

P U B L I C H E A R I N G

before

SENATE COMMITTEE ON ENERGY, AGRICULTURE AND ENVIRONMENT

on

SENATE BILLS 689 and 200
(Oil Ports)

Held:
March 4, 1974
State House
Trenton, New Jersey

MEMBERS OF COMMITTEE PRESENT:

Senator Joseph L. McGahn (Chairman)
Senator Bernard J. Dwyer
Senator Thomas G. Dunn
Senator Raymond J. Zane

ALSO:

Assemblyman H. Donald Stewart

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SENATOR JOSEPH L. MCGAHN: (Chairman) : Good morning ladies and gentlemen. We open Chapter Two on the ongoing saga of whether to have an oil port or not to have an oil port in the State of New Jersey.

I am Senator McGahn. To my left is Senator Dwyer and Senator Dunn. To my right is Assemblyman Don Stewart who is my coequal in the Assembly Chambers. We hope to have Senator Zane and Senator Parker present before the morning is over, but they are a little late. Since we do have a rather busy schedule, we are going to get on with dispatch.

I'd like to say that as a result of the hearing last Monday, this Committee was apprised of and is cognizant of inadequacies in Senate Bill No. 200, basically, concerning land-use and the role of DEP in regulation of land-use and in the preemption by the authority over any existing of type land-use. We will take this into consideration, and I would certainly hope that anybody testifying today, if they want to mention this, they can, but not go into great depth or details about it since we already know it. Another criticism levelled last time was the fact that, basically, there is no authority to regulate offshore oil spills. I'd like to say that that particular criticism is not germane to this particular bill. Any liability for offshore oil spills is presently under consideration. The bill is being drafted, and this would apply regardless of whether we had a deepwater oil port or not. So, with these two statements, I would like to welcome all parties here today. All will be afforded the full opportunity to express their views and furnish specific data on matters pertinent to the issues of the establishment of a deepwater port, including technical, economic, ecological, and environmental material. The statements should be supported by factual information insofar as practical. Oral statements will be heard, but for the

accuracy of the record, all important facts and statements should be submitted in writing either at this time or later.

In the interest of time, you are discouraged from reading lengthy-written statements. A brief-oral summation of such a statement will suffice, as all written statements will be included in the meeting record in their entirety. All statements should be submitted to the Committee prior to testimony. All statements, both oral and written, will become part of the official record on this hearing and will be made available at a later date for public examination. With that, I welcome everybody, and I would request that the individual testifying give his name and his position and on whose behalf he is testifying.

With that I will call Colonel C. A. Selleck, District Engineer, U.S. Army Corps of Engineers.

C O L O N E L C. A. S E L L E C K:

Good morning Mr. Chairman and members of the Committee, ladies and gentlemen. I am Colonel Clyde Selleck, District Engineer for the Philadelphia District, U.S. Army Corps of Engineers. The statement which I will make is based on our recently completed Atlantic Coast Deepwater Port Facilities Study. I have with me the Assistant Chief of our Planning Branch, Mr. Robert Kean, who is one of the principal authors of that Study.

Before proceeding, let me begin by clarifying the Corps' role in this particular enterprise. The Senate Public Works Committee on October 27, 1971, directed the Corps of Engineers to determine the most efficient, economic and logical method of providing facilities for very large bulk carriers. We have completed this study which was made public on July 9, 1973. We will, of course, provide copies for the Committee. In the process of making that determination, it was necessary to examine and evaluate the need for such facilities. We concluded that they are needed if we are to safely ship existing and projected quantities of crude oil to existing

North Atlantic refineries.

As you are aware, oil companies now transport crude oil to the North Atlantic in tankers in excess of 100,000 tons. Already ships of that size are lightering in Delaware Bay and New York Harbor. However, the economic incentives to use larger vessels to service the North Atlantic is becoming greater each day, as a result we can expect shippers to use even larger vessels.

Without a deepwater port, we can expect them to use any of several possible alternatives. They could transship the crude oil from foreign ports such as those already existing in Canada and the Bahamas -- in other words, transfer the cargo in foreign deepwater harbors to smaller vessels capable of entering our own ports. This would increase the number of smaller vessels using our ports and result in increased harbor congestion. Another alternative is multiple port shipping, which means partially unloading a massive, say, 500,000 dead-weight ton ship at a foreign port, and then bringing it to the North Atlantic for further lightering. It is a variation of lightering operations currently in use, and would have the same drawbacks. Some combination of these alternatives will undoubtedly be used should no deep water facility be built. Without a deep water facility, the number of ships lightering in North Atlantic Ports will grow significantly. In addition, large numbers of small ships carrying crude oil will be passing along our coast with increasing chances of collision.

In conducting the study we initially examined nineteen sites -- six in Maine, two in Massachusetts, one in Rhode Island, two in Long Island Sound, Raritan Bay, offshore in the Atlantic Ocean at Long Branch, Delaware Bay, offshore in the Atlantic Ocean at Cape Henlopen, and the Norfolk area.

Economic and financial studies of the areas in question, backed by data from other sources, were undertaken by the Corps

in consultation with industry, environmental groups, and local interests.

In evaluating each alternative, preliminary plans and costs estimates were developed for depths of 80 and 100 feet. In addition, some of the sites were evaluated as regional and local transshipment facilities for crude oil, coal, iron, ore, and residual fuel oil, and for transshipment by pipeline and tug barge systems. In all, 90 plans were evaluated. Benefits were determined as the savings in transportation cost resulting from use of the deep water port facility. These benefits were then compared to the estimated annual cost of the port facility. Our findings indicated that only crude oil transshipment facilities in the New York or Delaware Bay area could economically serve existing refineries. Although these preliminary studies indicated that transshipment facilities would also be feasible for iron ore and coal, further analysis indicated that deepening the channels to Baltimore and Hampton Roads would move those commodities more efficiently. After this preliminary analysis, we undertook a detailed analysis of sites in Raritan Bay and Delaware Bay and in the Atlantic Ocean off Long Branch, New Jersey, and Cape Henlopen, Delaware. In all, fourteen sites were evaluated at those locations, at varying depths.

We found that the most efficient and economical location for very large crude oil carrier handling facilities would be in the Atlantic Ocean off Northern New Jersey or in Delaware Bay off Big Stone Beach, Delaware.

The probabilities of oil spills have been evaluated by the President's Council on Environmental Quality. They state that over a twenty-year period, at an import level of 2 million barrels per day, 37 vessel casualties resulting in spills of over 29,000 tons can be expected in the coastal waters of the North Atlantic. On the other hand, if the same oil were transported to offshore terminals and transshipped to refineries by pipelines, about 4 casualties totalling only

2,500 tons can be expected. The dramatic reduction in levels of oil spill results from reduced traffic and groundings which are less likely to occur in offshore areas. In other words over a twenty-year period without a suitable unloading facility we could expect 37 accidents averaging about 5,800 barrels of oil. With a terminal we could expect 4 accidents averaging 4,600 barrels each.

In addition, from an environmental point of view, both the Council on Environmental Quality and the United States Environmental Protection Agency have stated categorically that offshore sites are preferable to estuarine sites. Any oil spills at offshore sites would have less chance of reaching shore than at inshore sites. In addition, oil reaching the coast would have weathered and would be less likely to contain the more toxic fractions of crude oil, which evaporate quickly before they reach the shore. Consequently, we conclude that the least environmentally damaging of the sites that could feasibly serve existing refineries, would be located in the Atlantic Ocean off Long Branch and/or Cape Henlopen. The latter site is somewhat less economically efficient than others previously mentioned.

In addition, we found that there is sufficient private interest to develop these facilities and see no need to adopt a federal project or to spend federal funds for such development. Rather, we think all interests can best be served and the environment protected by using the permit process under appropriate controls. Issuance of such a permit would require prior approval of the affected state or states and use of the most up-to-date pollution and safety equipment.

In your invitation to testify at this hearing you asked for my comments regarding the effects an offshore port would have on the New Jersey Energy Crisis, on the environment, on land development, on jobs and on state revenues. Although the oil transfer facility may have a small impact on these items, it is our position that the most significant impacts could

result from increased refinery and petro-chemical industries which desire to locate in New Jersey.

However, our study indicates that it is feasible to develop an oil transfer facility for existing refineries. Consequently, the decision to provide an oil transfer facility is separate from the decision regarding industrialization since the latter can be controlled by policies at both a state and local level.

To my knowledge, the most recent and comprehensive evaluation of the impact of various levels of refinery and petro-chemical industries in Northern and Southern New Jersey has been completed for the President's Council on Environmental Quality. This is the Arthur D. Little Study.

In conclusion, let me say that I recognize both the importance and the difficulty of your task and that my staff and I now are willing to assist you in any way possible.

SENATOR MCGAHN: Thank you very much, Colonel. I think the Study conducted by the Army Corps of Engineers was in depth, it was extremely enlightening and, of course, by the same token too, depending upon which viewpoint one looked at it, it could be beneficial; it could be otherwise.

May I ask whether the projections that you make in this - as far as the oil being brought in or oil being imported in the State of New Jersey - are based upon the fact that in the future we will have to import most crude oil into the State of New Jersey?

COLONEL SELLECK: Yes, sir, this is a very fundamental assumption.

SENATOR MCGAHN: Okay. Do you believe, also, that self-sufficiency by 1980 - as stated, recently, by President Nixon - is attainable?

COLONEL SELLECK: I really am not competent to comment upon that projection.

SENATOR MCGAHN: Be that as it may, is it fair to say that - regardless if there be sufficient energy

as far as electrical generation is concerned or what not - there will still be the need for crude, to be brought into New Jersey; to service the petro-chemical feed stock, coal tars, etc., and so forth, so that, actually, any type of an oil transfer facility, at the present, would not be outmoded, say, by the year 2000.

COLONEL SELLECK: The year 2000 is some time in the future, Senator, but I think that we will have a relatively long-term requirement for such a port particularly since most of the petroleum, the crude oil and petroleum products, being transported in the world are now being transported in very large deep-draft ships.

SENATOR MCGAHN: Do you have any opinion or facts to substantiate that existing petroleum facilities and refining tank farms could be expanded without going into any other area in the State to increase refinery capacity within the State of New Jersey?

COLONEL SELLECK: Bob, can you --

R O B E R T K E A N: During the study, we surveyed the major refineries that are in the State of New Jersey, Pennsylvania, Delaware, and the general indications were that they could about double their capacity on their existing real estate.

SENATOR MCGAHN: This was the testimony that was given last week also by the gentlemen from Exxon. It is fair to say, I believe, at the present time, that for the mid-Atlantic area - Area 1, District 1 - and certainly the New Jersey, New York, and the Delaware area, provides the bulk of refining capacity and, actually, oil import.

COLONEL SELLECK: Yes, sir.

SENATOR MCGAHN: Thank you.

We're welcoming Senator Zane to these hearings.

Therefore, it is your testimony that, basically, from a standpoint of safety of oil transport and from an economic standpoint - as far as transport is concerned - this would be preferable to the use of VLCC's in an oil terminal - regardless

of where it is situated - and it would be preferable to the present system of lightering and/or barges, plying the coastal route?

COLONEL SELLECK: Yes, sir.

SENATOR MCGAHN: Thank you. Assemblyman Stewart?

ASSEMBLYMAN STEWART: Yes, I have a question.

Do you have or does your department have jurisdiction over oil spills? Do you have any jurisdiction, at all, over this?

COLONEL SELLECK: We do not have jurisdiction over oil spills. This is the responsibility of the Department of Transportation and the Coast Guard. Our jurisdiction is limited. It consists of jurisdiction over construction in navigable waters under Section 10 of the River and Harbors Act of 1899.

ASSEMBLYMAN STEWART: The one thing that concerns me - I'm sure this concerns everyone with the deep water port - is the spill. In recent news articles - in the Delaware River between Philadelphia and Wilmington, in the past three months - there has been approximately one million and a half gallons of oil spilled between Wilmington, Delaware, and Philadelphia. The concern of the people there is -- this has not been contained satisfactorily. It has not been cleaned up. How do we explain to them that there are adequate means to contain spills and stop them, when we can't stop them in the Delaware River? Do you have a solution or answer to that question?

COLONEL SELLECK: Our report contains information that the probability - the chances of an accident resulting in a spill - would be less in an offshore facility. This is the fundamental consideration. As to measures to contain an oil spill at such facility, this would depend on the design of the facility.

ASSEMBLYMAN STEWART: Can I -- I thought you said in your statement that it would be easier to contain in the Atlantic, for instance, than the river, simply because the

oil would not get to shore as fast. How big an area do you need? How soon -- or aren't you qualified to answer these questions? How far out does the oil spill have to be before it can be contained?

COLONEL SELLECK: Well, we're talking, sir, about statistics, really, probabilities. My statement in the study supporting it states that at an offshore location, there would be less chance of a spill occurring and because of the distance from the shore, the chance of the spilled material getting to shore would be less, depending on the wind and the current and the volatile fractions - the potentially toxic material - would tend to weather or to evaporate.

ASSEMBLYMAN STEWART: My final question would be - since this is not in your jurisdiction - who can answer the question for me and for the Committee? Who can answer the question of how long it will take to contain an oil spill? How far is far enough out? In the Delaware River we're talking about 15 miles of beach on both sides. Who can answer that question, the Coast Guard, the Oil Companies themselves?

COLONEL SELLECK: The Coast Guard, of course, is concerned with controlling spills once they occur. Did we look more into it in the study --

MR. KEAN: Of course, that depends on the size of the spill we're talking about. You're talking containing a spill with an actual bone-type of structure placed around it? Is that what you're referring to?

ASSEMBLYMAN STEWART: I've been told that there is technology available that will contain oil spills, and I've seen presentations by those who are advocating the deepwater port with these elaborate mechanisms that will contain oil spill. Yet, I see a million and a half gallons in the Delaware River and nobody is containing it. Where are all these elaborate mechanisms?

MR. KEAN: The type of mechanisms which are available to contain spills -- of course, all of this starts in the ocean where there are three or four foot waves. To my knowledge there is no real efficient way of containing that spill; of course, there is a lot of research development work going on in that area, and we can expect that there probably will be. Within the protected harbors they have booms which are rather efficient in containing spills at a dock. Now, if you're talking about having a ship break in half - a major spill - I'm not sure what type of containment device is available for that -- like the one we just had in the Delaware River - which was a pretty large spill. On the other hand, this spill in the Delaware River resulted because of the traffic that exists in the Delaware River -- This one ship, I believe, swung out into the channel, which would not have happened at a larger port in the Bay, specifically for tankers. In all probability, it would not have happened.

SENATOR MCGAHN: I think, if I may, interject something -- I think that, as a matter of fact, the Army Corps of Engineers, themselves, have cited the worst possible accident that could occur with an LVCC in which a 325,000 dead weight ton carrier, cracking up, would release 2,250,000 barrels of oil which would despoil the coastline for 200 miles to a degree of some two feet, as far as the beach is concerned. This is the worst possible accident that could occur. That type of thing would be - I would say, basically, - impossible to contain, but there has not been any type of tragedy or catastrophe like that with an LVCC.

COLONEL SELLECK: If I could summarize a rather rambling response to your question, it's very difficult to respond in detail to what you ask. These are considerations that must be taken into account in the

design and approval of an actual specific enterprise.
I agree they're very important

ASSEMBLYMAN STEWART: Thank you.

SENATOR MCGAHN: Does anyone have any questions they would like to ask? (No questions)

Colonel, the only question I might have would be, basically, in the projections that you had made for most favored locations there were none that stated, specifically, that you would consider an oil transfer facility that would go directly to existing refinery sites or tank farms. Was this an option that you felt was not feasible?

COLONEL SELLECK: Basically, what we contemplated - this was a conjecture based on an assumed design - would be that the facility would be connected to a tank farm located somewhere onshore and the tank farm, in turn, would be connected through pipelines to the existing refineries in the Raritan Bay area and to the Delaware River refineries.

SENATOR MCGAHN: Could we also, for the record, define what is meant by a deepwater port in relationship, as far as you people are concerned -- I'm talking, now, about the single-point mooring system, the pipelines, the circumference of the pipelines, the amount of through-put to the onshore facility?

COLONEL SELLECK: The details, of course, are contained in our study. We're talking about several different concepts. The facility off of Long Branch, for example, is a regional monobuoy system. The one in Delaware Bay was a regional sea island system.

SENATOR MCGAHN: By a regional monobuoy system - of course, you're talking about more than one single monobuoy, 5,000 yards or a mile apart - this, of course, would require, because of the distance from the land, a pumping station. So there would a platform with a pumping

station, as well, as part of the complex.

COLONEL SELLECK: Yes, sir.

SENATOR MCGAHN: That was just for the record.

There would also be, if I'm not incorrect, approximately two pipelines coming to shore, one for crude and one for refined products. That, of course, would be determined initially.

MR. KEAN: In our facility it was the one crude pipeline plus the pipeline that would be for bunkering the ship, putting fuel back on the ship.

SENATOR MCGAHN: Thank you very much. I have no further questions, gentlemen --

MR. KEAN: May I make one other statement --

SENATOR MCGAHN: Surely.

MR. KEAN: Let's get back to the length of the oil spills -- you don't have a copy of this, I guess, but on Table 18 - it's on page 44 if you do have it - is a list here of oil spills in various locations and the one we all here about is the Torrey Canyon in England which was about a 100,000 dead-weight ton ship which is now what is lightering in the Delaware Bay and in New York Harbor. The spill there covered about 140 miles of beaches.

SENATOR MCGAHN: Mr. Dunn --

ASSEMBLYMAN STEWART: That's not my question. My question is how long does it take to contain it. Obviously, you fellows aren't responsible for that. I know how far they go.

MR. KEAN: I think you would have to talk to the Coast Guard.

ASSEMBLYMAN STEWART: Okay, fine.

SENATOR MCGAHN: I think, basically, - in answer to your question - at the present time in the state of technology, there is no way anybody can tell. There is no way if you are going to have that catastrophic

situation, that containment can be in terms of days, minutes, or hours.

ASSEMBLYMAN STEWART: If given examples of 285,000 gallons of oil spilled in the Atlantic Ocean, can somebody, then, tell us how soon they can contain that?

SENATOR MCGAHN: It would depend upon how far out it is. If it's 25 miles out, then it is a completely different situation than if it is 3 miles from shore.

MR. KEAN: It would also depend on the weather conditions at the time --

COLONEL SELLECK: The weather, wind, and the current. It's a very difficult thing to answer.

SENATOR MCGAHN: Any further questions? (No questions)

Gentlemen, thank you.

COLONEL SELLECK: Thank you, gentlemen.

SENATOR MCGAHN: Mr. Donald Scott?

D O N A L D H. S C O T T: My name is Donald H. Scott. I am a resident of Bloomfield and President of the New Jersey State Chamber of Commerce which is headquartered in Newark. To my right is Mr. Louis Applegate, our Director of Governmental Relations, whom I'm sure most of you know quite well.

We have given you a written statement, which is fairly brief, but acceding to the Chairman's desire that we make it briefer, I'll try to even summarize that.

By way of background, may I say that our Chamber has been concerned with the impact of energy resource shortages in New Jersey and the nation as far back as the spring of 1972.

Moreover, we have been actively concerned with protection of the quality of New Jersey's air and

waters as far back as 1952 when we helped to draft and support an enactment of the nation's first effective pollution control statute. We have been active in water quality matters since the State program assumed a measure of importance in 1960.

On March 8, 1973 - virtually one year ago to this day - we conducted a special energy symposium and was co-sponsored by the New Jersey Association of Environmental Commissions, principally, for members of the Legislature and news media representatives, The symposium was entitled "Energy and the Environment -- Finding a Balance". We were concerned that we had to find a balance between the economy and the ecology.

The proposal for a state-operated deepwater terminal, as contained in Senate Bill No. 200 which is the subject of today's hearing, will hardly cure the energy shortage by itself. By it's the type of legislation which has for too long been shunned by too many governmental leaders in deference to that fashionable but often uninformed public concern about the environment.

We think it is time that more emphasis be given to the economic side of the coin. And the thousands of New Jerseyans who are now out of work -- to say nothing of the thousands more whose jobs are in jeopardy because of gasoline shortages -- will support our contention.

Parenthetically, I would like to say here that Assembly Bill No. 1000, sponsored by Mr. Stewart and 35 other co-sponsors, would take into account the economic impact of environmental matters. We think something like that is important to bring balance into the picture.

Now, a few specific comments with respect to S-200:

First, the State Chamber strongly favors the concept of this bill. As a matter of fact, our board of directors passed a formal resolution back in November, 1972 supporting the concept of a deepwater terminal for New Jersey. Appended to my statement, for your hearing record, is a copy of that resolution. I might add that our board was motivated in good measure by environmental concerns. In recognizing the skyrocketing demand New Jersey and the nation was then choosing to place upon oil, as against coal and other energy sources, we were concerned for the ecology of New Jersey's priceless shore. Because many tankers arriving from oil-producing nations cannot unload a full cargo in shallow-draft Atlantic coastal ports, they are now being lightered--portions of their loads are being removed on to smaller vessels in relatively open seas off our coast. Not only are we confronted daily with the possibility of spills, we must also contend with the mounting hazard of collisions resulting from the increased ship traffic. The President's Council on Environmental Quality recognizes that modern, deepwater oil ports are environmentally superior to the relatively crude system of literage.

Bear in mind too gentlemen that the Chamber's membership includes major representatives of New Jersey's resort industry, especially at the shore.

The statement of legislative intent in S-200 covers this rising environmental hazard for our Jersey Shore and the bill proposes some courageous steps to prevent it from happening. While we do not agree with some of the specifics which the bill proposes, it responds in a meaningful way to a problem that for too long has been ignored by government in New Jersey. Our State has a highly industrialized economy and thus an energy-intensive economy. Furthermore, oil refineries

themselves are one of the major elements of our economy. Not only are they substantial taxpayers at all levels of government, they also supply the basic ingredients for many of our other forms of manufacture.

In other words, an offshore terminal is vital to New Jersey both from an economic and an environmental standpoint.

However, we do have some reservations about S-200's approach of having the proposed terminal facility owned by the State. We recognize that those citizens who are concerned over the environmental consequences they see in having such a facility off our shore, may feel more "comfortable" knowing that the facility is under state control.

But, in view of the investment it may represent (a figure that may approach the half billion dollar mark, we are told), we wonder if State ownership of this facility is wise from an economic standpoint. It is not our intention here to argue the case for the facility being financed and owned by any particular oil company or even a consortium of such companies. But we question the advisability of the state engaging in such a risk-taking venture.

We fully agree that no facility of this kind should be built unless it includes the very best in safety and anti-pollution technology. And we feel that, if this facility is to serve the needs of a major region of the United States, New Jersey should receive some form of income from it.

The best way to assure such a benefit for New Jersey would be to allow it to be built by private, taxpaying enterprise.

That a deepwater facility may be financed, built and operated by private capital does not mean, however, that the Government of New Jersey would not have ample

controls. The entire shore area is covered now by not one but two stringent environmental protection laws -- the Wetlands Act (PL-1970, c 272) and the Coastal Area Facility Review Act (PL-1973, c 185). And, obviously, if additional controls are found to be necessary in connection with a specific deepwater port proposal, they can be provided.

In short, the State Chamber supports the principle of a deepwater facility for New Jersey. We would prefer to see such a facility financed by private, taxpaying enterprise. We understand the concerns of citizens over the aesthetic and environmental consequences they fear it may bring to the shore area. But we feel that the best anti-pollution technology must be built into any such facility and that the state has ample means to assure that this is done.

Most importantly, this bill proposes a means of meeting simultaneously vital economic needs of citizens and growing environmental hazards to our shore posed by lightering offshore as the nation's petroleum imports continue to mount. We appreciate this opportunity to comment upon S-200. Thank you, gentlemen.

SENATOR MCGAHN: Thank you very much, Mr. Scott.

Could you give us some indication of the economic impact of the petro-chemical industry in New Jersey?

MR. SCOTT: Unfortunately, I do not have those figures handy. Lou, do you have -- it's substantial.

L O U I S A P P L E G A T E: It's somewhat over \$4,000,000,000.00 which makes it the State's largest industry as far as income and expenditure funds are concerned, and, also, it uses 5 percent of the oil used in New Jersey as feedstock.

SENATOR MCGAHN: For the record, then, your testimony is that the petro-chemical industry is the

largest industry in the State?

MR. APPELEGATE: That's correct.

SENATOR MCGAHN: All right. Thank you.

Recreation and tourism comes second.

MR. APPELEGATE: That's right.

SENATOR MCGAHN: It is, of course, the function of this Committee, as well, to make a determination as to whether an oil port should or should not be advisable. It is our function, also, to make a determination as to whether it should be a public corporation. Given, if you will, the lack of credibility of oil companies at the present time, with controlling through a vertical integration system, from production right to the pantyhose on your wife's legs, do you feel that by granting this to private enterprise - which means the oil industry, and it is generally a consortium, it is not an individual - there would be no competitive bidding - do you feel that this would then be in the better interest of the consumer, onshore?

MR. SCOTT: Yes, I do, for the long pull. Industry is competitive and where it is not so, it has been regulated and can be regulated. Such provisions for an offshore terminal can be regulated by the State. I might add, Senator, that some industries are not the only institutions in our society, today, who are lacking in credibility. I might say government, in many areas, is terribly lacking in credibility. Unfortunately, - and I'm very sincere here - too many of our institutions, today, lack credibility with the people. I think it is a very serious matter that the American people have to address themselves to. It's not only one industry or industry, it's government, it's educational institutions, it's many things, but we're getting into philosophy here.

SENATOR MCGAHN: I agree with you there. But nonetheless, I do disagree with you in one respect and that is I do not think the State can basically control their land use unless they are the ones who control the facility. I would also disagree with you insofar as saying that you think there is environmental protection, afforded by both the Wetlands Act and Coastal Facility Review Act -- At the present time, the Wetlands Act is under challenge by the Courts, the constitutionality of it. Likewise, as far as the Coastal Facility Review Act, we have - in testimony last week - come up with the fact and made a determination that this is not, of necessity, a land-use plan at the the present time. It regulates industry within that area. It does not prohibit industry within that area.

MR. SCOTT: Well, its provisions are such that it is almost prohibited, but I would not debate that with you. I think my point is that if you do not have - on the books, now - the laws that would regulate, you have the ability to put such regulations on the books. I think that is the thrust of our views.

SENATOR MCGAHN: I do. I concur.

Thank you very much.

Senator Zane.

SENATOR ZANE: I'd like to ask you one question. If you would just elaborate this for my edification: You have in here, "In other words an offshore terminal is vital to New Jersey both from an economic and environmental standpoint." As to the economics, do you say that without it we would lose what we have or that we would gain? Where do you feel the benefit is from an environmental standpoint?

MR. SCOTT: Well, you don't have to depend up- on our say so. I think there are many more qualified

people than myself who feel that environmentally the offshore terminal is better than the lightering and the present system because it cuts down on traffic of the small ships. I would refer to the other more expert opinions concerning this.

In the economy, I think it is very clear now that we are an energy-intensive economy in the State. Without that we see, of course, an increase in unemployment. For the foreseeable future, we need considerable energy in order to provide the jobs that are going to take up our unusually high rate of unemployment in the State already, which is 7.2 as compared to a national average much less than that and as high as 12 percent in some areas in unemployment in New Jersey.

SENATOR ZANE: In your consideration, as to the environment, do you consider also the powers of taking land, the powers of setting aside areas, the storage, is what you are relying on limited strictly to the idea of greater ease in transferring? The viewpoint, as far as the environmental aspects are concerned, how far does that go in your consideration? Are you also considering the onland aspects of it?

MR. SCOTT: I think it is principally the offshore that we are talking about compared to the many small ships that are necessary. However, onland - I guess you're talking about land-use control and expansion of industry within the State - this is controllable. It is my understanding that we also need now the existing refineries without expansion.

MR. APPLGATE: I think to support that, one oil company has been trying for at least two years to build a refinery and they haven't been able to get the go-ahead yet. So, there is evidence there that these controls are to

further development.

SENATOR MCGAHN: That sounds like the old shell game. I think, Senator Zane, we may simply say something here. Any offshore terminal -- this is not within the purview of the State to issue a license for this. This would be within federal domain and federal jurisdiction. This, again, would depend upon a high-seas-oil port bill which there are, at the present time, a number in Congress. However, it does make a provision, and most bills would make a provision that a State, acting as an entity, would also have the right to operate this facility other than private industry. Furthermore, while the chances of the veto of the Governor of the adjoining and/or adjacent State, is probably not too good for passage, the language of the bill would be that the onshore facility or the siting of this, would be compatible with land control use in a State, assuming the State does have land control use. So, we are looking at this thing, not as the fact that we have the right to say it is going to be out there, this is going to be preempted by federal jurisdiction. But, as a State, we do have the right of land use control legislation which would, therefore, limit the use of onshore facilities.

MR. APPLEGATE: If I may say, I would suggest that probably the federal act, if and when it is passed, would give the State considerable say in these matters that, certainly, as you point, you have control because eventually it must come onland.

SENATOR MCGAHN: Are there any further questions?
(No questions)

Gentlemen, thank you very much.

SENATOR McGAHN: Mr. Dalal.

While I'm waiting for the gentleman, I have here a statement that was handed to me by the New Jersey Farm Bureau on Senate Bill #200. I'll ask this to be put in the record as such. There will be nobody here testifying on it.

V I K R A M D A L A L: My name is Vikram Dalal. I am Vice-Chairman of the New Jersey Sierra Club and the Chairman of its Energy Committee. On behalf of the Sierra Club, I thank you for this opportunity to testify on S-200.

As Mrs. Graves, our Conservation Chairman, testified last week, the New Jersey Sierra Club is opposed to enactment of S-200. We have very strong reservations about many sections of the bill and we feel that the bill totally fails to answer the very serious environmental and economic implications of a superport location off the coast of New Jersey.

Let me begin by stating that anyone who thinks this bill is going to provide a solution to the oil and energy crisis facing this nation is under a serious misconception. The basic crisis in energy is overconsumption which has resulted in the depletion of our domestic resources. The crisis is not going to be resolved by increasing our reliance on crude imports, because this will only increase our dependence upon a politically uncertain and economically devastating source. The strains on our balance of payments from increasing our petroleum imports are quite severe. Therefore, it is quite wrong, and very damaging, to call this bill an energy solution, as some supporters have done.

Let me now turn to more specific matters involving the bill. We are concerned not only with the possibility of direct pollution from superports,

but even more important, to the onshore impacts on New Jersey, of locating a superport offshore. Let me briefly enumerate our concerns.

1. Location of Superport and direct pollution impact - Contrary to claims made by the supporters of supertankers, the greatest bulk of all oil released into the marine environment results from a few large spills. For example, the Torrey Canyon released twice as much oil into the Atlantic as was reported spilled in the U.S. in 1970. Two-thirds of the oil spilled in the U.S. that year was the result of three spills. This does not mean that we are not aware of the dangers of the lightering operations, as at present. But spills from a supertanker can be very dangerous to the marine environment if the superports are located close to shore.

The farther away a superport is, the more time it will take for oil to arrive at the shore, thereby giving us more time to contain it as well as time for the more volatile and toxic components to evaporate. It is absolutely stupid to locate a superport close to bays or estuaries. S-200 does nothing to assure a far offshore location.

2. Comprehensive Land-Use Planning - Much has been said about land-use planning before this Committee. I would just like to quote from a study by Arthur D. Little for the Council on Environment Quality on the Impact of Superports: "The construction of a deepwater terminal will not only generate new refinery activity in proximity to the terminal facility, but will also tend to induce the establishment of large petrochemical complexes in the same vicinity Land use decisions constitute the basis for all development practices, and are clearly the most important determinants of urbanization and industrial-

zation patterns. The avoidance of poor land practices will require strict environmental criteria applied to land use decisions. Therefore, state and regional planning and controls should parallel deepwater terminal planning. Local controls are likely to be inadequate." S-200 totally fails to address itself to this issue. Where is the statewide land-use and industrialization plan? What then will happen to the resort industry and the agricultural production of Cape May, Cumberland, and Monmouth Counties if a superport is located offshore? We need a comprehensive plan for the development of this already highly industrialized state before permitting uncontrolled development which will be a natural consequence of a superport.

3. Impact on water resources - The superport, the associated refineries and petrochemical complexes, and the consequent increase in population, will put a severe strain on the fresh-water resources of the state. Water withdrawals, again to quote the Arthur D. Little study, would rise five-fold to ten-fold by 1985 in Cumberland and Cape May Counties. The recharge rate of the local aquifers will be significantly reduced because of the reduction in open space due to industrialization and urbanization. There is already some evidence that certain aquifers have been locally over-pumped. For example, there have been salt-water encroachments along coastal well fields due to reduced fresh water pressure. The water needs of the mid-Atlantic region, including New York, are expected to increase significantly even under normal growth conditions. The addition of a large "new" industry, in itself a major water user, plus additional water use due to secondary effects of this industry, may seriously strain the capacity

of this region to meet long-range water demand.

Therefore, we feel it is absolutely imperative that the state come up with a comprehensive master plan for water supply and use, before any superport construction is started.

4. Transportation Planning - The secondary developments associated with the superport will seriously tax the transportation systems of the mainly rural counties. We need a comprehensive state-wide plan to handle this problem.

5. Air Quality - The impact of the associated refineries and petrochemical complexes on air quality of the region may be quite severe. Again to quote the Arthur D. Little study, "air pollution potential is increased by a factor of 4 by 1985 under a high-import alternative. The next 10 years are the most important period for planning for air quality, because newer control technologies may not be fully implemented for another decade. As is well known, both the Rahway-Perth Amboy, and the Philadelphia metropolitan areas have difficulty meeting even the primary air quality today. How will they meet the air quality if there is a significant increase in refinery capacities in those areas? Similarly, will the new complexes in other counties reduce the air quality in those regions? By how much?

6. National Planning - The Arthur D. Little report suggests that dispersion of deepwater ports to two or three locations off the East coast may be necessary, both to reduce the environmental impacts, and to provide growth opportunities for other, underdeveloped areas. This may result in overall improvement of the national welfare, as opposed to locating one superport for the entire East Coast. Therefore, we think it makes more sense for the

different states to consult with one another and the federal government, and come up with some sensible alternatives, rather than for only one state to rush and build a superport , and bear the brunt of the impact.

7. The Increased Need for Power - Refineries, and especially petrochemical plants, are large consumers of electricity. A large portion of the increased demand for utility services would be required from internal or external power plants. Again, to quote from the Arthur D. Little report, "if there were to be only one superport on the East Coast, and it were located in New Jersey, the additional power demand, both primary and secondary-tertiary, would be 5000 MW by 1985." That is 50 percent of the total demand today. Where are we going to locate these plants in this already congested state? How much cooling water would these plants require? How many miles of transmission lines? We want the state to address itself to these questions before superports are constructed.

8. Impact on Public Open Space - We are particularly appalled at the attempt to override all previous land-use planning done by the state and the localities. Under this bill, not a single acre of publicly owned open-space land in the shore area will be safe (except for national areas). We are very angry that in a state already suffering from a lack of open space, that this bill would permit the taking over of public land for tank farms. It seems to us absolutely stupid to buy open space under the Green Acres Program, and then to give it away to a tank farm.

9. Overriding of Wetlands and Coastal Protection Acts - We are also appalled at the attempt to override the provisions of the Wetlands and the Coastal Facilities

Review Acts. We fail to understand why it is necessary to override these acts, because the Coastal Facilities Review Act (A 1429) specifically directs the Commissioner of DEP "to make an inventory of all environmental resources of the coastal areas, and to develop a set of long-term environmental strategies which take into account the paramount need for preserving the environmental values, and the legitimate need for economic and residential growth within the coastal areas." What is the use of all this exercise if the development of the state is going to be dictated by an oil superport? What we need is a broader directive to the DEP to look at the environmental and economic needs of the whole state, not a whittling down of its statutory authority. If S-200 is passed, we might as well scrap the Coastal Protection Act, because further dilution of that act will be inevitable under the pressures of industrialization.

We think it is hypocritical to say that the bill attempts to strike a balance between the economic and ecological needs of the state because the bill fails to include any environmental safeguards. Thus, the Commissioner of DEP is excluded from the Corporation. The State DEP is to be consulted, but does not have a veto power. The environmental impact statements are to be prepared, but there is no provision for public review or input. It seems to us that S-200 represents a lot of rhetoric, while failing to address itself to any of the significant issues that we have tried to outline above. We are also opposed to the tax-free provision for financing the operations of the superport corporation. Surely, in this era, when we are worried about windfall profits by the energy industry, it is insane to give them yet another tax break.

In summary, the Sierra Club is opposed to S-200. We think the issue of oil superport deserves a very careful and comprehensive study, and, very important, statewide and regional planning, and any attempt to rush into building a superport is bound to be counterproductive to the best economic and environmental interests of the state. Thank you.

SENATOR MCGAHN: Thank you very much, Mr. Dalal. I think, as I had mentioned in my opening statement, most of what you have made comment here concerning the DEP, and the Coastal Wetlands Act, we are already cognizant of, and we agree with you in that particular respect.

MR. DALAL: Thank you very much, Senator.

SENATOR MCGAHN: I would like, however, to make several comments, if I may. You're comparing, if you will, as based data, the crackup of the Torrey Canyon which released twice as much oil into the Atlantic, as it is reported, was spilled in the United States in 1970. You're talking about a spill versus a crackup. You're talking about 100,000 dead-weight ton vessel that released 28,000,000 gallons of oil that was due to navigational failure in highly congested waters. I think, basically, the comparison is not valid.

MR. DALAL: Senator, if I may respond to it. You are quite right, and that is why we feel that if a superport is built, it should be located far offshore. A supertanker takes 21 miles to come to a halt. If a superport was located in the Raritan Bay or the Delaware Bay, you could very well have a crackup.

SENATOR MCGAHN: Your position then, if I read you correctly, is that you would approve the possibility of an oil transfer facility that is sufficiently located offshore?

MR. DALAL: Provided all the other questions that I have asked are answered.

SENATOR MCGAHN: What were those others?

MR. DALAL: The nine points - Comprehensive --

SENATOR MCGAHN: Let me say this, I'm not talking about landside development, I'm talking now about the actual siting of an oil transfer facility being sufficiently offshore. We're not talking about onshore development.

MR. DALAL: Our position is that we agree that if you have to have a superport, it should be as far offshore as possible. It should have the latest available technology for containment of all oil spills. Plus, the coast guard must have control over all tanker traffic going to and from the superport. But under no circumstances must the superport be located anywhere near an estuary or a bay.

SENATOR MCGAHN: I see here, of course, according to the ADL Study, you make a statement about air pollution potential increase by a factor of 4, by 1985, under a high import alternative; you make no comment concerning the low-level option.

MR. DALAL: I'm glad you asked that. The A.D. Little Study, again, makes it very clear that they don't think that a low import alternative is really an alternative because they say the experience has been, and the statements of the oil companies are, that as soon as a superport is established, the natural laws of economics will dictate that throughput be maximized. They are very skeptical that a low import alternative is practical.

SENATOR MCGAHN: They started out from a base where there was no industrialized area to begin with. But we must consider the fact that, as far as the mid-Atlantic area is concerned, we are the most densely-industrialized populated area. We have more oil refineries and tank farms in the New Jersey, New York, and Delaware area, already existing. They did not

take that into consideration, but they did take that into consideration when they came up with the low-level option.

MR. DALAL: That is correct. They allowed for an expansion of existing refinery capacities by a factor of 2. At a low-level import, you probably would not have any further impact. However, they said that a low-level import situation was not realistic and that the real situation was going to be a high-level situation.

SENATOR MCGAHN: That would then depend upon land-use control and this is a political --

MR. DALAL: That would depend very much on land-use control, that's correct, which we don't have today.

SENATOR MCGAHN: I assume from what you have told me that you feel land is a natural resource; there, it should be the state's right to preempt; an individual's right to land should not be such. Therefore, you do not feel that local zoning is sufficient to contain the types of uses that are mentioned in this bill.

MR. DALAL: I don't think that the local controls are adequate for the simple reason that the air pollution or water pollution or traffic, in fact, of a refinery bears no relationship to a local boundary. You might look at the refinery of a petrochemical complex in one township and all the surrounding townships are going to bear the impact and not get any tax revenues.

SENATOR MCGAHN: I would assume, then, that you do not care much for home rule.

This is my last question. I think maybe I misunderstood your statement here. Now, you're opposed to tax reprovion for financing the operations of a superport corporation. Surely, in this era

when we are worried about windfall profits by the energy industry, it is insane to give them another tax subsidy. It is my understanding that bill provides for a public corporation and not private industry.

MR. DALAL: That is correct. However, if the public operation -- if the bonds to the public corporation are tax free then, in return, the rate that has been charged for the oil companies for the privilege of using the superport will also be less. That is the point. In effect, you are giving them a tax break. You're not giving it directly, but you're charging them a lower rate.

SENATOR MCGAHN: This is true as far as any type of transportation system, the Expressway, the New Jersey Turnpike. All of this has been through the authority provision in order to raise the necessary capital to do it. The opposite of this is giving a private industry or giving an oil company or consortium the right to utilize this in spite of the fact that it is, supposedly, a common carrier under ICC -- I think we have seen how they have been able to simply dominate the use of this through controls and squeeze out independence.

MR. DALAL: I'm not opposed to the establishment of a public operation for operating a superport as opposed to private industry. I do think that you should charge them the same rates for using this facility as if the facility had been constructed through private funds. If you are going to float tax free bonds, then at least let's make sure that New Jersey gets more taxes in the form of revenues that the oil companies pay out.

SENATOR MCGAHN: I think the financing and rate schedule is not pertinent as far as this discussion

is concerned. You're talking about land-use statewide regional planning comprehensive studies. Given the pace at which government goes, what would you honestly consider a lead time before all this could be realistically accomplished?

MR. DALAL: Senator, I would say that the Commissioner of DEP has been directed, under the Coastal Protection Act, to come up, within four years, with one management strategy that he considers to be the most appropriate. I would assume that a time scale would be of the same order of magnitude.

SENATOR MCGAHN: This is only for the Coastal Review --

MR. DALAL: I agree.

SENATOR MCGAHN: This has nothing to do as far as power sight planning or any other type of thing is concerned. In the interval, federal legislation may be enacted. The federal act may be passed providing that oil ports can be sited in certain areas. Therefore, under these circumstances, there would be competitive bidding for this site.

MR. DALAL: Senator, I would say that if the Governors of the States are given a veto over the federal oil port -- I don't know how it is going to work out.

SENATOR MCGAHN: Let's assume they're not given a veto.

MR. DALAL: Then I would say it would be very unfortunate. But, in the mean time, I think New Jersey needs a statewide plan. I think we can come up with a reasonable plan within three or four years.

SENATOR MCGAHN: I agree with you idealistically, but from a completely practical standpoint, we're talking about timetables.

I have no further questions. Assemblyman Stewart?

ASSEMBLYMAN STEWART: Yes, I have a question. You refer in your report quite often to Arthur Little?

MR. DALAL: That's right.

ASSEMBLYMAN STEWART: Can you tell us who he is?

MR. DALAL: Arthur D. Little is probably one of the most famous consulting firms up in Cambridge, Massachusetts. It does all kinds of research, economic, ecological, overall impact, defense.

ASSEMBLYMAN STEWART: This study you refer to, was that made for New Jersey, for Massachusetts?

MR. DALAL: It was made for CEQ, Council on Environmental Quality.

ASSEMBLYMAN STEWART: It was not made for any specific state?

MR. DALAL: No, it was not made for any specific state. It considered superport sites off Maine, off New Jersey and Delaware and in the Gulf Coast.

ASSEMBLYMAN STEWART: So, he did not take into consideration at all, the fact that we do have many restrictive land-use plans that you mention?

MR. DALAL: No, he did. Actually, he said that - this study came out last year before the Coastal Protection Act was passed, but they knew about the Coastal Protection Act, pending - any superport development must be consistent with such acts as NEPA, and the Coastal Protection Act, and the Wetlands Act, and a few others.

ASSEMBLYMAN STEWART. Okay. I personally disagree with him that assuming changes are made to this particular bill that Senator McGahn has already eluded to - that some of these results would, indeed, happen, some of the inland changes, but be that as it may -

can you, or your organization, come with the answer to or some statistics to the question I asked earlier to the Corps regarding oil spills? Do you folks have any statistics that would let us know the time and distance needed to control oil spills?

MR. DALAL: The best source I can suggest to you is the Seed Grant Project at MIT. They did a very thorough study of the location of a superport off of Cape Cod and the impact of OCS drilling off of Cape Cod onto the shores of Massachusetts. I haven't seen their detail study, but he mentions in the report - which came out of it - that they have studies that show just how long it will take for an oil spill, a certain distance off the shore to reach the shore, given certain weather conditions.

ASSEMBLYMAN STEWART: Could you possibly get us a copy?

MR. DALAL: I'll try.

ASSEMBLYMAN STEWART: That's all the questions I have.

SENATOR MCGAHN: Any further questions?

Senator Dunn.

SENATOR DUNN: I just want to make a comment.

From the language of your statement, you sound like a very angry young man. But, because it is a statement from the Sierra Club, I suppose I should say that the membership of the Sierra Club sounds like angry people. The reason I make that statement is because of your choice of words where you refer on page one to something being ridiculous. You also indicate that the State is ready to rush to build a superport, which would be something new in the State of New Jersey because we never rushed to do anything. On page four, you are appalled

about something. You're appalled another time on the same page. You talk about hypocrisy. You talk about a lot of rhetoric and about the windfall of profits by the energy industry.

This statement indicates to me as one member of the Committee and as a member of the Senate that you're just taking it for granted - or at least the Sierra Club is taking it for granted - that you have a bunch of dingbats on this Committee and the State Legislature and that we are just going to pass S-200 without any serious consideration being given whatsoever to the testimony of experts and private citizens and the like. I can't help but take exception to the fact that the Sierra Club would think that this is all a waste of time in having these public hearings; that S-200 is going to be pushed through without any amendments or that there is no possibility of it being junked in its entirety. So, I would appreciate it if you would assure the membership of the Sierra Club that we are taking these public hearings very seriously and that nothing is going to be rushed through one way or another on S-200.

MR. DALAL: Senator Dunn, I'm sorry that you took offense to some of the language. I'm well aware that the members of this Committee and the members of the Legislature study the issues. It is true that we are testifying before you, but we also want to answer some of the supporters of the superport who have made quite exaggerated claims about how the energy crisis is going to be solved by the superport construction. We think this is very wrong. I was trying to answer this consideration and not this Committee.

SENATOR DUNN: Well, I'm sure the Sierra Club realizes, too, that we have other things to concern

ourselves with besides the birds and the bees and the clean air in the State of New Jersey. There is come very serious consideration being given to this bill but it is not going to be pushed through without due consideration being given to all the good parts as well as the bad parts.

MR. DALAL: Thank you very much, Senator. I'm sure of that.

SENATOR MCGAHN: For the record, I think it is worthwhile to point out that we do not feel that this is a solution to the energy crisis --

MR. DALAL: I'm well aware of that, Senator.

SENATOR MCGAHN: -- this Committee as such. These were not our words.

Thank you very much.

Dr. Shepard Bartnoff.

S H E P A R D B A R T N O F F:

Good morning. My name is Shepard Bartnoff, I am President of Jersey Central Power & Light Company.

I appreciate your invitation to come and testify before your Committee.

The bill we are discussing clearly reflects an imaginative and well-developed proposal to deal with what is a significant problem in the handling of oil imports and one which will more significant in the years ahead. Now, in our company, we are not particularly experts in these matters, but we do feel that this is a bill that would promote employment and land development in New Jersey. We believe that it would be environmentally beneficial for the reasons stated in the bill and for the reasons I've heard in the some of the testimony this morning. We think it would be a contribution to the solution of the energy problem but not "the" solution and it

must be viewed as a complement to other possible parts of the solution such as the alternative -- it shouldn't be viewed as an alternative to the offshore nuclear generating stations. Now, despite all the efforts that the utilities in New Jersey and other parts of the nation have been able to exert, we are largely dependent, and will for some time continue to be dependent, upon imported oil for fuel in the generation of electricity. It follows that we are, therefore, interested in any sound project that will handle oil imports with reduced environmental problems and at lower cost.

We have some comments and reservations on this bill, some of which may be dispelled by data produced at the hearings or by people who are more expert than we are. But, for your possible convenience, we would like to indicate a half a dozen or so of these reservations and some points we think ought to be considered.

One - and one I have already heard mentioned today and have read in the newspaper accounts of the previous hearing session - concerns the prospective completion date. We know from our experience in the utility industry in construction, that a project of this magnitude will take some years for the actual construction and a few years, perhaps, even to begin the project. By that time, we wonder if the changes, possibly substantial changes, in the oil supply and demand situation in the United States will still warrant existence of the facility we are discussing. Will the development of new sources of energy from coal and shale gasification,

other domestic sources, offshore drilling and so forth, lessen the **dependence** on oil imports? In other words, will there be a market of sufficient magnitude and duration to permit amortization of the project cost on a reasonable basis? Would the shipping of oil principally from domestic sources with a sharp curtailment of foreign imports be sufficient to justify construction of the facility?

Personally, I think it would. A study would show that the facility is justified, but I'm sure that the Committee will take this under serious consideration.

Secondly, the subject of State vs. Regional or Federal Support. Now the optimum size of the facility that we are discussing is such that it needs to be sufficient to meet the requirements of more than the State of New Jersey alone. Under these circumstances, will it be necessary or desirable to provide, at the outset, for other States or possibly even the Federal government to participate if this project is, indeed, to be government-sponsored? It may be that our experience in the electric utility field, where regional planning is indispensable, causes me to place more importance on this aspect than may be necessary for a project such as that here involved.

Next, is the subject of Economic Evaluation. The bill is premised on revenue bond financing (i.e., 100% debt without equity), presumably bonds with immunity from Federal income taxes, and an exemption from a substantial part of State and local taxation. If the project is economically evaluated on

this basis, it can lead to a serious error in the cost-benefit analysis and a misallocation of resources. The British have had considerable experience with this problem in their government-owned electric utilities. They have come to realize that, ultimately, the underpinning of all governmental undertaking is the non-government tax base; that there is, in reality, a national cost of capital which takes cognizance of the need (somewhere or other) for equity investment and income taxes on equity returns in any project and that need is independent of the institutional format of the organization undertaking the project. In that light, they apply a national cost of capital criterion in their economic analysis of governmental projects in order to avoid the misallocation of resources which arises when one compares the cost of a project that does not take these elements into account with an alternative that does. In that light, I urge the Committee to give careful consideration to establishing the guidelines for the economic analysis of this project in order that the detailed environmental impact statement - and any associated cost benefit analysis - required by Section 6d of the bill be carried out soundly.

The fourth item is the Diversion of Tax Revenues. I am aware of the need of the State for additional tax revenues. If the project is subjected to a rigorous economic evaluation as suggested, I believe that there is no need for exempting the project from normal and local taxes, as they exist now or may exist in the future. There are many essential activities which cannot be adequately

provided without governmental support; I strongly doubt that this is the case here. If this suggestion is adopted and the project proceeds, it would clearly make a contribution, both directly as well as indirectly, to the State's revenues.

The next item is on Investment in securities issued by the Corporation created by the Bill. Section 19 of the bill goes too far in my judgment in making the obligations of the Corporation legal investments for all State governmental agencies, banks, insurance companies, fiduciaries, etc., and thereby relieves the fiduciaries of responsibility for investment in the obligations of the Corporation. I believe it would be preferable to provide that such obligation shall be legal investments for a particular type of investor if, and to the extent that, comparable obligations of others would be legal investments for such an investor.

The final point is Responsiveness to governmental control. It is clear that the draftsmen of the bill were conscious of the need to make the Corporation responsive to State control. However, I don't think that the bill accomplishes, completely, its intended objective in this regard. To be sure, the Governor will have a substantial measure of control, but it seems to me that there is very little room in the structure for the Legislature to have an effective voice in the determination of the Corporation's activities. I believe that this could be cured if the bill provided for the Corporation's board of directors to include designees of the New

Jersey Senate and Assembly.

I hope that these few comments will be helpful to you in your consideration of the bill.

SENATOR MCGAHN: Thank you, Doctor, for a most enlightening and, I think, thought-provoking presentation.

I agree with you on a number of points here. Number one, Prospective completion date. Certainly the lead time for any facility like this has been calculated at two years. However, we must have the federal law, first, designating this as far as that is concerned. I think it is extremely important, also, for us to make a determination as a Committee. If the projected needs of crude oil - in 1980 and 1985, which have been calculated on an exponential basis - are going to be valid at that particular time, will there be additional sources available of energy, other than crude? We recognize the fact that crude is going to be necessary for the petrochemical industry in New Jersey other than for electrical generating power. But, how much? At the present time, there are no pipelines from Houston, the Colonial, or otherwise, bringing crude into the State of New Jersey, and all of that, of course, is waterborne. - will there be in the future additional pipelines bringing crude in and thereby lessening the impact of the need--

DOCTOR BARTNOFF: If I might interrupt. I think it would also be part of the Committee's deliberation to decide on the relative merits of the pipeline transportation **versus** water transportation.

SENATOR MCGAHN: That was included in the feasibility study as far as the Army Corps of Engineers is concerned. The information is available there.

We will consider it, from the standpoint of cost, of transportation.

DR. BARTNOFF: And even environmental impact.

SENATOR MCGAHN: Yes. The second point - State vs. Regional or Federal support. I think you are certainly aware of what happens with a bi-state or a tri-state compact. You have to have individual houses of the legislature approve it. Then, an individual Governor may have absolute power veto over it. I think from the standpoint of planning - this is practical; I think, from a pragmatic standpoint - you can find things getting hung up. Certainly - from an economic evaluation standpoint - your points are well taken. However, I honestly believe that the intent of the thrust of this - for a public corporation - was not so much of the amounts of money -- revenues that would generate it. This is an important factor. But by the same token, it was felt that a public corporation would have better control over the entire use of the facilities including onshore development - strong land-use - which once this is out of the hands of the State, this, possibly, would not be accomplished.

I also agree with point six. This, I think, is something the Committee has taken under consideration, and that is the composition of the members that would make up the board. It is quite possible that the legislature should have more input.

Thank you very much. I have no further questions. Assemblyman Stewart.

ASSEMBLYMAN STEWART: I have just one question. Maybe, Senator, you can even answer this.

Has any estimate been given or figures given out on the estimated revenue to the State for the

general fund? On page three of the bill it says "that all the revenues from this corporation will go to the State fund". Has anybody been throwing around any figures, yet, on what that might be?

SENATOR MCGAHN: It would depend upon the federal legislation. But anywhere from a half to two cents per barrel of oil, depending upon the amount of throughput. Unfortunately, I don't have a calculator.

ASSEMBLYMAN STEWART: No one knows what I'm talking about? You fellows don't have any figures either, obviously. Okay.

SENATOR MCGAHN: Senator Dunn.

SENATOR DUNN: I'd like to ask just one question. Mr. Bartnoff, suggestion one, wouldn't that apply - or the concern, or the worry about the market condition of some future data - only for the State to finance the total project? What concern would the State really have if it was privately financed? Wouldn't the risk be with private enterprise?

MR. BARTNOFF: I don't think the State could walk away from it completely even if the risk were to be a private enterprise one. The establishment of a facility such as this has some far-reaching consequences. It has necessitated - and, I think, it should - a study of environmental benefits versus the environmental costs, the economic benefits versus the economic costs. As in all major developments of this type, there are bound to be some trade-offs. If we make some sacrifices - environmentally, economically, socially - for the establishment of the facility, and then find that the facility is written off, I'm not so concerned about the financial penalty that the private investor might pay but

I am concerned that the residents of New Jersey - which I am one - might have given up something for building the facility and have gotten both the bad parts of it without reaping the benefits.

SENATOR DUNN: Thank you.

SENATOR MCGAHN: Thank you, Doctor.

Mr. Douglas Powell.

D O U G L A S P O W E L L: Gentlemen, my name is Douglas Powell. I am the Director of County Planning for the Middlesex County Planning Board. I have with me Mr. William Kruse who is a member of the staff of the Planning Board and who has done much work on the studies and the investigations of the Planning Board on the matter of the deepwater port.

I am here at the request of Senator John Fay of Middlesex County to present to this Committee the studies consulted and the positions developed by the Middlesex County Planning Board concerning a deepwater port and its impact on Middlesex County.

Through about the past two years, the Middlesex County Planning Board and staff have actively studied the proposals made by federal agencies and others for deepwater port facilities to be located off the coast of New Jersey and the potential impacts of such proposals on various aspects of Middlesex County including:

- its future economic development.

- the public health and safety of its population.

- its environmental quality.

In conducting investigations of these impacts, the Middlesex County Planning Board has consulted four principal sources.

First, the Planning Board utilized its own

extensive studies prepared between 1967 and 1971 that projected and analyzed the magnitude of future development in the County in the absence of a deep-water port and its impacts. These studies forecast, for the year 2000, a population for the County of 1,380,000 persons, job levels of over 500,000, a spread of land development over all but a small portion of the southeastern part of the County and very large water supply needs, the preponderant amounts to come from beyond the County's boundaries.

Secondly, the Planning Board utilized different studies prepared by the United States Corps of Engineers of which some documented the existing degraded environmental conditions in those portions of Middlesex County, in Carteret, Woodbridge, and Perth Amboy, near the Arthur Kill. Other Corps of Engineers studies were consulted which recommended the location of alternative sizes of a deepwater port to serve, primarily, the future importation needs of the East Coast of the United States. These Corps studies recommended such a deepwater port off the coastline of New Jersey, either in the Sandy Hook-Long Branch area of Central New Jersey or in the Cape May-Delaware Bay area of Southern New Jersey. These latter Corps studies identified such general impacts as air pollution generation, water supply demands, and sewerage demands, resulting from the location of a deepwater port off New Jersey to serve the East Coast. However, the reports did not clearly identify the impacts on the individual counties of the State.

A third study prepared at the request of the Middlesex County Planning Board was also consulted.

This study, prepared by the Tri-State Regional Planning Commission, measured the impacts on Essex, Union, Middlesex, and Monmouth Counties that would result from the location off the coast of New Jersey of the type and size of deepwater port recommended by the Corps of Engineers to serve the future oil importation needs of the East Coast.

This study documents that the scale of impacts of a deepwater port will be so large as to exceed the plans that have been developed and prepared to date by the Tri-State Regional Planning Commission or Middlesex County or, for that matter, the State, for residential and non-residential development, for recreational development, and for water supply systems for Middlesex County. Moreover, the Tri-State Report indicates that the projected increase in petroleum refining and petrochemical operations by 1985 would produce air pollutant emissions in excess of allowable rates under the New Jersey State Implementation Plan for all pollutants considered - particulates, sulfur dioxide, nitrogen oxides, and hydrocarbons.

Finally, a fourth study was consulted by the Middlesex County Planning Board. This study also measured the impacts on New Jersey's counties that would result from the development off New Jersey of the type and size of deepwater port recommended by the Corps to serve the principal oil importation for the East Coast. This study titled "Potential On-Shore Effects of Deepwater Oil Terminal - Related Industrial Development" was produced by Arthur D. Little, Inc., of Cambridge, Massachusetts, for

for the Federal Council on Environmental Quality.

As characterized by the Tri-State Regional Planning Commission, this Arthur Little Study suggests that, in New Jersey, the onshore impacts in the form of new refineries, petro-chemical complexes plus the secondary or induced effects, could be on a scale that would produce unacceptable levels of non-residential land-use employment, population, and air and water pollution. Because such large impacts can result from the location of only one or two deepwater facilities on the East Coast of the United States, the Arthur Little report reaches the conclusion that "since the amounts of crude oil forecast to be imported are so great, concentrated development of only one or two ports on each coast is unnecessary - indeed probably undesirable - from the standpoints of balanced economic development as well as environmental protection. Instead, a more desirable approach would be to locate terminals and refinery capacity in areas where regional economic benefits are needed and where associated environmental impacts might be better tolerated, in terms of both measurement and perception.

The report goes on and says:

Land use decisions constitute the basis for all development practices, and are clearly the most important determinants of urbanization and industrialization patterns. The avoidance of poor land-use practices will require strict environmental criteria applied to land-use decisions. Therefore, state and regional planning controls should parallel deepwater terminal planning. Since these activities will tend to reach beyond city or county boundaries,

local controls alone are likely to be inadequate. Proposed legislation dealing with the granting of licenses for specific deepwater terminal locations and the resulting industrial activity should be consistent with such legislation as the Coastal Zone Management Act, the National Environmental Policy Act, the proposed National Land Use Policy Act, and, as mentioned above, the Federal Water Pollution Control Act Amendments and the Clean Air Act.

From the outset, to date, as these studies were completed and consulted, the County Planning Board has taken the following positions:

At its regular meeting of
January 11, 1973, the Board
adopted the following position:

1. Whereas, given the immense pressure for the construction of a deepwater port, little detailed analysis seems to have been done regarding the impact of such a project on the areas to be served by it, and

2. Whereas, little consideration seems to have been given to the possibility of establishing energy conservation programs to alleviate the need for increased oil and gas imports, and

3. Whereas, Middlesex County requires considerable governmental and private effort to improve levels of basic services and eliminate environmental pollution as a result of the rate of existing development, and

4. Whereas, regional development control powers required to deal with such a project are not presently available in New Jersey;

Now, therefore, be it resolved, that the Middlesex County Planning Board is opposed to the construction of a deepwater port facility anywhere along the Coast of New Jersey, or in the Delaware

Bay or in any other location which will substantially increase petro-chemical industrial development in Middlesex County and the surrounding region, until such time as evidence is presented that the resulting increased industrial development will be environmentally sound and beneficial to the people of this area and until such time that regional development control regulations are in effect.

This position was submitted on behalf of both the Planning Board and the Middlesex County Board of Chosen Freeholders at the hearing held at Middletown Township on January 16, 1973, which hearing was held by the Philadelphia District of the Corps of Engineers regarding site selection for deepwater port facility.

This position was also sent to all Representatives and Senators serving Middlesex County in the United States Congress including Senators Williams and Case and Congressman Patton, Thompson, and Freylingheuyser.

Similarly, the position was sent to all Senators and Assemblymen serving Middlesex County in the New Jersey Legislature including the, then, Senators Crabel, Lynch, and Tanzman and, then, Assemblymen Bormheimer, Deverin, Fay, Froude, Garabaldi, Hamilton, and Kolodzicy.

Forewarned that impending further impacts from a deepwater port would compound the already degraded environmental conditions in the Arthur Kill area, the Planning Board in March 1973, authorized the staff to organize a regional committee representing all major governmental jurisdictions having some regulatory control over the development of land areas adjacent to the Arthur Kill.

It was the intention that this Committee would act as a technical advisory group to coordinate the efforts of regional agencies to:

1. More closely monitor, and encourage wider publicity for degradations of environmental quality in the Arthur Kill/Raritan Bay Area.
2. Encourage better environmental quality data collected by existing agencies.
3. Develop an environmental planning program for the region which should be carried out by participating agencies through an appropriate division of responsibilities.
4. The ultimate goal to be a plan for the region which integrates environmental and fiscal considerations with land-use to the greatest degree possible.
5. Develop programs to insure implementation of such plans, as may be developed, by appropriate agencies possessing regional authority.

With the completion of the Arthur Little report, which suggested that onshore impacts resulting from a deepwater port could exceed the ability of areas in New Jersey to absorb such impacts and in further recognition of the warnings in the Little report that local controls alone of land-use, would be inadequate to regulate the impacts resulting from a major deep-water port, the County Planning Board in its regular meeting of November 1973, approved the following recommendations to call upon the County Board of Freeholders and its State legislative delegation to actively support the following:

1. The necessary legislation to permit County Planning Boards to enforce areawide land-use

controls and require cross acceptance and consistency of municipal, County and State comprehensive master plans.

2. That environmental aspects of development review be legally defined and a process for such review at the County level be implemented.

3. That non-profit County development corporations or authorities be authorized in order to encourage development in conformity with adopted County comprehensive plans as part of strengthened plan implementation program legislation.

These recommendations are similar to those made by the final report of the Delaware River and Bay Marine Council as presented to the Governor in December of 1972.

Finally, in response to both the Arthur Little report and the Tri-State study, the Middlesex County Planning Board has expressed, in its recent meetings, a consensus opinion to call upon the appropriate authorities in the federal and state governments to study the feasibility and to reach an agreement on the conclusions and proposals of the Arthur Little report that recommend against only one or two deep-water ports on the east coast and that call for a more effective balancing of economic development and environmental protection considerations through the locations of several deepwater terminals along the East Coast with at least one in the New England area, one in the South Atlantic portion of the East Coast, as well as one in the New Jersey-Delaware area.

I would summarize the positions of the Middlesex County Planning Board as follows:

It has found, from numerous studies, that a

deepwater port of a type and size, as recommended by the Corps of Engineers, will have such impacts on Middlesex County as to exceed healthful environmental standards for air quality, exceed the high levels of development already planned for the county and exceed any existent plans for providing water supplies for the County.

In the absence of plans to show how the on-shore impacts in Middlesex County of a deepwater port off the coast of New Jersey can meet proper environmental standards, the Middlesex County Planning Board is on record opposing a deepwater port. However, it is emphasizing that Board is not opposed to the port in itself but opposed to a port in the absence of plans that first carefully link the provision of needed services, such as water, sewerage, good transportation, housing, and other urban functions to the projected impacts of the port and, second, carefully link the levels of total development resulting from a port to the meeting of safe and healthful environmental standards now and in the future in Middlesex County.

Third, the County Planning Board recognizes that the plans needed to limit and control development in Middlesex County impacted by a deepwater port must be regional in scope to meet the needs and standards of such regional functions as water supply, sewerage, and air quality and, further, the Board recognizes such regional plans must be backed with powers necessary to implement them.

Finally, the Board seeks study of the proposals of the Arthur Little, Incorporated report that

would result in a distribution of several deepwater ports along the East Coast of the United States to avoid overconcentration in only one or two locations.

In conclusion, it would be my opinion that these would be the implications of the positions to legislation which may be considered to regulate a deepwater port off New Jersey's coast.

1. The legislation should be based upon and implement a state policy that seeks to avoid overconcentration of impacts of a deepwater port in New Jersey through a distribution of three or more deepwater ports on the Eastern Seaboard as recommended by the Arthur Little report.

2. The legislation should be based upon and implement a state policy that authorizes state and/or regional land-use controls to guide land development in the counties that have been identified as affected by onshore impacts of a deepwater port off New Jersey.

3. The legislation should be based upon and implement a state policy which distributes the onshore oil refinings, storage, and distribution facilities and associated petro-chemical and other resulting economic developments associated with a deepwater port in a balanced and planned manner that prevents overconcentration of the impacts in any counties or regions of the state and prevents the impacts from exceeding legislated and sound environmental standards.

Thank you.

SENATOR MCGAHN: Thank you very much.

May I make a comment. We have a rather large agenda, and I think it is unfair for the people that

are waiting to testify. I mentioned this morning that we are fully cognizant of the Arthur D. Little study. We have the Army Corps of Engineers Report. I do not think, for anybody further testifying, that it is necessary to go into the details of this thing. We already have it. We would appreciate -- as I say, this is a matter of public record if you would simply point out the pertinent points and what your conclusions are, we would certainly appreciate it in the interest of time and everybody else waiting to testify.

Sir, I have one question to ask. This will be made available to us for the record?

MR. POWELL: Yes, that's correct.

SENATOR MCGAHN: You also, of course, have projections into the future, to the year 2000, the impact upon the oil port as far as Middlesex County. You also have base data to that year without the facility, correct?

MR. POWELL: Yes, that's correct.

SENATOR MCGAHN: You are also aware that the ADL study said that the fact that we are limited to a 2 to 2½ million barrel-a-day throughput of oil, the total impact on Middlesex County would be little more by 1985 than the baseline data without a facility. This is because of the, already, highly developed economic infrastructure in Middlesex. Is that correct?

MR. POWELL: That is what the Arthur D. Little report does indicate. That's correct.

SENATOR MCGAHN: You were using the Arthur D. Little study, of course, for your projections and you also made a statement and, for the record, we want the statement on there.

Thank you. Assemblyman Stewart.

ASSEMBLYMAN STEWART: If the bill we are discussing were reworded or amended to change the section usurping the authority of the Coastal Protection Act, do you still feel that this deepwater port would have the same, as you say, disastrous effects on your County?

MR. POWELL: Well, I can't comment on the bill itself because the Board has not taken the position on the bill. I have not read the bill in detail.

ASSEMBLYMAN STEWART: Let's just say a deepwater port. Let's just forget the bill and say, do you think a deepwater port - if the Coastal Protection Act still regulated the onland usage - would still have adverse effects on your County?

MR. POWELL: I do because the Coastal Protection Act extends only into a very small portion of Middlesex County. It comes up only to a portion of Madison Township. Excluded from the act was all of the remainder of the county.

ASSEMBLYMAN STEWART: Supposing the Coastal Area Act were extended in your area, what then?

MR. POWELL: The Coastal Protection Act, as I recall it, requires the preparation of environmental impact statements concerning individual facilities. I think the problem that is faced by Middlesex County is not the impacts of individual facilities - but the impacts of the summation of all of those facilities, the resulting air problems that come from traffic as well as the petro-chemical development that might occur - it is the totality of all of these things which, then, cuts right down to the core of the total amount of land development,

the total amount of industrial development, the total amount of traffic. The Coastal Protection Act goes to the impacts of individual facilities not the totality of all development.

SENATOR MCGAHN: As I understand your testimony in essence, you stated that you would not be opposed to the deepwater port as long as it would not have any adverse impact upon Middlesex.

MR. POWELL: That's correct.

SENATOR MCGAHN: Thank you.

MR. POWELL: That is the position of the Middlesex County Planning Board.

SENATOR MCGAHN: Senator Dwyer.

SENATOR DWYER: I have no questions. I think I know what his position is.

SENATOR MCGAHN: Senator Dunn.

SENATOR DUNN: We know how Senator Fay feels about S-200. When you started off, I took it for granted that the Planning Board of Middlesex County was opposed to S-200, but then as you went on I got the impression that you are not diametrically opposed to offshore oil transfer facilities. They might have some merit to them under certain controls or certain conditions, especially if they're not in New Jersey. That was the impression I got.

MR. POWELL: No. I think the position should be restated. The Planning Board of Middlesex County is not opposed to a deepwater port in itself. What the Planning Board is opposed to is a deepwater port facility in New Jersey that is not one that is planned and, in its planning, linked to the preservation of sound environmental standards in such counties as

Middlesex that are threatened by an overimpaction of development, an exceeding of the sound environmental standards in air quality and so on. There are sufficient evidences that the size and character of the deepwater port as proposed by the Corps of Engineers - could indeed have and result in the exceeding of sound environmental standards in Middlesex County.

SENATOR DUNN: If I understood your statement then, you did not come here prepared to speak either for or against S-200 but just to espouse a philosophy of the Middlesex Planning County Board as far as oil transfer facilities are concerned. Is that right?

MR. POWELL: That's correct.

SENATOR DUNN: All right. Let me ask you this. You know that the purpose of this public hearing is to discuss Senate Bill #200. Has the Middlesex County Board of Freeholders taken any stand, whatsoever, on S-200?

MR. POWELL: No, not to my knowledge.

SENATOR DUNN: Thank you, sir.

SENATOR MCGAHN: Thank you very much.

Mr. Marciante. He will be followed by Mr. Funge, F-u-n-g-e, Mr. Camel, and Dr. Weisberg.

C H A R L E S M A R C I A N T E:

Mr. Chairman, distinguished members of the Committee, I would like to thank you for giving me the opportunity of presenting a very brief statement, today, on the bill S-200.

I represent the New Jersey AFL-CIO. We have 750,000 workers here in this State. So that there is no misunderstanding of my position or the position of the AFL-CIO, last Thursday our Executive Board

called upon Governor Byrne to appoint a special blue-ribbon Grand Jury and a prosecutor to delve into the whole oil situations, to subpoena Executives of those companies, to subpoena workers, and those connected with the oil industry, generally.

We have grave doubts that there is an oil shortage here in this country, particularly in the State. I assure you, it was not an easy decision to come to. We, for many, many months, were of the very strong opinion that there was, in true fact, a shortage. We are also very cognizant of the fact that the demand for oil increases - in this State, alone - some seven percent a year. So that eventually we will be having a shortage, and I don't mean, eventually, several years from now, I mean that position may possibly come up even this year. However, on the bill itself, S-200 - to establish an oil transfer facility - to us, makes good sense. Economically, the revenues that can be derived from the oil facility to the State of New Jersey are tremendous. As a source of income for State operation, I think it is a fine idea. The need for oil, as I say, increases seven percent a year; and with the attendant environmental aspects, we know that here in the northeast we are dependent that thirty percent of the oil that is used in this State must be imported. Without an oil port, we are going to have more ships coming into our shores. With the additional ships coming, we are certainly going to have more of the things that happen in Philadelphia just last week with that very catastrophic accident. We are not about to condone or to say that the oil

spills are just something that happened and we are all sorry that it happened. It just shouldn't happen. I think that we are all pretty much aware of the ships that are coming into our State and into the New York Harbor, where we have accidents in great numbers; and certainly with the lightering of oil from the larger tankers into the small tankers, you also have a commensurate amount of spillage. That spillage, in our opinion, is in too great an excess.

We are also aware that where we have oil ports or monobuoys throughout the world, you do not have this spillage. So, we look on the idea of an oil transfer facility or a monobuoy, or a deepwater port as being environmentally and economically sound. We know that the State of New Jersey is going to need additional sources of oil. Knowing that we are compelled to get thirty percent of the oil that is used in this State from importing that oil by ship - such a facility as proposed under S-200 is certainly both environmentally and economically sound. We urge your Committee's consideration of that position.

SENATOR MCGAHN: Thank you very much.

Any questions? Senator Zane.

SENATOR ZANE: Mr. Marciante, what is the projection from the AFL-CIO as to the additional jobs that this would create throughout the State? Do you have any idea at all?

MR. MARCIANTE: No. There have been no real projections with the operation. I am not totally familiar with the -- I know in a number of countries

throughout the world they have a monobuoy and there it takes a ship pulling up to that buoy and hooking up a hose connection. Now, certainly, in the construction of the oil port itself, there would be a few jobs involved. But we were thinking of the supply of oil to the industries and to the motorists and to the homeowners of this State as a basic need to keep this State moving.

SENATOR ZANE: Then your reason for appearing is not that additional jobs will be created, but that those jobs that are here now will be able to continue because of the additional sources of --

MR MARCIANTE: That is very true. We are being affected at the present time because of shortages, whether they be real or false. There have been jobs lost, and we're not looking for additional jobs to be lost because of inaction.

SENATOR ZANE: Thank you.

SENATOR DUNN: Just one question that comes to my mind. Knowing of your position, Mr. Marciante -- Under S-200, a corporation would be founded and there would be, evidently, quite a few employees involved, and I know your paramount interest is the creation of jobs, per se, in the State of New Jersey. I am just wondering whether or not the employees of this corporation would be considered to be public employees? I suppose the Chairman, who is most familiar with this, or Senator Dodd -- Have you had any conversations on this?

MR. MARCIANTE: No, I haven't, sir.

SENATOR DUNN: Do you know anything about this?

SENATOR McGAHN: I'm sorry, I didn't hear what what you said.

SENATOR DUNN: Would the employees of the Oil Transfer Corporation be considered public employees?

MR. MARCIANTE: I would imagine they would. As a turnpike, it is a separate entity from the State but still part of it.

SENATOR MCGAHN: The Authority Act is, basically, the same law governing all the authorities in the State.

SENATOR DUNN: Well, the point is that this bears out your main concern for the creation of jobs not necessarily who is going to organize the employees.

MR. MARCIANTE: No, that is not a concern.

SENATOR MCGAHN: I don't think that what we are talking about is the number of jobs being created by the authority as much as it is retention of the labor force, at the present time, that are dependent upon oil as an industry of the State of New Jersey.

Thank you.

MR. MARCIANTE: Thank you.

SENATOR MCGAHN: If I may apologize for what I said before, but we have with us Mr. Gerry Hansler, from the Environmental Protection Agency and his time is limited. So, I apologize to those I mentioned before and ask Mr. Hansler to come up and testify.

G E R A L D M. H A N S L E R:

My name is Gerry Hansler. I am Regional Administrator of the U.S. Environmental Protection Agency; Region of EPA is New York, New Jersey Puerto Rico, and the Virgin Islands. I might add that Puerto Rico is also interested in a superport.

The concept of an offshore oil transfer facility corporation established by the State is

not one that we object to, but in your Senate Bill No. 200 under consideration we find various aspects unacceptable. We are aware of the need for more efficient handling of crude oil and petroleum products. The Administration, in fact, has proposed legislation that would establish the U.S. Department of Interior as the licensing agency for all deepwater ports and offshore facilities beyond the 3-mile limit. Testifying before the House on that bill, Russell Train, Administrator of the U.S.E.P.A. and then Chairman of the CEQ, had this to say:

" . . . At the present time, almost no U.S. harbor has the capacity to receive and unload the larger supertankers.

I think the only exception to this is in the Puget Sound area in Seattle and up in Ferndale.

The attention of industry, government, and citizen environmentalists has turned, therefore, to the question of how to create facilities to bring the needed oil into the U.S. while, at the same time, protecting against the hazard of oil spills and controlling other environmental impacts of port development."

"The environmental effects of deepwater port development can be divided into two broad categories, the primary effects of the construction of the port and of oil spills once the port becomes operational, and the secondary effects of industrialization and development on the shore which would be induced by the location of a deepwater port."

"The overall risk of environmental damage will, in large measure, be related to the type of deepwater port facility and its location with critical coastal

environmental features." That is what Mr. Train had to say.

A framework of existing Federal legislation can help in planning and controlling superport related development. Under the Federal air and water pollution control laws, new industrial development generated by increases in petroleum refining and processing will be subject to stringent standards, reflecting the best available pollution control technology, covering the emission and discharge of pollutants to the air and water.

In addition, these same laws require that new facilities be compatible with ambient air and water quality standards. These ambient standards may, in some cases, require more stringent emission and effluent controls than the basic "best available technology" requirements.

This is true where you have intensified industry at the present time. Often the controls necessary to meet minimum quality standards govern in the abatement schedule or permit issued by the State or Federal government. It is not a minimum basic technology which controls.

This framework of controls should assure that deepwater ports, appurtenances, and related industrial development will occur within the limits of environmental acceptability as governed by existing Federal law.

Existing Federal environmental laws and the proposed Federal legislation dealing with superports should be considered by the State in drafting their legislation, so as to avoid duplication or contradictions.

My particular problems with the bill you are

now considering are as follows:

1. The bill doesn't specify the type of facility to be constructed. It is probably premature, but we do have some opinion on that matter.

We recommend that the single-port mooring transfer facility should be considered and should be located some distance from the coast -- between 10 and 25 miles -- and in an area assuring freedom from navigational hazards and protection of unique environmental values. We favor a monobuoy type system where tankers could unload crude oil and basic petroleum products offshore and have such products piped underground to onshore distribution and storage. Spill control systems, provisions for disposing of oil contaminated wastes resulting from spills, and the most advanced navigation systems must be included.

2. The bill does not include on its governing board the Commissioner of the N.J. Department of Environmental Protection. Way back in Section 26, it states that the corporation: " . . . shall consult with the D.E.P. . . . "

The bill provides an even higher station for the N.J. Department of Transportation: " . . . the corporation shall consult and obtain the approval of the New Jersey Department of Transportation." Similar approvals are required from the Public Utilities Commission.

In fact, the bill seems to remove any real obstacles which might occur from State environmental laws or regulations by language in Section 27.

Recommendation: That the Commissioner of the Department of Environmental Protection (DEP) be included on the 7-man governing board and that the Department of Environmental

be consulted and grant approval of actions concerning possible environmental quality degradation.

I think if this legislation passed, and we are due to get a facility corporation, that you will probably be there quicker if you involve, intimately, the environmental agency in the State of New Jersey.

3. We are concerned with the onshore implications of both locating the onshore storage and transfer facility and the associated development that may be induced by that facility. We think that the location of the onshore facility should be determined by going through both the Coastal Facilities Act and the Wetlands Act permit processes. This recommendation, apparently, is in conflict with Section 8(m) and (t) of your bill and 27 of the proposed bill and we suggested that they be modified accordingly.

In relation to the onshore development, a study was conducted for the CEQ which has this to say about induced onshore development.

"Regional development patterns (i.e., land use decisions), whether past, present, or future, can in large measure affect the geographical concentration of pollution sources as well as the character, quality and purpose of the area itself. The ultimate impact of such land use decisions on the environment is difficult to assess before the fact, but even a cursory examination of the evolution of certain urban and industrial areas in the United States makes it apparent that such decisions have had a significant effect on environmental quality taken in its broadest meaning.

"The economic development of regions in the

United States usually results from market forces which are national or international in their origin. Regional growth may be accelerated, however, by the presence of a single factor - a critical raw material, a competitive fuel supply, a large market, or a major transportation facility. Deepwater terminal development provides, in effect all four of these growth accelerators." That is the end of the CEQ quote.

The historical lack of success of efforts to curb the growth of congested regions suggests that positive steps should be taken to channel growth in alternative regions. Depending on their location, deepwater terminals are a powerful regional decongestion or agglomeration tool. A new terminal (or port) facility in the Mid-Atlantic, geared to a high level of oil imports, would unquestionably accelerate the already rapid agglomeration taking place there. On the other hand, a facility located, for example, on the south Atlantic Coast or in New England would tend to provide an alternative to industry and thereby begin to "decongest" the Mid-Atlantic while at the same time providing an economic impetus to the new port site, but at a lower level than that associated with the Mid-Atlantic.

I realize that these issues could be considered in proper implementation of the Jersey's Coastal Facilities Act and the Wetlands Act and will go a long way towards controlling environmental problems related to more intensive development, so that any new development does not become "runaway."

I also realize that one of the major purposes of this bill - and, I think, it is sound, environmentally - is to abandon the present practice of loading small

ships and running them in the Raritan Bay and up the Arthur Kill and the Newark Bay and the Delaware River where, from environmental standpoints, this is not a safe practice. I think a deepwater port - off the Coast of New Jersey, with proper transmission and distribution, with controls on any new development - would be sound.

4. It must be noted that the corporations and/or the owners of operations of the facility are liable under FWPCA 1972 (PL92500) for up to \$14 million for the cost of oil and hazardous material spills clean-up, with no limit on liability if it can be shown that such discharge is the result of willful negligence or misconduct. This Federal law should be taken into account in the redrafting of this proposed bill particularly Section 9(d)(1) and (2).

5. No specific mention is made of an oil spill contingency plan to combat spills of oil and or hazardous materials. This plan plus a Spill Prevention Containment and Countermeasure Plan should be specific requirements of your law, to coincide with Federal legislation, and be prepared before the terminal starts operation.

I think it makes sense to expose any industry or operator of a facility to common legislation rather than one-upsmanship legislation.

There are many documents that would prove invaluable to the committee in marking-up the bill as a consequence of those public hearings. A few of these are:

a. Offshore Ports and Terminals. House hearings on H.R. 5091 and H.R. 5898, Serial No. 93-15. I have these documents as an example. Do you have

this one?

SENATOR MCGAHN: Yes, we have it.

MR. HANSLER: Okay. Thank you.

b. Potential onshore effects of deepwater oil terminal-related industrial development.

Report to the Council on Environmental Quality, Arthur D. Little. Do you have that?

SENATOR MCGAHN: Yes.

MR. HANSLER: Okay.

c. Draft Environmental Impact Statement - Deepwater Ports. U.S. Department of Interior, June 1973.

d. The Federal Water Pollution Control Act of 1972, P.L. 92-500.

In closing, it is hoped this testimony will assist the committee in adopting legislation that will provide more environmentally safer methods of receiving and distributing crude oil and basic petroleum products. At the same time the bill should assure environmentally sound construction and operation of the corporation's facilities, and environmentally acceptable patterns of attendant industrial development and population patterns.

Thank you.

SENATOR MCGAHN: Thank you very much. We do have copies, but if you have extra copies, I'm sure that Mr. Mattek will be most happy to have them, if you don't want to carry them back with you.

MR. HANSLER: I have only got the one set, but I wanted to give the citations in case you wanted to order them.

SENATOR MCGAHN: We already have them.

Let me address myself, specifically, to page 6, point five. We are cognizant of the fact, as far as

an oil spill contingency plan, oil containment inclusion. However, a draft is being made and this would be a separate bill. It would not necessarily be included in this, covering any type of spills regardless of whether it is from a deepwater port or not.

MR. HANSLER: Would that separate bill, then, be more legally binding than this bill because in Section 27, I think you have statements to the effect that any other law in the State will not control.

SENATOR MCGAHN: I think we realize that the language, at the present time probably will not be in the final draft of the bill.

I take it then, as far as your testimony is concerned, that the use of a deepwater port is a much more economically and environmentally safe way to simply transport oil to the shore of Jersey than the present method.

MR. HANSLER: I am not economist, but it is a more environmentally safe way than the present practice that we right now of these hundreds of ships per month crowding the harbors in metropolitan New York and metropolitan Philadelphia.

I think the one point - and we've discussed it at some length here - is that if you are going to have increased industrial development, there should be considerable thought put into where these facilities will be located and how they will be controlled. I think it makes sense to use what you have in lieu of developing new areas.

SENATOR MCGAHN: Do you see the Federal government taking any action as far as siting these so as to diversify the areas in which oil will be brought in?

MR. HANSLER: The way the present Federal legislation looks - and it hasn't passed yet - is that the Department of Interior would be the siting agency and, as such, I'm sure they would have to prepare a final environmental impact statement for any specific location. I think, at that point in time, the people of New Jersey and the governmental bodies in New Jersey would have an official say as to what they thought of that location.

SENATOR MCGAHN: You're talking about consultation with and not veto?

MR. HANSLER: Insofar as an Environmental impact statement, the National Environmental Policy Act of 1969 says, "Let's ask ourselves a question in advance before we build something." The act, itself, does not give power to a Federal agency or CEQ to outright prohibit the construction of a new facility or development.

SENATOR MCGAHN: That's the point I wanted to make.

Thank you very much. Assemblyman Stewart.

ASSEMBLYMAN STEWART: Is it your opinion that we do have these monobuoy types available now to control a major oil spill? Is that system available, and if so, is it physically impossible to use in, let's say the Delaware River? Why wasn't it used in spills of this nature?

MR. HANSLER: A monobuoy doesn't prevent an oil spill. A single-system facility is a facility well out in the ocean. I think the reason they haven't put a deepwater facility in the Delaware is because of the tremendous amount of dredging

that is necessary to get a supertanker into the Delaware estuary or the tremendous amount of dredging that would be necessary to get one into the Raritan Bay or the lower New York Harbor. There are some facilities, Puget Sound up at Ferndale where there is a superport to take large tankers, also, the Carey Group, New England Petroleum Corporation, a refinery held in joint venture with an overseas oil company. It is in the Bahamas. I haven't visited that refinery, but I have seen a picture of the facility and it makes a lot of sense.

ASSEMBLYMAN STEWART: Okay. I think I'm using the wrong word. Do you feel there is adequate safeguards to contain a spill from a deepwater port in the Atlantic?

MR. HANSLER: You could probably pick any type of situation where an oil spill could occur. I think you're talking about the chances. We have had to comment on this, on the proposed deepwater ports in Puerto Rico. We were asked if an oil spill did occur in the deepwater port off Mona Island - if the oil could reach the Dominican Republic and in consultation with Department of Interior and the Coast Guard, looking at wind vectors, and how oil disseminates in the ocean and how it breaks down, it was a possibility. But it is very, very remote. I think facilities can be built which will greatly minimize any oil spills. You can never predict who is going to run into whom at sea. We can predict that more people are going to run into each other in the Delaware River, Newark Bay, Arthur Kill, and Raritan Bay.

ASSEMBLYMAN STEWART: Thank you.

SENATOR MCGAHN: Are there any further questions?
(No questions)

Thank you very much, Mr. Hansler.

SENATOR MCGAHN: Mr. Funge.

W I L L I A M J. F U N G E:

My name is Bill Funge. I am the manager of Ocean Engineering at Soros Associates, Consulting Engineering Company, New York City.

Frankly, I don't envy you gentlemen with your jobs here sorting out the discussions.

I am a resident of Mountain Lakes, and I have lived in New Jersey all my life. I am very concerned about the environment of New Jersey. I am also a Professional Engineer and have worked on offshore terminals for about twenty some odd years now. I was the Project Manager on a study that was done for the Maritime Administration a couple years ago. If you don't have a copy, I have an extra one. There was a spin-off Executive paper that was written concerning the feasibility of a North Atlantic deepwater oil terminal. Again, it is about two years old.

I consider myself a conscientious citizen, more or less, inviting myself to come down and, therefore, I make myself available to the Committee for any questions that might be of sort of a technical nature. I will quickly read this.

Gentlemen, as a life long resident of the State of New Jersey and a Professional Engineer engaged in the development of deepwater marine terminals around the world, I have a dual interest in the proposed New Jersey Oil Transfer Facility Corporation as outlined in the Senate Bill No. 200. It is my hope that my appearance before the Committee will be of some assistance by providing a number of cold facts which I believe are important to the

Committee in forming their judgment, and by providing professional opinions where called for.

While it is practically impossible to be totally removed from the subject of deepwater ports and at the same time be interested enough to appear before the Committee, I do believe the information which I am about to present is given from an objective point of view because of my dual role as a life long resident of New Jersey and Professional Engineer.

Realizing that time is important to the Committee and that there is much repetition in the statements made at these hearings, I will try to present my statement in as a concise a manner as possible. Let me, therefore, present a number of basic facts which are important.

1. The demand for oil in the United States has out-stripped our domestic supply.

2. The deficit gap between demand and domestic supply, which represents the oil which must be imported, is widening daily. (Recent cut-backs in demand due to turning down thermostats and reducing automobile speed limits have helped some and should cut-down the rate at which the gap widens; however, the gap is expected to continue to widen rapidly. Somewhere between 1980 and 1985 it is anticipated that we will be dependent on foreign oil for half of our supply.)

3. At the present time the East Coast has no production of crude oil.

4. The East Coast, which is the nation's largest consuming area, depends more on foreign oil supply than the Gulf Coast or the West Coast

because these areas do have domestic production.

5. As demand continues to grow, the Gulf Coast and West Coast production areas will tend to use more of their locally produced oil which in turn will accelerate the shortage in the North Atlantic area (unless price incentives are offered or government controls are imposed).

6. The North Atlantic area, therefore, is more dependent upon the import of foreign oil than any other part of the country. This is why we were hurt more in the oil embargo.

7. In time, more and more of the foreign oil coming into the North Atlantic refineries will come from the Persian Gulf area because approximately 80% to 90% of the world's oil reserves are in that part of the world.

8. In supplying any bulk commodity, such as oil, transportation represents one of the larger costs.

9. Since the round trip distance between the East Coast and the Persian Gulf area is 25,000 miles, a considerable saving can be achieved by using Very Large Crude Carriers and Ultra Large Crude Carriers (ULCC is the latest jargon for tankers greater than 350,000 DWT's).

10. The cost saving over the conventional size vessel (maximum 65,000 DWT fully loaded) which currently serves the North Atlantic refineries, is approximately 50%. This would be a savings of about \$5.00 per ton at the present time.

11. Most of the ports of the United States including those serving the North Atlantic refineries

have channel depths of 40 feet or less.

12. Because the drafts of these large ships are 80 feet and greater, approximately 100 feet of water depth is required to accommodate these vessels.

13. For cost and environmental reasons, therefore, it would not be practical to dredge our channels to accommodate these vessels.

14. As the volume of imported oil grows, the congestion of ship traffic in the bays and on the rivers will become greater and greater if the current maximum size vessel continues in use. It would much safer to deliver the oil by pipeline from a remote deepwater terminal.

15. From an environmental point of view it would be safer to locate such a deepwater terminal offshore out in the ocean rather than in a bay.

16. From an economical point of view it would be less costly to locate such a deepwater terminal in a bay rather than offshore in the ocean.

17. There are many solutions, therefore, to the deepwater port needs of New Jersey; and because the location of such a terminal, the type of facilities provided, and the manner in which the terminal is operated are of such importance to the State of New Jersey, it is only logical that the State should own and operate the facilities.

The following are some comments made as general replies to the questions raised in the invitation I received to appear before this Committee:

Impact of Offshore Petroleum Port On -

Energy Crisis - The presence of an offshore terminal to serve the North Atlantic refineries would have to be considered a plus factor on the Energy Crisis. The reason for this would be that

an offshore terminal would help to deliver the crude oil to the refineries more economically. Since it would do nothing to increase the supply of oil or the refining capacity of the North Atlantic refineries, an offshore terminal would not overcome the root causes of the Energy Crisis.

Environment - The use of an offshore terminal for delivering the anticipated large quantities of foreign oil would be much safer than using the current method. The reason for this is that each VLCC would replace as many as ten of the current size ships, and there would be no need for the oil to be brought into our environmentally delicate estuarian areas. The decrease in number of vessels would mean fewer collisions, groundings and handlings which are the major causes of oil spills.

Land Development - My feeling on this is that if the State controls the offshore terminal, the State will have better control of land development resulting from the offshore terminal. There is a need for refinery expansion to supply the oil necessary to feed the North Atlantic region, and it is my opinion that one of the better ways of doing this would be to permit the existing refineries to expand on their existing land by providing a large tank storage depot along the route of the pipeline between the offshore terminal and the refineries - and, here, I'll make some big hits with the Sierra Club - (such as in the center of the Pine Barrens). This storage area would be environmentally clean, and would permit the existing refineries to use land on which they presently have storage tanks to increase their refinery size. Aside from this, there would probably be the usual expansion of the petro-chemical industries that accompany increases

in the size of refineries.

Jobs - By helping to supply vital oil to New Jersey area an offshore terminal should not only help to save existing jobs but also provide additional new jobs. Although the marine terminal would only provide possibly a couple of hundred new jobs, the ability of the refineries to expand their capacity and the growth of the petro-chemical and ancillary industries would provide many more jobs for this region.

State Revenues - An offshore terminal controlled by the State of New Jersey could provide a source of State Revenues. However, since the primary objective of an offshore terminal would be to deliver crude oil to the refineries more economically, the State could not bite too deeply into the shipping savings produced by use of the offshore terminal without hurting the incentives of the oil companies to use it. Hopefully, the lower price of delivered crude to the refineries would help to stabilize, or even lower, the price of oil to the residents of New Jersey.

Since the first call on the revenues generated by the offshore terminal would be to pay off the terminal and to properly operate it and maintain it, the surplus would not represent any golden egg for the State; however if managed properly, it could represent a worthwhile State Revenue which would grow gradually over the years.

The following comments are offered as constructive criticisms relating to the suitability of Senate Bill No. 200 for accomplishing its objectives:

1. The Bill should be widened to include

the possibility of handling other bulk cargoes, both liquid and dry bulk. Although a means of delivering crude oil to the area refineries is the primary need at this time, there is the possibility in the future that the need for facilities for unloading liquid gases, iron ore, etc. could develop. For this reason I would suggest that the name of the Act be changed from "Oil Transfer Facility Corporation Act" to "Marine Transfer Facilities Corporation Act"; and that all references which would limit the Corporation to handling only oil and references to a single facility, be revised to permit the State to control the transfer of other bulk materials being delivered in deep-draft ships to more than one terminal if it is so desired in the future.

2. I question why the Act limits the Corporation to a storage area which occupies no more than 3/4 of a square mile. I can understand why the area along the shore might be restricted, but I feel that the inclusion of this limitation unnecessarily handcuffs the Corporation, particularly in view of the fact that one of the ways of generating State Revenue would be to provide a storage area further inland along the route of the pipeline which would permit the oil companies to expand their existing refineries by relocating their crude storage to the State facility, as described earlier.

3. As I mentioned above there are various solutions to the type of terminal that could be provided to accomplish the purpose of transferring oil from deep-draft ships. There are honest differences of opinion between experts, but generally speaking a private operator will endeavor to come

up with the most economical solution that is environmentally acceptable. By "environmentally acceptable" I mean meeting the minimum standards established. It is important that any facility used for transferring oil, which the State might construct, be a facility which strikes a practical balance between economy and environment; but every effort should be made to make the terminal as spill proof as possible. This is why it is important for the State to be involved in its construction and operation.

In view of this comment and my earlier comment regarding the widening of the possible use of the offshore facilities, paragraph 4e in the center of page 4 might read "Marine transfer facilities - in lieu of oil transfer facilities - means any system of construction located in offshore waters for loading, unloading, transferring, pumping or handling bulk commodities moved by ship or tanker to or from land; any facilities on shore for the storage, holding or distribution of any such bulk commodities so moved; and any permanent construction used for connecting the offshore transfer facilities to any onshore storage, holding or distribution facilities.

I might also add that the transfer facilities should also include facilities beyond the onshore storage, such as the pipelines between the onshore storage area and the refineries, if it's decided that these pipelines should be owned by the Corporation. I believe they should be.

4. In view of the fact that the residents of the shore area in the vicinity of the marine terminal would feel that they would be primarily affected in the event of an oil spill, I would like

to offer the suggestion that perhaps the Bill could include an incentive to this shore area. Such an incentive might be the possible granting of a priority allocation of gasoline to the area to attract tourists. The tourist industry isn't worth very much if you can't tour.

5. In paragraph 9c (3) at the bottom of page 11, I would suggest that pollution prevention should be from the marine terminal to the refineries inclusive, not just for the "shore zone".

6. On page 12 under paragraph 9d1-(a), (b), (c), (d) it should be noted that some spills do occur for reasons other than those included. Spills can be caused by such things as vessel berthing or collision, human failure or even deliberate spills. I recommend, therefore, that this paragraph be widened to include spills caused by other than defective equipment conditions in the oil transfer facility alone.

7. Under this same paragraph it is also suggested that regardless of who is liable, any spill should be immediately contained, collected and cleaned up by personnel and equipment maintained on duty around the clock at the marine terminal facilities. Liability can be determined later, and if it is decided that the responsibility was not that of the Corporation, the liable party can be back-charged for use of the equipment and personnel by the Corporation. This could be prearranged by including such a clause in any agreement between the Corporation and the users of the facility.

Another thought - I'm sure it must have come to the Committee's mind - it would make a lot of sense to make this into a high bi-state authority between the State of Delaware and the State of New

Jersey. The State of Delaware is presently considering a similar terminal and a similar bill. Obviously, they would be in competition to serve the same refineries. This could be done by either a bi-state or tri-state, including Pennsylvania. It might be done by expanding the Delaware River and Bay Authority, which is set up to do, practically, what we are talking about here.

I would like to thank the Committee for this opportunity to address them and if there are any other questions which you would like to ask, I would be happy to answer them. Thank you.

I have attached a bibliography and a paper which - if you have time to read - was written for the American Society of Engineers on obtaining environmental approval of offshore terminals. (See page 90 A)

SENATOR MCGAHN: Thank you very much for a very comprehensive and logical presentation. I, personally, have no questions.

Are there any further questions? (No questions)

Thank you very much, Mr. Funge.

We will hear testimony from one more - I guess it is a group of individuals, Mr. Campbell and Mr. Christison - this morning. We will then recess and reconvene for the afternoon session in approximately an hour from the time that we recess.

D A V I D C H R I S T I S O N:

I am David Christison, Manager of Planning and Technology in Refining for the Mobil Oil Corporation. My associate for our presentation here today is Ellis Campbell, Manager of Raw Materials Planning in Mobil's Supply, Distribution, and Traffic Department.

Mobil strongly supports the need for an offshore terminal to serve East Coast refineries with the new modern generation of very large crude oil

carriers. I would like to take this opportunity to make a short presentation to provide you with additional information on the subject of very large crude oil carriers and deepwater ports and on Senate Bill 200. We have a few legal aids with us today which we would like to use to help promote an understanding of this whole subject.

I would like to first talk about development of the large crude oil carriers and deepwater ports.

Tankers of enormous size are coming to dominate the world transport of oil. These ships, known as very large crude carriers or VLCCs range upward from 150,000 deadweight tons. Many VLCCs of 200,000 - 300,000 tons are now in service. Several over 500,000 tons are under construction and tankers of a million tons are on the drawing boards.

A VLCC can haul oil at less cost than smaller vessels. This economy of size has been a favorable factor in reducing the cost of shipping oil to West Germany, Great Britain, Japan, and many other countries of the world, but not to the United States. The fact is, nowhere along the 12,000 miles of U.S. coastline has a single port been developed to handle such vessels. This country today gets no benefits from the VLCC's economic carrying capacity or the foreign exchange savings it could bring.

The 130,000-ton "Mobil Arctic," - of which we have a picture - although smaller than VLCC class, demonstrates the problems of her bigger sisters. When launched in 1972, the "Arctic" was the largest vessel ever built in a U.S. shipyard and manned by a U.S. Merchant Marine crew. The "Arctic" can sail

out of the Delaware River empty, but she cannot sail back with a full cargo. The water just isn't deep enough. In fact, in the entire United States there are only a couple of ports on the West Coast that can even handle a loaded ship the size of the "Mobil Arctic."

Countries abroad have been improving their deepwater port facilities, reserving to themselves the VLCC shipbuilding business, marine jobs and hauling benefits -- there are now more than 60 ports in the rest of the world that can handle these large vessels. This map - by using different colored dots - shows where these ports are located around the world. As you see, there are none in the United States.

When the first VLCCs appeared in 1966, few of the world's ports could accommodate them. But other countries acted quickly. Natural deepwater harbors such as Milford-Haven in Wales, and Bantry Bay in Ireland, were developed into major oil terminals. Some of the harbors of Europe were deepened through dredging. And many countries lacking harbors that could be made deep enough turned to new technology. In some cases fixed structures - essentially man-made islands - were created offshore. But the greatest activity has been in developing single-point moorings.

This SPM system permits enormous flexibility in port location. Using mooring buoys, a deepwater port can be created almost anywhere along a coastline, not just where nature happened to put natural harbors. The buoys need not be anchored close to shore. Frequently, to obtain water depth and avoid proximity to resort areas, they are sited far out to

sea. One single-point mooring system now under active consideration in the Gulf of Mexico would be 21 miles off Louisiana; another 30 miles off Texas.

There are now more than 45 SPMs around the world which can handle VLCCs and their number is increasing rapidly. Most are located in open ocean. Several are in 150 feet of water, deep enough for the very largest tankers in service or contemplated.

The specially designed SPM buoy - and this is a picture of what an SPM looks like up close - has a diameter of 30 to 45 feet and a low profile in the water. If one were to be located 15 miles off Long Branch, New Jersey, as suggested by the Army Corps of Engineers, it would be invisible to the observer on the beach (and a moored VLCC would be virtually invisible). Other possible locations along the New Jersey coast would be farther from land and even less noticeable.

Risk of serious oil spill at a single-point mooring is minimized because the location can be remote from traffic lanes and shallow water. While moored to the buoy, the tanker is free to rotate, minimizing the effects of wind and sea. In severe weather, the ship can quickly vacate its mooring.

The buoy is secured to the seabed with chains leading to mammoth anchors or anchor piles. Floating hoses are used to connect the vessel's cargo tanks to a distribution unit in the buoy or on the seabed which channels the tanker's oil cargo to the submarine pipeline running along the ocean floor. The oil moves through pipeline to storage

tanks ashore.

Aside from the SPM's advantages of remote location free from harbor congestion, they generally reduce the chances of human error that might lead to spillage. Discharging a few VLCCs at SPMs instead of smaller tankers in harbors cuts the number of connecting and disconnecting operations involved in tanker unloadings. This is a photo of a typical tanker unloading at an SPM. SPM technology also virtually eliminates the need for extensive harbor dredging, which most environmentalists find objectionable.

Accidents can happen, of course, even with the most modern VLCC-SPM systems; but the probability is low. There is the additional protection of new Federal laws controlling pollution hazard in terminal and tanker operations. Terminal facilities must, for example, have ready access to equipment needed to contain and remove oil that is inadvertently spilled on water. There must also be emergency shutdown systems, frequent equipment tests and inspections. The technology is steadily being improved. A new Approach Velocity Indicator on the buoy, for instance, is now used to keep the mooring master constantly informed of the incoming tanker's exact speed and range.

Around the world, more than nine billion barrels of oil have moved through SPMs since this technology first appeared in 1964. The performance record has been excellent with no serious pollution damage to the surrounding environment.

I would now like to turn to the subject of the oil supply outlook.

Oil propels our jet planes and tractors, lights and heats our homes, provides us with recreation, even with plastic bags for garbage. Our way of life, in this century at least, is bound inextricably to the continuation of an ample petroleum supply. Without it, America would not be the country we know today.

Far more is at stake in the energy crisis than limitations on Sunday driving and the mild discomfort of 68 degrees home heating. America's industry runs on energy. Jobs can be critically affected. Deepwater terminals will aid the United States in competing with other countries for needed oil to keep the American economy strong until new sources of energy can begin replacing it.

Domestic oil production has not met U.S. demand for several years. The U.S., like it or not, is now heavily dependent on foreign crude oil supply. Today, we are importing about 35% of our petroleum needs, most of which comes by ship. And our dependence is expected to continue for some time to come. The graph shows the Department of Interior estimate of expected imports to the United States which is made prior to the Arab oil embargo. The forecast includes the building of the Alaska pipeline. Increased drilling in the waters of the U.S. outer continental shelf can help reduce our dependency on imports, as can better financial incentives for exploratory drilling in the U.S. and development of alternate energy sources such as coal, nuclear or shale oil. But nuclear plants take many years to build, and much time will be needed before plants can be built for the conversion of coal to

gas and the extraction of oil from shale.

In the meantime, we must both conserve energy and import large quantities of oil. For this period, low cost transport of imported crude is highly desirable. Without it, an important weapon in minimizing the cost of the energy shortage will be denied to this country. The VLCC and the deepwater terminals to accommodate it are an important response to the energy needs of today.

My next subject is the need for deepwater ports.

There is admittedly, an alternative to opening America to the VLCC -- but not a truly acceptable one. This would be to keep on as we are, meeting oil import needs through more and more port calls by small tankers.

The United States must catch up and open its shores to the VLCC. Congress and state legislatures urgently need to remove the barriers that prevent construction of deepwater ports in this country.

But consider the cost:

First, the economic penalty. Multiplying the numbers of such smaller tankers not only forgoes the benefit of economy of size but would mean costly ship delays since berth space in both pickup and receiving ports would be seriously overloaded. The consumer of oil will ultimately have to pay the cost.

Second, the environmental penalty. Greater number of small tankers means more risk of polluting U.S. harbors and beaches -- it's as simple and definite as that. The greater the traffic, the greater the chances of collision or grounding. We were interested to note recently that a Sierra Club spokesman -- this is quoted from the Star Ledger, January 11, 1974, p. 9 -- in New Jersey indicated that "without such

deepwater ports there may be far more serious consequences from the multiplicity of smaller vessels that would have to come in." In the case of New Jersey, use of VLCCs would reduce the number of crude tankers supplying the current refineries by a factor of 4.

The United States needs deepwater ports now. They are essential to energy supply. They can prevent the erosion of jobs and provide new employment. We urgently need to move forward with positive decisions for their construction.

As I have indicated, Mobil believes that a deepwater terminal should be built on the U.S. East Coast. Most of the vessels that are being used today to supply the New Jersey refineries were built in the late 1950's and early 1960's. It seems to us that when you consider that most of the consuming countries and major producing countries in the world have the capability of using the new VLCC class vessels, it doesn't make sense for a country like the United States not to be competitive. In fact, when we go to the Persian Gulf to try and obtain a cargo of crude oil, the larger ships are given priority at the berth because they are able to load oil faster. In addition, a few years from now, most of these old, small tankers being used today will have to be replaced with much more costly ships if existing U.S. refineries are to continue to be supplied with crude oil. The American consumer ultimately pays these higher costs.

We believe that an offshore deepwater terminal is environmentally sound. Pipelines to the shore

and then on to the refineries are a proven and safe method of moving petroleum. New Jersey residents will never know the oil is moving. We admit there is always a chance that a ship could spill oil offshore, but we feel that the technology of today will allow us to handle any oil spill in an effective manner. We believe a deepwater terminal is significantly better than the present system. We are surprised that environmentalists are not insisting that VLCC terminals be constructed. The recent spills in the Delaware River would not have occurred had there been such a terminal.

Now, I would like to turn to a few specific comments on Senate Bill 200.

We commend the aim of Senate Bill 200 in that it supports the necessity of a deepwater terminal. However, at this time there is no Federal legislation which will enable an offshore port to be built outside the 3-mile limit in deep water, and New Jersey has no potential locations within 3 miles from the shore. This Federal enabling legislation is critical.

Senate Bill 200 would establish a State corporation to own a deepwater terminal in Federal waters and lease it to an operator. We believe the public interest can be served just as well or possibly better by allowing private ownership. The Bill explicitly precludes the use of the full faith and credit of the State of New Jersey to support the financing of the project. Under this circumstance it would probably be necessary to obtain credit guarantees from the users of the facility in order to finance the project. Our

financial experts have reservations that it will be possible to obtain industry guarantees for a state-owned facility. We suggest, therefore, that legislation be adopted that would allow industry proposals to be considered.

Historically most similar facilities such as major pipelines have been owned and operated by the people using them and taking the risk that they would prove economical. The pipeline industry has been a regulated industry for many years and a deepwater terminal would be a government regulated common-carrier, subject to furnishing transportation on reasonable request to every shipper, regardless of whether or not he is an owner. All shippers pay the same tariff for equal service as required by the Interstate Commerce Commission and earnings are also regulated. Federal and state regulation can certainly supplement these regulations to protect the public interest in other areas. The maximum profit that an oil industry terminal is allowed to make is 7% per year of the investment. For a \$300 million terminal, a profit of about \$20 million a year would be expected -- a rather nominal return on a very large investment in light of today's unsettled petroleum situation.

Senate Bill 200 specifies that 40-year bonds will be used to finance a deepwater terminal. We should also like to point out that in light of the uncertainties of future oil import needs to the United States, the useful life of the facility may be less than 40 years.

The liability provisions in the Bill appear very onerous. As I believe you have heard in

earlier testimony, there are plans in effect which provide substantial coverage of oil pollution losses resulting from tanker operations. We doubt the operator could obtain the insurance necessary to cover this provision for unlimited liability for pollution damage. In fact, we doubt an operator could be found willing to accept this liability.

We agree with the concept in the Bill that an area of specific size should be set aside for a tank farm near the ocean and the refineries need not be built in this location. Mobil would not plan to build a refinery in the coastal area, but would plan on using a terminal only to supply our existing Paulsboro Refinery.

As far as we know, there has been no oil industry study of a deepwater terminal thus far, and we think a complete study is required before we would even know where the best location for a terminal would be or what size plot would be required for tankage. A terminal site, both onshore and offshore, should be chosen on the basis of environmental, economic and safety considerations.

We would be happy to participate in studies with the state to determine how and where a deepwater terminal facility might best be built. We do think that private ownership is preferable. Certainly, it should not be excluded, which would occur if Senate Bill No. 200 were passed in its present form. Mobil suggests that this Bill be tabled for the time being, particularly until Federal legislation would allow a port to be built and that consideration be given to simply passing deepwater terminal enabling legislation subject to complete review by the state. Thank you.

SENATOR MCGAHN: Thank you very much.

I'd like to make some specific comments, if I may. We realize, of course, that Federal legislation is still pending and we are a little bit premature. On page seven you say, "Senate Bill 200 would establish a State corporation to own a deepwater terminal in Federal waters and lease it." The bill does not say lease it. It says it may lease it; it may permit it. This is permissive; it is not mandatory.

I think there may be a clashing of opinion here that the public interest could be better served by the State regulating and controlling this vis-a-vis, should I say, the oil interest. I think the history, very frankly, of your companies and the consortium of oil companies, particularly as far as pipelines are concerned, shows basically they can control that which goes over it, despite the fact that it is under the ICC and despite the fact that the Internal Revenue Service and Justice Department have not found this in anti-trust suits. It would be, I think, somewhat inappropriate for basically a particular company or consortium of oil companies, by the same token, to be operating the facility where this oil is coming through. Furthermore, the only guarantee that a State can have as to land-use-controlling regulation over this facility would be if it were operated by the State itself. I think this has been shown recently where Seadock -- certainly in Texas where originally they favored private enterprise, the recommendation has now been made that this be public, and this will be

the determination of the Texas Legislature. Furthermore, in relation here to the full faith and credit of the State of New Jersey in supporting this project, this is the usual bond authority act and if frankly there cannot be any credit guarantees from the users, I would suggest then that we follow the same course that the State of Texas has taken where they have increased the interest rates without requesting any industry guarantees as far as that is concerned. Forty years, I think, is a valid criticism. It is quite true that within forty years the uses may be somewhat different. But it is my understanding that crude oil will still be necessary for the petro-chemical industry and for plastics. Certainly, it could be just as true in forty years and I hope that whatever the alternate to this are that that can be conserved so that it will not be used up by that time and we will not be having to find other forms as far as that's concerned.

E L L I S C A M P B E L L: It would be domestic, probably, more than foreign import.

SENATOR MCGAHN: Yes. Incidentally - in keeping on this topic concerning licensing by, let's say, the Federal Agency, Department of Interior as it may be - the finding was made in the House Conference Committee that the State could be and would be considered an eligible applicant to apply for a deepwater oil port. From the standpoint of liability provisions, likewise, in the new anticipated Federal law concerning this, there is a provision for \$100 million dollars, no fault, which would be a fund set up for containment and identification of damage done. This would be through the rate of 2 cents per barrel of throughput, if I'm not mistaken

I think that these are points well taken, but some of these are, basically, going to be preempted by Federal legislation which will be coming in.

Thank you very much for your presentation.
I have no further questions.

Assemblyman Stewart.

ASSEMBLYMAN STEWART: Mr. Christison, you mention on page seven that you feel that technology of today will allow us to handle any oil spill in an effective manner.

MR. CAMPBELL: Offshore oil spills.

ASSEMBLYMAN STEWART: Not in the Delaware River?

MR. CAMPBELL: The timing is a problem, Senator. Before you can even get your forces organized, the tide would have moved the oil considerably in the inshore area, where, if you are twenty miles offshore or thirteen miles offshore, you have the time to react.

ASSEMBLYMAN STEWART: This is what I have been trying to find out all morning. The available technology that we have today is available in the Atlantic Ocean but it is not available in a confined area such as the river or the bay, is that correct?

MR. CAMPBELL: It's available, but in the amount of time that you would have to react, you're still going to get oil along the shore in the bay. Offshore, depending on the weather, you might be able to completely control it. Now, if you had a storm with thirty foot waves, there is no way that you can control that oil offshore, where, inside the bay you would at least control a big part of it. It's completely dependent on circumstances and time.

In most situations offshore, we would be able to control and keep the oil from hitting the shore. There were two big spills down in Louisiana on drilling - we were able to do this - while the Santa Barbara spill, which was certainly bad, the weather was against us. At that time, they did not have the technology that we do now. That is one reason it is available.

MR. CHRISTISON: I think the point is that we have much more time to react to a spill, if it's offshore. If it is in Delaware Bay right up against the shore, the oil is on the shore almost immediately.

SENATOR MCGAHN: Mr. Campbell, for the record, I am somewhat confused as to your choice of location. I see you made the statement "Paulsboro". I'm not quite sure if you meant by that that you prefer an oil port - if such, a terminal - in North Jersey and then pipelines to Paulsboro or if you would prefer a primary site, one of the alternate sites in the Delaware Bay area.

MR. CHRISTISON: No, I think what we would like to do would be to join a study which would determine what the best location is for all industry. Now, if that is toward the northern part of New Jersey if it comes out that way, fine. If it is down in the southern part or the Delaware Bay, we would be willing to go along with it.

SENATOR MCGAHN: Will it be reasonable, then, for the State of New Jersey to conduct a feasibility study similar to Seadock to make a determination of what would be the best option?

MR. CHRISTISON: Yes. One further comment. You mention Seadock, it is our understanding, at the present time, that the financing of Seadock will be by the group of companies that are going to use it.

The State of Texas has backed out of financing.
Is that true?

MR. CAMPBELL: Well, they haven't backed out yet. It was a 5 to 4 vote on just the Committee that was hearing it. But it was 4 to 4 and the Chairman had to break the tie. There have been several editorials in the paper and the communications that we are seeing is that the State may not end up taking it over. The Governor seems not to prefer it.

SENATOR MCGAHN: This is, basically, correct. But the determination, at the moment, is still up to the legislature.

MR. CAMPBELL: Yes.

SENATOR MCGAHN: They can take action or they cannot.

MR. CAMPBELL: They have taken the study we did on Seadock - which our representative from Mobil was connected with at one time - and have taken the documents that Seadock presented and have incorporated that in the State study. There has really been no separately funded study by the State of the facilities here from a technical or environmental view.

SENATOR ZANE: I'd like to ask you a question. Do you feel that if this came about - the port we are discussing today - that the price of petroleum products - ultimately reaching the consumer - would be reduced? Would it stay at current levels or -- just what do you see if we were able to bring the product in this way?

MR. CHRISTISON: My comment would be that this facility in itself is going to - for what it contributes - pass it on to the consumer, resulting in

somewhat lower petroleum product cost than if this facility is not created. Now, this isn't to say that about five years from now that gasoline is going to be cheaper than today. I'm saying what this does is make it more economical to bring oil into this particular area.

MR. CAMPBELL: Long term, really.

SENATOR ZANE: There are a couple more questions that I have. I represent the Paulsboro area - and just being personally interested - in the event this should come about, would you foresee Mobil Oil expanding its activities with the Paulsboro Refinery? In other words, I think what I'm really saying is, is Paulsboro Refinery producing up to its capacity? What do you foresee there, if anything? Would it expand?

MR. CHRISTISON: We have announced an expansion at Paulsboro that is in the formative stage right at the moment. The existing refinery has the capacity of 100,000 barrels a day. We have announced an expansion to 250,000 barrels a day.

SENATOR ZANE: Would this be --

MR. CHRISTISON: Are you asking if we see something beyond that?

SENATOR ZANE: Yes.

MR. CHRISTISON: I'd sort of speculate, little likelihood. I think the geography and the amount of land available would not see much further expansion beyond that level.

MR. CAMPBELL: I think, pertinent to this, the questions you asked previously about where the new expansion of refineries would be on the East Coast might be in order. I don't think we would

have chosen this site if it wasn't an existing refinery. Now, I can't say that other companies wouldn't say, come along and build a refinery adjacent to a deepwater port if the State had land-use that would allow it. Right now if you just had to go out and make a choice, it would probably not be in the Delaware Valley. There are people who are trying to get permits to build in Maine and in Massachusetts. There is a study going on --

SENATOR MCGAHN: New Hampshire.

MR. CAMPBELL: --yes, in New Hampshire and in North Carolina and in South Carolina and Georgia is doing a study which we are participating in.

MR. CHRISTISON: I think we would say that we foresee most of the expansion taking place on existing refinery sites in the future. There may be one or two new ones such as Shell, as you know, is considering one in South Jersey.

SENATOR ZANE: Would this probably result in an additional tank farm storage area, let's say, for the Paulsboro area. You know, being from that area, it is rumored that the storage facilities today are at maximum capacity. It is rumored - it has been in the press - that the Delaware River is filled with ships that are loaded with product that cannot be unloaded, not just with your refinery, Texaco is also there. I believe that Atlantic is across the river. Wouldn't this then precipitate an expansion of a tank farm and the acquisition of additional land or are all those rumors false?

MR. CHRISTISON: Well, we have to have

tankage -- you know, if you are going to bring it in in small ships, you have to have tankage that would accommodate those small ships. I would judge that you would see very little change in total tankage requirement at this refinery site because of this facility. You bring large shipments of oil onshore onto this tank farm which is called for in the bill - and then it is pumped at a lower rate off to the refineries. This means you have tankage there that takes the big shipment as it comes off the ship and distributes it at lower rates to the refineries which, in effect, reduces the amount of tankage that might otherwise be required for the refinery. Does that respond to your point?

SENATOR ZANE: Somewhat, yes. The bill mentions that a three-quarter mile area set aside for the tank farms, for the storage between the buoy and the refinery. Do you see this as causing congestion? Do you see this as not enough area? Have you thought about it at all?

MR. CHRISTISON: We really don't know if that is enough area and this is why we think it should be studied. How much oil is going to come in, frequency of shipments and size of ships would determine how much tankage is required. It sounds like it might be enough, but I think it should be carefully studied.

SENATOR MCGAHN: Well, I think this is it. I think one thing here that the determination for this Committee and the determination as a State policy is what does one intend to do as far as land-use

is concerned. Starting out from scratch, Louisiana and Texas - want this type of facility - Alabama and Mississippi -- this is a completely different thing. They can afford onshore development that will be commensurate with this. But if you are thinking that this is an oil transfer system, simply bringing it in to accommodate existing refineries - existing tank farms - and if the local zoning ordinance permits increasing your facilities within the area that you have, to meet that demand, I think, this is another option one must, basically, consider. There are a lot of options in this, not necessarily in the bill as such. But these are some of the facets that must be considered in relationship to this bill.

MR. CHRISTISON: We believe a tank farm, such as you provide here, is essential. That would be as opposed to running directly from the ship, in effect, to each refinery because the size of the lines and the pumping pressures you have to have to go all the way to the individual refineries would be excessive. So you've got to come to break-out tankage.

SENATOR MCGAHN: What is your average holding time in tank farms, 10, 12 days, possibly?

MR. CHRISTISON: What, inventory of crude oil?

SENATOR MCGAHN: Inventory of crude oil.

MR. CHRISTISON: Typically, I guess, about 15 days.

SENATOR MCGAHN: Fifteen days.

MR. CHRISTISON: With about a minimum to operate.

MR. CAMPBELL: If you're a strict terminal, it might be somewhat less. When this has to go to the refinery, it slows it down some.

SENATOR MCGAHN: Senator Dunn.

SENATOR DUNN: I have just a few questions. Gentlemen, the next to the last paragraph in your presentation confuses me a little bit - "As far as we know there has been no oil industry study of a deepwater terminal thus far, and we think a complete study is required." Do you mean no oil industry study of a deepwater terminal in New Jersey?

MR. CHRISTISON: Yes, that should be corrected to, add New Jersey.

MR. CAMPBELL: That's what you read.

MR. CHRISTISON: Yes, I had written it in.

SENATOR DUNN: But it seems inconceivable to me that an outfit as big as Mobil or Exxon or the others would be as keyed-up over this thing as they are. I think your chart showed, about 1960, ships getting larger and talk of the monobuoys starting and what not. It seems difficult for me to believe that the big oil companies haven't made studies. For example, Mobil doesn't have a site in its mind that would be best for Mobil.

MR. CAMPBELL: We are members of the Delaware Bay Transportation Study Committee. The studies were started in 1967 on land which was purchased in 1957. About the time the industry would have probably gone ahead with it, the Delaware Zoning Law was passed in 1971, I believe. That has been our participation thus far. Since there was no way Federal legislation would allow anything to be built, we have been hoping that the situation would change because we do feel that there is a need for a terminal.

SENATOR DUNN: Well, at the risk of showing

my ignorance, if there have been no studies made whatsoever of prospective sites, where does Long Branch and Cape May enter the picture?

MR. CAMPBELL: Corps of Engineers Study.

SENATOR DUNN: Strictly the Corps of Engineers?

SENATOR MCGAHN: We had a communication, I think, from Mr. Kelly from the Delaware River Port Authority who was supposed to testify last Monday but, of course, because of the weather he got held up. I believe they had several basic plans that they had projected before and, also, ran into problems with the Delaware Coastal Protection Act.

SENATOR DUNN: One last question. In your presentation, you made note of the fact that the United States has not kept up with other countries, especially, European countries in the use of these ships. To get back to a question I raised last week, do you foresee that should we catch up with European and other countries, that this might mean giving a shot in the arm to the shipyards in the United States that, perhaps, some of these super-tankers might be built in the United States more than they are building now?

MR. CAMPBELL: It is more dependent on the Federal government policy. They have started building some at this time but it is because they finally started subsidizing the American industry so they would be competitive to the foreign shipyards. I think we could even build ships in this country and use them foreign if the prices were somewhat competitive - There has been like a 40 percent differential - up until now. But I do think that we do have that in this talk.

SENATOR DUNN: Well, that's the point I'm trying to make. Will deepwater or offshore oil

transfer facilities, in your opinion, accelerate or generate new interest in construction of these ships?

MR. CAMPBELL: It should unless Federal policy prohibits it.

SENATOR DUNN: Thank you.

SENATOR MCGAHN: There is \$264,000,000.00, this year, requested for Federal subsidization as far as tankers are concerned.

Assemblyman Stewart.

ASSEMBLYMAN STEWART: I have just one last question. Senator Zane and I represent pretty much the same area along the Delaware River and Bay. The question of lightering has come up several times today and in your presentation you imply that many of the accidents that occurred would not have happened if we had a deepwater port. Is it your opinion that a deepwater port will do away with, completely, the practice of lightering in the Bay and do away with, completely, the oil shipping up and down the Delaware River?

MR. CHRISTISON: Well, it would do away with, virtually, all crude oil coming into the coast or even fuel oil, possibly. But there is also some --

SENATOR MCGAHN: Refined products.

MR. CHRISTISON: Yes. That would essentially go away. There would still be some product shipment out of the coast of New Jersey because the products are distributed out of here to New York Harbor area and to the New England area.

ASSEMBLYMAN STEWART: Any percent in the drop in traffic -- it would be a ballpark figure.

MR. CHRISTISON: Well, about half -- it would be more than half. You bring in all the crude oil. Now, essentially, all of that would come through a

facility like this. Very little would come otherwise because whoever is doing it otherwise couldn't compete. The cost would be higher.

MR. CAMPBELL: Unless it were from Venezuela or some place close.

MR. CHRISTISON: So that the net traffic effect would be to do away with all that and you just have your product movement out to other parts of the U.S. East Coast.

SENATOR MCGAHN: Thank you very much, gentlemen. We will recess for lunch. I assume about 2:30 PM we will reconvene.

(Recess for lunch)

(Afternoon Session)

SENATOR MC GAHN: The first gentleman to testify this afternoon will be Dr. Joseph Weisberg, Chairman of the Environmental Education Committee, NJEA.

J O S E P H W E I S B E R G: Mr. Chairman, members of the Committee, thank you.

I am Joseph Weisberg, Chairman of the New Jersey Education Association's Environmental Education Committee and Associate Professor and Chairman of the Department of Geoscience at Jersey City State College. With me is Mr. Charles Walker, Associate Director of the NJEA.

I am speaking on Senate Bill-200 today as an educator and as a representative of the NJEA. The vested interest of the New Jersey Education Association in regards to S-200 is that of our children in the schools, children who deserve an opportunity for clean air and a healthy environment in New Jersey.

On May 19, 1973, the Delegate Assembly of the New Jersey Education Association passed a resolution in support of three New Jersey bills being reconsidered at that time in a special session of the State Senate. These environmental bills were Assembly bill 1429, requiring all major construction on the New Jersey Coastline to be approved by the State Department of Environmental Protection; Assembly bill 827, which would have placed an outright ban on the construction of a deepwater oil port off the New Jersey Coastline; and Assembly bill 2003, which would have created an ocean sanctuary in the territorial waters of New Jersey. The hour was late, indeed, then for emergency efforts of the educators of this state to be directed to contact, once again, as many Senators as possible for the special session to be held.

Since May of 1973 many catastrophic developments have occurred to New Jerseyians and to Americans everywhere in regard to the environment and the foreboding Energy Crisis. All too often in the past, society has acted in haste to crises only to have quick decisions become demonic creations when the smoke of the immediate fires blows away. I fear that this will be the case in any panic reactions to the energy crisis and more specifically to our present misallocation of petroleum. We will be opting for commercial and industrial petroleum bigness with Senate bill 200, and this bigness is demon enough by itself to destroy the opportunity to ever return to that which we had in New Jersey before. Alvin Toffer's book "Future Shock" describes all too clearly that man has duped himself into choices and decisions which, once made, can no longer be reversed. A dependency factor accompanies these decisions and prevents someone from being able to stop the obligations incurred by previous acts.

The point of environmental protection becomes quite simplified now compared to issues raised in May of 1973. In light of the Energy Crisis it is no longer fashionable to be concerned about the near and dear environment around us. And so today we are proposing legislation, not to protect the New Jersey environs, but, in fact, legislation that can only, in haste, serve as a hangman in destroying the ecological balance of New Jersey's precious scaffold of environment. The Energy Crisis will come and go as have other catastrophic events in our history but the environment will not be such a fleeting moment to all of us. This statement, however, is not to make light of our present situation.

This is the case with Senate bill 200. One need only look at those organizations supporting the bill and those groups speaking against the bill. Last Monday we heard many statistics from both sides of the fence on S-200 at these hearings. Naturally, and in good faith, those speaking positively on the bill were members of the petroleum industry, pipeline companies, and representatives of selected commercial interests. It is only proper that each group's vested interest be supported with statistical comparison to weigh the merits of any proposed legislation. On the other hand, those speaking against this bill, for the most part, represent a different type of vested interest in New Jersey. They represent the interests of our people, from our children in schools to our taxpaying citizens. Senator Buehler provided valid statistics for his vested interest - the people who put him in office. The New Jersey Education Association cross-references and supports Senator Buehler's testimony in speaking against Senate bill 200.

Your Committee, in considering S-200, has a rather elementary choice to make. Are those testimonies from groups without vested commercial interests the sound ones, or does the true merit for S-200 rest upon the industrial and commercial interest groups represented here?

Now these opening comments may seem too poetic to us all. But let's look at the situation more closely by examining several key points of Senate bill S-200. What does it do for New Jersey?

First - Does it guarantee New Jerseyans will receive more fuel from the crude oil shipped into our coastline from the establishment of deepwater oil ports? The answer is no. The same amount of oil

and its refined products proportionate to all of our states will not change by the passage of this bill. Moreover, the bill does not discover any new oil deposits. It merely permits that given limited quantity of oil which is now being transported in other ways to refineries to threaten the destruction of our coastline by its ubiquitous presence. In essence the same oil industrial complexes for refinement of crude that exist in New Jersey will simply be drawing their same limited supply of petroleum in a more dangerous method of bigness from possible spillage of supertankers, a method which threatens not only those industries of recreation and domesticity on our coast, but, more importantly, endangers the ecological health of our waters and ocean wildlife.

Second - this piece of legislation leaves open the door for massive buildups of petro-chemical complexes in areas of New Jersey considered to be beautiful attractions to tourists and our native inhabitants. It imposes upon the New Jersey taxpayers to spend more moneys to provide the necessary roads, protection and accommodations required as big refinery industry moves in.

The billowing smoke of refineries on shore, adjacent to the deepwater oil ports will pose greater threats in many cases to our environment than the possible spillage of crude oil itself at sea. Here, once again, all those petro-chemical complexes will not necessarily mean one more drop of gas for New Jerseyans. Witness the large numbers of refineries in our state today as compared to other states, and make further witness of New Jersey being worse off than many of its neighbors in national fuel allotments.

Third - With all the implications that S-200 has to our environment, the bill does not include the State Commissioner of the Department of Environmental Protection as a member of the Oil Transport Facility Corporation, which it creates as an instrument of the state.

Now, this particular point does more than disregard the protection of our environment; it establishes a nonsensical approach to the created corporation, availing no mandatory ecological expertise whatsoever directly within the membership of the trustees of the Oil Transport Facility Corporation. S-200 is environmentally hazardous by definition alone. It is even more suicidal in environmental nature by the exclusion of a representative of the State Department of Environmental Protection among the members of the corporation to oversee the activities of crude oil transport.

Fourth - the definition of "offshore waters" in S-200 includes any water off our shoreline containing a measurable quantity or percentage of seawater and includes sounds, bays and estuaries. This definition leads one to pose the question, "how far offshore is offshore"? Are we speaking in terms of feet, yards, or miles? Proponents of S-200 have described the deepwater ports as not jutting adjacent to our coasts. However, by definition, this bill could and most likely, as time passes, would provide portage to moving sites and piers to be measured in feet and inches from our land. So, in essence, in addressing the term "offshore" in S-200, we are planning the possible shoreline demise of seven New Jersey counties. The monobuoy far removed from our coast with the lengthy pipeline, as described, could be but a mere

starting point of a massive build-up of oil transport facilities creeping closer and closer to our land.

Fifth - line 19 (b) on page 11 of S-200 most adequately summarizes the real intent of this bill. It reads - and I quote - "In order to facilitate the development of an oil transfer facility in the shore zone and to further the commerce and industry of this state. . ." These lines far removed from the opening claims of S-200 direct us to deduce that under the guise of the energy crisis, this proposal is one to promote the growing complexes of commerce and industry in New Jersey without due regard for the environment. One cannot help but imagine here in Trenton because such creations are far removed from our own ways and means of life support but what about those living in Middlesex, Monmouth, Ocean, Atlantic, Cape May, Cumberland, or Camden counties? The result of the deepwater oil port bill to those people will be shattering to their neighborhoods and to our clean-cut form of New Jersey recreational industry as we know it.

All these factors are reasons why, in an age of energy paranoia, I am testifying against this bill on behalf of the Environmental Education Committee of the NJEA.

The State of New Jersey, we hope, will perpetuate on a long-run basis. In the long-run it stands not to gain anything but economic frustration and ecological destruction from Senate bill 200. At a time when many people are saying that the issue of the environment is dead, we are pleading for a rebirth of sanity, a sanity which will insure our children a better life.

Our future as a state may be self-destructive. If we choose to enter the big business turmoil of our New York City and Philadelphia neighbors, our future cannot help but force the New Jersey shore to become a sad chapter in our history. As I have pointed out, we stand not to improve our fuel situation in New Jersey from the indirective nature of this bill. We stand only to create an emergency-measured monster which will haunt our existence forever in the future.

SENATOR MC GAHN: Doctor, thank you very much. May I ask you what position you occupy in testifying here today?

MR. WEISBERG: As Chairman of the Environmental Education Committee.

SENATOR MC GAHN: And your interest is in what area?

MR. WEISBERG: My professional interest?

SENATOR MC GAHN: In testifying today as a member of NJEA?

MR. WEISBERG: I'm not sure I understand.

SENATOR MC GAHN: What part does NJEA play in this controversy?

MR. WEISBERG: Oh, I see. One of our objectives - of this Committee - is to involve ourselves in legislative aspects of environmental affairs. This Committee is involved only with environmental affairs within the state and as a result we have come to testify against the bill.

SENATOR MC GAHN: Concerning your testimony, in reference to Assembly bill 2003, last year, which would have been the Ocean Sanctuary bill, I think you are fully cognizant of the fact that, very frankly, this was a totally unnecessary bill. The provisions in that bill were encompassed in the Coastal Facility Review Act, so that very, very honestly any recommendation as

far as this is concerned is not necessary.

I think that a number of the points that you--

MR. WALKER: We understand that, Senator, and I thank you for noticing that. We were merely discussing the fact that the New Jersey Education Association was in favor of those particular bills at that time, as environmental protection measures, not that one bill did not supercede the other but thank you for pointing that out.

SENATOR MC GAHN: I think your argument on page four - "First - does it guarantee New Jerseyans will receive more fuel from the crude oil shipped into our coastline from the establishment of deepwater ports?" - is rather fallacious. I might ask you, do increased school budgets mandate that the students will receive a better type of education?

MR. WEISBERG: I am not sure analogy is apt.

SENATOR MC GAHN: I think the analogy is comparable.

MR. WALKER: I might add to that. On occasion we have, indeed, testified in relation to matters of state budgeting, etc., for the schools. Today, however, we are addressing ourselves to the particular point in question, S-200, which, indeed, is far removed from that particular idea.

SENATOR MC GAHN: I think, if you will, S-200 does not take into consideration those areas which are, by nature, the Federal government's - this is as far as oil exploration is concerned and even as far as the permit for the offshore oil facility is concerned.

Second, I think there was a criticism made that it imposes upon the New Jersey taxpayers to spend more money to provide the necessary roads, protection, and accommodations required as big refinery industry moves in. I think you are assuming, very frankly, that this

Committee is not able to realize the deficiencies in this bill. I hope you realize that we are not necessarily considering coming up with an entirely new complex other than where the existing refineries are at the present time.

By the same token, I notice here that for some reason or another you did not include increased school costs in your remarks.

MR. WEISBERG: Again, sir, I am not sure the analogy is apt.

SENATOR MC GAHN: I don't know whether the analogy is but I think the money is.

MR. WEISBERG: By no means am I assuming that the Committee, nor the Assembly, does not realize what deficiencies there may be in the bill. However, I think it is worthwhile to point out that while the bill, itself, does not call for the facility to build the refineries, or additional secondary facilities, others certainly can and this does imply roadways and it does imply other types of secondary ruination to the environment. The onshore facilities, I think, almost, obviously, will increase. Nothing in what we said assumes that anyone in this Chamber does not realize this.

SENATOR MC GAHN: Again, and you will question my analogy, the definition of offshore waters--

MR. WEISBERG: Yes.

SENATOR MC GAHN: I'd like to ask you what is the definition of a thorough and efficient system of education?

MR. WEISBERG: Sir, I am not here representing an adversary situation between a board of education and a teacher association. If you want to discuss offshore waters, I will discuss that.

SENATOR MC GAHN: But you must realize that, basically, the implementation of this must be a political decision.

MR. WEISBERG: Yes.

SENATOR MC GAHN: Therefore the economics of any situation must be involved in this, particularly when it requires taxpayers money from the state of New Jersey and I think all of these things in that particular area are relevant. Everything must have a price; there must be a tradeoff one way or another. We have a responsible position as well as you do in relationship to what you are doing and our responsibility is, first of all, the promotion of the health, welfare and safety of the people of this state and also to see that land use is restricted as much as possible to the use that the people so desire. But we also have the most highly industrialized state in the Union. We have the most densely populated state in the Union. The reference that you make here to New York and Philadelphia as far as commercialization and industrialization is concerned is not applicable; we already have it. We have a diverse state in New Jersey. The coastal areas, the seashore areas, are not in northern New Jersey and I don't think anybody wants to see those mistakes repeated in the southern areas of the state that have been made in the past in the north. This is certainly not my intent. I come from Atlantic County as well.

By the same token, I don't think that you can equate the seashore coast with, let's say, the Delaware coast, as far as land use, as far as industry is concerned. We are all, I think, very frankly, cognizant of these factors.

Now these are the only comments I had to make

concerning this. I didn't mean to be flip but I couldn't help but bring out some of those things.

MR. WEISBERG: I have come to expect it, sir.

SENATOR DUNN: Doctor, I have a couple of light points. Forgive my ignorance, I am not too familiar with the legislative actions of NJEA, but has NJEA taken a stand one way or another on an income tax?

MR. WEISBERG: I will pass that question to Mr. Walker.

MR. WALKER: No, it has not at this time.

SENATOR DUNN: Has it taken a stand on casino gambling?

MR. WALKER: No, it has not at this time. However, it has taken a stand on that bill which is presented for objective hearings on both sides this afternoon - S-200.

SENATOR DUNN: Has the NJE made any recommendations to the Legislature of ways and means to raise more revenues for the State of New Jersey?

MR. WALKER: In particular notes that we have been working on with the many other education institutions and agencies, one of them being, of course, the State Department of Education, we have alluded to different mechanisms that can be used as viable measures for, perhaps, increasing a better percentage of revenues being used toward education in a better way. We have not, because we do not control those revenues, put together a plan but, once again, that does, indeed, not refer to S-200.

SENATOR DUNN: Well, you must admit, I think, that NJE has a great deal of expertise in spending money and also in finding ways and means of increasing the budget and it seems to me that, rather than

New Jersey. Our Governor is now in the midst of a battle, is he not, requesting that the Port Authority become involved in mass transit, which they have refused to become involved in, except for the tube system, with the answer that their first obligation is to their bond holders. I would like to suggest that, in fact, we are creating another Port Authority here whose first obligation might be to their bond holders and not to the taxpayers of the State of New Jersey.

SENATOR MC GAHN: Capital construction of schools are usually made through a municipal bond issue and--

MR. WEISBERG: Yes, but not over a bi-state authority.

SENATOR MC GAHN: No, I realize that. I think it would be very difficult if it were bi-municipality. It is very difficult for regional school districts.

MR. WEISBERG: I might just happen to agree with you, sir, but that is not the issue here.

SENATOR DUNN: I have seen both autonomous agencies in business, NJEA and the Port Authority and I think NJEA comes out a little stronger than the Port Authority does.

MR. WEISBERG: Perhaps that's private versus the public sector.

SENATOR MC GAHN: On the testimony, are there any further questions?

ASSEMBLYMAN STEWART: It seems we sound like broken records with some of our questions but the testimony has been similar all day long, so the questions, necessarily, would have to be the same.

You are assuming that the present bill would supersede all present land use laws in the State of

New Jersey, which the bill says it would do - the Coastal Zoning Act, the Wetlands Act, etc. Let's assume that that provision, as has already been stated a few times today, does not apply and that the Coastal Protection Act would supersede this bill, as far as land use is concerned, would your organization's objection to this bill still be the same?

MR. WEISBERG: Yes. One of our major concerns is some of the very loosely defined terminology in the bill. For example, the fact that this bill gives the corporation eminent domain, essentially, over not just land but water, marshlands, estuaries, which are defined as offshore waters-- By definition in this bill, a measurable percentage of seawater takes in just about everything. There is no protection afforded the coastline at all. Let us forget land use and the secondary problems that I mentioned. You have given them the right of authority over every piece of waterway in this seven county system and Lord knows where that would end eventually - from upriver right on out because the definition of measurable seawater is anything that isn't exactly fresh water.

ASSEMBLYMAN STEWART: Is your organization opposed to a deepwater port regardless of what land use controls are in force?

MR. WEISBERG: At this present time, yes. We heard some testimony this morning about oil spills, for example. I am not an engineer and I am not an expert; I have tried to do some of my homework. As we have been able to determine, there is no single system for fighting oil spills.

We heard some very nice terminology - VLCC's - but let's use the word "supertanker" because that's

what they are. There was a reference this morning to the Tory Canyon, which was a 120,000 ton disaster - not all of the oil spilled from that tanker, I will concede that point - and which ran up on a reef in clear, calm weather with very good charts and a high rating from Lloyds of London for the ship; we want to invite ships five times, and perhaps ten times - as we heard this morning - that size into our waters.

There are three general methods for cleaning up oil spills - corral it and hold it at sea; mechanical pickup; and emulsification. An article from the Oil and Gas Journal, which is not exactly the mouthpiece for the Sierra Club, Volume 69, 1971 - "Oil Spill Control, a Hard Fight That Industry is Slowly Winning" is the title, I would emphasize the "slowly" -- Not one of those three types is guaranteed to prevent an oil spill. Their information is, in fact - right from the article - "most spills result from human error. At least two-thirds occur during routine operations in port and harbor areas." As far as I am concerned, the information that was given - "yes, we don't really have any control within the harbor or in the port, but we have some control out to sea" - that depends totally on tidal conditions, the nature of the surface of the sea, weather conditions. Not to beat a dead horse but the Tory Canyon disaster was, in fact, less of a disaster because for two months subsequent to that disaster winds moved from the North and kept some of the oil off the shoreline. Now that was a \$3 million English pound disaster, which was, at that time, \$7 or \$8 million dollars. That takes care of a big percentage of that \$20 million profit I heard of this morning. Those are some of our objections.

ASSEMBLYMAN STEWART: One final question: You talked rather derogatorily about bigness in your presentation.

MR. WEISBERG: Yes.

ASSEMBLYMAN STEWART: You represent - or you are from a rather large organization, a rather large statewide organization and I wonder. . .

MR. WEISBERG: I am a member of a large organization.

ASSEMBLYMAN STEWART: . . .how many of that -- Excuse me?

MR. WEISBERG: I am a member of a large statewide organization.

ASSEMBLYMAN STEWART: You are not representing them here today?

MR. WEISBERG: Yes.

ASSEMBLYMAN STEWART: O.K. I wondered how many of them participated in this decision? How did you arrive at this decision and how many people participated in the arrival of this conclusion?

MR. WALKER: Like the democratic system that we are bearing witness to this afternoon, the New Jersey Education Association is democratically represented by members to a delegate assembly. The citation in our particular testimony this afternoon, that cites the May 19, 1973 date, was that participation at which those democratically representative members to the NJEA Delegate Assembly passed a resolution in support of the environmental concepts of those three particular bills cited - 1329 in the Assembly; A-27; and 2003. That decision was rendered through the electoral process.

Point of reference too, that particular electoral process isn't established on an electoral college basis but on a one man one vote type of thesis that directly

applies to make a representative.

ASSEMBLYMAN STEWART: How about this bill? This bill wasn't arrived at in May of 1973.

MR. WALKER: The stand to be against the deep-water oil port was taken in May of 1973 by definition of A-27, which called for the outright ban of a deep-water oil port. That bill has since been passed by and lost but the philosophy and the stand of the Delegate Assembly still stands after review.

ASSEMBLYMAN STEWART: A representative from every chapter in the State is invited to attend this, I assume - right?

MR. WALKER: Not invited, it is their responsibility and duty; they are mandated by the 75,000 members of the Association.

MR. WEISBERG: If I might add, the results of that vote in the Delegate Assembly have been published in the review, publicized in the NJEA Reporter and, to date, our committee has not received one negative letter from the membership regarding that stand. The vote was near unanimous.

ASSEMBLYMAN STEWART: Near unanimous, o.k., fine, that's what I want to know. You speak for the NJEA in toto.

MR. WEISBERG: I think it is safe to say that at this point in time.

SENATOR MC GAHN: I think it is safe to say, for the record, that they are speaking against a deepwater oil port. It is my assumption that the delegation has not considered S-200 as such, am I correct here?

MR. WEISBERG: Yes.

SENATOR MC GAHN: These are your objections and you are speaking because the delegates, last May, voted

against the deepwater port.

MR. WEISBERG: That is correct.

SENATOR DUNN: You made a statement, Doctor. In one of your last comments you said something about the supertankers and that now they want to make them four and five times bigger and you were talking about a spill at the time and you left the impression that someone was going to allow these tankers, which are now four or five times larger, to come into the Kill Van Kull, for example.

MR. WEISBERG: We are inviting tankers this size to come near our coastline.

SENATOR DUNN: You understand that the big ships that we are talking about would not be allowed - they couldn't possibly?

MR. WEISBERG: They couldn't get there, no.

SENATOR MC GAHN: Doctor, thank you.

Is Mr. George Wallace present? The George Wallace to which we refer is not the Governor of Alabama, by the way.

J A M E S P. R O Y S T O N: My name is James Royston and I am representing Mr. Wallace today. He is our Vice President of Marketing at Penn Central Transportation Company. The remarks that I will read are his and, of course, are written in the first person.

I appreciate the opportunity to appear before your committee while it is holding public hearings on Senate bill #200, The Oil Transfer Facility Corporation Act, because I believe there are certain facets of deepwater port utilization which must be spread on the record.

Permit me to state first of all that I believe the economic values of a deepwater port have been adequately demonstrated and accepted as significant. The paramount issues now under consideration seem to

relate to collateral effects on environment, energy, and land usage.

One of the matters which seems to have been dealt with rather lightly is the means whereby the products are dispersed from the deepwater port and I wish to concentrate my remarks on this particular phase. Likening deepwater port to super highways, my presentation is concerned with the subject of the access and exit roads.

One of the factors in disposal of products from the port is the need for facilities to ultimately bring them ashore. Many observations have been raised as to the esthetic affront of such facilities with commensurate land deterioration and environmental side effects. May I point out that these facilities need not be extraordinarily large if adequate transportation exists between the on-shore point and the storage or manufacturing area farther inland. For example, products could be brought ashore at a relatively modest facility connecting with a railroad right-of-way, many of which exist in the State of New Jersey, from which products could be moved by rail or pipeline along the railroad right-of-way. It is also possible to transfer products from the deepwater port receiving area to smaller ships or barges for movement to such a rail-served facility in another area. With the number of such opportunities available, this aspect should be explored in greater depth.

It is also worth noting that the greatly underutilized railroad rights-of-way can be modified rather easily, with little or no expense for additional land condemnation, as opposed to a wholesale land usurpation to construct redundant transportation facilities.

I recognize that the present hearings are concerned with a bill which contemplates an oil transfer facility. I do not believe proper consideration has been given to the fact that a deepwater facility bears the same favorable degree of economic return in relation to other bulk commodities, albeit in smaller dollar numbers than does a single purpose facility for oil. It is a known fact that the United States is disadvantaged from a lack of several strategic materials which are vital to our accepted standard of living and economic status. These include iron ore, which is imported by literally millions of tons annually and expected to increase in the years to come, as well as Manganese, Chrome, Bauxite, and several others. Recently there has been a series of independent reports on this subject and I list some of them for you - and, incidentally, a copy is attached.

One is from Time Magazine of January 28, 1974, entitled "Shortages - Risky Race for Minerals." The second is Iron Age Magazine of June 28, 1973, entitled, "Will There be Enough Materials To Go Around by the Year 2000." Number three is the Engineering and Mining Journal of January 1974, entitled, "The Outlook for Mine and Plant Expansion: Solid Now -- But an Uncertain Road Ahead." Included in number three is data from the Second Annual Report of the Secretary of the Interior under the Mining and Minerals Policy Act of 1970.

The common thread running throughout these articles is the increasing U. S. dependence on foreign sources of raw materials and the strong competition for them from other nations. Obviously, the transportation factor is very important because it affects our ability to compete and the total price is

reflected in balance of payments.

The rest of the world continues to expand its ocean fleet into the supervessel class, ranging upward to 500,000-ton capacity and a proliferation of deepwater ports to accommodate this type of transportation. As just one specific in a recent rash of these developments, I call your attention to an article which appeared in the February 14, 1974, edition of the Engineering News Record, which describes a \$1.5 billion supertanker port 50 miles south of Lisbon, Portugal, being built to handle petroleum, iron ore, and general cargo. Much of the iron ore will originate in the Portuguese province of Mozambique, on the southeastern coast of Africa, where a \$68 million multi-product pier will handle ore and petroleum. These are the types of facilities which even the relatively small nations consider necessary for their economic well-being to take advantage of present generation shipping technology.

The same economic factors are a primary consideration in so far as export traffic from the United States is concerned. Certainly the tremendously high balance of payments resulting from the importation of petroleum products requires every possible off-set available to us. Bulk commodities, such as coal and grain can be exported and thus help to lessen the balance of payments. The engineering capability to expand a deepwater facility to handle both import and export bulk traffic, in addition to petroleum, is an accepted fact and while the added dollars are substantial, the benefits are likewise impressive.

May I also point out that the State of New Jersey is uniquely situated geographically from the

standpoint of deepwater port sites and on-shore transportation by rail, pipeline, and highway, so that it could become the transportation crossroads of the east coast without necessarily adding totally unacceptable industrial and environmental side effects.

The multi-purpose facility demonstrates what I believe to be an extremely important consideration when dealing with deepwater ports, namely, that these are so expensive and have such great side effects that it is absolutely necessary for them to be as flexible as possible in order to prevent them from becoming almost instantaneously obsolete by virtue of world-wide political, social, or economic occurrences. To put it another way, a single purpose facility may become entirely useless and the money expended upon it be wasted by an unexpected development, while a relatively small additional expenditure, which makes it a broad-based facility, will provide an insurance factor which guarantees utilization of the facility to some appreciable extent at all times. Consequently, I strongly recommend that the State of New Jersey broaden the scope of its study to include the handling of import and export bulk commodities in addition to petroleum products. The additional expenditure should also include the ultimate in protection devices against, and control of, accidental oil spills, complete vessel control, monitoring of all loading and unloading features, general security, environmental controls, and economic on-shore land usage.

In conclusion, may I suggest that the State of New Jersey will want to protect its own economic

climate and the free flow of the necessary products to, from, and within, its boundaries with as much a measure of independence as possible. The recent developments in petroleum affecting most of the world, and specifically the United States, are a case in point demonstrating the chaos which can result when these ends are not provided for.

I thank you very much for the opportunity to appear before you and offer my services to you in the furtherance of our mutual goals.

(Independent reports on page 92 A)

SENATOR MC GAHN: Thank you very much, sir, for bringing to our attention the multi-purpose unit of a facility. I think this committee will take this under consideration. We are well aware of the fact that at the present time there are dry bulk cargo carriers in the supertanker class being built and we realize also that there are compartmentalized tankers being used for a mixed cargo type shipment.

I think it is well worthwhile, however, that this has been brought to our attention and made a part of the public record. I would like to thank you for that and I, personally, have no other questions.

Are there any further questions?

(no questions)

Thank you very much.

Mr. Martin B. Brilliant?

M A R T I N B. B R I L L I A N T: My name is Martin Brilliant and I am here to represent the Committee for a Better Environment, Inc., of which I am a Director. The Committee is an all volunteer citizen organization, based in Monmouth County, New Jersey, and has been in existence since June of 1970. My statement today has been approved by the Board of Directors of the organization. My own personal

qualifications include S.B., S.M., and Sc.D. degrees in electrical engineering from the Massachusetts Institute of Technology, as well as a B.A. degree from Washington and Jefferson College, and I am a member of the technical staff at Bell Telephone Laboratories, Holmdel, New Jersey, where I am involved in digital network planning.

My statement represents my personal views and the corporate position of the Committee for a Better Environment, but is not intended to represent the position of any other organization with which I may be associated.

The Committee for a Better Environment is gravely concerned about the total environmental effect of a deepwater oil port. We do not agree that a small risk of a large oil spill is better than a moderate risk of a moderate oil spill. We are even more concerned about the effects of the industrial development that would surround an oil port: dirty air, dirty water, and a blighted coastal area. The details of these dangers can best be described by specialists in ecology, biology, city planning, and so on. But their magnitude is not easily assessed, and there will be a temptation to accept the risk in the hope of relieving the severe fuel shortage we now face in New Jersey. Our main point is that the possible advantages of a publicly-owned oil port, at the most optimistic estimate, would not justify the slightest risk of damage to the shore environment.

Besides the uncertain economic advantage, the proposal to establish a publicly-owned oil port would have serious disadvantages to the public as owner, including both

deficiencies in public control and excesses of public risk. The aim of public control should be to protect the general welfare against any possibility of short-sighted action by the corporation that plans the port. But, first, the members of the corporation are expected to serve without compensation. In that case, it will be easy to find people - not just oil men, but bankers, merchants, and others - who would get compensation indirectly from membership because their business would profit from oil port development; but it will be harder to find people to represent the more diffuse areas of public interest that would suffer from port development. In addition, the acts of the corporation would not require approval by the Department of Transportation, the Department of Environmental Protection, or any other agency. The corporation would not be subject to local zoning or State land use control. Its major actions could be checked by a veto by the Governor, but his veto power would default automatically if not exercised in 30 days. Although the corporation is to be presumed liable for damage through leakage or spill, it would not be subject to liability unless some person has standing to sue. Since the public right to sue for general environmental damage has not yet been legislated, the corporation might escape responsibility for such damage.

Even where the public is clearly protected against certain actions by the corporation, the protection may not have much value. Both the owner and operator of the public oil port are to be prohibited from constructing any refineries nor more than 480 acres of storage facilities; but this prohibition would not extend to any private oil company. The privately-owned companies that use the transfer facility may build as they choose, regulated only by the municipalities to which they would pay taxes, except within the narrow zone defined by the Major Coastal Facilities Review Act, where the State can control private refinery and petrochemical development. The proposed legislation seems almost intended to protect private oil companies against government competition.

The prospective advantages of a deepwater oil port have at times been exaggerated. An oil port will not enable us to import more oil than otherwise, because we can import all we want either in small tankers, unloading directly at existing ports, or in large tankers unloaded either by lightering or by trans-shipment through deepwater ports in Canada. An oil port is supposed to enable us to import the same amount of oil at lower cost. When the Corps of Engineers was considering plans for locating a deepwater oil port, we were told that the cost of transporting crude from the Persian Gulf was about \$9.50 a ton in relatively small tankers of 65,000 deadweight tons, compared with about \$5.50 a ton in larger 350,000 ton tankers, suggesting that we could save \$4.00 a ton, almost half the transport cost, if we had facilities to handle the larger tankers.

Further examination cuts away the savings at both ends. For one thing, the same lightering methods that unload 65,000-ton tankers, at about \$9.50 a ton, can also unload 100,000-ton tankers at about \$8.00 a ton. In addition, there is a general-cargo deepwater port in Nova Scotia through which crude can be delivered from much larger tankers at a transport cost of about \$6.50 to \$7.00 a ton. On the other hand, the cost of building and operating the proposed transfer facility, on the order of \$1.00 a ton, must be added to the cross-ocean shipping cost of \$5.50 a ton for the supertankers. The final analysis by the Corps of Engineers shows that the actual savings due to having an oil port would be about 30¢ a ton.

These cost figures are based on a report last year by the Corps of Engineers and a report by Soros Associates to the Department of Commerce the year before. They assume expected lifetimes for different components of the project ranging from 15 to 50 years. In fact, the useful life of the project depends on how long the oil trade through it continues. If the life is shorter, the cost per ton will be higher; and if the cost has not been recovered in user fees, it will be borne by the general public. The forecasts generally indicate increasing importation of oil through about the year 2000. However, a forecast by Shell Oil Company (The National Energy Outlook) indicates that world oil production will peak before 2000. In the face of increasing demand from other countries, and in the interest of our own self-sufficiency, U.S. oil imports may peak even earlier, and begin to decline by 2000. The cost per ton for using the oil port may therefore be higher than estimated.

Another factor is the prospect of reopening the Suez Canal. If the Canal is opened to smaller tankers without being enlarged to handle supertankers, the smaller tankers will have a shorter route from the Persian Gulf and may even have a cost advantage over larger tankers. Even if the Canal is enlarged, so that all tankers can use the shorter route, the advantage of the supertankers becomes smaller when the route is shorter. If the savings from using larger ships is smaller than expected, and the user fee for the oil port is larger than expected, there is a real possibility that the oil port may be built but not used, and the capital cost of the oil port may never be recovered.

But even if we could somehow get back to the promised savings of \$4.00 per ton of crude, this does not loom large from the user's point of view. The market price of foreign crude is now on the order of \$8.00 or \$10.00 a barrel at the producing country's port. Domestic oil is about \$7.00 a barrel at the oil field. Both these prices have more than doubled in the past year. Crude oil prices are quoted

for barrels, not tons. A barrel of crude is 42 gallons, weighing about 300 pounds, and there are about 7-1/2 barrels to the long ton. The optimistic savings of \$4.00 a ton is roughly 50¢ a barrel, compared with the former cost of crude near \$3.00 and present prices ranging about \$7.00 to \$10.00 a barrel. More realistically, the Corps of Engineers report indicated that a deepwater port, compared with the next best economic alternative, might save about 4¢ a barrel.

But there are other costs, too. The report by the Corps of Engineers suggests that refining costs are about 20¢ a barrel for gasoline. The cost of transportation by pipeline halfway across the country is about 50¢ a barrel. Adding up these costs explains why ship owners are paying about \$11.00 a barrel for Bunker-C fuel, and construction contractors are reported (Business Week Jan. 4) to be paying up to 27¢ a gallon, about \$12.00 per 42-gallon barrel, for diesel fuel. Saving even half a dollar a barrel would not make much of a dent in these prices, and 4¢ would hardly be noticed.

Even more disappointing is the effect on the price of gasoline by the gallon. A price of \$11.00 for a 42-gallon barrel would be about 25¢ a gallon. Add 7 to 9 cents a gallon for the service station markup and 12 cents in taxes, and we get to about 45¢ a gallon, which is about what we pay. A saving of \$4.00 a ton, 50¢ a barrel, is roughly 1 1/4¢ a gallon. The more realistic 4 cents a barrel saving is about 1/10 cent a gallon.

So in the end the saving to the consumer virtually disappears; but the saving to the oil company is still important to the oil company. The oil company does not worry about the service station markup or the gasoline taxes. The oil company carefully balances costs against revenues and takes its earnings out of a relatively narrow profit margin. For its stockholders, a penny saved is literally a penny earned. The deepwater port, built at public expense and at public risk, will not make more oil available and will not noticeably reduce the cost of oil products to the consumer. But if it is at all successful it will noticeably increase the profitability of the oil industry. And if it is not at all successful, it will not cost the oil industry anything: The cost will be borne by the State of New Jersey.

And suppose that it is successful. The short-term scenario may look bright. Maybe the cost of gasoline and heating oil will not show any difference, but oil refineries will be attracted to the neighborhood of the oil transfer facility and will blossom in or near the shore area. Tankers will come to us rather than to other places on the East Coast,

perhaps even rather than to other places in the world. The oil spills will happen here, not elsewhere. We may even continue to use oil when we would otherwise have switched to some other source of energy. We will have a big, smelly, taxpaying, people-employing industry until the world's crude starts to run out about the year 2,000. Then, about 25 years from now, the refineries will turn into ghost towns and their employees, including our children, will be looking for jobs. Once again, the State of New Jersey will pay.

If there is going to be a deepwater oil port, the advantage, if any, will be to private industry. It follows that the oil port should be built, if at all, by private industry. The risk should be taken where the profits are to be made. The public should be free to protect the public interest by exercising all the controls that public agencies can exert on private enterprise, rather than letting that enterprise hide behind the immunity of a public corporation. And, if, with the risk borne by private investors, and the public risk protected by the usual processes of government, there is not enough expectation of profit for the oil port to be built, then it should not be built.

That is our statement. Thank you for the opportunity to present it.

(Reference material on page 102A)

SENATOR MC GAHN: May I ask your position on an oil port, per se - regardless of public vis-a-vis private?

MR. BRILLIANT: Our position on an oil port, generally, is that we don't like the idea of having an oil port off our shores.

SENATOR MC GAHN: Are you inclined then by this to say that, in fact, we do not have what amounts

to an oil port off of the Arthur Kill, in the Delaware Bay?

MR. BRILLIANT: We have, in fact, an oil port there and, frankly, we do not like it. Our position as regards a new offshore oil port is that although it may be safer than present ways of handling oil, we can't consider it just in isolation as though it were a better way to handle the same amount of oil; it will inevitably bring in more oil, perhaps more oil than we really need. It will attract the oil business. It will attract the use of oil in preference to other fuels.

SENATOR MC GAHN: What do you consider then are the alternatives to oil in the production of energy?

MR. BRILLIANT: I am not really in a position to indicate specific alternatives. We are considering nuclear energy. We are considering cleaner ways of using coal. We are considering ways of using less energy. In fact, one of our considerations is that there may not be all of the oil that we would like to have.

SENATOR MC GAHN: Would one of your considerations be - as an alternative - instead of waiting until the year 2,000 and have all the oil refinery areas become ghost towns, to cut back on oil production; to cut back on basic industry in the State of New Jersey that is dependent on oil as the source of employment and let them now simply phase out between now and the year 2,000, instead of all of a sudden letting them die in the year 2,000?

MR. BRILLIANT: Well, it is a matter of policy and planning. I think what we are considering are several alternatives-- I mean, what we, the State of New Jersey has to consider is the possibility of going along and evolving from where we are or continue to become more dependent upon a source of

energy that will die out later and leave us in a worse situation than we are in now.

SENATOR MC GAHN: Do you honestly think that we can take the most highly industrialized state in the nation and phase it into something else in a decade -- or in one's lifetime?

MR. BRILLIANT: It will happen, whether we like it or not. The oil is not going to continue to come out of the ground indefinitely. We could phase it into nuclear energy, or phase it into some other kind of energy, or phase it into a less energy-dependent mode of operation, but we are just asking for more future trouble if we continue to make it depend on more of the same energy that is going to run out.

SENATOR MC GAHN: Would it be fair to assume that you would favor nuclear energy as an alternate source of energy?

MR. BRILLIANT: Not specifically because I know there are other problems with nuclear energy.

SENATOR MC GAHN: The point is how do we meet the short-term demands for that which is necessary to keep our state at the economic level that it is at at the present time? Do we retard growth? Do we come up with a zero population growth situation which is going to take 60 to 65 years to have any impact, even assuming that reproduction can be at the rate of two children per family? Do we come up with strong land-use saying, "no new industry in New Jersey?" Do we lock the bridge from New York? Do we lock the bridge from Pennsylvania?

I am not trying to be facetious, I am simply talking about, basically, not only a philosophical discussion but a policy discussion as far as the State of New Jersey is concerned.

MR. BRILLIANT: You are asking the question that I think we are lucky not to be in a position to be able to do anything about since we don't have that much control over the State of New Jersey.

I think one of the basic arguments we had here is, rather than lock ourselves into a public position of building an oil port and just opening the door to the oil industry, that we sit back and set ourselves in a position to regulate oil port development; that way we are in a two-party situation - an adversary situation in which private industry is in a position of trying to build as much oil port development as they think the future will stand economically and will bring a profit and the government of New Jersey is in a position to regulate this in the public interest and make sure that it doesn't get too dirty and smelly.

SENATOR MC GAHN: I wasn't referring to that. I think your argument for private versus public ownership is excellent in this presentation. I think it should be given serious consideration. But I was not referring, basically, to public versus private; I was talking about the balance.

MR. BRILLIANT: I can't answer that.

SENATOR MC GAHN: I know, nobody can. There are no answers to that.

I have no further questions. Thank you very much.

Mr. Norman Fisher?

If I may interrupt for just a second, I had a communication from the Attorney General's Office; they intended to have somebody here to testify today, however, this will be impossible. They will submit a statement for the record.

Another announcement, while we are here, and

that is, there will be an additional public hearing held in Ocean County, at Ocean Community College on Saturday, April 6th at 10:30 A.M.

N O R M A N F I S H E R: Mr. Chairman, members of the committee, I am Norman Fisher, Executive Director of New Jersey Audubon Society. The Society's Board of Directors has instructed me to voice its support of Governor Byrne in his opposition to an offshore oilport and its agreement with the Acting Commissioner of the Department of Environmental Protection in his adverse appraisal of Senate bill No. 200.

We feel that this bill reacts too hastily to the shock of the first energy shortage to be felt by most Americans now living. The legislation should not attempt to blindly gratify our desires if we try to cling to a wasteful life style, as it apparently does in using archaic "straight-line projections", such as the reference to 20,000 lightering unloadings by 1985. Until such time as we obtain a plentiful and clean supply of energy, as solar power may one day provide, all measures to alleviate the energy crisis are doomed to failure unless we make energy conservation a reality, and in a big way.

In addition to recognizing the need for such conservation, the bill should contain the strict land use controls envisioned by Senator McGahn to prevent unwanted development. There are also technical considerations implicit in the bill which require further study. The vulnerability of a pipeline in or on a shifting sea bottom is an example. Assignment of liability to the proposed corporation for leaks or any other damage does not comfort us, for the corporation would be a creation of the legislature and the legislature is technically

the people of the state. We, the people, would then be responsible for damages. This approach is not the best incentive to guard against mishaps.

Assuming that the technical problems appear to be soluble, this Society would wish the Department of Environmental Protection to exercise greater control over the project, either by having the legislation require its approval of the detailed statement before submission to the Governor, or by naming its commissioner as one of the ex officio members of the corporation.

This bill treats only one aspect of the overall energy problem and perhaps misses some possible benefits attainable through a broader view. We do not wish to have any offshore developments, but if such projects are deemed necessary in the future, could there be any mutuality of components, transmission line routings or other features of an oil transfer facility and an offshore power plant, as an example?

It is the opinion of the New Jersey Audubon Society that this bill should expire in committee. We recommend that a new bill be drafted to appoint a commission to study the long-term needs of a society which is now learning to be less profligate with its resources. Thank you.

SENATOR MC GAHN: Thank you very much, Mr. Fisher. Did I understand you to say in your remarks that you supported an offshore power plant?

MR. FISHER: We are of the opinion that the business of trying to get sufficient energy for the population of New Jersey is going to be extremely difficult and we are willing to admit that some compromise with the ideal environmental needs may eventually have to be made. If that is the case, then we would like to see it done as economically as possible and with as much benefit to the people as possible.

If this means combining several ideas into a broader project, all well and good. We hope that other ways will be found but if there is no other solution, then this is our proposal for trying to improve the situation at least possible cost.

SENATOR MC GAHN: I'd like to congratulate you on at least having an extremely objective viewpoint in realizing that there may have to be some tradeoff.

Are there any questions?

(no questions)

Mr. David Moore?

D A V I D F. M O O R E: Mr. Chairman, my name is David F. Moore, Treasurer of the Association of New Jersey Environmental Commissions, a non-profit organization with offices in Mendham, New Jersey. The Association serves as the coordinator of the municipal conservation commissions in New Jersey, providing educational and funding programs for our members and the public.

The decision on the establishment of a deepwater port should not be made under the pressure of the current energy crisis. Our problem with petroleum is not with the delivery system, but with the total supply. The delivery system for New Jerseyans and for that matter, a great deal of the remainder of the country served by New Jersey ports, together with our refining systems, is adequate to meet current needs. With the confusion that is going on, it is exceedingly difficult to make decisions when faced with the economic arguments that I have heard here today. Building additional port facilities or refineries, at this point, would seem somewhat academic in the light of not having sufficient petroleum to feed them. Our efforts should be toward planning on long-term methods of reducing our

dependence upon foreign oil and, indeed, all fossil fuels.

The sacrifice of the shoreline recreation industry, I think, is a very hard decision for the people of the State of New Jersey to make, if, in fact, it has to be made under the provisions of S-200. It is not at all clear how the economics would work out, but in any case the public sector should not be further subsidizing the oil business. Environment and economics are one and the same. The only decision we have to make is, who pays, when, and how?

There are some advantages to the dispersed site system we now have, from an environmental impact standpoint. Such facilities as we presently have are not as vulnerable to sabotage or accident. The air pollution problem is lessened in that we are not concentrating our petro-chemical systems in the New York metropolitan area and the refined product is closer to markets where energy needed for distribution is reduced.

When we are faced with a forty or fifty-year life span for petroleum at projected rates of consumption, I think Senator McGahn's concern about that time span should certainly be taken into account, especially after remarks I heard earlier today. I certainly question the need when we are faced with that period of time to operate in. Whatever is built may well have its life span shorter than the supply.

The private sector, it appears to us, is perfectly capable of handling the establishment of port facilities. It is the siting that is the problem. For that, an authority is not needed, particularly an authority that has such great

autonomous power as that proposed in Senate bill 200.

If the public agreed that a deepwater port is needed, the siting process outlined in Assemblyman Kean's Energy Facilities Siting Act should be considered for all energy facilities - for power plants, refineries, port facilities, and pipelines. The State of New Jersey already maintains some controls through its ownership of riparian lands and through its supervision of the Coastal Protection Act. Other controls of the effluent from such an operation are available under various permit systems dealing with water supply and effluent disposal. The federal government has some input here through the Clean Waters Act and Discharge Permits, through the Corps of Engineers and Coastguard Permit systems. To be effective, all these permit systems should be followed, perhaps simultaneously, but nevertheless followed, because each provides a review of different aspects of the system. Hopefully, this kind of review would result in sufficient study and public input to make a proper decision of public benefit.

The Association of New Jersey Environmental Commissions is opposed to S-200. However, should the legislature decide to move ahead using this bill as a base, then there are a number of points that should be considered: Page 2, Section 3(a) - the port facilities corporation should include the Department of Environmental Protection as an ex officio member. Page 2, Section 3(b) - And environmental impact statement should be prepared by competent staff or consultants and reviewed by the Department of Environmental Quality in accordance with the usual

Environmental Impact Statement standards with a full set of alternatives, full discussions of secondary or spin-off effects. Page 2, Section 3(c) - Any corporation or quasi-public or private organization involved should be liable for any and all damages, primary and secondary. Certainly such a facility and the organizations dependent upon it should be subject to class action citizen suits for any damages or potential damages that might occur. Page 2, Section 3(d) - Any corporation or other body created should be responsible for and control the location and environmental impact of any corporations dependent upon it for supply of raw materials. Page 2, Section 3(f) - Dedicating the revenue of the corporation should be considered in order to promote the development of non-polluting, non-fossil energy resources. Page 5, Section 5 - This act should cover the State of New Jersey and all its subdivisions, rather than isolating a few coastal counties. Page 5, Section 5(b) - The Department of Environmental Protection should serve as an ex officio member of any such corporation. Members should serve until succeeded, otherwise a lack of action on appointments could result in a board without sufficient public control. Page 6, Section 6(b) - Three sections should be added to this section. The analysis of long-term environmental impact, a natural resource inventory of the site and related sites, and a description of the project and related projects. Page 6, Section 6(d) - The corporation should consult with all agencies having expertise of jurisdiction. Any impact statement should be subject to public hearings. There are no public hearing procedures outlined anywhere in this legislation. Meetings of the corporation and their minutes should be open to the public and available. Page 9, Section 8(m) - The method of land acquisition may well be

unconstitutional with regard to riparian rights. In any case, land purchased should be subject to the public hearing process. Page 9, Section 8(t) - The corporation must be subject to state coastal zone review, wetlands act, water supply and sewerage permits, and air pollution codes. Page 10 and 11, Section 9(a) - The Corporation should be responsible for all on and off site facilities established, regardless of the three-quarter square mile designation. Such a limit is meaningless in any case. Page 11, Section 9(c) - The penalties for non-compliance with standards for any lessee should be the loss of the lease, terms for leases should be arranged so as to allow public control of on-and-off-site problems and to insure revenue adequate to compensate the public for the expenses created by the spin-off economic impacts, such as roads, housing and so forth. Page 13, Section 11(b) - Entry for exploration or research purposes should be subject to the environmental impact statement process. The statement should be filed and approved in advance of any exploratory action. Page 26, Section 26 - As referred to earlier, the Department of Environmental Protection must be involved in the process as a partner - not as an agency to be consulted.

Again, we emphasize that these detailed comments on the bill itself are not intended to tacitly approve the bill in principle - but only to point out major deficiencies should the legislature make the decision to move ahead on this legislation despite its deficiencies in principle outlined at the outset of this statement.

The Association of New Jersey Environmental Commissions voted at its meeting on January 12, 1973

to support Governor Cahill's stand on a deepwater port. We have no reason to change our position at this point.

To anticipate a question, the Association's Board of Trustees has approved this statement.

Thank you very much for the opportunity to present our views.

SENATOR MC GAHN: Thank you. I think you raised, in your presentation, some very pertinent points, certainly ones that we have been giving some consideration to. I agree with you, particularly insofar as the public hearings are concerned; meetings of the corporation and the minutes should be open to the public and made available; and also as far as the Department of Environmental Protection serving either as a member, or as an ex officio member.

One thing that has been brought up here today, and I think I failed to respond to this before, this bill was, of course, not brought up in response to the energy crisis. The bill was originally introduced last year by Senator Dodd. The timing of it, at this point in time, is actually coincidental. We are not looking at this bill, or considering it, on that particular basis.

By the same token, it is not the intent of this committee to supersede the powers and requirements of the Energy Crisis Study Commission. Under the responsibilities given to them that is number one, to study the energy crisis in New Jersey; to ascertain the increased demands for energy which must be met; to evaluate methods, types, locations and methods of acquisition of sites for facilities to meet increased demands for energy and replacement of obsolete facilities; to investigate energy rate structures with the main

changes therein; to study methods to conserve energy, reduce waste and encourage development and use of more efficient energy and to minimize increases in rates to small residential users; and, finally, to make economic and environmental impact studies and analysis in connection with the foregoing.

We would hope that this committee would be supplementary to that in relationship to simply the deepwater oil ports. We do not intend to contravene nor supersede them. So that while we recognize - and you have mentioned Assemblyman Kean's Energy Facilities Siting Act-- This, again, is presently the responsibility of the present Energy Crisis Study Commission, to come up with a recommendation. This report will be used, I believe, in conjunction with the determination of this committee in making a determination on this bill.

SENATOR DUNN: You are the Treasurer of the Association of New Jersey Environmental Commissions, do you have any idea how many environmental groups there are in the State of New Jersey, or how many belong to your Association?

MR. MOORE: I can tell you how many belong to our Association.

SENATOR DUNN: How many?

MR. MOORE: About 130 municipal environmental commissions that belong to the Association. There are about 200 presently active in the State of New Jersey, but these, I think would have to be recognized are-- The Association is a private organization of public groups. Environmental commissions are official arms of municipal government.

As far as citizens' groups are concerned in the State of New Jersey, I think that is a pretty difficult

thing to project at any one point. An inventory, two years ago, was made in an attempt to come up with a definitive answer of those groups that operate on a full-time basis and have the environment as their primary concern and the number then was about 280. They range in size, of course, from 10 people on up.

SENATOR DUNN: Mr. Moore, did you hear Mr. Hansler's testimony this morning?

MR. MOORE: I heard a portion of it.

SENATOR DUNN: His viewpoint is somewhat different than your group's. I got the impression that he was more pro than your group is.

MR. MOORE: I think Mr. Hansler and the Environmental Protection Agency see the advantages of the deepwater port over the conventional system in terms of oil spillage. Whether or not that concern is expressed at the local level with regard to land use control, I am not sure.

SENATOR DUNN: Thank you. That is all I wanted to ask.

SENATOR MC GAHN: Since you brought that up, I will ask you again, do you feel that local zoning ordinances are not sufficient to control the use of land in any municipality?

MR. MOORE: That depends on the issue but by and large, I would say no - not for major facilities in any case.

SENATOR MC GAHN: You do not depend on local zoning, is this what you are saying?

MR. MOORE: Yes.

SENATOR MC GAHN: Thank you.

Mrs. Joyce Schmidt?

M R S. J O Y C E D. S C H M I D T: I am

Mrs. Joyce D. Schmidt, a member of the State Environmental Quality Committee in charge of environmental legislation for the New Jersey League of Women Voters.

We are pleased to present testimony on S-200 which is of much concern to our members during this time of energy-related problems. There is much anxiety about energy shortages which has created an atmosphere favorable to interests who want pollution abatement standards and regulations set aside, environmental legislation rescinded, and deadlines for compliance postponed. Our overall environmental quality program commitment is to work for a "physical environmental beneficial to life." We have said for some years that conservation of resources is essential to a cleaner, more healthful environment. This is imperative in New Jersey, which has the highest pollution density and the heaviest concentration of industry in the nation. We believe that a rational balance between resource availability and a livable environment can be attained. In line with this position, we are testifying today.

We have many problems with the New Jersey Oil Transfer Facility Corporation Act, also called the Deepwater Port Bill.

The bill is based on the premise that lightering is a major source of pollution - this was in Senator Dodd's dissenting statement for the Ad Hoc Committee - and, two, the increased importation of foreign oil for our increasing energy demands.

We submit, does this bill really speak to the problem? Senator Dodd refers to a monobuoy in his statement. However, the bill doesn't define the type of facility that might be proposed - one monobuoy or

many and/or a large ocean-based port.

Another problem is based on the predicted increase of foreign oil imports and raises the fundamental question: does this bill force an issue with no study or presentation of possible alternatives? Should we become dependent on increased foreign oil imports or seek alternative sources of energy? The recent oil embargo has specifically pointed this out to us.

The League has long questioned the problems of government by Authorities, in this case called a "Corporation". These authorities have powers to make decisions which shape economic, social, environmental and land use problems with far-reaching effects on the life of its citizens. There are over 200 authorities in this State now; those established through compacts with adjacent states, major authorities within the State, besides multitudes of local sewerage, pollution control and flood authorities. They exist as financial entities. They are not tax-supported and are tax exempt. They owe first allegiance to the bondholders, then to the user who is served and are subject to limited public control both administratively and fiscally. In the words of author, Dr. Robert Smith in "Public Authorities, Special Districts and Local Government", authorities are "ad hoc efforts to meet particular contingencies." We are all familiar with authorities spawned by aggravated problems, such as transportation or sewage problems which defied solution within the established framework of governmental units. Authorities emerge as escape hatches when economic, political, geographic, or sociological barriers interfere with problem-solving. If the final decision is made that the State must play a role in the oil transport business, we

question whether the State should accomplish this through a corporation or an authority.

With the above points in mind, we have further comments concerning the bill.

Section 8(m) grants powers of eminent domain. This section raises the question of the effect of the right of sovereign law, powers of eminent domain, over existing laws, such as the Coastal Area Review Act. To what extent does A-200 affect, or exert control over, this hard-won environmental law?

Section 21 states the property of the corporation shall be exempt from all taxes. Dr. Robert Smith comments "Authorities provide reserve funds and commit future surplus for added improvement or additions to their facilities in such a way that it is virtually impossible to know how much profit they are making." Will the Corporation really financially benefit the State and its citizens?

Section 23 - Does this mean the State and all its departments are to render all services to the corporation even after possible leasing to a private operator which is referred to throughout the bill?

Sections 25, 26 and 27, are concerned with the intent of the Legislature. Look at the definition of the shore zone mentioned in both sections. Consider the right of eminent domain, and then Section 27, which states that the provisions of this act shall be enforced and that the other acts and rules and regulations "shall be of no force and effect". These sections are contradictory and unclear.

Further problems: We are also confused about the present and predicted volumes of refined products. The bill speaks to the problem of the VLCC, or the

Very Large Crude Carrier, delivery of crude oil to a three-quarter square mile pump and storage facility onshore, then pipeline delivery to refineries. How could this enormous volume per day be passed through one single-point mooring buoy? **Nor** could a three-quarter square mile storage facility onshore handle this volume. Most of you have already questioned this quite thoroughly.

Also, we question how the refined products would then be delivered to the various parts of the country. Would this continue the present transshipping and/or involve more pipelines? In other words, pickup and delivery tankers, in increasing number would still be running back and forth as a result of the increased volumes of refined products. We would require further clarification concerning this lightering of increased volumes of refined products.

One of the issues being used for promotion of the bill is a very serious problem involving jobs. Various figures ranging from thousands of jobs to a million jobs are suggested. We wonder about these statistics because of the increased automation of the industry, the degree of training required and whether the jobs will be fulfilled by in-state personnel. Will there really be a job bonanza?

More importantly, our members are concerned about the secondary land use effects resulting from offshore development. A report to the Council of Environmental Quality by the Arthur D. Little, Inc., concerning "Potential Onshore Effects of Deepwater Oil Terminal Development" states: "Without ports at other dispersed East Coast locations, expanded

throughput could lead to over concentration of the industrialization and 'Worst Case' environmental impacts could result", and "A mid-Atlantic facility in Southern New Jersey would tend to create a nucleus of industrial activity in a prime recreational region for the New York-Wilmington Megalopolis".

Included is a chart on the Summary of Selected Impacts: Year 2,000.

In general the statistics on the chart suggest that the amount of increased land use would quadruple, water withdrawals would increase five or six times, water pollution would triple - using the best available treatment - and air pollution would increase five times with current pollution controls at the highest levels.

Gentlemen, we have to ask you seriously: Is this the direction the State of New Jersey should go? Are we really seeking unlimited growth? Is continued growth the policy we seek? What are our responsibilities?

Mr. Russell Train, on February 4th of this year, was invited to develop his thesis on the interrelationships of energy and the environment before the Senate Subcommittee on the Environment. According to Mr. Train, our energy problem springs from patterns of consumption, rates of growth, and demands created from the unbalance of our environment and our available resources. In many ways, this is the most basic of our problems as a whole, "the case of the living organisms outstripping the carrying capacity of their habitat."

The central thesis here might be that there is a major responsibility which the coastal states must now recognize; these states are playing a central

role in a global "Tragedy of the Commons." This is revealed each time an estuary is filled, a swamp is paved over, another oil spill occurs, another power plant is built on the coast, another sewerage discharge is allowed to reach the sea.

While we concur with the intent of the bill to prevent oil spills in the ocean and estuary resulting from lightering, and we compliment Senator Dodd on his very thorough study of the matter of lightering, we cannot agree with the method of accomplishing this through an Oil Transfer Facility Corporation. Certainly there are ways to accomplish this through present governmental channels, achieving both environmental and economic goals alike. We would suggest that the problem is only one single part of the whole larger problem involving land use policy, estimated impact on recreation and tourism, a rational energy conservation policy, job statistics, and continued expansion and growth.

Finally, we would recommend further studies concerning the many problems mentioned to be conducted by the present Energy Study Commission. Studies should be made in line with a Federal Coastal Management Plan. Coordination of existing governmental activities at all levels is necessary to prevent future degradation of our already highly polluted State. Thank you.

(Summary of Selected Impacts on page 106 A)

SENATOR MC GAHN: Thank you very much, Joyce.

One question that you asked, what is a mono-buoy - a single point mooring system - I believe was answered this morning by one of the gentlemen who testified. This, of course, basically, would

depend upon the amount of throughput and the amount of onshore receiving facilities - tank farms - and it could be one, it could be a multiple - two or three - with a platform for pumping out there with a pipeline, of course, actually going inland to the shore receiving facilities. Ostensibly, the largest pipeline that is feasible at the present time would be a 48 inch pipeline. It is my understanding that there might possibly be two, one for crude and one for refined products.

MRS. SCHMIDT: I heard that last week, that's right. The volumes were fantastic though, weren't they?

SENATOR MC GAHN: Pardon me?

MRS. SCHMIDT: The throughput?

SENATOR MC GAHN: Well, yes.

Basically, because of ocean conditions, because of waves, a port, as such - an anchored port - is not feasible thirteen to thirty-five miles at sea. This would have to be in a sheltered estuary; it would have to be in a bay - an artificial island or an artificial port. Even a single pier type of facility, as in Bantry Bay, is a sheltered facility where waves do not go above three or four feet. So, depending upon the existing offshore conditions in the waters would determine the type of facility. Depending upon the quantity of throughput, as far as crude or refined petroleum products and the capacity of the receiving onshore facilities, would determine whether you needed one, two or three monobuoys out there - a multiple monobuoy arrangement.

MRS. SCHMIDT: Do you have figures on what our capacity is now and how many monobuoys that

would entail?

SENATOR MC GAHN: Those figures are in the Army Corps of Engineers' Study. I don't have them right at my fingertips.

MRS. SCHMIDT: The present requirements for the State of New Jersey?

SENATOR MC GAHN: For both New Jersey and Delaware - both areas.

Could I ask you what would you consider as alternate sources of energy that could be implemented in a sufficiently short period of time to make the nation basically self-sufficient, considering the lead time for development of most of these alternate sources of energy?

MRS. SCHMIDT: Considering the lead time? Well, I don't know that I could give you-- I can't exactly remember the lead time.

SENATOR MC GAHN: A nuclear generating plant would take from eight to nine years; strip mining would take two to four years.

MRS. SCHMIDT: O.K., in individual homes you could use solar energy.

SENATOR MC GAHN: Solar energy on the East Coast?

MRS. SCHMIDT: Yes, we are in the solar energy belt.

SENATOR MC GAHN: Where are you going to have your solar energy farm?

MRS. SCHMIDT: I'm not talking about that, I am talking about individual homes.

I just recently visited the Solar Energy Institute in Princeton and also the Environmental Education Building is considering solar energy.

SENATOR MC GAHN: You are talking about individual space heating?

MRS. SCHMIDT: Yes, individual space units, right.

SENATOR MC GAHN: I can give you a personal example of that, if I may. Libby Marsh, who is an environmentalist at Stockton College - her husband is also - put solar energy, as far as space heating is concerned, in their home down there. This has been an extremely mild winter and I will quote what she said, "I would hate to have to depend upon this during a cold winter".

Do you, or does the League of Women Voters, have any position, then, as far as nuclear generating plants are concerned, for the production of energy?

MRS. SCHMIDT: I don't think we have at this moment. We haven't been presented with any piece of legislation nor have we been requested to come up with a position on that. We wouldn't have anything on that at the moment.

SENATOR MC GAHN: I'm not sure of my arithmetic on this. I think three-quarters of a mile is 480 acres, if I am not mistaken - I don't know. I believe tank farm capacity would be, basically, one acre per 80 thousand barrel tank. The amount of throughput, therefore, coming through any particular pipeline could be equated on the basis of that, considering it may be pumping 100 thousand gallons - depending upon the capacity of the pump - to 125 thousand gallons per hour of crude oil. The throughput depends upon a number of factors, physical factors, the thickness - viscosity - the length, etc. There are other factors as far as that is concerned.

MRS. SCHMIDT: The size of the pipe, the pumping force - I realize that. That, to us, seems to be something that should definitely be studied.

SENATOR MC GAHN: Joyce, honestly, there are figures on it except, unfortunately, you would have to have them right in front of you. It can be kind of mind boggling, I believe.

Finally, we recognize the importance of what you have stated. As I mentioned before, we certainly do not feel that we are going to have all the answers to this. We are dealing with one particular facet of this. It will be up to the Energy Study Commission to come up with some of the other answers. We certainly hope that the amount of testimony--

(interruption)

Joyce, Mark has it - 40 million barrels in a three-quarter square mile storage area.

MRS. SCHMIDT: The capacity of three-quarter square miles is 40 million barrels, is that right?

SENATOR MC GAHN: Yes. Mark Reifer is our expert.

Senator Dunn?

SENATOR DUNN: Mrs. Schmidt, could you, in a nutshell - in a sentence or two, forgetting the statement completely - tell us what is the main objection of the League of Women Voters? I know this is a very courageous group and they are not afraid to stick their neck out on a lot of controversial things. What is the meat of the objection to an offshore facility by the League of Women Voters?

MRS. SCHMIDT: I think we were speaking on the bill, per se. I think that is stated in my

paragraph - that even though we realize the intent of the bill, and respect that, we don't really feel that a corporation, or an authority, is the method by which it should be done, because it is not responsive to the people. It is an ad hoc type of government.

SENATOR DUNN: Well, there is no question in your minds then as to the need for cutting down on the traffic of the smaller ships in harbors?

MRS. SCHMIDT: We sort of question in there whether-- I heard somebody mention this earlier. They figure there would be about a 50% cut down. As you would cut down on the lightering-in, you would increase the lightering-out because your crude input and throughput would be much more - doubled - and you would have to remove the refined capacity some way. It is refined into different products and then it is carried away to some other industry. It would have to be done either through more pipes or through more tankers. So, we are really wondering where the balance is and if it is really going to stop the lightering. You may increase the lightering by increasing the throughput.

SENATOR DUNN: Well, the testimony was that the lightering would be reduced more than 50%, if I remember correctly.

MRS. SCHMIDT: I do remember, I think it was the man from Mobile--

SENATOR DUNN: Yes. But you don't question the need for bringing more crude oil into the country, I don't think.

MRS. SCHMIDT: Yes we do, sir.

SENATOR DUNN: You do?

MRS. SCHMIDT: At the beginning - the increased importation of foreign oil for our increasing energy demands - on the top of page 2.

SENATOR MC GAHN: Joyce, by that do you mean then, basically, that in order for us to be self-sufficient and depend upon domestic crude, you would then take the position that you would be in favor of offshore drilling?

MRS. SCHMIDT: That I couldn't answer because that is not what the bill speaks to. We have made a statement before the committee, last summer, on offshore drilling.

SENATOR MC GAHN: This is really off the subject. We are talking, in essence, about reduction. This was in answer to you making the statement that you did not subscribe to the idea that we had to bring in more imported foreign crude oil.

MRS. SCHMIDT: I questioned that in a rhetorical form; should we become dependent?

SENATOR MC GAHN: Well, again, one of the alternatives to this would be simply to exploit our own sources of domestic crude, amongst one of which would be offshore continental drilling.

MRS. SCHMIDT: Well, o.k., there is oil shale, and that possibility. I realize what you are asking. We made a statement previously, before the ad hoc committee, about this. I believe that since we made that statement, the federal government has invested many more millions of dollars in research for alternative sources. I think, probably, that should be; we should maintain our independence to a certain degree. I realize that you have a lead time in that proposal. I think that is the direction in which you should be going and I think we sort of infer this.

SENATOR MC GAHN: Joyce, in answer to one of your questions - you were talking about a lightering-out procedure - frankly, there is no oil to any degree - very little - exported from the Jersey or Delaware shore by lightering procedure or barge. Generally speaking, the oil that is brought in by the lightering method would be by small tanker or by barge and would go to marine terminals, to tank farms, to refineries and then either, basically, through truck transportation and/or pipeline, serving New England, serving Pennsylvania--

MRS. SCHMIDT: I thought this was tankered up to New England and delivered to ports up there. I was told this. I think it is barged out, or tankered out - litered out.

SENATOR MC GAHN: I'm sorry, I was referring to crude.

MRS. SCHMIDT: Well, I am not only talking about crude but the plastic species are also increased and you will get the secondary development, which we refer to also. Another of our concerns is this secondary development, which we don't feel the bill has that much control over. We certainly hashed that out today in many other testimonies. That is a very big concern to our League. I am sure you will be hearing from them at your local hearings concerning this subject.

SENATOR DUNN: One last question, if I may. Mrs. Schmidt, to your knowledge has the national League of Women Voters issued any sort of policy paper--

MRS. SCHMIDT: Yes, sir.

SENATOR DUNN: --on the energy crisis, per se?

MRS. SCHMIDT: I have received two bulletins from them, yes.

SENATOR DUNN: May I ask this, are the two bulletins somewhat consistent with the viewpoint expressed in this New Jersey League of Women Voters presentation?

MRS. SCHMIDT: They are somewhat consistent, yes.

SENATOR DUNN: But they are not exactly? I mean, there is a difference isn't there?

MRS. SCHMIDT: No, I don't know of a difference. I don't know what you are referring to there.

SENATOR DUNN: Well, it seems to me that recently I read a policy paper, put out by the national League - I do not remember what the title is - and it advocated the monobuoy.

MRS. SCHMIDT: I don't have that in this, no sir.

SENATOR DUNN: Let me take a look at that. Just hold it up so I can see it, please.

(holds up bulletin)

That doesn't look familiar to me. No, that is not it.

I thought I read something recently that advocated--

MRS. SCHMIDT: I'd certainly be happy to check that out if you could give me your source.

SENATOR DUNN: I might still have the paper that I am referring to.

MRS. SCHMIDT: We are not really speaking to that in our statement today. We have no position concerning that at this time - the monobuoy.

SENATOR DUNN: Well, that is the point I

was trying to get at before. You are really objecting to S-200 as it is now written?

MRS. SCHMIDT: Yes.

SENATOR DUNN: O.K.

MRS. SCHMIDT: Definitely. And we are objecting to an authority or a corporation being involved, yes.

SENATOR MC GAHN: Mrs. Schmidt, thank you very much.

Is there anyone else in the Chamber who wishes to testify?

I am sorry, I was told by Mr. Mattek that there wasn't anybody else.

My apologies to the Cape May Planning Board but I honestly thought you would be appearing at the hearing down in Ocean City.

MR. MYERS: Senator, we will be also and we will be submitting additional technical information at that time.

SENATOR MC GAHN: Oh, thank you.

R O B E R T M Y E R S: My name is Robert Myers. I am with the Cape May County Planning Board and I am speaking today for the County Freeholders of Cape May.

Senators, Ladies and Gentlemen: We studied the deepwater port issue since January of 1972. Our research has included studying every major federal report, attendance at the U. S. Senate Deepwater Port hearings in Washington, D.C. and attendance at many seminars on the issue.

This ongoing research has lead us to conclude that a deepwater port off New Jersey is a short-sighted solution to a long-term problem that would

severely limit future choices for planned land use, not only in Cape May County but also for the entire Jersey coast. Our investigation has revealed three significant problem areas associated with deepwater port development. These problem areas include technical problems, land use problems and energy policy problems, all promising economic or environmental disbenefits.

Under technical problems, we would like to note that the socio-economic problems associated with deepwater port development appear to be the most significant and difficult to cope with. The many technical issues have still not been satisfactorily answered. Can deepwater ports withstand hurricane conditions typical of the North Atlantic? Can large and unmaneuverable supertankers withstand hurricane conditions? What effect do hurricane conditions have on sub sea pipelines and related infra structure? These questions have not been satisfactorily answered.

On the oil spill problem - no responsible or knowledgeable party has ever claimed the technological capacity to "clean up" or contain oil spills except under extremely mild sea states. Environmental impact notwithstanding, what economic impact would a massive spill have on adjacent coastal resort communities? Since no one can "guarantee" no disaster, what happens if we do have one?

While the Dodd bill - S-200 - presently prohibits new refinery petro-chemical complex construction, a one sentence bill attached to some future "motherhood" bill could retract that prohibition. Further, quantities of imported oil are expected to increase. Robert Nathan Associates, the Chase Manhattan Bank,

Shell Oil Company and the National Petroleum Council predict East Coast imports to approach 3.5 million barrels per day by 1980. Presently, the East Coast refining capacity is about 1.5 million barrels per day. That means that with a port and without new refineries, New Jersey will be accumulating 2 million barrels per day of unrefined, unusable crude oil - and that is absurd.

With a port, new refineries are inevitable. Where is a refinery petro-chemical complex that isn't visually blighted? Where is a refinery that doesn't pollute adjacent air and water? Where is a petro-chemical complex adjacent to an economically healthy tourist area? How many tourists visit the Bayonne, New Jersey and South Philadelphia refineries for summer vacation?

Under land use problems - it is clear from other testimony today that deepwater ports are a magnet for heavy industry. It has been noted in previous testimony also that supertankers carry not only crude oil, but also iron ore and other bulk products. The development of a port in New Jersey will make additional coastal areas the prime target of not only oil refineries and petro-chemical plants, but also electric generating plants, bulk iron ore reduction plants, additional railroad facilities, bulk grain transportation centers and other incompatible uses. This phenomenon is worldwide. Of the 50 major deepwater ports in the world, all are heavily industrialized with the exception of seven. Six are export ports on the Persian Gulf. The seventh is Bantry Bay, Ireland, where severe topography, lack of regional markets, and Irish Law prohibited oil

refineries. Incidentally, Gulf Oil Company, the operator, originally agreed to the refinery prohibition but has sought and received an exemption to build a refinery. I use this only as an example, we are not taking a shot at Gulf Oil Company. If national laws can be changed, state laws can be changed, and local zoning is meaningless. Again, the prohibition in the Dodd bill - S-200 - is no guarantee.

All refinery centers are visually blighted and enjoy smelly air and dirty water. There is no reason to believe that a port off New Jersey would have any different effect.

We have heard testimony today also that New Jersey is the most densely populated state in the nation. Presently, the State's industrial and tourism economies, numbers 1 and 2 respectively, enjoy a relatively harmonious balance from a land use point of view. This relative harmony is not the result of good land use planning, but only an accident of geography, history and market economics. That balance is delicate. Clearly, tourism will never destroy an industrial complex, but heavy industry can devastate a tourist area. New Jersey's beaches from Sandy Hook to Cape May are widely acknowledged to be the finest on the East Coast. They constitute a unique economic and environmental resource of the State. Those beaches are, in fact, the only major ocean recreation area for the 40 million people who reside in the eastern megalopolis. Refineries can go anywhere, but our beaches cannot be moved or replaced.

New Jersey's beaches are largely publicly owned or publicly accessible. The beaches of other

eastern coastal states are generally privately owned and inaccessible. Our beaches are the backbone of our tourist industry. Tourism grosses more than \$3 billion annually and contributes between \$150-\$200 million per year in sales and other taxes to the State budget. Cape May County alone grosses more than 185 million dollars per year from its tourist economy. Port proponents suggest revenues from a port would approach \$150 million annually. Environmental blight aside, that's a bad deal economically. It raises the question, "Do we really need it?" And the answer is, "No". Anything that intrudes on tourism diminishes New Jersey's income. Tourism is clearly vital to New Jersey's economy.

The deepwater port raises overwhelming implications and should not be treated as an isolated issue. Speaking of the Mid-Atlantic area, John Busterud, the former Acting Chairman of the Council on Environmental Quality, said that: "Without strict land use controls, the proliferation of refineries and petrochemical complexes induced by such a port would lead to tremendous pressure to develop much of the remaining open space in this already highly stressed industrial region." Arthur D. Little, Inc., a highly respected consultant firm, said in its report to the Council on Environmental Quality, "Potential Onshore Effects of Deepwater Oil Terminal - Related Industrial Development", said: "The historical lack of success of efforts to curb the growth of congested regions suggests that positive steps should be taken to channel growth in alternative regions. Depending on their location, deepwater terminals are a powerful regional decongestion or agglomeration tool. A new terminal - or port - facility in the Mid-Atlantic, geared to a high level of oil imports, would unquestionably

accelerate the already rapid agglomeration taking place there. On the other hand, a facility located, for example, on the south Atlantic Coast or in New England would tend to provide an alternative to industry and thereby begin to "decongest" the Mid-Atlantic while at the same time providing an economic impetus to the new port site . . ."

S-200's exemption from land use controls flies irresponsibly in the face of every major government agency recommendation on controlling induced development.

It follows that New Jersey should study, through the mechanism of a comprehensive coastal zone plan, all of the ramifications of the port proposal. Further, the creation of an Authority to construct a port is premature prior to sound coastal zone planning.

At the present time - as we said before - the East Coast has the capacity to refine 1.5 million barrels of crude oil per day. New Jersey's four refineries refine almost half of that amount. By contrast, New England refines less than 8,000 barrels per day, a "toy" refinery by present day standards. New Jersey consumes about 48 billion barrels of heating oils per year; New England almost twice that amount. We believe we have illustrated the environmental and economic costs of producing oil products. New Jersey refines its fair share; New England refines almost none. If a port is necessary, isn't it time other high energy consuming areas paid the costs of consuming? New Jersey is among the most "hard hit" states in the gasoline shortage, even with its high concentration of refineries. A deepwater

port will contribute to further environmental blight in New Jersey and New Jersey consumers will not get any additional supplies, reduced prices or other preferential treatment. Shall New Jersey become the refinery for the United States?

New Jersey stands at a crossroads. Because Authorities create, not study, we submit the creation of an Authority is precipitous. Alternatively, we suggest a Study Commission is needed to evaluate the fundamental question of need, advisability, economic effects and impact on irretrievable resources. In light of these substantial problems, we suggest the premature creation of an Authority is like being a "little bit" pregnant. The Delaware and Hudson Rivers are the ecological jokes of the nation. If the East Coast needs more oil, let other areas import and refine it. New Jersey has done more than enough.

In conclusion, we suggest that a deepwater port will do for New Jersey what the Trojan Horse did for Troy.

We strongly urge the defeat of S-200 and, failing that, we urge the Governor to veto. That concludes my written testimony. Thank you.

SENATOR MC GAHN: Thank you very much, Mr. Myers. I find one very disturbing factor here. Coming from an adjoining county to yours, I am fully cognizant of the impact of tourism on the State of New Jersey and I am a little pessimistic about what the impact of the oil shortage may be upon both Cape May and Atlantic and Ocean Counties in the forthcoming months and this summer. That has nothing to do with, nor is it relevant to this but--

MR. MYERS: We certainly share that concern.

SENATOR MC GAHN: A deepwater port would not make any difference. I think, however, it is only fair to state that while New England has been depending, to a large degree, upon the mid-Atlantic refining areas, which, of course, are New York, New Jersey and Pennsylvania, nonetheless they are, at the present time contemplating like proposals in New Hampshire, Massachusetts and even Maine which, at the present time, does bring oil in, in this respect, but, unfortunately, doesn't refine it. They simply transport it by pipeline to Montreal. They may be coming up with something like this.

Whether diversification along the East Coast is the answer, very frankly, I do not know. I do not think, however, that we will be the refining center.

"We suggest the premature creation of an Authority is like being a 'little bit' pregnant", do you suggest we abort the issue?

MR. MYERS: Indeed.

SENATOR MC GAHN: Would your position be any different if you had absolute assurance that there would no onshore development in Cape May County - or in that area down there - that would have an adverse effect on it?

MR. MYERS: I would respond with a qualified no, Senator. Our position would be changed 180 degrees if one could guarantee no oil spillage and no induced development.

SENATOR MC GAHN: I think you know that no one can guarantee against an oil spillage. However, are you particularly happy with the situation, as it exists today in Delaware where, since June of

last year there has been over 300 million gallons of oil spilled, and only in the last 8 weeks there has been over 100 million gallons of oil spilled.

While it is true that maybe this is not washing up on the coast of Cape May - I frankly don't know - certainly it is spoiling the shores of Jersey up in the contiguous Counties up there. I think if there could be any assurance that this bill would alleviate this, this might be an environmental plus and would give some hope that the Delaware, along with the Passaic and the Hudson, might be reclaimed in some way.

MR. MYERS: Senator, I think if we were talking about a transportation system for crude oil to supply existing refineries--

SENATOR MC GAHN: This is the point I am trying to make while questioning you. I am talking about this as a transportation system to existing refineries and the utilization - if they are able to - and expansion of refining capacity at that site to increase technology, etc. I am not talking about any increased, induced, onshore development.

MR. MYERS: That, as you know, is a very complicated issue. Let's assume for a minute we had that situation. You have a port off Delaware Bay. You have a pipeline that goes up the Delaware Valley and treats the North Jersey refineries. When this thing plays out, and the port is amortized, we tend to start decreasing our oil importations. At that point what have you got? You have the infrastructure for offshore drilling and we are right back where we are now - talking about how we control induced development from offshore drilling, except that the infrastructure from the deepwater port will serve offshore drilling also and, again,

you have the potential for increased refinery capacity.

SENATOR MC GAHN: Well, of course, I think we are kidding ourselves if we do not consider one along with the other, if we ever intend to be self-sufficient, as far as energy is concerned, and depend strictly upon domestic crude.

MR. MYERS: I would agree with that. As a matter of fact, I would be surprised if, in the Baltimore Canyon - if there is oil out there - it were of the magnitude of the projected imports for 1985 - in the magnitude of three and one-half million barrels per day. Certainly we are not going to get that, or-- Well, I won't say it.

The North Slope in Alaska, which is an amazing find, will produce about 2 million barrels a day. The North Sea will produce about that much.

Certainly, I would say, it will be in the low end of probability that the Baltimore Canyon would produce three and one-half million barrels per day, or even 2 million barrels per day.

But, to go back to the original question, if we only feed our existing refineries through this kind of transportation system and they double their capacity, or they approach doubling their capacity - which I think is more realistic - you have a problem that S-200 doesn't address, and that is that the seed stocks that the existing refineries produce for the petro-chemical complexes will be increasing and it is no good. You know, you can make snowballs out of it but you can't use it otherwise unless you process it. So we are going to have to address that issue too.

SENATOR MC GAHN: I have no further questions. Thank you.

SENATOR DUNN: I'm sorry, I didn't get your name, sir.

MR. MYERS: Robert Myers.

SENATOR DUNN: Mr. Myers, has Cape May County increased in population during the last census period?

MR. MYERS: Yes, it has.

SENATOR DUNN: Do you expect an increase in population for the current period?

MR. MYERS: In the next decade? We certainly do, yes.

SENATOR DUNN: And you expect an increase, say, 10 years hence, after that?

MR. MYERS: Yes. At that point, sir, the population in Cape May County would tend - the population curve, growth curve - would tend to slacken out, whereas it is climbing in the next 20 years. Between 20 to 30 years it would tend to peak for a year-round population.

SENATOR DUNN: Are there enough jobs available to take care of these people who are migrating from the northern counties to Cape May or are you going to have a new population of old folks, such as they have in Florida, on retirement?

MR. MYERS: We are definitely going to have that. At the present time Cape May County has an extremely high percentage of senior citizens - about 20%.

SENATOR DUNN: You are getting some younger people too who are being attracted to the open space?

MR. MYERS: Yes.

SENATOR DUNN: I mean, doesn't-- In your planning endeavors, don't you take into consideration the need for more jobs for the young people

who are moving into Cape May?

MR. MYERS: Certainly we do, sir.

If I may anticipate the next question.- one of the things that has been said many times about Cape May County is that the unemployment rate is extremely high, therefore the conclusion is, by others, that we should have more industry. I submit to you that that extremely high unemployment rate in Cape May County is a function of a culture in Cape May County; it is a function of using the structure of unemployment laws to ones advantage. What I am saying is that many people in Cape May County work for the summer months and at that point in time there may be two grandmothers and seven kids all working during the summer and then they go on relief and that carries them almost through the Spring.

SENATOR DUNN: But when they go on relief, that increases the tax burden to the Union County resident, doesn't it - the taxpayer?

MR. MYERS: Well, if you want to address welfare rates, sir, we get even there.

SENATOR DUNN: No. The point I am trying to make is that it seems to me that perhaps the Cape May Planning Board is rather provincial in its thinking. Do they really have the best interest of the State at heart or are they just interested in maintaining the culture that you are referring to?

MR. MYERS: Senator, economically the resort economy in Cape May County has grown at a compounded annual rate of 8½% for the last nine years. I don't think the oil companies can claim the same rate of growth. We are progressing.

As a matter of fact, I asked the question of several people who are here today and I would suggest

to you that you examine the long-term economic value of the resort industry in New Jersey and project 30 years into the future - the economic value of that economy - and compare it with the economy that you will get through induced development with the deepwater port. I would be surprised if in 40 years the oil industry economy--

SENATOR DUNN: Well, forgetting the oil industry, if the open land, open space and beautiful beaches of Cape May continue to attract people to that County and there are no jobs available for them, you are going to have an awful lot of problems on your hands that you don't have now.

MR. MYERS: Oh, I think this problem can be sorted out in the market place. Certainly these people would not stay if there weren't employment for them.

SENATOR DUNN: Unless they were absorbed by that culture that you were referring to a few minutes ago and get used to it - if they became oriented to going on relief for 10 months of the year, or 9 months of the year.

MR. MYERS: That is hypothetical, sir. I don't quite know how to respond to it. I don't think it is a probability though.

SENATOR MC GAHN: I think the figures in Cape May, like in Atlantic County, are subject to some degree of explanation. Seasonal adjustment plays a large part in this. The mere fact that Cape May County may have the lowest per capita income in the State really doesn't tell the situation as it is. It is true, I think, Senator Dunn, that Cape May County has a culture; they have a victorian heritage as far as Cape May City itself is concerned; the people there like their style of living and I

think it would be right to have that, basically, preserved.

That doesn't mean to say, however, that Atlantic City doesn't pay the second highest welfare bill, other than Newark, in the State. Maybe we are picking up some of Cape May's welfare, I don't know.

Thank you very much. I think, basically, the point we were trying to make here was, what would be a better alternative system than the present method of lightering that is now going on in the Delaware Bay to lessen the amount of oil pollution that is occurring in the Delaware Bay.

MR. MYERS: Excuse me, sir, I would like to respond to that this way: The spills that we have had to date have not been a function of lightering I would separate that from tanker traffic hazards upriver. Those are two entirely and separate matters.

SENATOR MC GAHN: Well, yes. Let me say oil pollution, due not only to lightering but to deep ballasting, washing out tanks, collisions, groundings, should I say, also overflows of tanks in tank farms where they may have been simply structural failure or human error on the part of somebody - the human factor - this is what I am talking about.

I think you have made the point. This is mainly the thing we wanted to get onto the record. I have no further questions.

Thank you very much, sir, and we look forward to seeing you in Ocean City.

SENATOR DWYER: I have one further question before you leave, Mr. Myers.

MR. MYERS: Yes, sir?

SENATOR DWYER: You say your rate of growth

for tourism is greater than the rate of growth for the oil industry?

MR. MYERS: I believe so.

SENATOR DWYER: How about your profit rate? Do you think it will be as great as theirs?

MR. MYERS: It is going to take a few years, Senator.

SENATOR MC GHAN: There is no windfall down in Cape May.

Mr. Scott? Let me apologize, first of all, because, as I mentioned before, I didn't realize that you were waiting to testify. My apologies.

R O G E R F. S C O T T: Thank you for giving us this opportunity to present our thoughts to you on this important subject of an offshore oil transfer facility.

My name is Roger F. Scott and I am Plant Manager of the Kerr Glass Manufacturing Corporation in Millville, New Jersey, located in Cumberland County. Here today, I speak as a member of the Council on the Energy Crisis. This Council was organized last October by the New Jersey Manufacturers Association. Its members advise the New Jersey Manufacturers Association Board of Trustees on policy and positions which the Association may want to take in representing its 13,500 member companies. Today, I speak for the Association as well as the Council.

A roster of the Council on the Energy Crisis accompanies this report. It is attached to the one given to you, Mr. Chairman, but the others do not have the roster. It shows wide industrial representation with top management people as members from public

utilities, metal refining and fabricators, chemical, food processing, glass and oil companies. (See p.104 A)

Members of our Council are unanimously in favor of S-200. There may be differences as to the details of the provisions, but we are unanimous as to the objectives of the bill. The fact that we are in the midst of an energy crisis may make this legislation look like an emergency measure. It definitely is not. Hopefully, by the time this bill may become law and the oil transfer facility constructed, the current energy crisis will be long since gone. The passage of this bill, we think, has to be regarded in terms of its being a safeguard for New Jersey's future.

When we look to New Jersey's future, there are numerous conditions we all want provided. We want this State to continue to grow and prosper. We want our industries to be well supplied so that they can continue to offer constant and stable employment. We want our quality of life to improve so that New Jersey may become an increasingly better place in which to live and work, which means we must be aware enough to protect our environment.

These things we all want. Our Council does not believe that having an offshore oil transfer facility would, in any way, jeopardize them. On the contrary, we think that having such a facility would contribute greatly to our realizing our common desires for New Jersey's future.

Admittedly, S-200 introduces us to a large and complex subject giving rise to any number of fears, apprehensions, and questions. We should like to deal very briefly with some of the more pertinent questions.

Question #1 - Is a deepwater oil transfer facility needed? The answer is yes. According to all estimates

we have seen, our demands for all kinds of energy are due to expand enormously. Oil cannot supply all our needs but, regarding oil, projections point to our consuming as much of it in the next 15 years as we have used ever since it was first pumped in this country in 1859, 115 years ago. This means more imports, since the share that our own domestic sources can supply are now rapidly falling off. An offshore facility is needed to handle these increased imports.

Question #2 - Why not expand the present method of handling imports to New Jersey instead of constructing new facilities? In our opinion, the present method is obsolete. At best, it is indirect, expensive, inefficient and inadequate. One of the best statements we have seen underscoring these deficiencies in the present method is set forth in S-200, page 2, lines 24 through 45. By way of supplementary remark, we would like to add that the present "lightering" of tankers in order to get oil to shore actually requires every supertanker to become its own oil transfer facility, so that for any given time we might have as many as 15 or 20 transfer facilities off our coast, when by implementing this legislation, we would have only one.

Question #3 - Won't this facility help spawn more oil tank farms, pipeline terminals, and refineries along our New Jersey shore? If more such oil installations are built in New Jersey, they will be the result of our State's growing demands for energy and not because of any deepwater platform we may erect. Also, we believe adequate precautions and restrictions are provided in the bill itself to prevent undesirable oil-oriented installations.

Question #4 - Will the offshore facility be safe, especially against oil spills? Yes, definitely. Safety is related to control. Presently, the control factor in the "lightering" of tankers leaves much to be desired, especially when done in heavy seas, or busy shipping lanes, or when equipment may become impaired, or is lacking. Yet despite all these conditions, the present system, with all its shortcomings and considering the thousands of instances involved, is remarkably safe. The one fixed transfer facility, as provided for in S-200, would certainly have a much higher control factor and thus a greater safety potential.

We thank you for giving us this opportunity to share our thinking on this important subject with you.

SENATOR MC GAHN: Thank you, Mr. Scott.

Does your Association have any position on the issue of a public corporation vis-a-vis private enterprise?

MR. SCOTT: We have not taken a position on that particular issue. Our concern, as a manufacturing association is, of course, sufficient energy supplies and we foresee that other sources of energy - nuclear, etc. - will not develop fast enough and there will be a need for expanded oil energy sources, whether they are public or private.

SENATOR MC GAHN: Thank you. I have no further questions.

SENATOR DUNN: I'd just like to make a comment that I am sure Mr. Scott will concur with - that is an assumption on my part. New Jersey Manufacturer's Association has among its members oil companies. I get the impression that some of the people who

have been testifying before this committee are of the impression that oil companies, promiscuously, cause oil spills, or promote them for some money-making reason. Wouldn't it be safe to assume that most of these spills are accidental and not done deliberately? Although I heard you make reference today, Mr. Chairman, to cleaning up boilers or something--

SENATOR DWYER: Bilges - they clean up the bilge when they go out to sea. There is oil in the bilge.

SENATOR MC GAHN: This is a common practice.

SENATOR DUNN: The point I am trying to make is, I think someone is trying to create the illusion that there is a buck to be made by the oil companies by deliberately spilling oil and I doubt that very much.

MR. SCOTT: I am sure that is not true. Furthermore I don't see that the oil transfer facility that we are speaking of here would, in any way, change the habit of what they do to clean out ships. The percentage of bilge in a large vessel, in terms of total cargo, is, in fact, lower than it would be in a multiplicity of smaller ships.

SENATOR DUNN: Thank you.

SENATOR MC GAHN: My apologies to Senator Dunn if he got the impression that I was implying they did this deliberately.

Senator Dwyer?

SENATOR DWYER: No, we got the boilers and bilges straight now.

SENATOR MC GAHN: Thank you very much.

I believe we have Mr. Frederick Long here to speak. Mr. Long?

F R E D E R I C K A . L O N G , J R . : Good afternoon. My name is Frederick A. Long, Jr. and I represent the Izaak Walton League of American, Cape May County Chapter.

The Cape May County Chapter of the Izaak Walton League of America appreciates the opportunity to present our views regarding Senate Bill 200. We have presented material at each of the public hearings relative to deepwater ports and since our Chapter is in a county contiguous to one of the site areas, we are keenly interested in the subject.

After convincing agencies such as the Corps of Engineers and others that the massive advertising-created public demand for its products must be met simply because it exists, and after having obtained tax dollars for ships through such means as the Tanker Construction Program, the oil-automotive industry is now attempting to have the state government of New Jersey provide at public expense and on public land the ports at which to unload these ships. The rationale behind this ploy is that such a port would alleviate the so called energy crisis.

This is pure nonsense.

If there is a problem relating to energy in our country-- and there surely is--the problem lies in consumption not in supply. The problem lies in the fact that we use too much energy inefficiently. The problem lies in the fact that we waste too much energy. The problem lies in the fact that the end product of too much of our available energy is simple pollution--air, water and thermal. We regret that certain legislators do not seem to be able to rise above the desires of the oil industry and put the full weight of government behind a substantial effort to reduce demand for energy rather than continued efforts at accelerated

exploitation of our national resources

We would like to submit some facts in addition to those listed on pages 1 and 2 of the Bill:

Fact Number 1: In October 1972 the President's Office of Emergency Preparedness conducted a study entitled "The Potential for Energy Conservation" which stated that "energy conservation measures can reduce U.S. energy demand by 1980 by as much as the equivalent of 7.3 million barrels of oil per day (equal to about 2/3 of the projected oil imports for that year)." The Army Corps of Engineers in their Atlantic Coast Deepwater Port Study indicates that in 1971 approximately 33% of all foreign oil imports came into the North Atlantic Region. This area processed 1,332,000 B/D in 1971. It is further stated that expected 1980 throughput will be 2,000,000 B/D IF "maximum expansion of refinery capacity at existing locations" is achieved which is unlikely. Therefore if only half of the 7,300,000 B/D reduction in oil demand described in the OEP study were achieved, an Atlantic Deepwater Port would be unnecessary.

Fact Number 2: If foreign oil is cut off or its availability to the U.S. reduced, or if its price is such that yearly balance of payments deficits of tens of billions of dollars will result--both of which are happening now--then deepwater ports built to import such oil will become white elephants.

Fact Number 3: Indications are that the practice of "lightering" ships as it is presently conducted is quite safe. The Corps of Engineers has stated that a comparison of Coast Guard data based on the amount of oil lightered in 1970 indicates an average spill of 7 gallons per transfer operation or 0.5 barrels

per million barrels of oil lightered. Coast Guard data indicate that 10 million barrels of oil were lightered in Delaware Bay in 1970. This would result in 5 barrels spilled for the entire year. Based on the 730,000,000 barrels per year daily imports to the North Atlantic Region projected for 1980 and Delaware Bay's share of approximately 70% of this quantity, the Bay would see approximately 39,000,000 barrels of oil lightered at Big Stone Beach at present ratios. At 0.5 barrels spilled per million lightered this would indicate a total annual spillage from lightering operation in the Bay of 20 barrels per year. This is over 40 times less than the 913 barrels annual spillage given on page 29 of the Corps report for a VLCC Terminal with transshipment by pipeline. Far from showing that lightering is unsafe and results in greater probability of oil spillage, the experience of the Coast Guard and the data presented show just the opposite.

Fact Number 4: A VLCC oil spill would be a catastrophe for the State of New Jersey. The Final Environmental Impact Statement for the Tanker Construction Program prepared by the Maritime Administration describes the impact of a "potential VLCC oil spill on the Delaware Offshore and Vicinity" as follows:

- A spill location 20 miles offshore.
- Major oil accumulations in the wetlands.
- A slick of 2 cm. thickness, 1600 feet wide and 80 square miles in area.
- A coastal impact of oil from just above Chesapeake Bay entrance all the way to New York harbor.
- Contamination of large tracts of shellfish beds both on the continental shelf, in Delaware Bay and along the whole shoreline.

- Potential loss to the fin fish industry of \$10-15 million in the first year
- Estimated damage to the tourist industry of 2.8 billion dollars in the first year alone of which 2 billion dollars would be suffered by the State of New Jersey.

Fact Number 5: Faith in permit controls and safety devices is misplaced.

The above mentioned MarAd report states on page IV-53:

"Although it is recognized that containment and recovery of spilled oil at sea is highly desirable, no system is now available that can handle the possible range of oil spill sizes or cope with waves above six to eight feet and currents greater than one knot. Such conditions are commonly experienced at sea "

In 1970, fires and oil spills on two platforms in the Gulf of Mexico produced the first criminal indictments, under the 1953 Outer Continental Shelf Lands Act, of eight oil companies for allegedly failing to have storm chokes or similar subsurface safety devices in producing wells as required by Interior Department regulations. After pleading no contest, they were fined a total in excess of 2 million dollars. We understand that the records of the United States Geological Survey, the enforcer agency, showed that these devices were in place

We believe that the environmental values cannot be satisfactorily protected from increasing petroleum operations in and about our coastal waters. In 1969 the Second Report of the President's Panel on Oil Spills stated that "If offshore development continues to expand at the present rate and the frequency of accidents remain the same, 3000 to 5000 wells will be drilled annually by 1980, and we can expect to have a major pollution incident somewhere every

year " The Corps of Engineers has stated in January of this year "There is a lack of adequate knowledge of ways to design and operate a system without spillage, of techniques capable of handling major spills, and of the total impact of oil spills on the ecosystem. Similarly, there is a lack of adequate knowledge of the changes which will occur from alteration of the physical configuration of a water body through dredging, dumping of spoil, and inshore island construction; on the impact of such changes on biological organisms; and on the physical and biological characteristics of most geographical areas where petroleum import operations might take place "

Fact Number 6: The landside impact on the State by Deepwater Ports located off the coast would effectively destroy coastal New Jersey as we now know it. We are sure that everyone is familiar with the description of landside impacts prepared by the Corps of Engineers in January of last year This report described the industrialized development of refinery facilities and new petrochemical plants in the predominantly rural area of Southern New Jersey making the area resemble Arthur Kill or Marcus Hook.

Fact Number 7: 12,000 acres would be required for crude oil storage, refinery and related petrochemical activities in Cape May and Cumberland counties.

Fact Number 3: The water requirements of such development would exceed the estimated ground water reserves of the New Jersey Coastal Plain.

Fact Number 9: The additional industry would generate BOD content in its effluent equivalent to the raw untreated sewage of 500,000 people,

Fact Number 10: On top of the already large profits of the oil industry would flow the benefits of a deepwater port while the costs would be paid by the consumer.

The Corps of Engineers state that we can "realistically expect" 2,000,000 B/D of imports to the North Atlantic in 1980. This results in a yearly figure of 730,000,000 barrels of crude oil. At a net annual benefit from a deepwater port of \$79,700,000, a saving in transportation costs over not having a terminal of 10.92¢ (\$00.1092) per barrel results. At 42 gallons per barrel this amounts to 26/100 of a cent (\$00.0026) per gallon or about \$2.00 per year in savings for the average car owner IF the saving were passed on to the consumer.

The above data, however, indicates that on a yearly investment of \$57,900,000 the oil industry will realize a yearly return of \$137,600,000 which represents an apparent ROI of over 230%. This is confirmed on page IV-59 of the Impact Statement prepared by MarAd for the Tanker Construction program which states "the primary pressure for construction of U.S. facilities to handle VLCC's comes from both industry and government sources interested in the very sizable economic savings involved. The construction of U.S. flag VLCC's under the Tanker Program and its consequent effect upon the pressure to construct deepwater ports in this country must be viewed in this light "

Fact Number 11: The industrialization of Cumberland/Cape May Counties resulting from deepwater port construction is unacceptable.

The Arthur D. Little report states figures which show that industrial land will increase 430% in the next 30 years and would then represent nearly 1/4 of the developed area of these counties. This report goes on to state:

"It took nearly 300 years for what are now Cape May and

Cumberland counties to develop 20 percent of their combined areas. The incremental development associated with the high-level option would nearly triple this area in less than 30 years.

"The projection that 30 percent of the land in Cumberland/ Cape May (in addition to wetlands) will remain undeveloped by 2000 under the high-level scenario is not necessarily cause for optimism. First of all, development could occur more rapidly than we have estimated; it is unlikely to occur at a slower pace under either baseline or high-level conditions. Second, historical patterns of industrialization and urbanization strongly indicate that industrial development--especially that related to petroleum--will proceed inland from as close to the shore, marshland, or waterway as possible. Third, lacking comprehensive and stringently enforced zoning regulations, "leap frog" development is likely to occur which, in effect, will serve to further reduce the amount of open space available by surrounding portions of it with industrial, commercial or residential uses. These developments would irrevocably alter the character of the area, and while perhaps acceptable to some, must be taken into account, not only with regard to residents in the area but also those outside the area who look upon it as a recreational haven in the most densely populated region of the United States."

Senate Bill 200 is a pernicious piece of special interest legislation. It creates a structure whereby the oil companies can increase their already excessive profits by having the taxpayers of New Jersey underwrite the cost of constructing a port for the industry.

Senate Bill 200 permits the condemnation by the corporation of any property, public or private, in Middlesex, Monmouth, Ocean, Atlantic, Cape May, Cumberland and Camden Counties including land

under the water, meadowlands, and riparian rights. After condemning such land, the corporation is privileged to mortgage it for security for the payment of bonds and notes issued by the corporation and to do it all in secret, without any recording except in its own records.

Senate Bill 200 in one paragraph wipes out the cumulative effect of years of land use planning, zoning regulation, building codes or similar regulations that have or will be adopted by the State, any municipality, county, public body politic and corporate, or any other political subdivision of the State by saying that they don't pertain to actions of the corporation.

Senate Bill 200 lets the State advertize to promote the use of the oil port, the effect of which would only increase demand for petroleum products at a time when the exact opposite is needed.

Senate Bill 200 permits the State, after using its taxing and police powers to build a port, to turn around and lease it to oil companies to run, thereby creating another income producing area for those companies.

Senate Bill 200 permits any State, county, or municipal governmental department, agency, or authority to lease, lend, grant or convey to the corporation, without advertising, any real property or interest therein within the shore zone which may be necessary or convenient to the effectuation of the purposes of the corporation including public property.

Senate Bill 200 provides that the property of the corporation is exempt from all taxes.

Senate Bill 200 provides for no public participation in the evaluation of the environmental effects of the proposed port and requires the corporation merely to consult with the State Depart-

ment of Environmental Protection.

Senate bill 200 provides that its provisions override any other law of the State regarding its contents or regulations adopted under the act.

Senate bill 200 provides benefits to the oil industry, the politicians, the bankers, the lawyers, the land holders, the lending agencies and the investors at the expense of the consumer and the taxpayer as well as others who heretofore have enjoyed the natural beauty of our State.

Senate bill 200 displays a callous disregard for the best interests of the people of this State and in light of the above, we urge all those legislators who have the wisdom to see this to make sure that this and similar bills never become law. Thank you.

SENATOR MC GAHN: Thank you very much. I think that one must remember the reason we are having public hearings on any particular bill is, at the time the bill is drafted one is certainly cognizant of the fact that there may be inequities, there may be simply flaws in the bill, as such. I certainly, as a legislator, feel that I try to be as objective as possible. I will be honest with you, I am very happy to hear objective testimony.

I think, again, I must protest, as Senator Dunn has in the past, against some of the allegations made concerning legislators' callous disregard for - members in government having no consideration for the people at all. Very frankly, I would not be sitting here if that were the case.

I'd like to say again I think it is a very simple thing to make a comment and say, cut back on energy production. I agree, if we could cut back 7.3 million barrels of oil per day we would not need

a deepwater port. When people become accustomed to a particular life style how do you get them to change their attitudes and values overnight?

I think the best case in point - if I may state this - is, since the Surgeon General's report on the impact of cigarette smoking, insofar as lung cancer is concerned, the incidence of cigarette smoking in the country has gone up. How do you mandate something upon people and make them cut back on it, to their own benefit, when they have become accustomed to it? I agree, in theory.

We, unfortunately, have to make decisions which are political; which may have to balance one against the other; which will be, we hope, in the interest of all the people.

Assuming, and I am simply, now, taking a position as the devil's advocate, shall I say-- Assuming in the year 2,000 the offshore facility would be completely phased out. I think, sir, you would admit it could always be used, very excellently, as an offshore fishing reef.

In relation to the statistics, as far as lightering is concerned - very frankly, this is true. Oil pollution from ships, barges, tankers, occur in areas other than simply lightering areas. I think you, yourself, must admit that this alone cannot account for the amount of pollution that has occurred in the Delaware Bay, just since June of last year, or just in the last weeks. We are talking here about groundings; we are talking about collisions; we are talking about structural damage; we are talking about human errors. It is not just simply a question of lightering. That was something that was mentioned.

We have predicated the worst possible accident that could occur with a VLCC. There is no doubt about this. I, myself, made that initial statement. But, frankly, to date, there has not been a single accident involving a VLCC that has been due to structural failure or been due to navigational fault. If you want to consider the Torrey Canyon as in that category, that is the one exception. I do not consider that in that particular respect.

The comments that you have made as far as the bill itself is concerned are well taken. We are aware, basically, of the defects in it. I have been somewhat disturbed, however, by all testimony in relationship to the ADL study and all the projected figures that didn't -- basically the high-level option figures, without giving base line or without any other type of thing. I think, very frankly, that it must be considered that this is a high-level option and this is not necessarily that which would be implemented, if it would be implemented at all. Condemnation, taking of property without public advertising, these are all points well taken, we are all well aware of that. I have no further questions.

SENATOR DUNN: I'd just like to-- I know I am going to make you angry.

MR. LONG: I hope not.

SENATOR DUNN: I come from an "Irish Ghetto" in the city and I haven't had--

MR. LONG: I'm Irish myself, sir.

SENATOR DUNN: I know who Izaak Walton was but I have never had any association with the Izaak Walton League of America. I take it for granted that it is some sort of environmental group?

MR. LONG: Yes it is, sir.

SENATOR DUNN: I don't want to - because it is so late-- Your statements are strong, yet they are different from some others that we have heard.

Some of the testimony - although it varies, depending on who you listen to - indicates that the tourist trade in certain areas in New Jersey ranges from three to four billion dollars a year. You estimate that one oil spillage by one of the super-tankers would result in a loss of 2.8 billion dollars. Where did you get such a figure from?

MR. LONG: All that data came out of the final environmental impact statement, prepared by the Maritime Administration of the Department of Commerce for the tanker construction program. It is their data.

SENATOR DUNN: In other words, if one ship out at a monobuoy, or tying up to a buoy, split in half and all of its contents spilled out it would ruin the tourist trade and the Jersey shore to the tune of 2.8 billion dollars?

MR. LONG: That's what they estimate under the conditions of their postulated spill, yes, sir.

SENATOR DUNN: I find that hard to believe but I am not an expert in that area.

SENATOR MC GAHN: Incidentally, the figures he is quoting, basically, are correct but these are predicated on the fact that there would be no tourism to the beach areas whatsoever if this were actually the case.

One must realize that hooked into tourism is the convention business as well and a large proportion, today, of the total figure that is given for tourism is actually convention business and spinoff.

I would say that in most instances, whether it be Asbury, whether it be Atlantic City, whether it be Wildwood, or whether it be any place in Cape May, most conventioners that go to the shore area may come down and walk on the boardwalk, but very few of them will go on the beach. Most of the conventions are held at times other than the peak of the tourist season. They are not held in the summer time.

So, I do think these figures are basically correct. He has basis for them. I think they can certainly be questioned as to the total impact. There is no doubt, however, about the impact upon how long it is going to take to clean up the ocean if you have a spill of this magnitude extending along the beaches and this must be conceded.

I think in answer to this, if there is an answer, is the fact that it is most unlikely that this will happen. It is not impossible; it is improbable.

I have no further questions. Thank you very much for your patience and tolerance in waiting. Maybe our retorts are a little barbed but it is getting very close to the end. Thank you.

MR. LONG: I just might add if I may, Senator, you asked about changing life styles; I think there are some factors going on at the present time that are having a pretty profound, indirect, approach to the--

SENATOR MC GAHN: Well, life style is changing with the counter-culture.

MR. LONG: We are being forced into it.

SENATOR MC GAHN: That's right. The youth of today are-- We are being forced into it as a family, but nonetheless this will take 10 or 20 years for

even this impact to be felt.

SENATOR DWYER: With the price of food we will all become fishermen.

SENATOR MC GAHN: The meeting is adjourned. I thank you all for staying to the bitter end.

(Hearing Concluded)

WILLIAM J. FUNGE

Responsible for direct management of ocean engineering projects.

Assignments have included: site investigations, feasibility studies and engineering for marine terminals handling crude oil, petroleum products, iron ore, coal, bauxite and salt in locations, such as Western Australia, Newfoundland, Western Africa and the United States; a national study of deep-water offshore terminals for the U.S. Maritime Administration; a transportation study for a deep-sea mining project for Kennecott Exploration, Inc.; and a feasibility and conceptional engineering study of an offshore jetport for the New York area for the Federal Aviation Administration.

He has had extensive experience in the consulting engineering field as Project Manager and Assistant Vice President of Frederic R. Harris, Inc., and Design Engineer and Project Engineer for Praeger-Kavanaugh and Howard, Needles, Tammen & Bergendorf. Projects were largely port developments, including petroleum terminals at Come-By-Chance, Newfoundland, Boston, Alaska, Singapore, Nigeria, Korea, Sumatra and Saudi Arabia; a liquified petroleum gas terminal in Brazil, and general cargo and bulk terminals in New York, Connecticut, Oklahoma, Peru, Venezuela and Newfoundland. Other projects included mooring research and development programs for the U.S. Maritime Administration and the U.S. Navy; shipbuilding and repair facilities in Connecticut,

South Carolina and California; and a number of bridges, highways, airports and similar civil works.

He received a B.C.E. from Manhattan College in 1951, a M.Sc in Civil Engineering from Newark College of Engineering in 1954, and is licensed as a Professional Engineer in New York and New Jersey. He is a member of ASCE, NSPE, MTS and Chi Epsilon (National Civil Engineering Honorary Society) and is the author of several technical papers.

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MARTIN B. BRILLIANT - THE COMMITTEE FOR A BETTER
ENVIRONMENT

COST COMPONENTS OF FUELS FROM PETROLEUM
(approximate)

	per ton (<u>7.5 barrels</u>)	per barrel (<u>42 gallons</u>)	per <u>gallon</u>
COST OF CRUDE	\$63.00	\$ 8.40	20 ¢
Ocean Transport (in supertankers)	(\$ 5.50)	(\$.75)	(1.7¢)
in small tankers	9.50	1.25	3.0¢
Port Charge (for supertankers)	(\$.75)	(\$.10)	(0.2¢)
for small tankers	.15	.02	0.04¢
Refining Cost for gasoline	\$ 2.25	\$.30	0.07¢
(for fuel oil)	(1.50)	(\$.20)	(0.05¢)
Pipeline cost, crosscountry	<u>\$ 3.50</u>	<u>\$.50</u>	<u>1.2¢</u>
TOTAL, FUEL COST	\$78.40	\$10.47	24.3¢
Service Station Costs	\$25.00	\$ 3.40	8 ¢
Taxes	<u>38.00</u>	<u>5.00</u>	<u>12 ¢</u>
GASOLINE PRICE	\$141.00	\$18.87	44 ¢
Projected Savings Due to Oil Port	\$.30	\$.04	0.1¢

SUMMARY OF SELECTED IMPACTS: YEAR 2000

	East Coast Mid-Atlantic		High Option ^{5/} Gulf Coast	
	Low Option	High Option	Louisiana	Texas
Crude Imports (million barrels/day)	2.5	6.6	14.7	14.7
New Refinery Capacity (million barrels/day)	1.08	4.85	6.5	8.5
New Petrochemical Complexes (billion lb. ethylene based)	11	39	46	61
Value of Production (billion 1970 \$)				
Direct ^{1/}	5.5	21.0	26.0	34.2
Total ^{2/}	13.4	52.5	58.7	79.2
Employment (thousands)				
Direct ^{1/}	40	135	160	210
Total ^{2/}	175	665	680	1,000
Income ^{2/} (billion 1970 \$)	3.8	16.1	12.9	19.1
Land Use (thousand acres)				
Direct ^{1/}	3.25	20.4	35.3	41.6
Total ^{2/}	19.7	141	232	369.7
Water Withdrawals ^{3/} (billion gal/day)				
Direct ^{1/}	.175 (.310)	.640 (1.13)	.815 (1.4)	1.08 (1.9)
Total ^{2/}	.900 (1.5)	1.5 (2.6)	3.2 (5.4)	5.5 (9.3)
Water Pollution-BOD ^{3/} (thousand lb/day)				
Direct ^{1/}	14.3 (49.2)	53.4 (180)	67.3 (225)	88 (293)
Total ^{2/}	155 (560)	225 (810)	665 (2,440)	1,220 (4,500)
Air Pollution ^{1/ 4/} (million lbs/day)				
Sulfur oxides	.639	2.47	3.2	4.1
Particulates	.319	1.18	1.5	2.0

^{1/} Refinery and petrochemical operations.

^{2/} Direct, indirect, and induced.

^{3/} First numbers assume "best available" treatment; numbers in parenthesis assume secondary treatment.

^{4/} Assumes current pollution control.

^{5/} Complements East Coast low-option.

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STATEMENT IN CONNECTION WITH SENATE BILL 200

"OIL TRANSFER FACILITY CORPORATION ACT"

I appear here today with my colleague, Freeholder Portash to voice the objections of the Ocean County Board of Chosen Freeholders to Senate Bill 200, known as the "Oil Transfer Facility Corporation Act." This objection is to the entire concept of this proposed legislation, in addition to many of the specific provisions incorporated in this proposed act. In prior action the Ocean County Board of Freeholders supported by the County Planning Board and the Ocean County Environmental Agency have opposed the concept of a deep-water port off the Ocean County or the Middle-New Jersey Coast. This objection was based on the impact, which related onshore facilities, could have on the resort and residential characteristics of the County. The development of a major petroleum-oriented industrial complex within or in close proximity to Ocean County would propose a grave hazard to the vast investment in seasonal homes clustered along the waterways and ocean front of the County. These homes and the directly related resort-oriented commercial development account for more than one billion dollars in private property investment which represents a substantial portion of the property tax base in the County.

This proposed act would create a public corporation as an instrumentality of the State Government with broad powers and authority which is unnecessary, ill conceived, and inappropriate. The appropriate arena to solve the national problem of importation of foreign oil should rest with the

Federal Government and its agencies. The size, location, distribution and feasibility of deep-water ports should be based on national considerations if the solutions are to be comprehensive in nature. The provisions incorporated in this bill provide for indirect subsidiaries to oil companies since the onshore facilities would be exempt from property taxes and the bonds which are issued to finance the construction of facilities would be tax exempt. Since the seven large oil companies which provide the bulk of petroleum products in the nation had combined earnings of 7.5 billion dollars in 1973, (more than double the entire State budget) it is completely inappropriate to utilize governmental powers of State Government to provide assistance in the construction of a deep-water port and related oil transfer facilities.

While the bill provides for the preparation of an Environmental Impact Statement and consultation with other governmental agencies the procedure does not incorporate any provision which would allow a project to be altered or abandoned because of overriding adverse environmental impact. The corporation is granted the power to ignore or violate any planning regulations of a municipality, county or the State Government, itself. I refer specifically to Section 8, Subsection t, which reads, "Determine, as hereinafter provided, the location, type, size and character of an oil transfer facility or any part thereof and all other matters in connection with all or any part of the oil transfer facility, notwithstanding any land use plan, zoning regulation, building code or similar regulation heretofore or hereafter adopted by

the State, any municipality, county, public body politic and corporate, or any other political subdivision of the State."

The major thrust in the enactment of the Coastal Area Facility Review Act was to guard against inappropriate industrialization of the Coastal Zone Area of the State. The corporation proposed by this act would be exempt from obtaining a State permit under that act and could locate onshore facilities on 480 acres of land anywhere in Ocean, Monmouth, Middlesex, Atlantic, Cape May, Cumberland or Camden Counties. This could be done without conforming to local or county master plans, zoning ordinances, building codes, subdivision ordinances or other regulations duly adopted by the local, county, or state government. I would also like to point out that eleven (11) of the thirty-three (33) municipalities in Ocean County have a land area of less than 480 acres. While the prospect is unlikely, a small select group of men would be empowered under Senate Bill 200 to obliterate any one of these coastal communities.

The procedures specified in the act do not provide for public participation at any point in the planning, development, or execution of projects by the Oil Transfer Facility Corporation. Public participation is a cornerstone of our democratic process and embedded in the New Jersey Statutes. Public notice and public hearings are standard pre-requisite requirements for a wide range and variety of significant governmental actions in the State. The procedure is required in the adoption of a municipal or County Master Plan, zoning ordinance, subdivision ordinance and issuance of a permit under the Coastal Area

Facilities Review Act. Yet, the Oil Transfer Facility Corporation Act can violate any aspect of local, county or state planning or regulations without the benefit of public participation through the public hearing process.

This arbitrary grant of power to a semi-autonomous body politic poses inherent dangers to this and future generations. Once financing is arranged and a trust agreement established with the bondholders there will be no way for the State of New Jersey to control or extract itself from the deep-water port and oil transfer business. These powers not only apply to facilities which occupy areas, but also to pipelines which could traverse any portion of the shore zone. The authority is also empowered to exercise eminent domain and relocate county and municipal roads which might interfere with their operation. To grant to this corporation these all encompassing powers is unnecessary and an invasion of areas which would be more appropriately carried out by the oil companies with their massive financial resources under the control of Federal and State regulations. I would seriously doubt the objectivity with which legitimate and well-founded opposition would be met by this corporation being an official agency of the State. The passage of this act itself would represent an irretrievable commitment to the necessity of a deep-water port off the coast of New Jersey and all other matters would be considered incidental details and the die would be cast.

It would be unfortunate if this legislation were enacted based upon public hysteria arising from the energy crisis and motor gasoline shortage which exists in New Jersey. The

long-term feasibility of the project envisioned to be undertaken by the corporation is dependent upon sensitive and fragile international relations involving the foreign nations with oil reserves. It is completely unnecessary for the State of New Jersey to intrude into this area. This legislation will not solve or mitigate the motor gasoline shortage but will only create an additional cast of characters to add confusion to the scene.

We would recommend that further consideration of Senate Bill 200 the "Oil Transfer Facility Corporation Act" be abandoned.

Joseph E. Buckelew
Freeholder-Director
Ocean County Board of Chosen
Freeholders

STATEMENT OF THE NEW JERSEY FARM BUREAU ON SENATE BILL 200,
PUBLIC HEARING HELD ON MARCH 4, 1974:

Senator McGahn, members of the Committee, ladies and gentlemen:

My name is Walter Ellis, Jr., of Crosswicks, New Jersey. I am the owner and operator of a farm in that community, and appear here today as the first vice president of the New Jersey Farm Bureau and the chairman of the Legislative Committee of the New Jersey Farm Bureau and New Jersey State Grange.

As a farmer myself, and as a representative of more than 4,000 farm families who are members of Farm Bureau in 20 counties, my purpose here today is to state the interest we have in this bill.

We recommend the adoption of this proposed legislation with certain amendments. Like many others in the state, we too have concern about the ecological dangers involved in the unloading of huge amounts of crude oil; but we are also painfully aware of the acute petroleum and energy shortage that is a current reality. We believe the time has come for the State of New Jersey to decide in favor of jobs and general economic well-being, particularly where reasonable safeguards can be assured that the danger of oil spills resulting from the facility proposed in this legislation will be minimal.

In case it is not obvious to the members of this Committee and to others, both farmers and consumers have a deep interest in the availability of petroleum in adequate supply and at the most reasonable cost possible. Our modern agricultural operations cannot continue without petroleum. Our ability to produce the food that is essential to everyone is completely dependent upon mechanization and upon electrical energy, both of which are largely dependent upon oil.

In general, we would prefer that facilities such as that proposed in this legislation not be owned or operated by a government agency; but by private enterprise. But in this

instance, ownership by a public corporation may be justified so as to provide a maximum of control over the operation and to assure the public that every possible step will be taken to protect against pollution of the seashore from oil spills or other accidents.

We question, however, whether it is necessary to include the proposed half-million dollar appropriation from public funds that is included in this bill. While it is intended as a loan to be repaid, it would seem to us preferable that funds for the development of the facility come from the sale of bonds or through other private channels. Consideration might be given to capitalization of the project in a manner similar to Comsat, where private investment can be made without losing a large degree of public control. In light of the very tight budget situation facing the State, some method should be found to relieve the need for the appropriation in this bill.

We feel confident that sufficient technology exists, so that the proposed offshore facility can be constructed and operated with very little danger of pollution. While we have had some dramatic examples of massive spills on the West Coast and elsewhere, the experience with offshore drilling in such areas as the Gulf of Mexico off the shore of Louisiana has been reassuring; and the operation of supertanker facilities in other parts of the world has proved to be successful and relatively free of pollution problems. We believe that we should not only proceed with the development of the facility proposed in this bill; but that New Jersey should not stand in the way of federal licensing of offshore drilling on the East Coast, provided adequate safeguards are provided against spills.

It is not logical to oppose this bill and the facility that is proposed, based solely on the danger of pollution or the construction of storage tanks that would spoil the natural beauty of one particular spot on our shore. It is clear that crude oil from the Mideast will be flowing to our shores again in the future, and that we will be dependent upon foreign oil

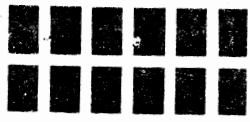
to supply our energy needs for several years to come. The danger of pollution from the smaller tankers and in transferring oil from supertankers to smaller ships is perhaps greater than it would be in the use of the facility proposed here.

We are not particularly happy that the corporation created by this legislation will have the power of eminent domain, since we believe this power is already exercised by too many jurisdictions, agencies, authorities and corporations in New Jersey; and we are not clear as to why the sponsor of the bill found it necessary to include detailed provisions in this bill regarding the taking of the necessary land or rights to develop the proposed facility. We ask that this Committee determine why it was not sufficient simply to refer to the Eminent Domain Act of 1971 and provide that the Corporation proceed under the procedures and requirements of that Act.

We also recommend that the bill be amended to provide that the corporation created by this bill pay local taxes on the same basis as any other property owner.

To repeat, we have reservations about this legislation; but when we weigh the balances, we are forced to conclude that it is in our best interest and in the best interest of the state as a whole that an amended form of this legislation be passed and signed into law. We therefore recommend that this Committee report out an amended bill with a favorable vote, and we will recommend to the other members of the Senate that the bill be adopted.

We appreciate the opportunity to present our views.



**delaware
valley council**

Progress through cooperation

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STATEMENT OF
THE DELAWARE VALLEY COUNCIL
AT THE PUBLIC HEARING ON SENATE BILL 200
OF THE
SENATE COMMITTEE ON ENERGY, AGRICULTURE AND ENVIRONMENT
ASSEMBLY CHAMBER OF THE STATE HOUSE TRENTON, N.J.
FEBRUARY 25, 1974
REGARDING
"OIL TRANSFER FACILITY CORPORATION ACT"

I am Samuel T. Hudson, President of the Delaware Valley Council.
The Delaware Valley Council is a non-profit, non-partisan organization
representing industry in the 15 counties in New Jersey, Delaware and
Pennsylvania which comprise the Delaware Valley.

I welcome the opportunity to present a statement on behalf of the
Delaware Valley Council on a matter vital to industry in this area. The
Senate Committee on Energy, Agriculture and Environment is to be commended
for its concern which has led it to hold hearings on Senate Bill 200, dealing
with the Oil Transfer Facility Corporation Act.

It is obvious to all of us that if Delaware Valley industry is to
provide employment for people in the area and if it is to continue to produce
a wide variety of materials and products for the consuming public, it must
have an adequate supply of petroleum products at costs competitive with
those in other parts of the country.

The refineries in the Delaware Valley, which provide employment for
many people and which manufacture gasoline, heating oil, as well as raw

materials for our chemical plants, must have crude oil at competitive costs if they are to continue to operate. Our area is more dependent on imported crude oil than any other section of the country. Yet, we are lagging in our preparation to handle increasing quantities of imported crude oil carried by the mammoth tankers which are now being used throughout the world. Certainly the present practice of "lightering" tankers in the Delaware Bay is less desirable, both environmentally and economically, than the movement of crude oil into the area by very large tankers unloading at an adequate deep water oil port. I hope these hearings give impetus to a movement to provide this area with such a port.

We feel that Senate Bill 200 has merit in that it provides the mechanics for the State of New Jersey to begin an investigation into all aspects of a deep water terminal, and possibly to prepare for the construction and operation of such a terminal.

However, our concern involves the requirement in the bill that the facilities be state owned. We suggest that the advantages of private ownership should also be considered. These will be specialized facilities for the handling of crude oil only. It is my understanding that a number of oil companies are ready and able to take the risk and make the necessary investment here as oil companies have in many parts of the world. We are talking about a substantial sum of money - I understand that the offshore oil ports proposed for Louisiana and Texas may ultimately cost as much as \$400 million each. New Jersey tax payers may not wish to provide the large amount of capital required for a New Jersey port, particularly if it can be provided by private industry.

My own company, Hudson Engineers, Inc., of Philadelphia, under the aegis of the Delaware Valley Council developed a concept for a very exotic deep water terminal in conjunction with educational and lesiure living complexes. However, the energy crunch is upon us. We strongly urge the Legislators of the State of New Jersey to investigate all the possibilities with which to provide your state with the best design and installation of a deep water port in close proximity to the refineries which it will serve. We believe that such an installation to the north near the New York harbor will provide in excess of 300,000 barrels per day for that refinery area. We desperately need a deep water port installation to serve the Delaware Valley, the Delaware River estuary and the seven (7) major refineries currently located within that industrial complex.

While indeed we are for any installation which will supply us with a means for obtaining imported crudes into our Valley, we feel that these installations can be better located at or around the Delaware Bay. The seven (7) refineries require approximately a million barrels of crude every day to operate at average capacity. We do not believe that an installation of a deep water complex in the Monmouth County area is to the state's best advantage for serving the refineries in South Jersey.

Some may question the need for an offshore oil port now that Middle East imports have been disrupted and in view of our stated national purpose of attaining self sufficiency in our energy supply. It appears to me that we will continue to have increasing amounts of imports for some time. We will continue to import crude oil from Latin America, West Africa and other parts

of the world, and undoubtedly the Middle East problems will eventually be settled and imports from this area will be resumed. I am also of the opinion that it will be a number of years before our country is able to attain an energy self sufficiency. Therefore, this area can expect to be dependent on imports for many years. For this reason, we need to prepare now to handle large volumes of imported crude in the large tankers being used in world-wide oil traffic.

TABLE 2
FOREIGN IMPORTS OF CRUDE OIL
U. S. PAD I AND NORTH ATLANTIC 1962-71
(1,000's of Barrells)

<u>Year</u>	<u>District I</u>	<u>North Atlantic*</u>	<u>Total U.S.</u>
1962	244,235	222,446	411,039
1963	248,199	229,397	412,660
1964	252,527	232,026	438,643
1965	258,361	238,995	452,040
1966	259,499	236,529	447,120
1967	216,920	202,952	411,649
1968	263,866	250,080	472,323
1969	269,007	248,840	513,849
1970	211,403	188,053	483,293
1971	252,088	206,968	613,417

* Arthur Kill, Delaware River, and York River.

SOURCE: U.S. Army Corps of Engineers, Philadelphia District

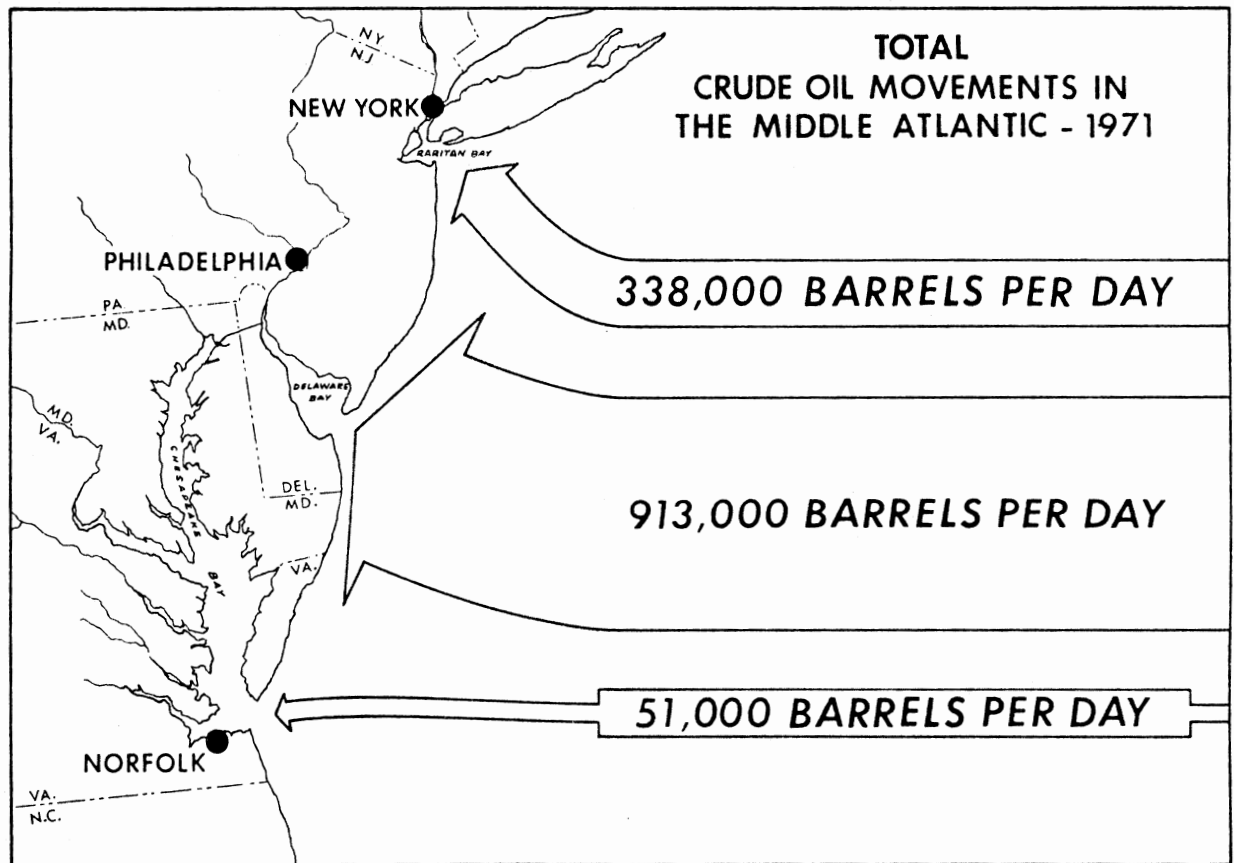


Figure 5

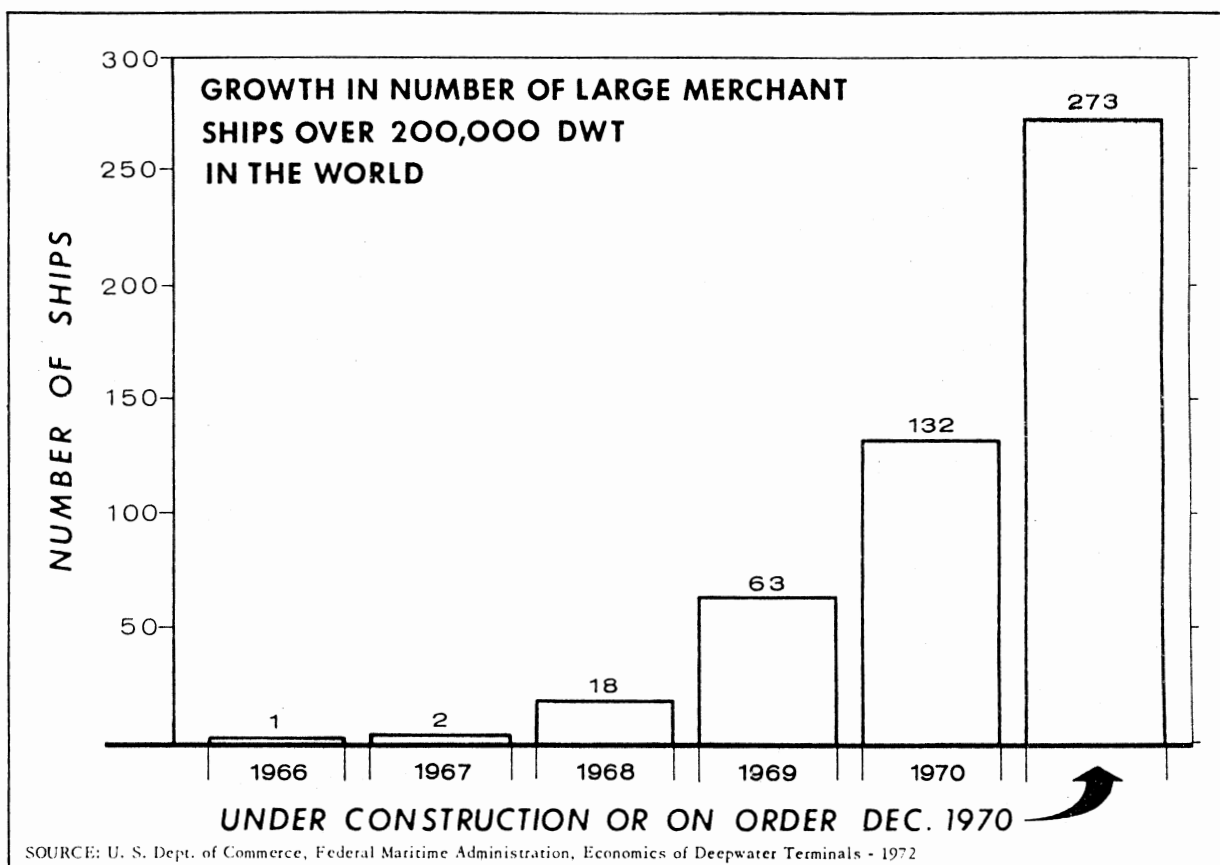


Figure 10

NEW JERSEY COUNCIL OF CHURCHES

Government Commission

TESTIMONY ON S 200, March 4, 1974

(by Philip E. Kunz)

The bill in point, S 200, purports to create a State Corporation for the construction and operation of an offshore deep-draft tanker discharge operation. In reality, S 200, viewed only for itself as the sponsor Senator Dodd asks, could utterly remake the nature of New Jersey. It is a radical bill in modest prose.

S - 200 has these particular but far reaching defects:

1. Page 5, line 12ff does not provide a large enough corporate board to offer substantial deliberation on operation in the public interest. If there were to be such a public corporation, it must be far broader based.
2. Page 6, lines 68-72 show a totally unacceptable lack of environmental review and veto power by the existing State authority including the Dept. of Environmental Protection. Likewise, page 25, a logical point for guarantees to the public on environment, does not have the language needed to make sure the proposed Corporation is not its own judge. This new sort of "executive privilege" as in S 200 would be intolerable.
3. Page 7, g. allows proxy deliberations by appointees of Corporate members. This is wrong. While such proceedings seem routine to many, they are not adequate to the serious nature of policy required of a Public petroleum corporation. The members should be required to do their own work in public bodies.

On these detail weaknesses, S 200 fails on its own demerits.

Yet there is the broader concern presented by the measure: Shall much of New Jersey be industrialized for the benefit of private interests? While S 200 claims to drastically narrow the land used for an oil transfer facility (monobuoy,) it actually would mean private support activities demanding larger acreage. In addition, a tremendous population impact with needs for schools, water, sewage, highways, and electric power would be engendered. All of this would not fit the existing land

S 200 - New Jersey Council of Churches
use practices, regulations and plans.

Who would really benefit from a south Jersey oil boom?

Exxon and its fellow travelers.

The social, ecologic, and political disruption costs would be borne by the people of New Jersey with little, if any compensation. While the private oil firms would not own the proposed facility, they would be the direct beneficiaries. At the same time, no one has been willing to project a tax design so strong as to return to New Jersey the fair cost share that would result from the massive expansion of "people needs" generated by the oil monobuoy port.

Let no Senator believe that S 200 is not a political trojan horse. It is another move by oil multinationals to secure a monstrous de-facto subsidy. The involvement of certain union figures, through SEED, must be viewed very carefully. Their stance is not consonant with the position of AFL-CIO president Meany regarding nationalization of certain oil companies.

The present nature of the petroleum business is one of vertical integration with drastically reduced competition. Studies by the U.S. Senate Multinational Committee and the Federal Trade Commission show a dangerous monopoly position by the top ten oil firms. Indeed, the FTC is now seeking to force divestment by oil firms of a portion of their operations.

This Federal direction on oil firms should indicate to our N.J. Senate the swamp tread in dealing with S 200. The oil firm beneficiaries presently do not contribute adequate compensation to the people of New Jersey for their operations on our land. Moreover, they have been far less than helpful to the State Government in the current alleged oil shortage. In fact, New Jersey is today the host to oil operations for the whole seaboard without any resulting fair share of allocations.

Rather than pass S 200, the State Senate would be well advised to deeply probe the operations, policies and consumer impact of the multinational petroleum firms in the Garden State.

Mister Chairman, members of the committee, my name is Charles Webber, I am here representing the New Jersey State Federation of Sportsmens Clubs and our sister organization, the Sportsmen Industry Conservation Council, composed of the Federation and the New Jersey Manufacturers Association.

We make the following suggestions regarding legislation on Off Shore oil unloading facilities.

The economic soundness of such a facility and the financial strength of business that will use them is well established. In view of this we cannot see any justification for the use of public funds in their construction. Under private ownership, the shore based installations operated in conjunction with the facilities will provide additional tax ratables and jobs. This may tend to mitigate local objections to their construction. In addition, damage through accidents will then be the responsibility of private owners, under strict state supervision.

Under current law, three separate permits, under as many statutes will be required prior to construction and operation. All require appropriate impact statements. These requirements may stem future ecological problems. However, unforeseen biological interactions resulting from the construction or operation of the facilities may require extensive outlay of public funds. Provisions must be made for that eventuality.

In order to solve this problem, we suggest following the lead of other states, notably Louisiana, the establishment of a state Conservation Fund. Under this plan, a nominal fee is levied against each barrel of petroleum entering the state through Off Shore unloading facilities and Off Shore oil wells. These funds are then dedicated for use by appropriate state agencies to solve ecological problems associated with their operation.

At the present time large tankers are transferring oil to small tankers and lighters for delivery to refineries. It is reported that small oil spills associated with this operation are common. Over the past few months several oil spills involving small tankers have occurred in the Delaware Bay and in the lower Delaware River, resulting in extensive damage to ecologically delicate marshlands. One oil spill destroyed a major portion of the Ruddy Duck population in the Atlantic Flyway. It is possible that a deep water Off Shore oil unloading facility, under proper supervision, would be highly beneficial, eliminating the need for operating a large number of small tankers near shore.

3/4/74

STATEMENT OF RICHARD C. LEONE, STATE TREASURER, BEFORE THE
SENATE COMMITTEE ON ENERGY, AGRICULTURE AND ENVIRONMENT

(Thank you) Mr. Chairman, Members of the Committee.

I appreciate having this opportunity to comment on a proposal which has generated great interest and, I think, almost equally great confusion.

There is a widely held notion that a deep-water oil port, located some distance off New Jersey shores, can provide quick relief from the fuel shortage and a handsome addition to state revenues. In fact, under existing Federal energy regulations and current State tax laws, neither return seems likely. The energy rules, according to my information, establish a vertical system of allocation pegged to a base year and extending from the crude oil suppliers all the way to the end-users.

Heating oil distributors supply their base year customers with some fraction of their normal intake, while gasoline retailers sell fuel in

a monthly amount determined by Washington and based, we are told,

on previous per capita consumption rates. As we have learned to our considerable regret, New Jersey's enormous refinery capacity is no substitute for a fair allocation assignment from Washington. Unless the allocation rules are changed, the diversion of east coast tankers to a New Jersey port will be similarly unrewarding for the state's home and car owners.

As for the revenue advantages of establishing an off-shore oil facility, there is, as you know, a long standing controversy over the reach of the importing state's tax authority. Some contend that the shoreline state can levy a direct tax on the volume of crude oil piped in from the deep water delivery point. They speak of creating some variety of the "Severance Tax" currently employed by Texas and Louisiana. Other legal experts argue that a severance tax can only be applied to onshore or coastal drilling and that the Constitutional ban on states levying import taxes precludes any other form of direct tax.

I won't comment further on this issue. I think it inappropriate for a cabinet officer to give legal advice to the legislature. I will comment, though, on the tax effects of an oil port under existing law. That volume of imported crude oil which is converted to gasoline and diesel fuel, which increases the national supply sufficiently to raise New Jersey's allocation, and which is ultimately retailed in New Jersey -- that quantity of oil would be subject to the state excise tax on gasoline. There is no way I know of to calculate that added revenue or even to ascertain whether there will be additional revenue. I suspect that any increase will be slight and will certainly not materialize until many years from now.

There is one consequence of an off-shore port which I think we can predict with some certainty. It is a consequence which the Governor described and deplored on several occasions during the fall election campaign. The construction of a deep-water transfer facility will create powerful incentives for the development of a supporting infrastructure.

Thousands of acres of shore-community property would be turned over to refineries, sprawling tank farms and petrochemical plants. The character and appearance of communities across a wide expanse of shoreline would be permanently and dramatically altered.

Arthur D. Little Company of Boston, in a report entitled "Potential Onshore Effects of Deepwater Oil Terminal Related Industrial Development", concluded that: "The development of a deepwater terminal facility off the coastal region of a high-demand petroleum and petrochemicals market will require costly infrastructure, environmental protection and safety systems.

The natural laws of economics would tend to increase crude oil throughput once a terminal facility has been constructed. As crude processing and directly associated industries increase, the need for service industries would also increase as would the economic justification for locating them in proximity to the petroleum processes. This potential for major industrial and economic expansion associated with deepwater facilities is a prime

reason why port development implications should be viewed from long range time horizon."

The report goes on to say that if an oil port were built and a high degree of crude oil imported into New Jersey, extensive land development would follow, bringing increased air and water pollution and a severe strain on fresh water resources. Expansion of New Jersey's refinery capacity would double the rate of land development in Cape May and Cumberland Counties, while, if primary expansion came in Middlesex County "...virtually all of the remaining undeveloped areas could be appropriated in order to accomodate the new petroleum-related facilities."

These disturbing conclusions were backed up by the Army Corps of Engineers in a 1973 report about the on-shore effects of an oil port. After pointing out the close relationship between the building of an oil terminal and the increase of refinery capacity, the Corps concluded that an oil port would "...foster significant changes in the Southern part of New Jersey" and that it would have an adverse effect on

recreation in the region. Also, according to the Corps, "...the Northern and Central portions of the mid-Atlantic region would become significantly more crowded. By the year 2000, Middlesex County will have approached the character, if not the absolute population density of heavily industrialized Union County.... and the Cumberland/Cape May area will have taken on the character of industrialized Middlesex County today."

The plan for a deep water oil port then is much more than an energy measure or a revenue device. It raises hard questions about the kind of landscape, the kind of environmental controls, the kind of community development we want in New Jersey. We face challenging problems in the areas of land use, waste disposal, water and air pollution. An off-shore oil port will move us further from solutions to these problems and return inadequate compensation in energy supplies and state revenues.



State of New Jersey

DEPARTMENT OF LAW AND PUBLIC SAFETY

DIVISION OF LAW
STATE HOUSE ANNEX
TRENTON 08625

WILLIAM F. HYLAND
ATTORNEY GENERAL

March 19, 1974

Honorable Joseph L. McGahn, Chairman
Senate Committee on Energy, Agriculture
and Environment
Legislative Services Agency
State House
Trenton, New Jersey 08625

Dear Senator McGahn:

In accordance with your request to the Attorney General, I and several other members of the Attorney General's staff have review S-200, the Oil Transfer Facility Corporation Act, to determine whether the bill as proposed is suitable to accomplish its stated objectives. Our comments follow. I should emphasize that our comments are directed solely to the technical sufficiency of the bill and not to the substantive merits of the proposal.

1. The general provisions of the bill concerning the powers of the corporation, the bonding provisions and the eminent domain provisions are similar to those contained in acts creating other financially independent authorities. With one exception set forth in paragraph 2 below, these provisions present no technical legal problems.
2. There is an inconsistency in section 12c. That subsection provides first for the creation of a trust fund in an amount at least equal to the aggregate amount of just compensation on deposit with the Clerk of the Superior Court, but then it provides for withdrawal from this trust fund of "so much as may be in excess of twice the aggregate" estimated just compensation on deposit with the Clerk. This inconsistency appears to be a drafting error. Many statutes passed prior to the Eminent Domain Act of 1971 required the maintenance of a trust fund in twice the aggregate amount of just compensation on deposit in court. The Eminent Domain Act no longer requires such trust funds.

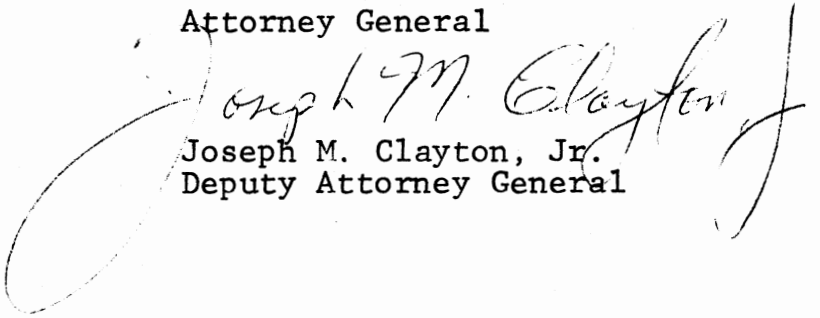
3. The committee should be aware of litigation pending in the United States Supreme Court in which the Atlantic Coastal States are seeking a declaration that they own and control the sea bed offshore within their boundaries beyond the present three mile limit out to the edge of the continental shelf. The outcome of this litigation could affect the Oil Transfer Facility Corporation's power to determine the location of the facility under section 8t.
4. Section 8t exempts the Corporation from compliance with State and local land use regulations, such as those contained in the Coastal Area Facility Review Act (N.J.S.A. 13:19-1 et seq.) and the Wetlands Act of 1970 (N.J.S.A. 13:9A-1 et seq.), with respect to the location of the project. This section does not exempt the Corporation from compliance with other pollution control laws and regulations governing the operation of the facilities, nor does it appear that the Corporation or its lessees are exempt from pollution control regulations under any other section of the bill.
5. Section 26 provides that the Corporation must "consult with the Department of Environmental Protection with respect to the ecological factors constituting the environment of the shore zone, to the end that the delicate environmental balance of the shore zone may be maintained and preserved." Identical language in the New Jersey Sports and Exposition Authority Law, N.J.S.A. 5:10-23, has been held to require a public hearing on the environmental impact of the proposed project before the Department of Environmental Protection. N.J. Sports & Exposition Authority v. McCrane, 61 N.J. 1, 31-33 (1972), aff'd after remand, sub nom In re Sports Complex Hackensack Meadows, 62 N.J. 248 (1973). Implicit in the Court's decision was the proposition that the project could not go forward unless the Department concluded, after the hearing, that the "delicate environmental balance" would be "maintained and preserved." 61 N.J. at 32.

6. Section 9c, establishing certain liability for damage arising from defective conditions in the facility and creating a presumption, is somewhat inconsistent with N.J.S.A. 58:10-23.1 et seq. and N.J.S.A. 23:5-28, both of which establish, with respect to oil spills, a standard of strict liability for penalties and cost of clean-up. See State v. Jersey Central Power & Light Co., 125 N.J. Super. 97 (Law Div. 1973).
7. The proviso in the first sentence in section 21a regarding the taxable status of property leased by the Corporation to others is ambiguous. It is not clear whether the intent was to render leasehold interests taxable or tax exempt. This section should be redrafted to reflect more precisely the intent of the drafters of the bill.

I hope that these comments will be helpful to the Committee. Please feel free to contact this office if you have any further questions.

Very truly yours,

WILLIAM F. HYLAND
Attorney General


Joseph M. Clayton, Jr.
Deputy Attorney General

JMC:tac

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