NATIONAL PETROLEUM COUNCIL

DECEMBER 15, 1998

DOLLEY MADISON BALLROOM
THE MADISON HOTEL
FIFTEENTH AND M STREETS, N.W.
WASHINGTON, D.C.

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P R O C E E D I N G S

CHAIRMAN FOSTER: Good morning. My name is Joe Foster, Chair of the National Petroleum Council. We have what I think is an interesting and worthwhile session scheduled for today.

As is our custom, the check in outside the room will serve as our official attendance record. If there's no objection, I'll dispense with the calling of the roll.

Secretary Richardson will be here a bit later, about 10:00, and he's asked that we proceed with our agenda until he arrives.

What I'd like to do now is introduce the people at the head table and for the record.

On my far left is Bob Kripowicz, the Acting Assistant Secretary for Fossil Energy.

Next to Bob is Jim Nokes, who chairs the Product Supply Coordinating Subcommittee.

On my left is Richard Clarke, National Coordinator for Security Infrastructure Protection and Counter-Terrorism. I probably didn't get that right, but it's a mouthful, Dick.

On my far right is Marshall Nichols, Executive Director of the Council.

Next to Marshall is Claire Farley, Chair of the Natural Gas Coordinating Subcommittee, and next to her is Bill Wise, Vice Chair of the NPC Committee on Natural Gas.

Secretary Richardson invited Dick Clarke to addresses the Council this morning on the important issue of Critical Infrastructure Protection. Dick was appointed by President Clinton last May as the first National Coordinator for Security Infrastructure Protection and Counter-Terrorism.

As national coordinator, he reports to the President through the National Security Advisor, and when the NSC Principals Committee meets on security issues, he serves as a full member of that Cabinet-level Committee.

Richard Clark is a career member of the Senior Executive Service, having begun his federal service in 1973, in the Office of the Secretary of Defense as an analyst on nuclear weapons and European security issues.

Prior to joining the National Security Staff, he held various posts at the State Department and in the

Bush Administration he coordinated State Department support of Project Desert Storm and led efforts to create a post-War security architecture, and Dick will address you at this time.

Dick.

REMARKS BY RICHARD A. CLARKE

MR. CLARKE: Good morning and welcome to Washington.

I asked Bill Richardson how I should break the ice with this group, he said "Ice. Ice. That's very good. Tell them there's going to be a lot of ice. It's going to be a cold winter."

(Laughter)

Well, I can't really promise it's going to be a cold winter, but I can tell you that if we don't protect our nation from the new threat that it faces it could be a very cold winter for a number of years.

The reason the President created this position that I'm in is because he believes and the government believes, after a series of studies, that there are new threats, new qualitative and quantitative threats to our country and that we're not prepared. Let me say that

clearly: We are not prepared to deal with those threats.

Let me try to put it into historical perspective, and rather than telling you a lot of bureaucratic jargon about what we're doing, let me try to paint a big picture about where we are and give you the historical perspective. Let's back up a little bit.

Let's start thinking about things around World War II. World War II was the first time that nation states had the ability to go behind the lines of the other side and destroy their industry. Heavy bombers, for the first time, flew over the troops on the ground, went back into the rear of the other country, and blew up factories, railroads, ploesti (ph), destroyed the nation's ability to fight, not by going after the Armies in the field but by going after the infrastructure.

That was in some of our lifetimes. It was not that long ago that that change in the nature of warfare, the million-year history of warfare occurred just a few years ago.

Then we went through a period of nuclear war threat where the idea that missiles or bombers would rain down on our cities was very real. A lot of us,

when we went to school, were taught duck and cover; we had air raid drills. The thought that an enemy would get into this country and blow up our cities was very real.

And then somehow all of that went away. We became the world's only remaining superpower, which somebody said, since he was a bureaucrat and had to make an acronym, it's WORS -- that's "worse". In many ways, it is "worse" to be the world's only remaining superpower because that means everybody's out after you.

We do have enemies. We have lots of them. But they're not going to come after us in that way that Saddam Hussein did, for example, lining up 10,000 tanks in the desert and asking us to come attack them.

Nobody knows that we are stronger militarily then every other country combined.

So if they're going to attack us and we do have enemies, and we have to, therefore, be prepared for attack, they're going to do it in a smart way. They're going to come into the nation's homeland and go after our ability to fight by desroying what makes it possible for us to fight.

We use the word "infrastructure," which is a clumsy word. What we're talking about is our industrial base and our technological base.

Now, how could an enemy do that? We saw in Oklahoma City and we saw with the World Trade Center what one Ryder Rent a Truck can do.

And we saw how easy it was in the World Trade Center for enemies to come into our country, foreigners to come here, not be detected, make explosives and destroy things. They could do that.

They could, as the Aum Shinri Kyo cult did in Tokyo, spray nerve gas in an urban environment. They could do that.

The President has asked me to do a number of initiatives to deal with those kinds of threats, but that's not what I want to talk about this morning.

I want to talk about something called Information Warfare. Information Warfare is a relatively new phenomenon, but if you look in the Pentagon phone book, you find more and more military organizations in our country dealing with information warfare.

What does it mean? It means attacking computers by using computers. Why?

Because there has been a revolution in the last 10 years. Your company's, every company, in this country has changed the way it does business. You now rely upon computers. Rely upon them. They don't just use them, they don't just make your life easier, you can't do business without them. And if you don't believe me, talk to the people who are working on Y2K for you.

Slowly over the course of the last year, CEOs, Board of Directors, have woken up to the fact that they have bet the company on something that they didn't even know existed a year ago. Y2K remediation. If you don't remediate, if you don't fix the Y2K problem, you're out of business. Amazing, isn't it?

All the stuff that you've got in your companies and you're out of business if you don't fix a few lines of code in computers. Well, that doesn't tell you that you've got the company on the safety and security and operation of your computers, I don't know what does.

We have done that for the whole country. Electrical power doesn't move without computer controls. Telecoms do not work without computer controls. Banking and financing is all computer controlled.

All of those computers are vulnerable to attack, attack not just by the hacker that gets in, like the hacker got into the New York Times Web Page a month ago and put nudes up on the Web Page site.

We're not talking about that. We're not talking about fraud or even industrial espionage. We're talking about somebody getting into the computers and shutting it down, and not just shutting it down for an hour or two, not just inconveniencing a city the way San Francisco was inconvenienced for four hours last week.

We're talking about destructive damage that either keeps the system off or destroys it, harms it, by getting into the computers.

When I first was told this was a possibility, I said very unlikely. Everybody has computer security devices, it can't be that easy. And so we ran an exercise called "Eligible receiver" where we got a bunch of guys from the Pentagon and said to them you can only use attack techniques that you can find in the public

domain, that you can download from the Internet. We'll give you a week to attack DoD. Give it your best shot, using these unclassified techniques.

For the first three days of the attack, the Pentagon didn't know it was under attack. Silently, these small team was doing reconnaissance, getting in, getting through firewalls, and they became the system's administrators on major computer systems throughout DoD.

And by the end of the week they had achieved systems administrator status. That means they can do anything with the computer, on command and control computers in the Pentagon and in commands around the world.

Now, one explanation for that is that DoD is really screwed up. Unfortunately, that's not the case. DoD has as good, if not better, computer security systems than any other part of our government and in almost any sector of the private sector.

We found that out again last February. Saddam Hussein was in defiance of the U.N. again last February, and the President was going to attack, and we were beginning to move troops -- air defense systems, bombers, ships, ground forces to Kuwait and Saudi

Arabia. And that weekend, as the President ordered the movement to begin, Air Force bases notified us that someone had gotten into their computers.

Someone had downloaded all the passwords. Someone had put in trap doors to get back in, and if they got back into those computers, those logistical support computers, would have been impossible for the Air Force to meet the deadline of getting those squadrons and those wings over to the Persian Gulf. But why just the Air Force?

So that Sunday night, we started calling Army bases and Navy bases and saying, look at this particular part of the code in your computer, see if anybody's doing anything to it.

And they all came back and said, yes, they too had been attacked, someone had gotten into their system; downloaded passwords, put in trap doors, put sniffers on the computers.

So for a few days there we thought Iraq was engaging in the first information war against us, and we did everything we could with the FBI, the CIA, NSA, Air Force Intelligence, to find out where they were doing

it, and how they were doing it, and then we found them. They were two 14 year olds in San Francisco.

Is that good news or bad news? It was good news then because it meant Iraq wasn't about to pull the plug on us and we could do the deployment on time.

It was bad news because if two 14 year olds can do this, that means that we don't only face an enemy of a major country, like Russia or China, or India, it means that smaller countries, even terrorist groups, can gain the capability to hurt us and hurt us badly in a crisis.

Is this a widespread phenomenon? Well, we have something that, as graduate students at MIT, we called the Cockroach Test. It was, you look at the kitchen and it's nice and clean, and given the apartments you have to rent up there, you then go in at midnight and you turn on the light and there are all the cockroaches.

We've been doing this in the private sector and in the government of computer systems. You look at the computer systems, they look fine. Everything seems to be operating. No unauthorized user. And then you put what's called an intrusion detection monitor on the

system for a week or a month, and you see hundreds in a week, thousands in a month, unauthorized intrusions.

People getting in, people getting through the firewalls, people getting through the password accesses sometimes just for surveillance, but perhaps, perhaps to implant trap doors that allow them to get back in later on.

There could be already trap doors throughout our critical infrastructure systems. When you think about that, think about that in the context of Y2K. Every company, every department of the government is opening up its computer systems this year and next and stuffing in new lines of code. Are they reading them? Are they reading them closely? Are they having security people look at them to see what's in them? In most cases, the answer is no.

So, in the process of fixing our Y2K problem, we may be installing hundreds or thousands of trap doors throughout our computer infrastructure. It's not a pretty sight.

So what are we doing about all of this?

Well, first of all, let me tell you what we're not going to do:

We're not going to take the failed path of regulation, telling industry what to do; the notion of the U.S. Government telling the telecommunications industry or the petroleum industry that it knows better how to operate their computer systems. It's a little bit of a joke.

We're not going to do regulation. We're not going to tell you how to fix your problem. We're not going to create a new, huge super Agency in charge of computer security.

We're not going to violate people's privacy rights or proprietary rights, and we're not going to collect data on the vulnerabilities of companies. What are we going to do?

The President has asked me to develop a National Information Systems Defense Plan over the course of the next several years. The outline for that plan, draft, is due next month.

Right now it calls for a three-tiered approach to dealing with the problem.

First: Protect our national security systems; protect the Defense Department.

Last month, the Secretary of Defense created a joint task force. Now, a joint task force in military parlance is a war-fighting unit. Very unusual to create a war-fighting unit like this, but he did. He created the Joint Task Force for computer system defense. And that joint task force is in charge of protecting all of the computer systems -- Army, Navy, Air Force, Marines.

They are installing intrusion detection monitors on all of the critical computers so they can tell when they're being attacked, and then they're going to net all of these monitors together across the country and around the world so that an attack on one is an attack on all, so that when one Air Force Base is hit, we will know at every other installation around the world the IP address of the attacker, the name, the profile of the attacker, and the way in which they were trying to get in, their technique.

That word will instantly, automatically be passed to all the other facilities which will adapt their computer systems to prevent that kind of attack.

Automated adaptive netted intrusion detection systems.

The second tier of this national plan is to protect the rest of the federal government. The attorney general has created something called the National Infrastructure Protection Center, NIPC, and housed it in the FBI.

It's beginning now to design a system of protection for the key federal government computers outside of the Defense Department, and it's involving FBI, Secret Service. It's an interagency organization.

It started a beta sight in Cleveland, choosing the name InfraGuard, and it's a system whereby companies have a secure way of telling the Center when they're being attacked, and they negotiate with the Center what word, what information can be passed on about that attack to other companies.

So we don't say, "Guess what? Company X was attacked and they lost this amount of money and this amount of damage." No, it's negotiated. We don't say Company X, we don't say what the damage was. We say only to the other companies what the other company that was attacked agrees can be passed on.

Now if that InfraGuard system works in Cleveland, the NIPC will expand it to other cities and perhaps nationwide.

We're also, department by department, going through the federal government and doing vulnerability assessments, identifying what the problems are, how somebody could get in to their computer systems.

The importance of vulnerability assessments is that in Information War, you cannot estimate the enemy's strength. In World II, you could fly over the enemy's bases and count the number of bombers. In the Nuclear Cold War you could send your satellites overhead and count the number of missile silos that the other side had.

In Information Warfare, you cannot estimate the enemy's strength with anything like that kind of precision.

People keep telling me, "I can't spend this money for my Department, my Agency, until you tell me that the threat is real and you tell me how big it is and you tell me who it is.

My answer to those Departments and Agencies is, "You keep saying that, and you'll be saying that on

the morning when none of your computers are working and your Department can't operate."

If you wait to know who the enemy is, if you wait for me to prove he's out there or how strong he is, you'll wait too long and too wait.

The Departments are beginning to get that message, and one by one they are putting money into computer security, intrusion detection monitoring, R&D in new efforts to keep their computers operating.

The third tier of this national plan is the private sector, and it is by far the biggest tier. Why?

Ninety percent of what the government and the military rely upon in the way of telecommunications, electrical power, transportation, is privately owned and operated, we can't fight a war without the private sector, even briefly, even a war that lasts a few days, because we now rely entirely upon private sector provided telecom's electricity and transportation.

Put aside a war. Even if we don't ever go to war, the private sector is what this country is. That's where our economy is,that's where our strength is. Without it, we're nothing. It's also the target. The target of any enemy, just as in World War II, the target

was infrastructure, railroads, manufacturing capability, refineries.

The target in a future war, in an Information War, it's not going to be some division of tanks in Germany. It's back here, in the homeland. It's refineries, it's pipelines, it's electrical power grids. It's the banking and finance industry. That's what we have to protect.

But I can't order the private sector to protect itself. You have to do it yourself. We're not going to tell you how to do it. We're not going to demand it, we're not going to regulate it, but we are going to strongly suggest sector by sector that you have a problem. We, together, have a problem. You are the target in the next war.

All of the money we've paid for aircraft carriers and tanks can't defend you when that attack comes. You've got to have defenses of your own.

What we're suggesting sector by sector is that the industry get together, put aside competition, do something jointly. Assess your own vulnerabilities, honestly.

Now, some sectors have told me that we've looked, we have no problem. Well, if you believe that, test it, prove it. Hire some outside experts. Bring them in. Do to your industry what we did to the Pentagon. Run the vulnerability analysis.

You're going to have to do it the same way we did, which is to tell them, don't really destroy anything, and you're going to have to get a battery of a hundred lawyers at $400 an hour to figure out what the restrictions are. But find out, find out honestly. You don't have to tell us. Find out honestly for yourselves how vulnerable your industry is, how reliant it is upon computer controls, and how easy it is to get control of those computers.

Do a vulnerability analysis. That's what we're saying in the first instance.

Then you might find if you find that you're vulnerable, that you need to pull your assets together to create one of those intrusion detection monitoring networks like the Pentagon is doing and like we're doing for non-DoD agencies.

So that you know if one company has been attacked this way you know that that's happened, and you

don't have to wait for you to be attacked that same way because you're sharing information and your assessing vulnerabilities together, you're sharing information together.

Now, there may be some laws that have to be changed along the way. There may be laws about Freedom of Information Act vulnerability assessments so that we can protect information. There may be laws about antitrust collusion or something.

We are working with the Justice Department to identify impediments like that, and we'll take care of them. But what we need first is real partnership, industry by industry. And a lot of industries have already come to us and said they recognize the problem, they want to do something about it. The banking industry, the ABA, the chemical industry, the Chemical Manufacturers Association.

We are willing to share information even if it's only one way. We will tell you what we know about the nature of the threat, about the nature of vulnerabilities.

We'll do that on a regular basis. If you establish a Center to coordinate that within your

industry, we will continually update that Center about the vulnerabilities. We will work with you if you want to develop best practices because a lot of the vulnerabilities are relatively easy to fix if you have a template of best practices for your industry, not a cookie cutter approach that says what's good for the banking industry is good for the petroleum industry, but a tailored best practices approach.

I think it's wise for industry groups to do this. What we're already seeing as a result of Y2K is that insurance companies and auditing firms are now looking to see that companies have best practices, that they have worked on best practices for computer security.

Auditing firms and insurance companies are not backing away from companies that haven't don't that for Y2K. It is only a matter of time before audit firms and insurance companies and boards of directors start asking that same kind of question that they're asking now about Y2K. They start asking it about computer security in general.

I don't mean to be scary, but I do want you to know that we know that there are countries out there who

are developing Information Warfare techniques. We do know that there are countries out there, not necessarily friends of the United States, now or in the past, who are doing surveillance on computer systems, and they may be doing more than that.

We're talking about the next war. It's said that generals and admirals are always ready to fight the last one. The President has asked us to get ready to fight the next one. God willing, it won't come, or won't come at any time in the near future, but right now we're not ready to fight the next one.

For once, the American people are being called upon to do something in advance of a disaster. We're very good, historically, about responding to disasters. After Pearl Harbor, this nation, united, stood up, did everything necessary in an incredible effort for four years and won the won.

After Sputnik, when the Soviets proved that they had a space capability far better than ours at the time, we surged and we made it to the moon first. We're very good at reacting to disasters. But I don't want and you don't want this country to have to react to a computer attack disaster.

We don't want to have Pearl Harbor, an electronic Pearl Harbor. We want to be ahead of the power curve. That's what this is all about. Right now, when I look behind me, I see the power curve, and I see that we're ahead of it. But some mornings when I look at that power curve, I think it's a big Tsunami wave about to crash over us.

Whether we're ahead of the power curve or about to be hit by that wave is up to you not up to the government. The government can't solve this problem. We can help, and in the great tradition of Washington bureaucrats, I want to tell you, I'm from Washington and I'm here to help.

(Laughter)

(Applause)

CHAIRMAN FOSTER: Well, thank you, Dick, that was a good presentation.

Does any member have any questions or comments they would like to address to Mr. Clarke?

COMMENTS & QUESTIONS

AUDIENCE: Let me ask Mr. Clarke. Are you prepared to help the entire group together or individual companies or what?

MR. CLARKE: We prefer to do it as an industry. It's very, very hard given the number of companies, critical company, for us to do it one by one. And, moreover, it kind of doesn't work one by one. You need really to understand what the vulnerabilities are that are unique to your industry, what the interconnections are, what the single points of failure are.

You need to know what has happened in other companies, and if there is an attack on one facility you need to know about that right away so you need to know about that right away so you can prevent it on your facilities.

I don't think it makes much sense unless you get together and do it as a collective.

CHAIRMAN FOSTER: Carl.

AUDIENCE: Mr. Clarke, this kind of admission, I would think, one of the challenging parts of it would be to tread a delicate tightrope between public information and private information. On the one hand, we want to alert industry and all the important sectors to do something.

On the other hand, the worse thing we could do would be to provide a public blueprint to our enemies on what we're doing to deal with the problem.

I guess you would recognize that there are issues like what we would do with the Freedom of Information Act and other things to keep it private where it needs to be.

MR. CLARKE: I think that's right. We're not looking for you to tell us all of your vulnerabilities, and if you don't, then it's not a public document and it's not covered by Freedom of Information.

Until we can fix the Freedom of Information Act so that this kind of information on vulnerabilities is protected, we're not asking that you tell us what you're vulnerabilities are. Get together, do an assessment, don't tell us the answer. If you want to ask us questions about how long one might theoretically fix the problem or deal with the problem, we can do that without getting into a Freedom of Information situation.

We're really not looking to get a terrorist's blueprint. Now if someone breaks into our computers and discovers every industry's vulnerability, I don't want to create that file anywhere. Frankly, when you do, as

I hope you do, a vulnerability assessment for your industry, you should be very careful about how you store and write that answer what your vulnerabilities are.

But, right now, you're right. If you tell us it could get caught up in the government Freedom of Information suit, we don't want that. So we're not asking that when you do your study, you do your red team attack against yourself, that you tell us specifically what answers are.

CHAIRMAN FOSTER: Other questions?

(No response.)

There is an exchange of correspondence included in your handout which contains a letter written to the NPC from Secretary Richardson and response from me, based on input from the Agenda Committee.

We're continuing to work with DOE to try to determine the appropriate role for the NPC and, as you will see from reading that material, there's some things we think the NPC can do and some things we think are more appropriately done by other bodies. We'll continue to work with DOE on this matter.

Again, Dick, thanks for a very good presentation. It's helped clear up a lot of things for us. Thank you.

(Applause.)

CHAIRMAN FOSTER: We'll now turn to some reports of our administrative committees. The first report will be from Collis Chandler, who is longtime chairman of our Nominating Committee.

Collis.

REPORTS OF NPC ADMINISTRATIVE COMMITTEES

NOMINATING COMMITTEE

MR. CHANDLER: The Nominating Committee has agreed on its recommendations for NPC Officers, the chairs, and members of the Agenda, and Appointment Committees of the Council, as well as the five at-large members of the NPC, cochairs, Coordinating Committee.

The Committee offers the following nominations:

NPC chair, Joe Foster. NPC Vice Chair, Archie Dunham. For the Agenda Committee, we recommend the following: Bob Allison, Vic Beghini, Dick Cheney, Ken Durr, Dick Farman, Bob Frye, Larry Fuller, Ray Hunt,

John Miller, Larry Nichols, with Wayne Allen serving as the chair.

For the Appointment Committee, we recommend the following as members: George Alcorn, David Biegler, Peter Bijur, Mike Bowlin, Bob Campbell, George Davidson, Bobby Parker, Lee Raymond, Lou Ward, Irene Wischer, with Bob Palmer serving as chair.

In addition, we recommend the following at large members of the cochairs committee: Mike Bowlin, Bob Campbell, Ron Haddock, Rick Rochard, and Dan Yergin.

On behalf of the Committee, I move that the above slate be elected until the next organizational meeting of the Council.

Thank you.

CHAIRMAN FOSTER: Thank you, Collis. I have your motion to adopt the report of the Nominating Committee. Do I have a second from the floor?

(Second.)

Been seconded. Are there any further nominations from the floor?

(No response.)

All those in favor of the motion say aye.

(Chorus of ayes.)

Opposed, nay.

(No response.)

Report is adopted. I'm pleased to serve as your Chair again and I'm sure the other nominees appreciate your support. I'll look forward to another active year on the Council.

COCHAIRS' COORDINATING COMMITTEE

We want to continue with some other Committee reports at this time, and I would give you the report of the Cochairs' Coordinating Committee, which met September the 13th, in Houston, with Secretary Richardson, Bob Kripowicz, Bob Gee, and other members of the DOE. We had a good turnout of industry people.

As you know, the purpose of this organization is to monitor the allocation of resources of both the Council and industry and to talk about potential issues and topics that this Council might explore or study.

I think it's fair to say at the end of that meeting, which was the first one this cochair's committee had had with Secretary Richardson, we were comfortable that the studies that are presently in progress and in the process of being initiated were

appropriate, that they had the support of Secretary Richardson and the Department, as well as the industry people there.

These topics include First Material Gas, which you'll hear about in a bit; regulation of refined products or a refining study, which we'll also say a bi about, and the protection of critical infrastructures, which you just heard about.

Secretary Richardson did an excellent job, I would say, in eliciting comments from every industry member present.

The longer term issue among that group that seemed to be most on their mind at that time in September, was access to federal land for oil and gas exploration, both on shore and off shore, and the access issue will be examined as part of the natural gas study to be reported on later this morning.

At that meeting, the height of concern about the possibility of a prolonged low oil price environment had not really reached the level of concern it has today, and that was not as big an issue as it is on many of our minds at this point.

The Committee will likely meet again this spring to again assess the level of resource commitment, as well as issues that should be considered by this Council.

AGENDA COMMITTEE

CHAIRMAN FOSTER: Next, I'd like to update you on the activities of the Agenda Committee, which is chaired by Wayne Allen, who could not be here today.

As many of you know, a number of new regulations regarding petroleum product quality are around the corner. These regulations will significantly change the character of refined products and will require very substantial capital investment.

The Agenda Committee has reviewed a request for the Council to examine the implications of the cumulative impact of these regulations on the availability and affordability of products for U.S. consumers.

This study, which we refer to as a refining study, would build upon the Council's 1993 report on refining. A copy of the request pertaining to this study from Secretary Pena, dated June 30th of this year,

is in your folders. If you look at the text of that letter, you can see the scope of the request as a result of several months of negotiation and discussion as between the Department of Energy and representatives of the Council.

As you know, our Articles of Organization require the Agenda Committee to review all requests, to make a recommendation to the Full Membership as to whether they are proper and advisable. The Committee voted in favor of this request, and on their behalf I move the full Council accept this important undertaking.

Do I hear a second?

(Second.)

All in favor say aye.

(Chorus of ayes.)

Opposed no?

(No response.)

Thank you.

We will form a Committee from membership to begin work immediately. Any member who would like to volunteer to serve on the Committee or have a representative participate in its subgroups can see me or Marshall after the meeting, or drop us a note. We

expect to name a chairman for this Committee for the refining study shortly after the first of the year and get that project underway.

The other activity of the Agenda Committee had to do with the issue of critical infrastructures. I refer you to the correspondence in your packet about that, and we'll be having continuing dialogue with the DOE in that regard.

FINANCE COMMITTEE

CHAIRMAN FOSTER: Next, I want to report to you on behalf of Vic Beghini, who is chairman of our Finance Committee and couldn't be here today.

The Finance Committee met last week to review the financial status of the Council. Representatives Ernst & Young, the independent outside auditor, were present, and they reviewed the audit report with us, and I'm pleased to report that Ernst & Young feels that we have a clean report, that our accounting procedures and controls are excellent, and its financial condition of the Council is strong.

We also reviewed the 1998 expenditures and receipts year to date. You may recall that last year we voted to reduce members' contributions by 10 percent and

agreed to make up the difference between the budget and contributions from the Council's Contingency Fund, due mainly to 1998 expenditures for the Natural Gas Study being rolled forward into 1999. We will end the year with a significant budget surplus.

On the cash side, we will have a break-even or slight surplus, thus leaving the contingency fund essentially intact.

The Committee then discussed a budget for the year 1999 and recommends that you approve a budget in the amount of $3,623,000. This is a slight reduction from 1998, and it does provide funds to complete the natural gas and refining studies, as well as funds to begin one additional study.

While we've made it through 1998 in good shape, the Committee is very sensitive to the dramatic changes that are occurring in the industry, and we recommend three major actions:

First: The Committee recommended that the contribution formulas which fund the Council's operations be reexamined, to assure that they equitably distribute the Council's costs among the membership and that they reflect current company operations.

The present contribution formulas are based on 1992, 1993, production throughput and other data. This has undoubtedly changed for many companies.

Further, the creation of a number of joint ventures and alliances in the industry needs to be examined to determine how that might affect our contributions' formula. So it is clearly time to reassess our contribution structure, and we propose that the Finance Committee do that this year.

The second recommendation of the Finance Committee is to dramatically reduce the contingency fund of the Council, which, as I mentioned, grew somewhat in 1998. The Committee proposal would reduce the contingency fund to approximately a million and a half dollars, or an amount to cover roughly four to six months of Council operation.

This would result in revenues being sought from contributions during 1999 being reduced in the aggregate 20 to 25 percent. The net effects on individual member contributions may be more or less, depending on the relative changes since 1992, 1993, and any revisions in the contribution formula.

But as I indicated, we do intend to operate the Council on a budget with the contributions budget to 25 percent less than in 1998, and we have a 10 percent reduction in 1998.

Thirdly: The Finance Committee asked me to remind the membership that in accepting the Secretary's appointment to serve on the Council we recognize that the privilege comes with a cost. These costs are primarily our time and the time of some of our people in our companies, but we also accept our fair share of the cash cost to fund study work that we agreed to undertake for the Secretary.

This reminder was suggested because there have been some incidences of nonpayment this year. We're following up on these individually, but we simply want to point out that it's important that we all contribute our fair share in support of this organization, and it's also important that we know that others are contributing their fair share.

So that concludes the report of the Finance Committee. On that Committee's behalf, I move that it be adopted by the Council.

(Second.)

All in favor?

(Chorus of ayes.)

Opposed no?

(No response.)

The motion carries.

Archie Dunham, the Chairman of Conoco, chairs the National Petroleum Committee on Product Supply. Archie is unable to be here this morning, but he's asked Jim Nokes, who serves as a subcommittee chair, to present that Committee's report to the Council this morning.

Jim.

NPC COMMITTEE ON PRODUCT SUPPLY

JIM W. NOKES, CHAIR, SUBCOMMITTEE

MR. NOKES: Thank you, Mr. Chairman, ladies and gentlemen. On behalf of the Committee, I am pleased to present this report entitled U.S. Petroleum Product Supply, Inventory Dynamics, for the Council's approval.

It provides a Council's response to specific questions contained in the September 17th, 1997 letter of request from the Secretary of Energy. Before discussing the findings, I would like to briefly review

the study's scope, participants, methodology, and structure.

First, the scope of the study was defined as: Major live petroleum products in the United States; that's gasoline distillate and kerosene jet fuel, during the period 1998 to 2002, and excluding the impact of any regulatory changes, the product quality that might limit system capacity or flexibility.

The Committee extends its recognition to the study participants for their efforts in compiling this report, particularly the work of the Coordinating Subcommittee and the participating staff of the EIA, and the report draft groups, including the NPC staff.

To each of the Secretary's specific questions, the report provides a comprehensive answer. The approach was taken to engage experienced supply people in the compilation and analyses of data and the review of notable events impacting petroleum supply and demand.

The report is accompanied by a transmittal letter highlighting important observations. It is structured with a discussion of the role of petroleum inventory, an Executive Summary of the report, answers

to the Secretary's questions, and the report is supported by five chapters of analysis.

Now for the first question posed by the Secretary of Energy:

Part A of the question addressed the downtrend in petroleum inventories. To expedite this presentation, a shortened version of the question and response will be projected on the screen. You may read these for yourself while I discuss the key findings supporting each answer.

[Slide]

Major live petroleum products were defined in the study as gasoline, distillate, and kerosene jet fuel in the United States. From this slide, you can see that over the long-term, inventories of these products have been trending slowly downward.

It's important to observe that from mid-'95 through mid-'97, inventories experienced a sharp decline below the trend line. This, no doubt, prompted the Secretary's concern regarding acceleration of the downtrend expressed in his letter of September 17th, 1997.

Also please note the inventory increases from mid-'97 and continuing to date. A major change in the supply-demand balance and the associated change in marketing conditions, from backwardation to contango encouraged the accumulation of discretionary inventory.

Now there is pressure from both a cost and risk perspective to eliminate any inventory that is not needed to meet customer demand or which does not generate an adequate return to the holder.

Discretionary inventories will continue to be variable and will move as market conditions dictate. Without economic incentive, the industry will tend to operate at minimal discretionary inventory levels. This study concludes that discretionary product inventories approach the minimum of their operating range during 1996 and that by mid-1998 they had approached the maximum of their operating range.

We also expect a continuation of the slow downward trend in overall product inventory levels as industry consolidation actually permits further asset rationalization and efficiencies.

This consolidation is driven by intense competition between a large number of petroleum market

participants. Each is striving to provide the most cost-effective delivery of petroleum products to the customer, and it's actually the customer who realizes most of the benefits of major system efficiencies, and these clearly have been achieved over the last several years.

[Slide]

This slide reviews the major components of the overall trend. You will see the kero jet inventory has been essentially flat while distillate has trended slightly higher. The decline in gasoline inventory has been dropping to slow, downward trend in inventory shown on the previous slide.

This decline has been dominated by the reduction of finished gasoline inventories and terminals rather than refinery or pipeline inventory. This occurred despite the increased number of gasoline formulations.

The study concludes that this reduction was attributable to increase system efficiencies and industry rationalization and that the reduction was primarily from unavailable inventory, such as tank

bottoms. Tanks, or even entire terminals, have been removed from service or converted to other usage.

It should also be noted that oxygenate and offshore inventories aren't included.

Major changes in the seasonal build and draw of gasoline and distillate inventories are not expected. This building draw is largely a function of coproduction of distillate during the summer gasoline season and, similarly, of gasoline during the winter.

These inventory builds mitigate the requirement for supply from other sources during peak periods.

[Slide]

Now for the second part of the Secretary's first question: The inventory anomaly of 1996.

Recalling the extreme behavior from mid-'95 and viewed in the context of today's high inventories, the study concludes that low inventories experienced during 1996 were an anomaly. The study group further concluded that confluence of circumstances and events unfolded exurbated the low inventory situation and discouraged builds.

[Slide]

The most significant of there were a backwardated market throughout '95 and '96, which led, in 1996, beginning with the lowest U.S. crude oil and product inventories in nearly two decades.

An exceptionally long and cold '95/'96 winter increased demand in the Northern Hemisphere. Storms in the Caribbean and Gulf of Mexico in late '95 and early '96 disrupted both crude oil supply and refinery operations.

Protracted negotiations between U.N. and Iraq created a market expectation of further excess crude oil supply. Demand for major live petroleum products reflected a continued strong economy throughout 1996 and during the autumn of 1996, there was an incentive to export low sulfur distillate to Europe.

Now the '96, '97 period demonstrated that the market mechanisms and the supply system work under considerable and continuing stress with refiners and distributors able to satisfy all customer demands.

The higher spot prices stimulated increased production of needed products, which in turn led to a calming of markets. The ability of the industry to respond to spot price incentives with additional product

provides a continuing level of supply security for consumers.

[Slide]

The Secretary's second question focused on the concept of minimum operating inventory with Part A asking about its usefulness.

The concept of a minimum physical inventory level required to operate in the supply distribution center is useful in providing an estimated inventory necessary for steady state operation. Most product inventory is not but for discretionary inventory available to meet disruptions.

It is unavailable inventory required for supply system operation. This minimum inventory level is a function of static physical requirements, such as line fill and tank bottoms;

Throughput level defining the steady state working inventory, and

To the extent which supply and demand departs from a ratable steady take basis.

A minimum operating inventory should not be used as an indicator of supply problems or to predict retail price increases. The empirical observation of a

low inventory level is only a snapshot of one's supply component at a point in time.

An assessment of supply adequacy and price expectations requires investigation of many other components of supply interacting in a very dynamic system.

Now among these are the location, whether the inventory observations are nationwide or regionally specific. The product involved, whether it is a broad, fungible product type or narrowly specified, such as car gasoline; the supply and demand position. Can it imbalance its magnitude and duration be clearly identified; the logistic system, and the various other price and supply demand forces outside the scope of this study.

[Slide]

While consumers have come to expect an uninterrupted supply of low-cost fuel, any rapid upward price movement at retail becomes a news topic and raises customer concern.

However, to compare and analyze retail price events, they must be categorized. Now the NPC chose to categorize them as follows:

Price measurement was based on the national average retail price level. A retail price event was defined base on the size and duration of the price move using two criteria.

First: The retail price increases of 10 percent or more from one year to the next, and,

Second: Retail price increases of 5 percent or more over a 4 week period.

Price declines were not examined since they don't seem to stimulate very much customer concern.

Two conclusions are apparent from this analysis:

First: Crude oil prices drive most product price movements; and,

Second: Product price events do occur but they are infrequent, short-lived, and not necessarily associated with low product inventory levels.

Now since 1992, gasoline and distillate exceeded the 5 percent four-week hurdle eight times. While the industry does not routinely carry inventory to respond to large, unexpected events, only two of these events occurred when inventories were near minimum operating levels.

Although there have been periods where product price excursions occurred, consumers were continuously supplied.

[Slide]

Moving to Part B of the Secretary's second question regarding minimum operating levels, this study recommends replacing both the minimum operating inventory as defined in previous NPC reports, and the minimum observed inventory used by the EIA with a newly defined lower operating inventory, or LOI.

Inventories approaching LOI would not indicate an impending supply shortage or price increase, but rather diminished flexibility to supply short-term demand increases from inventory.

When compared to minimums defined in 1989 by the NPC report, Petroleum Storage and Transportation, the recommended LOI levels reflect reductions of about 10 percent for crude oil and gasoline but leaving distillate and kerosene fuel basically unchanged.

In addition, we recognize that continuing infrastructure changes and efficiencies require a mechanism for periodic updates of LOI to reflect statistical and operational modifications. And it may

be more effective for the EIA in cooperation with industry's statistical committees or consultants to reevaluate and adjust the LOI estimates as and when necessary rather than conducted a complete NPC study.

[Slide]

Now the Secretary's final question concerning future products supply capabilities of the petroleum industry and our expectations regarding future retail price swings:

The lower inventory levels of 1996 were not permanent. They were a combination of modest, long-term decline and finished gasoline and terminals, and the response of discretionary inventories to short-term economic and operational drivers.

U.S. discretionary inventories that followed worldwide crude oil and product inventories down in '95 and '96, followed them back up in '97, '98.

The decline that appeared dramatic in '96, was a result of short-term factors and not an acceleration of the long-term decline.

To address the industry's future ability to respond to dynamic conditions, projections were made

through 2002 of major live petroleum products, U.S. refining capacity and import availability.

Two future supply demand cases were developed, a base case and a high demand case. In both cases, the study finds no appreciable change in the ability of the products supply system and market mechanisms to meet the demand projected over the supply period.

The two demand growth projections are shown on this slide, the base case at the 10-year average growth rate, and a high demand case based on a continuation of the five-year average growth rate, experienced during a period of record economic expansion.

Since major live petroleum product demand in the U.S. is primarily met from domestic refinery projection, an examination of this capacity was conducted. The most economically leveraged processed units in U.S. refineries are the downstream conversion units. FCCs and cokers, which are typically operated at or above name capacity.

Here, you see the projection of continued growth and downstream conversion capacity and flexibility of existing refineries. The mix of gasoline

and distillate yields from these facilities is adjusted in response to market needs.

During the supply period, we presumed no additional regulatory constraints. Changes to product specifications, such as those proposed by the EPA to take effect in 2004, could significantly curtail supply capabilities and flexibility.

Now the focus on the report of distillation capacity utilization as a measure of the domestic refining industry's ability to respond to increases in light product demand is misleading.

Distillation capacity is primarily determined by the need to keep downstream conversion units operating at capacity. Feedstock to maximize conversion unit operations will be produced as needed either through added distillation capacity or feedstock imports.

Import of major light petroleum products through the U.S. depicted on this slide is another key component of supply. Product imports have significance primarily for the U.S. East Coast with 90 percent of U.S. petroleum imports into PAD 1. The majority of the product imports originate in the Virgin Islands,

Venezuela, and Canada. We believe the incremental surprise from these Caribbean and other Atlantic Basin refineries will remain an ongoing supply source to the U.S. and will also continue to be available for response to market imbalances.

Some import origins can, in fact, be supplied to U.S. East Coast ports faster than supplies from Gulf Coast refineries.

Absolute price levels, as well as price changes, are driven by a variety of global, regional, and local market forces. Price changes at the spot and wholesale level are a critical mechanism identifying the need for a systems supply response to supply demand.

This final slide compares price changes in the spot market, shown in orange, with those at the retail level, shown in yellow. Spot market prices move more dramatic as they attract supply. Spot price changes move through to the retail level more smoothly, being both dampened and lagged.

[Slide]

So in conclusion, significant price excursions of major light petroleum products in the U.S. will

continue to be driven primarily by the global price of crude oil.

Non-crude oil related upward retail price movements tend to be driven by an infrequent large event or the confluence of smaller events in the same direction. Both will have continued to occur, but based on projections of '98 to 2002 supply and demand, the study finds no reason to expect an increase in the frequency or magnitude of product driven retail price swings.

In response to a highly-competitive market, suppliers of refined petroleum products have created an increasingly sophisticated and efficient system that provides large volumes of affordable fuels to U.S. consumers.

There are, however, two caveats from this report that must be kept in mind.

The context of the analysis is normal market conditions, nonemergency conditions such as might occur in conjunction with a large military mobilization or other significant market intervention.

The time frame of the analysis is 1998 through 2002, which really, by agreement, excludes the impact of

additional environmentally driven product specification changes. No conclusions from this report should really be drawn past 2002, especially regarding refinery flexibility or availability of imports from foreign refineries meeting more stringent U.S. product specifications.

Mr. Chairman, this completes my presentation. I believe the report is responsive to the Secretary's request and should be of significant value to the Administration and Congress in dealing with the petroleum product issues that will likely arise between now and 2002.

Accordingly, I move that the NPC adopt the proposed report subject to final editing.

CHAIRMAN FOSTER: Do I hear a second to that motion?

AUDIENCE: Second.

CHAIRMAN FOSTER: Are there any questions anyone would like to ask Jim?

(No response.)

CHAIRMAN FOSTER: Those in favor of the motion as made indicate by saying aye.

(Chorus of ayes.)

CHAIRMAN FOSTER: Opposed no.

(No response.)

CHAIRMAN FOSTER: The report is adopted.

Jim, I thank you and your Subcommittee which did an excellent job; a lot of volunteers involved, and the printed report is going to be ready in about 30 days.

I would just add parenthetically that unbeknownst to me at the time I asked Archie Dunham to lead this study, my next door neighbor, Bob Stone, ended up doing a lot of the work on this thing, and we remained good friends and neighbors despite that.

(Laughter)

PROGRESS REPORT OF THE NPC COMMITTEE

ON NATURAL GAS

CHAIRMAN FOSTER: Our next report is from the NPC Committee on Natural Gas. We are very fortunate to have a triumvirate leading that committee, Peter Bijur of Texaco as the Chairman of the Committee. Vice chairs are Leighton Steward of Burlington Resources on the supply side, and Bill Wise of El Paso Energy on the Distribution and Transportation side.

That Committee is well under way, and here today to give a report for that committee is Bill Wise.

Bill.

MR. WISE: Thank you. Good morning, ladies and gentlemen. I am pleased to represent the NPC Committee on Natural Gas. Peter Bijur, our Chairman, and my fellow Vice Chair, Leighton Steward.

As you know, the Secretary of Energy has asked the National Petroleum Council to update its landmark 1992 report, The Potential for Natural Gas in the United States. You've all seen the Secretary's request for this study. I'd like to highlight a couple of key areas of that request that will shape the updated version of the report.

First, as the Secretary pointed out, the natural gas industry has experienced five years of very significant growth. This demonstrates natural gas is a competitive, reliable and abundant fuel.

Second, in this era of unprecedented growth, there is the potentially profound effect which electric restructuring, global climate control concerns both will have on energy choices.

Finally, to continue to meet these challenges and capture the opportunities of the future, the collaboration between the government and the private sector must continue. For a secure energy future, government and private sector decision makers need to be confident that the industry has the capability to meet potentially significant increases in future natural gas demand.

Of particular interest to the Secretary and to our industry is the Council's advice on areas of government policy and action that will allow natural gas to realize its potential contribution toward our shared economic energy and environmental goals.

After the Secretary's request was formally accepted by the Council, and while the committee was being established, Peter, Leighton and I assembled a coordinating subcommittee to oversee the study work on the committee's behalf. Peter asked Claire Farley, the President of Texaco North American production, to chair the subcommittee and to lead the group in submitting a proposal for the study's scope, organization and timetable to the committee.

I'm pleased to inform the Council that the subcommittee's proposal for the study work plan has now been approved by the committee, and a copy is in your Council member packets. Several members provided comments and clarification that will prove very useful as we analyze the work-study plan ahead.

In addition, to the subcommittee, we've created three task groups, focused on the areas of demand, supply and distribution. These groups will analyze and review model outputs, and I'm glad to report that each of the task groups has met and that the analysis is underway and on schedule.

Attached to your copy of the study plan is the Secretary's request letter and the rosters of all the study groups. As you review the rosters, please note the participation and cooperation we're receiving from both the Department of Energy and the Department of Interior. We wish to thank the DOE for its efforts in making this truly a collaborative project between government and industry.

To members of the Council as well, we are grateful for all of the key personnel that you're making

available to the effort. We take it as a clear sign of importance with which you hold these issues.

Claire will now review the work plan with you. Thank you very much.

Claire?

MS. FARLEY: Thank you, Bill. I'm just glad that it's not crude oil supply and demand that we're talking about in the U.S.

[Slide]

First let me emphasize that we do want to build upon that very comprehensive study of 1992. We are going to be asking broadly two questions; what's happened since 1992. We're going to validate and update the assumptions in that '92 study.

We know, as Bill mentioned, that the market has evolved quite a bit just in the last five years, and will continue to do so going forward; and we want to examine those things and the key assumptions that we made in that study.

[Slide]

As we look forward to what the future may hold; we're going to be doing that in three broad categories in the demand scenario, rather than trying to

really predict demand which we know is impossible; we'll be looking at two or three different scenarios and the influencing factors that would lead to one of those two to three scenarios.

Then of course the supply potential to fill in that demand and the implications on distribution.

[Slide]

Now if I look at the work that one of the task forces headed by Matt Simmons has done thus far, you can see some provocative data -- which is not unusual coming from Matt, to table something provocative for us to think about.

[Slide]

In 1990, and this is in quadrillion BTUs -- we do know what a BTU is in the study -- but in quadrillion BTUs in 1990, the usage was a little over 17. We projected in the 1992 study that that would reach 22.7; but in fact in seven years instead of twenty years, we're at nearly 90 percent of that demand.

If you look also at the electric utility side of the demand , we expected that to grow significantly, and it has remained relatively flat in the last seven years. Now again, going forward with the new

regulation, we expect that to change significantly and we want to examine that.

[Slide]

So as I say, we will look at the scenarios based on existing data that are out there from a number of different sources, and we want to be able to describe the broad influencers to those various demand cases. Obviously, GDP is a significant one, and we've already had some pretty good debates about trying to peg what GDP may be in the future. And then as Bill mentioned, the environmental requirements will change dramatically over the next few years and we do think that that will change the demand for natural gas significantly. And then of course the growth from the power sector.

[Slide]

On the supply side, we want to take a look at the conclusions of the 1992 -- which essentially said "supply is not a problem in the U.S.; that we have a large resource base and that can be developed economically to meet the demand. Certainly, the growth over the last seven years has shown that capability to do that.

However, we want to zero in on the capability by region -- because as we know, it does change dramatically from region to region; the Gulf of Mexico is not the same as the Rockies, for instance.

We want to take a look at the changes that have occurred in Canada, Mexico, and the potential for LNG supplies into the U.S.

The access to resource issues will of course be a central focus of the study again this year. We want to look at the amount of the supply that could be available to the industry, but that is closed off to various moratoria.

When we look at the influencing factors, these are things that we are all very familiar with in our industry; but we want to highlight the investment requirements, simply to keep the supply that we have today going. And then to meet further demand for supply, what would those investment requirements be?

We're going to take a hard look at rate of decline. What we have discussed around the table from the people participating, is that perhaps the declines are steeper than we imagined in 1992. Those of us who operate in the Gulf of Mexico, along the Gulf Coast, in

Canada, I think are seeing some statistics that would say decline is perhaps steeper than what we had previously outlined.

And in fact, the technology impact has had a dramatic effect on being able to unlock new sources of supply, but it also may be masking somewhat this rate of decline; the ability to drill horizontal wells, some of the frat techniques that have led to higher rate wells may in fact be masking some of the decline. So we're going to take a very hard look at that.

Then obviously we need to take a look at the time that it takes from when we first get access to explore an area for completely new resources to the time that it takes to get it on first production. And we can use deep water Gulf of Mexico as an example of this. I think we're all pleased, obviously, with the new source of supply that will be coming from the deep water, but we have to highlight to everyone how long that was in the making. It was more than ten years in terms of both investment and technical developments.

So we've asked ourselves, what sort of technologies, what sort of long-term investments are we doing today as an industry so that when we go out ten

years we're sure that we can deliver something again that is a completely new source of supply, or unlock some of the unconventional sources that we've pointed to in the past.

[Slide]

Then of course on the distribution side, we have to be cognizant of, the supply may be there, the demand may be there, but without the ability to connect the two, we've got a significant problem. So we will be looking for those potential bottlenecks, and we will also be examining the very dramatically changing customer requirement. With the power deregulation and some of the things that we've seen recently, we know that the companies in the distribution business are being challenged to deliver different products to their customers today, but also have affect on what sort of investments they're willing to make, and we're going to be examining that.

Certainly the regulatory impediments will be a key area of focus for us. We're seeing the same trend in the pipeline business that we've seen in other parts of our business, "not in my back yard" for right of

access and some of the other issues. So we'll be highlighting those.

[Slide]

The organization that I'm privileged to be working with has some very talented and engaged people on it. Matt Simmons is leading the demand effort for that task group, Tom Nuze with Burlington Resources is leading the supply group, and Sue Ortenstein with El Paso is helping us with the distribution.

They in turn, as you see in your roster, have a large group working with them, but span the independence to the major integrators, to the utility companies, to the distribution companies, et cetera, some in academia. So we are touching a number of sources.

[Slide]

So in summary, what we expect to get from the study is a validation and an update of the 1992 study. We want to keep it very focused, we've given ourselves only nine months really to constrain ourselves and prioritize so that we are hitting the most salient, high impact items. We will identify what those things are, but more importantly we will make recommendations for

what we think we should do as an industry to address those challenges.

So I look forward to returning about nine months from now and describing our recommendations and conclusions. Thank you.

[Applause]

CHAIRMAN FOSTER: Thank you very much, Claire. That was a very good report, and Bill, and it sounds to me as though you're on a good course, and I'm sure you'll come up with a good report.

Any minute now, Secretary Richardson is supposed to walk in the door.

Looking around this room at the average age of this group, a five-minute break would probably be in order.

[Break]

CHAIRMAN FOSTER: Thank you, Mr. Secretary, for that five minute break; some of us needed it.

We now come to the very important part of the agenda where we hear from the ninth Secretary of Energy, my cochair, Bill Richardson. As many of you know from firsthand experience, Bill represented New Mexico's 3rd congressional district for 15 years, from early 1997

until this September, he was the United States permanent representative to the United Nations.

We're very pleased to have him here today. As I mentioned to you earlier in my report on the cochair's meeting in September, he's doing an excellent job of eliciting viewpoints and comments from industry people, and displayed not only a knowledge of our business but a sincere interest in it.

So I'm pleased to turn the podium over to him today for some remarks.

HON. BILL RICHARDSON, SECRETARY OF ENERGY

SEC. RICHARDSON: Thank you very much.

[Applause]

Joe, first, thank you for the leadership you've shown with the Council. This is the third meeting I've had; the meeting last night at cocktail hour was my second after the Houston meeting, and now hopefully we can get a chance to talk frankly, because this is the kind of relationship I want to have with you, and this is what this Council is all about.

I want to thank Marshall Nichols for all the work he's done in putting this event together. And my

friend, Ben Alexander. Ben, I was just looking for you so we could have our meeting. We'll do it right after.

You've got to pay attention to Ben; he's a pretty good fund raiser.

(Laughter)

You never know, I might get fired; I may need him again.

Let me just say also, I know you guys are hurting, and I have just discarded about 60 percent of my speech because I wanted to give you some positive remarks at the same time that I acknowledge that you're hurting.

The second component, the second theme, if I can get that acknowledgment out of the way, is to say that we at the Department of Energy are on your side. Now I've been on the job almost three months. I hope in the days ahead, in the months ahead we can show ways that we can work together; that what I just said, that the Department of Energy's on your side translates into something tangible.

Now again I note the seriousness of the state of the oil industry. Today we know that oil prices are low and that the low price has had a negative

private effect on investment. This is in stark contrast to the past two years where oil price growth elicited a concurrent increase in upstream expenditures and investments.

On another industry front, many in industry and among the general public are also alarmed at how major players are taking advantage of economies of scale, in some sense "closing the ranks through mergers and acquisitions." The opinion pages and any number of polls over the past two weeks bear witness to this concern. In times like these we must constantly remind ourselves and the public that oil is a cyclical business. We have to allow the market to do its work and allow the current cycle to run its course.

The oil business has a remarkable history of resiliency. Sluggish markets, historically low oil prices and today's economic downturns will tomorrow be reborn in growth, prosperity and business advancement. This is a resilient industry and it remains a prime mover in our nation's and the world's fiscal growth.

For the health of the industry, we need to recommit ourselves to a long term view. Twenty-five years ago, we were mired in an international oil crisis.

Strategic reserves virtually didn't exist, and we relied on a relatively small base of suppliers to furnish us with oil. The economy suffered, gas lines snaked through our cities, and Americans had to dig deeper into their pockets. In 1998 the view is different.

In 1998, we're paying roughly the same for oil in real dollars as we paid in 1920. In 1998, many of the nations of the world maintain strategic stocks of oil to protect consumers and economies from short-term supply disturbances. Thanks to technological breakthroughs, the cost of finding new oil and gas wells has plummeted in the United States to under $5 per barrel from $16 in 1979.

The landscape is truly different. Today the world, once believed to be "running out of oil" is instead greatly expanding reserves and diversifying bases of supply. We've also broadly expanded our energy sources, developing alternative bases like natural gas and renewables. We've invested in technologies which have greatly lowered the costs of exploration and production. And as members of the industry community, you're all central to this progress. And you are

central to our optimism about the future of the industry and our nation's future economic health.

We believe that this optimism is well-founded. We expect that oil demand will rise, and the current overhand will dissolve. We are also confident that for the foreseeable future, as in the past, fossil fuels will remain the world's commodity of choice.

Now to Georgie Yates, my friend, I had a quote here from the International Energy Agency which I'm not going to give, because I know how mad you are at them.

(Laughter)

So I want to acknowledge a second major initiative for the oil and gas industry.

For consumers, there's good news as well. Low cost energy has powered our economy to new heights, bolstering our economic indicators at levels as high as anytime in recent memory. As a nation, we try to best balance the needs of consumers and the needs of the businesses. Both components are critical to the economic well-being of the country, and in looking for a balance that serves both business and the consumer, I think we may be seeing equilibrium approaching in a mix

of consumer benefits and the progressive cycles of the market.

Yet progressing cycles and clearing forecasts are not necessarily today's most soothing prescription. I know that some of you are not swayed by future optimism; you need some reassurance now. Many of you are saying, for the sake of some of the players we need to do something over the short term.

Well, I agree with you. We are, after all, discussing an industry that employs one and one-half million workers and accounts for seven percent of the economy's gross output, an industry that contributed over $560billion to domestic economic activity in 1997.

I think we do need to do something, and we've already taken steps to find some solutions. Earlier this month, partly as a result of meeting with oil industry representatives, some of you who attended this meeting, I established an Oil Industry Emergency Task Force at the Department of Energy. I directed this select group to closely examine the state of the market and offer recommendations for actions the Department of Energy can take towards improving the state of the domestic business. The Task Force has been scouring the

country, speaking in depth with industry, state officials, national and state trade organizations to gauge what solutions might best work.

They're examining several kinds of relief, including Executive and Congressional action, short term views which would work over the long term. I am awaiting their recommendations and they will be submitting them to me this week.

For example, one of the items under discussion is to find ways to take excess oil off the market and place it in the Strategic Petroleum Reserve, helping domestic industry in the short term while bolstering our energy security over the longer term.

We're examining ways to increase our advocacy for energy policies that cut costs and reduce red tape. We're looking at economic relief initiatives such as tax credits and other tax relief, perhaps emergency loans for producers literally on the brink of economic collapse. We're examining regulatory relief approaches that can lower exploration and production costs without compromising health or environmental protection. And we're looking at activities that are already under way

in the Department that can be accelerated to provide short term support for oil production.

We've made progress on several of these actions because of efforts that began well before I set up the Emergency Task Force. For example, in November I sent a letter to Treasury Secretary Bob Rubin regarding the oil and gas well tax incentive package many of you have been talking about. Since then, the Secretary and I have had several meetings, and we've discussed the viability of such a proposal, and we'll continue to do so into next year.

DOE has been closely working with the IPAA to examine all sides of such a plan. We looked into options like credits at specific prices, and we think that possibly, if we all work together, sometime next year a proposal might be fashioned. Let me make it clear, there is no administration policy yet on this issue until we flesh out many of the areas that we're discussing with you.

I can't guarantee anything except guarantee to you that if the proposal is right it's going to be on the table, and I will be fighting for it vigorously. Over the long term, the Department is pursuing other

ways to help the industry. We're fighting to keep a viable technology development program in place, with a particular focus in the short term on demonstrating ways to reclaim oil that might otherwise be lost from oil fields on the verge of premature abandonment.

We continue to work with EPA and the States to reduce the cost of environmental regulation and compliance. I met with Administrator Carol Browner yesterday. And more input toward solutions is to come. I understand that Governor Keating will be calling together oil-producing state governors in January, and I look forward to hearing the ideas that emerge from that conference.

As I try to convey to many that look at the oil industry with skepticism, for states like mine, in New Mexico, oil revenue, energy revenue, gas revenue goes into funds that help education, that help infrastructure, that account for the budget of our state.

What these developments show is that the Department of Energy is committed to find ways, to maintain jobs, preserve oil and gas production, and

prevent the premature abandonment of wells that are needed to maintain the vitality of this industry.

We're committed to finding answers to problems for both industry and the public, and we'll do our best to find a fix that is amenable to all sides. Let me commend the work of this Council, and I know the history that was part of the early component of my speech, how you were established by President Truman, the work that you've done. I read your reports.

I was very, very concerned the other day, in looking at the list of the reports that you had submitted, that none were to be submitted so far under my watch. But then I was reassured that about three of them will be coming in the last two months; and I was worried about a big gap of 1997, 1998 -- probably '99 I'll be fired, so ending around '99, I was particularly interested.

In reality, I'm very pleased that so many reports will be forthcoming soon.

I look forward to some of the petroleum product inventory studies that will be approved by the Council today. This study, I understand, provides some useful insights on factors affecting inventory levels

and trends. It is going to serve as a good foundation for a more comprehensive study of the longer term viability of our nation's oil refineries and how fuels are processed and delivered to customers.

I also look forward to your findings in the two other critical studies now underway; that on U.S. refinery viability and fuels deliverability, and on the U.S. natural gas supply. I had a very good conversation with the Chairman of Exxon on the refinery study.

The NPC study on the U.S. Natural Gas supply, the reassessment of your '92 study, is already highly anticipated. Over the past few years, we have seen a dramatic change in the gas industry, thanks in large part to developments in technology and a national recommitment to our environment. We've seen major increases in the rate of production successes, and have in turn witnessed the true boom in the natural gas industry.

The Department's Energy Information Administration predicts that gas will be the fastest-growing primary energy source in the world over the next 25 years; and in 2020 we predict annual consumption will

double, annual consumption from 1995. These are truly remarkable changes.

Looking beyond the current price problems, I believe that increasingly energy policy is going to go hand-in-hand with environmental policy; and there is no need for the oil industry to shy away from tomorrow's environmental challenges. You've tackled them head on in the past, and have made great progress. We're going to help you get the word out about that progress.

For over a year DOE has been researching the environmental benefits resulting from advances in exploration and production technology. We expect to publish our findings in early January; and when we do, I think any objective reader will be very impressed.

For example, to name a few of the items we will cite: Today's industry is leaving a smaller footprint; not only drilling fewer wells, but using wells that occupy a smaller surface area. And worker safety has improved by over 30 percent since just 1997. This remarkable accomplishment means that today's industry jobs are better jobs than ever before; and that means a better climate for business.

Other critical actions are taking place in the industry, actions that help us carry out our mission as stewards of America's resources. As you all know, it has been long-standing policy of the United States to safeguard the continuity and viability of critical infrastructures. In serving this policy, President Clinton signed a directive in May, drafting a national effort to diminish the vulnerability of the national critical infrastructure to disruptions of physical or other nature.

Along with other agencies, DOE is the forefront of this national effort. We have been charged to develop a cooperative federal-industry program to protect our energy infrastructures. And to do so, we need the support and counsel of this NPC and its counterparts in industry, as you furnish invaluable proximity to the fundamentals of our energy infrastructure.

We will work cooperatively with you to best serve the President's directive, while also acknowledging your specific business needs. All of you here today are well aware of the central importance your industry has in the economic health of our country.

Echoing this critical nature is the signal role the NPC plays in advising me on the state of the industry, and then counseling and making the decisions that will best serve our country.

When Harry Truman recognized and created you in 1946, he had the country's best interests in mind. That has been manifested by the work that you've done. It was two years later, half a century ago, that Truman said, "Do your duty and history will do you justice." That the National Petroleum Council does its duty with supreme accomplishment ensures the legacy of this body.

After we bear out the ups and downs of our industry cycles, the peaks and valleys of doing business at the turn of the century, history will do justice to you for the work that you have done.

Again my message is clear: I know you're hurting, I know the industry is in trouble, I know there is pessimism. However, indicators for the future, because of your resiliency, hopefully because of some policies that we will pursue and achieve, things I see getting better.

At the same time, recognize that the Department of Energy is on your side. We've changed our

fossil fuels operation to reflect that. Access to you is paramount in terms of what we do. Give us some time to develop these policies, criticize us when we're not moving fast enough. Find ways to constructively work together with those that in the past have looked at you as potential enemies. Find ways that we can technologically, through our laboratories -- although I tell my staff that when I got to an oil and gas group, don't overdo me with scientific and technical studies we're doing to improve exploration; these are men and women that care about getting oil out of the ground and being successful and getting rich again --

(Laughter)

"Give me something good." Anyway, it's great to be with you, it's great to be with some of my friends from New Mexico, it's great to be from members of the industry that in my past -- I think Joe mentioned I was once a member of Congress -- helped me, helped me when I was a member of the Energy Committee, and for that I thank you.

[Applause]

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

He has agreed to take questions, so fire away.

AUDIENCE: "Rich again" -- that sounds real good.

(Laughter)

You are talking about the rebirth of growth, and the resiliency and so forth; after 1986, which was a real bad time for us, then we did manage to grow some. But I'd just like to point out that the growth that we incurred was far, far less than the general growth in the S&P 500, if you look at, on the average of companies. There were very few companies that even kept up with that.

So even in an $18 oil climate, the growth for this industry has been very poor for the last ten or twelve years; one year, three years, five years, seven years, ten years. And in fact, that's why some mergers were even beginning to occur before this last round, when oil dropped to $12.

Now we're at $12, $10-$12, and the forecast is for, you know the price may be stable -- the consensus forecast is for it to stay low for some time. So I would say that we're in worse condition now than we were then, because we rapidly went back to $17-$18 oil. And

if we stay at $12 oil very long, we will not have an independent sector in this country. Just an observation.

SEC. RICHARDSON: I take that very seriously, and I understand what you're saying. I have had meetings with some of my producers, some former producers in San Juan County, New Mexico, who have reflected exactly what you've said.

My point here is that there is resiliency in the industry; that the markets act in many funny ways; that these are cyclical trends, and that you'll be back, the industry will be back. The question is how soon and how effectively we in the public sector can help that happen. And we're committed to do that.

Just give me another couple of weeks.

(Laughter)

Three weeks, three months -- You know, I've got th is Emergency Task Force, and I had this meeting with the industry group on a Tuesday; and I said this is an Emergency Task Force, and I said "Where's my report?" -- this was Wednesday. They said well, they're not going to have their first meeting until Friday afternoon. Which prompted me to give this task force --

which is very good, which has been expanded, by the way -- a deadline, and I believe they'll be submitting this report to me on Friday.

CHAIRMAN FOSTER: As you ask your questions, please identify yourself.

MR. WARD: Mr. Secretary, I'm Lou Ward from Enid, Oklahoma, and I just wanted to thank you on behalf of the independent producers, especially, the indication of willingness to be an advocate for the industry. And we certainly do appreciate that.

One thing that I would encourage you to remind people of when you are called upon to say something good about the industry, is the fact that over $80 billion were taken out of the industry in the form of the windfall profits tax. And we have -- a lot have said (inaudible) covered the tax, and I'd appreciate it if you would just mention that from time to time if the opportunity presented itself.

SEC. RICHARDSON: I will do so.

MR. SEWELL: Mr. Secretary, Scott Sewell from New Orleans, Louisiana, Delta Energy.

Who is heading up the Emergency Task Force? I know the reports may be due Friday, but if we have

suggestions that we could forward on regardless of the timing, who would we forward those to?

SEC. RICHARDSON: Right here. My team is right here; they were with you last night. I understand late last night. But they had meetings today with your group and yesterday.

But I think Bob Gee, who is my Assistant Secretary-designate for Fossil Fuels; Melanie Canderdine, my senior advisor just for oil and gas. You know, this has never happened, to have an oil and gas adviser in the Secretary's office. The trouble with Melanie is she's so turf-conscious that she doesn't want to give up her other responsibilities, which I am trying to just take away from her.

Anyway, and Bob Gallagher, a New Mexico man that I brought on especially to advise -- I don't know if he's here. It's probably a little early for him to be up --

(Laughter)

I didn't mean that, Bob.

But I think if you get -- these guys are working very hard on this, and I enjoyed meeting you

last night, by the way. You were head of MMS in the Reagan administration?

MR. SEWELL: Bush.

SEC. RICHARDSON: Work with them and get it to them, because they're going to do this report, and it's going to come to me on Friday. But they're right here, and they'll stay.

MS. AUDIENCE: Secretary Richardson, can you address the administration policy on oil swaps? I know it's an area that you share venue with Treasury and a couple of other agencies, that recently the administration refused to allow an oil swap, and this is a point of contention?

SEC. RICHARDSON: You're a distinguished member of press, aren't you?

MS. AUDIENCE: Yes, I am.

SEC. RICHARDSON: I'll answer that out there. I think it would be better if I did that. Just make sure you come with me when I leave; because this is for them, and I want to make sure that all of your questions are--.

Joe, I think they want me to get the hell out of here.

CHAIRMAN FOSTER: I think George Yates is going to ask a question.

SEC. RICHARDSON: Go ahead.

MR. YATES: Mr. Secretary, I wanted to wait, knowing that we've had a conversation and some other folks might not have.

But something in your speech triggered this comment. Much of the press, and I think part of the government thinks that we've solved our supply problems through technology. Claire Farley, earlier this morning in discussing the NPC's natural gas study, pointed out that technology may actually be disguising decline rate increases. And in fact, the use of technology has caused us to grow deliverability of product; not necessarily grow long-term reserves.

In fact, our reserve life, it appears, has been cut down significantly as a result of technology. In other words, we're able to drain reservoirs much more quickly. Now this is a danger signal. This is a danger signal. Technology has not taken the sweat and the capital requirement out of this industry, and we don't really think that the excess deliverability we see

worldwide is, at least I don't believe it's anomalous except if it's anomalously low.

We've got to have that and preserve it to have healthy markets, because when the swing comes, I don't think you want to see the consequences of demand exceeding supply.

SEC. RICHARDSON: Well noted, Yatsie. And again I'm going to stress to you, I took Pritchard out of the speech -- what's his name? Is it Pritchard?

MR. YATES: But I'm not mad.

SEC. RICHARDSON: What? Priddle.

Took him out of the speech, for Yatsie.

MR. YATES: I'm not mad.

MR. RELEGGER: I'm Philip Relegger from Concord, Massachusetts.

I want to ask you about a dicotomy. I think in you view the industry is recovering, which obviously we associate with higher prices. Yet part of the Energy agency has just issued a forecast, EIA, which says that prices are going to be low and will be for several years.

I disagree with the forecast, I think most of us here do. But this forecast gives false comfort to

the economic community, including the rest of the administration. Is there anything you can do to get EIA -- the forecasting side. They do wonderful things on the data collection, but the forecasting side should reflect a little more realism.

SEC. RICHARDSON: Well, you know that traditionally this is an agency within my agency that is independent of my --

MR. RELEGGER: Yes, I was there when it was created.

SEC. RICHARDSON: You know, I sometimes -- I think you're wanting me to say something. I sometimes want them to be a little more supportive of some things that I'm doing. They do good work.

Their analysis is a good analysis; but I can understand that some differ with that conclusion that you cited.

We have found them, though, in the oil prices statistical area generally, they have been working very well with my new team. But again -- for instance on climate change, they made some statements that probably are closer to your view than administration policy.

No, not even you? Okay. But I understand that dichotomy.

MR. LAYTON: Mr. Secretary, my name is Steve Layton with Equinox Oil Company. I know all of us here have read much in the last several months about the benefits of low oil prices to the economy.

Does the administration believe that there really is such a thing as too low of an oil price?

SEC. RICHARDSON: We believe market forces are the key determinate in prices. We oppose the arbitrary fluctuation initiated by countries on oil prices. We believe that these are market forces. We believe, too, that while consumers are benefiting from lower prices that the state of the industry, our domestic oil and gas producers, is of concern to us and this is why we are undertaking these efforts in the days and months ahead, to work with the industry to try to address some of these concerns.

Joe, I may have to run out of here. But Ben, will you with me, and the reporter if she still wants to hear about oil swaps?

Mr. Yates?

MR. YATES: I just wanted to thank you for being here.

SEC. RICHARDSON: Thank you. And thanks for the work you do. And hang in there. Hang in there. You'll be rich again.

[Applause] [Secretary leaving the meeting]

CHAIRMAN FOSTER: Thanks very much, Mr. Secretary, for your remarks and for your responses to questions.

Let me point out something that's in your packet; it is a document that's entitled, *Government Actions to Improve the Outlook for U.S. Upstream Oil and Gas*. It represents a compilation of alternatives that have been considered by the National Petroleum Council, and studies made from 1986 forward. You long-termers on the Council will remember that following the price collapse of 1986, a study was prepared on the future outlook for oil and gas in a climate somewhat similar to what we may be in now, and a number of ideas and options were proposed and analyzed. And then there have been other studies since then, and you'll see a matrix in that attachment that lists quite a number of alternatives.

The other thing we have done for the benefit of the people in the DOE as well as members of our Council is to take the conclusions and recommendations sections from those reports that the NPC has prepared since 1987 and put them in a book, which those of you that wish a copy can pick up from a member of the staff as you leave. Obviously this is going to fill somebody's briefcase so you may not want it; but we can mail it to you if you want that.

But in any event, there area a number of options that have been analyzed by the NPC, and we feel that in the DOE, Bob, some of these options might be considered that would be perfectly happy to share what we know about them and some of the results that we have obtained in previous work.

Is there any other business to come before the Council today?

Does any Council member have any other matter he wishes to raise at this time?

Does any nonmember want to be recognized?

Well, before we adjourn, just let me announce that Jim Nokes, Bill Wise, Claire Farley and myself will

remain here for a few minutes in case there are any questions from the press.

There being no further business, then, I ask for a motion to adjourn.

[Moved and seconded]

[Voice vote]

CHAIRMAN FOSTER: The meeting is adjourned. Thank you very much for attending this 106th meeting of the NPC.

[Whereupon, at 11:07 a.m., the meeting adjourned.]