

ALASKA LEGISLATURE SPECIAL COMMITTEE / SUBJECT FILES 8672

1068 SCOMM 28: JOINT GAS PIPELINE COMMITTEE. 1981-82

McMillian said further that project sponsors are "especially grateful to the U.S. Senate and House of Representatives whose members have always given a high priority and provided strong bi-partisan support to this vital national energy project."

In addition to permitting pipeline construction, operation and maintenance on federal lands in Alaska, the right-of-way grant also requires that the gas pipeline be separated by 200 feet or more from facilities of the TransAlaska Oil Pipeline, except under specific conditions to be approved by the Office of the Federal (Pipeline) Inspector (OFI).

According to McMillian, the spacing issue is only one of several hundred terms and conditions attached to the right-of-way grant that will set the environmental, technical and construction standards for the pipeline.

"Since these stipulations provide clear construction guidelines, they will aid us immeasurably in confirming the reliability of the cost estimates developed for the Alaskan segment of our pipeline system," McMillian said.

"Many issues that were heretofore uncertain have now been resolved. The builders and the various federal agencies involved are at long last playing by the same set of rules as we proceed to finalize construction plans," he said.

Excluded from the right-of-way grant are lands selected by Native Corporations pursuant to the Alaska Native Claims Settlement Act and lands subject to valid applications for Native allotments that are still pending before the DOI, McMillian said.

Northwest Alaskan Pipeline Company is a wholly-owned subsidiary of Northwest Energy Company, (NYSE), Salt Lake City, Utah. Other members

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of the consortium to construct the Alaskan segment are subsidiaries of:
The Columbia Gas System, Inc., Wilmington, Delaware; Texas Gas Transmission Corp., Owensboro, Kentucky; TransCanada PipeLines, Ltd., Toronto, Ontario; Texas Eastern Transmission Co., Houston, Texas; American Natural Resources Co., Detroit, Michigan; InterNorth, Inc., Omaha, Nebraska; Panhandle Eastern Pipe Line Co., Houston, Texas; United Gas Pipe Line Co., Houston, Texas; Pacific Gas & Electric Co., San Francisco, California; and Pacific Lighting Corp., Los Angeles, California.

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From: Northwest Alaskan Pipeline Company
P. O. Box 60089
Fairbanks, Alaska 99706

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Alaskan Pipeline

Contact: J. N. Vallely, vice president, Public Relations
Tel.: (801) 534-3531

FOR IMMEDIATE RELEASE

ALASKA HIGHWAY PIPELINE

NOW SET FIRMLY IN PLACE

SPOKANE, WASH., FEB. 9 -- "With the advent of construction in the U.S. and Canada, the Alaskan Natural Gas Transportation System is set firmly in place and well along the road toward completion."

So said John G. McMillian, chairman and chief executive officer of Northwest Alaskan Pipeline Company, at a ceremony held here today commemorating construction of the first U.S. portion of the 4,800-mile pipeline system that will extend from Alaska's North Slope through Canada to markets in lower 48 states.

Construction Underway

According to McMillian, "regulatory approvals from both U.S. and Canadian agencies in 1980 authorized construction of approximately 1,500 miles, or more than 30 percent, of the total Alaskan system. These portions have been financed and construction is underway."

Western leg segments in Canada and the U.S. will be completed by the fall of 1981. The new facilities will transport up to 300 million cubic feet of Alberta gas per day to consumers in southern California, he said.

McMillian noted that construction also has begun on the initial phase of the eastern leg of the pipeline system which, when completed in the fall of 1982, will deliver daily approximately 800 million cubic feet of Canadian gas to pipelines in the midwest, south and east.

Both systems will transport natural gas from Alaska's Prudhoe Bay field beginning with the 1985-86 winter heating season, he said.

Advantages

"Early construction of the western and eastern legs will provide several advantages to the overall Alaskan project," McMillian said. "It will allow an increase in needed near-term gas supplies to U.S. markets, avoid higher inflation in construction costs and provide a lower cost of service via earlier depreciation of facilities."

"In addition, this construction will help reduce the project's impact on labor materials and capital by spreading the demand for these items over a greater period of time," he said.

Western Leg

The initial phase of the U.S. western leg involves construction by the Pacific Gas Transmission Company (PGT) of 160 miles of 42-inch diameter pipeline paralleling its existing system between Kingsgate, British Columbia, on the U.S.-Canada border, and Stanfield, Oregon. Estimated cost of this construction is \$186 million.

From Stanfield the Canadian gas will be delivered through the expanded facilities of Northwest Pipeline Corporation. Pacific Interstate Transmission Company, a unit of Pacific Lighting Corporation, Los Angeles, has contracted to purchase an average of 240 million cubic feet per day of the imported gas over a 12-year period for the southern California market.

Highlight of the Spokane ceremony was a banquet attended by U.S. and Canadian government officials, project sponsors, and state, county and civic leaders from throughout the Pacific Northwest. The keynote speaker was Idaho Senator James A. McClure, chairman, U.S. Senate Committee on Energy and Natural Resources.

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From: Northwest Alaskan Pipeline Co.
P.O. Box 60089
Fairbanks, Alaska 99706

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OFFICE OF THE FEDERAL INSPECTOR



news

ALASKA NATURAL GAS TRANSPORTATION SYSTEM
ROOM 2413, POST OFFICE BUILDING, 1200 PENNSYLVANIA AVENUE, WASHINGTON, D.C. 20044

IMMEDIATE RELEASE
September 9, 1980
No. 23

PUBLIC COMMENT SOUGHT ON EEO ENFORCEMENT PROCEDURES

The Federal Inspector is seeking public comment on proposed procedures for enforcing the equal opportunity regulations applicable to the Alaska Natural Gas Transportation System (ANGTS).

The proposal, which was signed September 5 and will be published in the Federal Register this week, sets out the steps in identifying and handling EEO problems or complaints, all the way from the initial periodic, unscheduled, review through the conciliation, hearing and the formal sanction stages.

The emphasis is on two things:

1. to keep the complaint process short by setting time limits on virtually every step and
2. to give the company, contractor or subcontractor that is the subject of the complaint every opportunity to correct the problem or show why it's not really a problem.

The EEO/Minority Business Enterprise regulations became effective May 12. They left to the Federal Inspector the monitoring and enforcing authority and the details of how to assure compliance.

Almost all employment discrimination complaints will be handled by the Equal Employment Opportunity Commission (EEOC) under a Memorandum of Understanding (MOU) between the two agencies. That MOU will be published for public comment before being signed into effect.

OFI will select ANGTS sponsors, contractors and subcontractors for initial periodic on-site review, probably once annually, without advance notice.

If potential noncompliance is observed, OFI will conduct a more intensive on-site review, after giving the recipient notice.

(more)

OFI will initiate investigations of all complaints within 35 days of receipt by sending a copy, with a letter, to the company, contractor or subcontractor. The formal on-site review will begin 15 days after notice.

The written preliminary finding will be sent to the recipient within 30 days of completion of the investigation. When the finding is noncompliance, OFI will recommend means for voluntary compliance and allow 20 days for negotiations.

Final determinations of noncompliance will be in writing within 45 days of notice of preliminary finding and will be made when conciliation has failed or the preliminary finding has not been shown to be false. It will recommend remedial actions to correct the problem. The company or other recipient then has 10 days to adopt the remedial recommendations.

If the problem is still not corrected, the Federal Inspector's primary enforcement tool is immediate civil action. Temporary or permanent injunction and civil fines up to \$25,000 a day will be sought in the appropriate Federal District Court.

For large scale, blatant violations of approved affirmative action plans, the Federal Inspector could act to stop work. It would be used only as a last resort.

If this becomes necessary, the FI will first issue a "show cause" order, which the recipient must rebut. An informal conference is then convened by the Director of the OFI Office of EEO/MBE within 10 days. He can recommend a decision, or can set the matter for formal hearing by the OFI General Counsel. After his recommended decision is issued, parties have 10 days to file briefs on that decision. The FI or his delegate will then issue a final decision, normally in 20 days. If the final decision is to stop work, 10 more days will be allowed as a last chance for the recipient to comply.

After public comments are received on these proposed regulations, the final rules will be formulated and published. Copies of the entire proposed regulations are available from the OFI offices listed below.

-OFI-

For further information please call:

Joyce Morrison
(202) 275-1100
Washington, D.C.

Austin Ward
(907) 452-1951
Fairbanks, Alaska

Paul Steucke
(907) 271-3668
Anchorage, Alaska

Alberta to cut oil production in budget tiff

ALBERTA will cut its oil production 15%—180,000 b/d—during a 9-month period if the Canadian government doesn't change tax measures in a new budget and energy program.

Alberta Premier Peter Lougheed said the cuts would be staged at 3-month intervals unless a satisfactory energy agreement is reached with Ottawa.

The first cut of 60,000 b/d would be made in 3 months, in a move seen as offering to give the federal government time to renegotiate before the reductions go into effect. Cutbacks would be suspended if oil shortages occur anywhere in Canada.

"We won't put any Canadian in the position of worrying about supply," Lougheed said. He added that normal production levels will be resumed if Alberta can reach a "new, fair agreement" with the federal government.

The Alberta premier said the province also will delay approval of several major oil sands projects in Alberta and launch a court challenge of a federal natural gas excise tax imposed in the new budget.

British Columbia and Saskatchewan, both energy producing provinces, also plan legal challenges to the proposed federal tax on natural gas sales.

Canadian Prime Minister Pierre Trudeau said he is willing to reopen negotiations with Alberta and the other producing province on the budget proposals.

Trudeau said the plan to challenge the federal gas tax in the courts is a "reasonable and rational approach" and he hoped there would be a quick legal ruling on its constitutionality. But he said Alberta's decision to put a hold on two major oil sand projects, worth up to \$16 billion, was regrettable.

The federal budget (OGJ, Nov. 3, p. 31) proposed a series of new energy-related tax measures, including a sales tax on domestic and export sales of gas. Alberta regards the gas tax as an unconstitutional wellhead levy and an invasion of provincial jurisdiction.

The overall impact of the federal budget would be to sharply reduce the petroleum revenue share for the producing provinces and industry and increase federal energy revenues.

On the cutback, Federal Energy Minister Marc Lalonde said there is no fear of oil shortages this winter because inventories can meet needs for 80-100 days.

Alberta Energy Minister Merv Leitch said the 15% cutback will be based on past monthly production

Canada pushes for Alaska gas line

CANADA'S energy minister says the U.S. risks damaging its good relationship with Canada if it doesn't keep promises to complete the Alaska Highway gas pipeline.

Marc Lalonde also warns that Canada can no longer hold down price increases for exported natural gas.

The Canadian minister says there is no reason to doubt U.S. commitment to the Alaskan pipeline, but "the ball is in the U.S. court."

Lalonde doesn't consider his statement on the pipeline a threat.

"What I want to stress is the great priority that Canada attaches to completion of this line," he said. Lalonde stresses that Canada relied on commitments from President Carter and Congress in granting Canadian approval for advance

construction of sections of the line in southern Canada.

Lalonde also indicated in an address to the American Gas Association that Canada could no longer forego increases in the price of natural gas to the U.S., as it did with an increase of 70¢/Mcf it had planned for Oct. 15.

"Since February we have restrained any price increase above \$4.47/Mcf, which we felt was justified on a commodity value basis at the time. Our restraint has recognized current economic conditions in the U.S. and certain circumstances prevailing in individual markets," he told AGA.

Lalonde says the U.S. must not adopt a stance that Canadian gas is a marginal commodity it can rely on or ignore when it wishes.

averages, not on total capacity. Current production is about 90% of the province's 1.2-million-b/d capacity.

Details of how the production cutbacks would affect Alberta producers were still to be announced.

Revenue reduction. The proposed cutback in Alberta production would reduce revenues of the province, producers, and the federal government. Lost revenues would amount to about \$1.2 billion, with Alberta losing \$500 million, the industry \$500 million, and the federal government \$200 million.

Industry sources estimate that the combined cost of the cutback and new tax measures proposed in the federal budget could be as much as \$3 billion/

year.

One objective of the Alberta strategy is to force the federal government to import additional oil at world prices to make up for the cut in Alberta production.

A federal objective of achieving oil sufficiency for Canada by 1990 also is based on assumptions that production from several new oil sands plants will come on stream in the mid to late 1980s.

Lougheed said the cutbacks were Alberta's only alternative in the face of federal policies, and Ottawa could counter by buying foreign oil or seeking a new agreement "instead of trying to club Alberta into submission."

ERA sets markup lid on crude resales

EFFECTIVE Dec. 1, U.S. crude resellers will be allowed a uniform, maximum permissible average markup of 20¢/bbl.

In addition, the Economic Regulatory Administration has ruled that a reseller may not charge a price for crude that exceeds its acquisition cost if between the time of purchase and the time of resale the oil remained in the same location or the reseller didn't take possession of the crude.

Exceptions to this rule will apply if the reseller:

- Is the importer of record.
- Purchases the crude from the

producer.

- Sells the crude to a refiner that certifies in writing that the oil is being purchased for refining purposes.

- Receives certification from the refiner that it would not have acquired the crude but for a service performed by the reseller.

ERA also redefined "average markup" to "explicitly provide that a reseller may not include in its average markup calculations any sales in which regulations would prohibit the reseller from charging a price that exceeds its acquisition cost for that crude oil."

AUDITORS DISALLOW \$42 MILLION FROM GASLINE COSTS:

Federal Energy Regulatory Commission auditors are challenging more than \$42 million spent by the partners in the Alaska Natural Gas Transportation System (ANGTS) who want the money included in their rate base for the pipeline.

Findings come in three audit reports. First document, covering period prior to Feb. 1, 1978, examines \$57,415,070 submitted by Northwest Alaskan Pipeline Co., & four partners--Pan Alaska Gas Co., Calaska Energy Co., Pacific Interstate Transmission Co., & Northern Arctic Gas Co. Of that, \$42,224,461 was disallowed.

Second report covered expenditures from Feb. 1, 1978 through Dec. 31, 1978. Staff recommended discounting of \$1,823,020, with \$29,107,087 allowed as "properly assignable" charges. However, FERC said that expenditures of another \$14 million have yet to be examined.

In third report, covering Jan. 1, 1979 to Dec. 31, 1979, expenses totalling \$995,107 were disallowed, while another \$40,794,243 were okayed. But, again, a large chunk--\$11,920,788--was not examined.

Staff rulings cover generally two types of costs, pre-partnership expenditures that had been recovered by parent companies, and those "not of a nature" to qualify. In the latter category, FERC auditors included:

- \$115,406 for payment to public relations firms (first report);
- \$58,888 for payment for lobbying services (first);
- \$18,874 for celebrations when selection of project was announced (first);
- \$19,363 for chartered fishing trip & riverboat reception at a partnership meeting (second report);
- \$5,221 for membership dues in country, luncheon, & dinner clubs (2nd);
- \$1,015 for contributions to Anchorage YMCA & other organizations;
- \$90,002 for contributions to Alaskans for the Gas Pipeline, Citizens for Management of Alaskan Lands, Inc., & Close-Up Foundation (third);
- \$74,472 to public relations firms;
- \$14,450 for ski lessons & charter fishing arrangements, and
- \$3,658 "to satisfy the oriental business custom of exchanging gifts resulting from (the partnership's) business ties with Japan."

GAO RECOMMENDS U.S. STAY FIRM IN ALGERIAN LNG NEGOTIATIONS:

General Accounting Office has issued a report detailing the implications of the U.S.-Algerian liquefied natural gas price dispute & LNG imports (EMD-81-34, Dec. 16, 1980), maintaining in it that the U.S. should not accede to the Algerian price demand of some \$8 per million Btu's.

GAO says that since U.S. dependence on Algerian LNG is minimal and the current domestic gas supply is good, it would be unwise to risk paying Algeria more than the U.S. neighbors of Canada & Mexico receive (\$4.47). GAO says, "Due to price escalation clauses, the two countries could, according to their own pricing principles (but subject to U.S. regulatory approval), currently raise their prices by about 17 percent to \$5.25 per million Btu's. At the present level of imports, this action would raise the U.S. import bill for Canadian & Mexican gas from \$4.40 billion to \$5.16 billion, an increase of \$767 million."

GAO says the market will not support LNG sales at \$8 million Btu's and states that, in interviewing agency & industry officials, those officials believe that if \$8 LNG did occur it would not set a precedent for domestic prices. As natural gas prices are decontrolled under NGPA, they will probably rise to the cost of alternate fuels, the officials opined.

GAO says that importing large volumes of LNG from OPEC is "not now in our national interest" because LNG imports generally trade oil dependence for gas dependence and "in our judgment, it makes no sense to increase our dependence on gas at the same time we are taking steps to reduce our dependence on oil."

IMPORT FEES LIFTED FOR NEW YEAR:

The 21-cent & 63-cent import fees on crude oil & product will remain suspended for 1981, ERA has announced. Fees were suspended in April, and subsequently through Dec. 31, but the Presidential proclamation is "silent as to the status of license fees after that date," ERA noted. So until there is further amendment, "a zero fee will remain in effect indefinitely," ERA noted. All other rules, including those requiring importers to obtain licenses, remain in effect.

3/24/81

Alaska Gas-Pipeline Cost Estimates Soar Even as Opposition Builds to Role by U.S.

By ANDY PASZTOR

Staff Reporter of THE WALL STREET JOURNAL

WASHINGTON—Cost estimates for completing the planned Alaska natural gas pipeline have reached the point where many of its supporters believe it can't be built without substantial financial assistance from the federal government.

This comes at a time, however, when there's strong resistance in Washington to approving any kind of federal investment in the project. While the Reagan administration is studying the possibility of increasing federal support for the much-delayed project, any government aid is likely to stop short of the loan guarantees that many supporters think are necessary to complete the 4,800-mile line.

The price tag for the project has risen to between \$35 billion and \$40 billion from about \$25 billion last fall.

Construction has begun on legs of the pipeline in Canada and the U.S. but work hasn't begun on the important section inside Alaska.

For years, oil companies involved in the project have argued that some type of federal financial help is essential to complete construction of the line. But now, that idea is gaining strength among government policymakers and, apparently, even some of the pipeline company officials who previously rejected the argument.

Several of the major oil companies and influential lawmakers on Capitol Hill backing the pipeline argue that the chances of privately financing construction of the entire 4,800-mile line are slim and becoming riskier each day.

Risks, Uncertainties Are Cited

"There's growing skepticism that the (project's) sponsors can pull it off by finding enough private capital to finish the job," says a senior executive for one of the four oil companies participating in the planning. "There are too many risks and uncertainties clouding the picture," he adds.

An official for another oil company involved in the negotiations says: "Many of our people are convinced the current framework simply won't succeed." He adds that Congress and the White House "will have to confront that fact shortly and deal with the issue" of providing direct federal aid.

It's against this backdrop that the Reagan administration is trying to reevaluate the government's role in the project and determine the marketability of the roughly 2.5 billion cubic feet of gas that the system is designed to carry daily from Alaska's Prudhoe Bay across Western Canada for the U.S. beginning in the late 1990s. A Washington spokesman for Northwest Energy Co., which heads the group of pipeline companies sponsoring the project, declined to comment.

It's understood, however, that the pipeline's supporters are stepping up efforts to convince the Federal Energy Regulatory Commission to approve a favorable rate structure that would make it easier to attract investors. Also, a number of Reagan administration officials and congressional staffers say that some of the project's backers have informally broached the subject of potential federal loan guarantees, or other government aid, if an acceptable financing package can't be assembled in the private sector.

According to government officials, several of the 11 gas-transmission companies responsible for designing and building the Alaskan segment of the pipeline have privately indicated they, too, may be forced to

embrace that position in light of escalating costs and delays in obtaining sufficient private financing.

Idea Was Floated

"There hasn't been any formal proposal along those lines," says one Energy Department official, "but the idea is being floated to see what the reaction may be."

The White House isn't expected to be enthusiastic about supporting such federal help for the project. But if the sponsors report to Congress in the spring that a satisfactory financing plan hasn't been negotiated, industry sources argue, President Reagan and his advisers might have an alternative if they want to see the line completed.

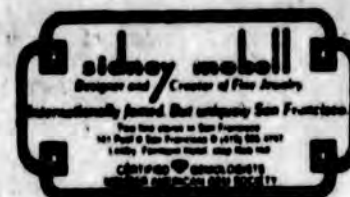
The existing plan, approved by President Carter and Congress in 1977, precludes federal financing of construction work. The original plan approved by the government also ruled out equity investment in the project by the oil companies that control most of the vast reserves of natural gas around Prudhoe Bay.

The producers and the pipeline companies pushing the project want the ban against equity rescinded. The current negotiations, industry sources say, involve a proposal under which Exxon Corp., Atlantic Richfield Co. and Standard Oil Co. (Ohio) would control about 30% of the project. That

means the pipeline companies would have to raise as much as \$28 billion from their own resources, the U.S. and Canadian investment community, and the state of Alaska.

In an apparent effort to get those negotiations off dead center, Energy Secretary James Edwards has told the Canadian government that the Reagan administration is "firmly committed to the completion" of the pipeline "in conformity with agreements between our countries."

Whatever financing package is worked out must be submitted to Congress. And there are increasing signs of dissatisfaction on Capitol Hill about the status of the project. Rep. John Dingell (D., Mich.), Chairman of the House Energy Committee, for example, recently asked congressional researchers to study a number of possible alternative methods of moving the gas out of Alaska. Such methods include shipment by tankers and on-site conversion to Methanol, or other products, which could then be shipped to the West Coast.



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Polar Gas to pick route for Arctic Y line

POLAR Gas Project officials may select one of four possible routes as early as this fall for a Y line to move gas reserves from the Arctic Islands and the Mackenzie Delta/Beaufort Sea areas to Canadian and U.S. markets.

A target date for filing an application in 1981 will be selected soon.

Depending on the final route, the line could involve 3,000 miles of pipe before it connects with the Trans-Canada PipeLines system in southern Canada.

The Y-line routes are west of the original, single-line route from the Arctic Islands to Longlac, Ont., which was filed with Canadian authorities in 1977 by Polar Gas Ltd.

More than \$70 million has been spent on technical, environmental, socio-economic, and other feasibility studies for the project.

Officials say the pipeline could be in place in 7-10 years.

All four Y-line routes pass through areas of continuous permafrost soils, discontinuous permafrost soils, and nonpermafrost soils.

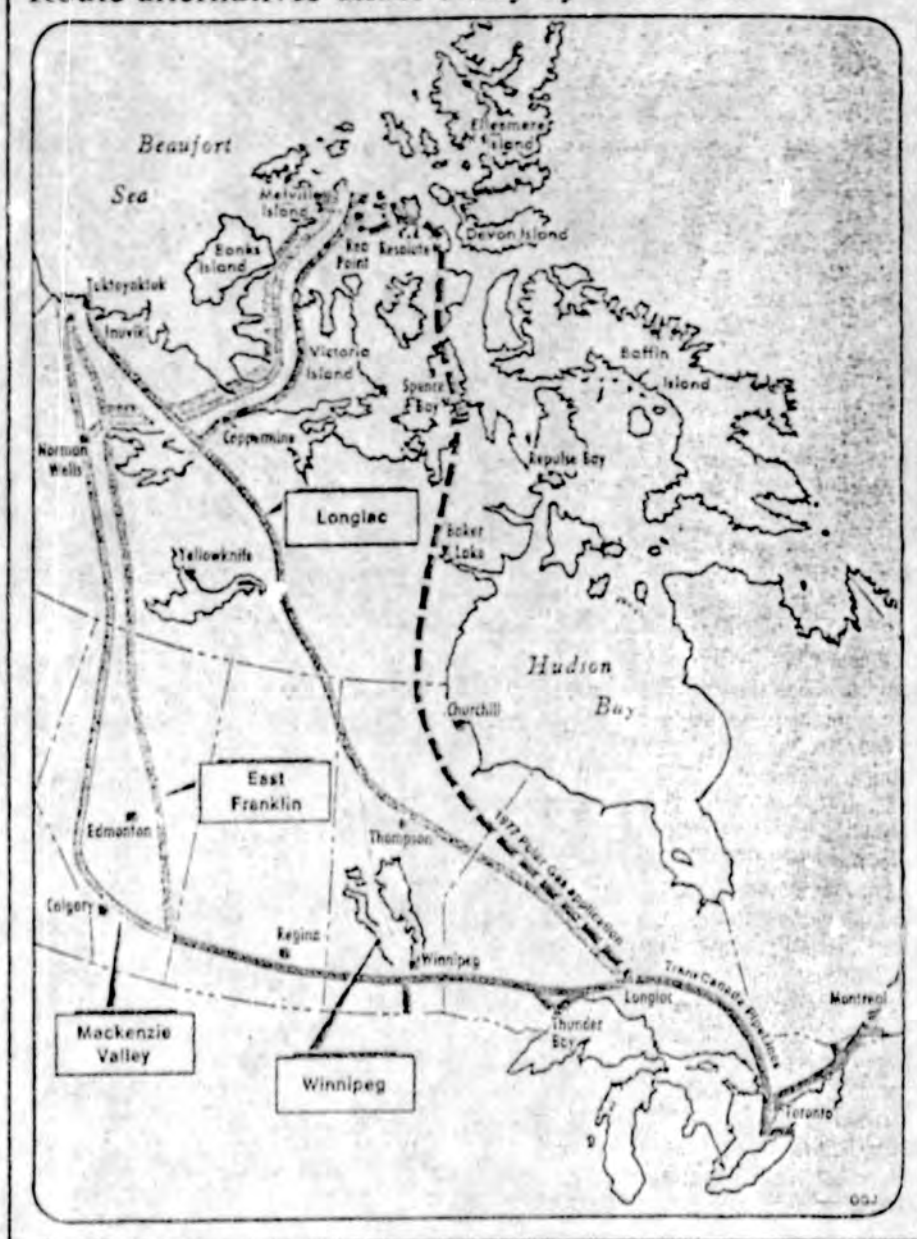
Gas flowing through the pipe in the permafrost area will be chilled below 0° C., which will prevent thawing of the soil.

In the discontinuous area, the pipeline will operate above 0° C. Construction methods will be designed to accommodate possible thaw settlement. In the nonpermafrost area, the line will operate above 0° C. Conventional construction methods will be used.

Marketable reserves in the High Arctic Islands are estimated at 12.7 trillion cu ft. Recent discoveries there, however, are expected to add another 3-6 trillion cu ft.

Mackenzie Delta reserves are estimated at 5.8 trillion cu ft.

Route alternatives under study by Polar Gas



Two holes plugged off E. Coast; three tests set

OPERATORS plugged two more holes off the U.S. East Coast last week, including a pivotal test to delineate a gas discovery in the Baltimore Canyon.

But the bad news was tempered by disclosure of plans to drill three more mid-Atlantic tests. One would attempt once more to determine the commerciality of Texaco Inc.'s Jurassic natural gas strike on Block 598, a goal that has eluded industry since August 1978.

Plugged last week were Texaco's Block 598-3 delineation hole and Mur-

phy Oil Corp.'s Block 106 lease-line wildcat.

Disappointments there raised the canyon's dry hole count to 18, excluding two stratigraphic tests and a junked, 1,200-ft attempt on Block 17.

One test is still drilling.

Besides the initial strike, canyon drilling has yielded natural gas and condensate from the other holes, both on Block 642.

The mid-Atlantic search so far has cost industry \$1.632 billion, according to a Feb. 29 report issued by the API Atlantic Offshore Media Relations

Task Force.

That total includes \$237.5 million in direct drilling costs, \$1.169 billion in lease bonuses, and \$225 million in other spending.

Dry holes. Texaco tested its 16,104-ft No. 3 hole for 8 weeks before announcing the well had been plugged without encountering oil or gas in producible volumes.

Location, in 425 ft of water, is 4,300 ft northeast of the company's two-zone strike.

"There is little doubt that a significant accumulation of natural gas lies

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6 THE WALL STREET JOURNAL
Friday, May 23, 1980

Only AMC, Ford Closing Plants For Next Week

U.S. Auto Makers Schedule Work for Most of Their Car and Truck Facilities

By WALL STREET JOURNAL Staff Reporter
DETROIT—After weeks of drastically slashing production in response to the collapse of the auto market, U.S. auto makers scheduled most of their U.S. car and truck assembly plants to operate next week.

Only American Motors Corp. and Ford Motor Co. scheduled temporary plant closings in a continued effort to balance dealers' inventories with plunging sales. Thus, one car and four truck plants will be closed next week, temporarily idling 14,720 workers.

This week, the industry closed 14 car and seven truck assembly plants, temporarily idling more than 50,000 production workers.

Recent Closings

Over the past few months, the domestic industry has permanently closed several car assembly plants, eliminated work turns and slowed assembly-line speeds in response to sharply declining sales and dim prospects for improvement for at least six months. Such moves have indefinitely idled 220,000 auto workers.

In the past several weeks, the industry also has continued its recent pattern of frequent temporary plant closings in a further effort to keep production in line with sales.

AMC said it will suspend for one week car production on one of two assembly lines at its Kenosha, Wis., assembly plant, temporarily idling 3,650 of the plant's 8,500 workers. In addition, AMC extended for a fourth week the suspension of utility-vehicle production at its Toledo, Ohio, plant, leaving 3,500 workers temporarily idled.

Ford Suspension

New Pipe to Tap Gas In Northern Canada Planned by Group

By WALL STREET JOURNAL Staff Reporter
TORONTO—The Polar Gas pipeline consortium said it intends to file a new application with Canadian authorities for a combined pipeline system to tap natural-gas reserves in the Canadian north.

Polar Gas said it plans a Y-shaped 3,000-mile pipeline that would bring gas from the MacKenzie Delta area in the western Canadian Arctic and from the more easterly High Arctic Islands. It said the total established gas reserves in the two areas are sufficient to support the pipeline, which would connect with existing facilities in the south.

In 1977, Polar Gas applied to build a single, 2,300-mile line from the Arctic Islands to markets in the Canadian south. That line was estimated in 1978 to have a construction cost of \$7.1 billion (Canadian).

A spokesman for the consortium said the new proposal isn't expected to cost much more than the original, but he noted that cost estimates don't include financing charges and inflation during the about five years required for construction. Some observers have said such a pipeline would cost \$12 billion to \$15 billion.

Polar Gas said it's still studying route alternatives for the pipeline, but expects to file the new application by mid-1981. It requested withdrawal of the 1977 filing.

Members of the Polar Gas group include Canadian government-owned Petro-Canada; Panarctic Oils Ltd., TransCanada PipeLines Ltd., an Ontario government agency; Ontario Energy Corp., and Tenneco Inc., Houston.

World Bank and IDA Clear \$296.7 Million In Loans to 7 Countries

By WALL STREET JOURNAL Staff Reporter
WASHINGTON—The World Bank and its affiliate, the International Development Association, approved \$296.7 million in loans to seven and five other countries.

The \$50 million from the IDA is for a project to link

American General Insurance Co. Terms to Acquire

By WALL STREET JOURNAL Staff Reporter
NEW YORK—American General Insurance Co., Houston, revised the terms of its acquisition of Lincoln American General Insurance Co. American General currently owns 40.3% of Lincoln American stock.

The new terms "seek more favorable consideration from the Internal Revenue Service on the tax-free aspects of the proposed transaction," Lincoln American said.

The revised merger terms indicate that American General will exchange a new issue of junior convertible preferred for 3.1 million publicly held shares of Lincoln American and 2.2 million owned by American General subsidiaries. Each share of preferred will be exchanged for 2.5 shares of Lincoln American.

At a minimum, the value of the transaction for 5.3 million shares of Lincoln American—based on American General's share price yesterday on the New York Stock Exchange composite tape of \$32.125 and assuming the preferred would be converted to American General common—would be \$171.8 million.

But moreover, each share of preferred will have a cumulative annual dividend of \$3.25 and will be callable after five years at \$35.75, and after 10 years at \$32.50.

Including the dividend and conversion value, each preferred share would be a \$26.45 package. If a preferred share is swapped for 2.5 Lincoln American shares, the exchange rate would be about \$10.58 for each Lincoln American share.

Lincoln American closed yesterday on the American Stock Exchange composite tape at \$11.50, unchanged.

An annual sinking fund, beginning in 11 years, will redeem 12.5% of the preferred at \$32.50 a share each year for 10 years and the remaining 50% at the end of the year.

Lincoln American has life and casualty businesses.

Northern Border Pipe Wins Loan For Gas Line Leg

An 823-Mile, \$1.4 Billion Lap
Of Alaska System Gets
\$1,055,000,000 Financing

By a WALL STREET JOURNAL Staff Reporter

NEW YORK—A consortium of 28 U.S. and Canadian banks agreed yesterday to loan \$1,055,000,000 to Northern Border Pipeline Co. for construction of a 823-mile segment of the Alaska natural gas pipeline system.

The five Northern Border Pipeline partners will put up the rest of the money needed to build the \$1.4 billion project.

The pipeline initially will take surplus natural gas from Alberta and Alaska to the Midwestern and Eastern markets of the U.S. Construction will start in May and be complete in the fall of 1982. The pipeline will carry 975 million cubic feet of gas a day, or the equivalent of 165,000 barrels of oil a day, enough to heat about two million homes.

"The pipeline will supply additional energy for the U.S. and will replace energy from less secure sources," said Gordon Severa, president of Northern Natural Gas Co., a subsidiary of InterNorth Inc., one of the partners.

One of the largest project financing agreements ever, the arrangement has been in the works for eight years. The banks will get paid with a share of the roughly one dollar-a-thousand-cubic-feet transmission charge. The loans cover about 70% of the anticipated construction cost and have a 10-year maturity.

The governments of Canada and the U.S. have granted the necessary regulatory approvals for the project. More than 70% of right-of-way needed for construction has been acquired.

The Line's Two Legs

The pipeline route will wind through Montana, North Dakota, South Dakota, Minnesota and Iowa. The next construction phase will be another billion-dollar extension to Dwight, Ill., near Chicago.

That pipeline will be one of two legs of a line that eventually will reach through Canada to the Alaskan North Slope.

The construction of the Alaska extension hasn't begun, builders of the U.S. leg are worried. "This project can stand on its feet just with the Canadian surplus," said Mr. Severa, who is chairman of the partners' management committee.

Natural Gas Surplus

Canada's western provinces have more natural gas than they can export because of their inability to transport it to Eastern markets.

Three companies will buy the gas coming through the pipeline: United Gas Pipeline Co., a Houston-based concern that sells in Eastern areas; Panhandle Eastern Pipeline Co., which markets gas in the Midwest, and Northern Natural Gas Co., an Omaha-based company that sells gas in the Midwest plains.

In building the pipeline, the partners will employ nine pipeline construction firms, pay \$500 million for pipe and create about 2,000 steel-industry jobs. About 5,000 workers will help build the line.

Completion Expected by 1985

Mr. Severa said he expects the entire pipeline, including the Alaska extension, to be complete by 1985.

Partners in Northern Border Pipeline Co. include units of InterNorth Inc.; Northwest Energy Co.; Panhandle Eastern Pipe Line Co.; TransCanada PipeLines and United Gas Pipe Line Co., a unit of United Energy Resources Inc.

Canadian Imperial Bank of Commerce is the leading member of the bank consortium. Its share of the financing will be 14%.

East Coast Wells Test Oil and Gas

Testing in two wells offshore Newfoundland has reinforced earlier speculation that the area could contain significant volumes of crude oil and natural gas. The Hibernia 0-35 stepout well of Mobil *et al* tested eight zones, of which seven produced an aggregate oil flow calculated at 12 700 b/d and natural gas at 8 million cf/d. The well is 1.8 miles west of the Hibernia P-15 discovery, which demonstrated potential of 15 000-20 000 b/d (see *Petroleum Economist*, April 1980, page 171). A second stepout, Hibernia B-08, is being drilled three miles north of the discovery well.

Partners in the Hibernia wells are Mobil, Gulf Canada Resources, Chevron Standard (which drilled the discovery well before turning over operations to Mobil), Petro-Canada and Columbia Gas Development. The structure is 165 nautical miles east of St John's, Newfoundland.

Initial testing in the Ben Nevis wildcat I-45, 24 miles southeast of Hibernia and in a different structure, resulted in a flow of 1 596 b/d of 38.9° API oil and 12 million cf/d of natural gas. Mobil's partners here are Gulf Canada Resources and Petro-Canada.

Elsewhere off the east coast, the federal government has approved the drilling of up to ten wildcats this summer, with the possibility that two more may be approved later in the season. Petro-Canada, now the operator for the Labrador Group, plans three to five wells. Chevron, operator for another group, spudded the Chevron *et al* South Labrador M-79 wildcat 25 km east of the Hopedale E-33 discovery of 1978 (see *Petroleum Economist*, February 1979, page 70).

Boosts for Alaska Gas Pipeline

Plans to construct the 4 800-mile \$23 billion pipeline to transport natural gas from Alaska's North Slope to the Lower 48 states were significantly advanced when the Canadian government approved pre-building of southern sections of the line, and with further agreement relating to financing the Alaskan segment. Ottawa's endorsement met a mid-July deadline set by Canadian sponsors of the line for a start of construction this month to permit a startup in deliveries of Alberta gas next March.

The Canadian agreement followed long and difficult US-Canadian negotiations that had become strained by several issues, particularly the sharp rise in Canada's export price for natural gas earlier this year from \$3.45 (US) per million Btu to \$4.47. Both prices emerged from a formula based on world oil prices, but the higher level resulted in a sharp dropoff in exports to the USA which in turn created a worrisome gas surplus — and increasing cash-flow problems — for Canadian producers. The fall, from 2.75 billion cf/d in the first quarter to 1.8 billion cf/d in April, softened Ottawa's stance in the pipeline talks. Among other concessions, Canada agreed not to increase the gas price on 1st October to the level of around \$5.12 per million Btu indicated by recent oil-price increases.

One of Canada's main concerns about the pre-build approach to the project had been a risk that the Alaskan portion might never be built, and the federal government

eventually had taken hard lines on this point. In June, Ottawa accepted a resolution of both houses of the US Congress backed up by a letter from President Carter reaffirming Washington's commitment to the project.

Had the Canadians not accepted these assurances, the project could have been seriously delayed in view of the difficulties over financing the Alaskan section. In June, Northwest Energy and other sponsors concluded two agreements with Exxon, Arco and Sohio. One established a joint entity to continue with design, engineering and construction planning. The second set up a process to develop private financing for construction, anticipating substantial participation by the producing companies. While the agreements were seen as major steps toward building the line, it was clear that it would be some time before any definitive financing plan would emerge.

LETTER TO THE EDITOR

From Mr Christopher Johnson, Economic Adviser, Lloyds Bank Limited

16 July 1980

Sir,

The Venice summit meeting recognised a fact of general importance in the solution of world energy problems, in addition to its more specific proposals. It acknowledged that the current level of OPEC oil prices bears "no relation to market conditions". If OPEC oil prices are too high, what can the rest of the world do about it? This is a question which the summit failed to answer.

The rest of the world has, at least until Venice, accepted rather too easily the comforting belief that OPEC is a blessing in disguise, because it has imposed on us all an oil price sufficient to call forth additional supplies to relieve the long-run shortage of energy. While this was plausible with regard to the first major OPEC increase in 1973-4, it is wholly implausible with regard to the further 140% increase of 1979-80.

Even the pre-1979 price would have been sufficient to ensure the exploration and development of many of the further reserves of oil, gas, and coal — not to mention nuclear power — which are now being announced day after day.

How can the industrial countries prevent OPEC using its monopolistic position from continuing to raise prices, and thus increasing its members' revenues by cutting back production as non-OPEC energy supplies increase?

First, they could resolve to respond to any future OPEC price increase by arranging to cut their purchases of oil by just enough to ensure that OPEC suffered a marginal loss in its revenue. Since they agreed at the Tokyo summit a year ago to oil import ceilings, they should be able to agree to more specific OPEC oil import ceilings. If OPEC objected, it could be pointed out that the GDP loss which higher oil prices inflicted on the industrial countries would reduce their demand for oil in any case — as may be happening this year.

Second, the industrial countries could seek to produce and trade non-OPEC oil at a price below at least the highest OPEC prices, taking the Saudi price of \$28 a barrel as a guidepost. OPEC now controls 60 per cent of free world oil output, but this is no reason why the rest of the world should accept OPEC price leadership, particularly that of the "hawks" in OPEC. The current high level of world oil stocks, and the slackness of demand due to the recession, makes this a good moment to try to reverse the rising tide of OPEC prices. The Rotterdam spot market price has fallen below OPEC levels for the first time in some months.

This might require the formation of an "anti-cartel", using the International Energy Agency. But, with some official prompting, and the cooperation of the international oil companies, it could be better done through the establishment of a free market in oil. The oil majors now handle far less oil trade than they used to, and some of them would be able to remedy gaps in their supplies through such a market. The Rotterdam spot market should not be allowed to have a monopoly, and there are those who advocate the establishment of a wider and more representative market for crude oil and products, together with futures, in the City of London.

This may seem a high-risk strategy, in view of the possibility of a confrontation with OPEC. But what is now at stake is world economic

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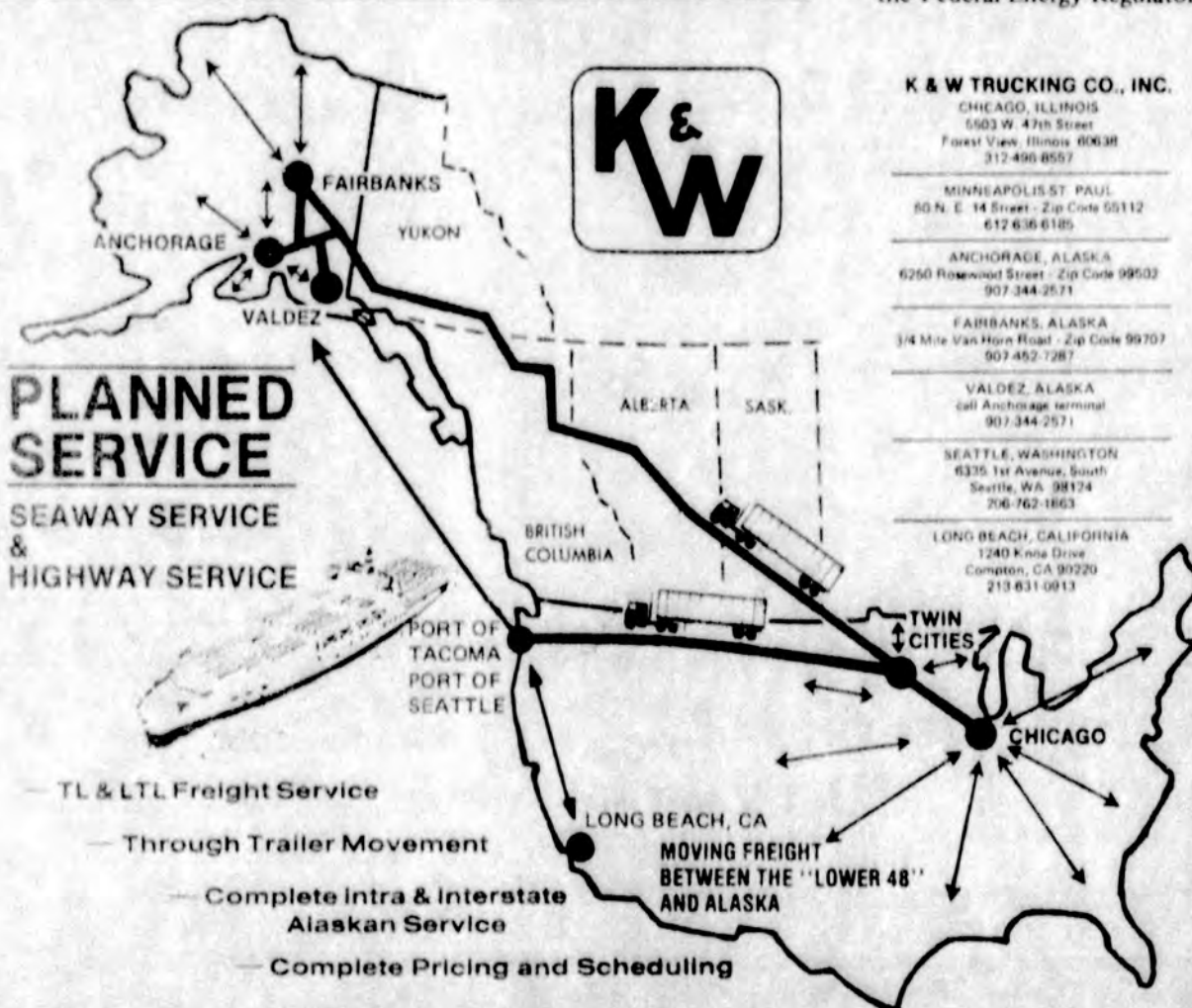
Gasline:

A meeting in Fairbanks last month of the executive policy board (comprised of federal officials for oversight of the Alaska gas pipeline project) sharpened the focus on progress to date but added little new information about the situation.

Most significant of the topics considered was the gas stripping plant, design of which is critical to the state's hopes for a petrochemical industry development. State coordinator Charles Behlke told the group that a contractor would be chosen by Oct. 1 to do the final plant design, with the fate of the gas liquids to be decided by mid-December.

Two of the critical questions concern whether liquids should be stripped from the wet gas to be used largely as fuel for the processing plant and whether most of the carbon dioxide (about 10 percent by volume) should be removed in the initial gas processing.

Exxon Co. U.S.A., which is making an independent study on the feasibility of using the associated gas liquids as feedstock for an Alaska petrochemical plant, has written a blistering letter to the Federal Energy Regulatory Commis-



progress is slow but encouraging

sion charging FERC with misrepresentation of the company's position on the subject in its final environmental impact statement on construction of a conditioning plant at Prudhoe Bay.

Dated Aug. 21, the letter refers FERC to a previously submitted statement of Sept. 19, 1979 (one month prior to the official deadline for comments) which Exxon claims was totally ignored and Exxon's position on transmission line specifications misrepresented in the final impact report.

In correcting that position, Exxon declared:

1. The pipeline should operate at a pressure of 2,160 psig (a pressure sufficient to permit most of the gas liquids to be transported through the line).

2. There are no technological impediments to constructing pipelines to operate at up to 2,160 psig.

3. Stripping of all but a small fraction of the CO₂ gas is not justified. In fact, insufficient study has been done to determine an optimum level of CO₂ in methane for shipment through the line.

4. Transmission of CO₂ would not pose a hazard to the line. The gas will be chilled below the freeze point of water and carbonic acid corrosion occurs only when carbon dioxide dissolves in water. It can't dissolve in ice.

Signed by two Exxon attorneys, the letter declares the FERC statement of "Exxon's position" to be "grossly inaccurate" on the subject of pressure and handling of CO₂.

The treating plant strips such impurities as water and produced solids from the gas prior to putting it in the transmission line. Usually, any associated hydrocarbon liquids are also removed, especially if there is a good chance they will reach "dewpoint" — that combination of temperature and pressure at which they liquefy and drop out of solution.

Such "condensate" can then collect in low spots of the line, blocking passage of the gas and requiring that it be removed by running a pig through the line.

State officials want a high pressure line which will permit the liquids to be moved through the line to a second treating plant in central of southern Alaska where they can be removed for nontoxic use. Alternatively, it wants them removed and saved at Prudhoe Bay so

that they can be transported through a separate line to a southern Alaska petrochemical plant.

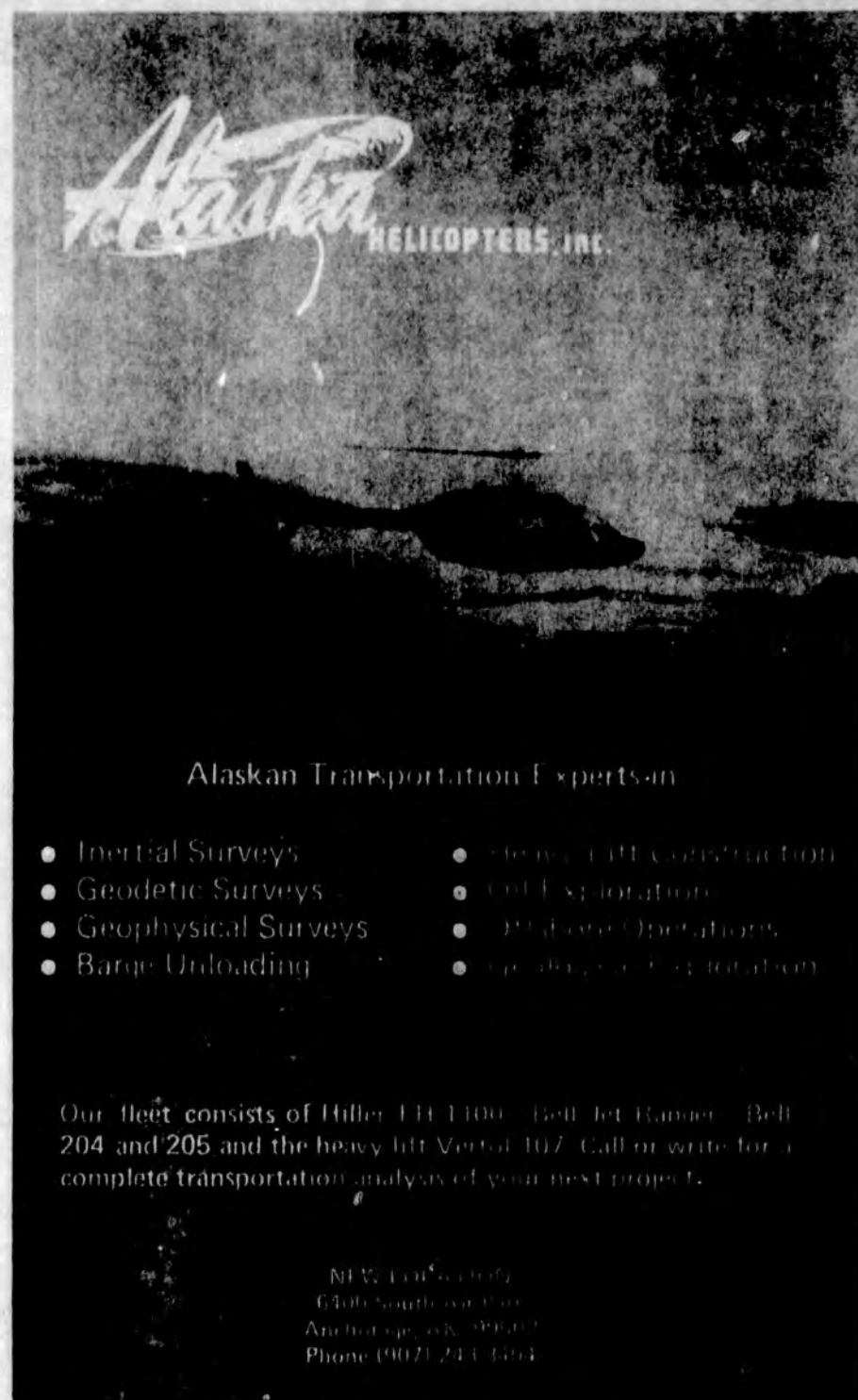
A consortium led by Dow Chemical Co. is now making a feasibility study on the economics of both concepts, with the state's official blessing. Exxon, which owns about one-fourth of the Prudhoe field natural gas, is financing a separate study. Most authorities agree that all of the gas liquids will have to be packaged into one processing scheme in

order to make a petrochemical complex feasible.

While the conditioning dispute continues, progress on other elements of the gas line project go on.

On the basis of a "scout's honor" commitment from U.S. officials that the Alaska portion will be built, Canada has permitted work to begin on a southern segment of the line which will permit early delivery of Canadian gas to the United States consumers on a "back-

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Line plans need key decisions

(CONTINUED FROM PAGE 19)

out" basis. Canadian gas will be "borrowed" and then replaced with a pro rata share of Prudhoe Bay gas when the northern segments of the line are completed.

In its progress report to the pro forma task force meeting, a spokesman for project operator Northwest Alaskan Pipeline Co. said growth of the consortium recently to 11 member companies has strengthened it and will make financing easier.

Working on engineering design data for the pipeline construction this year are 305 people, 76 percent reportedly Alaskans. Most of the work is related to right of way centerline selection. Several drilling contractors, led by The Drilling Co. of Anchorage, have continued soil borings -- beginning in February, they will continue until about mid-November.

Cadastral surveying to pinpoint all streams, road and oil pipeline crossings will also continue to mid-November. Other work includes location of geological fault lines, borrow sites for gravel

—PLEASE TURN TO PAGE 46

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(CONTINUED FROM PAGE 46)

supplies and stream flow data for use in designing water crossings. Field tests will include burial of line sections this fall to determine ground water and frost heave problems.

A problem of the design data work has been a dispute over a "safe distance" from the oil line for placement of the gas line. Northwest planned for an 80 ft. minimum separation but the producer/owners of the oil line and the state rejected that as too close.

Behlke recently told Fairbanks newsman Joe LaRocca that Northwest and the Interior Department settled on a 200 ft. minimum separation and that a final right of way will be approved by about mid-October, unless there is objection from Congress.

The minimum spacing revision is apparently one of the concessions Northwest had to make in order to obtain financial assistance from the Prudhoe producers for the costly design engineering work, along with a promise to try and work out a joint construction financing plan.

Past delays have proven costly to the project and continued delays promise to be even more costly. The estimated price tag has more than

—PLEASE TURN TO PAGE 47

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Alaska gas pipeline work resumes in Alberta

WORK has resumed on the southern Alberta section of the Alaska highway gas pipeline prebuild project after a 12-day wildcat strike by operating engineers.

Construction on a 27-mile stretch of pipe west of Claresholm, Alta., was stopped when about 60 heavy equipment operators demanded more work bonuses and overtime payments.

A spokesman for the contractor, Banister Pipelines, said the demands of the workers will be considered when a new contract is negotiated in May.

Pipeline crews will go from a 6 to 7-day week to make up for lost time on the project, still expected to be completed before late December.

Meanwhile, Marine Pipeline Construction of Canada Ltd., contractor for the prebuild section in the Flathead Ridge area of Southeast British Columbia, has encountered steep grades and heavy mud conditions.

Pe Ben Industries Co. Ltd., subcontractor for the pipe stringing, said conventional pipe stringing trucks were unable to climb the steep grades and muddy terrain.

The company brought in a Magnum 4, a large terra-tired vehicle manufactured by Canadian Foremost Ltd.,



MAGNUM 4, a 70-ton eight-wheel drive, all terrain vehicle, hauls pipe in the Flathead Ridge area of British Columbia as work continues on the prebuild sections of the Alaska Highway gas pipeline project. The vehicle can carry up to nine joints of 60-ft-long, 36-in. pipe.

Calgary. The vehicle was designed to climb steep grades and muddy terrain.

The stringing operation was completed 25 days after the vehicle began work.

Proposed resid entitlements extension at issue

U.S. REFINERS and oil distributors have disagreed sharply with utilities and import terminal operators over the Economic Regulatory Administration's proposal to extend entitlements benefits on East Coast imports of residual fuel oil.

ERA proposes to continue the program, which expired Sept. 30, through Sept. 30, 1981.

A spokesman for Cities Service Co. told an ERA hearing, "There is no need for importers to receive this benefit. Continued entitlement benefits for imported residual fuel will have an adverse impact on national energy programs and the balance of payments."

On the other hand, a spokesman for several East Coast and Michigan utilities pointed out that imports meet 100% of Michigan's demand and 76% of PAD Dist. I demand for resid.

"Because U.S. refining capacity cannot meet that demand," he said, "and because new refining capacity will be biased toward production of lighter ends, imports of resid will continue

to be the major source for the necessary supply."

ERA's proposed extension would permit resid imported into the East Coast and Michigan markets to receive 50% of an entitlements credit and penalize shipments of U.S. resid into those markets on foreign flag tankers by loss of 50% of an entitlements credit. This is the program that has been in effect since July 1978. Before that, going back to March 1976, imported resid received 30% of an entitlements credit and U.S. resid shipped into the East Coast refining district in excess of 5,000 b/d lost 50% of an entitlements credit.

No program. Cities Service said no program at all is needed. It cited the worldwide surplus of resid and the consequent depressed price.

"Entitlements for residual fuel imports aren't needed to encourage additional production," said Charles Head, manager of federal energy regulations.

He called the program "ludicrous," saying that, "Instead of subsidizing an

already plentiful supply of low cost petroleum fuel, the government should be considering ways to encourage conversion to coal."

He said the resid entitlements program increases the U.S. balance of payments by \$60 million/month.

Cities Service suggested that this benefit may be going into the pockets of foreign refiners.

"Even if the entitlement benefit were passed on to the consumer in the form of lower utility costs," Head said, "the lower cost would occur as a result of subsidization that is paid for by all other energy consumers throughout other parts of the country. We don't believe that consumers of gasoline should be forced to subsidize the consumers of imported residual fuel."

Head told ERA that entitlements aren't needed to reduce the cost of resid. New York spot cargo prices for 1% sulfur No. 6 fuel oil at \$23.50/bbl are \$10/bbl lower than crude costs.

He estimated that resid prices ranging from \$30 to \$35/bbl would be

Producer participation seen in Alaska gas line

JOHN G. McMillian, chairman of the Northwest Alaskan Pipeline Co., predicts that during first quarter 1981 Congress will change the law to allow North Slope gas producers to own an equity interest in the Alaskan gas pipeline.

Gas, at \$9/Mcf, will be flowing out of Alaska by the 1985-86 heating season, he said.

Negotiations so far indicate that the three oil companies that produce the bulk of Prudhoe Bay gas will settle for a total of 40% or less in equity, McMillian said. These companies are Exxon Corp., Atlantic Richfield Co., and Standard Oil Co. (Ohio).

Industry sources say McMillian may be a little premature in his assessment. They say information is not yet in on the just-signed producer-pipeline Phase 1 agreement to conduct a joint design, engineering, and cost study. This won't be ready until late 1980.

Also undecided at this point is the type and level of producer participation.

"John McMillian is entitled to his opinion," said one source, "but we haven't gotten that far."

A sticking point so far on the proposed 4,800-mile Alaska Natural Gas Transportation System (Angts) is that North Slope producers have been asked by pipeline companies, led by McMillian, to help finance the multi-billion dollar project.

But without a change in the 1977 law, drawn by the Carter administration to keep producers from controlling what would be the nation's largest pipeline system, the producers would have no part in the ownership.

McMillian stressed at a Washington press conference that even with a change in the law, the transmission companies would continue to control the project.

He also said the gas will sell at the city gate for \$6.20-6.30/Mcf in 1980 dollars. With inflation, he predicted that by 1985-86 the price will reach \$9/Mcf.

Prebuild construction. Construction has begun on the prebuild portion of the Angts.

This initial stage includes western and eastern legs from Alberta into the U.S. West Coast and Midwest. The legs will move Canadian gas until the Alaskan and northern Canada sections are built later.

Assurances from President Carter and Congress to Canadian Prime Minister Pierre Trudeau helped construction in Canada begin. But questions have arisen on whether these as-

surances will entail federal aid of some sort.

At his meeting with reporters, McMillian emphasized that the system will be built with 100% private financing.

To provide all parties the necessary assurance of completion, Northwest Alaskan has assumed a cost overrun of up to 20% and is providing a cost overrun pool of 50% more than cost-plus-20%.

McMillian said final rates and dollar amounts will have to be established with the cooperation of the financial community at the time the deal is signed.

Government figures show that the total project will cost about \$21 billion. This includes \$2 billion for the prebuild, \$1.1 billion to finish the Lower 48 portion later, \$7.9 billion for the Alaskan segment of the pipeline, \$5.5-6.5 billion for the Canadian portion, and \$2.3-3 billion for a gas conditioning and processing facility in Alaska.

McMillian said it is possible that the State of Alaska may finance the conditioning plant. Alaska, with abundant financial resources from its share of Prudhoe Bay oil, wants to develop industry within its own borders rather than merely ship oil and gas to other areas.

Last month the Federal Energy Regulatory Commission issued an environmental impact statement (OGJ, Aug. 4, p. 22) approving three sites for the conditioning plant. The first, favored by the Angts sponsors, is at Prudhoe Bay, near the gas source. The other two, favored by the state, are 300 miles south, near Fairbanks.

Momentum for the entire project has been aided by the beginning of construction on the prebuild portion, McMillian said.

He is optimistic that despite the hurdles, the entire project can be completed by 1985-86. It originally was slated for completion in 1983.

The portions to be prebuilt are in-

tegral parts of the overall Alaska system.

Northwest says construction of about 1,500 miles of pipeline in the U.S. and Canada will make up about 30% of the entire system. The U.S. sections of the prebuild will cost about \$1.5 billion.

Prebuild's capacity. The prebuilt portion will transport more than 1 billion cfd of Alberta gas for 6 years to U.S. markets. This includes up to 300 MMcfd to southern California and about 800 MMcfd through the eastern leg (or Northern Border Pipeline) to markets in the Midwest, South, and East.

In the West, the delivery system will involve 160 miles of 42-in. pipe loop on the existing Pacific Gas Transmission Co. system between Kingsgate, B.C., and Stanfield, Ore., and expansion of existing facilities of Northwest Pipeline Corp. and El Paso Natural Gas Co. in Oregon, Idaho, Colorado, and New Mexico.

Construction will begin this fall, with completion set for summer of 1981.

Northwest Pipeline will be adding 351 miles of pipeline to its system between Stanfield, where it connects with the PGT system, and a point 14 miles east of Burley, Idaho. The company has ordered 70,000 tons of coated steel pipe, at a price of \$52 million, from Kaiser Steel Co. in California. Included are 100 miles of 30-in. pipe (25,000 tons) and 251 miles of 24-in. pipe (44,700 tons).

On July 29, the Northern Pipeline Agency issued Foothills Pipe Lines Ltd., a formal notice to proceed with construction in Canada. Foothills has begun to clear a right-of-way of about 130 miles between Caroline Junction, Alta., and Kingsgate, B.C.

A statement from Northwest Alaskan also said that Northern Border Pipeline Co. expects to begin construction this year on the prebuild portions of the U.S. eastern leg, which will consist of 821 miles of 42-in. pipeline.

Gulf of Mexico feels hurricane impact

KILLER Hurricane Allen was taking its toll of oil industry personnel and operations as it headed for the Gulf of Mexico last week.

The pilot and 12 passengers of a helicopter evacuating a production platform off Louisiana were reported missing.

The Air Logistics helicopter had picked up Ocean Drilling & Exploration Co. personnel and contract workers at Odeco's Ship Shoal Block

224 platform. U.S. Coast Guard craft searching the area reported sighting debris and bodies in the water 15 miles northwest of the platform.

Among other offshore operators, Amoco Production Co. was evacuating 665 employees and contract personnel from six production facilities and 10 drilling and workover/completion rigs.

Additional operators and contractors were evacuating offshore personnel or monitoring the progress of the storm.

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and. The utility sought the narrow account because the nuclear plant is in early stage, and that a narrow account would ensure that the money would be available to liquidate the company when the plant goes out of service, the staffer said.

Another decommissioning case also is due for a decision by the commission. ALJ Isaac Benkin decided in favor of mothballing nuclear plants in a case involving Connecticut Yankee (ER78-360). The case is scheduled for the commission's Oct. 1 meeting, the staffer said.

Some states have already begun including decommissioning in cost of service, basing costs on mothballing or on depreciation of nuclear plants, staffers noted. One state allows for rapid depreciation, while others base the costs on a sliding scale according to which rates for decommissioning increase as a plant grows older. States that have assessed costs for decommissioning include New York, Illinois and Pennsylvania, staffers said.

U.S. AND ALGERIA SAID TO BE IN AGREEMENT ON LNG PRICE OF \$3.20/MCF

Algeria and DOE officials have agreed on \$3.20/Mcf as the price the Algerian state oil and gas company, Sonatrach, will charge for liquefied natural gas it will sell to the U.S., an industry source said last week. The price does not include transportation and regasification charges of roughly \$1.65, which would put the price to the pipeline at about \$4.85, the source said. A spokesman for El Paso LNG, the U.S. importing company, and an official in DOE's Office of International Affairs would neither confirm nor deny the rumor.

The price to the pipeline of \$4.85 is higher than the Canadian border price, a level that DOE officials have said the department would be reluctant to exceed. DOE's preference for an Algerian LNG price that would be on the same level with Canadian gas has been based on fears that both Canada and Mexico would view a higher price for Algerian LNG as unfair, and would retaliate by raising their border prices, DOE officials have said.

But an official at Canada's National Energy Board told *Inside Ferc* last week that Canada would not object if the U.S. paid somewhat more for Algerian LNG than it did for Canadian gas. The technical and political problems in the Algerian deal are understandable, the Canadian official said. A DOE official also suggested that a higher price could be justified since the pipelines that would purchase Algerian LNG would have to pay more than the Canadian border price if they were to substitute Canadian gas for the LNG supplies. Transportation from the Canadian border to the Southeast, where the pipelines purchasing Algerian LNG are located, would add about another 50¢/Mcf to the Canadian border price, the DOE official said.

NORTH DAKOTA READY TO FIGHT FOR CHANGE IN EASTERN LEG OF GAS PIPELINE

The North Dakota Public Service Commission expects Northern Border Pipeline to agree to its rerouting of the eastern leg of the Alaska gas pipeline project — but if the pipeline doesn't, "we'll meet them in court," PSC Commissioner E. Bruce Hagen vowed last week. Northern Border officials weren't commenting on whether they will challenge the Sept. 12 PSC decision that rejected Northern's proposed route and called for another that will add miles and cost to the project.

In its decision, the PSC cited a state utility siting law, which Hagen called probably the strongest in the nation, that requires certain areas of the state to be avoided in locating transmission facilities unless there is no alternative. Northern Border's route crossed eight of these avoidance areas, the PSC said, adding that the pipeline didn't present enough evidence that there were no reasonable alternatives. The PSC then designated an alternate route, as it is allowed to do under the state siting law.

The alternate route is one suggested by the U.S. Dept. of the Interior in its environmental impact statement on the project. With this route, the pipeline would avoid crossing both the Missouri and Little Missouri rivers, the Badlands, and the Killdeer Mountains, all of which would be crossed (the Missouri River twice) by Northern Border's route. The PSC conceded that its pipeline corridor would add 31 or 51 miles to the pipeline, depending on exactly what route was chosen, with a cost increase in the range of \$19-million to \$43-million. But any cost increase would be justified "as a projection against an unnecessary intrusion upon and irreparable damage to several unique natural resources," the PSC said.

The office of the federal inspector, who is responsible for expediting the Alaska gas project, and Northern Border were conferring on legal strategy late last week. Any decision on a challenge of the PSC, sources said, would be made within two weeks. Under the Alaska Natural Gas Transportation Act, an appeal must go to the D.C. Court of Appeals within 60 days, and the court can take no more than 90 days to decide.

Letters from Federal Inspector John Rhett and Northern Border to the PSC prior to its decision gave some hints of possible legal arguments. Rhett said "substantial realignments" such as the PSC's are unconstitutional under ANGTA and the Natural Gas Act. Northern Border asserted that under the Constitution's supremacy clause, ANGTA pre-empted state action and that the state placed an undue burden on interstate

nothing in the federal law denies states the right to site the pipeline, said Commissioner Hagen. The South Dakota Public Utilities Commission is ready to file an *amicus* brief making the same argument, said PUC Commissioner Charlotte Fischer, who called Northern Border's approach to siting "unbelievable." They think they can get whatever they want by running roughshod over states that are very conscious of their rights.

Northern Border, Rhett and Ferc Chairman Charles Curtis all stressed in letters to the North Dakota PSC the need for speed on the Alaska project, which involves "questions of the utmost importance respecting national energy policy, international relations [and] national security," Curtis said, quoting from ANGTA. Prolonged consideration of alternative routes could throw Northern Border off its construction schedule, changing the terms and conditions that Ferc has approved, he added. Rhett said that delay could prohibit the start of construction next spring and jeopardize the whole Alaska gas pipeline project.

But Hagen responded that because the PSC already has approved another route, all Northern Border has to do is accept the route and there will be no delay.

Neither Montana nor South Dakota is likely to present a similar problem. While Fischer expressed agreement with North Dakota's position, she said her state's siting law allows only a "yes" or "no" vote on a route — unlike the North Dakota law permitting approval of an alternate route — and a "no" vote must be based on social, economic or environmental factors. She just can't foresee any such grounds for a rejection, she said, because the pipeline crosses no major environmental resources in South Dakota. And a source in the Montana Dept. of Natural Resources and Conservation, which must grant a permit to the pipeline, said his agency thought Northern Border's route was "about the best."

A BILL TO IMMEDIATELY DEREGULATE TIGHT GAS AND AUTOMATICALLY DESIGNATE certain fields will be offered by Rep. Timothy Wirth (D-Colo.) this week, a congressional staffer said. It will be short, simply removing Ferc's authority over tight sands gas under the Natural Gas Policy Act, he said. The bill would deregulate tight gas within a month of enactment and automatically designate some areas of the country to which it would apply, the staffer explained. Other areas, for which the facts are "marginal," would be designated by the states without Ferc approval, he said.

The staffer said he expected the bill to gain substantial support among members of the House Commerce subcommittee on energy and power. But a subcommittee staffer said any bill that tampers with the NGPA would have a tough time in the subcommittee. He compared the subcommittee's reluctance to open up the NGPA to its persistent rejection of the so-called "off-gas amendments" that would remove the Fuel Use Act 1990 ban on gas use by power plants.

FERC STAFF LOOKING AT WAYS TO BOLSTER GAS DEMAND . . . begins on page 1

Two other methods under consideration are dump sales and take-or-pay restrictions, the staffer said. Dump sales made on an interruptible basis could be priced very low to compete with oil, he asserted. "It is not at all clear that such sales should be priced at the margin as Hall has suggested," he said. Commissioner George Hall, in commission discussions on a dump sale policy, has contended that interruptible sales to utilities or large industrials should be priced at a level equal to the pipeline's highest purchased gas cost (Inside Ferc, 7 July, 6).

Take-or-pay restrictions may be difficult to justify under existing legislation, the staffer said. The Natural Gas Policy Act does not flatly deny Ferc that type of authority, but it does limit the commission's review of producer-pipeline sales by establishing standard rates for gas sales, he said. Before the NGPA, the commission reviewed producer sales, and take-or-pay demands were generally lower, he said. Now take-or-pay demands are increasing as producers attempt to recover their investments more quickly in the face of inflation.

The only restriction the commission now places on take-or-pay provisions is that they must have a make-up clause. But in the 1960s, at least two pipelines incurred such heavy take-or-pay commitments that the commission ordered them to stop hooking up new gas, he recalled. Another Ferc staffer has cautioned that take-or-pay restrictions could remove one of the interstate pipeline's main advantages over the intrastates — the ability to take gas at high load factors.

An official in Ferc's Office of General Counsel said he would have "serious questions" about banning

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Israel

A joint oil-shale production research project has been signed with West German interests. Cost will be \$2.5m. The energy ministry says that, following the discoveries of further shale beds 80 miles north of Eilat, the country's total oil-shale deposits are now estimated at 3.5-4 billion tons.

Oman

PDO, following a year in which six new oil discoveries were made, has raised its recoverable reserve estimate from 1517 million to 2440 million barrels, as of end-1979.

The pipeline linking the Marmul fields to Qarn Alam, 455 km to the north, has been completed. Booster stations were due for completion during August, with line commissioning taking place before year-end.

Elf is to go ahead with development of the Sahman field. Output will start early in 1982 at 600 000 t/yr.

Qatar

QGPC is to merge with QPPA (set up to run the previously foreign-owned concessions) under a Ruler's decree. Two divisions will be formed, one to run onshore operations and another to handle the offshore sector.

Saudi Arabia

Aramco partners are pressing the government to finalise takeover terms, following pressure by the US tax authorities to declare their 1976-80 revenue with regard to Saudi operations. This comes about because the takeover is to be retrospective. The Saudi oil ministry reckons that final agreement will be signed in October, but Social in particular doubts this since, according to vice-chairman George Keller, the companies have not been notified of any imminent signing.

The NGL pipeline from Shedgum to Yanbu on the Red Sea has been completed. Following hydrostatic testing, flow will start early 1981, with capacity of 270 000 b/d being reached a year later when the Yanbu fractionator comes on stream.

FAR EAST

Australia

Workers at the Noonkanbah site in Western Australia decided to ban drilling following the arrival of equipment for the operator, Amax. In a long-running dispute, Aborigines and their supporters have claimed that the area is sacred ground. The state government has supported the US company.

Woods' Woodada-2 appraisal well in Western Australia's Perth Basin flowed a maximum 32.8 million cf/d, plus 38 b/d condensate.

Bangladesh

Bangladesh agreed in principle to sell one trillion cu ft of natural gas to India over 15-20 years, through a proposed pipeline from Dacca to Calcutta, which India will finance. The Bangladesh oil minister, Akbar Hossain, stated that the gas will be priced at parity with crude oil.

China

Two significant oil discoveries were announced. One, in eastern Inner Mongolia, is thought to be an extension of the Daqing (Faching) field in neighbouring Heilongjiang province. The other, made some 120 miles off the mouth of the Pearl River, in the South China Sea, is the second in that area.

Geological prospecting was completed on all eight zones in the South China Sea and Yellow Sea where foreign companies are participating. BP was scheduled to drill two stratigraphic tests in its survey zone in the Yellow Sea.

India

Petroleum Minister Veerendra Patil announced that foreign companies would be invited back to explore for oil both on- and offshore. This reverses the policy followed since 1977 when the last of three groups of foreign contractors pulled out.

The government also announced that it is to build two new oil refineries — one in the south-west, either in Mangalore or Goa, and one in the north-west — with a combined capacity of 9 million t/yr. A further 3 million t/yr will be added by planned expansions of the refineries at Madras and Haldia, while the new unit at Mathura, due onstream in some five months, will add 6 million t/yr.

Indonesia

UOP was awarded the process engineering design contract for the 85 000 b/d Dumai hydrocracker, while the construction contract went to Centurion and Technicas Reunidas, both of Spain. Construction is scheduled to take 33 months.

Appraisal drilling by Arco in the Java Sea confirmed that three earlier discovery wells adjacent to the Ardjuna producing complex were commercial. The three new wells — Eta-1, UV-1 and UX-1 — tested 4 700 b/d, 3 400 b/d and 3 200 b/d respectively.

Natamas announced a further extension to the Krisna field. Krisna-26, drilled three miles west of the site of the first platform on the field, flowed 7 189 b/d.

Pertamina said that foreign contractors would spend \$591m on exploration in 1980 and drill 184 exploration wells. The figures for 1979 were \$541m and 152 wildcats. The state corporation itself planned to spend \$118.3m on exploration this year.

Japan

State-owned JNOC opened talks with domestic shipowners on chartering a further 10 VLCCs for its offshore crude storage programme. 20 vessels in Nagasaki Bay and west of Iwojima Island currently hold 33m barrels.

Malaysia

Petronas announced that crude output had been cut from 300 000 b/d to 280 000 b/d from May 1980 in line with the government's depletion policy. Further cuts would lower production to 250-260 000 b/d.

Petronas signed an agreement with Shell and the Sabah state government for the supply of associated gas from the Samarang, Erb West and Ketam offshore fields.

Pakistan

The government signed a memorandum of understanding with Occidental, OGD, Attock and Pakistan Oilfields granting them a 120 sq mile exploration concession in the Potwar area.

Philippines

The Cities Service Libro-1 wildcat, located 33 miles north-east of the company's Nido field, tested 1 600 b/d.

South Korea

Gulf announced that it had sold its 50% share of the Korea Oil Corp's 280 000 b/d refinery at Ulsan to Korean Oil Stock Holding Co of Seoul, for an undisclosed price.

Thailand

Under a new policy approved by the petroleum authority of Thailand industrial buyers of offshore natural gas are to pay prices equivalent to 75% of the price of bunker oil for feedstock gas and 90% for fuel usage. The only producer yet to have agreed a rate for sales to the authority, Union Oil, is to get \$1.04/thousand cu ft.

NORTH AMERICA

Canada

Dome et al's Tarsiut A-25 well in the Beaufort Sea tested 800 b/d of oil and 3.2 million cf/d of natural gas. Views varied on whether the well, which has been abandoned, has commercial potential. The Kopanoar I-44 well was abandoned because of mechanical problems; a substitute well at the same location is planned. (See *Petroleum Economist* August 1980, page 339).

Mobil Oil Canada said the Hibernia B-08 well, situated 165 nautical miles southeast of St Johns, Newfoundland, contains 72.5 metres of potential hydrocarbon-bearing sands additional to the 35 metres reported on 16th May. A Mobil official was quoted as commenting that "from the log interpretation, it's at least as good or better than the first two (Hibernia) wells." (See *Petroleum Economist* August 1980, page 354).

Mobil was authorised by the federal government to undertake a drilling programme off Sable Island three miles east of last year's Venture D-23 discovery which flowed 44-45 million cf/d from three zones. Operations are from the jackup rig *Rowan Juneau*, scheduled to have been on location late last month.

Petro-Canada signed a formal contract to purchase the bankrupt Come-by-Chance refinery. The overall price could reach \$237m, depending on the facility's output over 25 years after production resumes. The state oil company can withdraw from the contract by 26th November if marketing and other studies show that restoring output would not be commercially viable.

Commenting on the general state of drilling activity, Home Oil's president and chief executive officer A M McIntosh noted that for the first time in five years there was a surplus of rigs. He said almost 10% of Western Canada's drilling rigs were idle, and some were beginning to be moved out of the country to seek work. This and other signs of a downturn were beginning to occur "at the very time the country should be mounting an all-out effort to secure needed energy supplies," he said.

Canada/USA

Construction started on pre-built sections of the 4 800-mile Alaska gas pipeline, following final approvals by Canadian authorities (see *Petroleum Economist* August 1980, page 354). Canadian gas is expected to be flowing through the western branch in mid-1981. (See article and map in *Petroleum Economist* March 1980, page 97).

United States

The drilling boom, subject of an article in our July issue (page 289), continues unabated. Hughes Tool again has revised upward, to 2 800, its estimate of the average number of rotary rigs operating for 1980. Initial estimates had ranged 2 310-2 428, against the 1979 average of 2 177.

The Society of Exploration Geophysicists reported that the number of seismic land crews and marine vessels active in July amounted to 556, up 37% from July 1979 and the highest since the fourth quarter of 1956. Seismic activity is a key indicator of future drilling.

The API reported that a total of 27 299 wells of all types were drilled in the USA in the first half of 1980, up 17.3% from 23 270 a year earlier. Hughes Tool forecast that the total for the year would be 59 475, up 16% from last year and a new peak for any year.

Texaco and Mesa Petroleum agreed in principle to form a partnership to explore for oil and gas on 1.9 million net acres of undeveloped leases held by Mesa. The venture (Mesa 75%, Texaco 25%) expects to spend about \$100m a year, and Texaco will purchase \$150m of cumulative preferred stock to be issued by Mesa. Additionally, Mesa agreed to

INTERNATIONAL BRIEFS

PROCESSING

THE Alberta government has given Shell Canada Ltd. approval to build a \$750-million, 50,000-b/d synthetic oil refinery at Fort Saskatchewan.

The plant, designed for expansion to 70,000 b/d, will produce gasoline, diesel and jet fuels, and 4,700 b/d of benzene.

Husky Oil Operations Ltd. has a 40% interest in the project, scheduled for completion in 1984.

► **Kuwait National Petroleum Co.** plans to spend between \$500-\$700 million to modernize its 250,000-b/d refinery at Minaal Ahmadi. A contract for the work has been awarded to Japan Gasoline Corp. Work is scheduled for completion in 1984. The project involves the supply and installation of 11 new process units including a residual oil hydrosulfurization plant.

► **BP Petroleum Development Ltd.** has awarded John Brown Ltd. a \$36-million contract for the first phase of a gas treatment plant at Kinnell, Grangemouth, Scotland. The contract covers preparation of an engineering design package, a project program, and a cost estimate for the plant. The decision to build the plant follows BP's agreement with Marathon Oil U.K., operator of South Brae field, to move crude from the field via the Forties pipeline to BP's processing facilities at Kinnell.

EXPLORATION

PETROPERU is negotiating with Royal Dutch/Shell on the latter's offer to explore Blocks 38 and 42 in the southern Amazon jungle.

Each block covers about 3,860 sq miles. Shell also is interested in exploring neighboring Block 43.

The company is scheduled to make an initial investment of \$100 million in exploration. An agreement first must be reached on profit sharing of any commercial volume of oil found.

► **Chinese Petroleum Corp.** has earmarked \$70 million for a Taiwan exploration campaign, which will include 13 onshore and six offshore holes.

► **Petrobras** reports a flow of 1,820 b/d of 30°-gravity oil through 3/4-in. choke at a wildcat 6 miles off Conceicao de Barra, Espirito Santo state. The well is in 43 ft of water.

► **Israel** has drilled 11 dry holes onshore since April as part of a \$22-million exploration program. Nine

more wells are planned, including a deep hole near Sodom on the Dead Sea, which will cost an additional \$8 million.

► **Petrocorp** of New Zealand reports a flow of about 1,000 b/d of thick, waxy oil and an undisclosed volume of gas during a 4-hr test at 7,550 ft in its 2 McKee well on North Island in North Taranaki. Meanwhile, Petrocorp will sell its hellrig, which is rated to 16,400 ft, and buy one that's rated to 23,000 ft.

► **The government of Thailand** has extended Triton Oil Co. of Thailand's exploration rights in the Gulf of Thailand for 4 years. Triton holds a 71.42% undivided interest in about 389,000 gross acres in the joint development zone previously established by the Thai and Malaysian governments for exploration of a sedimentary basin extending across the boundaries of the two countries.

► **Dansk Undergrunds Consortium** has shut in its 1 Logumkloster well in southern Denmark and will move the rig north of Tonder to drill the 3 Tonder. DUC says it will re-enter the 1 Logumkloster once it overcomes technical problems. The 1 Logumkloster, spudded July 1, was drilled to 8,936 ft.

► **Farrah Resources Ltd.**, a Canadian firm, has acquired a 15% interest in 15,821 acres of oil and gas leases in Jim Hogg County, Tex., and may acquire another 15%. K.P. Explorations Inc., Houston, has committed to drill three wells to 8,000 ft to earn a 50% working interest in the acreage.

DRILLING-PRODUCTION

AMOCO (U.K.) Exploration Co. has let contract to Grootcon (U.K.) for fabrication and hookup of all modules on its Northwest Hutton platform in the British sector of the North Sea.

Work will start immediately. Onshore construction work is due to be completed by early 1982, with the offshore hookup and precommissioning completed by the end of that year. The steel jacket for the platform is under construction at McDermott Scotland's yard at Ardesier.

Grootcon has let subcontracts to Redpath de Groot Caledonia to build the wellhead, production separation, and production compression modules, including the flare tower and exhaust stacks, to Brown & Root (U.K.) for crew quarters and helideck, and to De Groot for power generation, utili-

ty, and drilling modules.

► **Petroleos Mexicanos** has let a \$12-million contract to the French firm S.A. Matra to supply two Teledrill telesupervisory and optimization systems to be used by Pemex in the first phase of drilling 15 wells in the Villahermosa area and 15 more in the Bay of Campeche.

GOVERNMENT

THAILAND has postponed indefinitely proposed exports of LNG.

The country's petroleum authority says it believes gas reserves are insufficient for exports.

Reserves are 8.25 trillion cu ft, but the petroleum authority says it wants 15 trillion before it considers exports.

► **Bolivia and Argentina** have agreed on a higher price for natural gas Bolivia exports to Argentina. Argentina will pay \$3.44/Mcf by March 1981, up from the \$2.50/Mcf paid at present. The new contract calls for exports to Argentina of 200 MMcfd by next April, up from 180-190 MMcfd now being exported.

TRANSPORTATION

TRANSCANADA PipeLines Ltd. will implement a program effective Nov. 1 to reduce its gas purchase obligations by 20% during the next 2 years.

The company also plans a \$100-million public issue of nonvoting shares to help meet an estimated \$850 million in take-or-pay obligations under its gas purchase contracts with Canadian producers.

Chairman John Beddome said banks have indicated they want TransCanada to use some equity to service some of the debt which has previously been financed entirely by bank loans.

Meanwhile, the company has signed a gas sales contract with Boundary Gas Inc., a firm representing 14 eastern U.S. gas distributors, which calls for Boundary to purchase up to 185 MMcfd/year of gas for 10 years.

► **Construction** on the southern Alberta prebuild section of the Alaska Highway gas pipeline has been shut down by the contractor following a wildcat strike by operating engineers. Banister Pipelines stopped work on the project Oct. 10 after engineers struck Oct. 7 seeking fringe benefits similar to those paid welders on the project. Spokesmen for the company said they expected to have the dispute resolved soon.

Two Oil Firms Post Higher Net For 3rd Quarter

Shell's Earnings Advanced 20%
And Atlantic Richfield's
Showed Increase of 22%

A WALL STREET JOURNAL News Roundup
Shell Oil Co. reported a 20% increase in third quarter earnings, while Atlantic Richfield Co. posted a 22% rise.

Shell, an affiliate of the Royal Dutch/Shell Group, earned \$363 million, or \$1.14 a share, up from \$283 million, or 95 cents a share, in 1979's third quarter. Revenue rose 36% to \$5.14 billion from \$3.77 billion.

For the nine months, Shell earned \$1.13 billion, or \$3.67 a share, up 43% from \$794 million, or \$2.59 a share, for the year-earlier period. Revenue jumped 45% to \$14.83 billion from \$10.24 billion. The 1979 per-share figures have been restated for a two-for-one stock split paid in June.

Shell's president, John F. Bookout, said earnings increased in both the exploration and production and oil products divisions, but declined in the chemical products segment because of the "economic downturn." He said the earnings increase was fueled by the higher oil and gas prices, as well as increased crude-oil production.

Production Rose 3%

Shell said third quarter output of crude oil and natural gas liquids rose 3% from the 1979 quarter because of production from Kernridge Oil Co. properties acquired by Shell last December. Shell said Kernridge's third quarter production of 51,000 barrels a day more than offset the 6% decrease in its other domestic production. Shell said about two-thirds of the decrease was caused by temporary curtailments related to increased well maintenance and by gas production declines of 10,000 barrels a day, mainly because of a drop in natural gas demand.

Mr. Bookout said capital and exploratory expenditures for the first nine months totaled \$2.4 billion, up from \$1.6 billion a year earlier. He said Shell still plans \$3.2 billion in capital and exploratory spending for 1980, with \$2.5 billion going for energy-resource development.

Atlantic Richfield Profit

In Los Angeles, Atlantic Richfield reported that third quarter profit rose to \$389.7 million, or \$1.57 a share, from \$320.4 million, or \$1.30 a share, a year earlier. Sales increased 29% to \$5.64 billion from \$4.38 billion.

The company said the 1980 quarter included a net gain of \$115 million, consisting of credits from sale of its interest in the Colony oil-shale project in Colorado, losses from closing copper smelting and refining facilities, and other asset write-downs.

In the nine months, earnings climbed 52% to \$1.25 billion, or \$5.04 a share, from \$82.9 million, or \$3.35 a share, in the year-earlier period. Sales rose 44% to \$16.8 billion from \$11.6 billion.

Arco's production of crude oil from Alaska's North Slope increased from a year earlier. But Robert O. Anderson, chairman, said "energy conservation trends and the nation's economic downturn" contributed to an 18% drop in sales volumes of petroleum products. Arco's refineries ran at 80% of capacity during the third quarter, down from full capacity a year earlier.

The sluggish economy slowed chemical

Oil Companies May Get a Sizable Stake In Alaska Gas Line to Assure Completion

By ANDY PASTOR

Staff Reporter of THE WALL STREET JOURNAL

WASHINGTON—Backers of the proposed Alaska natural gas pipeline have concluded that oil companies must be allowed a major ownership interest if the \$25 billion project is to be completed.

The existing plan, as approved by President Carter and Congress in 1977, precludes equity investment by the oil companies that control most of the vast reserves of natural gas discovered in Alaska's Prudhoe Bay. But now the group of 11 U.S. and Canadian companies backing the much-delayed project is willing to turn over as much as a 49% interest in the stalled Alaskan portion of the pipeline in exchange for crucial financial help.

Such a change is likely to provoke criticism from consumer groups and some members of Congress, and also raise antitrust questions that the Justice Department would have to deal with.

Nevertheless, Energy Department officials and key congressional staffers agree with the companies and say a package of proposed changes is likely to be presented to Congress in the next few months. They view the changes as vital and expect the government will go along no matter who wins next month's presidential election.

Huge Price Tag

The 4,800-mile pipeline, if all of it is ever built, would channel about 2.5 billion cubic feet of gas a day from Alaska's North Slope across Western Canada to the U.S. The total price tag, which has more than doubled since Congress gave the go-ahead, makes it the most expensive and one of the most complicated privately financed construction jobs in history. Although all financing and government approvals are in hand for two shorter legs connecting Canada with this country's West Coast and Midwest, the lengthy Alaskan portion of the line remains in the preliminary engineering stage.

Northwest Alaskan Pipeline Co., the managing partner of the group of pipeline companies that wants to build the most difficult leg of the system in Alaska, hasn't been able, on its own, to line up the necessary financing. To get the money, the sponsors are willing to try to rewrite the original government approval in order to obtain essential oil company investment in the construction.

A spokeswoman for controversial Salt Lake City businessman John McMillian, who heads the group of sponsors, confirms the pipeline companies are "ready to allow the producers a substantial equity position" in the project. She said this could amount to as much as 40%, under certain circumstances. The spokeswoman said Northwest Alaskan and the Energy Department believe they will be able "to push an amendment through" Congress authorizing the new structure.

Oil Involvement Opposed

In the past, Mr. McMillian has opposed such extensive involvement by oil interests on the grounds that it could force his group to yield much of its control over the project. Exxon Corp., Atlantic Richfield Co. and Standard Oil Co. (Ohio), the three big producers that are continuing to negotiate with Mr. McMillian's group over financing, didn't have any immediate comment on the status of the talks.

One government source familiar with the discussions, however, said the project sponsors have "reluctantly but undeniably dropped their earlier opposition" to the new strategy because they "realize time is quickly running out to put any kind of deal together." Another source said "the atmosphere for producer equity is much more fa-

vorable today than anytime in the past, both in Congress and among the participants."

Some oil company executives said, however, that potential investors continue to insist on some form of legally binding "completion guarantee." Last July, when the two sides agreed to share the cost of the early design work, Exxon and the other oil companies flatly ruled out any plan that would make them, in effect, the "ultimate guarantors" of the pipeline's completion.

"All of the players are deathly afraid of starting the work and then being unable to finish it anywhere near the budget," said one investment banker close to the situation.

\$4 Billion Cushion

To deal with this issue, the sponsors and the Energy Department are pushing a plan that would set aside, at the beginning, a cushion of at least \$4 billion in addition to the estimated \$8 billion cost of building the Alaskan leg to take care of any unexpected difficulties.

Another complex question that hasn't yet been resolved involves antitrust considerations. The government originally precluded the oil companies from gas-line ownership to prevent them from making decisions about who should have access to the system. A Justice Department spokesman said yesterday that government attorneys believe the oil companies can gain an equity stake in the project as long as they don't exercise "full ownership" rights that could prevent other companies from tapping into the proposed system.

Whatever revisions to the project finally are submitted to Congress, sources said, they are likely to include concessions to the oil companies for their anticipated stable investment in facilities required to process the gas before it enters the pipeline. Industry observers also expect the sponsors to ask for favored treatment of Canadian investors that would permit the Canadians to pass on their construction costs to U.S. consumers regardless of whether the Alaskan segment is ever completed.



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The sluggish economy slowed chemical earnings, and the company's metal-mining business showed a loss "as a result of an industry-wide copper strike that began in July," Mr. Anderson said.

He added that Arco's share of crude-oil production from Alaska's North Slope in-

Companies Push Gas Line to Assure Completion

By ANDY PARSON

Staff Reporter of THE WALL STREET JOURNAL

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The 4,800-mile pipeline, if all of it is ever built, would channel about 2.5 billion cubic feet of gas a day from Alaska's North Slope across Western Canada to the U.S. The total price tag, which has more than doubled since Congress gave the go-ahead, makes it the most expensive and one of the most complicated privately financed construction jobs in history. Although all financing and government approvals are in hand for two shorter legs connecting Canada with this country's West Coast and Midwest, the lengthy Alaskan portion of the line remains in the preliminary engineering stage.

Northwest Alaskan Pipeline Co., the managing partner of the group of pipeline companies that wants to build the most difficult leg of the system in Alaska, hasn't been able, on its own, to line up the necessary financing. To get the money, the sponsors are willing to try to rewrite the original government approval in order to obtain essential oil company investment in the construction.

A spokeswoman for controversial Salt Lake City businessman John McMillian, who heads the group of sponsors, confirms the pipeline companies are "ready to allow the producers a substantial equity position" in the project. She said this could amount to as much as 40%, under certain circumstances. The spokeswoman said Northwest Alaskan and the Energy Department believe they will be able "to push an amendment through" Congress authorizing the new structure.

Oil Involvement Opposed

In the past, Mr. McMillian has opposed such extensive involvement by oil interests on the grounds that it could force his group to yield much of its control over the project. Exxon Corp., Atlantic Richfield Co. and Standard Oil Co. (Ohio), the three big producers that are continuing to negotiate with Mr. McMillian's group over financing, didn't have any immediate comment on the status of the talks.

One government source familiar with the discussions, however, said the project sponsors have "reluctantly but undeniably dropped their earlier opposition" to the new strategy because they "realize time is quickly running out to put any kind of deal together." Another source said "the atmosphere for producer equity is much more fa-

vorable today than anytime in the past, both in Congress and among the participants."

Some oil company executives said, however, that potential investors continue to insist on some form of legally binding "completion guarantee." Last July, when the two sides agreed to share the cost of the early design work, Exxon and the other oil companies flatly ruled out any plan that would make them, in effect, the "ultimate guarantors" of the pipeline's completion.

"All of the players are deathly afraid of starting the work and then being unable to finish it anywhere near the budget," said one investment banker close to the situation.

\$4 Billion Cushion

To deal with this issue, the sponsors and the Energy Department are pushing a plan that would set aside, at the beginning, a cushion of at least \$4 billion in addition to the estimated \$8 billion cost of building the Alaskan leg to take care of any unexpected difficulties.

Another complex question that hasn't yet been resolved involves antitrust considerations. The government originally precluded the oil companies from gas-line ownership to prevent them from making decisions about who should have access to the system. A Justice Department spokesman said yesterday that government attorneys believe the oil companies can gain an equity stake in the project as long as they don't exercise "full ownership" rights that could prevent other companies from tapping into the proposed system.

Whatever revisions to the project finally are submitted to Congress, sources said, they are likely to include concessions to the oil companies for their anticipated sizable investment in facilities required to process the gas before it enters the pipeline. Industry observers also expect the sponsors to ask for favored treatment of Canadian investors that would permit the Canadians to pass on their construction costs to U.S. consumers regardless of whether the Alaskan segment is ever completed.



The G
Option

Gas: Its
Americ

FERC - ANGTs

are suing North Dakota for rejecting and trying to change the route of the Alaska gas line's eastern leg. The groups allege North Dakota's action is unconstitutional and that its own route selection can't be considered environmentally better since it hasn't been subjected to detailed analysis.

The Kansas-Oklahoma Division of the Mid-Continent Oil & Gas Association may merge with the Oklahoma Petroleum Council. A plan to that end will be announced next June, but a merger wouldn't take place until 1982. The aim is to consolidate government relations with PR.

Woodside Petroleum Ltd., Broken Hill Pty., and Shell Petroleum Ltd. have apparently won financing for the giant \$6-8 billion gas development project off Dampier on Australia's Northwest coast. It is to supply 385 MMcf/d to the State Energy Authority of Western Australia starting in 1984. A consortium of eight banks will put up \$1.3 billion for first-phase financing, and is expected to head up the second phase.

Although the Iraqi-Iranian conflict isn't yet making any big supply waves worldwide, some consuming nations--notably India and Brazil who are dependent on Iraqi crude--are scrambling for other sources (see p. 88).

Venezuela, meanwhile, says although it isn't planning to hike output, it could provide an additional 300,000 b/d without changing planned 1980 levels. Venezuela currently produces 2.12 million b/d.

BNOC, having successfully completed its fourth well on Clyde structure in Central North Sea Block 30/17B, is drawing up development plans for submission to the U.K. DOE next year.

The question for the state company and partners Shell/Esso is how DOE will view the timing since Clyde is one of the fields mentioned as a development-delay candidate in depletion policy. The fourth well flowed 5,674 b/d of oil from a single interval through $\frac{1}{2}$ -in. choke.

Watch for U.K. energy chief David Howell to reveal soon a decision to sell oil bonds tied to BNOC earnings--despite opposition from BNOC and government agencies which profit from the company. The idea is said to be a tentative beginning toward making the firm less state-controlled.

Norway Premier Odvar Nordli has named Arvid Johanson to succeed Bjartmar Gjerde as minister for petroleum and energy. Johanson is also chairman of the parliamentary foreign relations and industrial committees.

Gjerde is one of three Norwegian ministers to quit in the past two weeks amid reported dissatisfaction in the Labor Party with Nordli's leadership. Gjerde was rumored to succeed Nordli as leader of the party but this was quashed when Labor officials announced the latter will stand for election in September 1981.

Gas line lawsuit looms in Midwest

By LAURIE MCGINLEY
Daily News reporter

9/16/80

WASHINGTON — The first lawsuit on the Alaska gas pipeline project loomed Monday, following the federal pipeline inspector's vow to contest a North Dakota ruling changing the route of the pipeline.

The North Dakota Public Service Commission voted Friday to require Northern Border Pipeline Co., a consortium building the 1,000-mile eastern leg, to skirt environmentally-sensitive areas like the Badlands, the Missouri River and the Killdeer Mountains.

Although the altered route would add only 30 to 50 miles to the pipeline, federal inspector John Rhett and a Northern Border official said Monday it could cause "months and months" of delay, and began plotting ways to challenge the ruling.

Their attorneys were scheduled to meet today to decide legal strategy. It appeared likely Rhett would sue the North Dakota PSC in federal district court here to obtain speedy consideration.

"If they want to meet us at the courthouse door, we'll be there," said Bruce Hagen, a PSC member. "But rather than fighting with us, or hiding behind the federal government, Northern Border should just accept the new route."

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Pipeline

Continued from Page A-1

Hagen claimed the Northern Border-backed route could leave permanent scars on the Badlands, a prime tourist attraction, and could damage the Little Missouri Scenic Wilderness Area. He also faulted the original route for crossing the Missouri River twice.

Rhett, in an August letter to PSC president Richard Elkin, contended North Dakota's desire to force a "major realignment" of the pipeline was "legally impermissible."

Rhett said the route for the entire 4,800-mile pipeline, including the 270-mile stretch in North Dakota, was determined by President Carter's 1977 decision choosing the route and the pipeline builders.

The route was intended to be final, subject only to minor modifications, and could be changed only with the approval of the Interior Department and the Federal Energy Regulatory Commission, said Rhett.

Rhett also said the PSC's fears were groundless. "The possible environmental damage has been discussed fully and would be avoided," said Rhett spokesman Joyce Morrison Monday. "He's very disappointed. This whole question was settled by the president's decision four years ago."

"Well, our lawyers read the law a little differently," said Hagen. The PSC contends Carter approved a system — not a specific corridor — and that the authority to approve a site is retained by the states.

The dispute could bloom into a nasty fight over state's rights, the commissioner warned. "If we have to go to court on this, we'll have other states right along with us."

He said South Dakota, which also must issue a site permit, is considering rejecting the original route.

George Seitts, Washington representative for Northern Border, predicted any major route changes would require 15 to 18 months time so the company could submit new environmental impact statements and win approval from the federal agencies involved.

The delays could frustrate plans to begin preliminary work on the eastern leg this fall and heavy construction in March. Completion was scheduled for late 1981 or early 1982.

Besides North Dakota, the eastern segment of the pipeline will cross Saskatchewan, Montana, South Dakota, Minnesota, Iowa and Illinois. "So far," said Seitts, "we haven't had problems elsewhere."

Morrison said delays on the eastern leg could slow momentum for financing the Alaska segment, which will extend from Prudhoe Bay to Alberta.

Anchorage Daily

No. 262 132 PAGES

ANCHORAGE, ALASKA, THURSDAY, OCTOBER 28, 1978

News

PRICE 25 CENTS

Oil firms may fund gas line

By BOB SHALLIT
Daily News reporter

Support is quietly building for new legislation that would allow oil companies to take an ownership role in the \$25 billion Alaska natural gas pipeline, according to state and industry sources familiar with the massive energy project.

When the existing pipeline plan was approved by President Carter and Congress in 1977, the oil companies that

analysis

own most of Prudhoe Bay's vast natural gas reserves were specifically precluded from making equity investments in the project.

The fear was that the three big North Slope producers — Exxon Corp., Atlantic Richfield Co. and Standard Oil Co. of Ohio — would monopolize Alaska's energy resources.

Those restrictions now are being reconsidered because:

- Delays have more than doubled the cost of the project.
- The pipeline sponsors have run into financing difficulties.
- Awareness of the need for domestic energy supplies has sharpened.

As a result of an agreement made in June, the three oil giants are now discussing financing options with Northwest Alaskan Pipeline Co., the project's main sponsor. And industry observers expect a series of changes in the contract to be proposed during the next session of Congress.

"A year ago, there was no chance of getting (new legislation) passed," says one Anchorage oil company official. "But in the present climate, I'd say there is a reasonable chance."

Joe Vallely, a Northwest spokesman, agrees sentiment is steadily growing for an amended contract. "If we can all demonstrate we are working together in the national interest, Congress would be inclined to look favorably on it," he says.

Perhaps the strongest argument in favor of the proposed amendment is the prospect of fuel shortages in the Lower 48. With an estimated 5 percent of the nation's natural gas supplies on the North Slope, political pressure to complete the line is mounting.

One state official who has closely followed the project notes that even the most vociferous opponents of oil industry participation in the project — Sen. Edward Kennedy, D-Mass., and Sen. Howard Metzenbaum, D-Ohio — are now softening their positions.

"Their criticisms are being muted by the fact that their own regions will need that gas," he says.

The proposed contract changes also are being propelled by frustrating delays in construction of the 4,800-mile line. Construction on the Alaska segment of the project was originally scheduled to begin this summer.

The starting date is now tentatively set for 1983. The estimated cost, meanwhile, has jumped from \$10 billion to \$25 billion.

By the time design and engineering work is completed next summer, the projected costs of the project could be still higher.

"The biggest factor," a state oil official says, "is that (the project's backers) aren't going anywhere, they're not progressing. If they ever want that gas in the Lower 48, they're going to have to do something (in Congress) this next session."

Financing of the project has been complicated by its sheer

immensity. Even at its 1978 price tag of \$10 billion, the pipeline would have been the most expensive privately financed construction job in history; it still would be at \$25 billion.

Because of its size, traditional investors have been reluctant to bear the full burden of the project, leaving the oil companies and the federal government as the two most likely alternatives.

For the oil industry, the investment opportunity is appealing. Most of the larger companies are enjoying record profits and are searching for safe, long-term investments. Participation would also allow them to control the well-head price of gas and shepherd construction of the project, alleviating their concerns about possible cost overruns.

Just how much control the oil companies should have, however, has been a traditional sticking point between the companies and Northwest's crusty chairman, John McMillan.

Both sides, however, are making conciliatory gestures these days, as evidenced by the decision in June to jointly negotiate financing options and a companion decision to share in the costs of the project's design.

"If they wanted 51 percent equity, it obviously wouldn't fly," a Northwest official in Alaska says. "But the oil com-

panies would never ask for that."

A Standard Oil representative, likewise, says the companies would probably be willing to accept a smaller ownership share, as long as they have adequate influence in construction and pricing decisions. "I think there's a good chance something could be arranged with the producers getting less than majority control," he says.

Finally, there is a growing possibility that the state may decide to purchase an equity position in the line.

Sen. Mike Colletta, R-Anchorage, who has been a key mover in state efforts to begin a petrochemical industry based on natural gas liquids, says the state would probably be willing to finance the conditioning plant, a facility where the liquids would be extracted from the gas. He doubts, however, that the legislature, which previously turned down an offer to accept an equity position in the line, would change its position now.

Others are less certain. "When Northwest first came to the state, they wanted us to put up money before anybody else did," a state official notes. "Now, with the enormous amount of funds (in the state treasury) and with people looking at guaranteed return over the long term, the pipeline could be very attractive."

Continued from Page A-1

Gas

See Back Page, GAS

Table 1

Supplemental gas supply

Source	Planned (1,000 b/d equivalent)	Start-up year	1985 potential (1,000 b/d equivalent)
Canadian	200	1980	500
Mexican	50	1980	500
	150	1981	
Alaskan pipeline	400	1985	500
Pacific LNG*	85	1984	500
Other LNG†	365	1983-85	
Coal gasification	50	1985	100
SNG	100	(Existing)	100
Landfill	100	(Potential)	100
Total	1,500		2,300

*Alaska, Indonesia. †Trinidad, Nigeria, Chile, Colombia.

Source: American Gas Association

Table 2

How gas supply could soften U.S. economic blow

1984 economic activity without oil supply disruption		Change caused by oil supply disruption		Reduction in adverse economic impacts with increased gas supply (Percent)
		Without increased gas supply	With increased gas supply	
Gross national product (Billion 1979 dollars)	2,660	-350.3	-149.3	57.4
Real disposable income per household (1979 dollars)	21,083	-3,449	-1,303	62.2
Unemployment (Million persons)	6.84	+8.58	+3.14	63.4
Unemployment rate (Percent of labor force)	6.2	+7.66	+3.07	59.9
Consumer expenditures (Billion 1979 dollars)	1,690	-240.8	-81.3	66.2
Fixed business investment (Billion 1979 dollars)	292.6	-35.8	-16.3	54.5
Net exports of goods (Billion 1979 dollars)	6.9	-42.2	-20.4	51.7

Source: American Gas Association

AGA: Bolster gas supply to offset imports cutoff

THE U.S. could soften the blow to its economy caused by a major disruption of Persian Gulf oil imports during the 1980s if the nation starts immediately to beef up its gas supply.

A hypothetical 1983-84 cutoff of Persian Gulf oil could cut U.S. oil supply by 6.3 million b/d and push the U.S. economy into a severe recession, says the American Gas Association.

AGA says, however, that a big push now to strengthen U.S. natural and supplemental gas supply could offset the impact of a Persian Gulf oil cutoff on U.S. economic activity by about 40% in 1984.

The gas supply increase, if started now, could cut U.S. dependence on Persian Gulf oil by 2.3 million b/d, or 92%, the association says. More than 80% of this increase would come from North America (Table 1).

AGA points out that non-Communist nations currently depend on the Persian Gulf for 19.2 million b/d of oil—about 60% of their oil imports.

The Persian Gulf share of U.S. imported crude and products currently is 2.5 million b/d, or 31% of total U.S. oil imports.

Of that share, 500,000 b/d comes indirectly from the Persian Gulf via Caribbean refineries.

Impact on U.S. If the Persian Gulf

the U.S. would lose not only that 2.5 million b/d but also would lose 4.4 million b/d, or 25%, of its remaining domestic and imported oil supply of 17.7 million b/d, AGA says. The International Energy Agency agreement requires the U.S. to share 68%—about 3.8 million b/d—of its remaining 5.6 million b/d of imported oil with other importing nations during a shortage.

The IEA agreement also calls for a 10% cut in consumption.

AGA figures a 1983-84 Persian Gulf oil cutoff would hit the U.S. economy hardest in 1984, once oil in shipment inventories and storage was depleted.

The U.S. could cut its energy shortfall during a Persian Gulf oil cutoff to 4.2 million b/d, AGA says, if it immediately emphasizes development of its increased gas supply.

AGA recommends as part of such a program a rapid 24% expansion of

U.S. underground gas storage capability to 1.49 trillion cu ft from 1.2 trillion.

Storage capacity growth is needed to accommodate 1983-85 projected gas supplies before all major gas energy projects are completed, AGA says.

If the U.S. has a big enough gas supply in 1984, a Persian Gulf cutoff wouldn't jolt its economy so drastically.

AGA forecasts unemployment would then be almost 5.5 million less than it otherwise would be, GNP loss would be cut in half, and the decline in disposable income would be slashed by almost two-thirds (Table 2).

"The need to reduce dependence upon Persian Gulf oil—and in particular to reduce the attendant vulnerability of the nation's economic well-being—has assumed key importance," AGA declares.

Parsons gets Prudhoe gas plant contract

RALPH M. Parsons Co., Pasadena, Calif., has been selected to conduct the design and engineering work for a gas processing and conditioning plant to be built in Alaska's Prudhoe Bay field when gas is marketed.

Northwest Alaskan Pipeline Co.,

manager of the project to build the Alaska segment of a gas pipeline from Prudhoe Bay to the Lower 48, said a contract will be signed with Parsons later this month.

Northwest said Parsons will develop by mid-February 1981 a cost

estimate for the plant, which will process up to 2.4 billion cfd of gas for movement through the line.

Although Northwest is handling the contract with Parsons, the decision on whether Prudhoe Bay producers or a pipeline company consortium will finance the gas processing plant hasn't been made, according to Northwest.

The producers and the pipeline companies have formed a board to proceed with design and engineering of the plant so it can be completed simultaneously with the pipeline.

Parsons said the plant, which will cost more than \$3 billion, will be built in modular form in the Lower 48, assembled into nearly complete plant sections, and barged in two sealifts

Parsons has had contracts since the mid-1970s to build oil and gas gathering systems in modular form for Atlantic Richfield Co. and Sohio Petroleum Co., Prudhoe Bay operators.

Associated gas currently produced at Prudhoe Bay is being reinjected.

Target date for completion of the new plant is year-end 1985.

Texas record broken in sale of state leases

OPERATORS have broken a 21-month-old state record for total high bonuses during bidding for on and offshore Texas leases.

The record was set in Austin, Tex., last week when companies paid \$44,998,488 for 501,780 acres. Previous high was \$44.98 million (OGJ, Feb. 19, 1979, p. 72).

The statewide results were posted only 3 weeks after a sale of University of Texas lands in the Permian basin scored total high bonuses of \$44.191 million (OGJ, Oct. 6, p. 35).

"This kind of activity shows that deregulation of prices, even with the 'windfall profits' tax, has greatly heightened exploration for oil and

gas," Bob Armstrong, Texas General Land Office commissioner, said of the Oct. 7 results.

"It also indicates that the state's minimum 25% royalty hasn't deterred interest in exploration on our public lands."

The high bonus record set in 1979 was produced by a sale in which leases carried a 20% royalty. Texas later increased its royalty to 25%.

More than 170 companies and individuals exposed \$58.865 million in 1,258 bids last week. State officials accepted 817 of the offers. The final tally averaged \$89.68/acre.

Highest per acre price was paid by American Quasar Petroleum Co., Fort

Worth. It offered \$5,188.90/acre for a 70-acre tract in the Pecos River bed.

Tomlinson Interests Inc. and C & K Marine Production Co. each submitted single bids for more than \$1 million. Tomlinson's offer was \$1.081 million for 1,440 acres off Kleberg County. C & K paid \$1.0791 million for 1,398 acres off Calhoun County.

Exxon Corp. made high bids totaling \$5.364 million for 98 tracts. Other big spenders were Texaco Inc., 33 tracts for \$2.382 million; Kerr-McGee Corp., 25 tracts for \$2.306 million; and C & K Marine, six tracts for \$2.041 million.

Also last week, Louisiana received total high bids of \$8.325 million for 30,754 acres of land on and offshore.

Connecticut gasoline tax passthrough approved

THE Department of Energy's Office of Hearings and Appeals has approved requests from 15 oil companies allowing them to passthrough Connecticut's 2% gross receipts tax on motor gasoline.

The order is substantially the same as that granted to Texaco Inc. late in August (OGJ, Sept. 1, p. 27). Texaco was the first company to file for the passthrough.

In what is largely a technical move, that August order was rescinded and Texaco was included among the 15 refiners covered by the new order.

Texaco had objected to wording in the first order that restricted it from collecting the tax at the pump, then paying the state, rather than first paying the state followed by reimbursement by a higher pump price.

The new order allows collection of "an amount which equals the total dollar amount of the tax which the firm incurred" as opposed to "tax actually remitted."

The OHA approved passthrough also applies to propane.

While a state law banning passthrough was knocked down by a federal judge July 9, the OHA decision was necessary to allow the com-

panies to pass through the tax on controlled products by charging a higher price in Connecticut than it would in other jurisdictions.

Connecticut's gross receipts tax was effective last July 1, and the OHA decision is retroactive to that date.

Covered in the consolidated order

are Amerada Hess Corp., Ashland Oil Inc., Atlantic Richfield Co., Chevron U.S.A., Cities Service Co., Exxon Co. U.S.A., Gatty Refining & Marketing Co., Gulf Oil Corp., Mobil Oil Corp., Shell Oil Co., Standard Oil Co. (Ind.), Standard Oil Co. (Ohio), Sun Oil Co., Tenneco Oil Co., and Texaco Inc.

Kuwaiti refinery due modernization

KUWAIT National Petroleum Co. (KNPC) has awarded Japan's JGC Corp. a contract to modernize the Mina al Ahmadi refinery. Total project is estimated to cost from \$500 million to \$700 million.

The modernization of the 250,000-b/d KNPC refinery calls for the construction of 11 new units, including residual hydrodesulfurization, kerosene/gas oil hydrodesulfurization, visbreaker and sulfur recovery units. Work also entails modernization/expansion of the existing atmospheric distillation unit and construction of offsite facilities.

Union Oil Co. of California's resid desulfurization process has been chosen for the modernization. It will be a two train unit of 33,000 b/d each.

The visbreaker will have a capacity of 33,500 b/d.

Under the contract, JGC will select the other 10 processes, do basic and detailed design, procure equipment and construct the facilities. The company will work under a cost-plus-fee contract.

JGC says it competed against 10 bidders from Japan and the U.S. for the job.

This award, following its winning of a pipeline construction contract from KNPC last January, JGC says, will put it in a firm contractor's position in Kuwait. It expects this to be the basis for further expanded activities in Kuwait and other Middle Eastern countries.

Beta field development begins off California

SHELL Oil Co. has started development drilling in the southern portion of Beta field in the San Pedro area off Long Beach, Calif.

And Chevron U.S.A. Inc. has started design work on a platform that will develop the northern portion of the field.

Shell is drilling the second well from the 80-slot Platform Ellen. The company will be using two rigs to drill about 60 wells, of which about 45 will be producers and the remainder injection wells.

Shell expects to be producing 15,000 b/d within 3 years and reach a peak of 25,000 b/d within 5 years. The company estimates reserves at 100-200 million bbl.

Chevron, which earlier had considered using directional wells from Platform Ellen to develop its portion of the field, has decided to erect its own 70-slot platform in Tract 254 (OCS P-0296) just north of Shell's Tract 261 (OCS P-0300).

Chevron's platform will be erected in the southeast quarter of the block. It will have about 47 producers and 18 injection wells and five spares for service.

If permits are issued on schedule, Chevron would install the platform in 160 ft of water within 2 years and reach 8,000-b/d peak production 2 years after that.

Chevron will submit its production program to the U.S. Geological Survey by the end of the year.

Earl & Wright, design engineers of

San Francisco and Houston, has the design contract for the platform in Beta field.

The facilities. Shell and four partners discovered Beta field in August 1976 after paying \$45.7 million for Tract 262 and \$25.6 million for Tract 261 to the east in the federal lease sale of December 1975.

After a period of evaluation drilling, Shell ordered two platforms—one for drilling and one for production.

Alaska Constructors Inc., Ventura, Calif., a subsidiary of Brown & Root, had the contract for fabricating and installing the platforms in 285 ft of water about 13 miles southeast of Long Beach.

The eight-leg Platform Ellen jacket is 277 ft tall. The superstructure is 43 ft above water and measures 140 ft by 69 ft.

Platform Elly, where separation facilities are located, has 12 legs and a top deck of 106 ft by 165 ft. The two platforms are connected by a walkway.

Shell has laid a 16-in., 17-mile pipeline to a manifold in Wilmington field near Long Beach, where the 10-22° gravity oil will be taken for disposal by the partners in the project.

The Shell pipeline has a 70,000-b/d capacity.

A small amount of gas produced in the field will be used to operate equipment at the site.

Produced water will be reinjected to maintain reservoir pressure.

Shell is still debating whether to

erect another drilling platform in the southeastern part of the field, which extends into Tract 262. The platform, Eureka, would be installed in 700 ft of water.

Drilling. Shell is using a directional drilling system it pioneered in the Gulf of Mexico to develop production from Ellen.

Twenty-four-inch conductors for 30 of the 60 wells are curved outward from the platform jacket to gain greater lateral coverage of the reservoir.

The longest lateral kick of 80° will go to 8,500 ft in vertical depth and 13,000 ft total length.

The angle will be reduced to 45° into the productive interval to make completion easier.

Pool Offshore Co., Houston, is the drilling contractor.

Owners. Shell is operator and 50% owner of the two tracts it operates in Beta field.

Its partners are Occidental Petroleum Corp. 17%, Aminoil U.S.A. 16.5%, Santa Fe Industries Co. 12%, and Hamilton Bros. 4.5%.

Chevron is operator and 47.3% owner of its Tract 254.

Other owners are Union Oil Co. of California 46.43%, and Champlin Petroleum Co. 6.25%.

Beta field is the only commercial discovery made on tracts acquired in the \$417-million sale of December 1975 off southern California.

—HOWARD M. WILSON
West Coast Editor

Delay due 'prebuild' gas exports to California

MOVEMENTS of Canadian natural gas to export markets in California will be delayed and will involve smaller volumes than originally planned through southern prebuild sections of the Alaska Highway gas pipeline.

Robert Pierce, vice-president of Foothills Pipeline (Yukon) Ltd., Calgary, said Canadian gas won't begin moving until the end of March 1981 and then only at volumes of 100 MMcf/d instead of contracted volumes of 240 MMcf/d.

Reason for the delay is that U.S. pipelines are carrying capacity volumes of domestic gas and won't have room for Canadian exports until the end of March.

Construction to boost capacity to 240 MMcf/d won't be completed until

Pierce said construction of the Canadian portion of the pipeline from Caroline, Alta., to Kingsgate, B.C., is on schedule and should be completed by the end of 1980.

U.S. buyers are committed by contract to buy at least 65% of the contracted volume of 240 MMcf/d of natural gas.

Al Porter, vice-president of Northwest Pipeline Corp., U.S. sponsor of the project, said he is confident that Northwest will take at least the minimum amount and that marketing problems should not unduly affect volumes flowing through the pipeline. Pierce said high prices for Canadian gas could affect volumes flowing through the line.

Mitchell Sharp, commissioner of

said it is imperative that the entire Alaska pipeline project be financed and built before other major energy projects hit the credit markets in the 1980s.

Sharp said gas producers and pipeline sponsors are well aware of the huge demands for credit expected in the 1980s and the high cost of borrowing.

He said each year's delay in construction of the Alaskan end of the line adds hundreds of millions of dollars to the overall costs.

Sharp, a strong supporter of the project, said, "There are cynics on both sides of the border who vociferously parade their doubt as to whether the remainder of the system will ever be built—or at least built for several

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ways is the only scheduled air ser-
vice serving that Aleutian Chain in-
stallation.

Reeve was born 20 months before
the Wright brothers made their first
flight at Kittyhawk, N.C., in 1902.

He first settled in Valdez, where
he established a reputation as the

ROBERT C. REEVE
To be honored posthumously

first pilot to make successful land-
ings on the mountainous glaciers in
order to carry supplies to mining op-
erations.

10/3/80

Pipeline steel contracts awarded to 3 U.S. firms

by Betty Mills
Times Washington Bureau

Washington — American firms
have received a substantial portion
of the contracts to supply steel pipe
for the Lower 48 section of the
Alaska natural gas pipeline.

Three major American steel pro-
ducers, Kaiser Corp., U.S. Steel and
the Bethlehem Corp. were told this
week they will split about \$300 mil-
lion of contracts for pipe to build the
eastern leg of the gas line; extending
from Canada to the Midwest. Two
foreign firms, in Japan and Italy,
also won contracts to supply steel for
that section of the project.

Coupled with recently announced
awards on the western leg, running
from Canada to the West Coast, the
contracts will mean a \$412 million
boost to the domestic steel industry.

The issue of using American-
made steel for the project has been
pressed by several members of Con-
gress.

Earlier this year Rep. John
Dingell accused federal pipeline in-

spector John T. Rhett of pressuring
American firms to lower their bids,
under threats the contract would go
to Canadian companies. Rhett de-
nied the charges. Rep. Joseph
McDade, R-Pa., blasted preliminary
decisions to award contracts to Ca-
nadian firms, rather than to steel
plants in his district.

Rhett said that the use of five
steel mills for the eastern leg will in-
sure timely delivery and minimize
risk to the project scheduled by re-
ducing the company's dependence
on any one source of pipe.

"Our objective is to get gas flow-
ing from the gas fields of Alberta as
soon as possible, and timely procure-
ment and delivery of steel pipe is
critical to accomplishing this ob-
ject," Rhett said.

On the Canadian side, Foothills
Pipelines, Ltd., has ordered steel
pipe totalling approximately \$230
million from two Canadian firms —
Steel Company of Canada and Inter-
Provincial Steel and Pipe Corp.



Geothermal steam helps rein utility's oil use

GEOTHERMAL steam is playing an increasingly important role in reducing oil use by an electric utility in northern California.

Subsurface steam from 21 wells drilled by Aminoil USA Inc. is spinning the turbine for a 135,000-kw electrical generating plant—said to be the largest geothermal steam powered electric generating unit in the world—owned and operated by Pacific Gas & Electric Co., in the Geysers area.

The plant, which is powered solely by geothermal steam, provides the utility the capacity to serve more than 100,000 customers annually.

PG&E says geothermal steam at this plant will save 1.2 million bbl of oil—the amount PG&E says is required to generate 135,000 kw of electricity. Further oil savings are expected as the utility puts more geothermal power plants on line.

The Geysers area covers about 72,000 acres in northern California.

Earlier, Aminoil began supplying geothermal steam for initial testing of the PG&E plant (OGJ, May 26, p. 48).

Field program, costs. Geothermal steam travels from Aminoil's 21-well field through 5 miles of computer controlled transmission lines.

Aminoil's total investment during the life of PG&E's new geothermal powered plant will be about \$63 million.

In addition to supplying steam for the 135,000-kw Unit 13, Aminoil will



INSULATED PIPELINE carries about 2.7 million lb/hour of geothermal steam to Pacific Gas & Electric Co.'s new Unit 13 electric power plant. Cooling towers for the plant are in the background.

be developing and supplying steam to PG&E's Units 16 and 19, which have respective capacities of 110,000 kw and 55,000 kw, and to a 55,000-kw unit to be built by the Sacramento Municipal Utility District.

PG&E's Unit 15 is scheduled to be operational in 1984, while construction on Unit 19 is expected to begin in 1982.

Although the Geysers area was found more than 100 years ago, it

wasn't until the late 1960s that the significant application of steam to electric production began.

Aminoil launched its geothermal efforts in 1965, conducting surveys and buying leases. The company's first substantial field discovery was made in 1969.

The company also holds other prospective geothermal acreage in California, Nevada, New Mexico, Utah, and Oregon.

Pipe ordered for Lower 48 leg of Alaska line

TWO U.S. pipeline companies have ordered steel pipe costing \$112 million for 511 miles of the Lower 48 western leg of the proposed Alaska Highway gas pipeline from Prudhoe Bay.

The project is part of the "prebuild" portion of the project and will be used initially to deliver 240 MMcf/d of Canadian gas to western U.S. markets.

Construction will move south from Kingsgate, B.C., through Idaho and Washington to Stanfield, Ore., and southeast across most of southern Idaho to a point 14 miles east of Burley.

The purchasers of the pipe are Pacific Gas Transmission Co. and Northwest Pipeline Corp., both of which will use their systems to move gas purchased by Southern California Gas Co. for delivery to California markets.

PGT, PGT will lay 160 miles of 42-

in. line from the U.S. border at Kingsgate to Stanfield. It has ordered 61,000 tons of pipe from Kaiser Steel Corp. and 20,000 tons from Bethlehem Steel Corp. Pipe cost is \$60 million.

Deliveries will start in late November. Work on the initial 40-mile section in Boundary and Bonner counties, Idaho, will start in December and be completed by mid-May 1981. By the fall of 1981 the entire 160 miles will be completed.

Later PGT and its parent, Pacific Gas & Electric Co., San Francisco, will lay the remaining western leg system.

Northwest. Northwest Pipeline announced simultaneously with PGT its order of 70,000 tons of steel pipe from Kaiser at a cost of \$52 million.

Northwest will lay 100 miles of 30-in. line and 251 miles of 24-in. line be-

tween Stanfield and east of Burley. Like PGT, Northwest will complete its work by the fall of 1981 and perhaps by next summer.

Also involved in the western leg prebuild project will be El Paso Natural Gas Co., which delivers gas to California from New Mexico and Texas. El Paso's lines will be expanded to accommodate the additional gas from the North.

The orders for pipe follow the recent granting by the Federal Energy Regulatory Commission of a permit for the project.

Work already has started in Canada on 130 miles of the Canadian portion of the prebuild project to move gas from Alberta fields into the U.S. at Kingsgate.

All necessary regulatory and government approvals in both the U.S. and Canada have been granted.

Decontrolled oil removed from allocation rule

THE Economic Regulatory Administration will remove U.S. price decontrolled crude oil from the supplier/purchaser rule and narrow benefits to small and independent refiners only.

"Eliminating first purchases of crude oil by large integrated refiners from the protection of the supplier/purchaser rule will make substantial additional volumes potentially available to small refiners," said Hazel R. Rollins, ERA administrator.

Based on December 1979 figures, she said, this volume—about 15-20% of the volumes purchased by major refiners—is 5.6 million bbl of lower tier oil and 7.6 million bbl of upper tier oil.

Rollins said that in December major refiners made 87% of their first purchases of lower tier oil and 85% of

upper tier oil from affiliated companies or other majors.

ERA, in a final rule to become effective Oct. 1, essentially adopted a combination of the first and second alternatives of the rule proposed Apr. 28. It has three major parts:

- ERA determined that continued allocation of decontrolled crude oil under the supplier/purchaser rule was no longer necessary.

- During the transition to a decontrolled market, small refiners and large independents "have a continuing need for the protection" of the rule with respect to price controlled oil. Originally, ERA intended to extend this protection only to small refiners.

- In light of unanimous opposition, ERA decided not to adopt any certification requirements, thus minimizing

administrative burdens.

The final rule issued by Rollins said, "Inherent in our amendment to eliminate price decontrolled crude oil from the scope of the supplier/purchaser rule is the phasing out of the rule as greater volumes of crude oil become exempt from first sale price restrictions.

"In this way, we believe, those refiners that remain protected under the rule will gradually have their protection diminished, and this gradual process will enable them to prepare for total decontrol.

"Moreover, by eliminating from the supplier/purchaser rule that crude oil sold to major refiners, we will be allowing small and independent refiners to acquire those volumes that were formerly dedicated to the majors."

Two U.S. energy companies slate acquisitions

TWO U.S. firms plan to spend more than \$200 million each to acquire independent energy-related companies.

Northwest Energy Co., lead company for construction of the Alaska Highway gas pipeline, has offered \$217 million to purchase Pacific Resources Inc., a Honolulu refiner.

And AKI Oil & Gas Co., an Alaska Interstate Co. subsidiary, plans to spend \$210 million to acquire C & K Petroleum Inc.

Northwest's offer. If its offer is accepted, Northwest would be acquiring its first refinery, a 67,000-b/d plant which Northwest may consider expanding.

A Northwest spokesman pointed out that the export product market in the Far East could be a future target for the refinery.

Pacific Resources, which has other diversified energy interests, is 20% owned by Alexander & Baldwin Inc., a Honolulu firm with sugar, real estate, and shipping interests. Coral Petroleum Inc., Houston, has an 8.7% interest.

The company said last week it would study the Northwest proposal and present the plan to its board of directors.

Northwest offered to purchase up to 45% of Pacific Resources common stock at \$16.67/share. Those holding the remainder of the common stock would receive Northwest cumulative convertible preference stock.

Northwest said the acquisition of Pacific Resources would give balance to Northwest's operations, which are

heavily pipeline-oriented. The company also has exploration and production interests.

Northwest is attempting to put together a financial package that would lead to construction of a gas pipeline from Alaska's Prudhoe Bay field to the Lower 48.

AKI's purchase. AKI would acquire C & K by purchasing for \$35/share the common stock held by C & K's three largest shareholders. They are C. Fred Chambers, president and chief executive officer, William D. Kennedy, executive vice-president, and Southwestern Life Insurance Co.

The three hold about 33% of C & K's 4,218,985 presently outstanding shares of common stock. The remaining shares would be acquired at the same price through a tender offer already approved by C & K directors.

GAO: Push indirect liquefaction methods

THE General Accounting Office says the best chance for U.S. oil-from-coal production in the 1980s will be from indirect, not direct, liquefaction processes.

The agency has urged the Department of Energy and the new Synthetic Fuels Corp. to stress development of indirect liquefaction processes in both demonstration and commercial scale projects.

DOE is working with industry to encourage development of four direct liquefaction processes—two variations

of the Solvent Refined Coal process, the R-Coal process, and the Exxon Corp. Donor Solvent method.

Those processes produce liquids through the interaction of coal and hydrogen at high temperature and pressure. GAO says they have been tested only on a small scale and face technical and environmental problems.

"Because the basic technology for all four processes is similar, sharing of information and experience could benefit development of each of the processes," GAO said, adding that if

Interior cuts oil, gas estimates in Alaskan NPR

THE Interior Department has concluded that the National Petroleum Reserve-Alaska (NPR-A) holds 10% less oil and 22% less gas than previously estimated.

Nevertheless, Interior calls the NPR-A "a promising source of oil and gas."

It estimates a range of oil in place from less than 1 billion bbl to more than 15.8 billion bbl with an average probability there is at least 6.4 billion bbl.

Gas resources in place are estimated to range from 2.5 trillion cu ft to more than 27 trillion cu ft, with the average set at 11 trillion cu ft.

NPR-A is a 37,000-sq-mile tract on Alaska's North Slope, west of giant Prudhoe Bay oil field.

Interior Sec. Cecil D. Andrus said, "This is an important potential source of oil and gas that we believe can be produced with acceptable environmental risks." To date, there has been no commercial production on the NPR-A, a government petroleum reserve since 1923.

At the same time, Andrus is opposing exploration on the William O. Douglas Arctic Wildlife Range. He

The latest assessment of NPR-A resources

Percent probability that quantity is at least given value	December 1979 oil in place — Billion bbl —	July 1980 oil in place — Billion bbl —	December 1979 gas in place — Trillion cu ft —	July 1980 gas in place — Trillion cu ft —	December 1979 oil equivalent in place — Billion bbl —	July 1980 oil equivalent in place — Billion bbl —
95	1.04	0.55	3.51	2.53	2.08	1.09
90	1.35	1.02	4.26	3.46	2.66	2.21
75	2.87	2.59	7.30	5.47	4.80	4.12
50	6.03	5.21	12.52	9.39	8.57	7.26
25	10.01	8.55	17.54	13.71	13.26	10.87
10	13.72	12.10	28.29	20.04	17.33	14.17
5	16.45	15.82	34.97	27.37	20.35	19.34
Average	7.10	6.40	14.12	10.90	9.80	8.39

Source: Interior Department.

suggests NPR-A as a better source (OGJ, July 21, p. 34).

Current NPR-A estimates are down from the estimate given to President Carter and Congress 7 months ago.

In January, Carter recommended to Congress that NPR-A be opened to leasing and development by private companies within 20 months of the passage of legislation. That legisla-

tion hasn't been passed.

Andrus said the estimated distribution of oil and gas reserves throughout the reserve also has changed since the last evaluation.

While the western portion bordering on the Chukchi Sea decreased in expected potential, the southeastern wedge, which includes Umiat oil field, appears more promising.

Canada okays Alaska gas line prebuilt sections

THE Canadian government has given political approval to construction of prebuilt sections of the \$23-billion Alaska Highway gas pipeline in Alberta and British Columbia.

Alberta gas should be flowing to California markets by March through the western leg of the pipeline, with deliveries pegged at about 700 billion cu ft during the next 7 years. A further 1.6 trillion cu ft will be shipped to eastern U.S. markets through a second prebuilt leg to be completed later.

Robert Pierce, senior vice-president of Foothills Pipelines (Yukon) Ltd., Canadian sponsors of the Alaska line, said the first consignment of pipe has been shipped to southeastern British Columbia where construction should begin early in August.

"We've got people chomping at the bit to put the pipe in the ground," Pierce said.

Foothills had said the federal approval for the project by mid-July was essential if line construction through mountain passes in British Columbia was to be completed before winter when heavy snowfalls would shut down construction.

Canada: No U.S. gas export price hike

THE Canadian government says it has no immediate plans to increase the price of natural gas exports to the U.S.

It is reviewing the situation month by month.

This means there will be no increase in the current export price of \$4.47/Mcf until Nov. 1 or later.

The government has been under pressure from the producing provinces of Alberta and British Columbia to defer price increases because of declining sales to the U.S.

Federal Energy Minister Marc

Lalonde said soft U.S. markets were one reason for postponing a price increase which could have been implemented Oct. 1. Another reason is that gas prices were to be part of energy discussions scheduled last week between Prime Minister Trudeau and Alberta Premier Peter Lougheed.

The U.S. currently obtains about 5% of its gas supply from Canada. The Canadian government recently authorized additional exports of 3.5 trillion cu ft between now and the year 1987.

U.S. assurances. In announcing the pipeline approval, federal Energy Minister Marc Lalonde said the government had accepted assurances from the U.S. government that the entire pipeline will be built to move gas from Alaska's North Slope via Canada to U.S. Lower 48 markets.

Lalonde said Canada doesn't have ironclad guarantees it wanted from

the U.S.

But it has assurances from President Carter and Congress with regard to the "financing and timely completion of the whole project."

Foothills must still satisfy the National Energy Board that the project can be obtained for the overall project.

The federal minister said

Advisory panel on gas line touring the state this week

The Associated Press

FAIRBANKS — A federal advisory board on the Alaska natural gas pipeline is meeting with state residents in various communities this week.

The board is the Federal Executive Policy Board, which has representatives from eight federal agencies with responsibility for different aspects of the gas line. The board usually meets in Washington, where its members are based. This week it will tour Alaska.

The board heard several reports on the progress toward construction of the gas line during a day-long meeting here, but no major developments were announced.

The State Pipeline Coordinators Office, however, announced it intends to complete a report on the social and economic stipulations proposed for the right-of-way lease by November. The report had

been due this spring.

One Northwest Alaskan Pipeline Company official said the delay has been a "major impediment" to the company's planning.

The stipulations will set forth who pays for programs aimed at offsetting any damage done by gas line construction.

Richard Kern of the U.S.



Army Corps of Engineers and chairman of the policy board, said the members will focus on "Alaskan issues" of the gas line.

"Of particular concern to us on this tour is the interrelationship of the gas pipeline and the

trans-Alaska oil line, the gas conditioning plant and the potential for a petrochemical industry," he said.

The board was scheduled to tour Prudhoe Bay on Wednesday and to meet with Chief Andrew Isaac, traditional Interior chief, in Tanacross on Thursday. Meetings are also planned with village leaders from Tetlin, Dot Lake and North Way.

The group will stop in Valdez and Anchorage on Friday.

Although Tuesday's meeting was primarily a briefing for board members, Federal Inspector John T. Rhett said next spring will be a "critical" juncture in the gas line schedule because major equipment will have to be ordered then if the line is to be completed and delivering North Slope natural gas to the Lower 48 by late 1985.

... for fishing violati-

Canada Seeks U.S. Financing Waiver To Clear Alaska Gas Pipeline's Path

Canadian diplomat Mitchell Sharp says his country began building its sections of the pipeline in the belief that they would hook up with the Alaska leg.

BY RICHARD CORRIGAN

The Canadian government is anxiously awaiting action by the Reagan Administration to clear the way for financing and construction of the Alaska Highway natural gas pipeline, a \$40 billion-plus system reaching from the Arctic Ocean to the U.S. Midwest and West Coast.

To press its case in Washington, the Canadian government has enlisted Mitchell Sharp, a senior diplomat and politician who is described as a Canadian counterpart of W. Averell Harrington, the veteran U.S. troubleshooter.

Sharp, 70, has served as minister of trade and commerce, minister of finance and secretary of state for external affairs. A former member of the House of Commons and past chairman of the Privy Council, Canada's Cabinet, he has been commissioner of the Northern Pipeline Agency, the government office in charge of the Canadian sections of the pipeline, since 1978.

According to Sharp, it is "absolutely essential" that the Administration seek, and Congress accept, changes in a 1977 presidential decision on the project.

Sharp was interviewed on Sept. 10 following a round of talks with Reagan Administration officials. This is an edited version of the interview.

Q: How important is this pipeline to Canada?

A: Very important. The Canadian government proceeded to start the building of the line in the South on the strength of confidence in the Administration that it would be financed, that there would be undertakings to protect waivers to Congress [which] unanimously approved a joint resolution supporting it as a vital part of the energy policy of the United States. So, on that basis, the Canadian government proceeded. It becomes an extremely important matter in terms of Canadian and American relations.

Q: How is it important to Canada's own energy development and delivery?

A: It gives us access to gas that has been found at the mouth of the Mackenzie [River]. And unless very large quantities are found that would justify a pipeline of its own, then it is likely that the so-called Dempster Lateral would be built to join with the Alaska Highway pipeline project and would be the main route for our Arctic gas.

As far as Canada is concerned, there are two considerations. One of them that has always affected Canadian attitude toward this is that we have a very basic interest in seeing that the Americans never run short of energy. It's in our interests that the United States should be prosperous, strong. Therefore, it is very much in our interests to help the United States get access

to this Alaska gas—if only to reduce its dependence on us in the long run. Finally, of course, we have a great interest in terms of our own development in building such a big line. We are beginning to be one of the main builders of pipelines. And the building of this section of the Alaska Highway [pipeline] has reinforced our reputation and maybe built up our capacity.

Q: What is the status of the Canadian portions of the system?

A: Well, if you want to look at the "prebuild" sections, the western leg is completed and will be delivering Alberta gas to California the first of October this year. There's a big celebration—the first Canadian gas to arrive in California. The eastern leg, which will join with the northern border pipeline, will be completed next year. So, as far as the prebuild sections are concerned, there are no problems. They've been financed; they're being built.

Now, we come to the sections of the line that will join up with Alaska. And there, I am assured by the Foothills Co., which is responsible for building it, they expect no problems either on the financing or the engineering.

Q: What actions are you asking the Reagan Administration to take?

A: We're asking them to proceed to present the waiver package to Congress. The waiver package includes a removal of the prohibition relating to what is now being referred to as "precommencement billing."

When the joint project was being considered, the Foothills Co. insisted that if the Canadian section of the line was finished before the arrival of Alaska gas and [agreed] by the National Energy Board, then the Canadian tariff would begin to apply even before the gas which would have carried that tariff had arrived. That was accepted. It [was accepted] by the previous Administration, and I think it's fair to say that in all our discussions with this Administration, that particular waiver is not contested.

I have been urging the Administration to proceed with the waiver package, which would facilitate the financing of the whole line. It is not for us to say what is necessary for the financing of the Alaska section, but actually the situation seems to be this: everyone has accepted the waiver, which would remove the prohibition against ownership of shares in the pipeline by the owners of gas in Alaska—Exxon, Sohio and Arco. That's taken for granted. There are certain things, I think, in connection with the conditioning plant above which there is very little dispute. All of the concerns are about precommencement building.

The American bankers have raised the question of what happens if the Alaska section is finished before the Canadians



"It's in our interests that the United States should be prosperous, strong. Therefore, it is very much in our interests to help the United States get access to this Alaska gas—if only to reduce its dependence on us in the long run."

can Administration to decide. And they're having difficulty knowing what is necessary in order to facilitate the financing, what is just something that the bankers would like that would give them as much security as possible and what kind of waiver package would be approved by Congress.

Now, there is in existence a waiver package that has been put forward by a group of leading Senators who had some discussions with the sponsors and with certain technical people in the Administration and which they showed to the leadership of the House. The House didn't like it very much. They didn't say they rejected it; they said, well, we'd like to have some negotiation about this, and perhaps if we had more time we could understand the nature of the problem and so on.

So that is the essential problem facing the Administration. And, as far as I can see, the only one. They have no other real problems. The impression I had was they wanted to go ahead. They were very conscious of the effect of this decision upon Canadian-American relations and wanted to fulfill whatever undertakings had been made. And their only problem was what should be in the waiver package.

Now, a waiver package of some kind is absolutely essential; nothing happens unless there's a waiver package, because you'd never get the thing financed if the owners of the gas were not shareholders in the pipeline. And everybody knows that. And the Canadian government is saying that we hope you'll move ahead as quickly as possible because delay is damaging.

Q: Is this Administration not as keen

finish. Would they have the same privilege? And they have asked for a minimum bill to apply not for a full time as in the case of the Canadian because Canada is in a rather different position; it's not our pipeline. We'll own the pipeline, but it's part of an American pipeline, essentially.

They may also have asked for the pipeline to be separated from the conditioning plant so that there's a sort of a double contingent: the pipeline might be finished, but the gas conditioning plant might not be finished.

Those are not matters that concern us. Those are matters for the American

about this project as the previous one, and more interested in a gas deregulation bill that might jeopardize the marketability of this gas?

A: Well, obviously, the previous Administration initiated this project. This Administration didn't. Perhaps it would have if it had now to consider promoting a deal between Canada and the United States—a treaty between Canada and the United States—to facilitate the building of a line.

I have now seen, I suppose, most of the very significant people involved, and certainly all of the departments involved. And the impression that I get is they would like to proceed. But as I say, it's not a project they initiated. It's a project they inherited, and there's always a different attitude between Administrations when they initiate things and inherit things. The new Administration has to ask, do we go ahead? The impression that I have had is they would like to go ahead very much. They are not questioning the economics of it; they have recognized that that's a decision for the market to make, not for them to make. The decision they have to make is the kind of a waiver package that they present to facilitate the financing.

Q: But would the market really be making the decision if this kind of waiver package went through? Would the consumer be locked into buying this gas no matter how much it might cost?

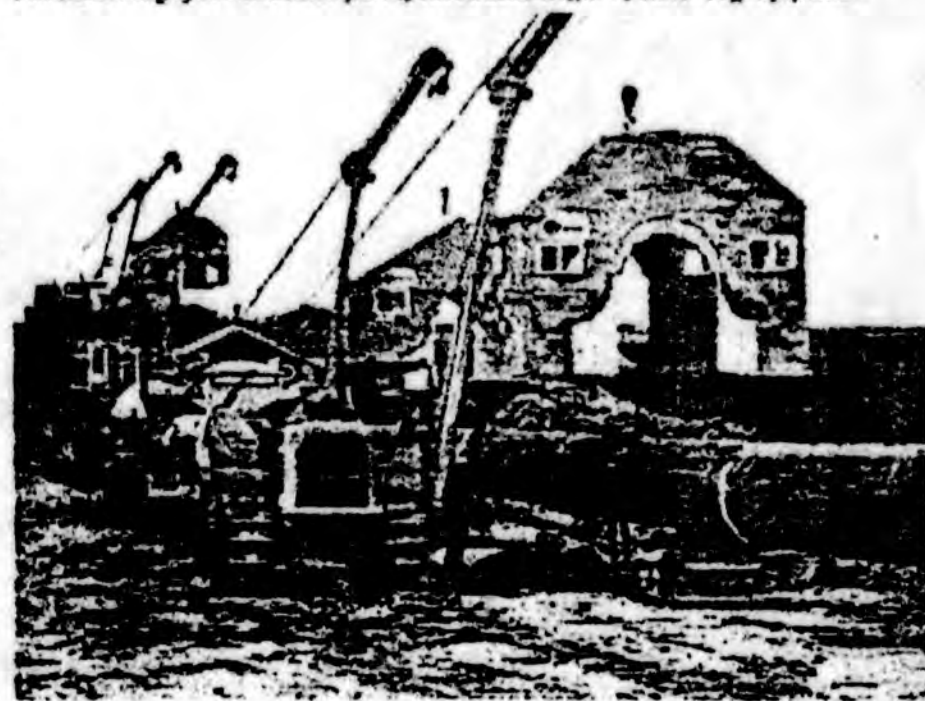
A: No. Nothing happens until it's financed. The waiver package does nothing except facilitate the financing. The decision is not made until the whole thing is financed, and that's a decision that's to be made in the spring, I imagine. They're not locked into anything by the waiver package. The decision is still to be made that you're going to raise the money.

Q: The Canadian government's "Canadianization" program has aroused some criticism here. Do you see a linkage between that program and a delay on the pipeline?

A: I asked the question of all the people I saw. And they said that there is no linkage whatever. This is an American pipeline, not a Canadian pipeline, that we're trying to facilitate. It's quite separate. There may be in some people's minds, but not in the minds of the Administration. They all denied it quite vigorously.

I was relieved, I must say, to find that that was so, because I don't think that that kind of linkage would have promoted the interest of the United States. It would have reinforced those people in Canada who say you can't trust the Americans. □

The eastern leg of the Canadian part of the Alaska Highway natural gas pipeline



Inside F.E.R.C.



An exclusive weekly report on the Federal Energy Regulatory Commission

August 31, 1981

STUDY: ALASKA GAS MARKETABILITY GOOD WITH NGPA, UNCLEAR WITH DECONTROL

Natural gas from Alaska would be marketable in the U.S. under current law, a just-completed study for Northwest Alaskan Pipeline has concluded. But the attractiveness of the gas would be affected by any major change in the Natural Gas Policy Act timetable for gas deregulation, the study noted. Jensen Associates, the author of the study, is already working on a follow-up analysis, sources said last week, because the first study did not "fully explore" the marketability of the gas if the schedule for deregulation is quickened.

The study's findings were based on the expectations that oil prices will continue to rise, gas demand will increase, lower-48 gas production will decline and some old-gas cushion will exist to absorb high-priced Alaskan gas. Even under the most conservative scenario — in which oil prices did not rise as quickly as expected and gas prices were higher than expected — enough of a cushion would exist to make the Alaskan gas marketable under the NGPA, Jensen Associates said. The study noted that if oil prices continue to climb faster than gas prices, industrial customers with the ability to burn both gas and residual oil will choose gas over oil, resulting in the expected increase in gas demand.

The study reasoned that if reserve additions and production in the lower-48 decline as expected, supplemental supplies, such as gas from coal and imported gas, will be needed to meet demand. But because the price of most of those supplemental supplies may be pegged to oil prices, Alaskan gas might be preferable, the study said. "In a 1990 environment of escalating world oil prices, Alaskan natural gas, [even] with its large capital costs, will increasingly look like a bargain as the facilities are depreciated and costs decline." The study projected that the delivered cost of Alaskan gas in 1987 would range from \$7.70 to \$8.94 in constant 1980 dollars.

If oil prices increase as fast as projected, Alaskan gas would become competitive quickly and would not depend heavily on rolled-in pricing to be marketable, Jensen Associates said. However, a combination of lower-than-expected oil prices and higher-than-expected gas prices would necessitate the roll-in capacity, "but enough capacity should exist to accommodate it," the study said.

Under current law, about 4.4 Tcf of gas would remain regulated in 1987, according to the report. In the lower-oil-price scenario, gas still regulated would be priced about \$2.50 below market-clearing levels, creating about \$11 billion of roll-in capacity, it said, adding that Alaskan gas would require \$3.7 billion of roll-in capacity.

(continued on page 2)

FERC ORDERS PIPELINES TO DROP CURTAILMENT PRIORITY FOR AG BOILER FUEL

The commission last week ordered pipelines to revise their curtailment entitlements to lower the priority of agricultural users that burn gas as a boiler fuel. The action comes in response to a June decision by the D.C. Circuit Court of Appeals, which rejected a definition by the Agriculture Dept. that included boiler fuel as an "essential agricultural use" (Inside Ferc, 13 July, 3).

Under Agriculture's definition, the use of gas as a boiler fuel in the manufacture of fertilizer, agricultural chemicals, animal feed or food was eligible for the relatively high curtailment priority granted to essential agricultural uses. But the court said that the definition conflicted with the intent of Congress when it enacted the Natural Gas Policy Act and added that Ferc, not Agriculture, has the responsibility for defining terms in the NGPA.

The commission gave the pipelines until Sept. 15 to revise their entitlements, which become effective Nov. 1. Noting that pipelines have three weeks to make the changes, the commission said in its order (RM79-15) that "we understand the number of end users involved in this change to be a relatively small and known group of customers."

The order noted that the commission still can adopt a definition of "process fuel" under Title IV of the NGPA. "Whether such a definition would restore some of the volumes downgraded by the court's decision or whether a new curtailment priority . . . might be appropriate are matters on which we express no opinion here," it said. That seemed to leave the door open for the agricultural users to ask for a rulemaking restoring what they lost in the decision. "It gives us something to think about," one attorney for those users said. But a commission source said that the commission would be hard-pressed to come up with a definition of "process fuel" that includes boiler fuel.

COGENERATORS SHOULD LOOK TO FERC FOR WHEELING ASSISTANCE, ATTORNEY SAYS

A Ferc rulemaking to explore the commission's authority to help in providing wheeling service for cogenerators and small-power producers could be the best solution to the wheeling problem they face, according to an attorney for the Cogeneration Coalition, a group of manufacturers, utilities and consultants.

In a recently prepared paper, Michael Zimmer concluded that legislation to amend the Public Utility Regulatory Policies Act would face "an uncertain outcome and would surely create a lengthy protracted debate in the Congress." The alternatives, he said, are negotiations between qualifying facilities and utilities or action by Ferc. But negotiation is a good option mainly for large projects in a good bargaining position with utilities, he said, adding that "the commission should be encouraged to explore the limits of its authority granted under the PURPA"

The issue of one utility wheeling electricity produced by a qualifying facility to another utility is important, Zimmer said, because the economic attractiveness of small-power-production projects varies according to a utility's marginal costs. "If the electric utilities could be induced to adopt more liberal wheeling policies, the attractiveness of cogeneration and small-power production would be increased in those regions where marginal utility costs are lower," he said.

Ferc doesn't have authority to order wheeling under Part II of the Federal Power Act, Zimmer said. But sections 203 and 204 of the PURPA gave the commission new interconnection and wheeling authority, and rules and regulations to implement that authority are "nonexistent," he said. Congress set out a number of findings that must be made before Ferc can direct a utility to provide transmission service, but "Ferc itself has expressed some dissatisfaction with its wheeling authority and has indicated support for expansion of its authority to order wheeling for cogeneration and small-power-production facilities," Zimmer said. He cited testimony by Ferc staffers before a congressional committee (Inside Ferc, 8 June, 5).

An examination of the PURPA "appears to indicate that a qualifying cogeneration facility may not initiate a proceeding for wheeling services," Zimmer said, but he pointed out that until Ferc interprets the act's language, that conclusion "may be far from certain."

A HEARING WILL CONTINUE THIS WEEK ON TWO LNG DISPUTES that raise the question of when pipeline purchasers of liquefied natural gas should have invoked minimum-bill provisions following the cutoff of Algerian gas in April 1980. Testimony in the Cove Point, Md., case, which involves purchased-gas-adjustment filings by Columbia Gas Transmission (TA80-2-21) and Consolidated Gas Supply (TA80-2-22), concluded late this month. The hearing resumes Tuesday to focus on Southern Natural Gas (RP80-1-36), which imported LNG at its Elba Island, Ga., facility.

Parties in the Cove Point case — including the companies, the New York and West Virginia public service commissions, the Maryland Consumer Council and the Ohio attorney general's office — agreed to settle most issues regarding how the companies should calculate the minimum bill. Left unresolved was the question of when the pipelines should have invoked the minimum-bill provisions, which permit the pipelines to pass on certain out-of-pocket expenses (interest on debt, operation and maintenance, and taxes) but do not allow them to gain a return on investment. The pipelines' tariffs require the minimum bill to go into effect when deliveries to customers are terminated.

But according to the intervenors in the case, Columbia and Consolidated overcharged customers by \$40 million by failing to put the minimum bill into effect when the last gas deliveries from Algeria normally would have run out (Inside Ferc, 2 March, 4). Because the last shipment, delivered April 10, would have been used up on April 23 if the companies had not decreased withdrawals from the facility, the companies should have put the minimum bill into effect then, one intervenor said.

One party to the Cove Point case said that settlement talks on the minimum-bill issue are now "on the back burner," but added that a settlement between the states and the companies was not impossible.

The issues in the Southern portion of the proceedings also involve the minimum-bill question, but Southern is still making LNG deliveries in small volumes and hasn't yet invoked a minimum bill. Columbia and Consolidated spread out their LNG deliveries but began charging minimum bills on Dec. 10, 1980, when they ran out of gas. Although Southern's customers have complained of no overcharges and agree with the pipeline that they should pay for the full cost of service of the Elba Island facility, Ferc staff and one intervenor — the Georgia Industrial Group — have opposed Southern's settlement offer.

STUDY SAYS ALASKA GAS MARKETABLE UNDER NGPA . . . begins on page 1

ity in this case. In the scenario where oil prices increase as quickly as expected, the roll-in capacity would rise to \$24 billion in 1987 and Alaskan gas would require a cushion of only \$1 billion, it said.

The study noted that while it would be possible for pipelines to use up much of their old gas cushions before the Alaska pipeline comes on line, pipelines involved in the project more likely would plan carefully against such an occurrence.

Immediate gas-price deregulation would not "so stimulate the supply side that it would obviate the need

Gas pipeline must start by '82

or project dead, officials say

By GEORGE BRYSON
Daily News reporter

WASHINGTON — Time may be running out on the promoters of the Alaska natural gas pipeline system.

If the inflation-ridden project is ever to be built, industry observers here say, construction must begin next year. Failing that, inflation will carry its estimated cost — which has already grown from \$8 billion to \$30 billion — beyond the reach of private enterprise once and for all.

For the pipeline construction to begin next summer, however, the sponsors need to secure financing this winter. They can do that, they say, but only if the federal government waives certain provisions of law in order to make the investment less risky for the bankers.

One of the proposed waivers — a provision the banks have insisted upon — has brought current pipeline negotiations in Congress to a standstill. The sponsors want to be allowed to bill American gas consumers for the cost of the pipeline as soon as construction begins, and long before natural gas ever starts to flow from the North Slope of Alaska to the Lower 48. Supported by members of Alaska's congressional delegation, the "pre-billing" waiver is firmly opposed by some

Continued from Page A-1

powerful House members.

The Reagan administration, trying to tow a middle line between what the sponsors say they need and what Congress may be willing to approve, still hasn't submitted the finished waiver package to Congress. And time is running short. Congress is scheduled to adjourn in two months.

"We're dancing on the head of a pin right now," Alaska Sen. Ted Stevens conceded this week.

"We're still trying to get the president to submit the waivers. He was prepared to do it . . . then, just before the recess, the members of the House who had been working with us announced they would not support the waiver package."

Leading the House review of the pipeline is Rep. John Dingell, D-Mich., the chairman of the House Energy and Commerce Committee. Dingell firmly opposes a government subsidy of the pipeline — and says he's uncomfortable with a subsidy by consumers as well.

He's supported in that view by Edwin Rothschild, a Washington-based consumer advocate for Energy Action. Rothschild calls the waiver proposal a "complete betrayal" of the sponsors' promise of private financing of the pipeline. "It makes the Chrysler bailout look like chicken feed," Rothschild told Congressional Quarterly last week.

On the other side of the debate J.N. Vallely, a spokesman for Northwest Energy Co., defends pre-billing as necessary in order to get the project under way. "The consumers are going to pay for it regardless," Vallely says, "now or later."

Before submitting the waivers to Congress, the administration has hoped to shore up a bipartisan consensus on Capitol Hill to get the package approved without a fight. That hasn't happened. Stevens and Dingell still disagree on several key elements.

Losing patience with the negotiations, Stevens has asked the White House to submit his own version of

the waivers to Congress, which he hopes to get approved in spite of any opposition in the House.

Ironically, Stevens and Alaska Congressman Don Young have been assured by their old Alaska lands foe, Arizona Congressman Morris Udall, that the pipeline waivers won't die in committee on the House side once they're in hand.

"Udall may be willing to get the issue to the floor," Stevens said Thursday. "We only hope the entire House doesn't agree with Dingell."

Just how Congress would vote on Stevens' version of the waivers is still difficult to gauge. Congressional observers believe they would meet with easy passage in the Senate, and face a difficult test in the House — depending upon how firmly Dingell opposes them.

"It's hard to say how the House would vote," says the Capitol Hill editor of an oil industry newsletter. "You see, the gas pipeline isn't perceived in the same way as the (Alaska) oil pipeline was down here — as something that's necessary."

"Oil is oil, you know you need it.

But people don't really have the same feeling about gas . . . A lot of congressmen don't even know anything about the pipeline."

Even if the waiver issue is eventually settled, Stevens says, there would still be no guarantee the pipeline would ever be built.

"We're still not certain we'd get the financing for the project. That's what the House members are saying: 'Get some assurances from the bankers that they'll finance the project if they get those waivers, and then we'll talk to you again.'"

Given that generally gloomy appraisal, Stevens acknowledges that it may be time to start thinking the unthinkable: What are the alternatives for marketing Alaska's natural gas if the pipeline can't be built?

"I think we need to review it about every 60 days," he said, "and see if we all agree there's still a possibility it can be financed. When we come to the point one of these days that it's not — then we're going to have to do everything we can to get another system."



Alaska Gas Pipeline Update

Office of the Federal Inspector
Alaska Natural Gas Transportation System

October 21, 1980
No. 13

OFI,FERC FILE
SUIT AGAINST
NORTH DAKOTA
OVER EAST LEG
ROUTE

On September 26, the Federal Inspector and the Federal Energy Regulatory Commission filed a joint suit in the Federal District Court in Bismarck, North Dakota, challenging a September 12th State Public Service Commission order disapproving the route selected by the President and Congress for the Eastern Leg of the Alaska Natural Gas Transportation System (ANGTS).

The two agencies contend, among other things, that the PSC's denial of the route selected by the President and the Congress and certificated by the FERC is clearly unconstitutional because it conflicts with the Federal route selection previously made under the Alaska Natural Gas Transportation Act of 1976 and the Natural Gas Act, and constitutes an undue burden on interstate and foreign commerce.

Apart from the legal basis for the law suit, the Federal Inspector is very much concerned about the practical implications of the PSC's decision:

1) Environmental Impacts: The North Dakota PSC has proposed an alternate corridor which it claims avoids some environmentally sensitive areas but which has not yet been subjected to a detailed analysis, thus the PSC's alternate cannot be said to be environmentally superior. With proper application of mitigation measures and OFI oversight to ensure compliance, the FI is confident that the sponsors can build the pipeline along the current route in an environmentally sound manner.

2) Timing of the PSC's action: The process which led up to the Presidential and Congressional approval of the sponsor's route contained extensive opportunities for public input, starting in 1975. The State of North Dakota did participate in this process, but at no time did it raise objections to the proposed route or suggest an alternate corridor. In light of the numerous opportunities afforded the State since 1975 to voice its objections, the Federal government finds the State's recent objection unconvincing.

(more)

3) Consequences of a major re-route: Changing the route of the pipeline will require the project sponsors to perform a whole series of new environmental analyses, archeological resource surveys, design work and easement acquisitions. The project sponsors estimate that it would require at least 12-13 months to develop the site-specific data necessary to begin construction on a new route. This estimate does not include an allowance for a new FERC proceeding should such action become necessary. The consequence to project schedule and cost would be considerable, while the environmental improvements to be realized are highly speculative.

STATUS OF RIGHT-
OF-WAY GRANTS

The Department of Interior right-of-way grant for the Eastern Leg awaits resolution of the lease to cross lands in the Fort Peck Reservation issued by the Tribe to Northern Border Pipeline Co. The Bureau of Indian Affairs is working to settle the Ft. Peck question quickly, and the Eastern Leg grant should be ready for issuance in a few weeks.

On the Alaskan Leg grant, the House of Representatives on September 17 waived the 60-day review period, but the Senate has not granted the requested waiver. It wishes to see a settlement of the mutual indemnification, or liability issue, between the gas pipeline sponsors and the TAPS owners. Good progress is being made on a mutual indemnification agreement, and it is expected that the entire package will be ready for the Senate when it reconvenes.

EAST LEG
PROCUREMENT
ANNOUNCED

On September 30 the project sponsor for the Eastern Leg pre-build, Northern Plains Natural Gas Co., announced plans for major contract awards for steel pipe which included approximately \$300 million of awards to be split among Kaiser Corporation, U.S. Steel, Co. and the Bethlehem Corporation. These awards coupled with recently announced contracts for the Western Leg pre-build and Western Delivery System of ANGTS inject a total of about \$412 million into the domestic steel industry.

Northern Plains, the managing partner for the ANGTS Eastern Leg, also announced planned awards to a Japanese consortium and an Italian firm. The utilization of five mills not only enables timely delivery but also acts to minimize risk to the project schedule by lessening the company's dependence on any one source of pipe, the company said.

(more)

The following day the Federal Inspector in a statement announced that all major steel pipe procurement decisions for the initial construction of the system are now completed with results quite favorable to U.S. companies. He said that although there are no explicit Buy American requirements for this project, American firms have been successful in the international competitive bidding process.

On the Canadian side, Foothills Pipelines, Ltd. will be acquiring its steel pipe from two Canadian firms for the first stage of construction. The majority of their steel pipe requirement for the final phase of construction is for 56" diameter pipe, which is not manufactured in the United States.

OFI HEADQUARTERS

SHIFTS AGAIN

For those who need to reach OFI Headquarters staff, recent shifts within the building have relocated most staff as additional space has become available. The mailing address remains the same, but many phone and room numbers are changed. A current list by function follows:

	<u>Room</u>	<u>Phones</u>
Federal Inspector and immediate staff	3412	275-1100
General Counsel	3411	275-1145
External Affairs	3413	275-0586
Administration	2413	275-1114
Personnel	2317	275-1157
Permits and Compliance	2407	275-1123
Environment	2432	275-1110
Engineering	2432	275-1110
Contracts and Procurement	2420	275-1162
EEO/MBE	3208	275-0582
Financial Management	2309	275-1167
Audit and Cost Analysis	2428	275-1153

EPA TO HOLD

ALASKA HEARINGS

ON AIR QUALITY

The Environmental Protection Agency has scheduled public hearings for November 18-20 in three Alaska cities on issuance of air quality permits for the seven compressor stations along the route of the Alaska pipeline segment.

The hearings are:

Nov. 18 in Barrow, North Slope Borough Assembly Chamber, 3 p.m.
Nov. 19 in Fairbanks, North Star Assembly Chambers, 7 p.m.
Nov. 20 in Tok, School Library, 7 p.m.

(more)

Northwest applied for the permit for all seven stations in March of 1979. Its application was several volumes and contained extensive data on projected emissions from the compressor units. EPA has made a preliminary determination to grant the application but wishes to gather public comment before final decision is made. A copy of Northwest's application is available for public viewing at each of the three locations listed on the previous page.

CANADIAN NEWS

NPA-OFI Staff Meet in Calgary - On Oct. 9-10 senior management of both the Federal Inspector's Office and its Canadian counterpart, the Northern Pipeline Agency, met in Calgary to exchange information on organizational functions, project status, and future staff coordination. The meeting was the first of a series to be held in recognition of the importance of coordination in an international project of the size of the ANGTS. The OFI contingent was headed by Peter Cook, and Mo Mathews Deputy Federal Inspectors and included Joyce Morrison, Public Affairs Director; Dennis Schroeder, East Leg Field Director and Leo Bellarts, West Leg Field Director. NPA representatives included Harold McMillican, Administrator; Barry Yates, Deputy Commissioner; and Bill Scotland, Deputy Commissioner and Designated Officer. This policy-level exchange between OFI-NPA staff will be followed by joint working level discussions on critical subjects such as engineering, environment, socioeconomics and surveillance. Another policy-level exchange was tentatively scheduled for January in Washington, D.C.

B.C. Advisory Council Formed - The Canadian Government recently announced appointments to a 10-member North British Columbia Advisory Council. The Council was provided for by the Northern Pipeline Act, to advise the Minister Responsible for NPA on "ways to minimize any adverse social and environmental effects of the project and to maximize social and economic benefits including employment opportunities from the construction, operation and maintenance of the pipeline."

Patrick Walsh, currently the Mayor of Fort St. John and a lawyer, was appointed Chairman. George Miller, a board member of the United Nations and an active community leader in Lower Post, British Columbia, will serve as Vice-Chairman.

(more)

PARSONS TO DO
CONDITIONING
PLANT DESIGN

Northwest Alaska Pipeline on October 8 announced that Ralph M. Parsons Co. in Pasadena, Calif., has been selected to do the design and engineering on the gas processing and conditioning plant to be built on the North Slope to prepare the gas for transportation through the System. One of Parsons' first tasks is to develop a financial planning estimate for construction of the plant. This estimate is to be completed by mid-February.

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WILLIAMS BROS.
CONTRACT LET

OFI on August 26 contracted with Williams Brothers Engineering, of Tulsa, to evaluate the certification cost estimate and center point justification filed with FERC by Northwest Alaska on July 1. The contract sets a target of December 1 for production of a draft report. Williams Brothers will be doing much of the work on the technical conferences, intended to isolate and define unresolved technical and cost issues.

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TECHNICAL
CONFERENCES
CONTINUE

A Technical Conference was held Sept. 30 at Fluor Headquarters in Irvine, Calif. Another was held on Oct. 7-8 at the Federal Energy Regulatory Commission (FERC) to consider major outstanding design issues, including a report from OFI on such issues. Summary transcripts of all these conferences are available on request through FERC's Alaska Delegate Office (Jean Barrie, 357-8900). Copies of the OFI report are available from OFI's Public Affairs Office. The next technical conference is scheduled for October 21 in Irvine.

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PHILLIPS JOINS
ALASKAN DESIGN
BOARD

Phillips Petroleum Company, Bartlesville, Ok. has recently become a member of the Design and Engineering Board for the Alaskan portion of the System. The Board was established last summer by the pipeline sponsors and the producers to coordinate design of the Alaskan segment and the conditioning plant.

"Phillips Petroleum, with assets in excess of \$8.5 billion, is a substantial and very welcome addition to the Design and Engineering Board," John McMillian was quoted as saying in Northwest's announcement. This brings to four the number of North Slope producers on the Board.

The other three are the Atlantic Richfield Company; Exxon Company, U.S.A.; and the Standard Oil Company (Ohio). Also represented on the Board are the ten U.S. pipeline companies and one Canadian firm that make up the partnership that will build and operate the Alaskan segment.

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The Update is published by the Office of the Federal Inspector, who is responsible for overseeing construction of the Alaska Natural Gas Transportation System. Inquiries should be directed to the Public Affairs Officer, Office of the Federal Inspector, 1200 Pennsylvania Avenue, N.W., Washington, D.C. 20044 (202) 275-0586.



Alaska Gas Pipeline Update

Office of the Federal Inspector
Alaska Natural Gas Transportation System

November 17, 1980
No. 14

WESTERN LEG
CONSTRUCTION
TO BEGIN NEXT
MONTH

Within a few weeks, construction will begin on Loop 1 of the Western Leg, in northern Idaho. It will be the first of four expansion segments to be built on Pacific Gas Transmission Co.'s existing pipeline, and will enable the first increment of additional Albertan gas supplies to flow next May. That additional 100 million cubic feet of gas will be transported through Loop 1 and then into existing facilities of Northwest Pipeline Corp. near Spokane. Work on the other three segments will begin in March 1981, and they will be completed by Oct. 1, 1981. At that time the full 240 million cubic feet of additional Canadian gas will be delivered to Northwest Pipeline for delivery to southern California through the Western Delivery System, being built now and to be completed this summer.

PACIFIC GAS
TRANSMISSION
AWARDS MAJOR
CONSTRUCTION
CONTRACT

PGT on November 10 announced award of the mainline construction contract for initial construction on the Western Leg of ANCTS. The \$40 million contract was awarded to the joint venture of MK-River and NANA Development Corporation. MK-River is a division of Morrison-Knudsen, with its main office in Houston, Texas. NANA is a native Eskimo Regional Corporation and minority business enterprise with offices in Kotzebue and Anchorage.

The contract will involve installation of all 160 miles of 42" diameter looping of PGT's existing natural gas pipeline in Idaho, Washington and Oregon.

In a separate contract action, PGT on November 4 announced award of almost \$2 million in contracts for Western Leg support work. Two land surveying contracts, each valued at approximately \$450,000, were awarded to MSM Consultants, Inc. and the joint-venture of Jaykim Engineers, Inc. and R.W. Engineering, Inc.

MSM is an engineering and construction management firm located in Denver, Colorado. Jaykim, an engineering and architectural minority business enterprise, will administer the joint-venture from its West Covina, California, office. R.W. Engineering, an engineering company located in Lewiston, Idaho, will coordinate field activities. Each contract calls for the surveying of approximately 80 miles of pipeline right-of-way for the prebuild project, extending over a 6-12 month period.

(more)

PGT also awarded a storage site preparation contract to Snelson Companies, Inc. of Sedro Wooley, Washington. The \$1 million contract calls for the preparation of seven temporary material storage sites to be used for off-loading and stockpiling of pipe and other materials.

FI NAMES TWO

DEPUTIES

Federal Inspector John T. Rhett, on October 23, appointed two Deputies -- one for Alaska and one for Washington -- to assist with oversight of the \$16.5 billion Alaska gas pipeline construction.

Peter Cook, who has been Executive Officer since creation of the Office in 1979, is Deputy Federal Inspector for Washington. Mo Mathews, Alaska Office Director since last spring, is Deputy for Alaska.

Mr. Cook will manage all Washington staff and program offices, and will oversee operation of the San Francisco and Omaha Field Offices. In addition, Mr. Cook will, by virtue of his Headquarters location and broad responsibilities, be Acting Federal Inspector in the FI's absence.

Mr. Cook is an engineer, administrator, and environmental expert who was with the Environmental Protection Agency for eight years, most recently as Assistant Director of the Office of Environmental Review. He holds a Bachelor's in electrical engineering from Clarkson College of Technology and a Masters in business administration from American University.

Mr. Mathews will manage the Alaska Field Office and the critical engineering and environment functions which will be based in Irvine, California. Mr. Mathews is a 24-year veteran of the Army Corps of Engineers, after which he was a Vice President with Alaska Arctic Gas, a competing applicant to build an Alaska gas delivery system to the lower 48. He served for 1 year as the Alaska State Pipeline Coordinator. Directly prior to his OFI appointment, he was Director of Research and Development for the State of Alaska, Department of Natural Resources. He is a 10-year resident of the State of Alaska and a West Point engineering graduate.

The organizational structure of the Office of the Federal Inspector is now firm for the period prior to the relocation to Alaska, and most of the senior level positions are staffed. A current organization chart is attached to this newsletter, and a more detailed description of the functions of the Office is available from Public Affairs, upon request.

(more)

ALYESKACREATESANGTS UNIT

The owners of the Trans Alaska Pipeline System (TAPS) have created a new unit within the Alyeska consortium to "effectively deal with the increasingly significant concerns relative to design, planning and construction of ANGTS in proximity to TAPS." The new unit, titled ANGTS Relations, is headed by Jim McPhail, a Vice President reporting to President Frank Turpin. McPhail is located in Houston. An engineering group, headed by M.C. Metz, located in Irvine, will follow progress of design. A group in Anchorage, headed by Mr. F.R. Fisher, will be point of contact for NWA and OFI in Alaska. Alyeska action is to assure coordination, so progress can proceed on the gas-line as quickly as possible while protecting the integrity of TAPS.

EEO/MBE REPNAMED TOALASKA OFISTAFF

Roy F. Roehl, previously the President of Chugach Development Corporation in Anchorage, has been brought onto OFI's staff to be the Equal Employment Opportunity/Minority Business representative in Alaska for the Federal Inspector.

Prior to being President of Chugach Development Corporation, Mr. Roehl was the Director of Safety and Equal Employment Opportunity program for the Meridian Contracting Corporation in Anchorage, Alaska, and was a vocational counselor for the Alyeska Pipeline Company management team in the area of Labor Management.

He was born in Dillingham, Alaska, and is a graduate from William H. Seward High School in Seward, Alaska. He has a Bachelor of Science Degree from Eastern Oregon State College, and an Associate of Arts Degree from Kenai Community College.

OFI IRVINEOFFICE MOVES

OFI's Irvine staff has moved from 2222 Martin Drive to 2302 Martin Drive, to occupy the first floor of the new Global Marine building. OFI has eleven people in Irvine, in the Offices of Engineering and Environmental Review. Larry Birke, Director of Environmental Review, is administrative head of the Irvine Office.

The correct address is now:

OFI - Irvine
2302 Martin Drive
First Floor
Irvine, Calif. 92715
(714) 833-9935

(more)

ALASKAFIELDACTIVITY

Surveying of the Alaska pipeline centerline and proposed access roads is proceeding at a steady pace, with over 400 miles of survey work completed. Twenty-two survey crews are in the field now, employed by contractors who are joint venturing with Alaska Native Corporations.

Ten drilling rigs are in operation along the relocated centerline of the route to drill and obtain geological samples of the soil. As the drilling crews complete their work, the small work camps established last summer by Northwest Alaskan Pipeline Co. will be closed for part of the winter.

Survey and field construction has started on several "chilled pipe test sites" that will hold buried pipe and equipment for testing the chilled pipe in that particular type of soil. Work on these sites is expected to continue for several months. Information collected from these test sites will be used to develop criteria for use during the final design of the Alaska portion of the gasline.

The possibility of running the gasline through a tunnel at Atigun Pass in the Brooks Mountain Range of Alaska is being explored by Northwest Alaskan. Holes on both sides of the pass are being drilled to help determine the feasibility of a tunnel. The drill hole on the north side went down 1,342 feet, and the south hole is down 1,450 feet. Drilling on both holes has stopped and instruments have been placed in both holes to determine temperature and soil conditions at various depths.

A detailed biological assessment of the endangered peregrine falcon along the gasline route has been completed by the Anchorage office of the Federal Inspector. Measures to protect the falcons from adverse activities along the route have been proposed to the U.S. Fish and Wildlife Service in the assessment.

NORTH DAKOTARESPONDS TOFEDERAL COURT

The North Dakota Public Service Commission on October 20 filed with District Court in Bismarck a response to the September 26 joint complaint by the Federal Inspector and the Federal Energy Regulatory Commission. In addition, the State of South Dakota on October 27 filed a motion to intervene in the case.

FILING

The North Dakota PSC asks for dismissal of the Federal complaint, contending the Alaska Natural Gas Transportation Act does not expressly preempt North Dakota's sovereign right to establish a

(more)

corridor within the boundaries of the state. It further alleges that the President's Decision only selected a general route, leaving to the state the authority to specifically site the pipeline.

South Dakota's motion to intervene asks the court to rule that North Dakota did not violate the Supremacy Clause of the Constitution and did not unduly burden interstate commerce when it denied Northern Border's request for certification of the East Leg route through that State.

Northern Border Pipeline Company filed an application on October 15 with the South Dakota Public Utilities Commission requesting a permit to build the 183-mile South Dakota segment of the Northern Border Pipeline. Northern Border's application asked for prompt review so that construction could begin on schedule early in 1981.

EPB TO MEET

DECEMBER 18

The Executive Policy Board will meet on December 18 in Washington, D.C. The policy advisory group meeting will be held in Room 3000-A, 1200 Pennsylvania Ave., N.W., at 10 a.m. The agenda will include presentations by several of the agency members on the status of their ANGTS-related programs. The meeting is open to observation by the public.

NORTHWEST

NAMES TWO

TO ALASKA

Harold W. Moles has been named Vice President - Operations for Northwest Alaskan, succeeding Jack Bachman who resigned last month. Moles, who will be located at Fairbanks, Alaska, is now Northwest's senior officer in Alaska and coordinates all company activities within the State.

POSTS

Moles, 54, was previously director of operations for Northwest Pipeline Corporation, and has been with Northwest Pipeline and its predecessor companies for 24 years. He attended the Illinois Institute of Gas Technology, Idaho State University, and Texas A & M University.

Hershel Gober, in Northwest's Fairbanks Office, has been promoted to Director of Right-of-Way, Permits and Land Acquisition. Gober joined Northwest in 1978 as supervisor, Government Relations in Fairbanks. In April 1980, he was promoted to manager and assumed responsibility for permits and authorizations and recently was placed in charge of rights-of-way. During a tour with the U.S. Army in Alaska from 1972-75, he served as

(more)

civil affairs officer and represented the army on a council to manage maneuver rights for the military in Alaska. He was also negotiator and liaison with native councils and various state and Federal agencies. While on previous assignment in Alaska, Gober obtained a B.A. degree from Alaska Methodist University.

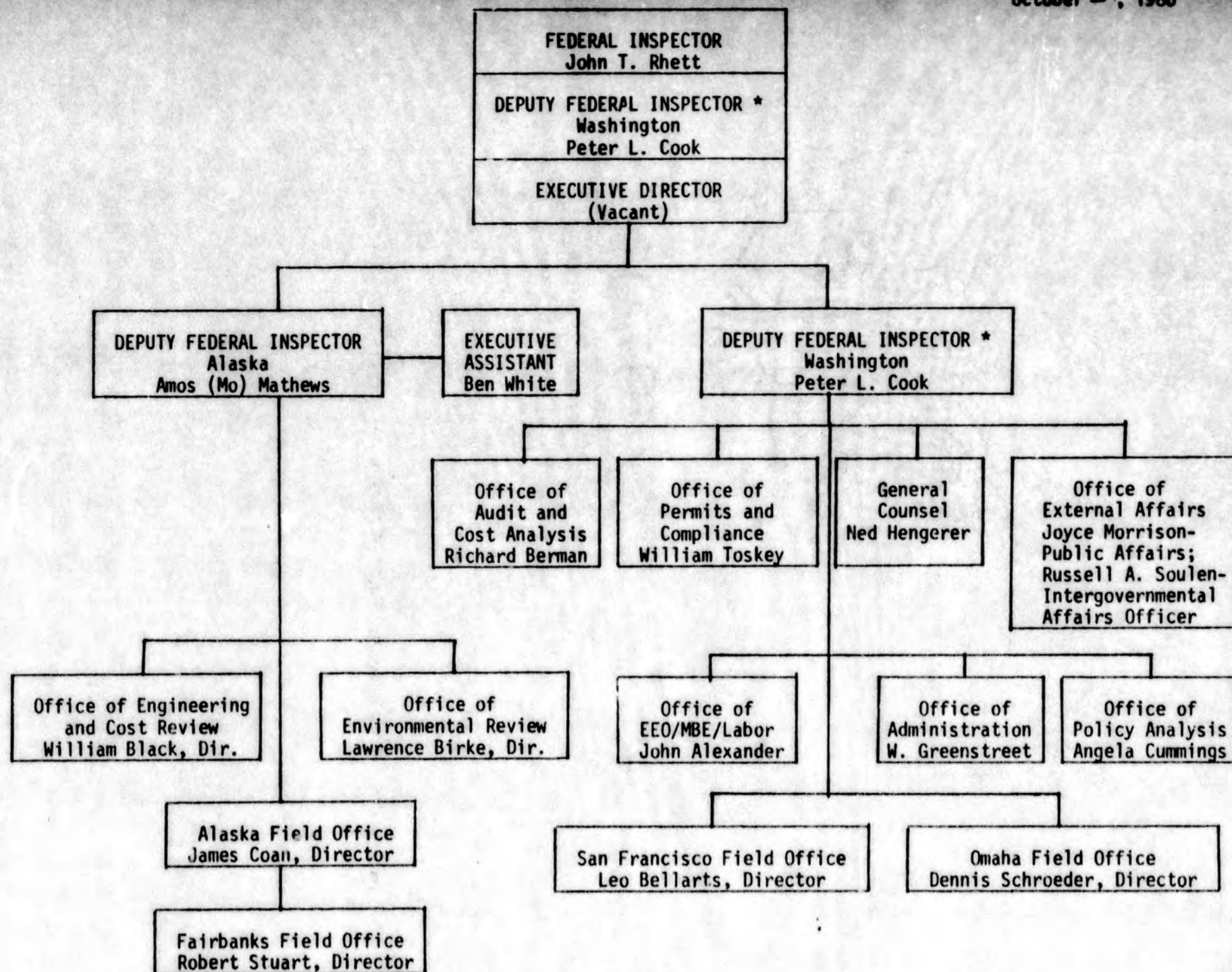
NORTHWEST UPS As a result of adjustments in routing to accommodate a minimum 200-foot distance between the ANGTS and TAPS, Northwest Alaska
COST ESTIMATE has filed with FERC and OFI an amended certification cost estimate reflecting a \$252 million increase in projected cost of the Alaskan segment. Its estimate, filed last June, was \$7.05 billion, excluding contingency and finance charges. The cost documents may be reviewed at OFI or FERC offices.

TECHNICAL The schedule of the technical conferences being conducted
CONFERENCES jointly by FERC and OFI was revised in late October, with the next conference now in progress and expected to last through Nov. 21 in Irvine. Subjects of discussion will be cost estimate changes due to realignment; Atigun Pass alternatives; mode study (underground or aboveground); snow pad study; centerpoint; and normal contingencies. Transcripts of this conference and all others held in Irvine may be obtained from:

Lusk Court Reporting
 557 E. Morse Ave.
 Placentia, California 92670
 (714) 993-4281

The Update is published by the Office of the Federal Inspector, who is responsible for overseeing construction of the Alaska Natural Gas Transportation System. Inquiries should be directed to the Public Affairs Officer, Office of the Federal Inspector, 1200 Pennsylvania Avenue, N.W., Washington, D.C. 20044 (202) 275-0586.

October 23, 1980





Alaska Gas Pipeline Update

Office of the Federal Inspector
Alaska Natural Gas Transportation System

December 22, 1980
No. 15

ALASKAN RIGHT-
OF-WAY GRANT
SIGNED

Secretary of the Interior Cecil D. Andrus on December 1 signed a right-of-way grant authorizing the crossing of some 430 miles of Federal land for construction of a major part of the Alaska leg of the Alaska Natural Gas Transportation System.

The 430 miles of Federal lands covered by the grant are in a number of separate segments interspersed with 311 miles which cross State lands, Alaska Native land selections, land allotted to individual Alaskan Natives, and some private land. Most of the 430 Federal miles are in the southern portion of the North Slope, in the Brooks mountain range, and in an area extending south to the Yukon River, although some of the mileage is along the route of the Alcan Highway as it approaches the Canadian border.

"The project has significant environmental engineering safeguards for Alaska's sensitive environment and is economically sound when viewed over its 25-year expected life," Andrus said.



Secretary Andrus signs grant while John McMillian, Northwest Alaskan Pipeline President, looks on. Seated behind them is Federal Inspector John Rhett.

(more)

Planning of the pipeline has been given bipartisan support and has been coordinated by the U.S. and Canadian governments. The formal application for right-of-way was received by the Department of the Interior on July 1, 1980, but work on the various issues relating to the grant had begun months before. The Department on August 19 sent the proposed grant to the Senate Energy and Natural Resources Committee and the House Committee on Interior and Insular Affairs. Both Committees reviewed the Department recommendation, and approval by the House Committee came on September 17 and by the Senate committee on November 19.

Prior to and during construction, all parties working on the project will provide equal employment opportunities and affirmative minority/female hiring practices. The grant also mandates that the subsistence lifestyles of Alaska Natives be protected and that special training for employment be provided to them.

The grant was signed in Secretary Andrus' offices, with most of the top-level people involved with the project present. At a news conference following the ceremony John McMillian, head of Northwest Alaskan, called the action a "giant step forward," and predicted a financing package for the Alaskan segment would be filed the first quarter of 1981.

CONSTRUCTION

BEGINS IN IDAHO

Construction began on December 11 in Idaho on the Western Leg, marking the first U.S. system construction. Initial work consists of clearing and grading, with trenching and pipelaying to begin in mid-January. The Idaho segment (Loop 1) is scheduled for completion by mid-May, when up to 100 million cubic feet daily of Albertan gas can be transported through it to Northwest Pipeline Corporation's existing system near Spokane. The initial 160-mile Western Leg construction will be completed by October 1, allowing a total of 240 million cubic feet daily of additional gas to be imported.

The Federal Inspector on December 8 issued a Notice to Proceed to Pacific Gas Transmission Co.--the final green light for actual construction. Several stipulations were attached to the Notice, requiring restoration of the construction area, submission of site-specific environmental plans, final approval of affirmative action and cultural resources emergency salvage plans, and other requirements. The Notice was signed by Leo Bellarts, Director of the Federal Inspector's San Francisco Field Office. Federal Inspector John Rhett has delegated to his San Francisco Field Director broad authority to act on matters concerning the West Leg.

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Mr. Bellarts has established a Construction Office at Samuels, Idaho, about 11 miles north of Sandpoint. The San Francisco Office has four experienced engineers who will be rotating for field duty at Samuels. The mailing address of the Samuels Construction Office is P.O. Box 1707, Sandpoint, Idaho 83864.

A second construction office will be set up at Wallula, Wash., (near Pasco) in March. Next May, the Samuels Office will be relocated to Rosalia, Wash., near Spokane, to oversee the final first-phase construction.



John Rhett, Federal Inspector, (seated) with San Francisco Field Office Director Leo Bellarts.

EAST LEG

FINANCING

AGREEMENT SIGNED

Northern Border Pipeline Co. on December 10 signed an agreement on a \$1.055 billion loan from a consortium of North American banks for financing most of the East Leg construction. Canadian Imperial Bank of Commerce (CIBC) is leading a consortium of 28 Canadian and U.S. banks syndicating the loans for construction of an 823-mile segment of the Northern Border Pipeline from Monchy, Saskatchewan on the U.S./Canadian border to Ventura, Iowa.

"The financing is the largest private sector package assembled for a North American pipeline project of this kind," said CIBC Vice Chairman of Corporate Banking Charles M. Ladley, following the signing.

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CIBC's share of the financing will be 14%, with the remainder put up by the other 27 members of the banking consortium which includes as managers, in addition to CIBC, The Bank of America, Chase-Manhattan, Citibank, Morgan Guaranty Trust Company and Royal Bank of Canada. The syndicated loans cover some 70% of the anticipated construction cost and have a ten year maturity.

Over 70% of the pre-build right-of-way has been acquired, and orders for 581,000 tons of 42-inch pipe have already been placed in preparation for spring construction.

FINAL COST

ESTIMATES

RECEIVED FOR

LOWER LEGS

Both Pacific Gas Transmission and Northern Border have filed final cost estimates with the Office of the Federal Inspector for first phase lower leg construction. PGT's December 1 single-volume filing estimates costs at \$176,178,200, while Northern Border's 3-volume filing, dated December 3, puts its costs at \$1,238,612,000.

These estimates, when approved, become the yardstick against which cost performance is evaluated. The estimate is especially significant for Northern Border because the Incentive Rate of Return mechanism applies. Under this mechanism, the estimate becomes the key determinant from which the equity investors' rate of return is established. The documents are public information and are available for inspection through OFI's Public Affairs Office, (202) 275-0586.

BURST TEST HELD

IN CANADA

Northwest Alaskan Pipeline Co. on December 4 staged a pipe burst test at its Rainbow Lake Test Facility near Calgary. It was the fifth in a series of such tests, which are to determine the strength of various sizes and toughness of pipe, and different methods of making pipe resistant to cracks and other failures. Three hundred feet of pipe of various thickness and toughness had been welded together, with crack arrestors at the beginning and end of the section. Crack arrestors are short, heavy walled steel collars encircling the pipe and are designed to stop cracks from continuing on down the pipe.

In the December 4 test, the gas was forced through the pipe at increasing pressures until failure occurred. When the pipe burst, the resulting crack ran virtually from one end to the other--296 feet--and was halted only by the crack arrestors. Scientific results on the test are still being compiled.

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CHERI JACOBUSAPPOINTED OFIALASKA ATTORNEY

OFI now has a senior level attorney on its Alaska staff. Cheri Jacobus, a resident of Alaska since 1973 and former Chairman of the Alaska Pipeline Commission, joined the Anchorage office last month. Ms. Jacobus was also Assistant District Counsel for the Alaska District of the U.S. Army Corps of Engineers.

As Chairman of the Alaska Pipeline Commission, Ms. Jacobus acted as a quasi-judicial officer presiding at complex regulatory hearings. The Commission is responsible for regulating oil and gas pipelines in Alaska. As the representative for the OFI General Counsel in Alaska, she will handle all legal matters affecting the Alaska leg of the system, including providing legal counsel to the Alaska Deputy Federal Inspector, working with the Attorney General's office, and conducting any litigation in Alaska involving OFI.

Ms. Jacobus was the first woman elected to the Arizona University Board of Governors, and the first woman officer of the Phi Delta Phi professional law fraternity. A native of the Washington, D.C. metropolitan area, she received her Bachelor of Arts and Law Degrees from the University of Arizona.

SOUTH DAKOTAHOLDS HEARINGSON EAST LEGROUTE

The South Dakota Public Service Commission held a series of informational public hearings the week of December 10 as the first stage of its consideration of an application by Northern Border Pipeline company for a siting certificate to cross the state. The hearings were held in Leola, Aberdeen, Clark, Watertown, and Clear Lake. All three Commissioners attended the hearings, with the Chairman, Norma Klinkle, presiding. The hearings lasted from one to two hours, and attracted audiences of about 35 people, except in Watertown, which drew more than 60. The hearings were the first stage of the PSC process--consisting of information gathering. The second stage will be more formal evidentiary hearings. No date has been scheduled yet for that. Northern Border's application was filed with the PSC on October 15.

NORTHERN BORDERSIGNS LARGE STEELORDER CONTRACT

A contract for the largest single order of steel pipe ever awarded to a domestic company was signed on Nov. 24 between Northern Border Pipeline and Bethlehem Steel. Bethlehem Steel was authorized to begin manufacturing 139,000 tons of 42-inch diameter pipe, which will constitute the first phase of the East Leg.

The Bethlehem contract, worth over \$100 million, is the largest of five contracts in what is estimated to be the largest pipe purchase ever undertaken by a free-world company. The total

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tonnage of pipe covered by the contracts is 581,000 tons with a total value of almost \$500 million. Other mills involved in the total order are Kaiser - 136,000 tons; U.S. Steel - 73,000 tons; Italsider - 113,000 tons; and a Japanese consortium 120,000 tons. The contract decision was announced on September 30.

NORTHWEST EXPANDS
FROST HEAVE TEST
PROGRAM

Northwest Alaska Pipeline Company recently released a detailed description of continuing efforts to resolve the frost heave question. It is proceeding with installation of seven test pipe segments along the gas pipeline route in Alaska, despite the poor weather conditions.

The gas in the Alaska pipeline will be chilled below freezing to protect the permafrost (permanently frozen soils) in which the pipe is buried. In thawed soils, frost heave may occur primarily where moisture is attracted to the chilled pipe and freezes, creating a "frost bulb". The expansion of soil caused by this freezing phenomenon can result in an upward movement of the pipe. Northwest Alaska and Foothills Pipelines (Yukon), Ltd., the company responsible for the Canadian portion of the project, currently are testing various measures for controlling or minimizing frost heave. Two of the control measures being tested are insulation, and replacement of frost-susceptible soil with selected bedding material. Insulation, applied uniformly around the pipe, is most effective in reducing heat transfer. Selected bedding material, when used to replace frost-susceptible soil immediately below the pipe, reduces the over-all heave capability of the soil.

Northwest and Foothills are currently conducting a frost heave testing program near Fairbanks, and Calgary. These test sites best represent the range of frost susceptible, unfrozen soils along the pipeline route. They were confirmed by the soil samples obtained during the company's 1981 borehole drilling program. Each site will consist of two, 80-foot sections of 48-inch diameter pipe. One section will be a bare pipe and the other will have either insulation or insulation together with selected bedding material replacing native soil.

In addition to the seven new test sites, Northwest Alaskan's Fairbanks frost heave test facility is being expanded this year with two added test sections of 48-inch diameter pipe. The purpose of these differential test sections is to provide more data for frost heave analysis. Another eight test sections, 8 feet long, will be buried and later removed to obtain additional data for structural modeling.

The Update is published by the Office of the Federal Inspector, who is responsible for overseeing construction of the Alaska Natural Gas Transportation System. Inquiries should be directed to the Public Affairs Office, Office of the Federal Inspector, 1200 Pennsylvania Avenue N.W., Washington, D.C., 20044 (202) 275-0586.



Alaska Gas Pipeline Update

Office of the Federal Inspector
Alaska Natural Gas Transportation System

January 29, 1981
No. 16

FI APPROVES

AFFIRMATIVE

PLAN FOR

EAST LEG

The Federal Inspector on December 29 announced approval of the affirmative action and minority business contracting plan for the \$1.239-billion, 1,131-mile Eastern Leg. Approval followed months of negotiation between the Federal Inspector's Office and Northern Plains Natural Gas Company, managing partner for the consortium building the Eastern Leg.

The plan--which applies to the company, its contractors and subcontractors--sets employment goals for each of four minority groups and for females, for each employment classification. A total of 7,100 employees are expected to work on the Eastern Leg during the peak employment period.

The goal for Minority Business Enterprise (MBE) participation is 10 percent (\$20 million) of contractable opportunities and one percent for female firms (\$2 million). While the plan applies specifically to the first phase of construction in 1981-82, the company also committed to comparable goals for the remainder of the Eastern Leg construction, which will coincide with construction of the Alaskan segment.

The Federal Inspector said he views these goals as reasonable but conservative. He anticipates the company will exceed them in actual performance, even though he has no hard information on which to base these higher expectations.

Northern Border's plan contains a detailed list of contracting opportunities, with expected minority or female contract opportunities identified. The contracts to be awarded total \$870,227,000, of which \$200,000,000 are contractable opportunities. Of this about \$22,065,000 has been set as the goal for minority and female business opportunities.

The Eastern Leg affirmative action plan approval is the first to be given. Decisions on the Western and Alaska segment plans will be issued shortly.

Copies of the 141-page plan are available through the Omaha Field Office of the Federal Inspector, (11414 West Center Road, Suite 350, Omaha, NE 68144, phone 402-221-9555); OFI's Public Affairs Office in Washington; or from Northern Plains' Director of MBE/FBE, (224 S. 108th Ave., P.O. Box 3330, Omaha, NE 68103, phone 402-691-2145).

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Those interested in obtaining additional information on the plan or on its implementation should contact John Alexander, Director of EEO/MBE for the Federal Inspector, 1200 Pennsylvania Ave., N.W. 20044, phone 202-275-0582.

A fact sheet containing a detailed breakdown of employment and MBE goals, as well as a list of future East Leg contracts, is available on request from OFI Public Affairs.

EPB GETS
BRIEFING ON
PROJECT
STATUS

The eight agencies of the Executive Policy Board met December 18 in Washington, D.C. and received a detailed quarterly status report on the ANGTS. This was the last EPB meeting for BG Richard Kem, who represented the U.S. Corps of Engineers, Chairman agency of the board. General Kem will be replaced by Col. George Robertson, (BG designee), who prior to his current assignment served as the Alaska District Engineer for three years during TAPS construction.

Election of a new EPB chairman was postponed for several months to allow for transition to the new Administration. Executive Order 12142 requires EPB members to elect a chairman to serve a one-year term. The Corps has agreed to continue to serve as Chairman until the next EPB election.

Major points made in the various briefing areas were:

Financing

The Department of Energy reported that discussions are well under way in New York between development bankers representing the Alaska oil producers and the project sponsors. The bi-weekly discussions are zeroing in on what the institutions need to be willing to commit the financing, and guidelines will be set based on those needs. DOE speculated that changes might be needed in two earlier Government decisions before a financing plan could be assembled and approved: ownership of the gas conditioning plant, and equity ownership by producers.

Certificate of Cost Estimate

A series of technical conferences co-chaired by FERC and OFI were concluded recently on design and cost issues relating to the certification cost estimate filed by the project sponsor of the Alaska Leg. A report and recommendation to FERC by OFI and FERC's Alaskan delegate is being finalized as a result of these conferences and is expected to affect FERC's consideration of the sponsor's certificate application. Northwest is expected to file its financing plan in the next couple months. It is the last major missing piece the FERC needs before it can consider issuing a final certificate for the Alaska segment.

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Environment

The Federal Inspector announced that a five-member screening panel had examined 26 nominees to the Citizens' Environmental Advisory Committee and had recommended a number of them to him. He pointed out that under the provisions of the Committee's charter, he must consult with the Chairman of the Council on Environmental Quality before making his final selection, which will occur soon after the first of the year.

Socioeconomics

Chairman Kem reiterated the Board's interest in tracking progress by both the State of Alaska and Northwest in identifying and planning mitigation of specific socioeconomic impacts resulting from construction of the Alaska pipeline segment. He said some progress has been made since the EPB meeting in September in Fairbanks, and expressed regret that Charles Behlke, Alaska Pipeline Coordinator, was unable to attend the meeting because of poor weather in Alaska, to report on that progress. However, the Federal Inspector reported that since the last EPB meeting a Socioeconomic Advisor, Sheila Helgath, joined his staff, with duty station in Fairbanks, to coordinate with the State. He also reported that the State's socioeconomic stipulations were in final draft and will be filed with the FERC soon after the new year begins.

Training

The U.S. Department of Labor (DOL) reported that an ad hoc working group on training has begun to discuss the specifics of training programs needed, particularly in Alaska, to prepare minorities and women to work on the pipeline. DOL said that fiscal 1981 CETA (Comprehensive Employment and Training Act) funds for Native Americans have just been increased from \$3.3 million to \$6.6 million. DOL believes a good portion of those additional funds can benefit Alaskan Natives, either through traditionally-funded training programs or on-the-job training. With the latter, a portion of the funds could go directly to the company, assuming a proper program was in place to use the funds wisely. No date has been set for submission of proposals. Meanwhile, DOL said, what is needed is an inventory of types of jobs that will be available and the skills already present in Alaska. DOL, OFI, the sponsors, and the State will be working closely together, through the Training Task Force, to chart a course that will accomplish the training goals.

Frost Heave

Reporting on the work of the Cold Regions Engineering Technical Committee, the Committee chairman stated that seven additional chilled pipe frost heave test sites had been selected since the prior EBP meeting and that

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construction is under way on six of the sites. These will be operational between January 5 and February 28. The project sponsor will start laboratory tests which form the basis for the detailed mitigative frost heave design by mid-February. NWA is also developing a preventive or "no-heave" design. The mitigative design effort will continue and will be adopted if it proves feasible and economical.

FERC ISSUES FERC on December 15 invited public comment on its intent to adopt findings of audit reports done by its Chief Accountant on expenditures made through the end of 1979 by Alaskan Northwest. The three audit reports recommend that the company not be allowed to pass along to its customers some of the expenditures made. The continuing audits were required by the President's Decision, to assure that expenditures are proper and in line with FERC's Uniform System of Accounts. The show cause order, incorporates the audit reports, and is about 75 pages long, it is available for public inspection and copying in FERC's Public Information Office. Comments are due to FERC by February 15.

HEARING SET On December 8 the FERC and the Federal Inspector filed a joint motion for summary judgment with the U.S. District Court for North Dakota. The Court subsequently extended until February 10 the PSC's time to reply. It is anticipated that oral argument on the motion for summary judgment will be held in early March 1981.

IN NORTH

DAKOTA LAW

SUIT The central thrust of the two agencies' motion for summary judgment is that, taken together, the Natural Gas Act and the Alaska Natural Gas Transportation Act preempt the PSC from changing the route selected by the President and certificated by the FERC. This position is reinforced by the numerous opportunities for input provided to all of the affected States, including North Dakota, prior to the President's Decision.

SNAKE RIVER Two pipeline crossings of the Snake River are now under construction on the Western Delivery System, using the latest in technology and equipment. The Snake River, which divides Idaho and Oregon, is being crossed near Ontario, Oregon, and Mountain Home, Idaho. For both, the builder, Northwest Pipeline Corp., is drilling horizontally underneath the river and pulling the pipe through. The execution contractor, Reading and Bates of Houston, has been using this method of river crossing construction since 1971, but only since about 1976 has it been used with any frequency.

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The construction shown at right is in progress now at the Ontario site, where the river is 630 feet wide from bank to bank. In the foreground is the pilot drill, which is a 2-1/2-inch drill bit used for the initial pilot borehole, about 30 feet below the river bed. That is followed by an 8-inch bit, which is in turn followed by the 24-inch pipe with an auger mounted on the front, pulled through by a cable.



Work at the Ontario crossing is somewhat behind schedule because of alignment problems. However, it should be finished in February, at which time the drilling rig will move on to the Mountain Home site. The Western Delivery System is scheduled to be completed this summer to carry Canadian gas from Stanfield, Ore., to southern California this fall.

DOE
RECOMMENDS
LARGER PIPE
SIZE FOR
WESTERN LEG
SEGMENT

Department of Energy former Secretary Duncan on January 19 officially recommended to the Federal Energy Regulatory Commission (FERC) that PGT's remaining Western Leg facilities be 42-inches in diameter rather than the previously planned 36-inches. Duncan's letter said, "I believe my action will help avoid needless delays that could be caused by a certification letter during or following Commission proceedings.... Timely certification by FERC will assist in ANGTS financing."

A conference was held at DOE last December 30, attended by 24 persons. No one objected to DOE's proposition that the economic advantages would outweigh the additional \$102 million in capital costs for the 328-mile long segment. The northern portion of the Western Leg was upgraded to 42-inches last February.

Increase in the diameter will cost consumers little, FERC staff said at that conference, but will greatly increase pipeline capacity and substantially reduce fuel consumption per unit of gas transported. "The latter attribute takes on special importance because of the price increases for Canadian import gas since January 30, 1980, and the possibility of future increases," Duncan's letter said.

The sponsor of the Western Leg, Pacific Gas Transmission, plans to file its application for a certificate for second phase construction this spring.

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FERC
DELEGATES
COST AND
AUDIT
FUNCTION TO
FEDERAL
INSPECTOR

The FERC on December 29 published an order delegating to the Federal Inspector its authority to review and approve costs and related accounts of the Alaska Natural Gas Transportation System (ANGTS) for inclusion in the sponsors' rate base. The order applies to all three segments of the U.S. system.

Control of capital costs during construction is perhaps the most complex regulatory issue facing the ANGTS, the FERC order said. Both the FERC and OFI have cost control authority, which has two purposes: protection of the U.S. gas consumer from excessive transportation rates, and assistance to private financing of the system. The Commission said it believes this extremely important function should be performed by a single agency, and approved the order to remove any uncertainty as to responsibility.

Cost control responsibilities were, up until issuance of the order, more or less split, with FERC responsible for certification phase and the OFI construction phase. The only aspect of cost control oversight which required further delineation concerns rate base audit and approval. Both agencies agreed that, due to OFI's ongoing cost control responsibilities, the continued process of project rate base audit and approval during preconstruction and construction should rest there. When the project is completed and operational, the Commission will include the initial, OFI-approved project rate base in the project cost-of-service tariff for each U.S. Leg, and then begin its normal rate regulation.

Specifically, the delegation order transfers authority to review and approve ANGTS construction work in progress (for inclusion in rate base) under the Natural Gas Act; and authority to review and approve the sponsors' accounts and records under the Gas Act and the Uniform System of Accounts, and to monitor compliance with procurement policy and practices. Determinations of the Federal Inspector on the prudence of costs incurred and approval of their inclusion in rate base are final and not subject to review or appeal to the FERC.

Copies of the delegation order are available from OFI Public Affairs or FERC's Information Office (275-1118).

ALASKAN
ACTIVITIES

Field Report - Preliminary work on the Alaska portion of the gas line has, after an intense cold spell, resumed. Soil survey work using skilled geology teams on tracked drilling vehicles is again in progress along the gas line right-of-way. Installation of 48-inch pipe test sections in a variety of soil conditions at five locations along the pipeline route is also under way. Burial of pipe and instruments on one site is expected to be completed this month, three other sites

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are under construction, and two additional sites will be mobilized soon. These test sections will be chilled below freezing by compressors which cool and circulate oil in the pipe. Frost and ice conditions created by the chilled pipe will be monitored by instruments for analysis.

State-Federal Coordination - Weekly coordination meetings about gas line activities have been initiated between the State Pipeline Coordinator's Office and the Office of the Federal Inspector. Field monitors are able to report activities during their tour, summarize any problems, and receive guidance on the interpretation of stipulations and other issues.

Alaska Employment Opportunities - The editors of Alaska Magazine, in response to numerous letters to the editor about employment on the gasline, have warned not to expect employment on the gasline at this time. Entitled "Don't Call Us...", the article in the February 1981 issue states that many Alaskans have received job training and experience working on the Alyeska oil line and competition for the few gas line jobs available will be keen.

"The truth is there just won't be many jobs for outsiders on the Alaska portion of the gas line," the article continued; "like the Alyeska project, the gas line is expected to be a heavily unionized job, and union hiring halls in Alaska will, of course, give preference to their own members." The article further stated that at present no applications for construction jobs are being accepted, and early applicants will not receive advance consideration.

Material for the article was provided by Northwest Alaskan Pipeline Company, the Alaska Department of Labor, and the Office of the Federal Inspector.

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CANADIAN

NEWS

Gas Export Price to Increase - The export price of Canadian gas will increase to \$4.94 per thousand cubic feet effective April 1, the Canadian Minister of Energy, Mines and Resources announced recently. The current price of \$4.47 has been in effect since February 1980. The announcement said the increase is to help Canada achieve "substitution value," which links the price of Canadian gas exports to the cost of Canadian oil imports.

Environmental Protection - Foothills has asked Northern Pipeline Agency for approval of its plans for environmental protection while building the gas line in Alberta. The plans apply to the northern mainline segment, the eastern leg, and the remaining portion of the western leg to be built in 1985. The plans describe how environmental conditions are taken into account from the initial stages of planning and design, through completion of construction and operation.

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Business Opportunities - In another filing, Foothills asked NPA approval of a business opportunities plan for the \$242-million, 258-mile Saskatchewan segment. It describes how Foothills will provide Saskatchewan-based companies, especially those operating along or near the pipeline route, with fair and competitive business opportunities. Two steel companies in the region have already received large contracts for steel pipe, and an additional \$8 million has been targeted for goods and services to be supplied by local businesses. Comments on the plan have been invited.

PGT ACTIVITY Pacific Gas Transmission Company, the Western Leg sponsor, in the past several weeks took several actions in support of its ongoing construction. On December 22 it announced signing of a \$160 million loan by a consortium of nine U.S. commercial banks, for construction of the initial phase. The banking consortium was led by Bankers Trust Company. Earlier in the month the company sold 1.2 million shares of common stock to help finance the construction.

On January 19 PGT awarded a contract for compressor station modifications valued at about \$1.8 million, to Swinterton & Walbert Co., of Portland, Ore. Work will begin next month.

Another recently-awarded contract is for \$800,000 for radiographic examination of welds, to the joint venture of Exam Company and La Familia Espanosa. Exam is a subsidiary of the American Bureau of Shipping, a radiographic examination specialist. La Familia Espanosa, a minority business enterprise and the joint venture sponsor, is an industrial supplier which will provide personnel, management and training.

The Update is published by the Office of the Federal Inspector, who is responsible for overseeing construction of the Alaska Natural Gas Transportation System. Inquiries should be directed to the Public Affairs Office of the Federal Inspector, 1200 Pennsylvania, Avenue N.W., Washington, D.C., 20044 (202) 275-0586.



Alaska Gas Pipeline Update

Office of the Federal Inspector
Alaska Natural Gas Transportation System

March 26, 1981
No. 18

EAST LEG

GRANT ISSUED

The Department of Interior on March 11 issued the grant of right-of-way for the Eastern Leg of the system. It was signed in Billings, Montana, by Bureau of Land Management State Director Michael Penfold, and by Howard Hawks, President of Northern Plains Natural Gas, managing partner of the group building the East Leg.

The grant authorizes a 54-foot-wide right-of-way across 20 miles of federal lands--17 miles in Montana, and 3 in North Dakota.

This grant did not include approval to cross the Ft. Peck Indian Reservation in Montana, inhabited by Sioux and Assiniboine Indians. Northern Plains has negotiated separate agreements with individual Indian landowners and with the tribal council, which jointly owns about 17 miles of the total 89-mile length along the right-of-way that is on Indian lands. A separate grant will be issued by the Bureau of Indian Affairs in Montana for approval to cross these 17 miles of tribal lands, clearing the way for construction to begin in Montana this May.



Signing East Leg permit are, left to right, seated, Michael Penfold, BLM Director for Montana; Howard Hawks, Northern Plains President; standing, John Neuberger, Northern Plains Government Affairs Manager; Conrad Pyle, Vice President, Engineering and Construction; and Neil Morck, BLM Montana.

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APPROVAL OF
FINAL DESIGN
FOR EASTERN
PREBUILD

The Federal Inspector, in a March 20 letter to Northern Plains, gave the final design approval needed for initiation of construction on the Eastern Leg. This approval of the final design cost estimate and the construction schedule is required by the President's Decision and is intended to eliminate or minimize unforeseen engineering and delay costs and environmental problems before construction begins.

TENTATIVE
DECISION ON
EASTERN LEG
IROR

In a related action, the Federal Inspector on March 23 published a notice of his tentative decision on the adjustments to be made to the FERC-approved Certification Cost Estimate (CCE) used for calculating the Incentive Rate of Return (IROR). The Federal Inspector, in his March 20 letter approving the final design, design cost estimate, and schedule, accepted as reasonable some \$156 million in design and schedule changes made after FERC approval last April of a \$1.062 billion CCE. However, the FERC-established IROR mechanism requires that an additional determination be made on the appropriateness of including these same costs in the CCE for IROR-calculation purposes. The Federal Inspector has tentatively included \$145 million of additions in the CCE. The final determination is expected in the near future.

OFI SEEKS
PROPOSALS
FOR COMPUTER
SUPPORT
SYSTEM

OFI on March 24 issued a Request For Proposals to provide an integrated information management and communication system, to be called FIMIS (Federal Inspector Management Information System). Among the requirements are computer processing in all OFI locations, remote terminal systems, data entry, training, file maintenance and reports management. The proposal is somewhat unusual since the computer and communications system selected must have data entry and retrieval points at government and company offices in Calgary, Canada; Irvine and San Francisco, Calif; Anchorage and Fairbanks Ak., Omaha, Neb., and remote field locations along the pipeline route in Alaska and the Lower 48. The proposal is based on a system life of eight years.

A synopsis of the RFP was published in the February 25 Commerce Business Daily, page 2. Inquiries regarding the proposal may be directed in writing to OFI Contracts Management Division, Rm. 2413, 1200 Pennsylvania Ave., N.W., Washington, D.C. 20044.

SOCIOECONOMIC
ACTIVITIES

The State of Alaska, through its Pipeline Coordinator in Fairbanks, has recently issued two documents dealing with the socioeconomic impact of the gas pipeline project in that State. On March 18 it transmitted to Northwest Alaskan, for comment, a draft of socioeconomic stipulations it is considering as part of a lease for right-of-way to cross State lands. Northwest has not yet applied to the State for that Lease.

After receiving Northwest's comments, the State may revise the stipulations as necessary and then solicit general public comment. Copies of the 47-page draft stipulations are available on request from the State Pipeline Coordinator's Office in Fairbanks, 1001 Noble Street, 99701. A second document, filed February 13 with the Federal Energy Regulatory Commission, concerns recovery of certain limited and identified monitoring and socioeconomic costs incurred by the State of Alaska. The State believes such costs should be included in the certification cost estimate and recovered from the sponsors and ultimately paid for by the ratepayers. The costs identified by the State are, in 1980 dollars, \$51,255,900 for surveillance and \$19,784,100 for socioeconomic impact assistance, totaling \$71,040,000.

The FERC trial staff has questioned the appropriateness of including these costs in the cost estimate. In a February 26 letter signed by Staff Counsel to the Alaskan Delegate and the OFI Director of the Office of Audit and Cost Analysis, it reiterates its belief that costs incurred by the State to mitigate socioeconomic impacts would be more properly paid out of tax and royalty revenues from the project.

PGT SUSPENDS
CONSTRUCTION
IN IDAHO

Due to abnormally wet and muddy ground conditions in northern Idaho this winter, Pacific Gas Transmission Co. suspended most construction activities on Loop I on February 19. Work on Loop I should resume around April 1. The anticipated May 13 completion date for that loop has been extended to June 30. This delay will not affect the projected operation date of October 1, 1981 for the first phase of the project, which will allow Canadian natural gas to be transported to southern California.

Meanwhile the prime contractor, MK-River/NANA, on February 25 commenced construction in Oregon on Loop IV near the Washington-Oregon border. That spread of equipment is expected to next proceed northerly to Loop III. As Loop I and Loop III are completed the two spreads will proceed on to Loop II for completion of the construction.

EAST LEG
STATES NEWS

Northern Plains Files Suit Against Minnesota County - Northern Border Pipeline Co. on March 13 filed suit in U.S. District Court in Minneapolis, Minn., against Jackson County, and at the same time requested a preliminary injunction. At issue is a recently-imposed County requirement that the entire pipeline segment across that county be covered with 6 feet of soil. Northern Border contends that Jackson County's restrictions over such requirements are preempted by present Federal regulations. The company proposes to use three feet of cover except when crossing drain tile systems used for agricultural purposes, when the cover would be as deep as necessary to assure 12 inches of clearance between the pipeline and the drainage system. A hearing on the issue is scheduled for April 20 in Minneapolis. Construction in Minnesota is to begin May 1.

Iowa Issues Permit - Iowa State Commerce Commission on January 15 issued a permit allowing Northern Border to proceed with construction of the East Leg as far as Ventura. The line will cover about 50 miles through Kossuth, Winnebago and Hancock counties. A separate permit must be issued later for the completion phase of the pipeline, which will cross eastern Iowa and enter Illinois near Davenport.

South Dakota Holds Hearing - The South Dakota Public Utilities Commission on February 23-24 held an evidentiary hearing in Watertown, S.D., on Northern Border's application to cross that state. Briefs by the parties were filed by March 23, and decision is expected shortly after that. Among those present at the hearing were a number of farmers concerned about removal of top soil from the pipeline right-of-way. A consultant to the South Dakota Commission has recommended that top soil be removed not only from the trenches, but also from anywhere on the right-of-way where heavy machinery will be used. The conditions which accompany the permit may address this and other issues of concern.

SNAKE RIVER

BORING

ABANDONED

Boring under the Snake River on the Oregon-Idaho border near Ontario, Oregon, has been abandoned due to technical problems resulting from the gravel river bed. Two Snake River borings had been planned by Northwest Pipeline Corporation for the Pan-Alberta Project, the second being near Glens Ferry, Idaho. The prime contractor for the borings, Reading and Bates, has withdrawn after failing in its third attempt to pull 24-inch pipe through after completing original and revised piloting bores. As a result, both will now be "wet," with the pipeline laid in the traditional manner in a trench excavated in the bottom of the river. This change of construction mode will not delay completion of the Western Delivery System expansion, scheduled for late summer provided the necessary state and Federal permits are obtained on a timely basis. The OFI's San Francisco Field Office is assisting in expediting the permits.

SCHROEDER

NAMED OFI

ONE-WINDOW

Dennis Schroeder, OFI's Director of the Omaha Field Office, on March 9 was officially delegated by the Federal Inspector the one-window authority for East Leg transactions. Schroeder will receive all communications from Northern Plains, the East Leg sponsor in Omaha, with final signature authority for all OFI approvals, letters and instructions. The only exceptions are Canadian procurement matters, audit and approval of costs for inclusion in Northern Plains' rate base, scope changes, and legal opinions. Because these are highly specialized areas they will continue to be handled by OFI headquarters.

The delegation is in keeping with OFI's mandate to simplify the government process. It reduces the number of government agencies and contact points the sponsor company must deal with. Leo Bellarts in OFI's San Francisco Field Office has a similar delegation of authority for the West Leg.



Pictured at left is OFI's East Leg Director, Dennis Schroeder, and seated is Federal Inspector John T. Rhett.

The Omaha Field Office expects to have about 12 employees when construction peaks next year.

CANADIAN NEWS President's Visit

President Reagan visited Canada March 10-11, and during the visit he expressed support for the joint U.S.-Canadian gas pipeline project. Specifically, in his address to Parliament he said, "Our governments have already discussed one of the largest joint private projects ever undertaken by two nations--the pipeline to bring Alaskan gas to the continental United States. We strongly favor completion of this project based on private financing."

NEB Hearings on Rates

Canada's National Energy Board will hold hearings March 31 on the transportation rates to be charged by Foothills Pipe Lines, the Canadian pipeline sponsor. Among the things it will consider is the examination of Foothills Pipe Lines final design cost estimate for portions of the East and West Legs.

Right-of-Way Orders Issued

The Designated Officer within the Northern Pipeline Agency, William Scotland, has recently issued 52 orders approving the company's request to take additional land along the right-of-way in Alberta. Foothills told NPA it needed the additional land to prepare a permanent working space for proper separation and restoration for storage of top soil as well as to permit greater ease of mobility for construction crews and machinery. The authorizing statute provides that a 60-foot right-of-way is automatically granted. If the company needs additional land it must file an application with the Designated Officer, who may hold public hearings before the application is acted on.

ALASKAN NEWSOffice Moves

OFI Anchorage on March 28 is moving to 605 West 4th Avenue, Room 107. Its current address is 900 West Fifth Avenue. The pouch number, which expedites mail arrival, will remain 6619 and the phone number will remain (907) 271-3668.

Northwest's Alaska headquarters recently relocated to the North Star Terminal, at 701 Douglas Avenue, Fairbanks, necessary because of expanding field activities and staff. Fluor, its prime contractor, also moved its offices to the same location.

Surveys

Northwest Alaskan reports that the Alaska field survey program for 1981 will employ approximately 150 people. There are currently 550 persons working on the project in Alaska: 51 Northwest Alaskan employees, 86 Fluor personnel, and 413 contractor personnel. Of these more than 81 percent were local Alaskan hires. Employment by these three entities in Alaska is expected to peak at over 700 this year. Fluor, Gulf Interstate/Michael Baker, Joint Venture, and International Technology Limited (Itech), will be doing most of the hiring for the survey program. The survey will gather data for the design of the pipeline, compressor and metering stations and temporary facilities. Pipeline centerline surveys will be done on 293 miles of the proposed alignment not completed in 1980.

Borehole Drilling

Borehole drilling for 1981 to determine subsurface soil and frost conditions along the proposed route of the gasline is well under way. Over the past 6 years more than 2,600 boreholes have been drilled in Alaska for the project.

Frost Heave

Installation of six chilled pipe test sites is in progress by Northwest. The Livengood I site is operational and the others are expected to be operational by mid-April. Each site will have two 80-foot sections of 48-inch diameter pipe, buried to provide data on the effects of chilled pipes in a variety of soil conditions.

The Cold Regions Engineering Technical Committee has been very active during the last few months. The Field Investigations and Testing Task Group has made three trips to the field; the Pipe-Soil Structural Task Group met with NWA in Irvine and its designers in Houston to discuss advances in the structural design methodology; and the Laboratory Testing and Modeling Task Group met with NWA to review results of frost heave laboratory testing, including an on-going sensitivity test program on Fairbanks silt, a laboratory uplift resistance program, and the centrifuge testing program.

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Other Field Studies

Additional field studies to be continued this year in Alaska include controlled blasting and trench excavation, weld testing, fault studies, work pad assessment, fisheries studies, cathodic protection, material site exploration, airport and temporary facility surveys, microearthquake monitoring, soil resistivity, and terrain stability. Environmental studies include archaeology, raptors, caribou, fish stream surveys, and forest resources.

EPA GRANTS

AIR QUALITY

PERMITS

The Environmental Protection Agency on February 23 issued air quality permits for seven pipeline compressor stations in Alaska. EPA, under the Clean Air Act, had to ascertain that compressor station construction and use of gas field turbines will not cause deterioration of the air quality. The approval allows Northwest Alaskan now to obtain manufacturers' bids on the units to be installed at each location.

The seven compressor stations are located 80 to 130 miles apart along the Alaska route. Two stations will be north of the Brooks Range, three will be between the Brooks Range and Delta Junction, and two between Delta and the Canadian border.

MINORITY FIRMS

GET EAST LEG

BONDING

PROJECT

Northern Border has contracted with two minority brokerage firms to handle its \$.5 billion bonding program. Avenue Insurance, based in Braintree, Mass., will be the lead broker, with Davis and Associates of Omaha the other half of the team. In announcing the agreement, Northern Plains President Howard Hawks said, "Both companies bring to the Northern Border Project many years of expertise in creating new bonding resources for female and minority enterprises, in providing unique professional assistance in the procurement of bonds and in obtaining working capital loans."

MINORITY

SUPPORT

CONTRACTS

EXPIRE

Two contracts awarded by the U.S. Department of Commerce in 1979 to assist the West and East Leg sponsors in their affirmative actions and minority business programs have expired. The contracts, awarded by Commerce's Minority Business Development Agency, were to Nelson Peters and Associates of Omaha, which expired Feb. 28, and to Urban Development Management (UDM) of Washington, D.C., expiring March 31.

Pacific Gas Transmission's affirmative action plan has been approved and construction is well along. The short duration of the Western Leg construction, coupled with the fact that the majority of the contracts will be let in the very near future, reduces the need for the type of support that UDM was hired to provide. On the Eastern Leg, Northern Plains' affirmative action plan has been approved, and its construction begins May 1. It is therefore moving into a new phase of minority involvement, one of soliciting and evaluating bids from potential contractors rather than

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identifying minority firms. Northern Plains has in the last few months contracted with five engineering companies to help minority and female firms bid on contracts to be awarded and help it assess technical proposals by minority firms.

COST ESTIMATE A final technical conference began March 23 in Tulsa, Oklahoma, to discuss comments on an analysis of the certificate cost estimate for the Alaska segment filed last July by Northwest Alaskan. The analysis is in the form of a draft report by John Adger (FERC Alaskan Delegate) and Richard Berman (OFI Director of Audit and Cost Analysis). That draft was sent for comment to those who have been parties to the technical conferences held over the last several months.

CONFERENCE

SET FOR

MARCH 23

The purpose of the conferences was to help the Commission identify outstanding design changes, estimate their potential cost, and assess the validity of Northwest's cost estimate. The draft report will, after the Tulsa conference, be finalized and officially transmitted to the FERC.

The cost estimate issue is one of several FERC must decide in considering issuance of a final certificate to Northwest. Transmittal to the Commission is expected to occur in early April, at which time the report will be available for public inspection and copying. Questions about availability of the draft report should be directed to Jeanne Barrie, FERC, 357-8900.

The March 23 conference is being held at the headquarters of Williams Brothers Engineering Co., which was awarded a contract to technically assist OFI in analyzing the cost estimate.

The Update is published by the Office of the Federal Inspector, who is responsible for overseeing construction of the Alaska Natural Gas Transportation System. Inquiries should be directed to the Public Affairs Office of the Federal Inspector, 1200 Pennsylvania, Avenue, N.W., Washington, D.C. 20044 (202) 275-0586.



Alaska Gas Pipeline Update

Office of the Federal Inspector
Alaska Natural Gas Transportation System

April 28, 1981
No. 19

NORTHERN BORDER

POISED TO BEGIN

EAST LEG

CONSTRUCTION

One by one, the mile markers toward construction of the Eastern Leg are falling away and Northern Border is mobilizing for the culmination of many years of work--start of construction of 823 miles of its 1,131-mile segment of the Alaska gas pipeline system.

The Federal Inspector's Office on April 18 signed a Notice to Proceed, the final green light needed to allow construction to begin May 4 on six "spreads," or segments, in Montana, South Dakota, Minnesota and Iowa. Other recent positive developments:

- * A final design cost estimate for the Eastern Leg was signed by the Federal Inspector on April 15. That estimate of \$1,226,462,100 will be the basis for the incentive rate of return mechanism which will determine Northern Border's rate of return. The East Leg Final Design Cost Estimate Report is available on request from OFI's Office of Public Affairs.

- * The South Dakota Public Utilities Commission on April 13 issued its decision and order to Northern Border authorizing construction of the Eastern Leg through the northeastern corner of the State. The permit was accompanied by 23 terms and conditions designed to protect legal, environmental, safety and landowner interests. A large concern of the Commission and local landowners was soil compaction from heavy equipment to be used along the pipeline trench. Originally, Northern Border proposed separating topsoil only if the landowner requested and only on the 7-foot-wide trench. The permit requires topsoil separation on a 30-foot area of the working side of the trench, in addition to the 7-foot-wide trench, unless otherwise authorized by the landowner.

- * The Department of Interior's Bureau of Indian Affairs on March 25 confirmed the Tribal Council's earlier approval and granted right-of-way to Northern Border Pipeline Co., the Eastern Leg sponsor, to cross the Fort Peck Indian reservation in Montana. BIA's grant allows the company to clear and remove all timber and brush twenty-seven feet on either side of the right-of-way centerline. The easement is valid until March 31, 1984, unless the company fails to comply with certain conditions or requirements.

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* Northern Border plans to hold a groundbreaking ceremony May 5 near Aberdeen, South Dakota, to commemorate start of construction. Michael Butler, potential Chairman Designate for the Federal Energy Regulatory Commission, is scheduled to be a keynote speaker for that event.

OFI/FERC NORTH

DAKOTA LAWSUIT

RESOLVED

On April 2 the U.S. District Court for North Dakota granted a motion for summary judgment in favor of OFI and the FERC in a lawsuit filed against North Dakota's Public Service Commission in September 1980. Judge Bruce Van Sickle concluded in the April 2 order that the challenged North Dakota statutes conflict with the Federal Government's authority to route the ANGTS Eastern Leg in North Dakota.

Both Federal agencies contested the PSC decision to change the route selected by the President and certificated by the FERC. The court held that "the provisions of the Alaska Natural Gas Transportation Act describe a pervasive scheme of Federal regulations directed to every aspect of this unique pipeline, including its route across North Dakota." In addition prior to final system selection, state governors, any municipality and state utility commissions had opportunity to comment on the FERC's report recommending a system for delivery of natural gas.

Legal staff for the Federal Inspector, the FERC, the North Dakota Public Service Commission and Northern Border Pipeline Co. are coordinating preparation of a final judgment to aid in implementing the decision.

7TH QUARTERLY

REPORT AVAILABLE

On April 24 sent the Federal Inspector sent his seventh quarterly report on progress of the Alaska gas pipeline system to Congress. The 12-page report includes the following current information:

- * an Emergency Salvage Plan to assure protection of cultural resources along the Eastern Leg route has been drafted, and will be issued in final form by mid-April.
- * OFI has made initial contacts with members of an ad hoc committee which will develop plans for training persons for employment on the Alaskan segment. A formal meeting with all representatives from the various agencies and private entities or interest groups will be held in mid-May.
- * OFI is working with the State of Alaska to develop a series of public information presentations to inform Alaskan communities and civic groups about ANGTS and the responsibilities of the OFI and SPCO.

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OFI LEGAL ACTIONS

The Office of the Federal Inspector recently issued two rulemaking orders and one notice of proposed rulemaking. These documents, summarized below, were published in the Federal Register April 16 and are available from OFI's Office of Public Affairs.

EEO Enforcement

These regulations set out in detail OFI review procedures to assure sponsor, contractor and subcontractor compliance with their approved affirmative action plans. The procedures include complaint investigations, conciliation, and administrative and judicial enforcement tools. The regulations provide for:

- * spot checks on construction sites as a means of monitoring compliance;
- * Equal Employment Opportunity Commission processing of all complaints of employment discrimination within its jurisdiction, but OFI may also become involved under certain circumstances;
- * goals and timetables in the affirmative action plan will be used as one factor in compliance evaluation;
- * project sponsors are ultimately responsible for the achievement of contractor and subcontractor goals as well as their own;
- * in cases of flagrant and continuing affirmative action plan violations which thwart Congressional and Presidential objectives, the Federal Inspector may use his stop-work authority to assure that corrective measures are taken.

Omnibus Information Regulations

OFI has proposed omnibus information regulations not only governing Freedom of Information (FOI) requests, but also covering the treatment of sensitive and business documents. In addition, the regulations describe the procedures for the Federal Inspector's exercise of his broad subpoena powers. Written comments on the proposed FOI regulations may be filed by May 18 with OFI's General Counsel.

Final Rule on OFI Functions

This rulemaking order describes the purpose, power, duties and organization of the OFI.

REPORT ON ALASKANCOSTS DELAYED

The "Adger/Berman Report" analyzing the cost estimate for the Alaskan pipeline segment will not be finalized and transmitted for FERC consideration for about two months. This information was contained in an April 10 "Second Interim Report" to FERC by John Adger, FERC Alaskan Delegate, and Richard Berman, OFI Cost and Audit Director. A draft report was previously sent out to

(more)

involved parties for comment, and a week-long conference was held in Tulsa, Ok., beginning March 23 to receive comments. Additional information is to be filed by Northwest Alaskan, and therefore the finalization process will not be completed before late June.

The interim report states the authors have received advice which "corroborates our own view that the major technical issues on the Alaska segment and their cost implications are well understood." It attaches a letter from OFI's Engineering Director assessing where the sponsors are in design finalization.

The 7-page interim report is available through Jeanne Barrie at FERC, 357-8900, or OFI Public Affairs.

CANADIAN SENATE
MEMBERS TO VISIT
ALASKA

The Canadian Senate's Special Committee for the Northern Pipeline Agency will be in Alaska June 3-5, to visit with State, Federal, and industry representatives responsible for oil and natural gas production in Alaska.

In addition to meeting with the Governor and State officials in Juneau, the 21 member group, headed by Committee Chairman Earl Hastings, will meet with the Alaska State Pipeline Coordinator, the Office of the Federal Inspector, and the Vice President in charge of Alaska Operations for Northwest Alaskan Pipeline Company in Fairbanks.

They are scheduled to tour the permafrost research tunnel operated by the Army Corps of Engineers and the University of Alaska in Fairbanks, and will visit Northwest Alaskan's Frost Heave Test Facility just outside Fairbanks. The group will tour the petroleum production facilities at Prudhoe Bay and will then travel to Inuvik and Tuktoyatuk, Canada, to meet with company and local representatives and tour oil and gas exploration facilities in those areas.

FEDERAL INSPECTOR
TESTIFIES ON 1982
BUDGET

Federal Inspector John Rhett on April 21 testified before the Senate Appropriations Subcommittee, chaired by James McClure of Idaho. After reading a short statement, Mr. Rhett responded to questions from Sen. McClure, the only Member present. (Congress was in recess and very few Congressional hearings were being held.)

The questions were on such subjects as the status of the conditioning plant, project schedules, logistics of the planned office move to Alaska, and the Citizens' Environmental Advisory Committee.

Copies of Rhett's prepared testimony are available from OFI Public Affairs.

ENVIRONMENTAL
TEAM GEARS UP
FOR BIG TASK

OFI's Office of Environment, headed by Lawrence Birke, is now into its most important task--reviewing engineering design for the Alaska pipeline segment to ensure all necessary environmental protection measures are incorporated. This process must be thorough, but must avoid delaying the flow of design documents into bid packages.

Smooth operation of this effort requires close interaction between OFI's engineering and environmental staffs, both of which are located in Irvine, Calif. and with Northwest Alaskan and the Alaska Pipeline Coordinator's Office.

A list of design review items is being compiled by OFI's engineering and environmental staffs, and the first design items are scheduled to be submitted by Northwest for OFI review this month. Bill Black, OFI Engineering Director, will be the one-window for OFI project design review.

A second priority of OFI's environmental team is oversight monitoring and follow-up review of restoration activities for lower 48 construction. This will include in-depth analyses to assess the adequacy of selected environmental protection measures, and identification of the most environmentally sensitive areas so OFI field monitoring staff can be used efficiently.

There are currently eight employees in the Office of Environment which is scheduled to build to 17 by year end. Staff experts will include civil engineers who specialize in environmental matters, fish and wildlife biologists, and restoration ecologists.

OFI OPENS
WASHINGTON
CONSTRUCTION
OFFICE

OFI established a construction office in Wallula, Wash., on March 23 adjacent to PGT Compressor Station #8, approximately 20 miles southeast of Pasco, Washington. Construction started in northern Oregon in late March, moving into southern Washington early April.

The Wallula Construction Office mailing address is:

Office of the Federal Inspector/ANGTS
 Wallula Construction Office
 P.O. Box 7187
 Kennewick, Washington 83864
 (509) 547-5515

CONSTRUCTION
RESUMES ON WEST
LEG LOOP 1

Construction resumed March 30 on Loop 1 of the Western Leg in Bonner County, Idaho, by Pacific Gas Transmission's West Leg contractor MK-River/ NANA.

In late February construction was stopped due to unseasonably warm weather and heavy rains causing the right-of-way to be

impassable with mud. The construction suspension delayed Loop 1 completion to June 30, but the October 1 first-phase construction completion date remains unaffected.

GAO REPORT
AVAILABLE ON
ALASKA PIPELINE
ENVIRONMENTAL
PROBLEMS

The Government Accounting Office (GAO) recently issued a report entitled "Environmental and Other Problems along the Alaska Pipeline Corridor" which discusses environmental study results assessing the impact to Federal lands along the Alaska haul road, parts of the Trans-Alaska Pipeline System (TAPS), and a portion of the proposed Alaska Natural Gas Transportation System (ANGTS) route.

The April 8 environmental report summarizes the possible negative environmental impacts to Alaska haul road Federal lands; Federal and state efforts to heal present environmental damage; and the need for prevention of future environmental damage.

Addressed to the Secretary of Interior, James D. Watt, the April report supplements a January 6 study that identified the need for additional TAPS monitoring and DOI action to assure Alaska compliance with haul road right-of-way provisions, and problems in controlling adverse impacts when the road is subjected to increased industrial and public use this summer.

Copies of both reports can be obtained from the Government Accounting Office of Public Information at 441 G St. N.W., Rm. 1518, (202) 275-6241.

The Update is published by the Office of the Federal Inspector, who is responsible for overseeing construction of the Alaska Natural Gas Transportation System. Inquiries should be directed to the Public Affairs Office of the Federal Inspector, 1200 Pennsylvania Avenue, N.W. Washington, D.C. 20044 (202) 275-0586.



Alaska Gas Pipeline Update

Office of the Federal Inspector
Alaska Natural Gas Transportation System

June 3, 1981
No. 20

FINANCING AGREEMENT REACHED ON ALASKA SEGMENT

Agreement has been reached between the pipeline sponsor consortium for the Alaska segment and the three major gas producers in Prudhoe Bay--Exxon, Sohio, and Atlantic Richfield--for financing of the Alaskan segment. The agreement was outlined in a May 21 letter from Northwest Alaskan's Board Chairman John McMillian to Secretary of Energy Edwards and others.

The basic agreement provisions as set out in the letter are:

- For purposes of financing, the "as spent" cost of the Alaskan pipeline will be \$21 billion, and the plant will be \$6 billion. In addition, a pre-committed completion assurance pool of \$3 billion will be formed.
- The debt/equity ratio for all capital investment will be 75:25.
- The investment limits for all participating companies will be defined from the outset. As a group, the transmission companies will provide equity in an amount not to exceed \$5.25 billion. As a group, the producer companies will provide equity in an amount not to exceed \$2.25 billion, and be further responsible for arranging an amount of debt not to exceed \$6.75 billion.
- The Alaskan Northwest partners will own 70% of the pipeline and the plant, and the producing companies will own 30% of the pipeline and the plant. Equity commitments to the completion assurance pool will be made on the same 70:30 ratio.
- Debt funds (pipeline and plant) will be sought on a project credit basis. The transmission group will be responsible for arranging \$15.75 billion in project debt. The producer group has accepted responsibility for arranging \$6.75 billion in additional project debt. The debt, which the producers are responsible for arranging, will include terms and conditions equivalent to those accorded for other project debt.

The pipeline consortium and the producers are presenting this agreement to prospective lenders, and expect soon to seek Congressional action to remove any legal impediments.