

Petroleum Industry Research Foundation, Inc.

122 EAST 42nd STREET

New York, N. Y. 10017

THE QUESTION OF EXPORTING ALASKAN CRUDE OIL

A Statement By

John H. Lichtblau
Executive Director

Before the Senate Subcommittee on Energy Conservation and Regulation

May 9, 1977

I appreciate your invitation to testify before the Senate Subcommittee on Energy Conservation and Regulation on the subject of Alaskan oil. Few issues have been as much analyzed and argued by as many experts as the Alaskan oil situation. Much of this material has been submitted to or brought out in Government hearings or was developed by Congressional staffs. In my testimony I will therefore concentrate on one major issue -- the exportation of North Slope crude -- both because I believe it has not been fully analyzed and because it touches on so many other aspects of the Alaskan oil situation.

The West Coast Surplus Problem

The principal problem facing Alaskan North Slope oil as it reaches its full initial production level of 1.2 million b/d by the end of this year is that its delivery system -- the Trans Alaskan Pipeline (Tapline) -- is designed to supply the U.S. West Coast. Delivery systems to bring this oil to other parts of the U.S. are either non-existent or entail significant additional transportation costs. The West Coast, however, cannot absorb more than 50-60% of initial North Slope production.

Nor is this a transitory problem. The President's Report of April 15th shows a 400,000 b/d surplus of North Slope crude at the West Coast by the end of 1981 under the assumption of a 1.2 million b/d North Slope production level. If the level should be 1.4-1.5

million b/d by then, as projected in Dr. Mortada's and several other studies, the surplus would be correspondingly larger. By 1985, according to an FEA study, the surplus will range between 700,000 b/d and 1,300,000 b/d. Other studies show ranges from 430,000 to 1,000,000 b/d. The Administration's new energy plan which aims at an oil consumption level in 1985 just slightly above that of last year will certainly not contribute to reducing the surplus.

Unless or until a pipeline to the U.S. interior is constructed that surplus can only be removed by tanker either to the U.S. Gulf Coast via the Panama Canal or to the nearest major foreign market, which is Japan. Both markets are less attractive to North Slope producers than the West Coast. This is basically due to the fact that the transportation costs to the Gulf Coast from Valdez are relatively higher, and those from the Persian Gulf to Japan relatively lower making the landed price of competitive foreign oil in Japan less than on the West Coast.

We estimate the following netbacks for North Slope oil to the port of Valdez from shipments to a) Los Angeles, b) the Gulf via the Panama Canal (both in the largest usable domestic flag ships), and c) to Japan in foreign flag VLCC's or the largest available domestic flag ships. These netback values are based on the proposed regulatory treatment of North Slope crude in The National Energy Plan of April 29, 1977, which would permit upper tier wellhead prices and no entitlement obligation. We endorse this proposal.

NETBACK VALUES OF NORTH SLOPE CRUDE
AT VALDEZ BASED ON CURRENT PRICES
(1977)

	<u>\$/bbl</u>
From California	12.68
From Gulf Coast	10.98
From Japan (foreign flag)	12.22
From Japan (domestic flag)	11.42

In all three cases, we assume the North Slope oil will have to compete with comparable quality Middle East crude and have made an adjustment for the quality differential. The netback from Japan also reflects our perceived need of some discount -- which we estimate on the order of 10¢/bbl -- to induce displacement of Middle East crude. The netback differentials shown in the table agree in order of magnitude with FEA projections for the first quarter of 1978.

Exporting North Slope Crude

The table shows clearly the undisputed fact that the West Coast represents the best market for North Slope crude and the Far East the second best. Thus, in the absence of a government interdiction, nearly all North Slope crude in excess of West Coast demand would go to Japan. From 1978 through 1981, this excess could be a minimum of 500,000 b/d or 33%-42% of total North Slope production.

The problem is of course that there is an interdiction to the exportation of North Slope crude. However, the prohibition is not

absolute. Under existing legislation, crude oil shipped through the Trans Alaskan Pipeline may only be exported if the President finds such exports in the national interest and if Congress does not jointly express its disagreement with the President's findings within 60 days.

The essential question then, is, are North Slope crude exports from Valdez in the national interest? Let me say right here that in my view the answer is yes, for the reasons developed in the following paragraphs.

1. The Cost of Export Interdiction

Any market intervention which forces a seller to shift from a logistically superior to a logistically inferior market causes a relative misallocation of transportation resources. In the case of North Slope crude, the misallocation brought about by forcing the West Coast surplus to be shipped to the Gulf Coast instead of Japan is reflected in the \$1.24/bbl netback cost differential (see table on page 2). Presumably this entire amount would initially have to be absorbed by the seller in order to remain competitive. Since about 63% of the pre-tax wellhead earnings on North Slope crude go to the federal and Alaskan State governments (25% to Alaska and 37.5% to the U.S. Treasury), all three entities -- the oil companies, the state government and the federal government -- would have to carry the loss. Assuming that an export interdiction forces 500,000 b/d of North Slope crude to be shipped to the Gulf Coast instead of Japan, the two government entities would lose about \$140 million annually in revenues while the oil companies' after-tax earnings would be reduced by \$85 million.

Obviously, then, from the federal, state and companies' fiscal point of view, exports would be preferable to shipments to the Gulf Coast. Since exportation of the West Coast surplus would not raise domestic oil prices, U.S. consumers would be indifferent to it.

2. The Elk Hills Problem

Exportation of North Slope crude would obviate the necessity of shutting in production from the Elk Hills Naval Petroleum Reserve. Such action is specifically called for in the Administration's new National Energy Plan which proposes to put Elk Hills on stand-by reserve "in order to reduce the West Coast oil surplus". In the absence of such action Elk Hills production is scheduled to rise to 200,000-250,000 b/d by 1979.

The shutting in of production in order to balance supply and demand is on a small scale quite reminiscent of the often criticized prorationing in the Southwestern oil states as it was practiced during the many years of excess capacity prior to 1972. Directionally it would have the same price supporting effect on the West Coast as it did formerly on the Gulf Coast. Why should the U.S. government engage in such action at this time? If the North Slope oil surplus is so unmanageable that it can only be contained by shutting in some other production, would it not be better to let it be exported? After all, the oil supply problem is a global one for the U.S. and will remain so as long as we remain net importers of oil.

Thus, any shutting in of existing production in importing countries must increase the world's reliance on OPEC oil to that extent. If one

considers that over the next four to five years we will import some 350,000 b/d over and above our normal requirements to fill our Strategic Petroleum Reserve, the simultaneous shutting in of Elk Hills in order to keep North Slope oil off the export market would be likely to cause a measurable increase in our net import position during this period.

3. Retrofitting Refineries to Burn Sour Crude

A much more positive way for the government to intervene on behalf of North Slope oil than shutting in Elk Hills would be to provide incentives to enable those West Coast refineries which for technical reasons are now limited to sweet crude oil to convert their equipment to the use of sour crude such as the North Slope oil. The National Energy Plan calls for just such a "refinery retrofit program....to enable more high-sulfur Alaskan oil to be refined in California". Last year 60% of the West Coast's total oil imports of about one million b/d were sweet crude, largely from Indonesia. To the extent to which the need for this type of crude can be reduced, additional quantities of North Slope oil can be absorbed.

In fact, I believe consideration should be given to extend such a retrofitting program to the entire country, since the faster decline in domestic sweet crude production than in other domestic production and the phasing out of sweet crude Canadian imports have made many refineries inflexibly dependent on overseas imports of this particular type of crude.

The reasons that relatively few refineries have been retrofitted so far are the high capital cost and the fact that the total cost per barrel is currently higher than the price differential between imported

sweet and sour crude. The capital cost, including rate of return, is approximately \$2,000 per b/d^{of capacity,} or \$200 million for a 100,000 b/d project. This is equivalent to \$1.50-\$2.00 per barrel while the current premium of foreign sweet crude over Persian Gulf sour crude averages about \$1.- at the West and Gulf Coasts. If and when this differential widens significantly retrofitting will become more attractive. Meanwhile, a government program through tax or other incentives could speed up the process and thus prevent a crunch at some future time. Perhaps the Business Energy Tax Credit just proposed by the Administration could be used for that purpose.

4. National Security Considerations

It is sometimes argued that North Slope exports could impair our national security, since they would cause the U.S. to lose control over this oil.

I believe this argument is incorrect. In normal times when foreign oil is readily available, a given export of North Slope oil would require an approximately equal increase in our imports, leaving our net import balance unchanged. In an emergency in which our access to foreign oil became restricted, the government could under existing export control legislation divert this oil into the domestic market whenever it wishes to. U.S. exporters could be requested to inform their contractual foreign buyers of this possibility in advance so that the latter know the security limitation of North Slope supplies.

If not enough U.S. flag ships are available in an emergency to

carry North Slope crude to the Gulf Coast, the same VLCC tankers which carry it to the Far East could be used to carry it either around the tip of South America to a Caribbean transshipping port or to the Panama Canal for lightering into smaller vessels for transit through the Canal. Since any substantial interruption of foreign oil supplies to the U.S. could be expected to idle a corresponding amount of tanker tonnage, it is unlikely that a transportation bottleneck would develop. Furthermore from 1980 on we will have a substantial volume of strategic petroleum reserves on which we could rely during the period it may take to arrange the diversion of Alaskan exports into the domestic market.

5. Exports vs. Exchanges

The President's Report of April 15th as well as other government reports tend to talk about "exchanges" with Japanese or other overseas buyers rather than straight exports. The idea is that the buyer commits himself to deliver a like volume of foreign crude to the U.S.

Such a system would be unnecessary and administratively difficult to enforce in normal times when U.S. importers have access to all the foreign crude oil they require at existing market prices. During emergency periods exchanges may be negotiated, probably under government control, if both parties consider them logistically preferable to a cessation of Alaskan exports.

6. Pipelines to the Interior

It has been correctly argued that unlimited exports of North Slope crude would remove much of the incentive to build a pipeline to transport this oil to the U.S. interior. However, exports would still be preferable for the same reasons as stated in our analysis of exports vs. shipments through the Panama Canal. But the preference would be smaller. Pipeline shipments from Los Angeles (Long Beach) to Houston would add about \$1.00 to the transportation cost and thus reduce the netback at Valdez significantly below the netback from shipments to Japan in foreign flag vessels. Given this differential and the absence of any overriding national interest to ship this oil to the interior, there does not seem to be any reason for the government to restrict exports in order to encourage the expenditure of at least \$800 million to build the pipeline. Pipeline projects from the West Coast to supply refiners in the Northern U.S. would seem to be unaffected by an open North Slope export policy, since these pipelines are conceived largely as carriers of imported crude.

7. North Slope Exports and U.S. Flag Vessels

As shown in our table on page 2, U.S. exports to Japan in U.S. flag vessels would greatly reduce but probably not eliminate, the netback advantage at Valdez of Japan over the Gulf Coast. It might, however, eliminate the advantage of shipments to Japan over future pipeline shipments from California to the Gulf Coast.

The President's Report of April 15 assumes in two of its seven scenarios unlimited exports of North Slope surplus crude in domestic flag ships. Two other scenarios assume foreign flag ships will be used. There is of course no existing legal requirement to use domestic flag ships for exports of Alaskan oil. However, it has been argued that such a requirement should be enacted, since in the absence of exports the oil would have to be shipped in U.S. flag vessels to West Coast or Gulf Coast destinations.

From the point of view of economics there is clearly no justification for restricting exports to domestic flag ships. Nor does there seem to be one from the point of view of equity. U.S. flag vessels will benefit substantially from North Slope development, since more than half of total production will be carried in domestic flag vessels to the West Coast, and perhaps to Hawaii, even under conditions of unrestricted foreign flag exports. Some additional volumes are also likely to be shipped through the Panama Canal, since the largest North Slope producer has already made long-term charter commitments for this route.

Furthermore, the provision that 50% of the oil for the Strategic Petroleum Reserve be carried in domestic flag ships would give further benefits to domestic tanker operations and maritime unions. In fact, if all these demands, including a domestic flag limitation on North Slope crude exports, were made on the domestic tanker industry, it could not physically meet them, unless the federally subsidized U.S. tankers currently in foreign trade are returned to U.S. flag jurisdiction.

A recent study by the U.S. Maritime Administration, quoted in the President's Report, confirms this in the case of the North Slope crude surplus going to the Gulf Coast via the Panama Canal. It is unlikely that Marad's findings would be very different if the surplus went to Japan in U.S. flag ships. Thus, it does not appear that a restriction of North Slope oil exports to U.S. flag vessels is in the public interest.

To sum up, Mr. Chairman, I believe if the issue of Alaskan oil exports is examined objectively and dispassionately, it will be found that the justifications for the export prohibition imposed during the oil embargo days of November 1973 has ceased to be valid.

