CRUDE OIL PIPELINES OVERVIEW OF THE PUBLIC/POLITICAL PROCESS

by Thomas C. Kryzer

The following presentation was first made at the High Plains Energy Forum, held in Billings, Montana February 24-25, 1982.

Four basic changes have occurred over the past 10 to 15 years which have dramatically influenced the crude oil supply and transportation situation in the United States. I will briefly describe these long term influences in order to put our present crude oil transportation problems into perspective. These are:

1) A higher dependency on imports for our total crude oil supply and a significant shift in the source of these imports.

2) A shift in the location of major domestic crude oil production from the south-central states west toward California and Alaska.

3) A change in the means by which major projects, like an interstate crude oil pipeline, are authorized, from the private-business sector to the public-political sector.

4) After a period of sustained increases in total domestic crude oil consumption, a move toward conservation, primarily in response to higher petroleum costs.

The first two changes; more dependency on imports from a changing slate of foreign sources, and a significant shift in the location of domestic crude oil production, have combined to create an imbalance in the crude oil transportation system in the United States. That transportation system, which relies primarily on pipelines to move crude oil from areas of production to refining centers, has not changed significantly during the same 10 to 15 years, except for the construction of the Trans-Alaskan pipeline. The present crude oil pipeline system in the lower 48 states does not provide an efficient means of moving a major portion of our domestic and imported crude to our refining centers. The change of the mechanism by which major projects are authorized from the private to the public sector has thus far prevented an efficient response to our current problems in domestic crude oil transportation. The public sector seems to be unable to sort out the essential elements of the imbalance in the crude oil transportation system. It also seems unable to provide appropriate responses to private sector proposals to correct that imbalance. A major reason for the difficulty that the public-political sector is having in providing that guidance and response results from the apparently confusing pattern of total crude oil consumption, from substantial growth over several decades to recent decreases due to conservation and the generally depressed economy. This difficulty results partly from the popular viewpoint that we have moved from a period of crisis because of a severe shortage of crude oil to a period in which we read about a worldwide glut of crude oil. After discussing these issues in some more detail, I will outline a mechanism by which solutions to our crude oil transportation problems can be reasonable achieved.

Recent History of Crude Oil Utilization and Supply

For several decades the amount of crude oil utilized in the U.S. increased roughly in proportion to the increase in gross national product (in constant dollars). That is, each expansion in real economic activity resulted in a corresponding increase in energy and crude oil utilization. 1973 was the year of the Arab oil embargo, and the beginning of significant price increases for petroleum products. The average price of regular gasoline at the pump was about 36¢ in 1973. It was 63¢ in 1977 and $1.30 in 1981. The effect of this price increase has been some shift away from petroleum products as primary energy sources and a general decrease in

(see Crude, pg. 10)

Thomas C. Kryzer *graduated from the University of Minnesota in 1951 with a BS in Civil Engineering. He received a masters degree in Business Administration (Executive Program) from the University of Chicago in 1966 and, in 1974, graduated from Harvard Business School's Advanced Management Program. He is also a graduate of Northwestern University's Transportation School and has had additional training in business and contract law, project management, process engineering, and process and resource economics. Mr. Kryzer's background includes engineering, project management and the management of oil, chemical and fertilizer facilities as well as joint venture management and industry marketing with Standard Oil and Burlington Northern.*

In February, 1973, he was appointed Vice President to head up the new Energy and Minerals Resource Department with offices at Billings, Montana. Kryzer was also a Director and President of Portal Pipe Line Company and Dreyer Bros, Inc. He was Senior Vice President, Treasurer and Director of Northern Tier Pipeline Company before being elected President of Northern Tier Pipeline Company in 1978.

He is a registered professional engineer and a member of various professional societies. He is also a member of the American Petroleum Institute, the Montana Geological Society, and former chairman of the Environmental Affairs Committee of the Montana Petroleum Association.

Crude (cont. from pg. 9)

the amount of energy consumed per unit of economic activity. In terms of constant 1972 dollars, a dollar of GNP was accompanied by about 59,000 BTU of energy use from all sources in 1973, while the same dollar of GNP in 1981 was associated with about 49,000 BTU of energy. This represents an increase in real energy efficiency of our economy of about 17% in 8 years, which is highly significant.

Figure 1 shows some of the patterns of crude oil consumption and the sources of supply over the past 16 years. Changes in patterns are helpful in understanding our present crude oil transportation situation. Domestic crude oil consumption increased from about 9 million barrels per day in 1965 to 12.5 million barrels per day in 1973, primarily in response to a corresponding increase in general economic activity. The amount of crude oil refined in our country increased to 14,900 barrels per day in 1979, and has since decreased to 12,800 barrels per day in 1981. As fuel prices increased rapidly after 1973, crude oil use did not increase as rapidly as the Gross National Product (in constant real dollars). The decrease since 1979 is the result of the general economic decline and further conservation efforts. As the economy recovers, we expect a general increase in domestic crude oil utilization, even with continued diligent conservation efforts.

Figure 1 also shows that domestic crude oil production has remained relatively constant, especially since 1975, but it constituted a decreasing proportion of our refinery runs, from 87% in 1965 to 55% in 1977, followed by an increase to 67% last year as our total use of crude oil has temporarily decreased. Oil price decontrol and the associated acceleration in domestic exploration and development of new oil fields is expected to provide a relatively constant domestic production over the next few years. New oil discoveries should equal old oil fields that are becoming depleted.

Foreign crude oil imported into the United States increased from 1.2 million barrels per day in 1965 to 6.6 million barrels per day in 1977. Imports have decreased since 1977, to 4.2 million barrels per day in 1981, but we can expect imports to increase as the economy recovers and domestic production remains relatively constant. The major change in our crude oil supplies is that Canada had accounted for one-third to one-half of our crude oil imports in the early 70's, peaking at over 1.1 million barrels per day in 1973. After the 1973 Arab oil embargo, Canada announced a program of curtailment of crude oil exports to the U.S., decreasing to zero in 1983. Since 1977, Canadian crude amounted to only about four percent of total U.S. imports. This will be zero percent in 1983.

It is important to remember that the Canadian exports were essentially all by pipeline from the western Canadian provinces, primarily Alberta, to refineries in the northern tier and midwest states. I'll return to the importance of this later.

Changes in Domestic Production Patterns

The next step in understanding the present crude oil transportation problem is the changing pattern of domestic production. This changing pattern is shown in Figure 2. West coast production, primarily California and Alaska on and off shore, has increased from 1.1 to 2.7 million barrels per day between 1971 and 1981. The increase is primarily the result of Prudhoe Bay production and the opening of the Trans-Alaskan pipeline. The proportion of total domestic crude production on the west coast has increased from about 12% ten years ago to 31% last year. This trend is expected to continue since a large portion of the expected new domestic crude oil reserves are in the California-Alaska region.

(see Production, pg. 11)

Figure 1. Patterns of Crude Oil Supply and Use

(thousands of barrels per day)

YEAR	TOTAL CRUDE OIL CONSUMPTION	DOMESTIC PRODUCTION		TOTAL IMPORTS	IMPORTS FROM CANADA	
		AMOUNT	% TOTAL CONSUMPTION			
1965	9,000	7,800	87%	1,200	N/A	—
1971	11,100	9,500	86%	1,600	760	48%
1973	12,500	9,200	74%	3,300	1110	34%
1975	12,500	8,400	67%	4,100	600	15%
1977	14,800	8,200	55%	6,600	280	4%
1979	14,900	8,500	57%	6,400	270	4%
1980	13,900	8,600	62%	5,300	200	4%
1981	12,800	8,600	67%	4,200	160	4%

Figure 2. Domestic Crude Oil Sources and West Coast Utilization

(thousands of barrels per day)

YEAR	DOMESTIC PRODUCTION	PRODUCTION IN CALIFORNIA & ALASKA		COAST REFINERY RUNS	WEST COAST EXCESS*
		AMOUNT	% TOTAL DOMESTIC PRODUCTION		
1971	9,500	1,100	12%	1,800	-700
1973	9,200	1,100	12%	2,000	-900
1975	8,400	1,100	13%	1,900	-800
1977	8,200	1,400	17%	2,300	-900
1979	8,500	2,400	28%	2,400	0
1981	8,600	2,700	31%	2,200	+500

*domestic production less refinery runs

Production **(cont. from pg. 10)**

There are about 28.5 billion barrels of proven reserves in U.S. oil fields. California and Alaska fields contain about 11.4 billion barrels of unrecovered reserves, or 40 percent of the U.S. total. In addition to these proven reserves, the National Petroleum Council (NPC) and the United States Geological Service also prepare estimates of the undiscovered recoverable crude oil resources in the U.S. A report issued two months ago by NPC revised the estimates of these undiscovered reserves to 94.4 billion barrels, of which 41.5% are in California and Alaska, on and off shore. We can, therefore, confidently expect that the portion of domestic production on the west coast will increase from the present 31 percent to something closer to 40 percent over the next few years.

While west coast domestic production has increased by over 150 percent in the past decade, refinery runs in that region have been increased by one third or less. Until 1977, the west coast required a significant amount of imports, both from Canada and by tanker from foreign offshore sources. However, there is now an excess of about 500 thousand barrels per day of domestic crude on the west coast. This excess of domestic crude is further increased by continued foreign imports to that region of the country. Some west coast refineries are not able to refine the available Alaskan or California crudes. During 1981, there were about 350 thousand barrels per day of crude oil imports to west coast refineries, mostly sweet Indonesian crudes. This means that the total supply of domestic and foreign crudes on the west coast is almost 580 thousand barrels per day more than refinery demand in that region.

Current Transportation System Problems

Since there are no west to east crude oil pipelines in the U.S., the west coast surplus must be brought inland via tanker through the Panama Canal, or around South America, to the Gulf Coast. Currently, about 425,000 barrels per day of domestic crude oil is being shipped by tanker along the 7,450-mile-long route through the Panama Canal to the Gulf coast of the U.S. This is the maximum capacity for the Panama Canal. 85,000 barrels per day of domestic crude oil is also being shipped by tankers from the west coast to the Gulf Coast via the very expensive 18,000 mile route around Cape Horn. Overall there are 510,000 barrels of domestic crude oil from Alaska and other west coast locations moving to the midcontinent by the long, expensive and energy-inefficient route which utilizes tankers through the Panama or around Cape Horn.

There are three major offshore sources; Valdez, Alaska, Indonesia and the Persian Gulf that transport crude oil to the major Chicago area refineries. The length of the shortest route from Valdez to Chicago is 3,400 miles including transport by tanker to Port Angeles, Washington and then by pipeline to Chicago. The corresponding total transportation distance through the Panama Canal is 8,550 miles and by the route around South America is 19,100 miles. The much shorter distance of the route through Port Angeles represents a very significant savings in transportation cost and time in transit. A similar significant advantage in transportation distance and cost exists for the movement of Pacific Rim crude to our major inland refinereis. In this case, the distance through Port Angeles is 9,410 miles to Chicago, which is about 4,800 miles shorter than a route through the U.S. Gulf Coast. The transportation distance for Persian Gulf crudes to our midwest is also somewhat shorter through Port Angeles, in this case by almost 500 miles. In transportation, distance equals cost and the shorter total distances of shipping by a new pipeline from the west coast represents important savings. Unfortunately, the necessary pipeline to move crude oil east from Port Angeles does not now exist.

By current estimates, the additional transportation cost of moving crude oil via the Panama Canal and Cape Horn

(see Canal, pg. 12)

CONTINENTAL

Continental Field Service Corporation

SERVING UTILITIES, PIPELINES, GOVERNMENT AND INDUSTRY...

- Minerals Leasing
- Telephone Engineering
- Land and right of way acquisition
- Field engineering
- Route survey and Design
- Environmental impact studies
- Comparable sales and appraisals
- Urban renewal, public housing and rapid transit acquisitions and relocations

CONTINENTAL FIELD SERVICE CORP.

Home Office:
90 East Main St.
Elmsford, N.Y. 10523
(914) 592-7240

Southern Office:
101 Burning Bush Lane, Rte. 6
Greenville, So. Carolina 29607
803-297-1717

Canal (cont. from pg. 11)

routes to Chicago over the cost of the direct supply of the same volume of oil via tankers from Valdez, Alaska to a west coast port like Port Angeles and then by pipeline directly to Chicago is over $750 million per year, and is probably closer to $900 million per year. This cost differential will increase over the years. Much of this cost savings in direct pipeline supply of west coast crude oil to the midwest represents a savings in energy consumed in transporting the crude oil.

The tanker fuel consumed per year in transporting 510,000 barrels of crude oil per day from the west coast to the Gulf Coast via the Panama Canal or Cape Horn is about seven million barrels. This would all be saved by the use of a new major pipeline delivering crude oil directly from the west coast to the northern tier and inland states.

As the Canadians cut off exports to the U.S., many inland refineries have become isolated since there is no efficient means of receiving crude oil from foreign or domestic sources outside the local areas close to Canada.

Refineries in these isolated areas must currently go through an elaborate scheme of crude oil exchanges with Canada in which they buy foreign crude for supply to eastern Canada refineries in exchange for western Canadian crudes. The Canadian government may not be content to extend this arrangement much longer and at best it can only be a short term expedient. It is also complex and expensive, probably costing up to $10 a barrel. Without access to new sources, one or more of the inland refineries will undoubtedly be shut down, resulting in severe economic penalties and increases in fuel costs in this northern inland region, to say nothing of the insecurity of the supply of refined poducts that would undoubtedly result.

The present system of transporting crude from the west coast inland is also completely vulnerable to the poilitical whims of Panama and its Central American neighbors.

There is another serious consequence of the limitations in the present crude oil transportation system and that is that it has a serious impact on our balance of payments with foreign governments. There is a significant potential for crude oil production in California which is not being developed because there is no cost effective way available to move that production to inland or Gulf coast refineries. The extent of this shut-in production is uncertain, but probably ranges from 300 to 500 thousand barrels per day. If a major west to east crude oil pipeline were in place, this shut-in production could be opened up. This new production would back out an equivalent amount of foreign crude oil imports, with very important effects on our balance of trade situation.

The federal legislation which authorized the construction of the Trans-Alaskan pipeline requires that the north slope crude be equitably distributed among the northern tier and midwest states. Our present means of west to east crude oil transportation by tanker does not meet that test and is highly inefficient and vulnerable to foreign interruption, as described above.

In summary, our current crude oil transportation problems result from the following factors:

1) A cut-off of over one-million barrels per day of Canadian imports to our northern tier and midwest refineries over the past 8 or 9 years.

2) A shift in a principle portion of our domestic production from the southcentral U.S. to the west coast, California and Alaska.

3) A domestic crude oil pipeline network which has not significantly changed since it was constructed when crude oil had to move from southcentral production areas to northcentral and eastern refineries, and when we received a significant amount of crude by pipeline from Canada.

The consequences of these problems include:

1) Cutoff of northern inland refineries from much needed crude oil supplies.

2) Excessively expensive transportation costs to bring west coast crude oil to the Gulf Coast via tankers.

3) Shut-in production on the west coast which contributes to a very significant balance of payment deficits.

4) The transport of a significant amount of overseas imported crude oil by tanker over much greater distance to reach east or Gulf Coast ports than would be required to reach a west coast port connected by pipeline to inland states.

History of Attempted Solutions

There is an obvious solution to our current crude oil transportation problems; the construction of a major pipeline providing crude oil transportation from a west coast tanker port site to interconnect with the existing pipeline network supplying the refineries in the inland states. This new pipeline could receive deliveries from tankers and barges originating from both domestic and foreign sources.

Fortunately, in a free enterprise society of the type we enjoy in the U.S., when a business opportunity arises which can provide a service at lower cost and more efficiently, there are almost always entrepreneurs ready to risk their resources to develop a new business to provide that service. In this case, the existing mode of crude oil transportation by tankers from the west coast via the Panama Canal or around South America has several disadvantages which I've discussed earlier. A new major pipeline from the west coast to the inland states could accomplish the following:

1) It could move the west coast crude oil to inland markets at a much lower transportation cost per barrel than by the tanker route, or any other available means. This lower cost crude oil transportation would be at a tariff which would provide the return necessary to attract the needed investment in a new pipeline system.

2) It would open up previously shut-in production on the west coast, significantly lowering our balance of payment problems.

3) If properly routed, the pipeline could provide west coast crudes to those refineries which had previously received Canadian crudes and are now experiencing severe supply difficulities due to the Canadian cut-off.

4) It would provide a much shorter tanker route and, therefore, transportation cost, for a significant portion of the foreign crudes we import, especially those from Indonesia, and other Pacific Rim sources.

The basic crude oil transportation

(see Tanker, pg. 13)

Tanker (cont. from pg. 12)

problem and its solution was obvious to anyone who even briefly studied the situation as far back as the early 70's. The first significant private proposal to deal with the problem was put forward in 1974 by the Standard Oil Company of Ohio.

SOHIO's proposal was to build a tanker port at Long Beach, California, and a 1,027 mile pipeline from Long Beach to Midland, Texas. The crude oil, once it reached Midland, Texas, would be delivered to the network of existing pipelines which transport crude oil from the Gulf Coast area to the eastern and midwestern portion of the country.

The SOHIO pipeline was to be a common carier system with initial capacity of 500,000 barrels per day. In order to be allowed to construct their project, SOHIO needed permits from the federal government as well as from the states of California, Arizona, New Mexico and Texas. In late 1974, SOHIO filed the necessary applications for these permits.

Now begins a story which is all too often repeated in present day United States. The third factor which I mentioned at the beginning of my speech came to force on the SOHIO pipeline proposal. Up until the end of the 1960's, the processing of permit applications by government agencies was one of analyzing the consistency of the project's design with established regulations. These regulations related to worker and public safety, design, consistency with zoning and other similar factors.

As long as the project was consistent with established building and operating codes, the required permits were granted. By the early 1970's, the review required by federal and most state agencies prior to the granting of permits had been considerably changed and expanded. The new review included extensive public review as well as seemingly endless assessments of the possible environmental impacts on the proposal. The ultimate decision to proceed with a major project was no longer one of the private/business investors risking their capital in the new venture. It was now basically up to the state and federal political structure to make the decision, backed up by the state and federal administrative agencies and interested members of the public. This change in the mechanism of reaching major decisions resulted from the implementation of the National Environmental Policy Act of 1969, and similar laws which soon followed in most states.

SOHIO found itself deeply enmeshed in the new decision-making process. The three eastern states on SOHIO's route; Arizona, New Mexico and Texas, quickly granted their permits, but California and the federal government required a comprehensive project review and the preparation of environmental impact statements. The Bureau of Land Management was appointed the lead agency for the federal EIS, which was prepared at SOHIO's expense. A draft EIS was distributed for public review in November of 1976, after over 18 months of work by the BLM. After public review, comment and revision, a seven volume final EIS was published in July of 1977. The state of California went through a similar extensive environmental and public review.

After completing their EIS process, the federal government granted SOHIO its rights-of-way across federal lands. The state of California continued their review in a seemingly unending process. At one point, the controversy in Long Beach was so heated that it was decided to hold a local referendum to establish public attitude about the project. SOHIO clearly won the referendum. The California political/agency structure continued to drag its feet.

Finally, in May of 1979, after over 5 years of effort, SOHIO dropped its proposal. The legal tangle it found itself in, in the state of California, had no means of resolution within any reasonable timetable.

SOHIO's pipeline proposal remains a history of the misuse of the public/political review process for major projects. That public/political review process provided a mechanism for project opponents to cripple and finally, kill a project which would have provided unquestioned benefits to the economy of the United States.

The next, and continuing saga of the attempts to solve the basic crude oil transportation problem in the United States has been played by the Northern Tier Pipeline Company, which was organized in 1975. Even if the SOHIO pipeline were built from Long Beach, California to Midland, Texas, there was still an excess of crude oil on the west coast, and the crude oil delivered to Midland, Texas, via the SOHIO

(see SOHIO, pg. 14)

Pier J—Port of Long Beach. Site of the proposed SOHIO tanker port.

SOHIO (cont. from pg. 13)

pipeline had no efficient way of being delivered to refineries in the northern tier states. The mission of the Northern Tier Pipeline Company, was then, and continues to be, to build and operate a common carrier crude oil pipeline extending 1,500 miles from a new tanker port in the Puget Sound area of Washington, to Clearbrook, Minnesota.

The route and service area of the Northern Tier Pipeline is shown in map below. The map also shows the network of existing crude oil pipelines, including those crossed by Northern Tier. The new pipeline would make deliveries to each of the major existing crude oil pipelines that it intersects. In addition to two major pipeline interconnections in Montana and one in North Dakota, Northern Tier would terminate at Clearbrook, Minnesota, where deliveries would be made to the Minnesota and the Lakehead pipelines.

The five pipelines to which Northern Tier would interconnect provide crude oil supplies to the refinery centers shown on the map. The sixty-six refineries in these centers provide refined petroleum products to a 21 state area. The combined capacity of these 66 refineries is over 4 million barrels per day. These are the very refineries which have been most severely influenced by the Canadian crude oil export curtailment, and which are now effectively shut off from Alaskan and other west coast crude oil supplies.

The network of existing crude oil pipelines shown on the map demonstrate that there is an extensive network of pipelines connecting the southcentral U.S. to the midwest. There are no crude oil pipelines connecting the west coast to the mid-continent area. That is the problem Northern Tier has a mission to correct.

Seeing clearly the advantages of a new major crude oil pipeline from Puget Sound east, the first task Northern Tier had to accomplish was to apply for and receive the federal and state permits it needed. To make a long story somewhat shorter, now, five years later, we have spent over 50 million dollars and have not, as yet, received all our permits. It's been a long, costly and unnecessarily complex process.

The underlying philosophy of Northern Tier has been to be as responsive as possible to all reasonable suggestions for changes in our project design. A number of suggestions have been put forward by private, state and federal agencies and by interested individuals. The end result of this process is that we have adjusted our proposed routing in almost all areas of the 1,500 miles of our route. We have been very successful in completing our permitting process in those states and with the federal agencies that have been open and cooperative about their concerns and have provided reasonable opportunities for us to make prudent changes in our proposal in response to those concerns.

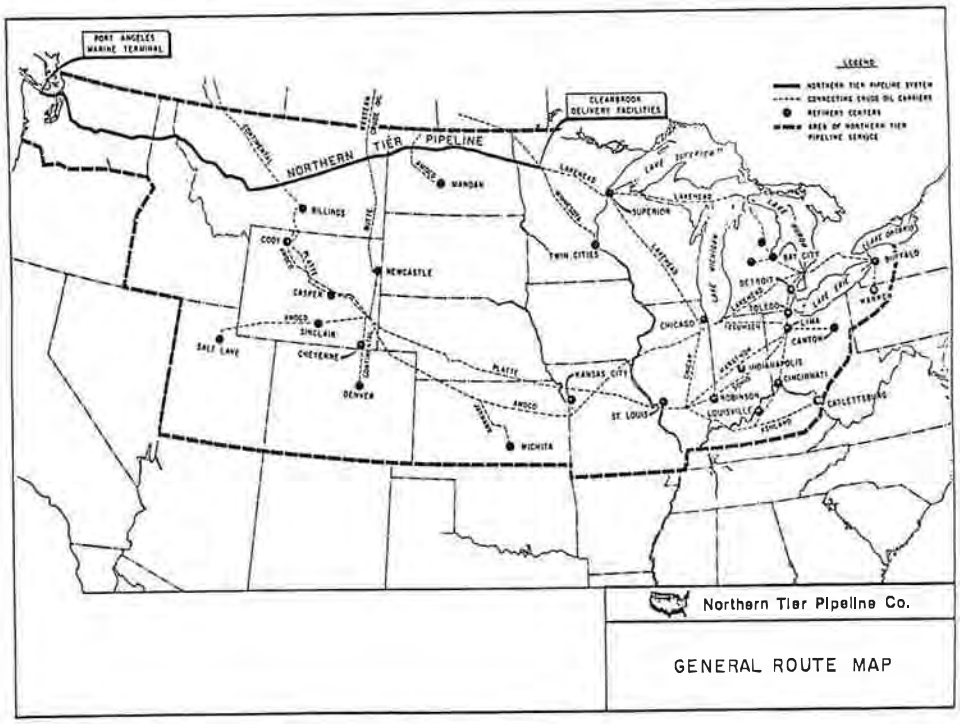
By being open and responsive to public and agency concerns, we have successfully completed our project authorizing process in four states, Minnesota, North Dakota, Montana and Idaho, as well as with the major federal agencies with jurisdiction over our project, including the Bureau of Land Management, the Environmental Protection Agency and the Corps of Engineers.

Along the way, we have also received a special presidential designation. On January 17, 1980, President Carter declared that the construction of Northern Tier was in the national interest. This designation was in response to the President's responsibilities under Title V of the Public Utility Regulatory Policies Act which Congress passed in 1978. The President's designation of Northern Tier followed an exhaustive analysis of the need for a west to east pipeline by all interested federal agencies, as well as an analysis of which of four private proposals to build such a pipeline most completely met that need.

Our final project authorizing permit is needed from the state of Washington. It is there that we have put forward the most intensive effort to refine and respond to valid concerns about the project, and to complete the permitting process. It is also the only state where we have not been successful to date.

One final note on our successful permitting efforts, we have negotiated an agreement with the Coeur d'Alene Indians in Plumber, Idaho, to cross their reservation. We are also in the process of negotiating an agreement with the Cofederated Salish & Kootenai

(see Policy, pg. 15)



Policy (cont. from pg. 14)

Tribes to cross the Flathead Reservation in Montana. One step in our process of developing the Flathead Reservation agreement involved a referendum of tribal members, which supported routing the pipeline across their lands.

The process in the state of Washington has caused us the most difficulty and, as I've said, is the only one we have not yet successfully completed. The permitting process in the state of Washington requires an applicant to describe his project in minute detail in an initial application, and then after a very costly, complex and time consuming process, the state says yes or no to that proposal. The applicant is not allowed to modify the proposal in response to information gathered during the review process, unless he wants to start over from the beginning. Our initial application was submitted in June of 1976, and our completed application was finalized in June of 1979. Our final application was then the subject of 18 months of formal hearings. This review process lasted from January of 1980 through June of 1981. In all, over 45,000 pages of official transcripts were prepared from the hearing record. The hearings were held before the Washington Energy Facility Site Evaluation Council or EFSEC. EFSEC recently completed its work by recommending to the Governor that he deny Northern Tier's application.

The main area of concern expressed by EFSEC has been the safety of the submarine pipeline we propose to construct across Puget Sound, the safety of the port site at Port Angeles, and the probability of impacts on the Puget Sound fisheries resources from oil spills from tankers or the pipeline. By contrast, the Corps of Engineers and the Coast Guard have performed a comprehensive analysis of our project, especially of the submarine pipeline and port facility, and have endorsed Northern Tier's design. The state officials have so far been willing to listen to the federal agencies to establish why they have reached opposite conclusions about the project on the basis of the same set of input information. The Washington state officials also seem to be confused about the need for the Northern Tier project. The temporary so called "glut" in crude oil supplies inhibits their ability to see the basis for the long term need for a major west to east crude oil transportation system.

The Governor of Washington has the final authority to approve or deny our application. EFSEC's recommendation is only one of the inputs he may consider. He also has available a state Final EIS which is supportive of the project, as well as the results of the federal agency analysis, which reached positive decisions on the same aspects of the project that EFSEC is concerned about. The Governor may also consider the impact of the project on the economy of the state of Washington and on jobs in their depresseed economy. He also may consider the endorsement of Northern Tier by the President under PURPA and the very positive influence the project will have on Washington's sister states that have granted permits. We have every expectation that when the governor considers all of the available information, he will make a responsible and positive decison on the project.

I could continue about our permitting situation but suffice it to say that we have been subject to the same types of influences that SOHIO experienced before they decided to discontinue their proposal.

Conclusion

At the beginning of my talk, I mentioned four factors which combine to bring about our current crude oil transportation problem. I described in some detail the shift of a significant portion of our domestic production to the west coast and Alaska, at the same time our imports from Canada have been shut off. I then reviewed the consequences to SOHIO and so far, to Northern Tier of the shift of the decision-making authority from the private/business sector to the public/political sector. The basic consequence of this shift is that the decision-making process is much too long and too costly, and so far it seems unable to be successfully completed. As a result, the people of this nation have not been well served.

The basic solution to our permitting problem involves a fundamental change in our approach to the decision-making process, especially for major, multi-state projects. A project like Northern Tier requires several independent authorizations to proceed. Failure to receive any one of these essential

(see Conclusion, pg. 16)

Port of Port Angeles Harbour: Washington Gov. Spellman refused to permit Port Angeles Harbor to be used as a tanker port. 4/8/82.

Conclusion **(cont. from pg. 15)**

authorizations kills the project. In our case, we require authorization by five states and three federal agencies.

In place of this fragmented permitting system, this country must develop a cost effective, unified and coordinated project review and decision-making process, one in which all states and federal agencies cooperate with each exercising their authority over their legitimate area of responsibilitiy.

There have been two major pipeline systems constructed during the past ten years, the Trans-Alaska pipeline and the southern legs of the Alaska Gas Transportation System. Let's look at how each of these received its authorization. In the case of the Trans-Alaska pipeline the sponsors worked initially with agencies in the state of Alaska and with the relevant federal agencies. Several years were spent in an effort to gain authorization but with seemingly endless second guessing on whether, how and where to build the pipeline. The answer was that Congress passed and the President signed a law which specifically authorized the pipeline, essentially bypassing the exsiting authority of federal agencies and the state of Alaska. The pipeline and port facility at Valdez was then constructed.

It probably wasn't the problems encountered by the private, industrial sponsors of the Trans-Alaska pipeline which galvanized Congress to authorize the project, but the 1973 Arab Oil Embargo established the politcial atmosphere which induced the congressional action. If that crude oil supply crisis had not occurred, the Alaskan pipeline might never have been built, or it would have been built much later at a much higher cost. It's too bad that it takes a crisis to bring about the political action needed to bypass unnecessary bureaucratic delays. We would be in a very difficult position today if we were not receiving almost 1.5 million barrels per day of crude oil via the Trans-Alaska pipeline.

Most of the southern legs of the Alaska Gas Transportation system were constructed last year. The western leg was constructed through Idaho, Washington and Oregon, while the eastern leg was constructed in Montana, South Dakota, Minnesota and Iowa. The North Dakota portion of the eastern leg will be built this year. In this case again, the project was specifically authorized by an act of Congress.

I am not proposing federal preemption of states' rights, but on the other hand, one state should not hold other states or the nation in hostage because of their parochial interests or inability to act. What I am suggesting is greater interstate and federal cooperation in a joint federal/state review and authorization procedure for major projects having significant impact on interstate commerce.

This joint federal/state review would provide a single step-by-step review and approval process for major projects, and would be designed to balance local and national or regional interests. The present system of uncoordinated multi-agency project review and authorization is much too vulnerable to

(see Northern, pg. 24)

TECHSTAFF INC.

An association of professionals serving the energy industries

Techstaff has engineers and trained specialists on its staff and among its associates who are experienced in virtually every supporting discipline of the energy industries. Techstaff has the versatility to provide personnel sufficient to handle a major project, or we can supply one man for one specific task.

Jack D. Rogers
President

Pecos D. Douglas
Executive Vice President

Our expertise includes:

- Consulting engineering services
- Feasibility studies and route selection
- Design drafting • Survey and mapping
- Environmental services
- Permits and licenses
- Limited title and mineral abstracting
- Right-of-way and fee acquisition
- Pipelines • Electrical utilities • Railroads
- Inspections

TECHSTAFF INC.

816 Americana Bldg. / Houston, Texas 77002 / 713/757-1721

Northern **(cont. from pg. 26)**

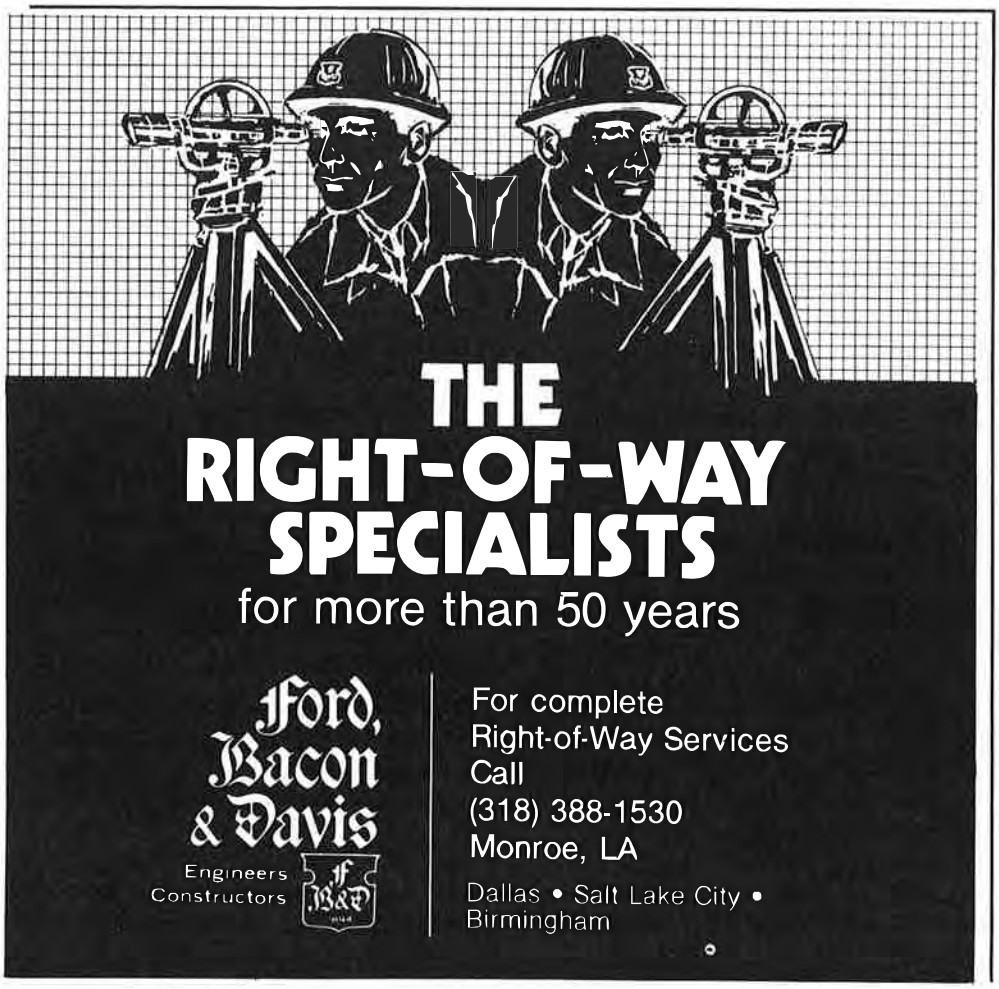
bureaucratic delays. It essentially squelches the entrepreneurial instincts of all but the most well-financed and adventuresome project proponents. The U.S. needs these new investments to maintain economic health. We must find effective ways to build major projects while still protecting the public interest in its broadest sense.

It is time to recognize that we have available all of the technical and financial resources necessary to solve the ongoing crude oil transportation system problems. Northern Tier involves state-of-the-art pipeline technology. We have none of the unique difficulties, such as permafrost, faced by the Trans-Alaska pipeline or any other arctic pipeline in crossing essentially unpopulated, arctic terrain. Northern Tier will build its pipeline in the same area and under similar environmental conditions where hundreds of other pipelines have already been successfully built. There are no unique technical or environmental problems to solve to end the nation's crude oil transportation problems. Instead, it is the current public/political/regulatory system which stands in the way of proceeding to satisfy this vital national need.

Contest **(cont. from pg. 4)**

to the use of his or her name, addresses, photograph, etc. in any **IRWA** publicity.

8. By entering the contest each contestant agrees to abide by all the contest rules and decisions of the judges, which shall be final. Contest rules are subject to change by the International Membership and Public Relations Committee. All entries become the property of **IRWA**.
9. No responsibility is taken by **IRWA** for entries lost, misdirected, or delayed by mail.
10. The contest is subject to all Federal, provincial, state and local laws.
11. The name of the winner will be available upon request by writing **IRWA** within six months after the drawing.



CO_2 **(cont. from pg. 20)**

supply the 1.2 trillion cubic feet needed for the proposed Denver Unit project. In addition to Shell Oil, Mobil Oil also is expected to produce substantial quantities of carbon dioxide from the region.

The McElmo Dome, which covers more than 200,000 acres, is one of the largest known natural accumulations of CO_2 in the U.S. About 65 million or so years ago, hot, molten rock rising up to form the Sleeping Ute Mountains near Cortez, pushed up through carbonate sedimentary rock, driving carbon dioxide out of it. This substance was then trapped and accumulated in the underground reservoir.

Before finally committing to the enhanced recovery project, Shell completed a $5 million, 3½ year field test to confirm that this technology could recover large volumes of oil in the Denver Unit. That test was instrumental in clearing the way for a Shell Oil decision in 1980 to develop the final design of the recovery project.

While the line from Cortez to the Denver Unit will be the first major CO_2 line to be constructed by Shell Pipe Line, it won't be the company's last. Studies are already underway to determine the feasibility of constructing such a line in order to boost production at declining oil fields in southern Mississippi and Louisiana.

Ken Clagett reports that the Chapter 53 Four Corners Affiliate is growing every meeting. A strong speakers program is one reason. At the March meeting, Daniel Deschinney, Director, Navajo Land Development addressed the affiliate. Deschinney spoke on the procedures for obtaining rights of way across Navajo Tribal lands.