3.8 billion total. American companies invested approximately \$100 million of new capital in Europe during the period and \$250 million of the cost of British company expansion was met by a large private loan from American insurance companies -- the largest such loan in history. ECA financed approximately two-thirds of the f. o. b. cost of

the oil imports, about 15 per cent of the dollar equipment fees, and services going to Europe, and about one-third of the dollar freight charges. We did not finance any of the dollar costs arising from the operations of the British and British-Dutch companies outside of Europe.

Nevertheless, all expenditures in all of these categories, whether ECA-financed or not, affected the dollar balance of payments of the United Kingdom and other participating countries, as well as other interests of the United States. Since we could not avoid some degree of responsibility for the effects of these expenditures, we had to develop policies regarding them.

Our basic petroleum policy was designed to furnish Europe with the oil it needed for recovery, and now for defense, for a minimum expenditure of dollars. At the same time, we felt that, while dollar saving, both currently and for the future, was extremely important, this must not be achieved at the expense of the petroleum industry at home, nor of vital American interests abroad.

It would have been difficult enough to carry out this policy if no long-term changes in world oil flows had been taking place and if increases in both supply and demand had been steady and predictable. However, such was not the case.

Our operations took place against the background

of a revolution in world oil trade -- the emergence of the Middle East as a major producer and its replacement of the Western Hemisphere as the dominant source of supply for Europe. A few figures show the magnitude of the change.

In 1938, when total Middle East production was 328,000 barrels per day, 77 per cent of European oil imports came from the Western Hemisphere and 23 per cent from the Middle East. By 1951, the Middle East was producing almost 2,000,000 barrels per day and the percentages were almost completely reversed -- 71 per cent of supply coming from the Middle East and only 29 per cent from the Western Hemisphere.

To complicate matters still further, the world-demand-supply relationship shifted from shortage to surplus and back to shortage during the short period of the Marshall Plan. Each time, many people believed the existing crisis would last much longer than it did and ECA was urged to modify its long-term policies in conformity with those beliefs.

The history of the European refinery expansion program, by far the most important part of our over-all program, is illustrative of the development of ECA policy. In the summer of 1947, nearly five years ago, the European nations, which were later to participate in the Marshall

Plan, met in Paris as the Committee for European Economic Cooperation, and estimated that existing European refining capacity would approximately double by 1951 to 68 0,000 barrels per day.

However, by the time ECA actually started operations in April, 1948, the total of refineries building, planned and rumored was growing almost daily. By the summer of 1948, this total represented a capacity of more than 1.4 million barrels per day in 1951 -- twice the OEEC estimate of a year previous. It was obvious that the European refinery expansion program needed some kind of overall coordination.

In December, 1948, therefore, ECA announced that no refineries would be approved for financing until such an integrated program had been established. Three months later, the Oil Committee of the Organization for European Economic Cooperation -- OEEC -- came up with a recommendation for a capacity of 1.0 million barrels per day by Fiscal 1952. At the same time, the Oil Committee stressed that the recommended program was a guide, not a goal, and expressed useful criticisms of the individual country plans. In subsequent reports, the Oil Committee revised their estimates of the total European refining capacity figure needed by Fiscal 1952, first downward, then upward again as demand estimates changed. The current estimate for

European refining capacity when the program is completed -- in 1954 or thereabouts -- is about 1.7 million barrels per day -- nearly six times 1947 capacity. This estimate reflects an unprecedented increase in demand of 24 per cent in Fiscal 1950-1951, following the outbreak of the Korean war and high annual increases in following years because of the rearmament program and the loss of Abadan.

Once the OEEC Oil Committee had investigated and coordinated the individual expansion projects into a European program, ECA's position could become more flexible. ECA decided to take the programs of the Oil Committee, as OEEC itself did, as a guide and look at individual refineries one by one in the light of their ability to refine economically and to market their products and in the light of the over-all requirements of the country in which they were to be built.

Obviously, the OEEC, in its screening process, was confronted with many delicate problems. The committee did not have the authority to order a refinery project to be delayed or abandoned; neither, in fact, did ECA in the case of refineries not financed by the agency, except by making use of the ultimate sanction of threatening to hold up all economic aid -- an extreme to which ECA had to resort only once. However, the screening process was gradually improved.

To begin with, each project had to be approved

by the national government of the country in which the refinery was to be located. During the formative period of the Marshall Plan, all projects were subjected to an additional screening by the oil section of our Paris office and the petroleum branch of ECA. Later, after Dr. Bransky, Chief of the Petroleum Section there, became a full member of the Oil Committee, the bulk of the screening responsibility of refinery projects could be shifted to that committee. Marginal projects were almost always stopped by the committee, usually through delaying tactics rather than outright disapproval.

Along with this problem of the proper size of European refinery expansion came the problem of over-expansion of British and British-Dutch companies world-wide. This issue came to a head during the surplus period of 1949-50 when the "dollar-sterling oil" problem became acute. ECA's position was expressed formally in testimony before the Harris Subcommittee of the House Interstate and Foreign Commerce Committee on March 6, 1950. We said at that time:

"The financing of British and British-Dutch companies' expansion in both Europe and outside Europe has presented special problems. While recognizing the urgent necessity for the United Kingdom to save dollars wherever possible, we have insisted that

its recovery should not be achieved by means which might result in a new pattern of protected trade presenting additional obstacles to a return to convertibility of sterling and liberalization of trade. In addition, we have had to consider the implications of this program upon the broader United States national interest, including our desire for strategic reasons to maintain American-owned concessions abroad."

The British maintained that they were not engaged in a program of over-expansion designed to drive American companies out of traditional markets. However, because of their serious dollar problem they felt that, if a surplus should occur, regardless of plans, they had a right to make use of it, even if it meant displacement of dollar oil.

Whatever British motives were, we had some doubts concerning the actual long-term effect of the British and British-Dutch companies' expansion plans. Therefore, in the summer of 1949, we sat down in Washington with representatives of the British and Dutch Governments and put together statistics we and they had obtained on the foreign expansion plans of our respective international companies. This compilation showed a very obvious surplus in 1952 and 1953 on the basis of existing trends in world consumption.

After the completion of this study, we told the

British that, we could not finance any of their refinery projects in Europe so long as those projects appeared to be part of a total refinery expansion program which would lead to an unmanageable surplus. Furthermore, we advised them that it was questionable whether we ought to continue Marshall aid to them while they were spending free dollars on such an uneconomic program. After studying our joint report for a while, the British revised their expansion program downward to remove the apparent future surplus.

Meantime, in separate negotiations between the British Government and the American companies, so-called "incentive schemes" were developed according to which the companies could sell for sterling roughly to the same extent to which they purchased sterling area goods and services.

The loss of Iran has, for the moment at least, shelved this dollar-sterling oil problem. It may arise again; but precedents have now been set which will make easier the next settlement.

Another of the permanent gains we can chalk up is the establishment of the OEEC Oil Committee. The experience its members gained in working together, as well as the statistics and other information gathered under the committee's direction, will prove extremely useful in the new NATO committee which has been established. The job of

coordinating wartime planning will be much easier than it would have been without the experience of coordinating peacetime plans.

With the outbreak of the Korean war and the start of the European rearmament effort, the European dollar shortage was pushed somewhat into the background by an even greater shortage, namely that of basic materials and specialized United States equipment. This new shortage threatened the provision of world supplies of petroleum adequate to meet an emergency. While the Petroleum Administration for Defense was charged with the over-all responsibilities of making these supplies available, MSA was given the responsibility of ensuring that the expansion and maintenance of petroleum facilities kept pace with the general progress of the rearmament effort within the area for which it acts as a claimant agent. On the one hand, the petroleum program within the MSA area was thus integrated in a vertical fashion into the over-all program of world petroleum supplies for which PAD is responsible, while, on the other hand, the same program became, because of its strategic aspect, an increasingly more important sector of the area objectives of the Mutual Security program.

During the four years of the Marshall Plan, ECA helped to develop the European petroleum equipment industry. This effort included a technical assistance project conduct-

ed in this country to acquaint European manufacturers of petroleum production and refining equipment with American methods and know-how. Today, both the foreign and domestic petroleum industry can look to Europe for an increasing quantity and variety of oil equipment and basic materials. MSA considers it one of its most important current responsibilities to assist in channeling this new European output into those areas where it is most needed.

Within the past year, the Iranian crisis has affected the entire Free World. However, while Britain's financial position continues to suffer from the loss of Iranian oil, the supply deficit has been all but eliminated, except for residual fuel oil.

Europe's chronic coal shortage was the cause of another crisis last winter when a large quantity of U. S. coal had to be shipped to Europe. Shipments were unfortunately concentrated within a very few months, thus both creating a shipping shortage, which drove rates up, and intensifying the fuel oil crisis. Only an exceptionally mild winter prevented this problem from reaching really major proportions.

For five out of the past six years, U. S. coal has moved to Europe at a rate of 20,000,000 metric tons a year -- the equivalent of 280,000 barrels a day of fuel oil. The continuation of Europe's coal shortage for such a

long period of time raises a serious question as to whether present policies as to the relative place of fuel oil and coal in Europe's future energy pattern should not be revised.

Fuel oil can be imported or produced from imported crude oil everywhere in Europe at a cost considerably below the delivered cost of U. S. coal and, in most places, below the cost of British or German coal.

A few figures will show this to be true:

At the moment, freight rates on coal shipments to Europe are quite low while tanker rates are abnormally high. Furthermore, except for the coal-producing countries of Britain and Germany themselves, Northern France is the most favorable area of competition for coal because of its nearness to those countries.

Yet, today, the delivered price in Northern France of United Kingdom steam coal of a grade competitive with residual fuel oil is about \$15.50 per long ton or \$2.93 per barrel of equivalent fuel oil. The delivered price of American coal in the same area is about \$18.50 per long ton or \$3.50 per barrel. The price of imported residual fuel oil, at USMC plus 50 per cent, would be about \$17.30 per long ton of equivalent coal or \$3.26 per barrel. This is less than the landed cost of American coal, but higher than British coal. However, at a tanker freight

of USMC less 30 per cent, the price of fuel oil would be cheaper than British coal, at \$12.96 per long ton, or \$2.45 per barrel; and modern tankers can be operated quite profitably at that rate. While actual French internal prices for both coal and fuel oil are subject to governmental price control, these price comparisons give a picture of the true economic costs.

Now, Europe's consumption of fuel oil has expanded remarkably since 1948 -- at an average annual rate of 22 per cent a year. Refinery yields are now averaging 37 per cent fuel oil. There is still a shortage, however -- a shortage which was, of course, intensified by the loss of Abadan.

I am sure that part of the reason for the shortage lies in the price structure, with fuel oil unable to command the high price received by imported Polish and American coal because of various artificial restrictions on price competition.

Europe is now buying about 28,000,000 tons of American coal -- 400,000 barrels a day of equivalent fuel oil -- this fiscal year, at a total cost of \$600 million. The OEEC Coal Committee estimated in January of this year that a coal gap of 25 to 35 million tons -- or 350,000 to 500,000 barrels a day -- would still exist in 1956. The committee thought that Poland might be willing to supply

10 million tons of this gap, political considerations permitting, with the United States providing the rest.

Since the publication of that report, the OEEC has decided that the gap may not be nearly so large as first estimated, provided that positive measures are taken.

U. K. coal miners would have to take a number of actions, unpalatable to them, most of which they have been refusing to do since the end of the war. Germany, also, would have to take major steps to increase output.

Somehow, I lean to the belief that the labor problem in European coal mines cannot be really solved so long as full employment exists -- not, at any rate, unless wages and prices are considerably increased above present levels -- and perhaps not even then. All European governments are, of course, thoroughly committed to a full employment policy.

Over the long run, if my pessimism is justified, fuel oil is going to have to provide the bulk of future increases in European requirements for industrial energy. European refineries will run 50 per cent or more of fuel oil and it will no longer be priced as a by-product, tied by out-dated tradition to the U. S. price, but as a prime product in line with the European demand pattern -- so different from ours.

Even though there is a dollar element in the cost of fuel oil made from foreign crude oil, it is bound to be

less than the cost of shipping large quantities of U. S. coal to Europe. There is a security risk involved, of course, but this, I think, has been overemphasized. There is also something of a risk involved in relying on Poland to supply the equivalent of 150,000 barrels per day.

It is the short-term problem I am so worried about. As I have noted, the OEEC now says that their January estimates were too pessimistic and that required imports of U. S. coal won't be very great during 1952-1953. However, my friend, Bruce Brown, has told us that fuel oil is going to be very short next winter and has asked us to tell our European clients that, if they have any doubts at all concerning domestic coal supplies, they had better start taking the U. S. coal they need this summer. If our clients miscalculate, and then ask for a lot of coal in the middle of next winter, they, and we in MSA, are going to be in very bad odor indeed with PAD and the whole U. S. petroleum industry.

Our commodity program for next year shows clearly how, in the last four years, the dollar cost per barrel of the oil consumed by Europe has decreased. American oil companies will supply 617,000 barrels per day of oil to Europe during Fiscal 1952-1953, as compared with 427,000 barrels per day in Fiscal 1948-1949, an increase of 44 per cent by volume. The f. o. b. value of this oil will be

\$650 million dollars, yet its dollar cost to the participating countries will be only \$520 million, a five per cent increase over the dollar cost of the much smaller quantity supplied in 1948-1949. The dollar cost per barrel will actually decrease from \$3.17 in 1948-1949 to \$2.31 in 1952-1953.

There is a two-fold reason for this decrease in dollar cost per barrel: \$130 million out of the total of American company supplies will be sold for currencies other than dollars. Furthermore, the unit cost of supplies has decreased with the shift from high-priced products to low-priced crude oil. In 1948-1949, 43 per cent of dollar oil imports consisted of crude oil; but by 1952-1953, crude oil will comprise threequarters of American company supplies.

We don't know now how much of the \$520,000,000 we will finance. We figure \$2,000,000 to \$3,000,000 minimum, depending on how much we get from Congress next year and how the countries choose to spend their money.

As to the other problems which MSA faces in the future, their nature has changed as the goal has changed from economic recovery to military preparedness. The overall responsibility for free world supply problems in times of war and other crises rests, as it should, with the Petroleum Administration for Defense; but, within this framework, our responsibility continues for insuring that tax-

payers' money is spent economically and that the nations which we are assisting utilize their own resources carefully.

I believe our policies in the past four years have proved reasonably successful -- there are few now who are seriously concerned about too much European refining capacity -- and I am confident that our policies will prove equally successful during the life of the Mutual Security Program if they continue to be responsive to the needs of the nation, the industry and the times.

(Applause.)

THE CHAIRMAN: Thank you.

Gentlemen, are there any questions which you would like to direct to Mr. Dwyer in connection with the paper he has presented?

(No response.)

Apparently not. Mr. Dwyer. Thank you very much.

MR. BRUCE BROWN: Gentlemen, I would like as a parting shot in my bureaucratic capacity to talk a little about the National Petroleum Council. Probably I will never have a better opportunity.

I want to approach the thing a little bit backwards, but you will see quickly what I am driving at when I point out that Russell Brown and his committee report talked about sending out 6,000 questionnaires to oil produc-

ers to get their opinions about pipe sizes. We don't know just how many oil producers we are. When we put together data for the Patent Committee investigation we found the list with at least 5,000 people with names and addresses that wanted oil country tubular goods within that quarter. There must be over 5,000 producers.

Our Natural Gas Production and Processing Division, when they brought the request to me, I questioned approval of the release, because I didn't believe it. I made them check. I was wrong, and they were right. They said they had sent out a list of 13,000 questionnaires to LPG dealers and said they had a list of 13,000 businessmen selling LPG.

There are 369-odd operating refineries in the United States. Of course, there are a great many of those refineries owned by companies that own more than one refinery -- sometimes four or five -- but there must be at least 100 refining companies, 600 natural gasoline plants, many owned by other elements of the industry, and some independent of any other element.

There are scores of transportation companies, barges tankers, trucks, railroad cars, pipe lines. There are something over 200,000 independent sales operations of one kind or another, and an enormous number of trade associations, particularly in the fields of marketing and production.

There are scores of equipment manufacturers.

Now, in response to the insistent pressure on the Secretary of the Interior through the years this National Petroleum Council has been enlarged until today it has, I think, 101 members.

In order to have a satisfactory Council meeting you need a room about this size and when you counted in the visitors, etc., you find that you have to have 150 or 200 people to have a Council meeting.

Now, of the Council members, there are about a fifth -- 20-odd in number of individuals -- who come from or are employed by large integrated companies that whatever they do in the field of production and marketing, at least, refine somewhere between 70 and 80 per cent of the crude oil used in this country in the form of products.

Now, it is quite a task to get a representative Council and that is a task which is not within the ordinary orbit of the Council itself because the appointments to the Council are personal appointments except for a few ex-officio trade association appointments, because the appointments are made by the Secretary of the Interior.

The Council has reached a size which in my opinion is as big or maybe a little bigger than it should be for efficient operation, yet the oil business grows every year. People get in it. Some go broke but more stay in it, and

the question of selection of Council membership gets to be more and more vexing.

Personally, I am glad that Ed Warren will have to worry about it from now on, to try to meet the recommendations from so many people as to appointments to the Council.

Now, I have a thought which I commend to your attention, that since there are these thousands of enterprises in our industry in the United States, and since obviously they can't all be represented on the Council, that perhaps a little of a policy of rotation might be good for the industry and for the Interior Department and for the Council. If every person who is appointed to the Council is reappointed each time for life, more or less, so long as he comes to meetings, there is very little chance for rotation, there is very little chance to get this conception of the industry-government cooperation and the activity of the Council disseminated in the oil industry.

I tried a little bit of rotation this last time and got spanked for it a little bit but I thought that we could not keep adding all the time, we might have to drop someone we added, as long as we kept our balance of the different segments of the industry in the country, that that would be satisfactory, it might do good.

This is a mixed question. I don't know whether the Council would like to go into it or not but I suggest

to everybody's consideration, Mr. Warren, Mr. Stewart, Mr. Hallanan, members of the Council themselves, maybe it might be a good idea for you to study the Council and see what the collective group might think of the system of appointment.

Of course, when it comes to by-laws and dues, that is outside of the orbit of the government, since you are an autonomous body but this question of membership is a sort of mixed question between the Council and the Secretary.

Perhaps there are people who have views on that subject that have never been consulted. I merely suggest to you that it is a fit topic for thought.

The Council is in its sixth year now. This growth is occurring. Perhaps we do have to come to some sort of orderly rotation so that more people get a chance at this.

Finally, coming out with another daring remark, I also commend to your serious consideration whether this system of having alternates is worth what it costs. After all, the appointments by the Secretary are personal appointments of individuals selected for their particular qualities and advisory ability. Obviously every Counselor can't get to a meeting every time, and should not be expected to. But while the question of alternates has been accepted or tolerated or whatever you call it, I am wondering whether

it is good, whether if a Council member can't come, whether he should not just stay away. It might encourage more of them to come. It might encourage more faithful service to the Council. It might help in a rotation plan.

I could not very well say that as a member of the industry, or except just before I go out of this job, but I thought it was worth saying, I hope you bear with me.

I have enjoyed working with you. I thank you for your support, I thank you for your good will, which you have given me. I have enjoyed it.

(Applause.)

THE CHAIRMAN: You have heard the discussion that has been opened up by Mr. Brown.

Bruce, my own feeling about the rotation of the membership of the Council is that this body is the creature of the Secretary of the Interior. I don't think that any responsibility rests with the Council as a group or with the individual members to determine what his policy should be. I think that is a decision that rests with him and as a matter of fact, we have had considerable rotation. I think the point was brought out last night that there are just 33 members of the original Council who remain as members of the present Council.

However, I have no objection to a very open and frank discussion if the members of the Council see fit to

engage in it.

On the matter of alternate representation, I don't see how we could terminate that without doing some very serious disservice to some members who by circumstances cannot attend the Council but who wish for someone to sit in as their representative, at least to give a report to them of what takes place.

Now, no alternate is ever entitled to vote upon any matter coming before the Council. So long as an alternate just sits in as a representative or a proxy or as an observer of the proceeding, I don't think we are doing any great violation of the trust or the confidence imposed upon the membership.

I just state those as my own idea in response to what you have said.

Now, gentlemen, we have reached the conclusion of our agenda. The meeting is open for any discussion and we will be glad to recognize anyone.

Mr. Marshall.

MR. MARSHALL: Mr. Chairman, I would like personally to express to the members of the Council my very great appreciation for the good wishes and much too generous expressions of opinion which I received some months ago when I was flat on my back. I very deeply appreciate it, and it meant a great deal to me when I was sort of

flat to have those expressions from the Council.

(Applause.)

THE CHAIRMAN: Howard, you are an institution in this Council and I want you to know that you were sincerely and genuinely missed in our deliberations. Those expressions of our interest came from the heart.

MR. MARSHALL: Thank you.

THE CHAIRMAN: Does any other member have anything to say at this time, under the head of new business? I wish we might have a more voluntary and free discussion from the floor. We want this to be a very democratic body and anyone to have an opportunity to say whatever he thinks.

Barney Majewski has left, and we miss him, of course.

If no further business, then a motion to adjourn is in order.

All in favor indicate by saying aye.

The ayes have it.

(Thereupon at 3:35 o'clock p. m., the Council adjourned.)