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Alaskan Northwest Natural Gas Transportation Company

Partnership Map





Alaskan Pipeline

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FOR IMMEDIATE RELEASE

ALASKAN FIRM IS AWARDED
CORRIDOR STUDY FOR GAS PIPELINE

Fairbanks, April 10 -- Northwest Alaskan Pipeline Company has contracted with an Alaskan firm to assist Alaska gasline corridor communities in developing baseline information to facilitate planning for the gas pipeline, it was recently announced by Jack Bachman, vice president-Alaskan Operations for Northwest Alaskan.

Darbyshire & Associates of Anchorage is conducting socioeconomic baseline profiles for the communities of Delta Junction, Dot Lake, Tanacross, Tok, Tetlin and Northway; all of these communities are along the proposed route of the Alaska Highway gas pipeline project. Darbyshire & Associates recently completed similar profiles for 25 communities in the Lower Yukon/Kuskokwim Region of Alaska.

The studies will provide key community planning data on such items as land use, land status, existing utilities, topography and soils, flood and erosion hazards, climatic and related environmental conditions, natural resources, transportation and communication systems, history, population, economy and government.

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The profiles will be completed in June and will be included in Northwest Alaskan's certificate filing with the Federal Energy Regulatory Commission.

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Alaskan Pipeline

1980 ACTIVITIES

- Budget \$127.5 million
- Conduct Major Field Programs
- Complete Project Financing Plan
- Obtain Federal and State R.O.W.
- Complete Filing Design
- File for Final FERC Certificate

3/25/80



Alaskan Pipeline

1979 KEY EVENTS

- President Carter publicly expresses commitment
- Congress establishes:
 - Office of the Federal Inspector
 - Executive Policy Board
- Prudhoe Bay reserves committed
- New Partners:
 - TransCanada Pipelines
 - American Natural Resources

FERC ACTIONS

- Incentive Rate of Return
- Tariff
- Pipe Size and Pressure
- Processing Plant
- Western Prebuild
- Import Authorization

OTHER GOVERNMENT ACTIONS

- Provisional approval of alignment
- Approved stipulations
- EEO/MBE regulations in final stage
- Permitting for field programs

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Alaskan Pipeline

ALASKA NATURAL GAS TRANSPORTATION SYSTEM

-- FACT SHEET --

PROJECT DESCRIPTION:

The ANGTS is the largest private construction project of its kind in history. It consists of four integrated pipeline segments (Alaska, Canada, U.S. Eastern leg and U.S. Western leg) that will operate jointly to bring natural gas from the Prudhoe Bay region of Alaska's North Slope southward through Canada to markets in the lower 48 states. The system will transport approximately 26 trillion cubic feet of proven natural gas reserves over the next 25-30 years, supplying about five percent of the entire country's natural gas needs. It is estimated that over ten times that amount in Alaskan gas reserves can be made available through exploration and development over the next twenty years. The total system authorized by the Canadian and U.S. governments consists of some 4,800 miles of pipeline ranging in size from 36 to 56 inches plus other related facilities.

PROJECT SPONSORS:

Alaska

The Alaskan Northwest Natural Gas Transportation Company, a consortium of seven major gas transmission companies, will be responsible for designing, building and operating the Alaskan segment. The operating partner for the consortium is Northwest Alaskan Pipeline Company (formerly Alcan Pipeline Company) whose proposal was selected by President Carter in September 1977 as the preferred method of transportation for Alaskan North Slope gas. Northwest Alaskan is a wholly-owned subsidiary of Northwest Energy Company of Salt Lake City, Utah.

Joining Northwest Alaskan Pipeline in constructing the Alaskan segment of the pipeline are: American Natural Alaskan Company, a subsidiary of American Natural Resources Company, Detroit, Michigan; Northern Arctic Gas Company, a subsidiary of Northern Natural Gas Company of Omaha, Nebraska; Pan Alaskan Gas Company, a subsidiary of Panhandle Eastern Pipe Line Company, Houston, Texas; United Alaska Fuels Corporation, a subsidiary of United Gas Pipe Line Company, Houston, Texas; Alaska Energy Company, a subsidiary of Pacific Gas & Electric Company, San Francisco, California; and Pacific Interstate Transmission Company (Arctic), a subsidiary of Pacific Lighting Corporation of Los Angeles, California.

Canada

Alberta Gas Trunk Line Company Ltd., of Calgary, Alberta and West-Coast Transmission Company, Ltd., of Vancouver, British Columbia, principal sponsors of the project in Canada, have formed Foothills Pipe Lines (Yukon) Ltd., to design, construct and operate the system in Canada.

U.S. Eastern Leg

A consortium of U.S. and Canadian transmission companies headed by Northern Plains Gas Company, a subsidiary of Northern Natural Gas Company, has formed the Northern Border Pipeline Company to construct the U.S. Eastern Leg of the pipeline system. Other partners are: Northwest Border Pipeline Company, a subsidiary of Northwest Energy Company; Pan Border Gas Company, a subsidiary of Panhandle Eastern Pipe Line Company; United Mid-Continent Pipeline Company, a subsidiary of United Gas Pipe Line Company; and TransCanada Border Pipeline Ltd., a subsidiary of TransCanada Pipelines Ltd., Toronto, Canada.

U.S. Western Leg

Pacific Gas and Electric Company and its affiliate, Pacific Gas Transmission Company, will plan, design, construct and operate the U.S. Western Leg.

ROUTE:

The pipeline begins at Prudhoe Bay and follows the existing Alyeska oil pipeline 548 miles south to Delta Junction, just south of Fairbanks. For the remainder of the 743-mile Alaskan segment, the line will diverge from the oil line and follow the Alaska Highway to the Canadian border. In Canada, the route proceeds southeasterly through the Yukon Territory and British Columbia and into Alberta to James River where the pipeline will separate into eastern and western delivery systems. The western leg, carrying approximately 30 percent of the gas, will proceed through British Columbia, cross the U.S. border at Kingsgate, British Columbia, and pass through northern Idaho, southeastern Washington, central Oregon and northern California with delivery at Antioch, California. The eastern leg will cross the U.S. Border at Monchy, Saskatchewan, where approximately 70 percent of the gas will be delivered into the proposed Northern Border Pipeline for redelivery to U.S. markets in the midwest, south and east.

DESIGN:

The initial capacity of the total system will be 2.0 to 2.4 billion cubic feet per day of Alaskan gas, expandable up to 3.2 billion cubic feet per day. In addition to Alaskan gas for U.S. markets, the Canadian portion will be designed to transport up to 1.2 billion cubic feet per day of gas from Canada's Mackenzie Delta for Canadian markets.

The 743-mile Alaskan segment will consist of a 48-inch diameter pipeline operated at 1260 psig pressure. The 48-inch 1260 psig line continues into Canada where the 1,078-mile section from Whitehorse, Yukon to James River, Alberta will consist of 56-inch pipe at 1080 psig pressure. At James River, the line divides into a 496-mile eastern segment of 42-inch pipe and a 282-mile western segment of 36-inch pipe. Crossing the U.S.-Canadian border, in the lower 48 states, the eastern leg will consist of 1,117 miles of new 42-inch pipeline at 1440 psig pressure, and it is expected that the western leg will involve 911 miles of looped 42-inch line, at 911 psig, on the existing right-of-way of the Pacific Gas Transmission/Pacific Gas and Electric system.

PROJECT COST ESTIMATE:

The presently estimated capital cost, escalated to the date of expenditure and based upon a three-year delay from the originally planned in-service date in early 1983, is approximately \$15 billion excluding the cost of money during construction. Of this amount, about 45 percent is attributable to that portion of the pipeline to be constructed within the State of Alaska, 35 percent is attributable to that portion of the pipeline to be constructed in Canada, and 20 percent is attributable to those facilities which will be added in the lower 48 states.

PROJECT SCHEDULE:

Although project sponsors are prepared to meet a 1984-85 in-service date, recent reports indicate that the conditioning plant for natural gas from Prudhoe Bay cannot be completed until the 1985-86 heating season, even if work is commenced immediately. If the plant cannot be built to coincide with the 1984-85 pipeline schedule, a year's delay in completion of the project appears inevitable. Under a schedule reflecting this delay, final financing arrangements and filing for government approvals will be made in 1980, detailed project design will be completed in 1981, acquisition and preparation of temporary facilities will be accomplished in 1982, civil construction will commence in 1983, and actual pipeline and compressor station construction will commence in 1984 with completion and operation scheduled for the 1985-86 winter heating season.

**DELIVERED COST
AND BENEFITS:**

Although capital costs are high, under present plans the transportation cost of service, including the field price for Alaskan gas, will be within the range of \$5 per MMBtu initially and declining in constant 1980 dollars due to depreciating fixed costs to under \$4.00 per MMBtu in 1990. The initial cost is less than the current cost of heating oil and

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equal to the current cost of imported crude oil. Based upon an independent study, the net national economic benefit for the project ranges from \$10.4 billion to \$23.5 billion. With respect to the nation's overall energy picture, Alaskan gas represents a proven and dependable domestic source of supply. Its marketability is assured because of the rapidly escalating cost of foreign oil, more than sufficient demand for natural gas to absorb all Alaskan volumes over the life of the project, and a regulated base field price established by the Natural Gas Policy Act of 1978.

**PREBUILDING FOR
CANADIAN IMPORTS:**

Northwest Alaskan Pipeline Company has signed contracts for importation of surplus volumes of Canadian gas which will be delivered through southern portions of the line constructed prior to completion of the total system. There are several advantages to the overall project of prebuilding. Among the advantages; prebuild results in: an increase in needed near-term gas supplies to markets in the U.S.; lower transportation costs because earlier installation of facilities avoids higher inflationary costs; earlier depreciation of facilities which helps to lower the cost of service when Alaskan gas comes on stream; and spreading out the total program over a greater period of time by constructing about 30% of the pipeline system in advance and lessening the impact of the project on availability of labor, materials and capital.

FINANCING:

In accordance with the President's Decision, the project must be privately financed, and it is planned to raise capital on a project-financing basis. Debt service and equity return will be accomplished by the cash flow generated by the project's operations. It is presently contemplated that 25 percent of the total commitment will come from equity financing and 75 percent from debt financing. Financing for the preliminary construction phase of the project is provided by the partner companies. Under this proposed financing plan, commitments will be obtained for an amount of capital large enough to assure all investors that there will be enough capital to complete the project.

The project's four integrated sections will be financed by four separate entities. The Alaska portion, although representing the greatest construction challenges, will benefit from the construction experience of the TAPS oil line, a developed right-of-way, utilization of existing technology and relatively proven construction techniques. The western leg will be built as an expansion of the existing operating company, Pacific Gas and Electric and

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its affiliate, Pacific Gas Transmission Company. The eastern leg involves routine conventional construction by Northern Border with no unusual risks. Much of the Canadian system is adjacent to existing systems and the remaining portion presents largely uncomplicated terrain and geotechnical conditions.

The private capital markets are fully capable of providing all necessary funding to allow private financing for the project which can be achieved under the following conditions: 1) the principal project beneficiaries, that is, the State of Alaska, the Prudhoe Bay gas producers and the major gas transmission companies, provide their required significant financial support; and 2) the U.S. government demonstrates its significant support by providing responsible and timely government decisions on all procedural and organizational issues.

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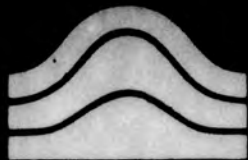
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NORTHWEST ALASKAN
PIPELINE COMPANY

Alaskan Pipeline

1979 - 1980

CHRONOLOGY OF IMPORTANT EVENTS

1979

- January 26 -- Northern Border Pipeline Company, a partnership of subsidiaries of four major U. S. Pipeline companies, filed an application with FERC to build about \$1.4 billion in pipeline facilities to transport Canadian and Alaskan natural gas to the U.S. midwest as part of the planned Alaskan natural gasline system.
- February 2 -- FERC issued a proposed rulemaking stating that the producers of Alaskan North Slope (sellers) gas should bear the responsibility of production-related costs for natural gas to be transported through the Alaskan Highway Pipeline Project.
- February 15 -- Alaskan Northwest Natural Gas Transportation Company filed a petition with FERC requesting expedited consideration and resolution of the IROR issues.
- February 16 -- Northwest Alaskan Pipeline Company began a centerline drilling program on the 193-mile segment from Delta Junction to the Canadian border to determine subsurface soil conditions for design of the gasline.
- February 22 -- FERC issued a report stating that the Commission intends to consider in a single consolidated rulemaking proceeding all the remaining issues associated with the IROR mechanism. It is believed that obtaining private financing for the project would be facilitated by further definition of the IROR parameters. Also, since the allowed rate for pipeline operation may materially affect risks facing equity investors and requires Commission consideration in resolving the IROR issues, the report also contained an order requiring the project sponsors to file their proposed tariff by March 12.
- February 28 -- The Canadian National Energy Board issued its demand/supply report on natural gas and announced a surplus of Canadian gas available for export. Exports of Canadian gas are

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expected to be transported through the pre-built sections of the Alaska Highway Pipeline Project.

- March 1 -- Northwest Alaskan Pipeline Company consolidated all of its state operations at the Company's Alaska headquarters in Fairbanks.
- March 5 -- President Carter met with Canadian Prime Minister Pierre Trudeau to discuss energy matters of mutual interest. At the meeting, both leaders reaffirmed the "strong commitment" of their governments to completion of the Alaska Highway Pipeline Project.
- March 9 -- The FERC announced at a public briefing that it will expedite several of the key regulatory issues affecting progress of the Alaska Gasline system, giving the project renewed momentum.
- March 12 -- Alaskan Northwest Natural Gas Transportation Company, a partnership, filed its proposed tariff with FERC. The tariff is the contractual arrangement between the owners of the pipeline project and those companies using the transportation services of the pipeline.
- April 25 -- Alberta Gas Trunk Line Company Ltd., Dome Petroleum Limited, and TransCanada Pipelines agreed to join in a maximum effort to support early construction of southern segments of the Alaska Gasline system. With the agreement, all of the major natural gas transmission companies in Canada support the Alaska Highway Pipeline Project.
- June 29 -- Foothills Pipe Lines (Yukon) Ltd. filed an application with Canada's National Energy Board (NEB) and the Department of Indian and Northern Affairs for construction and operation of the Dempster Lateral gas pipeline. Foothills stated that construction of the Lateral, which will tap the 5.3 trillion cubic feet of gas reserves in the Mackenzie Delta and tie into the Alaska Gasline system, will begin in 1985 with first gas flowing in January 1987.
- July 16 -- President Carter, in a nationally televised speech on America's energy situation, said the Alaska Highway Gasline project is America's top, near-term energy priority. "The North Slope producers have dragged their feet in helping to finance a pipeline needed to bring that gas to market . . . I will insist personally that this gas pipeline be built without further delay," the President said.

- July 30 -- Canada's NEB approved a minimum bill payment for debt service and other out-of-pocket costs to Canadian sponsors of the gasline to go into effect 60 days after the NEB approves completion of gasline construction in Canada. The full cost-of-service will be instituted when gas flows through the system, or 12 months after the minimum bill starts, whichever comes first.
- August 6 -- The FERC issued its decision in favor of a 48-inch diameter pipe size and 1260 psig operating pressure, as proposed by project sponsors, for the Alaska Gasline system. These two elements of gasline design are essential to finalizing cost estimates and obtaining financing for the project.
- August 8 -- Following President Carter's request that the North Slope gas producers enter into discussions regarding financial participation in the Alaska Gasline Project, a meeting took place in Washington, D. C., between the major producers -- Arco, Exxon, and BP-Sohio -- and officials of the Department of Energy to explore the issue.
- August 9 -- The Canadian NEB completed omnibus proceedings on applications for exports of Canadian gas.
- September 6 -- The FERC issued its final order on the incentive rate of return for equity investors in the Alaskan and Northern Border (or eastern leg) segments of the Alaska Highway Pipeline Project. The order allows a 17.5% return on investment if the project is completed within the approved estimated costs.
- The FERC order also approved project sponsors' pipeline tariffs for the Alaskan and Northern Border segments.
- September 14 -- Arco, one of the three major gas producers on Alaska's North Slope, agreed to commit its volumes of Prudhoe Bay gas to subsidiaries of five U.S. pipeline companies. With the Arco agreements, all of the Prudhoe Bay gas owned by the three major producers has now been committed or is under contract to U.S. pipeline companies. The three producers own approximately 85% of the gas reserves in the Prudhoe Bay field.

- October 16 -- In response to questions during his testimony before the House Interior subcommittee hearings on the Alaska Gasline system, FERC Chairman Charles Curtis said the FERC would be ready to issue a final decision on prebuild plans for the project's western leg by year-end 1979. Curtis also said that the commission would be ready to issue a final decision on the prebuild proposal for the eastern leg early in 1980 and on the Alaskan segment six months after project sponsors have submitted their final filing. The sponsors intend to submit this filing in June 1980, and look for final approval by year-end 1980.
- October 26 -- TransCanada PipeLines of Toronto completed an agreement with the Northern Border Pipeline Company in its efforts to prebuild certain segments of the Alaska Gasline project's eastern leg. The agreement provides for TransCanada to obtain a 30% interest in the prebuild project and an opportunity to participate in the remaining portion of the Northern Border project. Subsidiaries of four U.S. pipeline companies are partners in Northern Border and will share the remaining 70% ownership of the prebuild facilities.
- November 1 -- The U.S. House of Representatives and the U.S. Senate approved separate versions of the priority Energy Act which is designed to expedite large-scale energy projects determined to be in the national interest. A joint House-Senate conference committee is working to effect a legislative compromise of the two versions. Project sponsors support an amendment in the house version which provides that no measures of the new legislation shall affect or interfere in any way with actions taken by federal officers or agencies relating to the Alaska Natural Gas Transportation System.
- December 3 -- American Natural Alaskan Company, a subsidiary of American Natural Resources of Detroit, Michigan, joined as an equal partner in the Alaskan Northwest Natural Gas Transportation Company, the consortium responsible for design, construction and operation of the Alaskan segment of the Alaska Highway Pipeline Project. This brought to seven the number of U.S. natural gas companies forming the partnership. Other companies are expected to join the partnership in the future.

December 6 -- Canada's National Energy Board (NEB) issued its decision regarding export of surplus Canadian natural gas volumes to the U.S. through the Alaska Highway Pipeline Project. Northwest Alaskan Pipeline Company had requested export authorization of approximately 4.5 trillion cubic feet of Alberta gas, or 380 billion cubic feet a year over a 12-year period, to support prebuilding the portions of the project's eastern and western legs. Instead, Canada approved exports of only 1.8 trillion cubic feet, providing full volumes for a three-year period ending in 1984 and declining thereafter by 25 percent per year through 1987.

1980

January 11 -- The FERC agreed to project sponsors' request that separate decisions on the prebuild facilities for the eastern and western legs be issued in order to expedite procedures necessary for completion of the western system by the end of 1980. Regarding the western leg, the Commission approved Northwest Alaskan's application for import of 240 million cubic feet daily of Canadian gas and sale of same to Pacific Interstate Transmission Company. Pacific Interstate is authorized to sell these daily volumes to Southern California Gas Company, according to the terms of the order.

The order also approved the application of Pacific Gas Transportation Company for construction of 160 miles of looped line between Kingsgate, British Columbia and Stanfield, Oregon. In conjunction with the western leg prebuild, the commission issued certificates of Public Convenience and Necessity to Northwest Pipeline Corporation, Pacific Interstate Transmission Company, and El Paso Natural Gas Company, authorizing the transportation of the Canadian volumes to Pacific Interstate Transmission through June 1981.

January 23 -- Foothills Pipe Lines (Yukon) Ltd., Alberta Gas Trunk Line Company, Ltd., and Pan-Alberta Gas Ltd., all of Calgary, Alberta, issued a joint statement expressing their support of the prebuild proposal for the Alaska gasline system. In their statement, the companies announced their intention to proceed with commitments which must be made to meet the

November 1, 1980 start-up date of the western prebuild portions. They were joined in this commitment by Northwest Pipeline Corporation, Pacific Interstate Transmission Company, and El Paso Natural Gas Company.

- January 28 -- Encouraged by the strong support of the federal government and the expeditious handling of several key regulatory issues during 1979, the sponsors of the Alaska Highway Pipeline Project announced a 1980 budget for the project of \$127.5 million, or just about triple the expenditures approved for 1979. Nearly \$100 million of the amount budgeted will be spent on field programs in Alaska, and engineering and pipeline design activities necessary to develop design and cost estimates for a mid-June 1980 filing before the FERC.
- January 31 -- The FERC, following discussions with Energy Secretary Charles Duncan, issued a supplemental order authorizing a 42-inch diameter pipe size for the prebuild portions of the Alaskan project's western U.S. delivery system. It was felt that the larger pipe size would be more economical and efficient.
- February 15 -- The Department of the Interior advised it will provide a detailed response by April to Northwest Alaskan's final routing proposal for the Alaskan segment submitted on January 29th. In the interim, DOI informed the company it may continue to plan and make cost and design estimates on the basis of the January 29th proposal.
- March 12 -- Pacific Gas Transmission Company, San Francisco, received a right-of-way grant from the Bureau of Land Management (DOI) to construct a prebuild portion of the western leg of the gasline project on federal lands. This is the first such grant issued to the project.
- March 18 -- John G. McMillian, Chairman of Northwest Alaskan Pipeline Company met with representatives of the North Slope producing companies (Exxon, ARCO and BP-Sohio) and the State of Alaska at the Department of Energy in Washington, D.C. to discuss joint participation in a private financing plan for the project. Producers and sponsors agreed to try to develop an operating agreement for the design and engineering phase of the project (Phase I) by mid-April. They also agreed to define the key issues involved in formulating a financing plan and establish a timetable for resolution of those issues (Phase II).

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ALASKA HIGHWAY PIPELINE PROJECT

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HIGHLIGHTS

GASLINE SPONSORS, STATE OF ALASKA AND NORTH SLOPE PRODUCERS TO DISCUSS FINANCING. . .
RIGHT-OF-WAY GRANTED FOR WESTERN PREBUILD
. . . U.S. EASTERN, CANADIAN PREBUILDS MOVE FORWARD. . . ROUTING PROPOSAL SUBMITTED. . .
FEDERAL INSPECTOR MOVES TO PERMANENT OFFICES
. . . LARGEST GASLINE FIELD PROGRAM UNDERWAY
. . . NORTHWEST SEEKS CORRIDOR COMMUNITY INFORMATION.

GASLINE SPONSORS, STATE OF ALASKA AND NORTH SLOPE PRODUCERS TO DISCUSS FINANCING: The first meeting between sponsors of the Alaska Highway Pipeline Project, the major North Slope producing companies (Exxon, Arco, and BP-Sohio), the State of Alaska, and the Department of Energy (DOE) with regard to financing the gasline project was held March 18 in Washington, D.C.

Previous attempts to effect face-to-face negotiations by the sponsors have been unsuccessful. A special counsel assigned responsibility by DOE for assisting in project financing caused further delay when he put forward certain financing suggestions which were not in accord with requirements of the President's Decision and Report to Congress. Consequently, and despite sponsors' repeated requests for such a meeting, forward motion on financing during the past four months came to a virtual standstill. However, project sponsors continue to maintain a positive attitude toward the scope of financing discussions and are encouraged by the new DOE initiative to bring producers and sponsors together on this important issue.

Project sponsors have proposed that the producers commit funds to an overrun pool of sufficient amount to provide lenders with assurances that the project will be completed. A provision in the President's Decision disallows significant equity participation by producers to prevent anti-competitive abuses if management of the oil and gas lines are both within the producers' control. The Decision also ruled out federal financial assistance to the gasline. As a result, sponsors consider their proposal to be consistent with the President's Decision, which named the producers and the State of Alaska as major beneficiaries of the project and, therefore, logical participants in the financing effort. Participation of the producers in the Alaskan segment of the financing package is essential to obtaining private financing for the project.

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According to the project's current schedule, sponsors intend to file an application for a Certificate of Public Convenience and Necessity with the Federal Energy Regulatory Commission (FERC) by the middle of 1980. A financing plan must be approved by the Commission before the certificate to begin construction can be granted. Because of this, conditional commitments of financial participation by the producers must be obtained as soon as possible.

John McMillian, Chairman of Northwest Alaskan Pipeline Company, lead partner for the consortium which will build and operate the Alaskan segment of the gasline system, represented the partnership at the March 18 meeting. McMillian has consistently expressed his confidence that the parties involved will be able to work out a financing package which will be of benefit, not only to the participants, but to the national interest as well. It has been demonstrated that the total system authorized by the U.S. and Canadian governments to transport Alaskan and Canadian gas volumes will save the U.S. approximately 700,000 barrels a day of imported oil at a cost less than that of the current cost of heating oil and equal to the current cost of imported crude oil.

The producers and the sponsors agreed to try to develop an operating agreement for the design and engineering phase of the project (Phase I) by mid-April, and also agreed to move forward on identifying the areas of agreement and disagreement with respect to the construction and operating phase of the project (Phase II).

Project sponsors were pleased with the progress made at the March 18 meeting and will continue to work with the North Slope producers and the State of Alaska to resolve the financing issue.

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RIGHT-OF-WAY GRANTED FOR WESTERN PREBUILD: Pacific Gas Transmission Company (PGT), San Francisco, received March 12 a right-of-way grant from the Department of Interior's (DOI) Bureau of Land Management (BLM) to construct prebuild portion of the western leg of the Alaska Highway Pipeline Project on federal lands. This is the first grant issued to the project which will bring Alaskan North Slope gas to markets in the lower 48 states.

The DOI grant follows issuance in January 1980 of a Certificate of Public Convenience and Necessity by the FERC for PGT's proposed construction of the western leg prebuild. The FERC certificate is not final and has not been accepted by PGT due to certain tariff issues which remain to be resolved. However, the swift resolution in the U.S. and Canada of certain regulatory issues could allow construction of a portion of the western prebuild and partial service by the end of 1980 or early 1981, with full service by mid-1981.

PGT's plans for the prebuild call for 160.5 miles of 42-inch diameter pipeline which will parallel and connect with PGT's existing pipeline system. The new facilities will be installed between the Canada-U.S. border and Stanfield, Oregon, and will be used along with the connecting systems of Northwest Pipeline Corporation and El Paso Natural Gas Company to provide new sources of Canadian natural gas supplies to more than 3.6 million natural gas customers of Southern California Gas Company.

The PGT prebuild facilities are estimated to cost approximately \$133 million in January 1, 1978 dollars. PGT is a wholly-owned subsidiary of Pacific Gas & Electric Company.

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U.S. EASTERN, CANADIAN PREBUILDS MOVE FORWARD: Hearings on Northern Border Pipeline Company's financing plan for the prebuild of the U.S. eastern leg of the Alaska gasline system concluded February 27 at the FERC and the record was certified by the presiding administrative law judge for submission to the Commission. Initial briefs were filed March 13, with reply briefs due on March 20.

The FERC is expected to issue the final certificate on the eastern leg prebuild by early April, after Canada's National Energy Board (NEB) has made its decision on export volumes. It is expected that full service for the eastern leg prebuild will be possible by the end of 1981.

In a related matter, the NEB issued March 11 its findings on the financing plan for the Canadian prebuild segments as submitted by Foothills Pipe Lines (Yukon) Ltd. The NEB found that the eastern leg would be financible with total throughput of 2,047 billion cubic feet instead of the previously approved volumes of 1,318 billion cubic feet. In addition, the NEB found that as a minimum condition to the financibility it would be necessary to transfer at least 450 billion cubic feet already dedicated to other pipeline systems to the eastern leg.

The NEB also found that the western leg would be financible with a total throughput of 701 billion cubic feet dedicated through firm export licenses, an increase of 220 billion cubic feet over amounts previously approved in its December 6, 1979 order.

While the NEB did not approve the exportation of these increased volumes in its March 11, 1980 findings, the Board will consider, later in March, Pan-Alberta Gas Ltd.'s revised application for these increased gas volumes to be exported through the pre-built segments of the Alaska Highway Pipeline Project.

The NEB also determined that Foothills can submit updated cost estimates for approval closer to the time of pipeline construction and, in general, reaffirmed that the prebuild proposal is in the public interest.

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ROUTING PROPOSAL SUBMITTED: Northwest Alaskan submitted January 29 its final routing proposal for the Alaskan segment of the Alaska Highway Pipeline Project to the DOI. The company's proposal addressed the 15 specific route alternatives suggested by DOI, and considers it has met the department's requirements that the suggested reroutes be "fully considered...prior to any final right-of-way decision," that thorough justification for rejection of any alternatives be provided, and that the documentation includes "cost, environmental and technical comparisons." Expedited review and approval was requested by the company.

The DOI replied in a February 15 letter that Northwest Alaskan's proposed routing will be carefully reviewed and a final and detailed response will be provided by April 1980. In the interim period, DOI said, the company may continue to plan and make cost and design estimates on the basis of the route shown in its January 29 letter. As a result, design, engineering and cost estimation are proceeding according to the proposed routing.

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Northwest Alaskan will continue to take such steps as are appropriate to accommodate any reasonable concerns, comments and recommendations of others toward the objective of a pipeline that is technically sound, environmentally safe, economically prudent, and expeditiously constructed.

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NORTHWEST SEEKS PSD PERMIT: On March 6, Northwest Alaskan submitted an application to the U.S. Environmental Protection Agency (EPA), Region X, in Seattle, Washington, for a Prevention of Significant Deterioration (PSD) permit for exhaust emissions from compressor stations for the Alaska gasline project. A PSD permit is required pursuant to the Clean Air Act Amendments of 1977.

The company has requested issuance of the permit no later than January 1, 1981, in accordance with the Alaska Natural Gas Transportation Act (ANGTA) of 1976 requiring expedited processing so that necessary lead time will be provided for timely initiation of compressor equipment procurement.

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DOI RECEIVES PROGRESS REPORT: Northwest Alaskan provided February 29 a progress report to the DOI on 12 questions raised in June 1979 by a technical working group involved in the right-of-way planning for the Alaskan segment of the gasline project. The 12 areas of concern are frost heave, groundwater problems, geotechnical issues, blasting effects on the trans Alaska oil pipeline system (TAPS), risk analysis, seismic design criteria, ditch stability studies, TAPS crossings and highway crossings, river crossings design, fish and wildlife habitat, fish and wildlife population, and erosion control and vegetation.

The report includes the sponsors' proposed approach to the frost heave question to be submitted to FERC and DOI, respectively, for the final certification and the grant of right-of-way. Northwest Alaskan believes that prudent engineering judgment will allow a grant of right-of-way to be issued based on information available at the time the final application is submitted, currently planned for the end of June 1980.

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FEDERAL INSPECTOR VISITS FLUOR: John Rhett, the Federal Inspector for the Alaska gasline project, visited the offices of Fluor Engineers and Constructors, Inc. at Irvine, California, March 12 and 13 for a series of discussions regarding project control, endangered species regulations, environmental engineering and a general update on the project by Fluor personnel. Fluor is the project management contractor (PMC) for the Alaskan segment of the gasline system.

Rhett's visit coincided with a two-day meeting of the Cold Regions Engineering Technical Committee, chaired by Paul Fisher of the Corps of Engineers. The committee reviewed the progress of Northwest Alaskan's frost heave program to date, and discussed future frost heave planning incorporating suggestions by the Federal Inspector's office and critical items for further study.

On March 13 and 14, Northwest Alaskan hosted meetings for senior government environmental representatives at the Fluor offices. Discussions involved the environmental engineering manual, and biological, physical and civil programs associated with the gasline project.

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FEDERAL INSPECTOR MOVES TO PERMANENT OFFICES: As of March 1, 1980, the Office of the Federal Inspector will be in the Post Office Building, 1200 Pennsylvania Avenue, N.W., in Washington, D.C. The move to this location was originally planned for January, but was postponed until this month.

The Federal Inspector's new mailing address is:

Office of the Federal Inspector
Alaska Natural Gas Transportation System
P.O. Box 290
Washington, D.C. 20044

New phone numbers are:

(202) 275-1100: Federal Inspector, executive officer, general counsel, public affairs, and the executive secretariat.

(202) 275-1114: Administrative, contracts and procurement, personnel, technical advisor, and environmental review.

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LARGEST GASLINE FIELD PROGRAM UNDERWAY: An Alaskan firm, The Drilling Company of Anchorage, has been awarded a contract for the largest field program to date in preparation for the 743-mile section of the gasline in Alaska.

The Drilling Company began the first 1980 field activity on February 19 with a borehole drilling program to determine subsurface soil and frost conditions along the route of the gasline in Alaska. This is the third year of drilling operations and the largest field program ever conducted for the gasline project so far in Alaska.

Other Alaskan firms working on the drilling program include R & M Consultants, Communications Equipment Services, Moneymaker Construction, Arctic Test Lab, all of Fairbanks; and R. A. Kreig and Associates of Anchorage. R & M Consultants will gather and evaluate soil samples from drilling operations, Communications Equipment Services will install and maintain communication equipment on all vehicles including drilling rigs, Moneymaker Construction will gather soil samples from the field and deliver them to the lab in Fairbanks, Arctic Test Lab will conduct lab analysis of field samples, and R. A. Kreig will do geotechnical consulting on the route alignment profile.

The 1980 drilling program will have two phases. Phase I, which began in mid-February, is taking place from Livengood south to the Canadian border and will last approximately 45 days. Phase II will start after spring breakup and occur along the route from Livengood to Prudhoe Bay. Livengood is located 80 miles north of Fairbanks. Approximately 200 people will work in the field on Phase I of the program.

In addition to the drilling program, Michael Baker, Jr., Inc. Engineers and Surveyors has been awarded a contract to conduct material site exploration along the pipeline route from Livengood to the Canadian Border. Soil samples will be gathered from these sites to determine availability of natural construction materials such as gravel at 130 potential sites.

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A 1980 budget of approximately \$41.6 million was recently approved by sponsors of the Alaska gas pipeline for field programs, most of which are scheduled to be carried out in Alaska during the spring and summer months.

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NORTHWEST SEEKS CORRIDOR COMMUNITY INFORMATION: Northwest Alaskan Pipeline Company has contracted with an Alaskan firm to assist Alaska gasline corridor communities in developing baseline information to facilitate planning for possible gasline impacts. Darbyshire and Associates of Anchorage is conducting socioeconomic baseline profiles for the communities of Delta Junction, Dot Lake, Tanacross, Tok, Tetlin and Northway; all are along the proposed route of the Alaska Highway gas pipeline project.

The studies will provide key community planning data on such items as land use, land status, as-built utilities, topography and soils, flood and erosion hazards, climatic and related environmental conditions, natural resources, transportation and communication systems, history, population, economics, and government.

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FAIRBANKS OFFICE EXPANDS: Several new employees have joined the Fairbanks headquarters office of Northwest Alaskan Pipeline Company. Among them:

Jack W. Woods recently joined Northwest as manager of Field Programs in Alaska. Woods, 53, brings nearly 30 years of gas pipeline industry experience to his new position. Before joining Northwest, he held various project management engineering positions with Bechtel, Inc., and is a graduate of the University of Houston with a B.A. in civil engineering.

Virgene Hanna, a Fairbanks resident, has been named research analyst for the company's socioeconomic department. As such, she will assist Susan Fison, director of socioeconomic affairs for the company, with research and reports, pipeline corridor community activities and monitoring the impact of the project in the state. Hanna was formerly with the University of Alaska's Institute of Social and Economic Research. She has also done private consulting in Fairbanks for the Tanana Chiefs Conference and the state's Limited Fisheries Commission, working with Alaska Native villages on impact planning.

Kirk T. Morgan, of Anchorage, and Rex Nutter, of Fairbanks, have joined Northwest Alaskan as permits/compliance coordinators. In this capacity, they will work with representatives of government, Alyeska, and Native corporations to assure timely completion of the permit processes in coordination with the company's various field activities in Alaska.

Others hired by the company's Fairbanks office include three engineers: Robert Egg of Soldotna, Walter McMillan of Wasilla, and Wilton Prejean; in addition, Robert Brown has been hired as a drilling supervisor. Fairbanks residents also filled three clerical positions recently with the company. They include Barbara Hitchcock, permits compliance clerk, Mille Beagley, field programs secretary, and Violet Mullen, secretary for public relations and socioeconomic affairs.

In addition, Fluor Northwest, the project management contractor on the Alaskan segment of the gasline, recently expanded its Fairbanks staff with 10 new employees.

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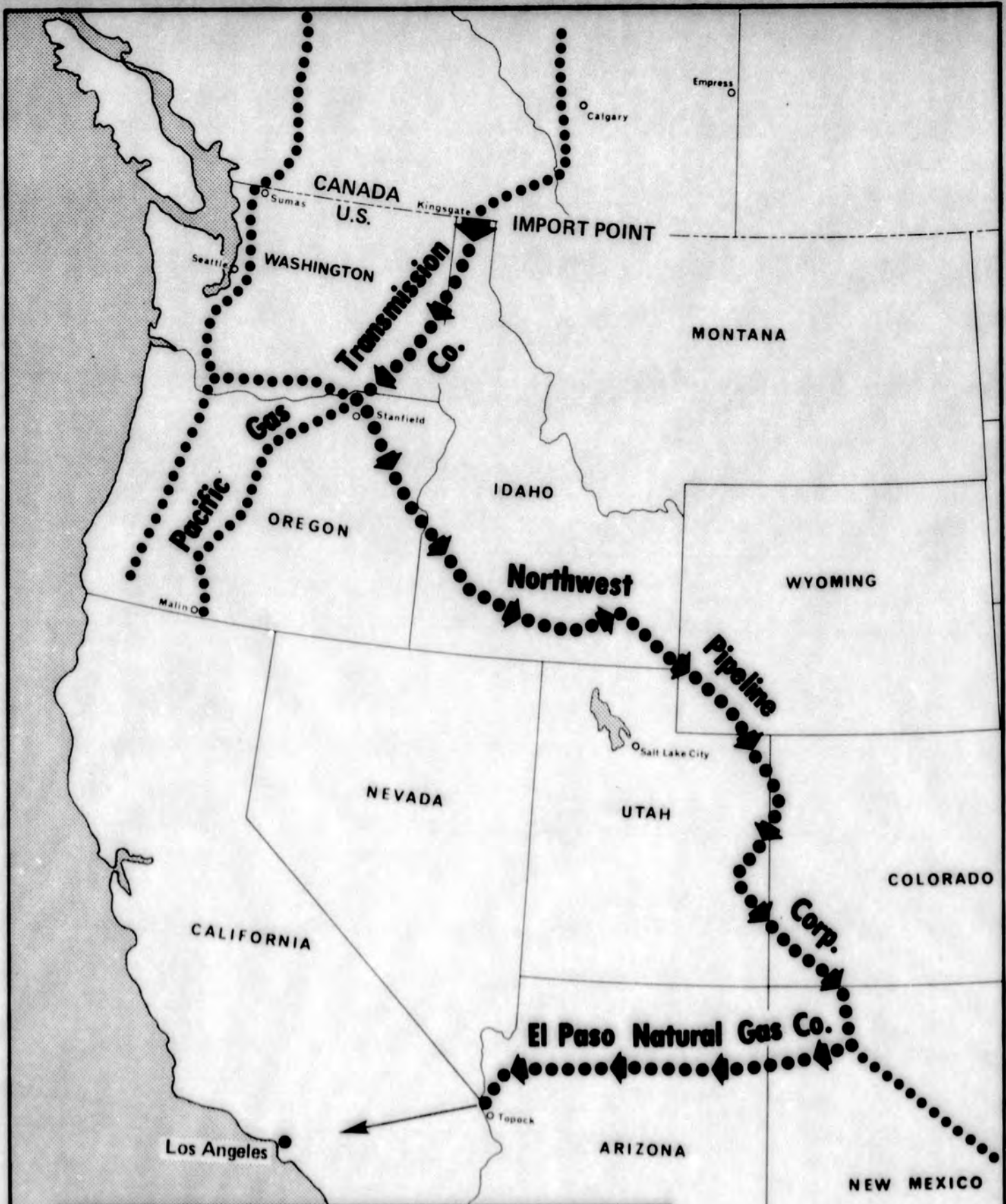
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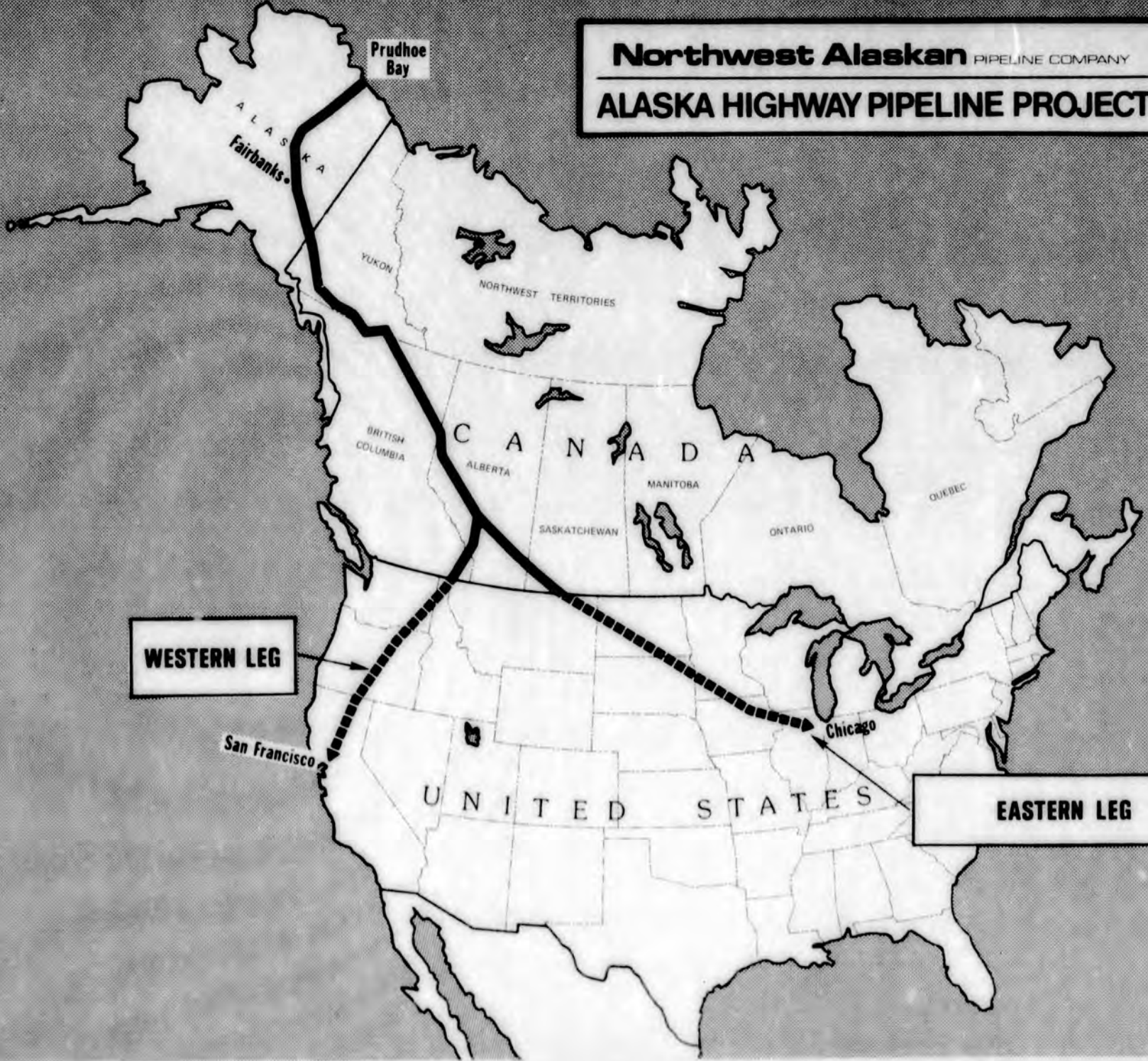
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Northwest Alaskan PIPELINE COMPANY
WESTERN SYSTEMS TO TRANSPORT ALBERTA GAS

Northwest Alaskan PIPELINE COMPANY
ALASKA HIGHWAY PIPELINE PROJECT



WESTERN LEG

EASTERN LEG

Prudhoe Bay

Fairbanks

San Francisco

Chicago

ALASKA

YUKON

NORTHWEST TERRITORIES

BRITISH COLUMBIA

CANADA

ALBERTA

MANITOBA

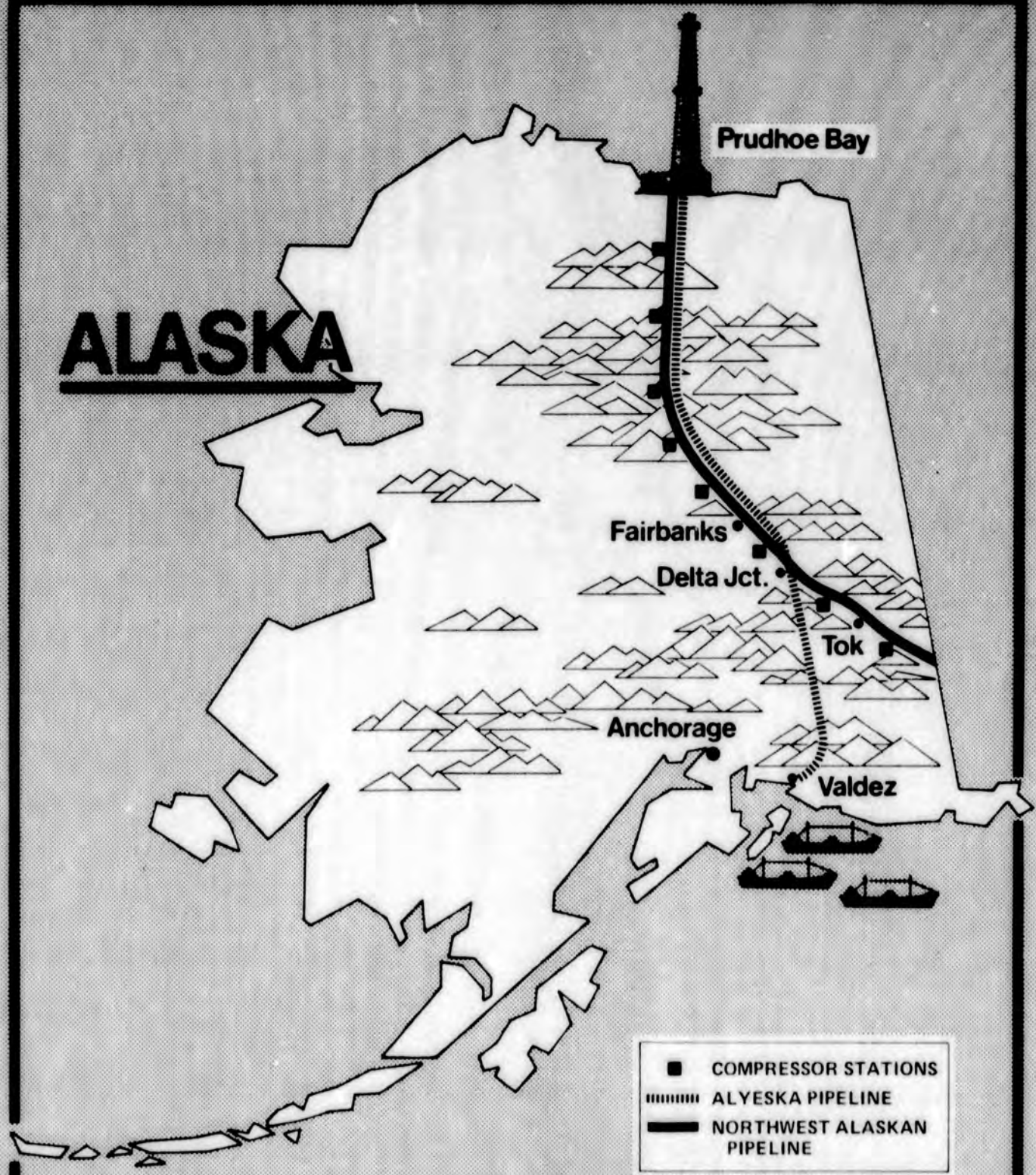
SASKATCHEWAN

ONTARIO

QUEBEC

UNITED STATES

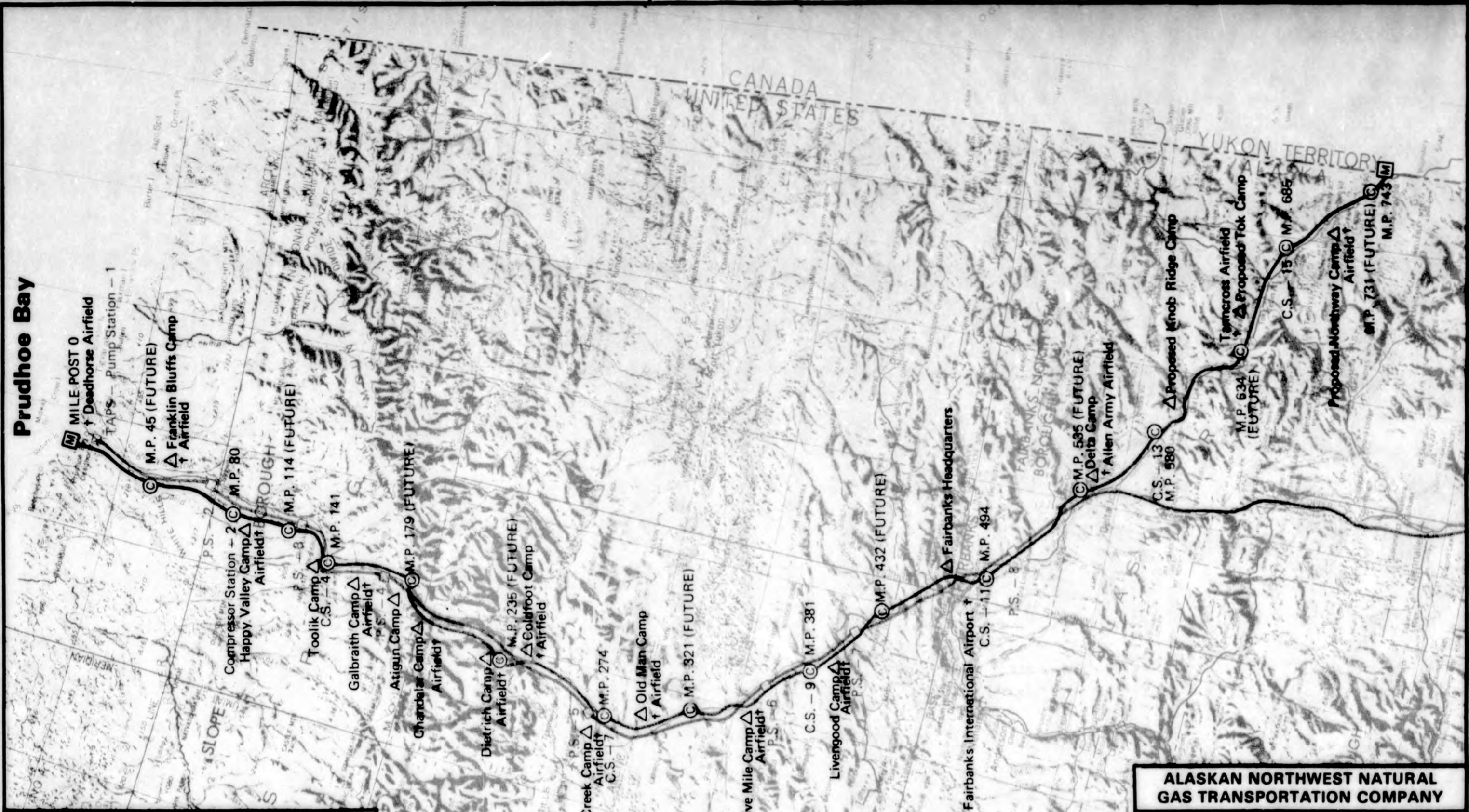
ALASKA



- COMPRESSOR STATIONS
- ALYESKA PIPELINE
- NORTHWEST ALASKAN PIPELINE

Northwest Alaskan PIPELINE COMPANY
ALASKA HIGHWAY PIPELINE PROJECT

Prudhoe Bay



LEGEND:

- RED - Proposed Gas Pipeline (with Key Mileposts), Compressor Stations and Metering Stations.
- BLUE - Existing TAPS Oil Pipeline and Pump Stations.
- BLACK - Construction Camps and Airfields, Existing and Proposed.

ALASKAN NORTHWEST NATURAL GAS TRANSPORTATION COMPANY

LOCATION OF FACILITIES

ALASKA SEGMENT OF THE ALASKAN NATURAL GAS TRANSPORTATION SYSTEM

Prepared February 1980



Alaskan Newsline

Ruth R41

Vol. 3, No. 6

September 30, 1980

HIGHLIGHTS

ALASKAN NORTHWEST ANNOUNCES FOUR NEW PARTNERS . . . WELD CEREMONY COMMEMORATES CANADIAN GAS-LINE CONSTRUCTION. . . NORTHWEST PIPELINE BEGINS CONSTRUCTION ON WESTERN DELIVERY SYSTEM. . . EXECUTIVE POLICY BOARD MEETING HELD IN ALASKA . . . FERC HOLDS ALASKAN COST ESTIMATE CONFERENCES. . . INTERIOR SUBMITS RIGHT-OF-WAY GRANT TO CONGRESS. . . AFFIRMATIVE ACTION PLAN SUBMITTED TO FEDERAL INSPECTOR. . . TEMPORARY WORK CAMPS IN ALASKA ARE IN OPERATION. . . ALASKAN NATIVES TOUR COMPRESSOR STATION.

ALASKAN NORTHWEST ANNOUNCES FOUR NEW PARTNERS: The Alaskan Northwest Natural Gas Transportation Company announced at the end of August the addition of four natural gas transmission companies to the consortium which will build and operate the 743-mile Alaskan segment of the Alaska Highway Natural Gas Pipeline Project.

Columbia Alaskan Natural Gas Transmission Corporation joined the partnership August 25. Columbia Alaskan is a wholly-owned subsidiary of the Columbia Gas System, Inc., Wilmington, Delaware, which has the right to purchase up to 5.6 trillion cubic feet of North Slope gas owned by Sohio Natural Resources Company and BP-Alaska, Inc. The Columbia System currently supplies natural gas to 4 million customers in seven midwestern and mid-Atlantic states.

On August 28, eastern Canada's largest natural gas transmission company, Trans-Canada PipeLines, Ltd., of Toronto, Ontario, joined the consortium through a wholly-owned subsidiary, TransCanada PipeLine Alaska, Ltd. Unlike the U.S. companies in the consortium, TransCanada will not be a shipper of Alaskan gas, but views the project as an excellent investment opportunity.

Two additional U.S. companies joined the partnership August 29. The first, Tetco Four, Inc., is a corporation whose stock will be owned 50 percent each by Texas Eastern Transmission Corporation and Transwestern Pipeline Company. Both are wholly-owned subsidiaries of Texas Eastern Corporation, Houston, Texas. Texas Eastern and Transwestern have executed letters of understanding with ARCO Oil and Gas Company for the purchase of a total of 20 percent of ARCO's Prudhoe Bay natural gas production. Texas Eastern Corporation is a diversified energy company whose pipeline systems supply natural gas to the east and west coasts.

The second company, Texas Gas Alaska Corporation, is a wholly-owned subsidiary of Texas Gas Transmission Corporation, Owensboro, Kentucky. Texas Gas has the right to purchase 12 percent of the natural gas production from ARCO Oil and Gas Company's interest in the Prudhoe Bay field. The existing Texas Gas system provides natural gas supplies to 90 distribution companies serving 554 communities in the central U.S.

John G. McMillian, chairman of Alaskan Northwest's Board of Partners, said, "These four new companies are a most beneficial addition to the Alaska Highway Pipeline Project and we welcome their participation. With the addition of these new partners," McMillian continued, "every U.S. company that has contracted for North Slope Alaskan gas is now a part of our project." (A map of the U.S. partners' existing pipeline systems to deliver Alaskan gas to lower 48 markets is on page 8.)

The Alaskan Northwest Natural Gas Transportation Company is now comprised of eleven partners whose combined assets total over \$35 billion. With respect to consolidated sales, eliminating inter-company sales and excluding TransCanada, the Alaskan consortium represents about 38% of total U.S. natural gas consumption. Other members of the consortium are subsidiaries of: American Natural Resources Company, Detroit; Internorth Inc., Omaha; Panhandle Eastern Pipe Line Company, Houston; United Gas Pipe Line Company, Houston; Pacific Lighting Corporation, Los Angeles; Pacific Gas & Electric Company, San Francisco; and Northwest Energy Company, Salt Lake City. The Northwest Energy subsidiary, Northwest Alaskan Pipeline Company, is the operating partner for the consortium.

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WELD CEREMONY COMMEMORATES CANADIAN GASLINE CONSTRUCTION: On September 27, representatives of the Canadian and U.S. governments and project sponsors attended a commemorative weld ceremony at Burton Creek, Alberta, marking the beginning of construction of the western Canadian portion of the Alaska Highway Pipeline Project. Foothills Pipe Lines (Yukon) Ltd., sponsor of the project's Canadian segment, hosted the ceremony.

The western Canadian segment will be comprised of 132 miles of 36-inch diameter looped line between James River, Alberta, and Kingsgate, British Columbia. When completed, this portion of the pipeline will tie into the U.S. western delivery system (see below).

Attending the ceremonies at Burton Creek were: R. L. Pierce, president and chief executive officer of Foothills; S. R. Blair, chairman of the Board of Partners of Foothills; Sen. H. A. Olson, (Federal) Minister Responsible for Canada's Northern Pipeline Agency; E. C. Phillips, chairman and chief executive officer for Westcoast Transmission Company, Vancouver; C. G. Edge, acting chairman of Canada's National Energy Board; John Stabbach, former chairman of the National Energy Board; and the Hon. Mitchell Sharp, Commissioner of Canada's Northern Pipeline Agency. Also attending were John Rhett, the Federal Inspector for the U.S. portions of the gasline project; and John Adger, of the Federal Energy Regulatory Commission's Alaska Gas Pipeline Project Office, as well as representatives from Northwest Alaskan and other U.S. project sponsors.

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NORTHWEST PIPELINE BEGINS CONSTRUCTION ON WESTERN DELIVERY SYSTEM: September 3 marked the start of construction of 351 miles of looped pipeline, as well as additional compression, along Northwest's existing rights-of-way in Oregon and Idaho as part of the western delivery system of the Alaska Highway Natural Gas Pipeline Project.

The 351-mile project extends from Stanfield, Oregon, to a point 14 miles east of Burley, Idaho, and will consist of 24-inch and 30-inch diameter pipe with additional compressor units installed at Baker, Oregon (2,000 horsepower), and at Caldwell, Idaho (1,500 horsepower).

The early construction phase of the western leg of the project is authorized to transport up to a daily average of 300 million cubic feet of gas from Alberta, Canada, to consumers in southern California. The approved route for the western leg prebuild phase also involves installation of 160 miles of new 36-inch diameter pipeline on Pacific Gas Transmission Company's existing rights-of-way between the Canadian border and Stanfield, Oregon, where it will connect with the expanded Northwest Pipeline system.

The first segment of the Northwest Pipeline expansion is scheduled for completion in January 1981, and the full project is scheduled to be completed in late summer 1981. Ownership of the new Oregon-Idaho facilities is shared, with Northwest Pipeline owning 70 percent and Pacific Interstate Transmission Company, purchaser of the Canadian volumes, owning 30 percent.

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EXECUTIVE POLICY BOARD MEETING HELD IN ALASKA: The Executive Policy Board (EPB) held its meeting in Fairbanks, Alaska on September 9 and heard comments from several Northwest Alaskan Pipeline Company officials on the status of the gasline project. The EPB is a Federal interagency advisory group established by the President to advise the Federal Inspector on policy matters and enforcement actions concerning the project.

The company gave a presentation on the status of its affirmative action planning and results to date, and reported that from January-July of this year, Northwest has awarded or committed awards of \$10.02 million to firms identified as Minority Business Enterprises (MBE) or Female Business Enterprises (FBE). The value of prime contracts involving MBE/FBE participation (January-July) totals \$29.5 million. Northwest said that "the minority hiring in these contracts is substantial."

The company reported it had contracted with Dr. David Reaume, former chief economist with the State of Alaska Department of Commerce and Economic Development, to develop statistical data on minority representation in the population and workforce that the company needed for its Affirmative Action Plan, which has been developed to facilitate Equal Employment Opportunity (EEO) and MBE/FBE contracting.

Northwest officials also gave a presentation before the EPB on the status of socioeconomic activities in Alaska. The company expressed the need for final state socioeconomic stipulations to be attached to the state's right-of-way lease and stated that the absence of agreed upon guidelines is an impediment to socioeconomic planning.

Northwest added that a major focus of its socioeconomic planning will be in communities near the proposed gasline route, particularly those between Delta Junction and the Canadian Border.

Company representatives noted that the gas pipeline will not be the only major energy-related construction project in Alaska between now and 1985. Although the gasline will be the largest, they expressed that it should not be the only project which has to meet socioeconomic requirements. They suggested that the involvement of planners from other projects will better enable industry to work cooperatively with government to the benefit of the people of the state.

The EPB is made up of representatives of the Departments of Labor, Agriculture, Energy, Transportation, and Interior; the Army Corps of Engineers, Federal Energy Regulatory Commission, and the Environmental Protection Agency. They assess, at least every six months, progress made and problems encountered in constructing the gasline system and make necessary recommendations to the Federal Inspector. Their goal is to facilitate construction of the gas pipeline system in a timely, cost efficient manner without undue environmental damage.

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FERC HOLDS ALASKAN COST ESTIMATE CONFERENCES: As previously reported (see Alaskan Newslines Vol. 3, No. 4), project sponsors submitted an application July 1 to the Federal Energy Regulatory Commission (FERC) for a certificate of public convenience and necessity to construct and operate the 743-mile Alaskan segment of the Alaska Highway Natural Gas Transportation System. In an August 1 order pursuant to the application, FERC reviewed the main points on which project sponsors have requested approval. These included the Certification Cost Estimate (CCE) and establishment of the center point for the incentive rate of return (IROR) determination, permission to use the indices in the Project Labor Agreement for deflation of direct construction labor costs, and actual third-party monitoring costs.

The Commission agreed with project sponsors' request to "utilize notice and comment procedures, rather than adjudication, to resolve these particular matters."

The Commission recognized that, although certain of the matters relating to final certification are pending, such as the marketability of Alaskan gas, and the relationship of project costs to those stated in the President's Decision and Report to Congress, other outstanding matters relating to the IROR mechanism for the Alaskan segment must be resolved as expeditiously as possible. Therefore, the Commission is instituting a special series of technical conferences to assist in this determination.

Chairing the conferences will be John Adger, head of FERC's Alaska Gas Project Office (the Alaskan delegate). Richard Berman, Director of the Division of Audit and Cost Analysis of the Office of the Federal Inspector, will co-chair the conferences.

In conjunction with the Commission's August 1 notice, a procedural conference was held September 3-5 at FERC offices in Washington, D.C., where the Alaskan delegate discussed the handling of major design issues which could materially

affect the cost estimate, and the possible cost consequences of resolution of those issues. Project sponsors consider the pipeline design contained in their July 1, 1980 filing to be a valid basis for considering the CCE, with the two exceptions discussed at the September 3-5 conference. These are changes in the pipeline route necessitated by the proposed DOI grant of right-of-way, and consideration of tunnelling rather than traversing the Atigun Pass. Northwest Alaskan is working to provide the Alaskan delegate with this new design and cost information prior to a final and complete review of the certification cost estimate for the project.

Project sponsors hope that all procedural matters are expedited in connection with reviewing the certificate application and have indicated that the cost and design information required on the above outstanding design issues should be available in October.

All parties are proceeding with an initial series of technical conferences to clarify and resolve the issues, beginning on a bi-weekly basis at the project management contractor's location in Irvine, California. On September 16-17, Northwest Alaskan briefed FERC staff on all the existing components of the CCE. The first technical conference will take place on September 30.

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INTERIOR SUBMITS RIGHT-OF-WAY GRANT TO CONGRESS: On August 19, the Department of Interior (DOI) submitted the project sponsors' proposed right-of-way grant to the jurisdictional congressional committees for review. In an accompanying letter, DOI's Assistant Secretary for Land and Water Resources, Guy Martin, requested a waiver of the 60-day congressional review period called for in the Mineral Leasing Act of 1920. Martin referred to "the national interest in expediting" the gas line project, and stated that the existence of the Federal Inspector in a monitoring capacity and the "benefits of the FERC certification process" obviate the need to hold up approval pending receipt of "greater levels of detail... a number of technical issues."

DOI believes that Northwest Alaskan has provided sufficient information to support the grant, and Martin informed the company that DOI finds it to be "technically and financially capable of fulfilling the requirements of the Mineral Leasing Act..." DOI also found that the proposal is "compatible with other uses in the (right-of-way) corridor in Alaska, including the TransAlaska Oil Pipeline System (TAPS) already located in that corridor."

However, DOI added two conditions to the grant relative to the gasline route and its relation to the TAPS oil line. First, the grant states that the two pipeline systems must be separated by at least 200 feet, instead of the 80 feet in the sponsors' proposal, except under specific conditions to be approved by the Federal Inspector. According to DOI, virtually all government reviewers of the company's proposal were in agreement that substantial delays would result in pursuing a route calling for an 80-foot separation, due to necessary additional work required to support such a separation. Key government officials indicated to the company that they were doubtful of ever approving an 80-foot spacing. Accordingly, Northwest Alaskan has altered its route planning to remain at least 200 feet from the oil pipeline except where terrain constraints dictate a closer distance. No schedule delays are expected as a result.

The second DOI condition provides for a mutual indemnification agreement between Northwest Alaskan and the TAPS owners covering damages which may occur in the corridor. Martin has stated that "the department believes that there must be a reasonable and equitable method of resolving issues involving damages between the two systems...determined by a reasonable division of responsibilities... based on the types of activities of the two systems." Northwest Alaskan and the TAPS owners are working together to formulate such an agreement.

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AFFIRMATIVE ACTION PLAN SUBMITTED TO FEDERAL INSPECTOR: Northwest Alaskan recently submitted a project Affirmative Action Plan (AAP) for the Alaska segment of the gasline project to the Office of the Federal Inspector (OFI) in Washington, D.C. The company's plan complies with each of the detailed requirements set forth in the equal opportunity regulations mandated by the Alaska Natural Gas Transportation Act and published May 12 of this year. It sets forth specific goals and timetables for both equal employment opportunity (EEO) and contract awards to Minority Business Enterprise (MBE) and Female Business Enterprise (FBE) firms.

In a September 5 notice in the Federal Register, OFI acknowledged receipt of the plan and stated that it has been initially reviewed but action to either approve or disapprove it could not be completed by the September 9 due date. OFI is taking additional time for review because of "the voluminous nature of the submittals and the complex issues presented therein." Although the plan is still under review, Northwest Alaskan is basing its present activities on the current document.

OFI also published a notice of proposed rulemaking in the September 11 Federal Register instituting procedures to enforce the equal opportunity regulations. The procedures cover compliance review, complaint investigation, conciliation and enforcement for both employment discrimination and contracting activities.

The procedures include periodic on-site inspections, investigation of all complaints, and written notice of any non-compliance. The primary enforcement measure will be conciliation, with injunctions and civil fines up to \$25,000 a day as alternatives in the event of continuing non-compliance. For blatant violations, used only as a last resort, work-stop actions may be ordered.

Since OFI and the Equal Employment Opportunity Commission (EEOC) have concurrent jurisdiction over EEO claims, the two offices propose a memorandum of understanding regarding employment discrimination which will allow OFI to devote most of its resources to affirmative action and take advantage of the EEOC's expertise in processing charges of discrimination. Public comment on the enforcement regulations is requested by October 10 and on the memorandum of understanding by October 14.

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TEMPORARY WORK CAMPS IN ALASKA ARE IN OPERATION: Four temporary work camps have been constructed in Alaska and are operating to augment pre-construction field activities for the Alaskan segment of the project. The camps, which can be relocated, were needed because the increasing number of people working on preliminary field programs exceeded available facilities.

The camps are set up along the gasline route north of the Yukon River for temporary housing and as operational bases for gas pipeline activities. The 78-man camps are located at Seven Mile, Prospect, Chandalar, and near Slope Mountain. The Arctic Slope Alaska General Construction Company, Inc., Alaska's largest minority construction firm, has been awarded a contract to supply and operate the camps for Northwest Alaskan. Another Alaskan firm, Modern Construction, Inc., has been awarded a contract to provide maintenance and fueling services to the camps.

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ALASKAN NATIVES TOUR COMPRESSOR STATION: Representatives of four Alaska Native Corporations located along the route of the gasline were guests of Northwest Alaskan Pipeline Company on a recent tour of right-of-way and compressor station facilities similar to those which will be constructed for the Alaska Highway Gas Pipeline Project. The facilities, located near Spokane, Washington, are owned by Pacific Gas Transmission Company which is currently involved in early construction of portions of the project's western U.S. leg in Washington and Oregon. Representatives of the Dot Lake Native Corporation; Tanacross, Inc.; Tetlin Native Corporation; and Northway Natives, Inc. attended the tour.

For further information contact:

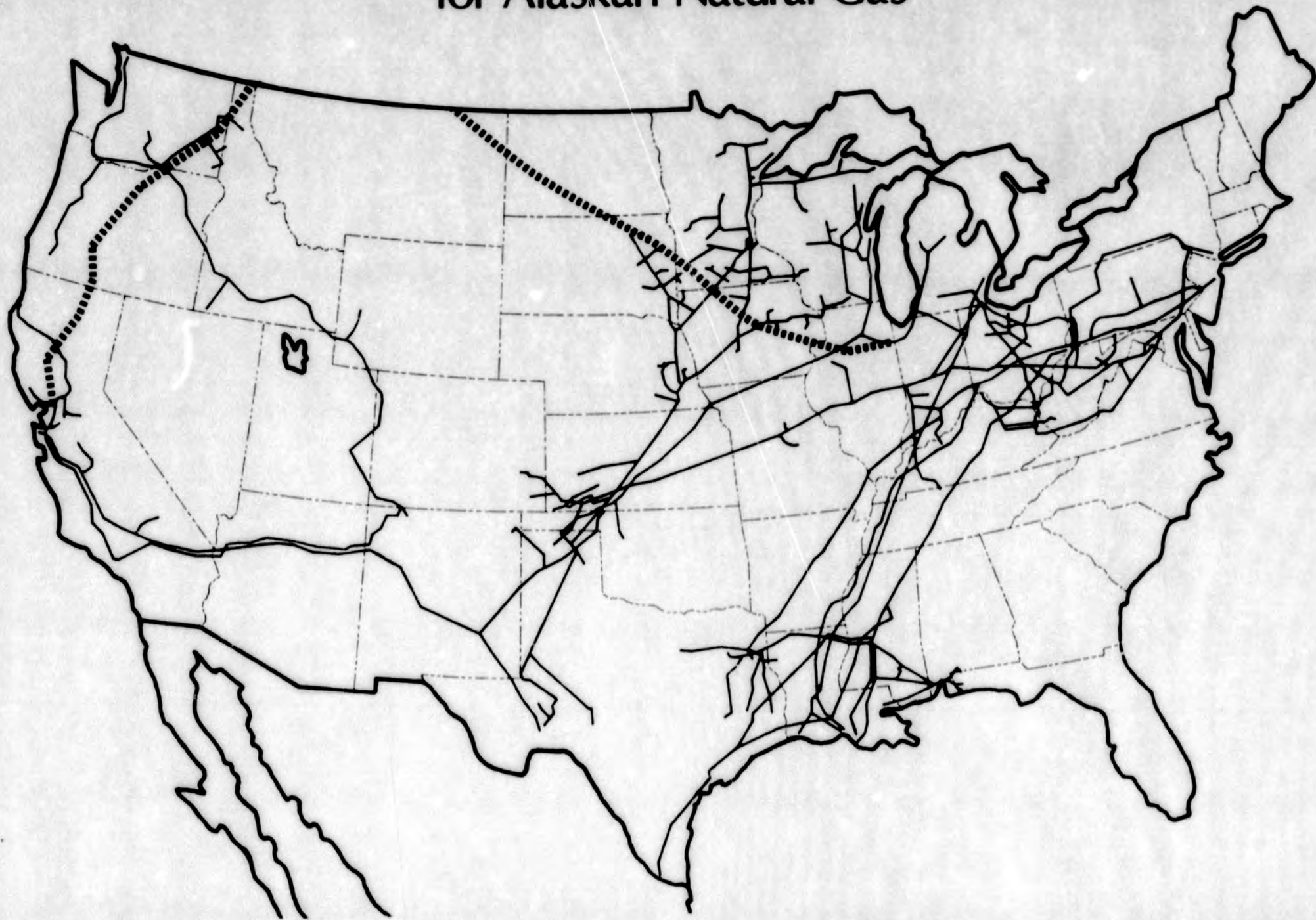
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U.S. Pipeline Partners: Delivery Systems for Alaskan Natural Gas



John G. McMillian

ADDRESS BY JOHN G. MCMILLIAN TO COMMONWEALTH NORTH*
October 5, 1979

Governor, distinguished Governors, ex-Governors and distinguished members of the House and Senate and the distinguished unbiased open-minded audience that we have here today and business leaders, its really a pleasure to be able to talk to you because I always look forward to my trips to speak in Alaska because a lot of times I've made trips here where I haven't been able to speak, so I always welcome the opportunity to speak to such business leaders and public leaders as yourselves. First I'd like to discuss the project to where we are today, where we are going, but to see where we are today and to look at where we plan on in the future. We might touch upon the history of what has happened to a brief degree.

As you will well remember we entered the competitive aspects of moving the Alaskan gas to the lower 48 market at a late stage in the proceedings. But we did that for a special reason. We realized the other two projects were in extremely difficult times and conditions, one had economic problems and environmental problems; the other one a similar situation -- the Arctic project -- but not to the same degree. Its problems were mainly in Canada. We recognized these problems and so we gave an ultimate choice to the Canadian Government, the American Government and to the citizens of Alaska. Clearly realizing it wasn't your first choice but it was a very...we hoped it would have been a very acceptable second choice. It was a very competitive hearing. There was a lot of strong feelings in Washington, more strong feelings in Alaska. Some of those feelings we haven't been able to overcome. I wish we could, but we haven't been able to. We were awarded the project by the President, it was ratified by Congress, the same situation transpired in Canada, their Prime Minister and their Parliament ratified the project. The treaty was agreed to between the two countries and ratified by our Congress. Our project is now set in concrete. It is going to be built. The two questions are when and how its going to be financed. With a commitment between both Canadian and American governments and with the monies that have been spent on both sides of the border, this project will be built. An unfortunate set of circumstances in the world entered--the situation in Iran-- but in some ways this was fortunate to the project. It brought a national focus to this project and a national dedication from our President and Congress to this project and it is now the number one energy project in this country. We began with... we first started when we were awarded the project putting together an organization and doing special studies as to the geo-technical environmental work which was required here in Alaska. We also had some special federal governmental decisions to clear up in Washington. Unfortunately about

*Text is verbatim; questions, where necessary, are paraphrased.

that time the Department of Energy was established and the energy bill that we thought would take three months took a little over a year to complete. We worked hard on this energy bill because we believed and we still do believe, that it was really the foundation of this energy bill and the conditions that we worked to put into this bill, that help our project and to make it successful.

The two main items that we worked for, they were very helpful, was to establish a base price for the Prudhoe Bay gas and we think it was a favorable price for the state and to the producers. We pushed and worked hard for this price because we thought it was fair. At the time we start selling this gas, the price of Prudhoe Bay gas to wellhead will be somewhere between \$2.50 and \$3.50 per thousand cubic feet. That's compared to if we didn't have an energy bill and you had the normal vintage contract under the old FPC of about 50 cents or so the gas...we felt like you should have had a fair price and we worked towards it. We also worked on what we call the rolled-in marketing aspect of Alaskan gas. We realize that Alaskan gas will be more expensive than domestic lower 48 gas so therefore we had to average it in with all the lower 48 gas that is being sold in the United States so we achieved what we called the rolled-in marketing concept of Alaskan gas. It makes Alaskan gas clearly marketable under any energy costs. We also supported the state in the state's use of Alaskan...of the Prudhoe Bay gas, this is a first time... you are the first state that has ever had that privilege and we supported you on that. And I think our support was important because the UAW, not one of our favorite labor unions but one of the most powerful in Washington, gave us credit for seeing that the energy bill was passed because we made so many issues over Alaskan gas and we did put a full effort behind the gas and from your competitors to get that kind of compliment for doing those things that I've mentioned, we feel that we worked hard and I hope you will remember that.

The other things that have happened that have given our project momentum and given a new direction and importance to the federal governmental community in Washington, is the reorganization bill where a federal inspector's office was established. That was recently done, a federal inspector has been confirmed by Congress. We think he is a very good man, his name is Jack Rhett, he is ex-Corps of Army Engineers. Some of you have met him. He is a very positive individual. He is a big-project man and realizing the problems of both government and environment and what it takes to get a project done -- we are very pleased with the selection and our working relationship with this man.

The other item that has been established which we think is positive for the project is two strong partnerships have been established. We have a U.S. partnership where there are six of the largest gas transmission companies in the United States are members of this group. I think most of you know who they are; they are Northern Natural, United Gas, ourselves, PG&E and PG&T and United Gas. In addition to that on the northern border which is our eastern leg of the project, it will be announced and they have been accepted, and we are working on a definitive agreement now. That Trans-Canada, the largest pipeline in Canada, will join the United States portion with an Eastern leg with a thirty percent interest in that leg, that portion of the project. Now it seems at first that's a large percent to give a Canadian company in a United States line but they are bringing so much to the project that we, the membership and partnership, thought it was well worth giving them that percentage to have their participation in the project. What they are bringing to us is what we call the pre-building concept where we will pre-build the two lower eastern/western legs of the project in an earlier time frame. We expect around the first of November the Canadian government will enter a export...will make an export decision to export to us over a billion cubic feet of gas per day of surplus Canadian gas. And at that time what we will do and we think its the same export concept will be approved by our federal government and if that is so, we will start construction of the lower portions of the system in 1980 and we hope to have the western leg completed in 1981 and the eastern leg completed in 1982. This does several things for the project. It increases the throughput of the lower system by one-third so our unit cost of transportation will be lower. It allows us to pre-build at a lower cost in the inflationary times we now face and it allows us to finance the entire project by segments and so it will not be such a strain on the financial market at one time by spending some nearly 2.3 billion dollars on the lower portion of the United States line and some 800 million for the Canadian portion. I think that your distinguished senator from Alaska, and he is a very good senator, Ted Stevens, had a meeting with the Alberta Premier here this week in Washington with Senator Jackson and members of the Energy Commission, I think from that talk and those talks it was clearly made to our Congressmen those distinguished Senators that pre-building was in the best interest of Canada and they wanted to pre-build and we think that that meeting was beneficial and that some concepts were discussed that we think are reachable that will insure the pre-building. Once the pre-building is done the Alaskan project is going to be done and has to follow.

The other item that we think is important that we have achieved since being awarded the project was that the group of American companies that I mentioned has spent over 130 million dollars on pre-engineering, pre-planning work. This is a lot of money. Our total expenditures before we lay our first joint of pipe will be some 600 million dollars and that will include a lot of field work, a lot of geo-technical work, a lot of environmental work, a lot of surveying; but it will be in the 600 million dollar mark before we lay our first joint of pipe. Before we can receive our definitive certificate we will have spent over 400 million dollars on this project. Now these monies are being put up by the transmission companies that are involved which shows their confidence in the project. Likewise a similar amount is being spent in Canada doing the same things that we are doing in the lower 48.

The other positive development was the FERC decision on our incentive rate of return. This was a frustrating delay which took seventeen months of hearings, of filing of briefs, of arguments with the FERC that should have taken three or four months but again we were in the same time frame of the energy bill being established. There was uncertainty and re-organization in this department as to what the national goals and policies would be but we finally achieved an incentive rate of return that we think is very acceptable and favorable to the sponsor of the project. We are able to earn up to 17 1/2 percent as a center point on the equity investment that we'll be making after taxes on this project and when you relate that to before taxes you are looking at some 35 percent of income and with the tax structure and investment tax credit and other factors you have to consider we consider that this is a very good opportunity for investment.

The other issue that was decided at this time was the tariff. The tariff is how and the basis of our financing for the project. Our tariff is a good tariff. It protects the debt participants very well, it, we wish it protected equity participants in greater detail better than it does but we think we can live with it. On the equity portion. We think the debt portion is fully covered and a very good tariff. We've heard about financial problems with the project. We have never been able to go to the financial markets until this time when our tariff had been established. Otherwise we would be wasting their time and our time. We are now doing this. We are now formulating our financial plan. We are now putting the plan together, we plan to have it together by the last quarter of this year, we plan to go to the financial markets by the first of next year. That is one of the reasons that I was encouraging the state to participate because of this time frame that we must meet. I will talk about that later on.

The other encouraging thing that we have had is the DOI's approval in principal of the alignment that we had proposed for the project conditioned upon the many geo-technical and environmental concerns that we both must solve together. We are working with the government on this in a positive manner. They are helpful. We hope to have these achieved in the near future and so far everything has been going well on these issues thanks to the federal inspector and the one window approach.

The other positive aspects of the project that we think is very important is the three major oil producers on the North Slope have entered into gas contracts with the major transmission companies. We think that this now gives us a better basis for expanding the group of participating transmitting companies - we have six today, seven counting Trans-Canada. I think that we will probably have somewhere in the range of nine to ten members in the consortium when its finally, the structure is finally complete.

The timing of the project, the timing that we can meet and we are hoping to meet is Prudhoe gas deliveries to the lower 48 in the 1984-85 winter heating season, that will be November 1984. We believe we can meet that schedule if the governmental decisions are made timely which they seem to want to achieve. We have also a problem of the gas processing plant. That issue has been spoken to in a recent decision where FERC has determined that the producers will bear the processing cost. We believe that that issue is negotiable depending upon the participation of the oil companies and the financial structure of the project. And it has been so stated.

We are now negotiating with the oil companies, we are negotiating in a positive manner and we think that they will participate with us. The way we planned to approach the financing of the project is of course our companies, the transmission companies, will put in the equity of 25 percent we will borrow debt of 75 percent from the conventional sources---insurance companies, commercial banks, supplies credit, foreign sources included. The, we have asked the oil companies to form what we call an over-run contingency in case our cost estimate is exceeded by an amount and we are talking to them along that basis where they will be the backup for an over-run contingencies not where those dollars will be donated to the project but those dollars they put in as an over-run contingency if an over-run does occur where that will be part of the permit structure where those companies will recover those monies in time with interest.

They didn't give us a chance to earn any monies on this wonderful project, what are you going to do. We said fine, we'll try to structure something of that nature and we did as a participating preferred stock that approaches or equals what the common equity would earn on their stock and it was a participating preferred because it was allowed the premium or the interest or the coupon or whatever you want to call it, is allowed to fluctuate with all profits in an upward manner, if that is what happens. It was a preferred stock and that we didn't feel the state could have a voice in management since they were one of the regulators of the project and so there would be a built-in conflict, you can't be an owner and regulator at the same time and we were giving them the best what we considered of both conditions in offering them 500 million of preferred stock in this manner. This second concept I've never even been able to explain. I haven't gotten through today, I don't think I'll ever explain it. I read your Daily News this morning. And after all this time, and after all this controversy and after all these debates they referred to one billion dollar guarantee asked by the State. We have never asked that, and I still know we haven't got that, we asked for a billion dollars for the state to be a conduit for a billion dollars of tax-free bonds where the project would be the credit for those bonds, not the State. The State would receive a bonus or income for being the conduit and we never could get this accepted in a clear-cut manner that we felt we could go to Congress with. In the first session, the first time we came up here we brought a lot of representation up here, we had hearings, we brought our experts up here, we brought the investment bankers up here, we brought the commercial bankers up here. We had hearings. We testified - we laid out the project and plans as clearly as we could and we said fine, but we need our own experts, they went out and hired their own experts, their experts came back and told them basically the same thing. Well we don't believe that expert, we need another expert. Also we heard last year you are putting too much pressure on us. You got too many lobbyists up here. You got a TV film down there, why don't you quit running that TV film, everybody is calling us. Okay, we said, we hear you, if we can't get it like we want this session we'll work on it next session. We went to them and said we'll pull the lobbyist off, we'll pull this off, we'll low-key it and we'll be able to work with you. We went to them the next session. Told them what do you want. Same thing, we're here to get it done like in a low-key manner. Wish you'd of give us more notice. The only thing we're interested in now is early adjournment, that's the main goal we got to do whether we do anything or not--is early adjournment. You know, you get a little frustration when those things happen. Very frustrating. So we said

So if we meet that date of 1984-85 we will start our major civil construction work in 1981 and start laying pipe in 1982. This will require us to file for our final certificate in the latter part of June 1980. And we plan to meet that goal. We plan to have our final certificate approved from FERC six months thereafter and with those two events in place. And when we say that we do file for our final certificate that means that most of our engineering work will be complete, our financing will have to be in place, our other critical issues that make the project successful have to be determined, have to be reviewed before the regulatory agencies and approved. So that's roughly our time schedule. We hope that the producers--and we are talking to the oil producers--that are going to be responsible for the gas processing plant can meet that same schedule. But whatever the schedules are for the gas processing plant we of course will have to meet those schedules.

I'll talk about the gas processing plant, I hear some people are interested in it, I'll speak to that later.

First I'd like to talk about the Presidential decision that was approved by Congress, and it has been approved by Congress. And I know some people might not accept that but that's the way it is. This mandates to us several things, one of them is it clearly states that the beneficiaries of the gas sale should participate in the financing of the project. This mandates to us to approach both the producers and the state to solicit and ask for their support. This we have done. This we have done, been doing for two years with the state of Alaska and I'd like to review a little bit of that history. Some of the parties here might remember it, they might remember it differently, but I'm telling you how I remember it. It's been a very frustrating two years, but we came down here telling you, telling Alaska, 'okay we knew we weren't your first choice. We were hoping we were your 2nd choice. But its kinda looking like we weren't even your second choice. Well, we are here to work with you and we want to work with you, and we opened our arms and we opened our hand and say let's work together. We met with your Governor and he had fourteen points that he wanted us to agree to before we started talking about financing. We discussed those points. We agreed to those points. And we've lived up to those points and everything we've done in Alaska, like Alaska hire, Alaska contractors, everything else. If you will follow our record we've lived up to them until this time. We've withdrawn our proposal for a lot of reasons, but we went to you and we talked to the people and we talked to the representatives in government and tried to structure something that would be workable and feasible for the state. The first thing we heard was you know the worse thing about Alyeska they didn't give us a chance to participate in the project.

well wait a minute why don't you give us a chance, why won't you hear us? We need it clean, what you've given us has so many strings on it it means nothing. And said well maybe we'll have a special session, maybe we'll do this. Okay we'll work with you in special session, we'll stand ready, and it was implied by some sources that we would be able to do this in special session. Special session came up. Its controversial, we don't want to talk with you. I said okay, but I'm asking for a special session, I request a special session, I'm still waiting for their answer. So this is the frustrations I've gone through trying to work with the state, this is the reason that I withdrew that offer because fully realizing that its become so public now and we stretched over so far backward to give the state what we felt like was a minimum commitment to and a favorable commitment to participating in the financing. I mean the taxfree bond, a nothing type situation. We were receiving a lot of criticism and time from congressman saying, 'wait a minute, what you are saying, you are getting the state of Alaska to finance on taxfree bonds, but you are not, you are asking the citizens of the United States to finance you on that because you are giving up part of your tax basis that the rest of the country enjoys and they are not doing anything. And so, realizing the controversy that was arising, the publicity that was arising, I wrote the Governor and said, and after not hearing from asking for a special session to meet the time frames we have to meet I told the Governor we are withdrawing our proposal, it was not acceptable, we had to acknowledge that fact, we had to notify the President of that fact that we did not think that we would be able to get this plan and I said other financial support from the State of Alaska. Because after these frustrating years with being fluffed around I still feel that way. I would like to work with the State of Alaska, I would welcome the opportunity to do something positive.

I have talked to the Governor recently, I am going to meet with him to see if we can do anything. We won't do it on this basis that I just mentioned. I think, I couldn't explain the taxfree bonds, I still couldn't, your morning papers show that, a lot of citizens show that this is an obnoxious approach but you own 1/8 of the gas if you own and want the gas and want to use it in the state, I'm going to mention the suggestion that you put up 1/8 of the project. Let's think about it. You'd receive 1/8 of the benefits and it might not be too bad.

Well, we are going ahead and we're going to build our financial structure around the State of Alaska, and we think we can do it if we have to, there might be special things that we have to go through in Congress, we hope we don't, but if we do, we'll do it. We think we can work with the oil companies and we're working positively with that and we want to do that now. So that's how I view the trials and tribulations of the State

financing that we've recently gone through.

The other things that I'd like to talk about is the future course of action, we plan to expand our consortium, we plan to increase our expenditures, we plan to do everything we can to meet the schedules that I've mentioned to you with government approvals, with other factors involved. I think we can.

As a future course of action with the State of Alaska, we'd like to work with you. We've been down here for two years telling you we want to work with you, we've agreed to all of your points that you brought forth and would still agree to points that we could work with you. But you have to face reality and that reality is it's been very difficult and the way things have gone in the past it might not be feasible.

The processing plant. Line pressure issue has been brought up. There is no way in the world that this gas can be transported from Prudhoe Bay without a gas processing plant at Prudhoe Bay. Now that has to be. You have to dehydrate the gas, you have to get the water out of it, you got to get the heavy elements out of the gas, you have to get the CO₂ out of the gas before you can transport it, or you have all kinds... you cannot build a transportation system, unless you do all that. Your hydrates, your design problems, your corrosion problems--nobody would build a pipeline under those conditions, nobody would finance it, we wouldn't put equity in it. So a processing plant of some kind has to be at North Slope.

Straddle plants, processing plants, are all over the U.S.; that is where a plant is built across a line or system where certain elements, petrochemicals and so forth. The design that we have proposed, 1260 pound pressure design is what we believe is the state of the art that is now available for the pipeline industry that can be done by private citizens and be done by private financing. This issue was very hotly and controversially debated in the Arctic Gas days when they had a 1680 pound pressure design and that's the reason--one of the reasons--they had to insist on governmental support. If our line pressures did change to any degree we would have to do the same thing because we would not stand the risk of an uncertainty of an investment in an unknown system. Especially after the Canadian government had made the decision that 1260 pounds is the state of the art today and that's why they approved it. If we exceed that I don't know how to explain to our financial sources, we wouldn't. And so that's why we would have to ask for government. We think we have an optimum design for you, we think its an optimum design if you want to build a petrochemical plant. We have enough ethane in that system to get two or three world size petrochemical complexes. Ethane is your main petrochemical base we've heard said...well but that's a world glut of ethane.

That's right. It's cheap. It's all over the world and it's going to get worse and you're not putting the real goodies in the stream for us because your pressure is too low. Tell me what those are. Nobody has told me what those real goodies are. Nobody's told me what kind of petrochemical plant they're going to have. Nobody's told me where there is a concrete project for a petrochemical plant, if there is, we'd like to see it. But anyway, it doesn't make any difference to us because we're taking gas at the tailgate of that processing plant. Now you might have a 500-mile gathering line someplace and that is alright with us but we're taking gas from the tailgate of the processing plant. That is where we are designing our system. But a petrochemical complex can be built, you have the ingredients in the gas stream to do so. Sometimes I wonder why the issue has been so sensitive or why it hasn't been thoroughly studied out because you have to have a processing plant on the North Slope and I think if you look at it they will tell you that. Let me look at my notes to see if I left out anything. If not, I'll try to answer some questions for you. Those are the main things I had to mention, anybody has any questions I'll be glad to try to answer them.

Q Mr. McMillian if the state were to withhold its 1/8 royalty share from the pipeline entirely would your financial experts tell you that your project is still financially feasible?

Well, how are you going to withhold them? You going to leave them in the ground? If Alaskan gas is going to be transferred on this system, this is an intra-state system, their tariff will be charged at Alaskan gas. You might not like that tariff. That tariff can be adjusted and negotiated and it could be a favorable tariff and it could be a very unfavorable tariff, I'd say that if Alaska doesn't participate or do something positive it would be unfavorable, but then you got to say how are we going to do this, if you want to leave it in the ground--leave it in the ground. Because we'll produce what the reservoir will produce which we think at the time we will be producing gas will be around 2.4 billion--our studies, although 2 billion has been approved we think at the time it will be around 2.4 billion. Now there are a lot of people that do this in the oil business. They leave their gas in the ground and let the other operator take their gas out and that's all right. We'll do that, but, yes we can do it on the volumes that are there for the reasons that I mentioned, the rolled in pricing of the things.

Q Bonding authority legislation - local hire

We withdrew the whole concept of the bonding authority. That's what I tried to make a point to you because we don't think that will ever go, that we will ever get that done. We've accepted that fact, we've withdrawn it completely. We have also withdrawn the 14 items that we told you we'd do and work with you on because we think if we re-negotiate we are going to re-

negotiate those too. But its not true that we haven't used local contractors and its not true that we haven't used local labor because we have done that. We have hired R & M that has done most of the field work we have done up here and Nortech has done a lot of the work up here and Frank Moolin built the 7 million dollar permafrost installation in Fairbanks. Everything that we have done in the field and every bit of work we have done here has been with Alaskan contractors, Alaskan labor and Alaskan people and we will continue to do that, not because we negotiated it, but because we think it's in our best interest to do so, and we're going to use them when they are available because its in our best economic interest to do so.

Q (inaudible)

You are asking me for a lot of specific detail that I'm not familiar with maybe somebody here knows but I know we haven't made an effort on right-of-way -- a major effort.

Q Foreign investment -- tell us about your trip to Germany and discussions with bankers there.

Well, I think -- we not only visited Germany, we visited France and we visited Italy, we visited Japan, we visited all the major industrial centers and major world money markets. In our discussions with Germans, it is probably the most aggressive economy in the world today, the state of Alaska was not the major topic of discussion, we said they may or may not, but it was in our opinion that they would not participate in the project. Our main talks and negotiations with the banks were upon if we buy German materials and supplies supplier-type credit that could be furnished and more important to us would be your dollar or deutsch mark type of financing that would be available to the project. Upon those phases we reached a very optimistic market with where we thought were positive results where we felt like a billion dollars of debt financing could be obtained in the German market without too much trouble.

Q Why through Canada -- when Trudeau -- communist visited China. Why go through foreign country?

Well, I'm supporting this idea for a lot of reasons, one reason I just returned from Communist China. We have established relationships with that country and I don't think that just because he was there a year or two ahead of us as Americans that should condemn him for that purpose. I think that viewpoint is so out of date, so obsolete, so ridiculous that I hate to comment on it. But I will comment on it. Our two governments are more dependent upon each other more than ever. The Canadian government now is on the energy positive supply basis, they furnish 2.7 billion cubic feet

to us every day with our new application it will be 3.7 billion. That's nearly twofold of what has been approved from Prudhoe Bay. The Canadians transport 40% of their gas from western Canada to their eastern Canada markets to the United States. They transport 100% of their Canadian oil through the United States to their Canadian markets. Now if we don't have security by that, you don't have any security. Now we think doing business with Canadians is very reasonable, its the thing to do, they have the energy resources, we've been doing business with them for a long period of time, they are reliable people and it was the best approach. You had three projects--two of them through Canada, one of them through Alaska, and I know how you feel about it, but it wasn't economically viable, it wasn't environmentally, it wasn't there--so the two projects that were really viable were through there and it was for the reasons that I mention, I mean its more economical and you got a good relationship with those people. Jesus, we can't, Trudeau is not even there any more and we are going to Red China now.

Q Sir, given the animosity towards your project in the State, why isn't it in your best interest to try to encourage the petrochemical site and give us an ongoing economy here rather than writing the President to cut it off?

Well, I'll tell you, I don't think I'm going to improve my PR or hurt my PR efforts here but I think I started at base zero and we worked hard on it for a year or so and may be at base zero after a year and may be minus and we decided we had to make our views known a little stronger and I think we are still at the same base and I think we're still at the same base today. But we don't discourage your petrochemical plant. If you want to build one there, go ahead and build it. That's what I said. I mean build it. You have enough components to do it but we are restricted on what we can build and if you think if you are going to come to me and say, 'build me a 1680 pound line up to the North Slope because I can get a little bit more down here, but I don't have a plan for it, I don't have a financial responsible company to support, that I only have a dream for that...we want you to spend several billion dollars to make this system so that I might have something to do,' when you don't even give me the time of day on a taxfree bond! What do you expect me to do? What do you expect any reasonable man to do? But I'm here to help you and I'm going to work with you if I can (laughter)...But if I got to hit you over the head with a baseball bat and if you want to hit me over the head with a baseball bat, you do it and we'll butt heads all day. If we can work together I want to work with you and I want to do it but the way you have been working I don't see how you can ask anything. But I'm still willing.

Q Regarding tariff - what will be the tariff for gas taken off in-state? for in-state use?

Well its a...you must realize there are different concepts on this but when a pipeline is built from point A to point B like this will be a 15 billion dollar project, and I should mention this I forgot to mention this in my main speech, we plan in 1984-85...dollars time completion our estimated cost will be over slightly six billion dollars in Alaska. Six billion in Canada and the remainder in the lower 48 with the pre-building we talked about so within those frames we are looking at a \$6 - \$6.50 gas delivered to the market with a, say, somewhere around \$2.50 to \$3.00 for the wellhead price for your gas. So the remainder of that \$6.50 will probably... is transportation tariff for the entire system. Now there's never been a tariff built or established in the world unless its under unusual circumstances where you have an mcf/mile basis. Usually the investment for the entire system is taken into account on a tariff adjustment. Granted the lower...the less distance you transport gas can be adjusted because part of the horse power requirements, the fuel requirements, other requirements down in the lower part of your system can be adjusted for and the tariff will not be the same whether you take the top or the bottom there is an adjustment to be made. But to come up with an exact figure on what that would be right now, I don't have those figures. But I'd say you'd still be looking in an order of magnitude of 4 to 5 dollars, in that range to be adjusted.

Q What impact will recent gas contracts signed with Mexico have on your project?

It completely...from the...still the diehards of the El Paso project that are here it's probably another cloud over your dream and that it did fill up the capacity of help fill up the capacity of the El Paso system where their concept of transferring gas reserves throughout the United States is a no longer a viable option. Not that it was, but it just made it less of an issue. But we were the contract that was discussed with us. We told them what would happen in Canada. We asked if they could modify the reaction from the Canadians on the price, it would be appreciated, but as far as opposing it, we didn't, because it was a political issue that we were glad to see out of the way. The volumes of gas from Mexico we do not consider competitive, there are 300 million a day initially. They hope to get two billion, its in effect a 90-day contract. We don't think it will seriously effect the marketability of the Alaska gas because of the time frame we are talking about. I think our supply will be so much more secure than their supply and I think that we will be competitively priced. Because if you look at the world prices and new gas prices in the United States, new oil is

going for \$30 a barrel, new gas is going to \$4.00 per mcf with escalations tied to OPEC oil so I think we will be competitive and so we're glad to see it over as an issue.

Q Impact of Kennedy for President movement on the Northwest project?

Well, like the Governor said, you know, you have trouble with elections, you have trouble writing letters too. But I think there is no doubt about it, the President has problems, the polls indicate that. I don't think...I think the Kennedy battle, the Carter battle; is not as the polls indicate. I think once Kennedy steps into the arena you're going to see a different reaction from the press. You're going to see a man that is going to have to face the issues, he is going to have to speak to his own record in the Senate, his own leadership role and so that I do not think that battle is as clear cut as most people indicate. Then you come to the general election and there is going to be a very difficult race. Like the Governor and I were talking: if Connelly and Kennedy are there you'll probably see one of the more exciting races than you have ever seen. If Reagan and Carter are there, I don't think it will be quite as exciting. But it is always a risk. Next question is what will they do to our project and I don't think they will do anything because the project has been set in concrete. We have approval of the Congress, we have an agreement between the two countries and an agreement in Parliament; so the majority of our support and the majority of the tension we receive on the project, because the individuals are all worried about other items; now is from Congress. And so we wish them both well, but it'll be a good race. Any other questions?

Q You mentioned the \$6 - \$6.50 gas to market, what would be the retail price normally to the consumer if it were not rolled in? What would be a normal markup from wholesale to retail price for gas?

Well its not marked in that manner. Our business is a regulated business and our profits are generated from the investment we put into a system to transport the gas. The same with the distribution companies that you have down in the lower 48. I mean you have a gas distribution company and he makes a 10 million dollar investment he gets a certain rate of return on his 10 million dollars. And so the price of gas is given to him at what the wellhead price is, what the transportation cost is delivered to his point of delivery. The profit is made on the investment that we make so there is no markup on gas as referred to, but the profit does vary by how the regulators change our rate of return.

Q What is the normal investment return. What is the normal add-on of the distribution.

Well \$6.50 price I mentioned to you includes to the burner tip, or to the factory, or to the point of entry. That is the average over the United States, that wouldn't be exactly it. Today what is the national average - it approaches the \$2 mark. More expensive energy coming on all the time will vary that greatly.

Q On that issue, was your \$6.50 the rolled-in price or the actual Northwest price before it gets rolled-in?

It's an actual delivery point at the end through the transportation systems in eastern/western United States and that's an average. I mean it might be \$6 in California, \$6.85 or something there.

Q On the Royalty gas issue, there has recently been a lot of discussion about the State building a separate gas liquids pipeline, an 18 inch pipeline from the North Slope to tidewater carrying just the gas liquids to develop a separate petrochemical industry, if the State got involved in something like that which would involve taking it's entire 1/8 in the form of gas liquids in effect leaving Northwest with 7/8 of the gas to transport. What would the effect be on the project, the financing schedule, so forth?

It would probably be helpful if the State would approach that seriously. Because I think they would then realize economical problems they are facing and economical liability of their talks and dreams and they would realize some of the problems we are now facing and they would maybe be a little more sympathetic to us.

Q Mr. McMillian you say that you have withdrawn your offer but you say you are still willing to work with the State, forgetting all the problems of the past, what is it now that you would like to have from the State from this point forward?

Well the first thing, I had talked to your Governor about this, I hope to meet with your Governor shortly. We had a basis for setting up a...with their consultants, with our financial consultant; and they hired a financial consultant, a very reputable one who we have never had the privilege of meeting with. Our committees have never gotten together to really work on things but we would hope that those committees could be activated where they could consider the time frame we are looking at then something could be done in a timely manner. We would approach it and from the past history, that we have to consider as we don't think that we could get the original concept, and we would be open to other approaches like the 1/8 approach. We'd be interested to hear what the State really wants to do, besides nothing, and if we can do that

we'll try to work it out. And if we can't, we will build around the State and then let the Federal government decide. We are just trying to fulfill a mandate that was issued to us. We wish could...we wish this issue was behind us, it should have been behind us two years ago, then you'd have had the best deal in the world and everybody would have thought you'd done the greatest thing in the world. It wouldn't be an issue. It would have really helped us too in that time frame, but as its gone, it hasn't helped us at all. But if we can sit down with the two committees and we can work something out. We're going to suggest the 1/8 basis because you have 1/8 of the gas and maybe that is easier to understand than the taxfree bond.

Q What is the projected life of the system?

It depends upon the gas reserves available to the system. We think that your North Slope of Alaska is one of the most prolific oil and gas reserves or potential reserves in the nation today. I think that this has been brought forth by the Dome discovery in the Beaufort Sea. One of the major North Sea-type fields in that area. We estimate on the North Slope where you have at least twofold, possible threefold, of your offshore fields could be tremendous reservoirs. AGA gives you a potential gas reserve of 225 trillion cubic feet of gas which is more than the entire gas domestic supply in the lower 48. So we think the potential is unlimited for you there. What we are building is not a pipeline to take Prudhoe Bay gas. What we are building is a gas energy corridor to the North Slope of Alaska. So we think it has that potential. But the financial life of the project is what you usually go by is initially put on twenty years, but of course, with the gas supply you have there you have about 25 to 30 years of existing gas supply at Prudhoe.

(Question by former governor William Egan)

Q As a layman, it seems to me that your frustration often expressed with the State of Alaska not being cooperative in this venture seems to hinge around the fact that the State hasn't rushed in to substantially help finance this project. Is it normal for you and other states and companies like this to come in and pound the table and demand that a State substantially finance a project for companies that have hoped to develop the people's resources, have the privilege of developing the people's resources at a profit? That is what I have not been able to get through my mind, this frustration, so called frustration with the State of Alaska.

So called a privilege, I wonder if it is a privilege. And but I don't think two years is really rushing in. I don't think our initial approach was pounding the table. I think

our initial approach was very conciliatory. We agreed to all of your points and every time we turned around you muffed in our face. You delayed us. You pushed us back, you didn't even give us the time of day. So after two years of that, yes, I think its time to draw the line when we have a time schedule that we must meet and we had a mandate that we must meet and you read the same mandate. And so I think it's very fair and I think for you not to recognize the time restraints and everything else that we have, is unfair.

Q But my question was, is it the normal thing for a company to demand from a State to help finance their project?

But I didn't demand this, the President did. The Congress did. That's why you got the intrastate use of the gas. That's why you have the wellhead price you have.

Q Does the President or the Congress, do they have the right? What would happen in any other state if they demanded that of a state?

They would not have those privileges. But if they had, they might. When you have that privilege, you can hardnose as much as you want to but they regulate you and they are going to tell you what you are going to get...and a....

Q You mean to say the Treasury of Utah is going to finance any particular project...the Governor and legislature would descend on Washington right now - I think you would agree with that.

It depends on the project and it depends on the basis of income. You are getting 70 billion dollars in a gas sale.

Q The State of Alaska hasn't gotten that yet.

But you are not going to get it until the system is built.

Q There are other things involved.

Any other questions.

Q As I recall, presentations to the FPC, I believe your company said no financing from the federal government.

We did not ask for federal guarantees, that's correct. We asked for private, the opportunity to privately finance this system for several reasons. The first reason is that on our equity investment that we put into this system. Now we have the opportunity to earn 17 1/2 percent which is a very favorable rate of return. I think that if we had a federal guarantee,

the rate of return we would be allowed to earn would probably be something that we wouldn't accept and wouldn't be interested in building the system. I think also that with a federal guarantee, well if you like d-2 and if you are happy with d-2, let the government build your pipeline and that will be what would be happening with federal guarantees. The government would be building this pipeline and I don't think you will receive the handsome returns that you are now able to enjoy on your wellhead pricing for your gas and we won't get what we want on our equity. The debt holders will not get what they want on our loan - their bonds. They would be selling government bonds. They won't be selling industrial bonds or indentures. So that's the reason we approached, that we believe it can be done, and we are going ahead on that basis.

Q Mr. McMillian, you mentioned pre-build for the eastern/western leg, will that affect Alaska building schedule?

Yes, well one, our market - the U.S. market - will absorb the surplus Canadian gas and so we think its a -- the market is there. The time frame difference allows us to approach the markets in different time frames and which makes the financing easier from that stand point. Which also allows you to space out your construction people, your equipment spreads and other things that make it more efficient for construction and so we think its a good separation and can be handled.

Q So you don't have any expected delay for construction in Alaska.

No, no, it expedites, it strengthens financial prospects of the project greatly.

Q Suppose the equity investment concept was dropped but the state approved use of the revenue bonds, would that be okay?

Well one part without the other doesn't make a whole, for us to ask, the taxfree bond concept was for one reason, it opened a different market but also opens more difficult problems with Congress.

Q Would it be possible to make arrangement with the State wherein the concept of equity investment remains dropped, but the state comes back with a larger amount of tax-exempt bonds?

Well, no, we think you ought to have both because really what you are offering. The tax exempt bonds is not really a financial burden on the state, it is a financial plus and if we go

to Congress and say look how the state of Alaska participated in this they've given us all the tax free exempt bonds. And this doesn't effect our profit. Let me tell you that. All that it does effect, I mean that aspect, the interest aspect on debt, is passed on to consumer. So whether we sell 14% bond or 10% bond it doesn't effect our profit. It does effect the consumer. So we thought for that reason it would be acceptable. We thought it would open additional market. But I think to go in with a larger element where the controversy has now been created by ourselves on this issue, where it could have gone through very smoothly at one time, now I don't think it will. Now I think you will have difficulty with it, expecially if you don't put some other form of financing in such as a preferred equity, because really you are giving nothing. And we tried to make it as easy as possible but it didn't go.

Q I hear you talking about a solid project with 17 1/2 percent equity, why don't you just go ahead and build the project and forget about the state of Alaska?

We are, but somebody else is not going to forget about you.

Q You mentioned \$2.50-\$3.50 per SPF wellhead price for state of Alaska producers but what concerned me was the gas plant at the North Slope, do producers pay the cost of conditioning?

Well I told you that to me is a negotiable item, I think it still is. I think a lot of factors here are negotiable but right now the way it stands it is the producer's and the state's burden to process the gas. The state can argue with the producer as to whether it's theirs or not but I think that price is gross, is not net of processing and right now you are looking at 100% of the processing cost. I think that that can be varied. I understand that we are running short of time.



Alaskan Newsline

Vol. 2, No. 2

Feb. 9, 1979

Dean J. ... *Gas Pipeline*

* SPECIAL ISSUE: PROJECT SCHEDULING *

Originally, the construction schedule for the Alaska Highway Pipeline Project called for planning and pre-construction activities in 1978 and 1979, with actual construction to commence in 1980 and service to begin after January 1, 1983.

These two years of planning and design activities were required to take the project through the complex and multi-layered procedures involved in obtaining the many permits from various government agencies, as well as all necessary regulatory approvals for a project of this magnitude. The Congress, cognizant of the inordinate amount of time routinely spent in processing these myriad permit and regulatory approvals, included in the Alaska Natural Gas Transportation Act of 1976 an expedited procedure for achieving all necessary government approvals in order to deliver North Slope gas at the earliest possible date.

Due initially to the delay in passage of the Natural Gas Policy Act of 1978, which included two vital provisions for the pricing treatment of Alaskan gas, the project's original schedule was set back by at least one year. Now, this delayed in-service date of late 1983 has incurred further slippage because of substantial delays encountered in dealings with the federal government.

At a January 9, 1979 meeting of the acting Executive Policy Board (EPB), created to oversee policy responsibilities for the project, project sponsors indicated that many necessary decisions and actions on items critical to forward movement of the pipeline project remain unresolved. They further stated that failure to effect prompt resolution has now caused a schedule delay to 1984. Northwest Alaskan Pipeline Company officials stated that they were in the process of drawing up check lists of critical items and dates when actions must be taken in order to keep the project on its current time schedule. (A partial listing of these check list items appears at the end of this newsletter.)

On January 17, company president, R.R. "Andy" Meyer forwarded these check lists to the EPB, stating, "We believe the (new) schedule is achievable if there is the requisite determination and dedication of resources by all concerned. For our part, we pledge ourselves to make a maximum effort. From the government, we seek a commitment to overcome obstacles and actively look for ways to help us get the job done."

In direct action to draw attention to this most critical issue of delay, with consequent cost increases of up to \$3 million a day, or \$1 billion a year, John G. McMillian, Chairman of Northwest Alaskan Pipeline Company, sent a letter complete with check lists to President Carter. McMillian affirms, "The Alaskan pipeline will be built. It is too important to this country for it not to be built. But you are entitled to know our problems and concerns, and I trust that it is not too presumptuous for us to bring to your attention significant problems which we have not been able to resolve otherwise."

Underscoring sponsors' dedication to achieve private sector financing for the project, McMillian outlined for the President some of the most pressing issues needing resolution:

- Federal government activities relating to design issues, and project permits and authorizations, must be coordinated and expedited.
- Federal Energy Regulatory Commission (FERC) proceedings relating to the variable rate of return, pending since May 1978, must be resolved in a manner consistent with the President's preference for private financing without further delay.
- FERC procedures to resolve gas processing/treating cost issues must be initiated and completed without further delay.
- The proposal to prebuild the Southern portions of the Alaskan system should receive prompt government approvals.

In order to achieve a 1984 completion date, an application for final certification should be filed with FERC in mid-1980. Included in that application must be a financing plan and final cost estimates. Issues awaiting resolution necessary to provide these two vital elements are the following:

- Basic decisions regarding gasline proximity to the oil line, and system pressure must be made by the federal government before the pipeline design can be finalized.
- Final cost estimates cannot be furnished until the basic design has been settled, and the basic right-of-way stipulations for general environmental, technical and construction standards are known.
- Full equity support for the necessary preconstruction work will not be forthcoming until the FERC implements a variable rate of return structure which permits reasonable assurance that a fair return will be permitted equity investors in the project.

Certainly one of the most important items in the regulatory arena, the resolution of which could lead to expedited treatment of other issues, is Congressional approval of a Limited Reorganization Plan defining relevant federal agency responsibilities. The plan also calls for the appointment (with the advice and consent of the Senate) of a Federal Inspector to coordinate the issuance of permits and supervise enforcement and compliance actions. This plan has not

yet been presented to the Congress for consideration. The present EPB members are operating only in 'acting' capacity due to this lack of Congressional approval and consequently cannot as yet provide clear and decisive direction to project sponsors on critical issues. Of paramount importance is the swift nomination and approval of a Federal Inspector to provide the centralized leadership necessary to reach expedited decisions on matters now pending as well as those which will arise during the next several months.

Vital to the interests of current and future equity investors is the resolution by FERC of the Incentive Rate of Return (IROR) mechanism, mandated by President Carter in his Decision and Report to Congress on the selection of an Alaskan gas transportation system. Recent FERC orders No. 17 and 17-A do establish components to be contained in an IROR mechanism, procedures for drawing up specific definitions and setting up parameters. They also contain language indicating FERC's awareness that uncertainty and delay are causing project sponsors concern regarding equity financing. But they do nothing to actually expedite matters. Accordingly, project sponsors intend to submit a petition in February in which they request a supplemental proceeding to provide the necessary framework to attract and sustain equity investment. The petition requests the commission to issue a rule-making establishing two essential criteria:

- a) The IROR mechanism will permit the Partnership to earn a rate of return neither greater nor less than that which is just and reasonable.
- b) The range of rates of return will constitute a "zone of reasonableness" (that is, set upper and lower limits), which will take into consideration both the need to attract capital and the need to protect consumers.

In order to obtain private financing in a time frame permitting project completion in 1984, these two issues must be settled by May 15, 1979. Project sponsors recognize that resolution of other essential parts of the IROR mechanism may be subjected to lengthy procedures and may cause equity investors to rethink current capital commitments. Therefore, in order to achieve timely financing objectives and provide a just and fair climate for positive project decisions to be made and carried out, these two interim considerations and favorable determinations are essential.

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CHECK LIST OF CRITICAL ITEMS

Listed below are many of the critical items which must be resolved by various government entities to ensure project completion in a timely and cost efficient manner:

Federal Energy Regulatory Commission

<u>Action</u>	<u>Required Date of Action in 1979</u>
1. Initiate proceeding to resolve scope change, inflation, & cost control issues relating to Incentive Rate of Return (IROR).	Early February

Federal Energy Regulatory Commission -- Cont'd.

<u>Action</u>	<u>Required Date of Action in 1979</u>
2. Initiate proceeding on project tariff based on: (a) tariff to be filed by sponsors and (b) report to Commission on tariff issues by FERC's Alaskan Delegate.	Early March
3. Initiate rulemaking to determine Project Risk Premium.	Early March
4. Issue final order implementing Sec. 110 of the Natural Gas Pipeline Act concerning production-related costs.	Mid-March
5. Issue final order on scope change, inflation, and cost responsibility issues relating to the Incentive Rate of Return.	Early April
6. Issue final order approving 1260 psig design pressure, 48-inch pipe diameter, and initial system capacity of 2.0 to 2.4 billion cubic feet per day.	Early May

Federal Government (Excluding FERC)

1. Advise Northwest Alaskan of Haines pipeline right-of-way availability, about 160 miles of which is planned to be coincident with the gas pipeline alignment. Responsibility: Executive Policy Board, Dept. of Interior, and General Services Administration.	Mid-February
2. Provisionally approve pipeline alignment, including resolution of proximity to TAPS as a "compatible use" of the right-of-way. Responsibility: Executive Policy Board, Dept. of Interior.	Mid-February
3. Definitively resolve issues concerning Northwest Alaskan's reimbursement of Department of the Interior expenses. Responsibility: Dept. of Interior.	Early March
4. Provide definitive statement concerning any restrictions or special conditions to be imposed on right-of-way acquisition or construction in Tetlin Wildlife Refuge, recently withdrawn by Public Land Order 5653. The statement should also cover any other areas on or adjacent to the proposed pipeline alignment. Responsibility: Dept. of Interior.	Mid-March

Federal Government (Excluding FERC -- Cont'd.)

<u>Action</u>	<u>Required Date of Action in 1979</u>
5. Advise Northwest Alaskan of proposed contractual terms for Agreement and Grant of Right-of-Way for Federal lands in Alaska. In addition, specify what, if any, stipulations or other requirements are planned other than those worked out with the Executive Policy Board. (For cost estimation and to obtain financing, it will be important to avoid open-ended provisions or other sources of uncertainty, delay, or potential cost escalation.) Responsibility: Dept. of Interior.	Mid-March
6. Nominate the Federal Inspector. Responsibility: The White House.	Mid-March
7. Issue <u>final</u> stipulations covering general, environmental, and technical matters. Responsibility: Executive Policy Board/ Federal Agencies.	Late March
8. Approve the Limited Reorganization Plan. Responsibility: U.S. Senate & House.	Mid-April
9. Confirm the Federal Inspector. Responsibility: U.S. Senate	Mid-April

Federal Government Check List
For Prebuilding (Canadian Imports) Elements

1. Resolve, with finality, Incentive Rate of Return issues for Eastern U.S. leg, including the rate of return zone, scope change procedures, and inflation adjustments. Responsibility: FERC.	Mid-May
2. Issue Final Certificates of Convenience and Necessity for the Western and Eastern legs, which necessitates prior approval of the Overall Management Plans by the Federal Inspector per the <u>President's Decision</u> . Responsibility: FERC.	Late June

State of Alaska
Check List of Critical Actions

<u>Action</u>	<u>Required Date of Action in 1979</u>
1. Provisionally approve pipeline alignment on State lands, including joint use of rights-of-way and permit areas with TAPS as a "compatible use."	Mid-February
2. Advise Northwest Alaskan of proposed contractual terms for Right-of-Way Lease for State-owned lands. This should include a complete statement of all liabilities and obligations that Northwest Alaskan would be asked to assume. It should be accompanied by a complete listing of any limitations or requirements that would be imposed in the form of stipulations attached to the lease or to any permits issued by the State. (This information is essential for the project's cost estimate and for obtaining equity support for the project).	Mid-March
3. Provide Northwest Alaskan with a draft of proposed terms for joint surveillance and monitoring agreement with the Federal Government.	Mid-March
4. Issue final stipulations covering general, environmental, and technical matters.	Late March

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Alaskan Pipeline

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FOR IMMEDIATE RELEASE

EPA GRANTS AIR, WATER PERMITS FOR
ALASKAN GAS CONDITIONING FACILITY

SALT LAKE CITY, March 15 -- A key regulatory decision advancing the Alaska Natural Gas Transportation System was received recently when the Environmental Protection Agency (EPA) granted air quality and water discharge permits for the Alaska Gas Conditioning Facility to be built at Prudhoe Bay, Alaska.

The EPA's Seattle regional office on March 12 issued Prevention of Significant Deterioration (PSD) and National Pollutant Discharge Elimination System (NPDES) permits to Northwest Alaskan Pipeline Company for the construction and operation of a plant to condition gas on the North Slope for transportation through the Alaska gas pipeline to the lower 48 states.

These permits, representing more than 15 months of preparatory work by project sponsors, will enable the company to request proposals for the purchase of gas turbines, generator and compressor units and water treatment equipment to be installed at the plant.

-- more --

After a thorough analysis of data submitted by the company, EPA determined under guidelines of the Clean Air Act that conditioning plant construction and the use of natural gas fueled turbines, totalling roughly 600,000 h.p. and employing the best available control technology, will not cause significant deterioration of the air quality. Similarly EPA determined, pursuant to the Federal Water Pollution Control Act, that a proposed treatment process for the discharge of up to 150,000 gallons of waste water per day is in compliance with established standards.

The Alaska Gas Conditioning Facility will be built at the Prudhoe Bay field adjacent to an existing central compressor plant, near a barge causeway and dock head. Approximately 200 prefabricated modules will be moved by barge-lift from west coast ports to the site during the three major construction seasons.

Northwest Alaskan, a wholly-owned subsidiary of Northwest Energy Company, Salt Lake City, is operating partner for a consortium of ten natural gas companies and three Prudhoe Bay gas producers responsible for the design and engineering of the Alaskan segments of the 4,800-mile Alaska Natural Gas Transportation System.

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From: Northwest Alaskan Pipeline Company
701 Douglas Avenue
Fairbanks, Alaska 99701

031582

Done in Washington, D.C. on August 28, 1981.

Peter F. Cole,

Secretary, Federal Crop Insurance Corporation.

Dated: August 28, 1981.

Approved:

Melvin E. Sims,

Chairman.

[FR Doc. 81-25918 Filed 9-1-81; 8:45 am]

BILLING CODE 3410-08-M

Forest Service

North Kaibab Grazing Advisory Board Meeting

The North Kaibab Grazing Advisory Board will meet at 1:00 P.M., Tuesday, October 6, 1981, at the Conconino County Building, Fredonia, Arizona.

The purpose of this meeting is:

1. Development of Allotment Management Plans.
2. Utilization of Range Betterment Funds.

The meeting will be open to the public. Persons who wish to attend should notify: Forest Supervisor, Kaibab National Forest, 800 South 6th Street, Williams, Arizona 86046. Telephone: (602) 635-2681.

Those attending may express their views when recognized by the chairman.

Dated: August 27, 1981.

Leonard A. Lindquist,

Forest Supervisor.

[FR Doc. 81-25917 Filed 9-1-81; 8:45 am]

BILLING CODE 3410-11-M

Packers and Stockyards Administration

Farmers Live Stock Exchange, Inc., Boonsboro, Maryland, et al.; Deposting of Stockyards

It has been ascertained, and notice is hereby given, that the livestock markets named herein, originally posted on the respective dates specified below as being subject to the Packers and Stockyards Act, 1921, as amended (7 U.S.C. 181 *et seq.*), no longer come within the definition of a stockyard under said Act and are, therefore, no longer subject to the provisions of the Act.

No.	Name, and location of stockyard	Date of posting
2	The Farmers Live Stock Exchange, Inc., Boonsboro, Maryland.	Oct. 14, 1959.
	Dukes Stockyard, Inc., Eden, Maryland.	Dec. 12, 1968.
	Meteor Stables, Inc., Capitol Heights, Maryland.	July 18, 1975.

Facility No.	Name, and location of stockyard	Date of posting
NC-104	Nonwood Stock Yard, Inc., Charlotte, North Carolina.	Apr. 1, 1959.
NC-109	Franklin Livestock Auction, Franklin, North Carolina.	Apr. 3, 1959.
NC-110	D. F. Foust Livestock Auction Market, Inc., Greensboro, North Carolina.	Apr. 7, 1959.
NC-111	Greenville Live Stock Sales, Greenville, North Carolina.	Apr. 30, 1959.
NC-112	Jamani Stables, Greenville, North Carolina.	May 15, 1957.
NC-115	Kinston Stockyards, Kinston, North Carolina.	May 13, 1959.
NC-120	Shelby Stockyards, Shelby, North Carolina.	Apr. 1, 1959.
VA-129	Petersburg Livestock Market, Petersburg, Virginia.	Mar. 8, 1959.
VA-151	Abingdon Livestock Market, Inc., Abingdon, Virginia.	Aug. 10, 1978.
WV-113	Point Pleasant Livestock Co., Inc., Point Pleasant, West Virginia.	Nov. 5, 1959.

Notice or other public procedure has not preceded promulgation of the foregoing rule. There is no legal justification for not promptly deposing a stockyard which is no longer within the definition of that term contained in the Act.

The foregoing is in the nature of a change relieving a restriction and may be made effective in less than 30 days after publication in the Federal Register. This notice shall become effective upon September 2, 1981.

(42 Stat. 159, as amended and supplemented; 7 U.S.C. 181 *et seq.*)

Done at Washington, D.C., this 28th day of August 1981.

Jack W. Brinckmeyer,

Chief, Financial Protection Branch, Livestock Marketing Division.

[FR Doc. 81-2591 Filed 9-1-81; 8:45 am]

BILLING CODE 3410-02-M

OFFICE OF THE FEDERAL INSPECTOR FOR THE ALASKA NATURAL GAS TRANSPORTATION SYSTEM

Approval of Affirmative Action Plan

On August 13, 1981, the Federal Inspector, John T. Rhett, approved the Alaska Northwest Natural Gas Transportation Company's Affirmative Action Plan for employment and procurement activities on its segment of the Alaska Natural Gas Transportation System (ANGTS).

On May 12, 1980, the Equal Opportunity Regulations (43 CFR Part 34) for ANGTS became effective. These regulations were promulgated to carry out the requirements of Section 17 of the Alaska Natural Gas Transportation Act and Condition 11 of the President's Decision, directing Federal Officers and agencies to take affirmative action to ensure that no person will be excluded on the grounds of race, creed, color, national origin, or sex from participating

in ANCTS-related activities. Section 34.8(a)(1) of the Regulations, 43 CFR 34.8(a)(1), requires project sponsors to have acceptable affirmative action plans approved by the Federal Inspector.

Alaska Northwest's Affirmative Action Plan contains the following goals for minority and female employment and procurement:

1981 Employment Goals

	Minority (percent)	Female (percent)
Officials and managers	7.8	12.7
Professionals	9.4	8.7
Technicians	12.8	9.4
Clerical	23.0	45.8
Craft	14.9	2.9
Operatives	17.3	3.3
Laborers	21.5	5.5

The plan contains employment goals for each year through completion of construction. However, the goals were based upon 1985-1986 project completion, the outyear goals will have to be revised to reflect the new schedule (the project schedule has slipped at least one year).

Procurement

The plan projects Minority Business Enterprise (MBE)/Female Business Enterprise (FBE) goals on an annual basis throughout construction. The goals are firm for 1981, and projected for later years. The dollar goals are given in 1980 dollars and are based on a project cost estimate that is being reviewed by the Federal Energy Regulatory Commission. A detailed chart showing the contractable opportunities and goals is contained in the affirmative action plan. Because this chart was based upon a 1985-1986 project completion date, the specific out-year opportunities and goals will have to be revised to reflect the new schedule. A summary of the goals is given below:

Year	Contractable opportunities (dollars)	MBE/FBE (millions)
Pre 1981	\$150	\$15
1981	208	136
Outyears (1982-completion)	4,464	430
Totals	4,842	480

¹ Minority businesses—\$31 million or 15 percent of contractable opportunities. Female businesses—\$4 million or 2 percent of contractable opportunities.

For Further Information Contact: Mr. John Alexander, Director, Equal Employment Opportunity/Minority Business Enterprise, Office of the Federal Inspector (ANGTS), Room 3212, Post Office Building, 1200 Pennsylvania Ave., NW, Washington, D.C. 20044 (202) 275-0582.



Alaskan Pipeline

Contact: J.N. Vallery, (801) 534-3531 or
Kathleen Kelly-Dyer, (907) 451-1000

FOR IMMEDIATE RELEASE

ANGTS WAIVER PACKAGE
IS APPROVED BY HOUSE

WASHINGTON, D.C., Dec. 9 -- The House of Representatives, by a vote of 233 to 173 today approved a waiver of law designed to remove government obstacles hindering development of a private sector financing plan for the Alaska Natural Gas Transportation System (ANGTS).

The U.S. Senate previously approved the Administration-backed measure on November 19 by a vote of 75 to 19.

"We are delighted with the strong showing of bipartisan support for the ANGTS," said John G. McMillian, chairman and chief executive officer of Northwest Alaskan Pipeline Company, principal U.S. sponsor of the proposed 4,800-mile pipeline system that will extend from the North Slope of Alaska through Canada to the lower 48 states.

"The approval granted today was essential for private financing of the project. It significantly strengthens our financial base by allowing equity participation in the project by the major Prudhoe Bay gas producers -- Exxon, Arco and Sohio," McMillian said.

The waiver package also permits the inclusion of a North Slope Alaska gas conditioning plant as an integral part of the ANGTS; authorizes the Federal Energy Regulatory Commission (FERC) to approve at its discretion a tariff that will provide lenders with sufficient assurances of repayment of funds needed for private financing; and

allows for expedited treatment of remaining federal regulatory approvals.

The Next Step

According to McMillian, "Passage of the waiver package now permits us to move forward with our transmission company partners, the North Slope gas producers and the major banks to forge a definitive private financing plan."

Development of such a plan, he said, will require "a cooperative and concerted effort on the part of the oil and gas industry participants, plus the strong support of the domestic and international financial community."

A number of leading U.S. banks testified in favor of the waiver package as a means of facilitating private financing, he said.

Project Benefits

McMillian said the U.S. has much to gain from the project. "The Alaska Natural Gas Transportation System will provide American gas consumers with access to the nation's largest proven reserve of natural gas. The 26 trillion cubic feet of gas already known to exist at Prudhoe Bay represents more than 13 percent of America's known supplies. Further, Alaska has a potential of between 100 and 200 trillion cubic feet of additional gas reserves," he said.

"Having such a reliable supply of domestic energy will reduce the risk of future energy shortages and strengthen national security by limiting U.S. vulnerability to foreign oil embargo," McMillian said.

"The ANGTS not only will provide a dependable long-term energy alternative to OPEC oil, but also stimulate exploration and development of vast additional reserves in Alaska and create thousands of jobs for U.S. workers," he said.

The Alaska Natural Gas Transportation System will have an initial capacity of 2 billion cubic feet of gas per day, enough energy to displace approximately 400,000 barrels of imported oil each day for the next 25 to 30 years.

The 745-mile Alaska segment of the project will be built and operated by a consortium of ten U.S. and Canadian natural gas companies called the Alaskan Northwest Natural Gas Transportation Company. Northwest Alaskan Pipeline Company, a wholly-owned subsidiary of Northwest Energy Company of Salt Lake City, Utah, is the operating partner for the consortium.

Other members are subsidiaries of: Pacific Gas & Electric Company, San Francisco, California; Pacific Lighting Corporation, Los Angeles, California; InterNorth, Inc., Omaha, Nebraska; Panhandle Eastern Pipe Line Company, United Gas Pipe Line Company and Texas Eastern Corporation, all of Houston, Texas; American Natural Resources Company, Detroit, Michigan; Columbia Gas System, Inc., Wilmington, Delaware; and TransCanada PipeLines, Ltd., Toronto, Ontario.

In addition, the major Alaskan North Slope gas producers, Exxon Corporation, Atlantic Richfield Company and The Standard Oil Company (Ohio), have agreed to participate in financing the Alaskan segment.

From: Northwest Alaskan Pipeline Co.
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Alaskan Newsline

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August 1, 1980

**** HIGHLIGHTS ****

PREBUILD CONSTRUCTION BEGINS. . . '81 DATE SET FOR WESTERN DELIVERIES. . . CANADA ACCEPTS U.S. ASSURANCES. . . DESIGN AND ENGINEERING BOARD ESTABLISHED FOR PIPELINE, PLANT.

PREBUILD CONSTRUCTION BEGINS: Construction has begun on southern portions of the Alaska Natural Gas Transportation System according to John G. McMillian, chairman and chief executive officer of Northwest Alaskan Pipeline Company, principal U.S. sponsor of the gasline project.

All of the necessary regulatory and government approvals in both the U.S. and Canada have been granted for early construction, or "prebuilding", of selected portions of the system in advance of the Alaska segment to deliver surplus Canadian gas to U.S. markets.

The portions to be prebuilt are integral parts of the overall Alaska system. Construction of approximately 1,500 miles of pipeline in the U.S. and Canada segments will make up about 30 percent of the entire 4,800-mile system. The U.S. sections, to be built at a cost of approximately \$1.5 billion, comprise the largest pipeline project ever constructed in the lower 48 states.

The prebuilt portion will transport more than one billion cubic feet of Alberta gas per day for six full years to the U.S. markets. Up to 300 million cubic feet per day will be delivered to Southern California through the western delivery system, and approximately 800 million cubic feet per day will be transported through the U.S. eastern leg, or Northern Border Pipeline, for markets in the midwest, south and east.

"In future years, consumers will benefit from substantially lower transportation costs when the completed system carries both Canadian and Alaskan gas," McMillian said.

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'81 DATE SET FOR WESTERN DELIVERIES: The U.S. western delivery system will be comprised of 160 miles of 42-inch diameter pipeline looped to the existing Pacific Gas Transmission Company (PGT) system between Kingsgate, British Columbia and Stanfield, Oregon, and expansion of existing facilities of Northwest Pipeline Corporation and El Paso Natural Gas Company in Oregon, Idaho, Colorado and New Mexico. Completion of the U.S. western delivery system is set for the summer of 1981.

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Northwest Pipeline will be adding some 351 miles of pipeline to its system between Stanfield, Oregon, where it interconnects with the PGT system, and a point 14 miles east of Burley, Idaho. The company has placed an order with Kaiser Steel Company in California for approximately 70,000 tons of coated steel pipe at an estimated cost of \$52 million. Included in the order is approximately 100 miles of 30-inch diameter pipe (25,000 tons) and about 251 miles of 24-inch pipe (44,700 tons).

On July 29, the Northern Pipeline Agency issued Foothills Pipe Lines, formal notice to proceed with construction in Canada. The company began immediately to clear a right-of-way of approximately 130 miles between Caroline Junction, Alberta, and Kingsgate, British Columbia. The western Canadian portion is expected to be completed by the end of this year.

Northern Border Pipeline Company also expects to begin construction this year of the prebuild portions of the U.S. eastern leg, consisting of 821 miles of 42-inch diameter pipeline.

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REGULATORY APPROVALS FALL IN PLACE: The Federal Energy Regulatory Commission (FERC) set the stage for early construction of the U.S. segments in June when it approved the western delivery system and issued a final order approving the Northern Border prebuild segment. Canadian government approval of the prebuild plan and authorization of the required gas exports came on July 17, 1980.

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WHITE HOUSE HOLDS PREBUILD BRIEFING: Following the July 17 Canadian approval, a special briefing was held at the White House by Stuart Eizenstat, Assistant to the President, John Sawhill, Deputy Secretary of Energy, and Les Goldman, Assistant Secretary of Energy for International Affairs.

A statement issued by President Carter expressed the U.S. government's appreciation that Canada "announced its willingness to move forward on this vast project by approving the construction of the first major segment of what is intended eventually to be a 4,800-mile pipeline from Prudhoe Bay in Alaska...to the heartland of the United States.

The President referred to a letter he had sent to Canada's Prime Minister Trudeau in which he expressed confidence, "that this project will be carried forward to completion and become an example to the world of how international cooperation can serve the common energy needs of both partners."

"The pipeline is one of the most complex and demanding energy ventures ever undertaken," he said. "When completed, it will be a major element in our transition to a more diversified and secure energy economy."

Eizenstat and Sawhill called the Alaska natural gas pipeline, "one of the most significant parts of our program for national energy security."

Sawhill also acknowledged that the project represents "a major opportunity to reduce our dependence on foreign oil...it will enable us, when the entire system is complete, to displace 400,000 barrels a day of imported oil; and when the pre-

build portion is complete, we will be in a position to displace 200,000 barrels a day of imported oil from insecure sources."

Goldman explained the advantage of the project in lowering costs to consumers. "The largest piece of the cost would be the transportation. Given the major investment involved, it's going to fall very rapidly as the pipeline is depreciated, so as world oil prices are rising and the transportation costs are falling, it's a very good investment for the United States," he said.

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CANADA ACCEPTS U.S. ASSURANCES: The U.S. was able to satisfy Canada that the project, once begun, will be completed. The Canadian Cabinet was provided assurances in the form of a joint Congressional resolution, producer-sponsor agreements to fund final design and cost estimation and to negotiate a private financing plan, and letters from President Carter and other government officials that the U.S. government is prepared to support all necessary executive and legislative measures for timely completion of the overall system.

Following approval by the Canadian government, Senator H. A. (Bud) Olson, Minister responsible for the Northern Pipeline Agency (Canadian counterpart to the U.S. Office of the Federal Inspector) told the Canadian people, "Given the nature of the U.S. assurances, the government has decided there is minimal risk of non-completion or long delay in the construction of the entire Alaska Highway Gas Pipeline System. On the other hand are the very substantial benefits that pre-building will provide facilitating completion of the entire project and immediate return to Canada in terms of jobs, output, producer revenues and balance of payment inflows. I do not believe there can be any doubt that our national interest lies in proceeding with this important undertaking at the earliest possible date."

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PREBUILD BENEFITS: Early construction of portions of the eastern and western legs of the overall Alaskan system has significant advantages for the project as a whole. First, the transportation cost of Alaskan gas will be less because: (a) earlier installation of facilities in the U.S. and Canada will avoid higher inflationary costs; and (b) earlier depreciation of facilities will result in a reduction of the rate base and cost of service when Alaskan gas comes on stream. Further, the total construction program for the Alaska gasline system will be spread out over a greater period of time, which will lessen the impact of the project on availability of labor, materials and capital.

The benefits to Canada of increased gas exports and the related prebuild construction effort, including production wells, conditioning plants and gathering and pipeline facilities, involves direct capital expenditures of approximately \$1.6 billion (Can.), providing an estimated 150,000 man-years of employment between 1980 and 1984.

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DESIGN AND ENGINEERING BOARD ESTABLISHED FOR PIPELINE, PLANT: Alaskan North Slope gas producers and U.S. pipeline sponsors of the Alaska Natural Gas Transportation System have established a Design and Engineering Board and three Advisory Committees for the joint entity created June 19, 1980, for the continued design and engineering of the Alaska gas pipeline and conditioning plant.

John G. McMillian is Chairman of the Design and Engineering Board.

Others elected to positions by the Board are: Kenneth E. Kalen, Panhandle Eastern Pipe Line Company (co-chairman); E. M. Benson, Jr., Atlantic Richfield Company (vice chairman); Harry L. Lepape, Pacific Interstate Transmission Company (secretary); and Robert W. Reed, Panhandle Eastern Pipe Line Company (assistant secretary).

Also serving on the Board are: Fred C. Ackman, Exxon Company, U.S.A.; Frank E. Mosier, The Standard Oil Company (Ohio); Gordon Severa, InterNorth, Inc.; D. Lamar Smith, United Gas Pipe Line Company; John A. Sproul, Pacific Gas & Electric Company; and James J. Trebilcott, American Natural Resources Company.

The State of Alaska is also represented on the board in a non-voting capacity by Lt. Governor Terry Miller.

The three Advisory Committees are: A Technical Committee, to be chaired by Luke D. Legg, Northwest Alaskan; an Audit Committee, chaired by A. O. Hinkle, Exxon; and an Accounting Committee, chaired by Vint L. Wolfe, Northwest Alaskan.

The board also approved a preliminary budget of approximately \$12 million for the remainder of 1980 for design and engineering work on the conditioning plant which will prepare the North Slope gas for transportation through the planned 4,800-mile pipeline system. This amount is in addition to the previously authorized 1980 budget of approximately \$127 million for design and engineering of the Alaska segment of the pipeline system.

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Alaskan Newsline

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HIGHLIGHTS

ALASKAN NORTHWEST ANNOUNCES FOUR NEW PARTNERS
. . . WELD CEREMONY COMMEMORATES CANADIAN GAS-
LINE CONSTRUCTION. . . NORTHWEST PIPELINE BEGINS
CONSTRUCTION ON WESTERN DELIVERY SYSTEM. . .
EXECUTIVE POLICY BOARD MEETING HELD IN ALASKA
. . . FERC HOLDS ALASKAN COST ESTIMATE CONFER-
ENCES. . . INTERIOR SUBMITS RIGHT-OF-WAY GRANT
TO CONGRESS. . . AFFIRMATIVE ACTION PLAN SUB-
MITTED TO FEDERAL INSPECTOR. . . TEMPORARY WORK
CAMPS IN ALASKA ARE IN OPERATION. . . ALASKAN
NATIVES TOUR COMPRESSOR STATION.

ALASKAN NORTHWEST ANNOUNCES FOUR NEW PARTNERS: The Alaskan Northwest Natural Gas Transportation Company announced at the end of August the addition of four natural gas transmission companies to the consortium which will build and operate the 743-mile Alaskan segment of the Alaska Highway Natural Gas Pipeline Project.

Columbia Alaskan Natural Gas Transmission Corporation joined the partnership August 25. Columbia Alaskan is a wholly-owned subsidiary of the Columbia Gas System, Inc., Wilmington, Delaware, which has the right to purchase up to 5.6 trillion cubic feet of North Slope gas owned by Sohio Natural Resources Company and BP-Alaska, Inc. The Columbia System currently supplies natural gas to 4 million customers in seven midwestern and mid-Atlantic states.

On August 28, eastern Canada's largest natural gas transmission company, Trans-Canada PipeLines, Ltd., of Toronto, Ontario, joined the consortium through a wholly-owned subsidiary, TransCanada PipeLine Alaska, Ltd. Unlike the U.S. companies in the consortium, TransCanada will not be a shipper of Alaskan gas, but views the project as an excellent investment opportunity.

Two additional U.S. companies joined the partnership August 29. The first, Tetco Four, Inc., is a corporation whose stock will be owned 50 percent each by Texas Eastern Transmission Corporation and Transwestern Pipeline Company. Both are wholly-owned subsidiaries of Texas Eastern Corporation, Houston, Texas. Texas Eastern and Transwestern have executed letters of understanding with ARCO Oil and Gas Company for the purchase of a total of 20 percent of ARCO's Prudhoe Bay natural gas production. Texas Eastern Corporation is a diversified energy company whose pipeline systems supply natural gas to the east and west coasts.

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The second company, Texas Gas Alaska Corporation, is a wholly-owned subsidiary of Texas Gas Transmission Corporation, Owensboro, Kentucky. Texas Gas has the right to purchase 12 percent of the natural gas production from ARCO Oil and Gas Company's interest in the Prudhoe Bay field. The existing Texas Gas system provides natural gas supplies to 90 distribution companies serving 554 communities in the central U.S.

John G. McMillian, chairman of Alaskan Northwest's Board of Partners, said, "These four new companies are a most beneficial addition to the Alaska Highway Pipeline Project and we welcome their participation. With the addition of these new partners," McMillian continued, "every U.S. company that has contracted for North Slope Alaskan gas is now a part of our project." (A map of the U.S. partners' existing pipeline systems to deliver Alaskan gas to lower 48 markets is on page 8.)

The Alaskan Northwest Natural Gas Transportation Company is now comprised of eleven partners whose combined assets total over \$35 billion. With respect to consolidated sales, eliminating inter-company sales and excluding TransCanada, the Alaskan consortium represents about 38% of total U.S. natural gas consumption. Other members of the consortium are subsidiaries of: American Natural Resources Company, Detroit; Internorth Inc., Omaha; Panhandle Eastern Pipe Line Company, Houston; United Gas Pipe Line Company, Houston; Pacific Lighting Corporation, Los Angeles; Pacific Gas & Electric Company, San Francisco; and Northwest Energy Company, Salt Lake City. The Northwest Energy subsidiary, Northwest Alaskan Pipeline Company, is the operating partner for the consortium.

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WELD CEREMONY COMMEMORATES CANADIAN GASLINE CONSTRUCTION: On September 27, representatives of the Canadian and U.S. governments and project sponsors attended a commemorative weld ceremony at Burton Creek, Alberta, marking the beginning of construction of the western Canadian portion of the Alaska Highway Pipeline Project. Foothills Pipe Lines (Yukon) Ltd., sponsor of the project's Canadian segment, hosted the ceremony.

The western Canadian segment will be comprised of 132 miles of 36-inch diameter looped line between James River, Alberta, and Kingsgate, British Columbia. When completed, this portion of the pipeline will tie into the U.S. western delivery system (see below).

Attending the ceremonies at Burton Creek were: R. L. Pierce, president and chief executive officer of Foothills; S. R. Blair, chairman of the Board of Partners of Foothills; Sen. H. A. Olson, (Federal) Minister Responsible for Canada's Northern Pipeline Agency; E. C. Phillips, chairman and chief executive officer for Westcoast Transmission Company, Vancouver; C. G. Edge, acting chairman of Canada's National Energy Board; John Stabbach, former chairman of the National Energy Board; and the Hon. Mitchell Sharp, Commissioner of Canada's Northern Pipeline Agency. Also attending were John Rhett, the Federal Inspector for the U.S. portions of the gasline project; and John Adger, of the Federal Energy Regulatory Commission's Alaska Gas Pipeline Project Office, as well as representatives from Northwest Alaskan and other U.S. project sponsors.

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NORTHWEST PIPELINE BEGINS CONSTRUCTION ON WESTERN DELIVERY SYSTEM: September 3 marked the start of construction of 351 miles of looped pipeline, as well as additional compression, along Northwest's existing rights-of-way in Oregon and Idaho as part of the western delivery system of the Alaska Highway Natural Gas Pipeline Project.

The 351-mile project extends from Stanfield, Oregon, to a point 14 miles east of Burley, Idaho, and will consist of 24-inch and 30-inch diameter pipe with additional compressor units installed at Baker, Oregon (2,000 horsepower), and at Caldwell, Idaho (1,500 horsepower).

The early construction phase of the western leg of the project is authorized to transport up to a daily average of 300 million cubic feet of gas from Alberta, Canada, to consumers in southern California. The approved route for the western leg prebuild phase also involves installation of 160 miles of new 36-inch diameter pipeline on Pacific Gas Transmission Company's existing rights-of-way between the Canadian border and Stanfield, Oregon, where it will connect with the expanded Northwest Pipeline system.

The first segment of the Northwest Pipeline expansion is scheduled for completion in January 1981, and the full project is scheduled to be completed in late summer 1981. Ownership of the new Oregon-Idaho facilities is shared, with Northwest Pipeline owning 70 percent and Pacific Interstate Transmission Company, purchaser of the Canadian volumes, owning 30 percent.

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EXECUTIVE POLICY BOARD MEETING HELD IN ALASKA: The Executive Policy Board (EPB) held its meeting in Fairbanks, Alaska on September 9 and heard comments from several Northwest Alaskan Pipeline Company officials on the status of the gasline project. The EPB is a Federal interagency advisory group established by the President to advise the Federal Inspector on policy matters and enforcement actions concerning the project.

The company gave a presentation on the status of its affirmative action planning and results to date, and reported that from January-July of this year, Northwest has awarded or committed awards of \$10.02 million to firms identified as Minority Business Enterprises (MBE) or Female Business Enterprises (FBE). The value of prime contracts involving MBE/FBE participation (January-July) totals \$29.5 million. Northwest said that "the minority hiring in these contracts is substantial."

The company reported it had contracted with Dr. David Reaume, former chief economist with the State of Alaska Department of Commerce and Economic Development, to develop statistical data on minority representation in the population and workforce that the company needed for its Affirmative Action Plan, which has been developed to facilitate Equal Employment Opportunity (EEO) and MBE/FBE contracting.

Northwest officials also gave a presentation before the EPB on the status of socioeconomic activities in Alaska. The company expressed the need for final state socioeconomic stipulations to be attached to the state's right-of-way lease and stated that the absence of agreed upon guidelines is an impediment to socioeconomic planning.

Northwest added that a major focus of its socioeconomic planning will be in communities near the proposed gasline route, particularly those between Delta Junction and the Canadian Border.

Company representatives noted that the gas pipeline will not be the only major energy-related construction project in Alaska between now and 1985. Although the gasline will be the largest, they expressed that it should not be the only project which has to meet socioeconomic requirements. They suggested that the involvement of planners from other projects will better enable industry to work cooperatively with government to the benefit of the people of the state.

The EPB is made up of representatives of the Departments of Labor, Agriculture, Energy, Transportation, and Interior; the Army Corps of Engineers, Federal Energy Regulatory Commission, and the Environmental Protection Agency. They assess, at least every six months, progress made and problems encountered in constructing the gasline system and make necessary recommendations to the Federal Inspector. Their goal is to facilitate construction of the gas pipeline system in a timely, cost efficient manner without undue environmental damage.

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FERC HOLDS ALASKAN COST ESTIMATE CONFERENCES: As previously reported (see Alaskan Newslines Vol. 3, No. 4), project sponsors submitted an application July 1 to the Federal Energy Regulatory Commission (FERC) for a certificate of public convenience and necessity to construct and operate the 743-mile Alaskan segment of the Alaska Highway Natural Gas Transportation System. In an August 1 order pursuant to the application, FERC reviewed the main points on which project sponsors have requested approval. These included the Certification Cost Estimate (CCE) and establishment of the center point for the incentive rate of return (IROR) determination, permission to use the indices in the Project Labor Agreement for deflation of direct construction labor costs, and actual third-party monitoring costs.

The Commission agreed with project sponsors' request to "utilize notice and comment procedures, rather than adjudication, to resolve these particular matters."

The Commission recognized that, although certain of the matters relating to final certification are pending, such as the marketability of Alaskan gas, and the relationship of project costs to those stated in the President's Decision and Report to Congress, other outstanding matters relating to the IROR mechanism for the Alaskan segment must be resolved as expeditiously as possible. Therefore, the Commission is instituting a special series of technical conferences to assist in this determination.

Chairing the conferences will be John Adger, head of FERC's Alaska Gas Project Office (the Alaskan delegate). Richard Berman, Director of the Division of Audit and Cost Analysis of the Office of the Federal Inspector, will co-chair the conferences.

In conjunction with the Commission's August 1 notice, a procedural conference was held September 3-5 at FERC offices in Washington, D.C., where the Alaskan delegate discussed the handling of major design issues which could materially

affect the cost estimate, and the possible cost consequences of resolution of those issues. Project sponsors consider the pipeline design contained in their July 1, 1980 filing to be a valid basis for considering the CCE, with the two exceptions discussed at the September 3-5 conference. These are changes in the pipeline route necessitated by the proposed DOI grant of right-of-way, and consideration of tunnelling rather than traversing the Atigun Pass. Northwest Alaskan is working to provide the Alaskan delegate with this new design and cost information prior to a final and complete review of the certification cost estimate for the project.

Project sponsors hope that all procedural matters are expedited in connection with reviewing the certificate application and have indicated that the cost and design information required on the above outstanding design issues should be available in October.

All parties are proceeding with an initial series of technical conferences to clarify and resolve the issues, beginning on a bi-weekly basis at the project management contractor's location in Irvine, California. On September 16-17, Northwest Alaskan briefed FERC staff on all the existing components of the CCE. The first technical conference will take place on September 30.

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INTERIOR SUBMITS RIGHT-OF-WAY GRANT TO CONGRESS: On August 19, the Department of Interior (DOI) submitted the project sponsors' proposed right-of-way grant to the jurisdictional congressional committees for review. In an accompanying letter, DOI's Assistant Secretary for Land and Water Resources, Guy Martin, requested a waiver of the 60-day congressional review period called for in the Mineral Leasing Act of 1920. Martin referred to "the national interest in expediting" the gasline project, and stated that the existence of the Federal Inspector in a monitoring capacity and the "benefits of the FERC certification process" obviate the need to hold up approval pending receipt of "greater levels of detail...on a number of technical issues."

DOI believes that Northwest Alaskan has provided sufficient information to support the grant, and Martin informed the company that DOI finds it to be "technically and financially capable of fulfilling the requirements of the Mineral Leasing Act..." DOI also found that the proposal is "compatible with other uses in the (right-of-way) corridor in Alaska, including the TransAlaska Oil Pipeline System (TAPS) already located in that corridor."

However, DOI added two conditions to the grant relative to the gasline route in its relation to the TAPS oil line. First, the grant states that the two pipeline systems must be separated by at least 200 feet, instead of the 80 feet in the sponsors' proposal, except under specific conditions to be approved by the Federal Inspector. According to DOI, virtually all government reviewers of the company's proposal were in agreement that substantial delays would result in pursuing a route calling for an 80-foot separation, due to necessary additional work required to support such a separation. Key government officials indicated to the company that they were doubtful of ever approving an 80-foot spacing. Accordingly, Northwest Alaskan has altered its route planning to remain at least 200 feet from the oil pipeline except where terrain constraints dictate a closer distance. No schedule delays are expected as a result.

The second DOI condition provides for a mutual indemnification agreement between Northwest Alaskan and the TAPS owners covering damages which may occur in the corridor. Martin has stated that "the department believes that there must be a reasonable and equitable method of resolving issues involving damages between the two systems...determined by a reasonable division of responsibilities... based on the types of activities of the two systems." Northwest Alaskan and the TAPS owners are working together to formulate such an agreement.

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AFFIRMATIVE ACTION PLAN SUBMITTED TO FEDERAL INSPECTOR: Northwest Alaskan recently submitted a project Affirmative Action Plan (AAP) for the Alaska segment of the gasline project to the Office of the Federal Inspector (OFI) in Washington, D.C. The company's plan complies with each of the detailed requirements set forth in the equal opportunity regulations mandated by the Alaska Natural Gas Transportation Act and published May 12 of this year. It sets forth specific goals and timetables for both equal employment opportunity (EEO) and contract awards to Minority Business Enterprise (MBE) and Female Business Enterprise (FBE) firms.

In a September 5 notice in the Federal Register, OFI acknowledged receipt of the plan and stated that it has been initially reviewed but action to either approve or disapprove it could not be completed by the September 9 due date. OFI is taking additional time for review because of "the voluminous nature of the submittals and the complex issues presented therein." Although the plan is still under review, Northwest Alaskan is basing its present activities on the current document.

OFI also published a notice of proposed rulemaking in the September 11 Federal Register instituting procedures to enforce the equal opportunity regulations. The procedures cover compliance review, complaint investigation, conciliation and enforcement for both employment discrimination and contracting activities.

The procedures include periodic on-site inspections, investigation of all complaints, and written notice of any non-compliance. The primary enforcement measure will be conciliation, with injunctions and civil fines up to \$25,000 a day as alternatives in the event of continuing non-compliance. For blatant violations, used only as a last resort, work-stop actions may be ordered.

Since OFI and the Equal Employment Opportunity Commission (EEOC) have concurrent jurisdiction over EEO claims, the two offices propose a memorandum of understanding regarding employment discrimination which will allow OFI to devote most of its resources to affirmative action and take advantage of the EEOC's expertise in processing charges of discrimination. Public comment on the enforcement regulations is requested by October 10 and on the memorandum of understanding by October 14.

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TEMPORARY WORK CAMPS IN ALASKA ARE IN OPERATION: Four temporary work camps have been constructed in Alaska and are operating to augment pre-construction field activities for the Alaskan segment of the project. The camps, which can be relocated, were needed because the increasing number of people working on preliminary field programs exceeded available facilities.

The camps are set up along the gasline route north of the Yukon River for temporary housing and as operational bases for gas pipeline activities. The 78-man camps are located at Seven Mile, Prospect, Chandalar, and near Slope Mountain. The Arctic Slope Alaska General Construction Company, Inc., Alaska's largest minority construction firm, has been awarded a contract to supply and operate the camps for Northwest Alaskan. Another Alaskan firm, Modern Construction, Inc., has been awarded a contract to provide maintenance and fueling services to the camps.

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ALASKAN NATIVES TOUR COMPRESSOR STATION: Representatives of four Alaska Native Corporations located along the route of the gasline were guests of Northwest Alaskan Pipeline Company on a recent tour of right-of-way and compressor station facilities similar to those which will be constructed for the Alaska Highway Gas Pipeline Project. The facilities, located near Spokane, Washington, are owned by Pacific Gas Transmission Company which is currently involved in early construction of portions of the project's western U.S. leg in Washington and Oregon. Representatives of the Dot Lake Native Corporation; Tanacross, Inc.; Tetlin Native Corporation; and Northway Natives, Inc. attended the tour.

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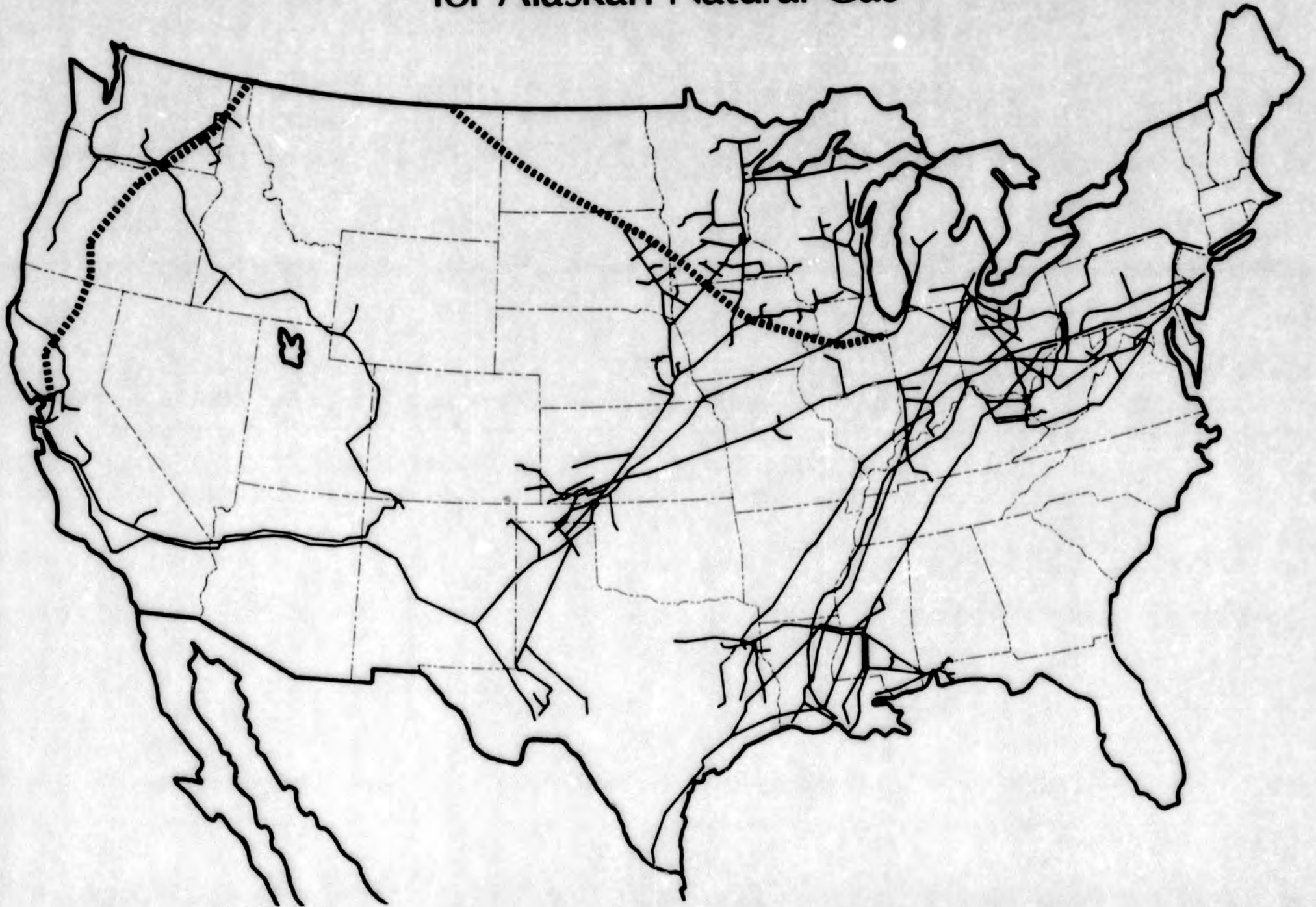
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U.S. Pipeline Partners: Delivery Systems for Alaskan Natural Gas





Alaskan Newsline

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HIGHLIGHTS

PIPELINE GETS FEDERAL RIGHT-OF-WAY GRANT
. . . FINANCE ACCORD SIGNED FOR EASTERN
LEG. . . CONSTRUCTION BEGINS ON WESTERN
LEG. . . REVISED AFFIRMATIVE ACTION PLAN
SUBMITTED. . . 1980, THE YEAR IN REVIEW.

PIPELINE GETS FEDERAL RIGHT-OF-WAY GRANT: The Alaskan Natural Gas Transportation System received a significant boost in December with the issuance of a federal right-of-way grant for Alaska.

John G. McMillian, chairman and chief executive officer of Northwest Alaskan Pipeline Company, and Secretary of the Interior Cecil D. Andrus signed the 30-year federal right-of-way grant at a ceremony held December 1.

"The Alaskan Natural Gas Transportation System has taken a giant step forward with the granting of a right-of-way for our pipeline across more than 400 miles of federal land," McMillian said.

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).

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

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.

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INDEMNITY AGREEMENT SIGNED: Prior to the execution of the grant of right-of-way by the United States to Alaskan Northwest Natural Gas Transportation Company on December 1, the company and the owners of the TransAlaska Pipeline System (TAPS) executed a Mutual Agreement of Liability and Indemnity, effective November 26, which defines and limits the liability of the respective parties to each other, including liability of their contractors, subcontractors, agents and employees under circumstances specified in the agreement.

The mutual indemnification agreement between Northwest Alaskan and TAPS owners was one of two conditions required by DOI to be satisfied before the right-of-way was granted. The other requirement called for the oil line and gas line to be separated by at least 200 feet, instead of the proposed 80 feet.

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FINANCE ACCORD SIGNED FOR EASTERN LEG: Northern Border Pipeline Company on December 10 signed an agreement on a \$1.055 billion loan from a consortium of North American banks for financing most of the eastern leg of the Alaskan Pipeline Project. Canadian Imperial Bank of Commerce is leading a consortium of 28 Canadian and U.S. banks syndicating the loans for construction of an 823-mile segment from Monchy, Saskatchewan on the U.S./Canadian border to Ventura, Iowa.

Northern Border Pipeline Company is headed by Northern Plains Gas Company, a subsidiary of InterNorth, Inc., Omaha, Nebraska. Other partners in the Northern Border consortium are subsidiaries of: Northwest Energy Co., Salt Lake City, Utah; Panhandle Eastern Pipe Line Co., Houston, Texas; United Gas Pipe Line Co., Houston, Texas; and TransCanada Pipelines Ltd., Toronto, Ontario.

In addition to the financial agreement, Northern Border has contracted for 581,000 tons of steel pipe at a total cost of almost \$500 million. Bethlehem Steel will manufacture 139,000 tons of 42-inch diameter pipe. 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.

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CONSTRUCTION BEGINS ON WESTERN LEG: Construction of the first U.S. portion of the Alaska Highway Pipeline Project started on December 11 in Idaho on the initial 160 miles of the western leg being built by Pacific Gas Transmission Company (PGT).

The 42-inch diameter pipeline is an expansion of PGT's existing facilities in the states of Idaho, Washington and Oregon and is being built at an approximate cost of \$186 million. Ultimately, PGT and its parent, Pacific Gas and Electric Company, will complete the entire 911-mile western leg.

The total 160-mile length, which will loop PGT's present line, is scheduled for completion by October 1981, at which time it will deliver approximately 240 million cubic feet daily of imported Canadian gas for that portion of the California market served by Southern California Gas Company.

Northwest Pipeline Corporation and El Paso Natural Gas Company are currently expanding certain portions of their pipeline systems to accommodate their deliveries of Canadian gas.

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REVISED AFFIRMATIVE ACTION PLAN SUBMITTED: On December 16, Northwest Alaskan Pipeline Company submitted a revised Affirmative Action Plan (AAP) to the Office of the Federal Inspector.

The AAP is a comprehensive document which describes the policies, procedures, organization and staffing required to implement Northwest Alaskan Pipeline Company's commitment to assure: that minority and female business enterprises

(MBE/FBE) are afforded opportunities to participate to the maximum practicable extent in the economic benefits flowing from the design and construction of the Alaskan segment of the Alaska Natural Gas Transportation System (ANGTS); that employment opportunities are afforded individuals without regard to race, creed, color, national origin or sex; and that Alaskan firms and individuals will be utilized wherever it is practical, reasonable and legal to do so.

The AAP provides guidance to all participants in the Alaskan segment; however, the AAP is not intended to provide detailed information regarding hiring in particular geographic areas. It is anticipated that most of the craft labor needed on the project will be obtained by the execution contractors through union halls in Alaska.

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1980 AFFIRMATIVE ACTION PERFORMANCE: Preliminary results of Northwest's affirmative actions in 1980 with respect to minority and female hiring and contracting to minority and female businesses indicate that Northwest had a successful year. Contracts to these firms amounted to about 25% of contractable opportunities i.e., about \$17 million out of procurement for services and materials totaling about \$68 million. Complete employment figures are not yet available; however, it is estimated that overall 1980 minority hiring in construction crafts was about 15% and about 4.5% for females. In the administrative workforce, tentative figures are about 10% for minorities and about 33% for females.

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CONFERENCES ON COST AND SCHEDULE: The Federal Energy Regulatory Commission (FERC) Alaskan Delegate and the OFI's Director of Audit and Cost Analysis recently concluded a series of technical conferences dealing with Northwest Alaskan Pipeline Company's proposed Certification Cost and Schedule Estimate (CCSE), center point values, and certain other remaining Incentive Rate of Return (IROR) matters.

Pursuant to the FERC's order of August 1, 1980, a series of technical conferences covering 19 days were conducted by the Commission's Alaskan Delegate and the OFI director in Irvine, California, and Washington, D.C., which provided all parties an opportunity to express their views on the CCSE and center point values.

The two agencies are preparing a draft of a report to the Commission, detailing the results of their evaluation. It is anticipated that the report will be available to all parties in the near future.

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FERC DELEGATES AUTHORITY: On December 19, 1980, the FERC issued an Order (effective December 29, 1980) delegating to the OFI the FERC's authority under Sections 4, 5, 7 and 8 of the Natural Gas Act to the extent necessary to enable the Federal Inspector to review and approve ANGTS costs incurred subsequent to December 31, 1979, for inclusion in the project sponsors' rate bases.

Pursuant to the order, the Federal Inspector must perform this function in accordance with the FERC's Uniform System of Accounts. The Order also delegates ancillary authority to review and approve accounts, records and other

papers, but explicitly reserves to the FERC all statutory authority to issue or condition certificates, determine the certification cost estimates and approve or modify tariffs.

The principal reason for this delegation was to centralize in one agency, thereby reducing uncertainty as to the responsibility of its performance, the ongoing cost control responsibilities, the continued process of project rate base audit and rate base approval of expenditures of pre-construction and construction. These sponsors of the Alaskan segment will continue to file actual expenditures on a quarterly basis for approval of ultimate inclusion in rate base.

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OFI APPROVES AFFIRMATIVE ACTION PLAN FOR EASTERN LEG: The Office of the Federal Inspector (OFI) has approved the affirmative action and minority business contracting plan for the \$1.239 billion Northern Border Pipeline, the eastern leg of the U.S. delivery system.

When completed, the Northern Border Pipeline will extend 1,131 miles from the Montana-Canadian border through North and South Dakota, Minnesota and Iowa, terminating near Chicago. About 823 miles will be built in 1981-82, initially to carry Canadian gas to Midwest customers while the Alaskan portion of the Alaska Natural Gas Transportation System is being built.

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 peak employment.

Northern Border is anticipating a spring construction start according to the OFI which emphasized the importance of the plan being in place to aid minority workers and female businesses.

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1980, THE YEAR IN REVIEW: A great deal of progress was made during 1980 as the Alaska Highway Pipeline Project moved forward on numerous fronts. The following is a review of significant achievements.

January 28 - Gasline Sponsors Approved Funding for 1980 Programs: U.S. sponsors of the gasline project approved a budget of \$127.5 million for 1980 to advance plans for construction of the Alaska segment. Nearly \$47 million was spent in Alaska, compared to approximately \$10 million in 1978 and 1979.

February 19 - Alaskan Firm Began Largest Gasline Field Program: The largest gasline field activity, the borehole drilling program, was conducted by an Anchorage firm, The Drilling Company. Of the 80 people hired to work on the project, 79 were Alaskan residents.

March 12 - First Federal Grant Issued on Project: The first federal grant issued to the project to bring Alaskan gas to markets in the lower 48 states was issued to Pacific Gas Transmission Company, San Francisco, for early construction of portions of the western leg on federal lands.

June 13 - FERC Approved Western Delivery System: A system for delivering Canadian natural gas to California through certain portions of the U.S. western leg of the

Alaska gasline project was approved by the Federal Energy Regulatory Commission.

X June 19 - Agreements With Producers: In a major breakthrough, the three principal North Slope gas producers and pipeline project sponsors signed two agreements. The first agreement established a joint entity to jointly fund continuation of the design, engineering, and construction planning of the gas pipeline in Alaska and to begin design and engineering of the gas conditioning plant necessary to prepare the gas for pipeline transportation.

The second agreement set up a process to develop financing for construction of the 745-mile Alaskan segment of the gas pipeline and anticipates substantial participation by the North Slope producing companies.

June 20 - FERC Issued Final Order on U.S. Eastern Leg: FERC issued its final order in the certification process for an 823-mile segment of the U.S. eastern leg.

July 1 - Congress Passed Resolution Supporting Gasline: A concurrent resolution of Congress in support of the gasline system was passed by the House on July 1 and the Senate on June 27. The resolution stated that "it is the sense of Congress that the system remains an essential part of securing this nation's energy future and, as such, enjoys the highest level of congressional support for its expeditious construction and completion by the end of 1985."

July 1 - Two Major Government Filings Were Made: Two filings seeking key government approvals of the gasline project were made. The first application, submitted to FERC, seeks a final, unconditional Certificate of Public Convenience and Necessity authorizing construction of 745-miles of 48-inch diameter pipeline, plus seven compressor stations and related facilities. Initial approval of the cost estimate was requested in order to establish the incentive rate of return variables. The financing plan which will be submitted later, will allow the FERC to issue Certificate requested. The second filing, a supplement to a previously filed application to the Department of the Interior, requested a single right-of-way grant for the pipeline through federal lands in Alaska.

X July 14 - Design Engineering Board Set Up: Alaska North Slope gas producers -- Arco, Sohio, Exxon -- and U.S. pipeline sponsors of the gasline established a Design and Engineering Board and Advisory Committees for the joint entity created in June for the continued design and engineering of the Alaska gas pipeline and conditioning plant. The State of Alaska is also represented on the Board in a non-voting capacity by the Lieutenant Governor.

July 17 - Early Construction Approved by Canadian Government: The Canadian government granted final approval to proceed with construction and the export of natural gas for certain southern portions of the project in Canada.

August - Four New Partners Joined the Project: Four natural gas transmission companies joined the Alaskan Northwest Natural Gas Transportation Company, the consortium that will build and operate the Alaska segment of the gasline system. The new partners are subsidiaries of Columbia Gas System, Texas Eastern Corp., Texas Gas Transmission Corporation and TransCanada PipeLines, Ltd.

August 1 - Construction Begins in Canada: Construction begins in Canada on southern portions of the Alaska Natural Gas Transportation System.

September 5 - Northwest Alaskan Submitted Affirmative Action Plan: An affirmative action plan for the Alaska segment of the gasline project was submitted by

Northwest to the Federal Inspector. The plan sets forth specific goals and time tables for both Equal Employment Opportunity and contract awards to Minority Business Enterprise and Female Business Enterprise firms.

September 30 - Pipe Ordered for Eastern Leg: Purchase contracts valued at approximately \$500 million were awarded for steel pipe for construction of the U.S. eastern delivery system.

October 7 - Phillips Petroleum Joins D & E Board: Phillips Petroleum Company, Bartlesville, Oklahoma, became a member of the Design and Engineering Board for the Alaskan segment of the project. Their participation brought to four the number of North Slope producers on the Board. Others include Arco, Sohio and Exxon as well as the eleven members of the Alaskan Northwest partnership.

November 26 - Indemnification Pact Signed: Northwest Alaskan and TAPS owners sign mutual indemnification agreement covering any damages which may occur in the pipeline corridor. The agreement provides an equitable method of resolving issues involving damages between the two systems.

December 1 - Federal Right-of-Way Granted: The Department of the Interior grants right-of-way for pipeline across more than 400 miles of federal land in Alaska. The right-of-way grant spells out several hundred terms and conditions which set environmental, technical and construction standards for the pipeline.

December 11 - U.S. Western Leg Construction Begins: Pacific Gas Transmission began installing 160 miles of looped pipeline between Kingsgate, B.C. and Stanfield, Oregon. This marked the first construction in the U.S. of the ANGTS.

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Alaskan Newsline

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March 5, 1981

HIGHLIGHTS

WESTERN LEG CEREMONY MARKS FIRST U.S. CONSTRUCTION. . . PERMITS GIVEN FOR COMPRESSOR STATIONS. . . FERC RECOMMENDS 42-INCH PIPE FOR WESTERN LEG. . . NORTHERN BORDER AFFIRMATIVE ACTION PLAN APPROVED. . . 1981 ALASKAN FIELD PROGRAMS ANNOUNCED.

CEREMONY COMMEMORATES FIRST U.S. CONSTRUCTION: A ceremony hailing the start of construction on the first U.S. portion of the 4,800-mile Alaska Natural Gas Transportation System (ANGTS) was held in Spokane, Washington on February 9.

Summarizing the significance of the occasion, John G. McMillian, chairman and chief executive officer of Northwest Alaskan Pipeline Company, said, "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.

"By the fall of 1982, approximately 1,500 miles or more than 30 percent of the total Alaskan system will be in operation. 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, material and capital by spreading the demand for these items over a greater period of time," he said.

The initial phase of the western leg involves construction by 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.

The Spokane ceremony was attended by numerous U.S. and Canadian government officials, governors and other state 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.

EPA GRANTS COMPRESSOR STATION PERMITS: Northwest Alaskan Pipeline Company on February 23 received Federal air quality permits for the proposed Alaska pipeline compressor stations. The Environmental Protection Agency (EPA) issued Prevention of Significant Deterioration (PSD) permits for the construction and operation of seven compressor stations which will move Prudhoe Bay natural gas to the lower 48 states.

The PSD permits, representing over two years of preparatory work by the pipeline sponsors, represent a major achievement in obtaining regulatory approvals from the government. The terms of the permits prescribe emission constraints and clear the way for obtaining manufacturers' bids on the gas turbines and compressor units to be installed at each station.

EPA completed its analysis of the information submitted by Northwest Alaskan and determined that the construction of the stations and the use of natural gas fueled turbines, employing the best available control technology, will not cause significant deterioration of air quality and fall within the guidelines of the Clean Air Act.

Seven compressor stations will be located 80 to 130 miles apart along the pipeline route. Two stations will be north of the Brooks Range and three will be between the Brooks and Delta Junction, where the gasline roughly parallels the existing oil pipeline. The two remaining compressor stations are between Delta Junction and the U.S.-Canadian border.

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LARGER PIPE SIZE RECOMMENDED FOR WESTERN LEG: The Secretary of Energy on January 19 officially recommended to the Federal Energy Regulatory Commission (FERC) that PGT's second phase of the western leg pipeline be 42 inches in diameter rather than the previously planned 36 inches.

The principal reason for the decision to increase the pipe size for that segment was that the outlook for additional Alaskan and Canadian gas supplies was more favorable than at the time of the President's Decision, 1977.

The Secretary further concluded that when the outlook for increased supplies was coupled with the dramatic increase in the price of Canadian gas since the Decision, a 42-inch diameter pipe was warranted in order to provide increased capacity and fuel savings benefits.

The change from 36-inch to 42-inch diameter pipe increases pipe cross-section area by approximately 36 percent and adds \$102 million in capital costs for the 328-mile segment. The Northern portion of the western leg, under construction, was upgraded to 42 inches in February 1980.

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CONTRACTORS SELECTED FOR EASTERN LEG: Northern Border Pipeline Company has selected contractors for the construction of the initial phase of the eastern leg of the Alaska Natural Gas Transportation System. This 823-mile pipeline project traverses the states of Montana, North Dakota, South Dakota, Minnesota and Iowa.

The project is divided into nine construction spreads with work to begin this spring. Northern Plains Natural Gas Company, a subsidiary of InterNorth, Inc., is the managing partner for the project.

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EASTERN LEG AFFIRMATIVE ACTION PLAN APPROVED: The Federal Inspector on December 29 announced approval of the affirmative action and minority business contracting plan for the U.S. eastern leg of ANGTS.

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 eastern leg affirmative action plan approval is the first to be given. Decisions on the western leg and Alaska segment plans are expected shortly.

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FLUOR RECEIVES ENGINEERING CONTRACT: Northwest Alaskan Pipeline Company and Fluor Engineers and Constructors, Inc., have executed a contract covering engineering services on the Alaska segment of the gasline system. Fluor is proceeding with \$300 million of additional engineering work, the continuation of field programs in Alaska, and the start of the final design. Fluor has been conducting engineering work for Northwest since its selection as managing contractor in 1978.

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NORTHWEST ALASKAN RESPONDS TO SHOW CAUSE ORDER: On February 13, 1981, Alaskan Northwest filed its response to a FERC Order to Show Cause issued December 15, 1980. The Commission Order directed interested persons to comment on three staff audit reports based on a review of actual project expenditures through December 31, 1979. The auditors recommended that the majority of these costs be included in the rate base of Alaskan Northwest, but recommended disallowance of certain expenditures. The Alaskan Northwest response explains in detail why the Commission should include in the rate base, with minor exceptions, all of the costs. Replies to the Alaskan Northwest comments are due March 16, 1981. Alaskan Northwest's response to any replies to the Company's comments are due by March 31, 1981.

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PGT ACTIONS SUPPORT WESTERN LEG CONSTRUCTION: Pacific Gas Transmission Company (PGT), 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, Oregon. Work will begin next month.

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ANGTS STEPS UP FIELD PROGRAMS: The Alaska Natural Gas Transportation System plans a busy year with a wide variety of field programs in Alaska either under way or scheduled.

The 1981 field programs will be the last year of intensive data gathering activities. Programs continued in the following years will consist mainly of monitoring activities with emphasis on the endangered peregrine falcon, fish overwintering areas, human-carnivore interactions, frost-heave data, and long-term surface disturbance effects. Following is the field program schedule:

Fisheries, May-October; the Fisheries Field Program will obtain additional data on fish use of water bodies crossed or potentially affected by pipeline preconstruction, construction and operation.

Cultural Resources, June-September; the summer Archaeological Field Program will include ground surveys of the remaining alignment segments and approximately 152 exploration material sites.

Human-Carnivore Interaction, June-October; the human-carnivore interaction field studies will continue to evaluate existing and anticipated carnivore problems.

Endangered Species and Raptors, late May-August; peregrine falcon field monitoring will continue twice yearly to determine nest site occupancy in late May to early June, and again in late July to early August.

Revegetation Field Studies, June-September; revegetation data will be obtained by field analysis of Alyeska disturbed sites, and experimentation in field test plots.

Timber Survey, August-September; a field survey of merchantable timber will be conducted from the Yukon River to the Alaska-Yukon Border.

Site Assessment, June-September; the Site Assessment program will provide a site-specific environmental analysis of 80 material sites, 372 spoil disposal sites, 10-15 solid waste disposal sites, 100 temporary facilities including access roads; and 30 miscellaneous sites.

Trench Stability, March-July; the program is designed to develop blasting techniques in frozen soils as well as to gather data in relation to ditch wall stability under varying seasonal construction and soil types.

Field Survey, March-November; the field survey will be a continuation of the 1980 programs. Survey work will be done along the route at compressor station sites, proposed access roads, temporary facilities, stream crossings, and other miscellaneous areas.

Material Sites, January-September; material site reconnaissance and exploration is a program continued from 1980. The field work, already started, is required to identify additional potential mineral material sites to provide the necessary material for the workpad, ditch backfills and other construction needs.

Airports and Temporary Facilities, March-August; the field work involves survey drilling and laboratory testing of soil samples.

Drilling, January-November; this program is a continuation of the 1980 program. Boreholes will be drilled along the entire route, including compressor stations and river crossing.

Fault Study Delta Junction North, June-October; this program is an extension of the fault study done in 1980 from the Canadian Border to Delta Junction.

Frost Heave Test Sites, January-December; seven frost heave test sites are being constructed for operation throughout 1981.

Hydrographic Survey, June-November; continued field work will be conducted at stream crossings to gather hydrologic information for stream crossing designs.

Water Resource Survey, March-April; a search for water sources for 7 compressor stations, 3 new camps, and 1 Alyeska camp is scheduled to start in March and to be completed by May.

Soil Uplift and Differential Frost Heave, January-December; test sections will be constructed in the Fairbanks frost heave test area to gather frost heave data in relation to soil uplift resistance and potential differential involvement along a pipe caused by frost heave.

Long-Term Surface Disturbances, March-December; field data will be gathered at numerous sites to provide input to assist in calibrations of the EPR and other computer models used in the thermal analysis of pipeline design.

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FAIRBANKS OFFICE MOVES: The Alaska headquarters office of Northwest Alaskan Pipeline Company moved to a new location on March 1, 1981. The new address and phone number are:

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Fairbanks, Alaska 99701
(907) 451-1000

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Alaskan Newsline

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April 15, 1981

HIGHLIGHTS

PRESIDENT REAGAN URGES PROMPT COMPLETION OF ANGTS. . . NEGOTIATIONS CONTINUE ON FINANCING. . . AFFIRMATIVE ACTION GOALS APPROVED FOR WESTERN LEG. . . NWA OFFICIALS BRIEF LEGISLATORS. . . FOOTHILLS WILL BUILD YUKON TEST FACILITY. . . NORTHWEST ALASKA FILES EPA APPLICATION FOR CONDITIONING PLANT AIR QUALITY PERMIT.

REAGAN AND DOE REAFFIRM SUPPORT FOR PIPELINE COMPLETION: During his visit to Canada March 11, President Ronald Reagan told members of the Canadian Parliament he strongly favors prompt completion of the Alaskan Natural Gas Transportation System. "Our governments have already discussed one of the largest joint private projects ever undertaken by two nations. We strongly favor prompt completion of this project based on private financing," the President said.

In an exchange of letters prior to the President's visit, Department of Energy Secretary James Edwards and Senator H.A. Olson, Minister Responsible for the Canadian Northern Pipeline Agency, restated their support for ANGTS completion. Edwards' letter stated, in part: "I would like to take this opportunity to state again that the United States Government is firmly committed to the completion of the ANGTS in conformity with agreements between our countries. We expect the United State sponsors and producers will soon reach an agreement on a tentative financing plan. This agreement will be a major step toward arranging private financing and obtaining final regulatory approvals for construction of the Alaskan segment."

Senator Olson's response states, in part: "With construction under way on the southern sections of the pipeline in both Canada and the United States, we in Canada are confident that the entire line will be completed in a timely manner."

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NEGOTIATIONS CONTINUE ON FINANCING: Negotiations with the North Slope gas producers -- principally Atlantic Richfield Company, Exxon Corporation and Sohio Alaska Petroleum Company -- with respect to development of a financing plan for the Alaskan segment of ANGTS are progressing in an encouraging fashion.

(more)

The producer group is in agreement that the ANGTS is the right physical concept for delivering North Slope Alaskan gas to major markets in the continental U.S. The producers also approved the organizational structure established by Northwest Alaskan and its ability to effectively manage the project. Further, both producers and pipelines are convinced that there is sufficient equity available in the combined group to support the Alaskan pipeline system.

It is expected that a definitive financing plan will be presented in the near future.

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NWA OFFICIALS BRIEF ALASKA LEGISLATORS: Several Alaska legislators were briefed on the status of project activities at a recent meeting of the Alaska Legislature's Joint Natural Gas Pipeline Committee in Juneau.

Darrell MacKay, vice-president of Regulatory & Governmental Affairs for Northwest, and Harold Moles, Northwest's vice-president, Operations in Alaska, gave presentations and answered questions on progress of the project and Alaska activities.

MacKay summarized major milestones reached during 1980 and outlined primary project objectives for 1981. Among them: development of a financing plan (see above), and receipt of a final certificate from the Federal Energy Regulatory Commission (FERC).

The financing plan, MacKay said, is being devised without reliance on possible participation by the State of Alaska, although the plan would permit the State's participation if it so desires.

Moles told those assembled that as of mid-March, there were approximately 550 persons working on the project in Alaska: 51 Northwest Alaskan, 86 Fluor and 413 contractor personnel. He went on to say that more than 81 percent of these have been local Alaska hires. Alaska employment on the gasline is expected to peak at more than 700 this year and approximately 250 of these would be located in Fairbanks with the remaining in field locations along the pipeline route, Moles said.

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OFI APPROVES WESTERN LEG AFFIRMATIVE ACTION GOALS: The Office of the Federal Inspector (OFI) has approved Affirmative Action goals proposed by Pacific Gas Transmission Company for construction of its 592-mile segment of the western leg of the Alaska Natural Gas Transportation System.

The approved plan contains goals for minority employment of 5.9 percent and 3.8 percent for females, of the approximately 463 jobs projected for contractors and subcontractors. The goal for minority business participation is 10 percent, and for female businesses, one percent of contractable opportunities.

The dollar goals contained in the plan are \$2.8 million for minority firms and \$.3 million for female businesses.

(more)

The first portion of the western leg is being built to carry Canadian gas to southern California prior to the building of the Alaskan segment. The western leg is scheduled for completion in late 1981 at a cost of about \$166 million.

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FOOTHILLS TO BUILD YUKON TEST FACILITY: Foothills Pipe Lines (South Yukon Ltd.) is preparing for construction of a facility to test pipeline construction methods and equipment to determine their suitability in permafrost areas.

The field-test program will be conducted northwest of Whitehorse in the Quill Creek area. Preparations for facility operation involve the establishment of a 120-man camp and the installation of 3,000 feet of 48-inch project specification pipe.

Engineering, construction and environmental experts will monitor the tests both during and after construction. Data collection will continue for several years to allow for sufficient summer and winter recordings.

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GAS PLANT SITE LEASE APPLICATION FILED: On March 18, Northwest Alaskan filed an application with the State of Alaska for a site lease for the gas conditioning plant. The application had been withheld since January at the request of the state to review other ways of handling the matter. On March 13, Gov. Jay S. Hammond suggested that the filing be made with the admonition that the state may request several conditions as part of the issuance of the lease.

An acceptable lease must be available by June 1981 in order to commence preparatory work on the site and maintain the present project completion schedule. The conditioning plant is the pacing item for the overall project.

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GAS CONDITIONING PLANT PERMIT SOUGHT: Northwest Alaskan Pipeline Company has applied for an air quality permit for the proposed gas conditioning plant to be built in Alaska. The application was filed with the Environmental Protection Agency's Seattle Office with a preliminary determination expected by late June. Work on the design of the conditioning plant is progressing on schedule with the Ralph M. Parsons Co. assigning about 225 people to the project.

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PARSONS LOOKS AT COAST ASSEMBLY SITES: Ralph M. Parsons Co., contractor for design and engineering of the gas conditioning plant for the Alaska Natural Gas Transportation System, is currently evaluating several west-coast ports for use as assembly areas.

At least two port facilities will be needed to assemble and transport by barge sections of the conditioning plant. The sections or modules, some expected to be taller than a 10-story building, will be sealed in cocoon-like coverings for the trip to Prudhoe Bay.

Parsons' personnel have been meeting with various port authorities and discussing man-power and construction facility requirements.

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(more)

ALASKA IMPACT PLANNING SURVEYS UNDER WAY: Northwest's Manpower and Impact Planning Department is conducting a housing survey in the Fairbanks area to help determine what the availability of housing will be for project personnel.

In addition, Northwest is surveying gasline project management personnel in lower 48 states who may be relocated to Alaska to determine their housing needs and preferences. The survey also includes Office of the Federal Inspector personnel. One of the company's concerns in planning for the gasline is that the housing shortage which occurred in Fairbanks during the oil pipeline not be repeated.

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FEMALE HIRE REPORT: Edwin (Al) Kuhn, Northwest Alaskan's director of Government Affairs, testified before the Alaska Commission on the status of women, on March 20 in Fairbanks. He stated that "24 percent of Northwest Alaskan's current work force in Alaska, including contract personnel, are women. This includes 22 percent women in the Officials and Managers category." Kuhn also said Northwest Alaskan had so far identified 174 "Female Business Enterprise (FBE)" firms, that have expressed an interest in contracting with Northwest Alaskan, including 57 in Alaska. Northwest Alaska's FBE contracting goal for 1981 was stated to be \$4 million.

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FOR IMMEDIATE RELEASE

EPA GRANTS AIR QUALITY PERMITS
FOR SEVEN COMPRESSOR STATIONS

SALT LAKE CITY, MARCH 5 -- A key regulatory decision advancing the Alaska Natural Gas Transportation System was received recently when the Environmental Protection Agency (EPA) granted air quality permits for seven pipeline compressor stations in Alaska, according to Northwest Alaskan Pipeline Company.

The EPA on February 23 issued Prevention of Significant Deterioration (PSD) permits to Northwest Alaskan for the construction and operation of the seven compressor stations which will move Prudhoe Bay gas from the North Slope through the 745-mile Alaska segment of the pipeline system to the Yukon border.

The PSD permits, representing more than two years of preparatory work by pipeline sponsors, clear the way for the company to obtain manufacturers' bids on the gas turbines and compressor units to be installed at each location.

After a thorough analysis of data submitted by the company, EPA determined under guidelines of the Clean Air Act that compressor station construction and the use of natural gas fueled turbines, employing the latest available control technology, will not cause deterioration of the air quality.

The seven compressor stations are located 80 to 130 miles apart along the pipeline route in Alaska. Two stations will be north of the Brooks Range and three will be between the Brooks and Delta Junction, where the gasline roughly parallels the existing Alyeska oil line. The two remaining compressor stations are between Delta Junction and the U.S.-Canadian border.

Northwest Alaskan, a subsidiary of Northwest Energy Company, Salt Lake City, is operating partner for a consortium of eleven natural gas companies that will build and operate the Alaskan segment of the 4,800-mile Alaska Natural Gas Transportation System.

From: Northwest Alaskan Pipeline Company
701 Douglas Avenue
Fairbanks, Alaska 99701
030581



Alaskan Pipeline

1980 KEY EVENTS

- Producer Agreements Signed.
- FERC - DOI Filings.
- Continued Strong Government Support.
- U. S. Western Delivery System Approved.
- U. S. Eastern Prebuild Approved.
- Gas Exports and Prebuild Approved by Canada.



Alaskan Pipeline

ALASKA SEGMENT CERTIFICATION COST ESTIMATE (IN BILLIONS OF DOLLARS)

Pipeline and Civil Work - - - - -	\$4.10
Temporary Facilities and Services - - - - -	.88
Compressor and Metering Stations - - - - -	.69
Communications and Supervisory Systems - - - - -	.09
Operation and Maintenance - - - - -	.05
Project Directorate - - - - -	1.20
Contingency Allowance - - - - -	<u>.84</u>
TOTAL - - -	\$7.85

- 0 -

(8/13/80)



Alaskan Pipeline

ALASKA SEGMENT CONSTRUCTION 1985-1986 PROJECT SCHEDULE

1980 - - - - - Government Filings
Financing Plan

1981 - - - - - Detailed Design
Federal Approvals

1982 - - - - - Temporary Facilities

1983 - - - - - Civil Construction

1984-1985 - - - - - Pipeline and Compressor
Station Construction

- 0 -

(8/13/80)

Gas Pipeline Contracting

In an effort to keep Alaskans informed on current field programs being conducted in Alaska in preparation for gasline construction, Northwest Alaskan Pipeline Company will list them in this publication.

The following contractors have received awards for work in Alaska in 1980 and 1981 or will continue work on contracts awarded previously:

CONTRACTORS*	OFFICES	DESCRIPTION OF WORK	SCHEDULE
Gulf Interstate/ Michael Baker, J.V.	Houston/ Fairbanks	Civil & Pipeline Design Consultant	Continuing
Arctic Slope Alaska General Modern Construction	Anchorage Fairbanks	Temporary Camps Food & Maintenance Services for Temporary Camps	Continuing Continuing
Boeing Computer Services/ ISW & Associates	Anchorage	Records & Data Management	Continuing
R. A. Krag & Assoc.	Anchorage	Geotechnical Services	Continuing
The Drilling Company	Anchorage	Barohole Drilling	Continuing
Nortec	Anchorage	Hydrology Consultant	Continuing
R & M Consultants	Fairbanks	Geotechnical Consultant	Continuing
Williams Bros.	Anchorage	Thermistor Readings	Continuing
Arctic Test Lab	Fairbanks	Soil Sample Testing	Continuing
University of Alaska	Fairbanks	Archaeological Studies	Continuing
Fairbanks Medical Clinic	Fairbanks	Medical Services	Continuing
Geo-physi-con	Calgary	Resistivity Testing	Continuing
Communication Equipment Services	Fairbanks	Vehicle Communication Maintenance	Continuing
LGI Alaska Inc.	Fairbanks	Fisheries	Continuing
C. R. Lewis Co., Inc.	Anchorage	Frost Heave Test Program	Continuing
Dr. Brian Kessal	Fairbanks	Avian Study	Continuing
Nortec	Anchorage	Hydrographic Survey	Continuing
Modern/Tamath, JV	Fairbanks	Frost Heave Test Program	Continuing
H. C. Price Co.	Fairbanks	Backhoe Services for Field Programs	Continuing
H. C. Price/Earth Movers of Fairbanks, J.V.	Fairbanks	Blasting and Trench Excavation	Continuing
International Technology Limited	Anchorage	Route Survey	Continuing
Dayon/Reading & Bates, J.V.	Fairbanks	Frost Heave Test Program	Continuing
PAC-M	Fairbanks	Facilities & Maintenance Support	Continuing
Chit-Holmes-Narver	Anchorage	Temporary Camps	Continuing
Professional Contractors, Inc.	Anchorage	Frost Heave Test Program	Continuing
Alaska Welding Center	Fairbanks	Weld Testing	Continuing
Troubridge Engineering	Wisconsin	Survey Coordinators	Continuing
Alascom	Fairbanks	Telecommunications	Continuing
Earth Movers of Fairbanks, Inc.	Fairbanks	Frost Heave Test Program	Continuing
J.G. Fisher & Associates	Anchorage	Civil Design Consultant	Continuing
Dames & Moore	Anchorage	Fisheries Study	Continuing
Woodward-Clyde	Anchorage	Fault Studies/Oil Spill Contingency	Continuing
Reading & Bates/Dayon	Houston/ Fairbanks	Drilling	Continuing
Alaska Photogrammetric Group	Anchorage	Aerial Photography	Continuing
SUBCONTRACTORS*			
Moneymaker Construction	Fairbanks	Soil Sample Testing	
NANA Surveying Co.	Anchorage	Route Survey	
Eyah - Finstad, J.V.	Fairbanks	Route Survey	
LHD and Associates	Anchorage	Route Survey	
Polaris Survey	Anchorage	Hydrological Surveys	
Alascom	Fairbanks	Communications	

*Additional subcontracting opportunities may be available on the above listed contracts.

SCHEDULED 1981 FIELD PROGRAMS IN ALASKA

CIVIL RECONNAISSANCE UPLIFT RESISTIVITY TEST ICE DAMMING/
FROST HEAVE FIELD TEST FROST HEAVE TEST SITE CROSS DRAINAGE
The above listed programs will contain both contract and subcontract opportunities during 1981. Those wanting to participate in these programs and future programs should fill out a contractor questionnaire form that may be obtained from the Gasline Project Management Contractor at the following address:

Fluor Northwest, Inc.

P.O. Box 60069, Fairbanks, Alaska 99706, ATTN: Contracts Administration



NORTHWEST ALASKAN PIPELINE COMPANY
Putting Alaska's Energy to Work!

1980

Gas Pipeline Contracting

Northwest Alaskan Pipeline Company will be contracting for a number of Alaska field programs in 1980 in preparation for gasline construction. In an effort to keep Alaskans informed on these programs, they will be listed in this publication.

The following contractors have received awards for work in Alaska in 1980 or will continue work on contracts awarded previously:

CONTRACTORS*	OFFICES	DESCRIPTION OF WORK	SCHEDULE
Gulf Interstate/ Michael Baker Jr.	Houston/ Fairbanks	Civil & Pipeline Design Consultant	Continuing
Arctic Slope Alaska General	Anchorage	Temporary Camps	Continuing
Modern Construction	Anchorage	Fuel & Maintenance Services for Temporary Camps	Continuing
Boeing Computer Services/ MSW & Associates	Anchorage	Records & Data Management	Continuing
Bearfoot, Inc.	Anchorage	Borehole Drilling	June-September
The Drilling Company	Anchorage	Borehole Drilling	February-September
Nortec	Anchorage	Hydrology Consultant	Continuing
R & M Consultants	Fairbanks	Geotechnical Consultant	Continuing
Williams Bros.	Anchorage	Thermister Readings	Continuing
Arctic Test Lab	Fairbanks	Soil Sample Testing	February-October
University of Alaska	Fairbanks	Archaeological Studies	Continuing
LGL Alaska Inc.	Fairbanks	Mammal Studies	Continuing
Geo-physi-con Communication	Calgary Fairbanks	Resistivity Testing Vehicle Communication	February-September Continuing
Equipment Services	Fairbanks	Raptor Studies	April-October
LGL Alaska Inc.	Fairbanks	Waterfowl Survey	April-November
Dr. Brina Kessel	Fairbanks	Upland Birds Study	March-November
Dr. Brina Kessel Land Design North	Anchorage	Erosion Control and Restoration Reconnaissance	June-October
Nortec	Anchorage	Hydrographic Survey	May-August
Fluor Northwest	Fairbanks	Fisheries Studies/Stream Surveys	June-December
H. C. Price Co.	Fairbanks	Backhoe Services for Field Programs	November
H. C. Price/Earthmovers of Alaska, J.V.	Fairbanks	Trench Stability & Blast Testing	November
International Technology Limited	Anchorage	Route Survey	September
Woodward Clyde Consultants	Anchorage	Fault Studies	October

SUBCONTRACTORS*

Moneymaker Construction	Fairbanks	Soil Sample Testing
University of Alaska	Fairbanks	Mammal Studies

*Additional subcontracting opportunities may be available on the above listed contracts.

SCHEDULED 1980 FIELD PROGRAMS IN ALASKA

ICE DAMMING OF CROSS DRAINAGE
CONSTRUCTION COMPATIBILITY TESTING
CIVIL RECONNAISSANCE
FROST HEAVE FIELD TESTS
WORKPAD ASSESSMENT
DESIGN SERVICES FOR CONSTRUCTION CAMPS

The above listed programs will contain both contract and subcontract opportunities during 1980. Those wanting to participate in these programs and future programs should fill out a contractor questionnaire form that may be obtained from the Gasline Project Management Contractor at the following address:

Fluor Northwest, Inc.
P.O. Box 60089
Fairbanks, Alaska 99706
ATTENTION: Contracts Administration



NORTHWEST ALASKAN PIPELINE COMPANY
Putting Alaska's Energy to Work!

1980



Harry Fields
Camp Coordinator

We depend on Alaskans

Northwest Alaskan Pipeline Company is depending upon Alaskans.

We're depending upon Alaskan talent, Alaskan know-how, and Alaskan manpower to help us build the Alaska Highway Gas Pipeline. We have to, because Alaskans have that one ingredient that all the technical knowledge in the world can't compete with—experience in Alaska.

We're looking to Alaskan experience to help us build a safe, cost efficient pipeline. As one of our Alaskan consultants told us, "... your only guide can be experience in Alaska because without it you're done for ... the land is just too unforgiving if you make a mistake."

Our most recent effort involves the construction, supply and operation of temporary field camps for the gas pipeline in Alaska. We've con-

tracted with Alaska's largest minority construction firm, the Arctic Slope Alaska General Construction Company, Inc., to supply and operate four temporary camps along the gasline route in Alaska.

We've also contracted with Modern Construction, Inc., another Alaskan firm, to provide maintenance and fueling services for the camps. In addition, several other Alaskan firms received subcontracts on this program, including Northern Fencing, Alcan Electric and Ed Pohl & Associates.

Whether building camps or studying Alaska's unique ecology, we're working with Alaskans. Using Alaskans and Alaskan firms to provide facilities in support of pre-construction field activity in Alaska is just one of the ways Northwest Alaskan Pipeline Company is helping to put Alaska's energy to work!



NORTHWEST ALASKAN PIPELINE COMPANY
Putting Alaska's Energy to Work!



1980 Laying the groundwork.

942 million for Alaska in 1980

In 1980, Northwest Alaskan Pipeline Company is planning to spend nearly \$42 million in Alaska to prepare for construction of the Alaska Highway Natural Gas Pipeline. This is a substantial increase over the amount Northwest spent in Alaska last year. Following is a brief summary of Alaskan activities taking place in 1980 as part of the planning and design phase of the project.

Using Alaskan companies for an Alaskan project

Northwest is contracting with several Alaskan firms to conduct field testing programs, including engineering and environmental studies in preparation for pipeline construction. The largest field program to date on the project, a borehole drilling program, is being conducted by five Alaskan firms. Other major engineering programs that will be conducted by Alaskan contractors in 1980 include:

- Material Site Exploration
- Construction Compatibility Tests
- Fault Studies
- Ice Dam Tests
- Frost Heave Field Tests

Using Alaskans for jobs in Alaska

Northwest Alaskan, Fluor Northwest, Inc. (the management contractor on the gasline project), and the Office of the Federal Inspector, are expanding their Alaska operations and hiring personnel to support the field programs and other Alaska project activities. Northwest and Fluor plan to add approximately 50 employees to their Alaska staffs during 1980. In addition, approximately 400 people at the peak will be employed by Alaska contractors and subcontractors working on gasline field programs this year.

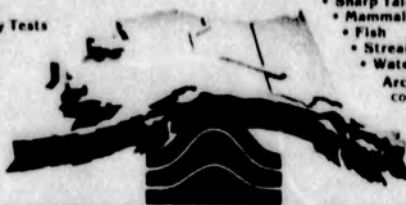
Safeguarding our Alaskan Environment

Northwest also has contracted with Alaskan firms to continue environmental research along the route of the gasline in Alaska. Among the environmental programs planned are studies of:

- Peregrine Falcons
- Sharp Tailed Grouse
- Mammals
- Fish
- Streams
- Waterfowl

Archaeological Field Studies also will be continued along the entire route.

These are just some of the things Northwest is doing in Alaska in 1980 as we help put Alaska's energy to work!



NORTHWEST ALASKAN PIPELINE COMPANY
Putting Alaska's Energy to Work!

1980



Understanding Alaska's Ecology

The planning and design of the Alaska Highway Gas Pipeline require a thorough understanding of Alaska's unique ecology. Northwest Alaskan Pipeline Company has retained some of Alaska's most experienced environmental scientists, such as David Roseneau of Fairbanks, to conduct our research and field studies.

Roseneau works for LGL Ecological Research Associates and has 12 years of experience in raptor biology. He serves on the government's Alaskan Peregrine Falcon Recovery Team.

Northwest Alaskan is using Roseneau's expertise to carry out extensive studies of the Peregrine Falcon, the only endangered species along the gasline route in Alaska. He is also conducting nest surveys and a field census of other raptors.

"The support of biological investigations designed to monitor Peregrine

Falcons in the vicinity of the gas pipeline is constructive and timely," says Roseneau. "These Northwest Alaskan-sponsored studies not only represent a major contribution to on-going lines of raptor research, but will help protect Peregrine Falcon populations in Alaska," he said.

Using a variety of Alaskan specialists, Northwest will be conducting many additional environmental programs along the pipeline route. Among these are:

- Mammal studies
- Wetland birds and waterfowl programs
- Fisheries investigations

These are just some of the programs Northwest Alaskan Pipeline Company will be conducting this year with the help of Alaskan experts, because a better understanding of Alaska's ecology will help us to build a better pipeline.



NORTHWEST ALASKAN PIPELINE COMPANY

Putting Alaska's Energy to Work!

1980



1979 was just the beginning

This is the first in a series of reports designed to keep you informed of progress on the Alaska Highway Pipeline Project. Following is a brief review of key Alaskan activities carried out last year:

\$9 Million in Alaskan Contracts

In 1979 Northwest Alaskan Pipeline Company spent \$10 million in Alaska to advance plans for building the Alaska Highway Natural Gas Pipeline Project. This includes \$9 million in contracts issued to Alaskan businesses. Most of these contracts were for engineering programs and environmental studies in preparation for pipeline construction.

Expanded Alaskan Operations

Northwest expanded its Alaskan operations in 1979 by opening an office in Anchorage for government

liaison personnel and by expanding the Fairbanks headquarters office facilities for increased staffing anticipated in 1980.

Test Facility Completed

A \$7 million frost heave test facility was completed just outside Fairbanks and Northwest began pipe testing operations to assure construction of the safest and most reliable gas pipeline system possible.

State Agencies Funded

Nearly \$1 million was spent in Alaska by Northwest to fund state agencies working on the gas line. These agencies include the Alaska Department of Fish and Game, the Department of Environmental Conservation and the State Pipeline Coordinator's office.

Environmental Studies

Northwest spent nearly \$1.4 million with the University of Alaska for environmental research, including sandhill crane migration and waterfowl studies and archaeological surveys. The company also contracted with private Alaskan firms to conduct additional studies of fish, animals, sharp-tailed grouse, and birds, including the peregrine falcon, the only endangered species along the pipeline corridor.

Public Meetings

Northwest and the State Pipeline Coordinator's office held meetings in communities along the gasline corridor to obtain information from residents that will be used by the company in developing effective socioeconomic programs. In addition,

The Department of the Interior held a series of public meetings in Barrow, Fairbanks and Anchorage so that Alaskans could comment on proposed affirmative action plans to ensure employment and contracting opportunities for minorities and women on the Alaskan gasline.

These are just some of the things Northwest Alaskan has been doing in Alaska to prepare for pipeline construction. And 1979 was just the beginning. A great deal more is planned for 1980 as we help put Alaska's Energy to Work.

**NORTHWEST ALASKAN
PIPELINE COMPANY**
1001 Noble Street
Fairbanks, Alaska



NORTHWEST ALASKAN PIPELINE COMPANY
Putting Alaska's Energy to Work!



Alaskan Pipeline

Contact: J. N. Vallely - (801) 534-3531
Helen Burke - (202) 466-5850
Kathleen Kelly - (907) 452-5500

Chronology of

Alaska Gas Pipeline Events

1979

January 26 - Northern Border Pipeline Company, a partnership of subsidiaries of four major U.S. pipeline companies, filed an application with the FERC to build about \$1.4 billion in pipeline facilities to transport Canadian and Alaskan natural gas to the U.S. midwest as part of the planned Alaskan natural gasline system as authorized last year by the President and Congress.

February 22 - FERC issued a report stating that the Commission intends to consider in a single consolidated rulemaking proceeding all the remaining issues associated with the Incentive Rate of Return (IROR) mechanism. It is believed that obtaining private financing for the project would be facilitated by further definition of the IROR parameters. Also, since the allowed rate for pipeline operation may materially affect risks facing equity investors and requires Commission consideration in resolving the IROR issues, the report contained an order requiring the project sponsors to file their proposed tariff by March 12.

February 28 - The Canadian National Energy Board issued its demand/supply report on natural gas and announced a surplus of Canadian gas available for export. Exports of Canadian gas are expected to be transported through the prebuild sections of the Alaskan Highway Pipeline Project.

March 5 - President Carter met with Canadian Prime Minister Pierre Trudeau to discuss energy matters of mutual interest. At the meeting, both leaders reaffirmed the "strong commitment" of their governments to completion of the Alaska Highway Pipeline Project.

March 9 - The FERC announced at a public briefing that it will expedite several of the key regulatory issues affecting progress of the Alaska Gasline system, giving the project renewed momentum.

March 12 - Alaskan Northwest Natural Gas Transportation Company, a partnership, filed its proposed tariff with FERC. The tariff is the contractual arrangement between the owners of the pipeline project and those companies using the transportation services of the pipeline.

April 25 - Alberta Gas Trunk Line Company Ltd., Dome Petroleum Limited, and TransCanada PipeLines agreed to join in a maximum effort to support early construction of southern segments of the Alaska gasline system. With the agreement, all of the major natural gas transmission companies in Canada support the Alaska Highway Pipeline Project.

May 29 - Congress approved President Carter's Limited Reorganization Plan for the Alaska gasline, thus establishing the Executive Policy Board to help expedite resolution of regulatory issues affecting the project.

June 13 - DOI granted provisional approval of the proposed general routing of the Alaskan segment of the Alaska Highway Pipeline Project, including proximity of the gasline to the existing oil pipeline. DOI stated that the route proposed by the pipeline project's sponsors was a valid basis for further planning and design of the project.

June 29 - Foothills Pipe Lines (Yukon) Ltd. filed an application with Canada's National Energy Board (NEB) and the Department of Indian and Northern Affairs for construction and operation of the Dempster Lateral gas pipeline. Foothills stated that construction of the Lateral, which will tap the 5.3 trillion cubic feet of gas reserves in the Mackenzie Delta and tie into the Alaska gasline system, will begin in 1985 with first gas flowing in January 1987.

July 12 - John Rhett was confirmed as the Federal Inspector for the Alaska gasline project by the U.S. Senate. As Federal Inspector, Rhett will coordinate federal permitting activities and oversee the planning and construction of the project.

July 16 - President Carter, in a nationally televised speech on America's energy situation, said the Alaska Highway Gasline Project is America's top, near-term energy priority. "The North Slope producers have dragged their feet in helping to finance a pipeline needed to bring that gas to market...I will insist personally that this gas pipeline be built without further delay," the President said.

July 30 - Canada's NEB approved a minimum bill payment for debt service and other out-of-pocket costs to Canadian sponsors of the gasline to go into effect 60 days after the NEB approves completion of gasline construction in Canada. The full cost-of-service will be instituted when gas flows through the system, or 12 months after the minimum bill starts, whichever comes first.

August 6 - The FERC issued its decision in favor of a 48-inch diameter pipe size and 1260 psig operating pressure, as proposed by project sponsors, for the Alaska gasline system. These two elements of gasline design are essential to finalizing cost estimates and obtaining financing for the project.

August 9 - The Canadian NEB completed omnibus proceedings on applications for exports of Canadian gas. The NEB expects to submit its report on availability of gas for export to the Canadian Cabinet in November 1979.

August 17 - The FERC issued a ruling that the North Slope gas producers are responsible for processing and conditioning costs associated with North Slope natural gas. FERC also selected Prudhoe Bay as the superior site for construction of the gas processing plant. Enforcement of this ruling has been delayed pending the outcome of project financing negotiations between gasline sponsors and the producers.

September 6 - The FERC issued its final order on the incentive rate of return for equity investors in the Alaskan and Northern Border (or eastern leg) segments of the Alaska Highway Pipeline Project. The order allows a 17.5% return on investment if the project is completed within the approved estimated costs.

The FERC order also approved project sponsors' pipeline tariffs for the Alaskan and Northern Border (eastern leg) segments.

September 14 - Arco, one of the three major gas producers on Alaska's North Slope, agreed to commit its volumes of Prudhoe Bay gas to subsidiaries of five U.S. pipeline companies. With the Arco agreements, all of the Prudhoe Bay gas owned by the three major producers has now been committed or is under contract to U.S. pipeline companies. The three producers own approximately 85% of the gas reserves in the Prudhoe Bay field.

October 16 - In response to questions during his testimony before the House Interior subcommittee hearings on the Alaska gasline system, FERC Chairman Charles Curtis said the FERC would be ready to issue a final decision on prebuild plans for the project's western leg by year-end 1979. Curtis also said that the commission would be ready to issue a final decision on the prebuild proposal for the eastern leg early in 1980 and on the Alaskan segment six months after project sponsors have submitted their final filing.

October 26 - TransCanada PipeLines of Toronto completed an agreement with the Northern Border Pipeline Company in its efforts to prebuild certain segments of the Alaska gasline project's eastern leg. The agreement provides for TransCanada to obtain a 30% interest in the prebuild project and an opportunity to participate in the remaining portion of the Northern Border project. Subsidiaries of four U.S. pipeline companies are partners in Northern Border and will share the remaining 70% ownership of the prebuild facilities.

November 1 - The U.S. House of Representatives and the U.S. Senate approved separate versions of the Priority Energy Act which is designed to expedite large-scale energy projects determined to be in the national interest. A joint House-Senate conference committee is working to effect a legislative compromise of the two versions. Project sponsors support an amendment in the House version which provides that no measures of the new legislation shall affect or interfere in any way with actions taken by federal officers or agencies relating to the Alaska Natural Gas Transportation System.

December 3 - American Natural Alaskan Company, a subsidiary of American Natural Resources of Detroit, Michigan, joined as an equal partner in the Alaskan Northwest Natural Gas Transportation Company, the consortium responsible for design, construction and operation of the Alaskan segment of the Alaska Highway Pipeline Project. This brought to seven the number of U.S. natural gas companies forming the partnership. Other companies are expected to join the partnership in the future.

December 6 - Canada's National Energy Board (NEB) issued its decision regarding export of surplus Canadian natural gas volumes to the U.S. through the Alaska Highway Pipeline Project. Northwest Alaskan Pipeline Company had requested export authorization of approximately 4.5 trillion cubic feet of Alberta gas, or 380 billion cubic feet a year over a 12-year period, to support prebuilding the portions of the project's eastern and western legs. Instead, Canada approved exports of only 1.8 trillion cubic feet, providing full volumes for a three-year period ending in 1984 and declining thereafter by 25 percent per year through 1987.

1980

January 11 - The FERC agreed to project sponsors' request that separate decisions on the prebuild facilities for the eastern and western legs be issued in order to expedite procedures necessary for completion of the western system by the end of 1980. Regarding the western leg, the Commission approved Northwest Alaskan's application for import of 240 million cubic feet daily of Canadian gas and sale of same to Pacific Interstate Transmission Company. Pacific Interstate is authorized to sell these daily volumes to Southern California Gas Company, according to the terms of the order.

The order also approved the application of Pacific Gas Transportation Company for construction of 160 miles of looped line between Kingsgate, British Columbia and Stanfield, Oregon. In conjunction with the western leg prebuild, the Commission issued certificates of Public Convenience and Necessity to Northwest Pipeline Corporation, Pacific Interstate Transmission Company, and El Paso Natural Gas Company, authorizing the transportation of the Canadian volumes to Pacific Interstate Transmission through June 1981.

January 23 - Foothills Pipe Lines (Yukon) Ltd., Alberta Gas Trunk Line Company, Ltd., and Pan-Alberta Gas Ltd., all of Calgary, Alberta, issued a joint statement expressing their support of the prebuild proposal for the Alaska gasline system. In their statement, the companies announced their intention to proceed with commitments which must be made to meet the November 1, 1980 start-up date of the western prebuild portions. They were joined in this commitment by Northwest Pipeline Corporation, Pacific Interstate Transmission Company, and El Paso Natural Gas Company.

January 28 - Encouraged by the strong support of the federal government and the expeditious handling of several key regulatory issues during 1979, the sponsors of the Alaska Highway Pipeline Project announced a 1980 budget for the project of \$127.5 million, or just about triple the expenditures approved for 1979. Nearly \$100 million of the amount budgeted will be spent on field programs in Alaska, and engineering and pipeline design activities necessary to develop design and cost estimates for a mid-1980 filing before the FERC.

January 31 - The FERC, following discussions with Energy Secretary Charles Duncan, issued a supplemental order authorizing a 42-inch diameter pipe size for the prebuild portions of the Alaskan project's western U.S. delivery system. It was felt that the larger pipe size would be more economical and efficient.

February 15 - The Department of the Interior advised it will provide a detailed response by April to Northwest Alaskan's final routing proposal for the Alaskan segment submitted on January 29. In the interim, DOI informed the company it may continue to plan and make cost and design estimates on the basis of the January 29 proposal.

March 12 - Pacific Gas Transmission Company, San Francisco, received a right-of-way grant from the DOI's Bureau of Land Management to construct a prebuild portion of the western leg of the gasline project on federal lands. This is the first such grant issued to the project.

March 18 - John G. McMillian, Chairman of Northwest Alaskan Pipeline Company, met with representatives of the North Slope producing companies (Exxon, ARCO and BP-Sohio), the State of Alaska, and the Department of Energy in Washington, D. C. to discuss joint participation in a private financing plan for the project. Producers and sponsors agreed to try to develop an operating agreement for the design and engineering phase of the project (Phase I) by mid-April. They also agreed to define the key issues involved in formulating a financing plan and establish a timetable for resolution of those issues (Phase II).

April 2 - Canada's National Energy Board (NEB) amended the Northern Pipeline Act to allow for the prebuild of the southern Canadian portions of the Alaska Highway Pipeline Project.

April 30 - Canada's NEB approved additional gas exports to support prebuilding in Canada and the U.S. The new NEB licenses, coupled with earlier authorizations, permits natural gas exports through the project's eastern and western delivery systems of approximately one billion cubic feet daily for the equivalent of six full years.

May 9 - The NEB approved a full cost-of-service tariff for the main Canadian segment of the gasline project. The order allows the tariff to go into effect when "leave to open" is granted to the project.

June 16 - The Federal Energy Regulatory Commission (FERC) approved a system for delivering Canadian natural gas to California through certain portions of the U.S. western delivery system of the project. The decision authorized the transport of up to 300 million cubic feet daily of Alberta gas. The approved route involves installation of 160 miles of new 42-inch diameter looped pipeline on Pacific Gas Transmission Company's existing right-of-way between the Canadian border and Stanfield, Oregon; and a 351-mile expansion of Northwest Pipeline Corporation's existing system in Oregon and Idaho.

The FERC order also approved the tariffs of Pacific Gas Transmission, Northwest Pipeline, and Pacific Interstate Transmission Company, which is sharing the cost of the Northwest Pipeline expansion.

June 19 - Project sponsors and the North Slope gas producers -- Exxon, Arco, and Sohio Alaska -- signed two agreements to assure delivery of Prudhoe Bay gas to U.S. consumers by the 1985-86 winter heating season.

The first agreement established a joint entity to continue design, engineering and construction planning of the gasline in Alaska and to begin design and engineering of the gas conditioning plant necessary to prepare the gas for pipeline transportation.

The second agreement sets up a process to develop private financing for construction of the 743-mile Alaskan segment of the pipeline and anticipates substantial participation by the producing companies.

June 20 - The FERC issued its final order approving the prebuild portions of the U.S. eastern leg of the Alaska Highway Pipeline Project. These portions consist of 821 miles of 42-inch diameter pipeline between Port of Morgan, Montana, and Ventura, Iowa, to transport initially 800 million cubic feet daily of Alberta natural gas to U.S. consumers in the midwest, east, and south.

July 1 - Project sponsors made two filings seeking key government approvals for the Alaska Highway Pipeline Project.

The first application, submitted to FERC, seeks a final, unconditional Certificate of Public Convenience and Necessity authorizing construction of 743 miles of 48-inch diameter pipeline in Alaska, plus seven compressor stations and related facilities.

The second application, submitted to the Department of Interior, requests a single right-of-way grant for the pipeline through Federal lands in Alaska.

Also on this date, the U.S. House of Representatives approved, without objection, a concurrent resolution supporting the Alaska Natural Gas Transportation System as an essential to securing America's energy future. The House action followed similar approval by the U.S. Senate on June 27.

July 17 - The Canadian government gave final approval to prebuild construction in Canada and authorization for the required Alberta natural gas exports.

July 18 - The White House held a special briefing on the Alaska Highway Pipeline Project and its importance to America's energy future. President Carter, referring to a letter he had sent to Canada's Prime Minister Trudeau, expressed confidence "that this project will be carried forward to completion and become an example to the world of how international cooperation can serve the common energy needs of both partners."

July 29 - Canada's Northern Pipeline Agency issued to Foothills Pipe Lines (Yukon) Ltd. formal notice to proceed with prebuild construction.

July 30 - Construction began on the U.S. western delivery system as part of the prebuild construction of the Alaska Highway Pipeline Project.

August 12 - Foothills Pipe Lines began construction of the Canadian western segment prebuild of the Alaska gasline system.

August 13 - More than 150,000 tons of steel pipe, valued in excess of \$110 million, was ordered by Pacific Gas Transmission Company and Northwest Pipeline Corporation for construction of the Alaska Highway Pipeline Project's western delivery system.

August 25-29 - Four additional companies joined the partnership to build the Alaska segment of the gasline system, bringing the total number of corporate sponsors to eleven. With the addition of three of the new partners, all of the U. S. pipeline companies that have contracts with the producers for North Slope gas are now part of the Northwest Consortium.

August 25 - Columbia Alaskan Gas Transmission Corporation, a subsidiary of Columbia Gas System of Wilmington, Delaware, joined the partnership. The Columbia System supplies 4 million customers in seven Mid-western and mid-Atlantic states.

August 28 - Eastern Canada's largest natural gas transmission company, TransCanada PipeLines, Ltd., joined the project consortium as an investor through a subsidiary, TransCanada Alaska Pipeline, Ltd. As such, TransCanada will not be a shipper of Alaska gas but sees the project as an excellent investment opportunity.

August 29 - Tetco Four, Inc., a Texas Eastern Corporation subsidiary of Houston became the tenth partner. Texas Eastern's pipeline systems supply natural gas to the east and west coasts.

August 29 - Texas Gas Alaska Corporation, a subsidiary of Texas Gas Transmission Corporation of Owensboro, Kentucky joined the partnership as the eleventh company. The Texas Gas Pipeline system provides natural gas supplies to 90 distribution companies serving 554 communities in the central U.S.

September 3 - Construction began on the southern portions of the project. Northwest Pipeline Corporation, a subsidiary of Northwest Energy Company, started construction as part of the early construction phase of the western leg of the Alaska Gasline Project.

From: Northwest Alaskan Pipeline Company
P. O. Box 1526
Salt Lake City, Utah 84110

9-4-80



Alaskan Pipeline

ALASKA NATURAL GAS TRANSPORTATION SYSTEM

-- FACT SHEET --

PROJECT DESCRIPTION:

The ANGTS is the largest private construction project of its kind in history. It consists of four integrated pipeline segments (Alaska, Canada, U.S. Eastern leg and U.S. Western leg) that will operate jointly to bring natural gas from the Prudhoe Bay region of Alaska's North Slope southward through Canada to markets in the lower 48 states. The system will transport approximately 26 trillion cubic feet of proven natural gas reserves over the next 25-30 years, supplying about five percent of the entire country's natural gas needs. It is estimated that over ten times that amount in Alaskan gas reserves can be made available through exploration and development over the next twenty years. The total system authorized by the Canadian and U.S. governments consists of some 4,800 miles of pipeline ranging in size from 36 to 56 inches plus other related facilities.

PROJECT SPONSORS:

Alaska

The Alaskan Northwest Natural Gas Transportation Company, a consortium of seven major gas transmission companies, will be responsible for designing, building and operating the Alaskan segment. The operating partner for the consortium is Northwest Alaskan Pipeline Company (formerly Alcan Pipeline Company) whose proposal was selected by President Carter in September 1977 as the preferred method of transportation for Alaskan North Slope gas. Northwest Alaskan is a wholly-owned subsidiary of Northwest Energy Company of Salt Lake City, Utah.

Joining Northwest Alaskan Pipeline in constructing the Alaskan segment of the pipeline are: American Natural Alaskan Company, a subsidiary of American Natural Resources Company, Detroit, Michigan; Northern Arctic Gas Company, a subsidiary of Northern Natural Gas Company of Omaha, Nebraska; Pan Alaskan Gas Company, a subsidiary of Panhandle Eastern Pipe Line Company, Houston, Texas; United Alaska Fuels Corporation, a subsidiary of United Gas Pipe Line Company, Houston, Texas; Calaska Energy Company, a subsidiary of Pacific Gas & Electric Company, San Francisco, California; and Pacific Interstate Transmission Company (Arctic), a subsidiary of Pacific Lighting Corporation of Los Angeles, California.

Canada

Alberta Gas Trunk Line Company Ltd., of Calgary, Alberta and West-Coast Transmission Company, Ltd., of Vancouver, British Columbia, principal sponsors of the project in Canada, have formed Foothills Pipe Lines (Yukon) Ltd., to design, construct and operate the system in Canada.

U.S. Eastern Leg

A consortium of U.S. and Canadian transmission companies headed by Northern Plains Gas Company, a subsidiary of Northern Natural Gas Company, has formed the Northern Border Pipeline Company to construct the U.S. Eastern Leg of the pipeline system. Other partners are: Northwest Border Pipeline Company, a subsidiary of Northwest Energy Company; Pan Border Gas Company, a subsidiary of Panhandle Eastern Pipe Line Company; United Mid-Continent Pipeline Company, a subsidiary of United Gas Pipe Line Company; and TransCanada Border Pipeline Ltd., a subsidiary of TransCanada Pipelines Ltd., Toronto, Canada.

U.S. Western Leg

Pacific Gas and Electric Company and its affiliate, Pacific Gas Transmission Company, will plan, design, construct and operate the U.S. Western Leg.

ROUTE:

The pipeline begins at Prudhoe Bay and follows the existing Alyeska oil pipeline 548 miles south to Delta Junction, just south of Fairbanks. For the remainder of the 743-mile Alaskan segment, the line will diverge from the oil line and follow the Alaska Highway to the Canadian border. In Canada, the route proceeds southeasterly through the Yukon Territory and British Columbia and into Alberta to James River where the pipeline will separate into eastern and western delivery systems. The western leg, carrying approximately 30 percent of the gas, will proceed through British Columbia, cross the U.S. border at Kingsgate, British Columbia, and pass through northern Idaho, southeastern Washington, central Oregon and northern California with delivery at Antioch, California. The eastern leg will cross the U.S. Border at Monchy, Saskatchewan, where approximately 70 percent of the gas will be delivered into the proposed Northern Border Pipeline for redelivery to U.S. markets in the midwest, south and east.

DESIGN:

The initial capacity of the total system will be 2.0 to 2.4 billion cubic feet per day of Alaskan gas, expandable up to 3.2 billion cubic feet per day. In addition to Alaskan gas for U.S. markets, the Canadian portion will be designed to transport up to 1.2 billion cubic feet per day of gas from Canada's Mackenzie Delta for Canadian markets.

(more)

The 743-mile Alaskan segment will consist of a 48-inch diameter pipeline operated at 1260 psig pressure. The 48-inch 1260 psig line continues into Canada where the 1,078-mile section from Whitehorse, Yukon to James River, Alberta will consist of 56-inch pipe at 1080 psig pressure. At James River, the line divides into a 496-mile eastern segment of 42-inch pipe and a 282-mile western segment of 36-inch pipe. Crossing the U.S.-Canadian border, in the lower 48 states, the eastern leg will consist of 1,117 miles of new 42-inch pipeline at 1440 psig pressure, and it is expected that the western leg will involve 911 miles of looped 42-inch line, at 911 psig, on the existing right-of-way of the Pacific Gas Transmission/Pacific Gas and Electric system.

PROJECT COST ESTIMATE:

The presently estimated capital cost, escalated to the date of expenditure and based upon a three-year delay from the originally planned in-service date in early 1983, is approximately \$15 billion excluding the cost of money during construction. Of this amount, about 45 percent is attributable to that portion of the pipeline to be constructed within the State of Alaska, 35 percent is attributable to that portion of the pipeline to be constructed in Canada, and 20 percent is attributable to those facilities which will be added in the lower 48 states.

PROJECT SCHEDULE:

Although project sponsors are prepared to meet a 1984-85 in-service date, recent reports indicate that the conditioning plant for natural gas from Prudhoe Bay cannot be completed until the 1985-86 heating season, even if work is commenced immediately. If the plant cannot be built to coincide with the 1984-85 pipeline schedule, a year's delay in completion of the project appears inevitable. Under a schedule reflecting this delay, final financing arrangements and filing for government approvals will be made in 1980, detailed project design will be completed in 1981, acquisition and preparation of temporary facilities will be accomplished in 1982, civil construction will commence in 1983, and actual pipeline and compressor station construction will commence in 1984 with completion and operation scheduled for the 1985-86 winter heating season.

DELIVERED COST
AND BENEFITS:

Although capital costs are high, under present plans the transportation cost of service, including the field price for Alaskan gas, will be within the range of \$5 per MMbtu initially and declining in constant 1980 dollars due to depreciating fixed costs to under \$4.00 per MMbtu in 1990. The initial cost is less than the current cost of heating oil and

equal to the current cost of imported crude oil. Based upon an independent study, the net national economic benefit for the project ranges from \$10.4 billion to \$23.5 billion. With respect to the nation's overall energy picture, Alaskan gas represents a proven and dependable domestic source of supply. Its marketability is assured because of the rapidly escalating cost of foreign oil, more than sufficient demand for natural gas to absorb all Alaskan volumes over the life of the project, and a regulated base field price established by the Natural Gas Policy Act of 1978.

**PREBUILDING FOR
CANADIAN IMPORTS:**

Northwest Alaskan Pipeline Company has signed contracts for importation of surplus volumes of Canadian gas which will be delivered through southern portions of the line constructed prior to completion of the total system. There are several advantages to the overall project of prebuilding. Among the advantages; prebuild results in: an increase in needed near-term gas supplies to markets in the U.S.; lower transportation costs because earlier installation of facilities avoids higher inflationary costs; earlier depreciation of facilities which helps to lower the cost of service when Alaskan gas comes on stream; and spreading out the total program over a greater period of time by constructing about 30% of the pipeline system in advance and lessening the impact of the project on availability of labor, materials and capital.

FINANCING:

In accordance with the President's Decision, the project must be privately financed, and it is planned to raise capital on a project-financing basis. Debt service and equity return will be accomplished by the cash flow generated by the project's operations. It is presently contemplated that 25 percent of the total commitment will come from equity financing and 75 percent from debt financing. Financing for the preliminary construction phase of the project is provided by the partner companies. Under this proposed financing plan, commitments will be obtained for an amount of capital large enough to assure all investors that there will be enough capital to complete the project.

The project's four integrated sections will be financed by four separate entities. The Alaska portion, although representing the greatest construction challenges, will benefit from the construction experience of the TAPS oil line, a developed right-of-way, utilization of existing technology and relatively proven construction techniques. The western leg will be built as an expansion of the existing operating company, Pacific Gas and Electric and

its affiliate, Pacific Gas Transmission Company. The eastern leg involves routine conventional construction by Northern Border with no unusual risks. Much of the Canadian system is adjacent to existing systems and the remaining portion presents largely uncomplicated terrain and geotechnical conditions.

The private capital markets are fully capable of providing all necessary funding to allow private financing for the project which can be achieved under the following conditions: 1) the principal project beneficiaries, that is, the State of Alaska, the Prudhoe Bay gas producers and the major gas transmission companies, provide their required significant financial support; and 2) the U.S. government demonstrates its significant support by providing responsible and timely government decisions on all procedural and organizational issues.

For further information contact:

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Washington, D.C. 20006
(202) 466-5850

Kathleen Kelly
Northwest Alaskan Pipeline
Company
Central Office Building
1001 Noble Street
Fairbanks, Alaska 99701
(907) 452-5500

PROCUREMENT INFORMATION**ALASKA NATURAL GAS TRANSPORTATION SYSTEM**

Fluor Northwest, Inc., the pipeline Project Management Contractor will act as Northwest Alaskan's agent in the procurement of all permanent facility materials and equipment for the gasline and the compressor stations. The various execution contractors will be responsible for procuring their construction equipment, spare parts, small tools, and other operating supplies and consumables. At present, Fluor is also purchasing all materials, equipment and services for the on-going field test programs and surveys.

While the major portion of Fluor's procurement effort will take place at their Irvine, California office, they have opened a purchasing office in Fairbanks to support present field operations.

Fluor has established a Vendor Register for this project. It identifies vendors by location, products, ownership and size. At present, some 430 Alaskan vendors are listed in this register. Other vendors may be added to this list by submitting a completed vendor Questionnaire Form. These forms are available at the Fluor purchasing offices in Fairbanks and Irvine. Any vendor already listed need not submit a new questionnaire unless there have been changes in ownership, products handled, etc.

For information about the supply of any specific commodity to our project or answers to other questions, please contact:

Keith Butcher
Fluor Northwest Inc.
701 Douglas Ave.
Fairbanks, AK
99701
(907) 451-1694

C.F. Hopfinger
Fluor Engineers
& Constructors, Inc.
3333 Michelson Dr.
Irvine, California
92730
(714) 975-2508

J.B. Campbell
Northwest Alaskan
Pipeline Company
3333 Michelson Dr.
Irvine, California
92730
(714) 975-6551

ALASKA HIGHWAY PIPELINE PROJECT

Sources of Information

ALASKAN SEGMENT

Northwest Alaskan Pipeline Company (Operating Partner), a subsidiary of Northwest Energy Company
Joseph N. Vallyely, Vice President-Public Relations
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Salt Lake City, Utah 84110
(801) 534-3531

Helen Burke, Public Affairs Specialist
1801 K Street, N.W.
Suite 901
Washington, D.C. 20036
(202) 466-5850

Kathleen Kelly, Public Affairs Specialist
Central Office Building
1001 Noble Street
Fairbanks, Alaska 99701
(907) 452-5500

OTHER PARTNERS IN THE ALASKAN SEGMENT ARE:

Northern Arctic Gas Company, a subsidiary of Northern Natural Gas Company
Howard Sorenson, Director of Communications
2223 Dodge Street
Omaha, Nebraska 68102
(402) 348-4588

Calaska Energy Company, a subsidiary of Pacific Gas & Electric Company
Al Hooker, Director-Public Relations
245 Market Street, Room 1602
San Francisco, California 94105
(415) 781-0474 (ext. 3621)

Pacific Interstate Transmission Company, (Arctic), a subsidiary of Pacific Lighting Corporation
J.C. "Joe" Byrne, Public Affairs Coordinator
Steve Baer, Manager of Public and Employee Information
720 West 8th Street
Los Angeles, California 90017
(213) 689-2183

Pan Alaskan Gas Company, a subsidiary of
Panhandle Eastern Pipe Line Company
Stan Wallace, Vice President-Public Relations
Fred Ebdon, Manager-Public Relations
P.O. Box 1642
Houston, Texas 77001
(713) 664-3401 (ext. 637 or 646)

United Alaska Fuels Corporation, a subsidiary of
United Gas Pipe Line Company
C. Ray Holland, Director-Public Relations
P.O. Box 1478
Houston, Texas 77001
(713) 237-5300

American Natural Alaskan Company, a subsidiary of
American Natural Resources Company
Bill Curnow, Supervisor-Media Relations
One Woodward Avenue
Detroit, Michigan 48226
(313) 965-5216

FOR INFORMATION ON OTHER PROJECT SEGMENTS CONTACT:

U.S. WESTERN LEG

Pacific Gas Transmission Company, a subsidiary of
Pacific Gas & Electric Company
Al Hooker, Director - Public Affairs
245 Market Street, Room 1602
San Francisco, California 94105
(415) 781-0474 (ext. 3621)

U.S. EASTERN LEG

Northern Plains Natural Gas Company (Operating Partner), a subsidiary
of Northern Natural Gas Company
Jim Palzer, Public Affairs Coordinator
2223 Dodge Street
Omaha, Nebraska 68102
(402) 348-4793

CANADIAN SEGMENTS

Foothills Pipe Lines (Yukon) Ltd. (Operating Partner)
Murray Stewart, Executive Vice President
1600 205 Fifth Avenue, S.W.
Calgary, Alberta T2P 2V7
(403) 237-1422



Alaskan Pipeline

CONTACT: Joe Vallely, vice president, Public Relations
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Kathleen Kelly, (907) 452-5500

FOR IMMEDIATE RELEASE

GOBER IS NAMED

DIRECTOR OF RIGHTS-OF-WAY

FAIRBANKS, October 31 -- Northwest Alaskan Pipeline Company recently announced the promotion of Hershel Gober to Director of Rights-of-Way, Permits and Land Acquisition.

In his new position, Gober will be responsible for the acquisition of permits, rights-of-way and land involved with construction of the Alaska portion of the natural gas pipeline.

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 1972-1975, he served as a 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.

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While on previous assignment in Alaska, Gober obtained a B.A. degree from Alaska Methodist University.

He currently resides in Fairbanks with his wife Olivia and their family.

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

- 0 -

FROM: Northwest Alaskan Pipeline Company
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Fairbanks, Alaska 99706

103180



Alaskan Pipeline

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

TEXAS GAS AGREES TO JOIN THE
ALASKA HIGHWAY PIPELINE PROJECT

SALT LAKE CITY, Aug. 29 -- Alaskan Northwest Natural Gas Transportation Company today announced that Texas Gas Alaska Corporation has agreed to join the consortium which will build and operate the Alaskan segment of the 4,800-mile Alaska Highway Natural Gas Pipeline Project.

Texas Gas Alaska is a wholly-owned subsidiary of Texas Gas Transmission Corporation, Owensboro, Kentucky, which has the right to purchase 12 percent of the natural gas production from ARCO Oil and Gas Company's interest in the Prudhoe Bay Permo-Triassic reservoir on the Alaskan North Slope.

John G. McMillian, chairman of Alaskan Northwest's Board of Partners, said today that Texas Gas joins the consortium "with full partnership status," and will make a capital contribution equaling that of the other consortium members. The company's participation is subject to necessary regulatory approvals.

"The Texas Gas pipeline system provides natural gas supplies to 90 distribution companies serving 554 communities in the central U.S.," McMillian said, adding that "the company is a most beneficial addition to this vital energy project."

Texas Gas is the eleventh company to join the Alaskan Northwest Natural

(more)

MARK - YOU
COULD INCLUDE
THIS NEWS IN
YOUR UPDATE.
FOR IMMEDIATE RELEASE
THE EXPANDED
PARTNERSHIP BODES
WELL FOR THE PIPELINE
PROJECT - MARY

Gas Transportation Company. Other members of the consortium are subsidiaries of: Texas Eastern Corporation, Houston; The Columbia Gas System, Wilmington; TransCanada PipeLines Ltd., Toronto; American Natural Resources Company, Detroit; Northern Natural Gas Company, Omaha; Panhandle Eastern Pipe Line Company, Houston; United Gas Pipe Line Company, Houston; Pacific Lighting Corporation, Los Angeles; Pacific Gas & Electric Company, San Francisco; and Northwest Energy Company, Salt Lake City.

From: Northwest Energy Company
P.O. Box 1526
Salt Lake City, Utah 84110

Texas Gas Transmission Corp.
John Blewer - Public Relations
Owensboro, Kentucky
Tel.: (502) 926-8686

082980



Alaskan Pipeline

CONTACT: Joe Vallely, vice president, Public Relations
Tel (801) 534-3531 or
Kathleen Kelly, (907) 452-5500

FOR IMMEDIATE RELEASE

PHILLIPS PETROLEUM COMPANY JOINS

ALASKAN PIPELINE DESIGN BOARD

SALT LAKE CITY, October 7 -- Phillips Petroleum Company, Bartlesville, Oklahoma, has become a member of the Design and Engineering Board for the Alaskan portion of the Alaska Highway Pipeline Project, according to John G. McMillian, chairman and chief executive officer of Northwest Alaskan Pipeline Company.

The Design and Engineering Board was established last summer by pipeline sponsors of the Alaskan Natural Gas Transportation System and Alaskan North Slope oil and gas producers to finance continued design and engineering activities of the Alaskan gas pipeline and the conditioning plant necessary to process Prudhoe Bay gas for transportation.

"Phillips Petroleum, with assets in excess of \$8.5 billion, is a substantial and very welcome addition to the Design and Engineering Board," McMillian said. "This now brings to four the number of North Slope producers on the Board," he said.

- more -

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Other producing companies represented on the D&E Board 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 of the planned 4,800-mile pipeline system which will extend from Prudhoe Bay, Alaska through Canada to markets in the lower 48 states.

- 0 -

FROM: Northwest Alaskan Pipeline Company
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Fairbanks, Alaska 99706

100780



Alaskan Pipeline

JOB INFORMATION

At this time, only a few professional and clerical positions have been filled and management is currently studying future personnel requirements for the Alaska Highway Pipeline Project. Once these jobs are determined, they will be filled as additional employees are needed, according to the current timetable.

Under the project's current schedule, no significant hiring will take place until at least 1982.

The Project Management Contractor, Fluor Engineers and Constructors, Inc., of Irvine, California, and the execution contractors who will be chosen later, will do most of the hiring for the project's pipeline work. Announcements of the award of construction contracts will appear in the press and in trade or labor organization journals. At that time, persons seeking pipeline construction jobs should apply directly to selected contractors.

Presently, no applications for persons seeking construction jobs are being accepted. Since November, 1977, when the U.S. Congress approved our Alaska gas pipeline project, we have received many thousands of requests for employment information. We continue to receive inquiries on a regular basis in our Alaskan office in Fairbanks, and many people from the Fairbanks area have asked for application forms and for job information.

Since there are probably very few employment opportunities with Northwest Alaskan Pipeline Company in Alaska for the next several months and because we do not as yet have adequate staff to reply to each inquiry personally, we have prepared the following comments for your information and personal planning.

(more)

With respect to job openings in Alaska, in the immediate future we plan to advise the Fairbanks Job Service office of the State Department of Labor of any openings which we may have from time to time.

During the next several months, we do not anticipate employment opportunities in the Fairbanks office, except for infrequent cases of replacement as may become necessary. When new professional positions are established, we will advertise in local daily newspapers.

The sheer number of applications without suitable positions to consider them against does not make it practical to accept employment applications at this time.

Clerical positions will be filled locally. In addition to the Job Service listings, advertising will be placed in local daily newspapers for both clerical and professional positions when significant project activity commences.

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For information on Alaska's employment and economic situations, write to:

State of Alaska
Department of Labor
Box 1149
Juneau, Alaska 99811

or

State of Alaska
Department of Commerce and Economic
Development
Pouch D
Juneau, Alaska 99811

011780



Alaskan Pipeline

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Tel. (801) 534-3531 or
Kathleen Kelly, (907) 452-5500

FOR IMMEDIATE RELEASE

NORTHWEST ALASKAN EXPANDS
FROST HEAVE TESTING PROGRAM

FAIRBANKS, November 20 -- Northwest Alaskan Pipeline Company is expanding its frost heave testing program with the addition of seven test sites along the gas pipeline route in Alaska. The company is conducting these tests to demonstrate the behavior of chilled pipe buried in unfrozen soils.

Northwest Alaskan is the lead partner in a consortium of 11 pipeline companies who will build and operate the Alaskan segment of the 4,800-mile Alaska Highway Natural Gas Pipeline Project.

The gas in the Alaska pipeline will be chilled below freezing (32°F) 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 chilled pipe.

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Northwest Alaskan and Foothills Pipe Lines (Yukon), Ltd., the company responsible for the portion of the Canadian pipeline 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, Alaska, and Calgary, Alberta, Canada. The seven, smaller test sites will be located along the proposed gasline route in Alaska.

These test sites were selected in areas which 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 1980 borehole drilling program. A total of 82 sites were considered. Doyon Construction Co., Inc./Reading & Bates Construction Co., Joint Venture Fairbanks, and Professional Contractors, Inc., Anchorage, are presently constructing two of the seven test sites. Other Alaskan companies that received contracts on certain elements of the testing program include H. C. Price Company, Fairbanks; Doyon Construction Co., Inc./Ghemm Co., Inc., Joint Venture Fairbanks; Modern Construction, Inc., Fairbanks; and Vertecs, Fairbanks.

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, a workpad will be constructed adjacent to the test pipe trenches to demonstrate the effects of the workpad upon frost bulb growth and frost heave of the chilled pipes. The pipe sections are being fabricated in Fairbanks and transported to the sites.

Each site is self-contained with its own power generation equipment, refrigeration equipment to chill the buried pipes, and a data acquisition system which will automatically collect information from more than 800 sensors on a twice-a-week frequency. During their weekly trip, project personnel will perform routine maintenance and collect manual data on frost heave, water table depths, and snow depths.

Each site also will be equipped with a system to allow project personnel, located in Fairbanks, to query the security and operational status of the sites.

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. Both test sections will be restrained at the ends by artificial permafrost. The purpose

- 4 -

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 company reported.

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112080



Alaskan Pipeline

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FOR IMMEDIATE RELEASE

NORTHWEST ALASKAN RELEASES

IMPACT PLANNING REPORT

FAIRBANKS, September 29 -- Northwest Alaskan Pipeline Company today released the first in a series of quarterly reports to assist Alaskans in planning for construction of the gas pipeline project, according to Harold Moles, Vice President-Operations for Northwest Alaskan.

"Our 'Gasline Planning Update' publication is intended to assist Alaska residents, businesses and government agencies in planning ahead for the project and to keep Alaskans informed of new developments," Moles stated.

Northwest Alaskan Pipeline Company is the operating partner for a consortium of 10 pipeline companies who will build and operate the Alaskan segment of the 4,800-mile Alaska Natural Gas Transportation System.

The 40-page report includes updated information on current and projected gasline manpower, current schedule, Alaska field program activities, logistics planning, gas conditioning facilities, Fairbanks housing trends and results of a survey of six small communities located along the gasline route.

"We're currently basing all our planning on a fall 1986 completion date," Moles stated. The project's current schedule calls for pipeline camp construction to begin in 1983, civil construction in 1984, and pipeline and compressor station construction in 1985 and 1986. This schedule is contingent upon receipt of the necessary government approvals, Moles said.

Some of the highlights of the report include:

- Total project manpower for both Alaska and the lower 48 states peaked at 1,478 people in March of this year. As of September 1, there were 200 people working on the project in Alaska and 72 percent of these were Alaska hires.

Project employment is expected to peak at more than 13,000 workers in 1985 when both pipeline and compressor station construction are underway.

- The major engineering field programs in Alaska during 1981 were borehole drilling, surveys of the proposed alignment and major facilities, and construction of six chilled pipe test sites. Environmental programs included studies of raptors, waterbirds, Dall sheep, fisheries and archaeological resources. This is the fifth year Northwest Alaskan has conducted field studies in Alaska in preparation for pipeline construction.

- An estimated 1.8 million tons of material will be moved into and within Alaska during construction of the gasline.

● Northwest Alaskan's quarterly report on Fairbanks housing trends found that in July 1981, there were 262 single-family homes, condominiums and duplexes for sale at a median asking price of \$96,000. Northwest Alaskan's survey of 20 major modern rental complexes in June 1981 found no vacancies although the monthly turnover rate was 4.2 percent.

● A survey, made in conjunction with socioeconomic profiles which were published by Northwest Alaskan for six communities along the gasline route, found that the top two gasline information needs cited by respondents were employment and training opportunities.

Copies of the quarterly "Gasline Planning Update" may be obtained from Northwest Alaskan's Manpower and Impact Planning Department, 701 Douglas Avenue, Fairbanks, Alaska 99701.

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92981



Alaskan Pipeline

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Kathleen Kelly, (907) 452-5500

FOR IMMEDIATE RELEASE

NORTHWEST ALASKAN PLANS
TO HIRE STUDENT ENVIRONMENTALISTS

Fairbanks, November 18 -- Northwest Alaskan Pipeline Company will conduct a summer hire program in 1981 for environmental students in association with the University of Alaska, Fairbanks, according to Harold Moles, Vice President-Operations for Northwest Alaskan.

"We want to introduce future professionals in the environmental field to the special situations encountered in large arctic and subarctic construction projects, and to give those considering employment in the environmental sciences in Alaska an opportunity to obtain field experience. In addition, Northwest would like to assess talent available for future professional employment on the gasline project," Moles explained.

Fluor Northwest, Inc., the project management contractor for the gasline, is coordinating the summer hire program with the University of Alaska's Office of Career Planning and Placement. The program will begin in June 1981. Qualified students are

- more -

encouraged to apply for summer employment with Fluor to work on various environmental programs in preparation for gasline construction.

Summer hires will work on field teams consisting of Fluor biologists and civil engineers who are compiling environmental site assessments for the gas pipeline route, material sites, disposal sites and ancillary facilities.

For further information on qualifications, compensation and benefits, students should contact the Office of Career Planning and Placement, 5th Floor, Gruening Building, University of Alaska, Fairbanks.

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111880



Alaskan Pipeline

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FOR IMMEDIATE RELEASE

NORTHWEST ADDS ENGINEERS
TO ALASKA STAFF

Fairbanks, November 10 -- Northwest Alaskan Pipeline Company has added three engineers to its Fairbanks staff. Robert Egg of Soldotna, Walter McMillan of Wasilla and Wilton Prejean have joined Northwest Alaskan as field engineers.

Each will be responsible for monitoring contractor activities on the numerous project field programs in Alaska and providing a direct interface between the permitting government agencies and the contractors involved in the field programs.

Robert Egg was formerly with Williams Brothers Engineering Company as a field engineer and was also employed with Alaskan Resource Sciences Corporation in Fairbanks for three years, working as an engineer on the Trans Alaska oil pipeline. Egg received a B.S. degree in agricultural engineering from Texas A&M University.

Before moving to Alaska and joining Northwest, Walter McMillan worked as a construction engineer for Cardinal Construction Company as a field superintendent of pipe and heavy equipment.

Wilton Prejean was formerly with Gulf Interstate Engineering Company, Bechtel Corporation, Williams Brothers and other engineering firms since 1942. He also graduated from Texas A&M University with a B.S. degree in civil engineering.

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

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Alaskan Pipeline

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FOR IMMEDIATE RELEASE

ALASKAN GAS PIPELINE GETS
FEDERAL RIGHT-OF-WAY GRANT

WASHINGTON, D.C., December 1 -- "The Alaskan Natural Gas Transportation System has taken a giant step forward today with the granting of a right-of-way for our pipeline across more than 400 miles of federal land in Alaska," according to John G. McMillian, chairman and chief executive officer of Northwest Alaskan Pipeline Company, principal U.S. sponsor of the proposed 4,800-mile pipeline system from Alaska's North Slope to the lower 48 states.

McMillian and Secretary of the Interior Cecil D. Andrus signed the 30-year federal right-of-way grant at a ceremony held today at the Department of the Interior (DOI). On behalf of the eleven companies that will own and operate the Alaskan segment of the pipeline system, McMillian made an initial payment of \$75,000 to the DOI's Bureau of Land Management.

"This action has been a critical prerequisite to development of a project financing plan," McMillian said, adding "we deeply appreciate the timely execution of this right-of-way grant by the DOI."

- more -

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

- 3 -

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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NORTHWEST ALASKAN
PIPELINE COMPANY

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.

From: Northwest Alaskan Pipeline Co.
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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:

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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

EFFEKTIVE 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."

CANINE

Capital Energy Letter Jan 5, 81

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.

2/24/81

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.

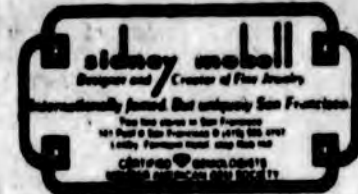
The existing plan approved by President Carter and Congress in 1977, precludes federal financing of construction work. The original plan approved by the government also ruled out equity investment in the project by the oil companies that control most of the vast reserves of natural gas around Prudhoe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

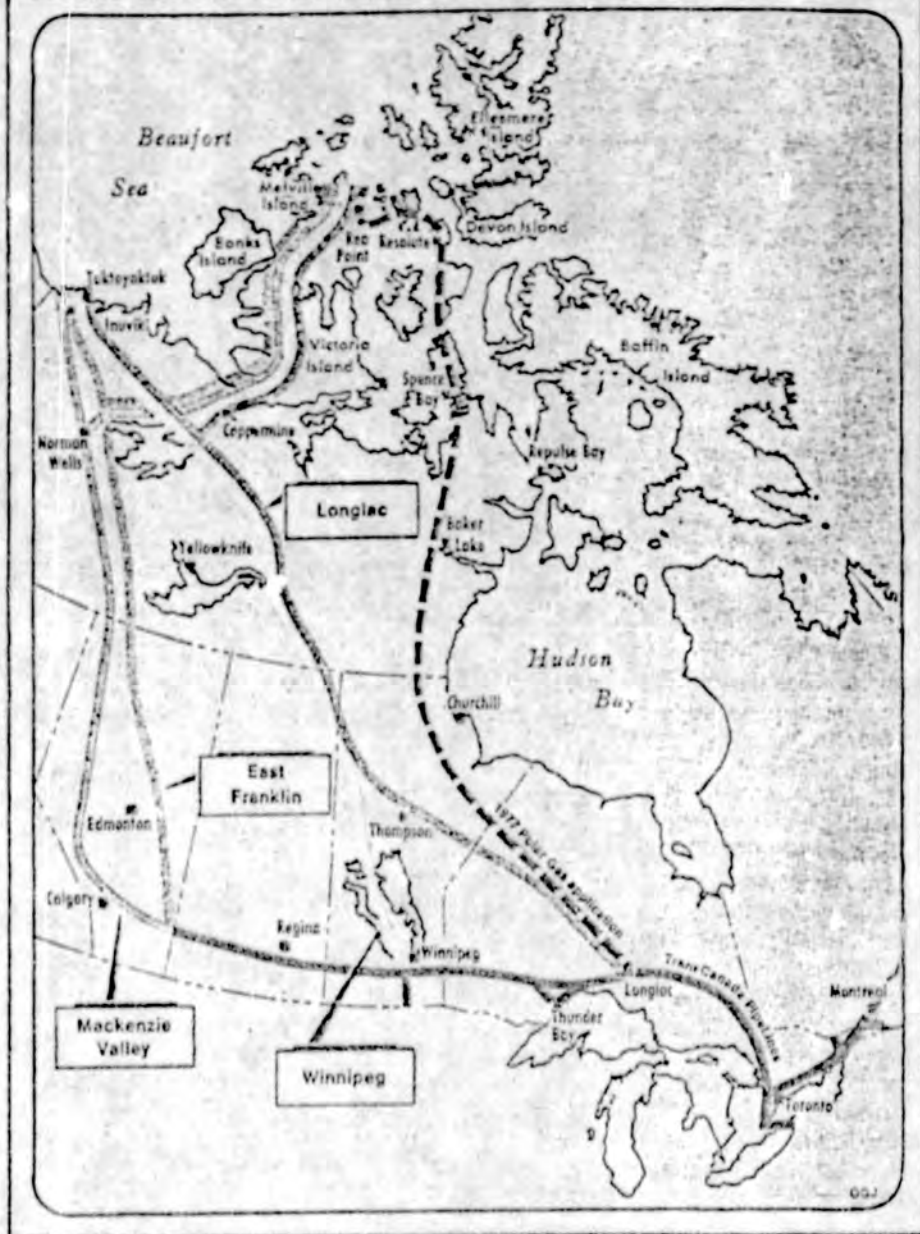
Gas flowing through the pipe in the permafrost area will be chilled below 0° C., which will prevent thawing of the soil.

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 Suspensions

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 countries.

The loans, totaling \$50 million from the IDA, are for a project to link

American General Insurance Co. Terms to Acqui

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 price yesterday on the New York Stock Exchange composite tape of \$32.125 and including the preferred would be converted to American General common—would be \$187 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 \$10.60 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 issue at \$32.50 a share each year for the first 10 years and the remaining 80% at the end of the 11th year.

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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-foot 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 aren't worried. "This project can stand on its feet just with the Canadian surplus gas," 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

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-

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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 in-state 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.

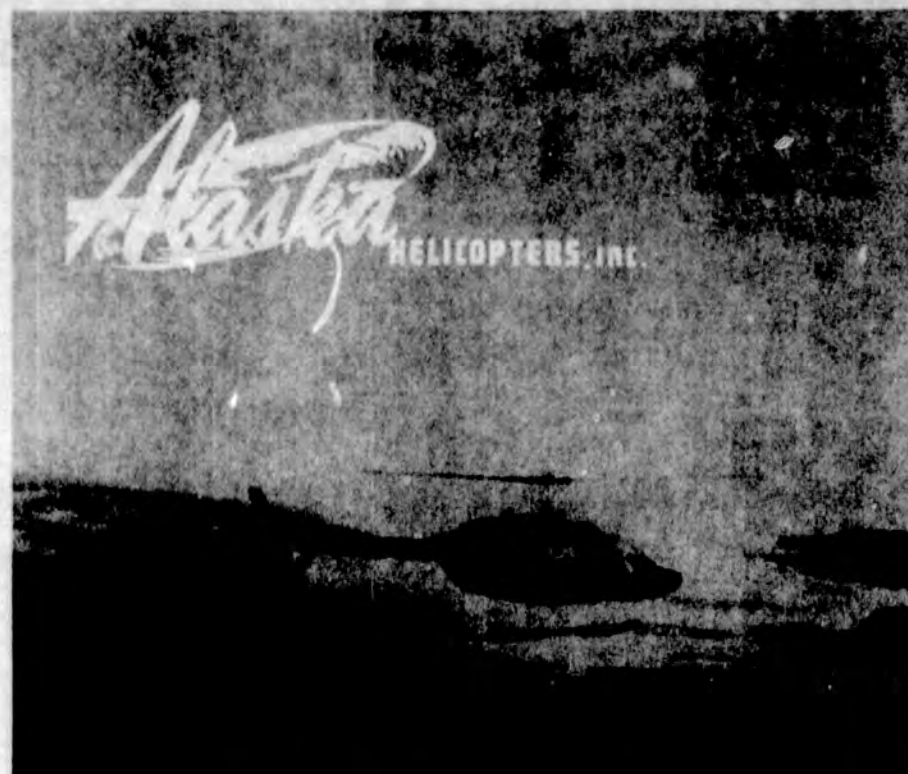
A consortium led by Dow Chemical Co. is now making a feasibility study on the economics of both concepts, with the state's official blessing. Exxon, which owns about one-fourth of the Prudhoe field natural gas, is financing a separate study. Most authorities agree that all of the gas liquids will have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

—PLEASE TURN TO PAGE 45



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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 "judicious," 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 I 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 its only asset, 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

was among involving Congress, Ferc, the President and Canada.
In return, North Dakota would argue that its rights were reserved under the 10th Amendment because 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.

Woodside's 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 Centunion 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.

Natomas 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 *Rouan 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 hydrodesulfurization 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 3/8-in. choke at a wildcat 6 miles off Canedicao 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 hellogrig, 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 388,000 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 \$303 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 \$822.9 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 15% 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 PARSTOR

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 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 \$822.9 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 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-

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 \$15 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 40% 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 finally 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.



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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.

BNOG, 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 ½-in. choke.

Watch for U.K. energy chief David Howell to reveal soon a decision to sell oil bonds tied to BNOG earnings--despite opposition from BNOG 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.

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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.

News

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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

See Back Page, GAS

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

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

struction of the project, alleviating their concerns about possible cost over-runs.

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-

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 con-

Gas

Supplemental gas supply

Table 1

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

How gas supply could soften U.S. economic blow

Table 2

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 1/2% 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., G.atty 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 MMcfd instead of contracted volumes of 240 MMcfd.

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 MMcfd 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 MMcfd 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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 the Senate. Young reit-
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 " to stop its passage.
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 which advances the inter-
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 settlement all sides can

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

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 18 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

The deal is worth \$210 million if all outstanding shares of C & K common stock plus those reserved for issuance upon conversion of securities and exercise of stock options are tendered, Alaska Interstate said.

If it is unable to acquire 100% of C & K common stock through the negotiated purchases and tender offer, Alaska Interstate intends to propose a cash merger.

In that case, each share of C & K stock not owned by Alaska Interstate would be converted into the right to receive \$35 in cash.

C & K's board of directors also approved a memorandum of understanding with respect to the cash merger.

The company's exploration activities are conducted mainly with public drilling funds. C & K was formed in 1969.

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	Oil in place		Gas in place		December 1979 oil equivalent in place	July 1980 gas equivalent in place
	December 1979	July 1980	December 1979	July 1980		
	Billion bbl		Trillion cu ft		Billion bbl	
95	1.04	0.55	3.51	2.53	2.08	1.00
90	1.35	1.02	4.26	3.46	2.66	1.25
75	2.87	2.59	7.30	5.47	4.80	2.12
50	6.03	5.21	12.52	9.39	8.57	3.75
25	10.01	8.55	17.54	13.71	13.26	10.07
10	13.72	12.10	28.29	20.04	17.33	14.17
5	16.45	15.82	34.97	27.37	20.35	18.37
Average	7.10	6.40	14.12	10.90	9.60	8.30

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 respect 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

Sum Kim
DC L10

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 present 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 side 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 prohibitions 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."

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

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?

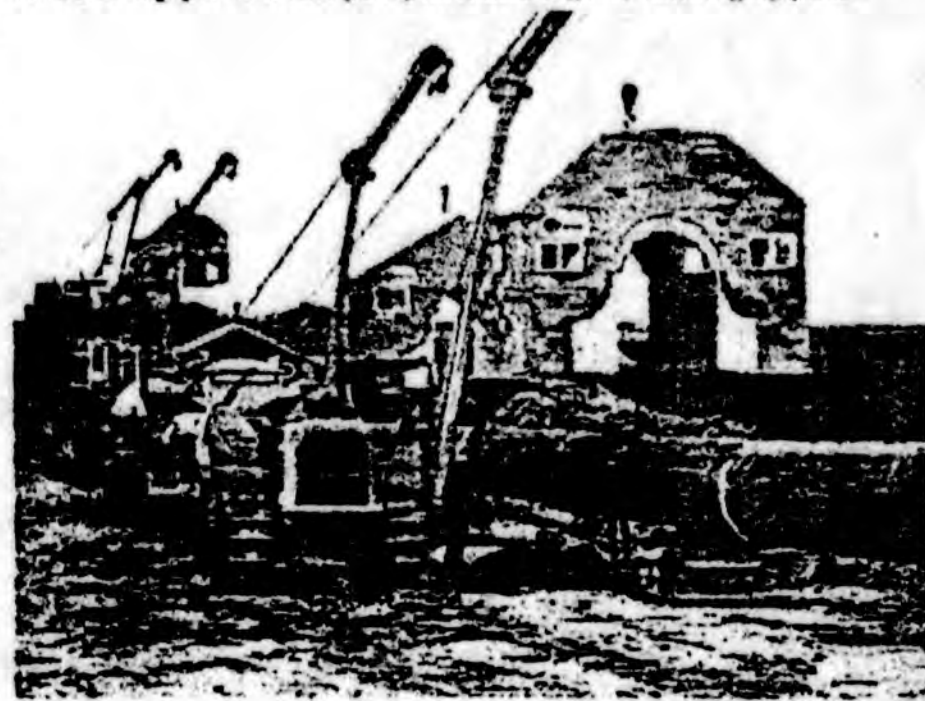
A: No. Nothing happens until it's financed. The waiver package does nothing except facilitate the financing. The decision is not made until the whole thing is financed, and that's a decision that's to be made in the spring, I imagine. They're not locked into anything by the waiver package. The decision 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 (RP80-136), 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 is J.N. Valley, a spokesman for Northwest Energy Co., defending pre-billing as necessary in order to get the project under way. "The consumers are going to pay for it regardless," Valley says, "now or later."

Before submitting the waivers to Congress, the administration had 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

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 Natives Nation and an active community leader in Lower Post, British Columbia, will serve as Vice-Chairman.

(more)

PARSONS TO DO

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.

CONDITIONING

PLANT DESIGN

WILLIAMS BROS.

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.

CONTRACT LET

TECHNICAL

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.

CONFERENCES

CONTINUE

PHILLIPS JOINS

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.

ALASKAN DESIGN

BOARD

"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.

-OFI-

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 lopping 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)

ALYESKA
CREATES
ANGTS 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 REP
NAMED TO
ALASKA OFI
STAFF

Roy F. Roehl, previously the President of Chugach Development Corporation in Anchorage, has been brought onto OFI's staff to 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 IRVINE
OFFICE 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)

ALASKA

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.

FIELD

ACTIVITY

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 DAKOTA

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.

RESPONDS TO

FEDERAL COURT

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.

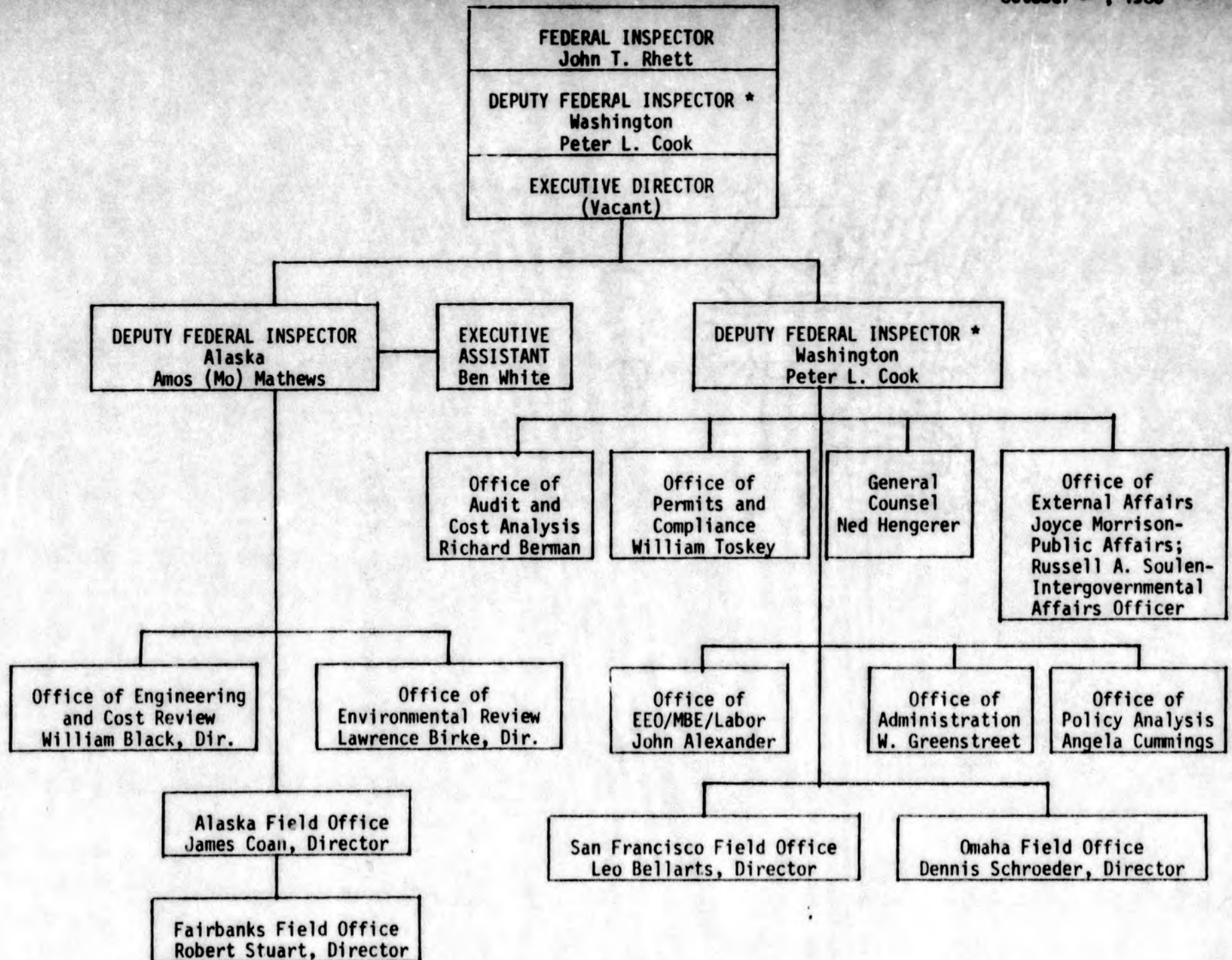
NORTHWEST UPS As a result of adjustments in routing to accommodate a minimum 200-foot distance between the ANGTS and TAPS, Northwest Alaska has filed with FERC and OFI an amended certification cost estimate reflecting a \$252 million increase in projected cost of the Alaskan segment. Its estimate, filed 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 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 JACOBUS
APPOINTED OFI
ALASKA 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 DAKOTA
HOLDS HEARINGS
ON EAST LEG
ROUTE

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 BORDER
SIGNS LARGE STEEL
ORDER 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

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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 NEWS Office 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.

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 Border 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

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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

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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.

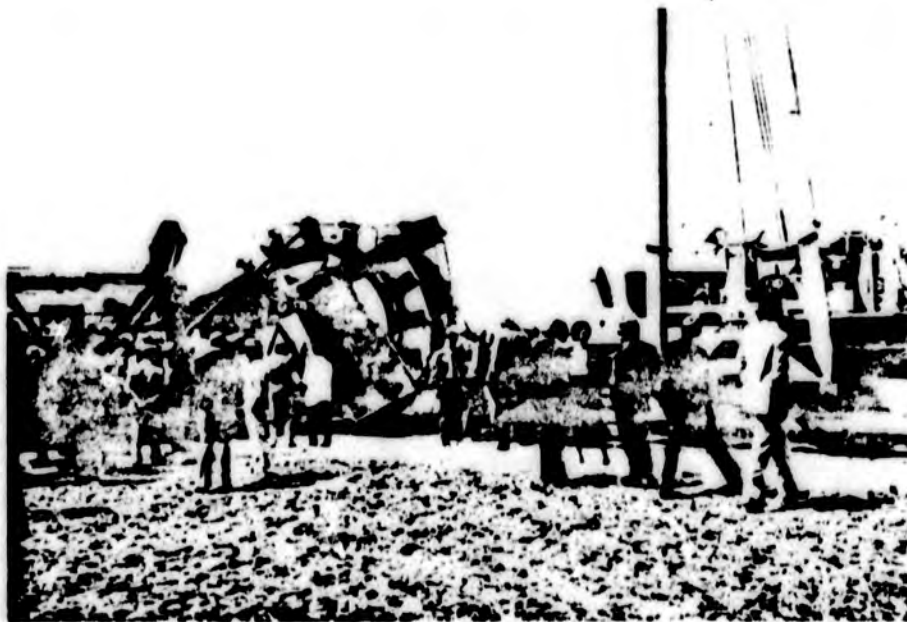
Reserved for further consideration is the question of how the conditioning plant should be included in the project, whether by integration into the System or as a certificated transportation facility necessary to the ANGTS.

* * * * *

CEREMONY MARKS START OF EAST LEG CONSTRUCTION

Construction on the ANGTS East Leg began May 4 in South Dakota where 5,000 feet of right-of-way was cleared the first day. The following day about 500 people gathered to commemorate start of construction at a groundbreaking ceremony held in a rural area on the actual right-of-way just south of Aberdeen, South Dakota.

Keynote speakers at the mid-afternoon ceremony were Mike Butler, Chairman, designate of the Federal Energy Regulatory Commission; Harold Millican, Administrator and Chief Operating Officer of the Northern Pipeline Agency of Canada; and Gordon Severa, Senior V.P. of Gas Operations of InterNorth, the parent company of Northern Plains Natural Gas Pipeline Company, managing partner of the consortium sponsoring the East Leg.



Heavy construction equipment was placed near tent where the groundbreaking ceremony was held.

At the barbeque that evening brief remarks were made by South Dakota Governor William Janklow; Federal Inspector John Rhett; Northwest Energy Co.'s V.P. for Gas Operations and Supply, Bob Keener; and Northern Plains President, Howard Hawks. Many South Dakota landowners, whose land the pipeline will cross, observed the day's events.

Construction has since begun in Montana, Iowa and Minnesota and is scheduled to begin in North Dakota August 1.

* * * * *

RHETT TESTIFIES BEFORE HOUSE APPROPRIATIONS SUBCOMMITTEE

Federal Inspector John Rhett on May 14 testified before the House Appropriations Subcommittee, chaired by John Murtha of Pa. Rhett responded to questions from Congressman Murtha concerning OFI's fiscal year 1982 budget request, project scheduling and status, 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.

* * * * *

NORTHERN BORDER WINS JACKSON COUNTY SUIT

The U.S. District Court in Minneapolis, Minn. on April 27 ruled in favor of Northern Border Pipeline Co. in a March 13 suit filed against Jackson County. The county had required that the pipeline segment which will cross the county be covered with 6 feet of soil. Judge Edward J. Devitt ruled that the county lacks statutory and constitutional authority to impose the six foot cover requirement on this interstate gas pipeline.

The company will use three feet of cover except when crossing drain tile systems used for agricultural purposes, where it will assure 12 inches of clearance between the pipeline and the drainage system. Construction in Minnesota began in early May.

* * * * *

EMERGENCY SALVAGE PLAN FOR CULTURAL RESOURCES IMPLEMENTED

Peter Cook, OFI's headquarter's Deputy Federal Inspector, on May 12 endorsed the final Emergency Salvage Plan for Cultural Resources on the ANGTS Eastern Leg. The plan outlines a systematic approach to address cultural resources found during construction. The cultural resources plan was prepared by Charles McKinney, OFI's Cultural Resources Representative, and was coordinated with the State Historic Preservation Officers, OFI field archeologists, and Northern Border Pipeline Co.

Copies of the Emergency Salvage Plan may be obtained from OFI's Public Affairs Office.

* * * * *

FERC OFFERS COMMENT ON ADOPTING AUDIT REPORTS BY NORTHERN BORDER PARTNERS

The FERC has issued a show cause order inviting public comment on two audit reports issued by its Office of the Chief Accountant on the expenditures of Northern Border Pipeline Co.

The first report covers expenditures incurred prior to March 9, 1978, by Northern Plains Natural Gas Co. and Pan Border Gas Co. The second report covers expenditures for partnership the period of March 9, 1978, through December 31, 1979, totaling \$7,215,699 excluding AFUDC which qualifies eventual inclusion in Northern Border Pipeline Company's rate base.

Comments on FERC's show cause order may be filed within 45 days of the May 5 issuance date. Copies of the order are available from FERC's Public Information Office at (202) 357-8818, and the audit reports may be obtained from FERC's Chief Accountant's Office at (202) 357-9100.

* * * * *

WESTERN LEG ON SCHEDULE

The three segments of the pipeline that will enable deliveries of Canadian gas to southern California are well on the way to completion, on schedule, and will begin transporting gas October 1.

Northwest Pipeline's Pan Alberta Project--the northern portion of the so-called Western Delivery System consisting of 350 miles of pipeline--is essentially complete. The contract for trenching the Snake River in two locations was awarded May 5.

The southern leg of the WDS is owned by El Paso Natural Gas Company, which will carry the gas from Ignacio, Colorado to California border. El Paso is now doing a \$32 million system expansion to transport additional gas. It is adding a new compressor at both its Bondad, New Mexico station, and two compressors at San Juan River, New Mexico stations, under a certificate issued by the FERC on August 28, 1980. Pipeline construction is to begin July 1, consisting of almost 44 miles of 20 and 34-inch diameter looping.

* * * * *

CANADIAN NEWS

East Leg Construction Begins - Construction on Canada's East Leg began May 25. William Scotland, NPA's Designated Officer, on May 22 issued the final order which allows for 15 miles of pipeline construction to begin in Alberta and 39 miles in Saskatchewan.

Construction of the 394-mile Canadian East Leg will take place over the next two years, and will extend southeasterly from Caroline, Alberta, to the American/Canadian border near Monchy, Saskatchewan. There it will join the Lower 48 Eastern Leg segment being built by Northern Border, which began construction May 4.

Canada's Northern Pipeline Agency also approved environmental protection plans for Eastern Leg construction in Saskatchewan and Alberta. Both plans outline mitigative measures the company will take in protecting the environment during construction.

Panel To Hold Environmental Assessment Hearings - Canada's Environmental Assessment Panel on the Alaska Gas Pipeline Project announced that public hearings will be held June 16 in Whitehorse, Yukon to review pipeline alternatives. The hearings are a continuation of technical hearings recessed in Whitehorse on April 19, 1979.

* * * * *

SENATOR MURKOWSKI ADDRESSES ALASKAN SENATE ON GAS PIPELINE

Sen. Frank H. Murkowski (R-Ak.) in a speech before the Alaska Legislature expressed support for timely completion of the Alaska Natural Gas Transportation System. In his May 4 address he said it is "critical for the country and the State of Alaska to complete the Alaska Natural Gas Pipeline Project." He also encouraged the Alaska Legislature to support State financing of the pipeline which would give the State partnership with the major owner companies. "It should be a good business investment--perhaps better than the gold the State's already invested in," Murkowski said.

The freshman Senator also discussed important energy topics such as natural gas deregulation, and the use of Alaskan royalty oil for the Department of Energy's Strategic Petroleum Reserve to aid in lessening U.S. dependence on foreign oil.

Copies of Senator Murkowski's address may be obtained from OFI's Public Affairs Office.

* * * * *

FI CONDITIONALLY APPROVES WESTERN DELIVERY SYSTEM AAP

The Federal Inspector on April 30 conditionally approved Northwest Pipeline Corporation's Affirmative Action Plan (AAP) for the Western Delivery System segment of the ANGTS. Final approval is contingent on the following modifications:

- * increasing of female business goals from 1.5% to 2% of contractable opportunities;
- * revision of definition section to exclude whites as minorities;
- * revision of contract listings to break out procurement and contracting opportunities available to MBE's/FBE's;
- * inclusion of a time schedule for complaint resolution in Complaint Procedures;
- * specification of technical and administrative assistance to facilitate MBE/FBE participation; and
- * reflection of employment goals as percentages of total employment in addition to absolute numbers.

Once the company adopts the above modifications the Federal Inspector will approve the final Affirmative Action Plan.

* * * * *

FIELD COMPLIANCE MANUAL COMPLETED

A 60-page Field Compliance Manual has been completed and will soon be sent to all Federal field personnel involved with the ANGTS. The Manual, which applies only to lower leg construction, contains guidance on what to watch for and procedures for handling various kinds of problems in the field.

A substantially different Manual will be prepared for the Alaska segment, expected to be completed in about a year. The manuals are products of OFI's Compliance Division, headed by Larry Ouellette. Questions on the Manual should be directed to him or Bill Toskey, Permit and Compliance Director, at 275-0577.

* * * * *

OFI ISSUES FINAL RULE ON REIMBURSEMENT

Final costs reimbursement rules were issued on May 21 setting standards and procedures to recover costs from ANGTS sponsor companies. The ANGTS sponsors are obligated to reimburse the Federal government for certain costs to Federal agencies in permitting the use of Rights-of-Way across Federal lands. The Office of the Federal Inspector will recover only a percentage of the costs associated with enforcing the Right-of-Way on Federal lands. The reimbursable costs apply to OFI field personnel, headquarters support personnel such as the offices of Engineering and Environmental Review, and support contractors.

The gas pipeline sponsors will reimburse OFI for administrative and other expenditures for processing right-of-ways or permit applications, and for monitoring construction costs, and operation of approved facilities on the right-of-way or permit area.

Billing, payment, and protest procedures are also explained in the May 21 regulations, which are available from OFI's Public Affairs Office.

* * * * *

ALASKA NEWS

Environmental - Northwest Alaskan Pipeline Co. (NWA) is continuing environmental studies this summer to determine sensitive habitats and populations of fisheries and endangered wildlife species in Alaska. OFI's environmental staff is reviewing proposed NWA facility sites--camps, access roads, disposal sites, and right-of-way alignments--to assess environmental impacts. Mitigative measures will be developed to ensure unnecessary environmental damage is avoided.

Soil Data - Borehole drilling to determine soil characteristics for pipeline design is, with the exception of some private land in the Tok area, complete. Additional drilling may take place if the right-of-way alignment is changed or if additional soil data is needed to complete pipeline design.

One-Window - The first of 21 mineral material acquisition plans was submitted to OFI by NWA. Approximately 380 material sites will be developed to provide an estimated 28 million cubic yards of mineral material (mostly gravel) for Alaskan segment construction.

Cultural Resources - Dr. David Ruppert, a professional anthropologist, has joined OFI's Fairbanks, Alaska staff to review cultural and archeological matters during planning and construction of the Alaska segment. Ruppert holds a Ph.D. in cultural anthropology from the University of Arizona at Tucson and prior to joining OFI was the District Historian for the Bureau of Land Management in Fairbanks.

Frost Heave - All six chilled pipe test facilities built by NWA are now operational. Residual frost found around one end of the insulated pipe at the Livengood II test site will require thawing. Also, some mechanical problems in the refrigeration system require intensive remedial maintenance. Frost has penetrated six feet below the uninsulated pipe at Livengood I, the first operational site, and is 2 to 3 feet below the uninsulated pipe at the Little Salcha River Site. Heaving at each site is occurring at slow rates. Considering the complexity of these test facilities and their construction under severe winter conditions, startup and early operational phases have been exceptionally smooth.

NWA will perform the following frost heave tests this summer at the Fairbanks Frost Heave Test Site:

Differential Heave Test - Two 4-foot diameter chilled pipes will be buried with the pipe ends placed in artificially frozen ground. A frost bulb will form around each pipe's center section and will tend to heave it out of the ground. This test focuses on abrupt frozen/thawed soil transition.

Soil Uplift Resistance Test - Two 18-inch diameter and two 48-inch diameter pipes will be buried, and the soil surrounding the pipes frozen, followed by thawing of surface soils to simulate conditions. The pipes will then be pulled vertically to determine restraining forces exerted on the pipe by the overlying soil. A second set of four pipes will then be buried and allowed to freeze-in. The pipes will be pulled in late winter to measure frozen ground restraining forces. This test series will also provide calibration data for the soil/pipe structural model.

Twelve-Inch Diameter Pipe Tests - Two 12-inch diameter pipes will be buried and chilled at different temperatures (-10°F and +14°F). The test data will be used to bridge results from laboratory frost heave tests and the full scale 48-inch diameter chilled pipe tests, and supply data on frost penetration and heaving under a high thermal gradient.

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(202) 275-0586



Alaska Gas Pipeline Update

Office of the Federal Inspector
Alaska Natural Gas Transportation System

July 8, 1981
No. 21

WAIVER PROPOSAL UNDER CONSIDERATION

Administration officials and Congressional staff are hard at work reviewing possible items for inclusion in a proposal to Congress concerning the Alaska gas pipeline. Following agreement in May by the producers and sponsors on the basis for arranging construction financing, the sponsors have developed a list of conditions they believe are necessary to achieve private financing of the project.

When it became generally known what the basic concerns of the financial community were, Government began to analyze those concerns from its point of view. Following policy formulation and pre-coordination with Congressional staff, the President will submit a package to Congress for consideration. The package will request waiver of certain provisions of law including those necessary to permit the producer financial participation outlined in the sponsors' May 21 letter. Approval requires affirmative action by both Houses of Congress, in the form of a Joint Resolution.

Future action on this proposal will be released and announced by the White House.

* * * * *

TRAINING MEETING HELD

The first meeting of a group that will be examining training needs and opportunities during pipeline construction was held at OFI's offices in Washington on May 28-29. It was organizational in nature, with the first item on the agenda a discussion of how the group should be structured and what its purpose is.

The meeting was called by OFI's Director of EEO/MBE, John Alexander. Present were representatives of Northwest Alaskan Pipeline Co., the Alaska Federation of Natives, U.S. Department of Labor, Alaska Department of Labor, Alaskan Commission on the Status of Women, Fluor, AFL-CIO, Department of Interior (including the Bureau of Indian Affairs), Anchorage Community College, and the Tanana Chiefs Conference.

The group agreed that its goal is "to provide a forum for the exchange and coordination of information and to provide advice necessary to ensure the availability of a sufficient qualified labor force to meet project needs and assure adequate and meaningful training opportunities to minorities and women and to help them qualify and secure jobs on the pipeline project consistent with the affirmative action plan goals and timetables."

Objectives of the training program will be:

1. To develop a plan to provide Alaska Natives, women and other minorities with the skills needed to work on the gas pipeline;
2. To equip these same groups with skills that would qualify them for technical and management positions transferable to other jobs in the oil and gas industry; and
3. To give those who are not interested in technical and management positions other construction skills that can be used once this project is completed.

Elected as Chairman of the Committee was Al Kuhn, Northwest's Director of Government Affairs. Sylvia Carlsson, the Alaska Federation of Natives' designated representative on project matters, was elected Vice Chairman. The committee was divided into four Subcommittees, to handle funding,

Senator Earl Hastings, Chairman of the Canadian Senate Committee on the Northern Pipeline Agency, expresses his appreciation to Deputy Federal Inspector Peter Cook for the briefing the Committee received in Fairbanks during their June visit to Alaska. The 21 Senators visited Juneau, Fairbanks, Prudhoe Bay, and several Canadian oil and gas exploration sites in their 10 day tour. Briefings in Fairbanks were also given by Dr. Charles Behlke, Alaska State Pipeline Coordinator, and Harold Moles, Vice President of Northwest Alaskan's Alaska operations.



manpower information, referral and recruitment, and sources capable of performing training (such as Wildwood, Seward Skill Center, Community Colleges, unions, etc.). The Chairmen of these Subcommittees are, respectively, Robert Crosslin, U.S. Department of Labor; Glenn Lundell, Deputy Director, Alaska Department of Labor; Sylvia Carlsson, AFN; and Russ Anderson, Target Outreach Program, Alaska AFL-CIO.

These Subcommittees were to meet before the next meeting, tentatively set for sometime in September in Alaska.

The prevailing tone of the meeting was a resolve to determine now what, if any, training is needed to meet the labor needs of the project, and to get organized, get the necessary data, and have the plans ready for action whenever appropriate to begin training. While it was agreed that training in the absence of a demonstrable need is not in the the best interests of the sponsors or gas consumers, it was also clear that special training of Alaskan Natives is required under the Department of Interior's permit, and that training above and beyond that may also be necessary, whether pre-employment or on-the-job.

Those present seemed satisfied, at the conclusion of the meeting, that the structure and plan agreed upon will meet the needs of all entities represented.

* * * * *

AGREEMENT WITH EEOC FINALIZED

A final agreement has been reached with the Equal Employment Opportunity Commission for handling employment discrimination complaints received by OFI during construction of the gas pipeline. The final Memorandum of Understanding was published May 29 and is effective as of that date.

The agreement is a revision of one proposed in a notice issued last September 11. Two comments were filed in response to the notice--by the State of Alaska Human Rights Commission, which favored the proposal, and by the project sponsors, who found the proposal helpful but who nevertheless raised a number of concerns. Many of those were accommodated in revisions to the proposed agreement.

In addition to detailed procedures for filing and processing discrimination complaints, the agreement provides for exchange of information on such things as employment policies of the sponsors and their contractors, affirmative action programs, employment reports, and investigative files. EEOC will send OFI quarterly reports to keep it informed of all charges against those involved in project construction.

Each agency has designated a liaison officer to be primary contact on these matters. For EEOC that officer is the Executive Director or his designee. For OFI it is the EEO/MBE Director or his designee.

Copies of the agreement are available from OFI Public Affairs.

* * * * *



Six members of Canada's Northern Pipeline Agency Environmental staff, led by Assistant Administrator John Naysmith, visited Alaska in June. Briefings from Al Ott (Deputy State Pipeline Coordinator), the Federal Inspector's staff, and Harold Moles, VP-Northwest, preceded their field trip along the gas line right-of-way. From left to right: Ott, Larry Birke (OFI), Naysmith, and John Santoria (NWA), listen to Harold Moles tell them about some of the things they will see the next day.

FINAL COST REPORT ON ALASKA SEGMENT ON TARGET

The final cost report being done by the Adger-Berman, FERC-OFI team, is on target to be completed and officially transmitted to the Federal Energy Regulatory Commission the end of July. It will contain final recommendations on the cost estimate Northwest Alaska filed with the Commission last summer, to be considered by the Commission prior to any issuance of a final certificate for construction of the Alaskan portion. In charge of the report process have been John Adger, FERC Alaskan Delegate, and Richard Berman, OFI's Director of Audit and Cost Analysis. The report will be public information as soon as it is received and stamped in by the Commission's Office of the Secretary.

* * * * *

OFI ENVIRONMENT DIRECTOR LEAVES -- WORK CONTINUES

OFI's Director of Environmental Review, Lawrence Birke, has resigned to accept a position with private industry. His Deputy, Earl Kari, has been named Acting Director. Mr. Kari is stationed in Anchorage and has extensive experience with Alaskan environmental matters. He has done environmental-related work with the Federal Government for the last 21 years.

Meanwhile, the Environment staff continues to work on the segment of most immediate interest, the Eastern Leg. OFI staff recently completed a week-long survey to photograph and evaluate sensitive environmental areas along the right-of-way in South Dakota, Minnesota and Iowa. North Dakota will be surveyed later since construction will not begin there until September. A staff environmentalist in OFI's Glasgow field office completed a survey of sensitive sites in Montana before construction began there.

The previously-compiled list of environmentally sensitive areas includes river crossings and deep marshes, or prairie potholes as they're called. Northern Border's bank of environmental information is also being tapped for data on such items as grouse leks (nests), raptor (a species of bird) nests, and prairie dog towns.

The list of critically sensitive East Leg areas has been pared from 45 to 37. OFI personnel will be at these locations during critical phases of construction to assure that proper care is taken, since once damage is done it often is not easily or quickly corrected. A stand of 50-year-old cottonwoods improperly removed cannot be replaced as easily as an improper weld. The emphasis therefore is on preventing mistakes rather than detecting or reporting of them.

An interesting situation developed recently during East Leg construction when a prairie falcon nesting site, a rare species, was spotted on Rock Creek in Montana. Construction was delayed voluntarily by Northern

Border because a female and four chicks were observed nesting on the creek bank. As soon as the nestlings began to fly and were mature enough that construction noise would not disturb their development, construction was resumed.

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CANADA'S NPA APPROVES MANPOWER PLAN

Canada's Northern Pipeline Agency recently approved Foothills' manpower plan for construction of the entire Canadian segment, except for Yukon. Foothills estimates that 6,528 man-years of direct employment will be created for pipeline construction in Columbia, Alberta and Saskatchewan, and an additional 150,000 man-years generated indirectly as a result of the pipeline. The plan covers such major elements as labor supply and source; training; opportunity measures for Natives and women; employment and training information; recruiting procedures and local hire; and mobility. A similar report for the 508-mile Yukon segment will be submitted later.

* * * * *

OFI AWARDS \$1.2 MILLION AUDIT CONTRACT

OFI on July 6 awarded a contract to the CPA firm of Main, Hurdman and Cranstoun, of New York City. The firm will review Northwest's management/cost control systems, and perform quarterly rate base audits of expenditures made by the Alaskan and Eastern Leg sponsors from the beginning of 1981 through September 1983. A one-time audit will be made of the West Leg sponsor.

The contract, valued at \$1,219,405, was a competitive action, initiated by an RFP last April 15. The contractor is a large, well-established accounting firm with offices all over the U.S., including Washington, D.C., and Fairbanks, Alaska. The contract will be under the program direction of OFI's Office of Audit and Cost Analysis.

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Alaska Gas Pipeline Update

Office of the Federal Inspector
Alaska Natural Gas Transportation System

August 13, 1981
No. 22

EEO/MBE PLAN APPROVED FOR ALASKAN SEGMENT

The Federal Inspector on August 13 announced approval of Northwest Alaskan Pipeline Company's Affirmative Action Plan for employment and procurement for the 745-mile Alaskan segment of the pipeline. The plan, which applies to the company, its contractors and subcontractors, sets goals for each of four minority groups and for females, for each job group. (cont'd.)



EAST LEG CONSTRUCTION IN PROGRESS

Welded pipe is cleaned and coated with an adhesive primer which bonds the polyken tape to the pipeline. Two layers of tape are applied to control corrosion. Here, construction workers prepare to lower the coated and taped pipe into a ditch along Spread 9 of the East Leg near Mason City, Iowa.

First filed in September of 1980, Northwest's original plan has been supplemented and revised three times since. Now that an approved plan is in place, some existing contractors must file affirmative action plans for OFI approval, according to the requirements of the EEO regulations issued in May 1980. Contractors with less than 50 employees on project activities or having a contract valued at less than \$50,000 do not have to file plans. Contractors having a contract of \$150,000 or more must submit an affirmative action plan for procurement, in addition to the employment plan.

The 1981 goal for minority business enterprise participation is \$31 million, or 15 percent of contractable opportunities. The goal for female business firms is \$4 million, or 2 percent. Contractable opportunities are expected to total about \$208 million in 1981. Northwest expects about 13,000 people to be working on the Alaska segment at peak construction, now estimated to be 1985. About 70 percent will be craft workers, operatives and laborers. The 1981 employment goals for minorities for these job skills are, respectively, 14.9, 17.3, and 21.5 percent.

A Fact Sheet with additional details on the affirmative action plan is available upon request from OFI Public Affairs, D.C. (202-275-0586), or Anchorage OFI (907-271-3668). The plan itself, which totals about 600 pages, is also available for review at those offices.

* * * * *

EIGHTH QUARTERLY REPORT SENT TO CONGRESS

On July 24 the Federal Inspector sent to Congress his eighth quarterly report on Alaska gas pipeline system progress. The 14-page report includes current information on East and West Leg construction and the status of the Alaskan Leg; interface with other Federal agencies and the Canadian government; EEO and MBE issues; and technical activities, including arctic engineering and borehole drilling programs.

Copies of the 8th Quarterly Report are available on request from OFI Public Affairs.

* * * * *

EXECUTIVE POLICY BOARD HAS NEW CHAIRMAN

Brigadier General Forrest T. ("Ted") Gay, III has recently been named as the Corps' representative to the Executive Policy Board (EPB), and, thus, its Chairman. He replaces Brigadier General George R. Robertson who has assumed new duties as Commander, MX Program Agency, Norton Air Force Base, California.

The EPB, authorized and established by Executive Order 12142 of June 21, 1979, is the highest level Federal advisory body to the Federal Inspector. The EPB agencies elect their own Chairman Agency; the Corps of Engineers is currently in that position.

General Gay brings a broad technical and managerial background to the EPB. He is a 1955 graduate of the U.S. Military Academy, holds MS degrees in Civil and Nuclear Engineering from the Massachusetts Institute of Technology, and has completed the University of Michigan's Advanced Management Program. During his many years of service, General Gay has held key command and staff assignments with the Corps of Engineers which include combat command in Vietnam; District Engineer, St. Paul, Minnesota; and his previous assignment as Executive Director and Chief of Staff to the Chief of Engineers. His current assignment is Deputy Director, Civil Works Directorate, Office of the Chief of Engineers, Washington, D.C.

* * * * *



Welding on Canada's East Leg is being done by automatic welding machines, which are protected from the wind by shells which are lowered in place. Using this method, up to 1 mile of 48" pipe can be welded in a day. Welding activities in Canada were suspended for about two weeks because of a strike by the Welder's Union, but settlement was reached and operations resumed August 10.

EAST LEG PAMPHLET AVAILABLE

OFI has issued a pamphlet detailing Federal involvement during ANGTS East Leg construction. The fold-out pamphlet, titled "Guide to Government Involvement on the Eastern Leg," discusses the overall Alaska Natural Gas Transportation System; East Leg construction; OFI role and responsibilities; and common East Leg community concerns such as human safety and land disturbance.

In case of problems, misunderstandings, or the need for further information pertaining to the Northern Border pipeline, a telephone listing of Federal, State, local and company representatives is included in the pamphlet.

Copies of the pamphlet are available from OFI's Public Affairs Office.

* * * * *

OFI SLIDE SHOWS AVAILABLE FOR VIEWING

OFI has prepared two slide-illustrated presentations describing its oversight role in construction of the Alaska Natural Gas Transportation System and the Northern Border gas pipeline--the East Leg.

Alaska Natural Gas Transportation System Slide Presentation - The ANGTS presentation discusses the system as a whole, emphasizing the construction challenges of the Alaskan segment; successful completion of West Leg first phase construction; and current buildup along the East Leg. The slide show also defines Federal Inspector involvement in monitoring and compliance; design and environmental review; and EEO enforcement.

Alaska Natural Gas Transportation System - East Leg Slide Presentation - The East Leg Slide Show focuses on current construction on the Northern Border pipeline, as well as describes the whole System and the functions of OFI.

Groups interested in having an OFI representative present either show should contact Joyce Morrison in OFI's Washington Office at (202) 275-0586 or Dennis Schroeder in OFI's Omaha Field Office at (402) 864-9555.

* * * * *

OFI OPENS CONSTRUCTION OFFICE IN ROSALIA, WASHINGTON

OFI has opened a construction office in Rosalia, Wash., adjacent to PGT's Compressor Station #6, about 30 miles south of Spokane, Washington. The construction offices in Samuels, Idaho, and Wallula, Washington, are closing now that West Leg construction in Idaho and Washington is near completion.

The Rosalia construction office address is:

Office of the Federal Inspector/ANGTS
Rosalia Construction Office
P.O. Box 317
Rosalia, Washington 99170
Telephone: (509) 523-5811

The shipping address for the Rosalia construction office is:

Office of the Federal Inspector/ANGTS
Rosalia Construction Office
c/o Pacific Gas Transmission Company Station 6
3 miles west of 195 on Babb Road
Rosalia, Washington 99170

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Alaska Gas Pipeline Update

Office of the Federal Inspector
Alaska Natural Gas Transportation System

September 22, 1981
No. 23

FI APPOINTS BILL TOSKEY TO ALASKA POST

The Federal Inspector has appointed William M. Toskey, a civil engineer with 28 years of construction experience and two years with the Alaska gas pipeline, as Director of his Alaska Field Office. Mr. Toskey, was previously employed as the Department of Interior's (DOI) Agency Authorized Officer, in Washington, D.C. and also served as the Director of the Office of Permits and Compliance for the Office of the Federal Inspector.

Prior to joining DOI in 1980, Mr. Toskey was employed with the Army Corps of Engineers, retiring as Lt. Colonel after 24 years. During that time he worked on construction programs both here and abroad, and received numerous commendations and awards for public works construction. He is a graduate of West Point and has a Master's Degree in Civil Engineering.



William Toskey

Mr. Toskey reports to Amos Mathews, the Deputy Federal Inspector for Alaska, and has reported for duty in Fairbanks. He succeeds James Coan, who retired from government service last August.

The functions of the Alaska Field Office have been reorganized recently. Robert Stuart has been assigned as the Assistant Director for Construction and Logistics Planning. Mr. Kenneth Swanson has been named Assistant Director for Surveillance.

ADGER-BERMAN REPORT ON COST OF ALASKA SEGMENT

The final Adger-Berman report on estimated cost of construction of the Alaskan segment was issued August 21 by the Federal Energy Regulatory Commission. The report put the cost at \$6.73 billion after deferring consideration of \$887 million, rather than \$8.133 billion estimated by the project sponsors.

The report, written by John B. Adger, the Commission's Alaskan Delegate, and J. Richard Berman, Director of Audit and Cost Analysis, OFI, is a special study which will be used by the Commission when it sets the Certification Cost Estimate as part of its overall certificate proceeding on the Alaskan segment. One of the most important elements of that consideration is approving the Certification Cost Estimate which will be used as a basis for the incentive rate of return.

The Adger-Berman report relies extensively on an independent evaluation of the costs done by William Brothers Engineering Company, of Tulsa.

The Adger-Berman report concludes that its proposed cost estimate and Alaskan Northwest's are close enough to corroborate each other for the purpose of establishing a cost within which the Alaskan segment can be built. However, it continues, in establishing a target cost for the incentive rate of return, the sponsor's estimate includes excess amounts which must be removed to reach "risk-neutral" status, or the point at which the odds of overrun and underrun are evenly split.

The report found that these excess amounts appear in the sponsors' estimate:

- a. excess costs in the estimate, including such things as oversized crews, low productivity assumptions, etc;
- b. errors in the estimate; for instance, duplication of operations and inclusion of costs for hauling material-site losses to the right-of-way;
- c. insufficient resource optimization; for instance, crew and equipment estimates were independently prepared and costs assigned for individual operations, which were then summed to the total cost estimate without making sufficient allowances for the economies which normally result from shared labor and equipment.

In the the report's chapter on Center Point, the authors conclude that the Center Point should be reduced from 1.3 to 1.2. It cites several general factors as a basis, including experience with other projects (such as the Alaska oil pipeline); the significant cost growth (at least 161 percent) which has occurred between submission of the March 1977 estimate and the 1980 cost estimate; and the opportunities for limiting cost overruns. The report concludes that, as a result of these factors, the expected further cost growth will be considerably less than anticipated at the time of the President's Decision, and thus, the Center Point should be reduced.

In discussing "design" issues, the report concludes that, overall, the design of the Alaskan segment is sufficiently advanced to form a basis for setting the Certification Cost Estimate. However for three issues--the communications system, management plan, and affirmative action training

programs--the report concludes that there is an insufficient basis for inclusion in the approved cost estimate and recommends that these items be deferred for later action. It also recommends rejection of the sponsors' proposal to adopt the inflation index ultimately included in the project labor agreement, and the proposal to include actual third-party monitoring costs in the Cost Performance Ratio. It instead recommends adopting a composite labor index as approved for the Eastern Leg of the ANGTS, and deferring socioeconomic and Alaska monitoring costs for subsequent Commission action.

FERC has invited comments on the report (in an order issued August 21 in Docket No. CP80-435 et. al), to be filed with the Commission by September 18. Copies of the report are available from FERC's Public Affairs Office.

EAST LEG CONSTRUCTION CONTINUES

Although heavy rains have caused temporary slowdowns in sections of Minnesota and Iowa, overall East Leg construction is progressing without major hitches. Progress on the relatively flat farmland areas has been excellent. Contractors anticipate that mainline welding on four of the spreads will be completed by September 18.

Construction in North Dakota started earlier this month and will continue in 1982. Northern Border is aiming to complete at least the pipe installation this year on critical, specialized river crossings (Big and Little Missouri Rivers and the Oahe Reservoir). Due to low flows in 1981, construction conditions for river crossings are considered excellent; a bonus is that environmental disruptions will be minimized.

OFI's field office at Glasgow, Montana, will be abolished by October 31, as construction in that State winds down. In anticipation of construction start-up in North Dakota, OFI opened a field office in Williston in early September. The office is under the supervision of OFI's Field Office Director who is headquartered in Omaha, Nebraska. John Morton and Frank Bosiljevac will be the Federal Inspector Field Representatives stationed there, reachable on (701) 572-0289.

Three of the five States traversed by the Eastern Leg, (Iowa, Minnesota, and South Dakota) have both State and county inspectors. Generally, county inspectors are concerned with construction impacts on agricultural interests. These interests include drain tile and related ditch systems, topsoil/subsoil separation, rehabilitation, county road crossings, and road structures such as bridges and culverts. With three levels of government monitoring (Federal, State, and local), there was concern that construction progress might be impeded due to inadequate coordination, and misunderstandings regarding jurisdiction, and the application of OFI's compliance monitoring procedures. On August 10-13, OFI met with State and county inspectors in Clear Lake, Iowa; Slayton, Minnesota; and

Watertown, South Dakota, to explore these and related matters. Consensus was that coordination and liaison were adequate and that on-site problem-solving was working very well. This was attributed in large measure to the willingness of project sponsor contractors to rectify problems on the spot, and with minimum delay. The Federal/State/county relationships, based on informal arrangements and contacts, are working well.

On August 10, the Public Service Commission of North Dakota signed a Memorandum of Agreement (MOA) with the Federal Inspector. The MOA, drawn up in general language, covers the respective roles of the PSC and OFI and assures a high degree of cooperation and coordination between entities.

A pipeline goes through a series of tests before being put in service. The purpose of the tests is to assure that failure will not occur when the pipeline is pressured with natural gas. One of the pipeline safety tests is called hydrotesting. As the term implies, the practice involves filling sections of the buried line with water and pressurizing it substantially above the final operating pressure. Such a test was underway in the vicinity of Castlewood, S.D., on August 31, when a pipe rupture occurred. Pressure in the section of pipeline being tested was to be run up to 1992 psi. Operating pressure of the line is 1430 psi.

The failure started at the bottom of the pipe almost directly opposite the longitudinal weld, and spiraled upward at both ends, creating a hole in the earth roughly 40 feet long and 10 feet wide. The ruptured portion was cut out and replaced on September 1, and shipped for laboratory examination. There was no girth weld failure involved in the incident. The failure occurred in an open farm field; there were no injuries. Earlier in the month, hydrotesting on a section of the pipeline in Minnesota disclosed a slow leak at a small crack in a girth weld. The weld was repaired and the section was successfully retested.

ENVIRONMENTALLY SENSITIVE AREAS IN N.D. IDENTIFIED

Thirteen areas of North Dakota, the last state in which initial phase construction-related impacts during the remainder of this construction season and next summer. They will receive special surveillance by OFI to avoid undue construction-related impacts during the remainder of this construction season and next summer. Construction began in North Dakota earlier this month.

The sensitive areas are: Williams County Badlands; Missouri River and its Badlands; Cherry Creek; National Grasslands; the Little Missouri Badlands; the Little Missouri River; Killdeer Mountain area; Knife River Creek; Big Muddy Creek; Bahr Creek; Heart River, and the Oahe Reservoir (Missouri River); and South Branch of Beaver Creek.

These 13 sites bring to 40 the total number of sensitive sites for the Eastern Leg.



Shown above is the Little Missouri Badlands, an environmentally sensitive area. The drawn-in line shows the route the East Leg will take.

DOW-SHELL ISSUES PETROCHEMICAL REPORT

The Dow-Shell Group on September 9 issued its report on the feasibility of building a petrochemical industry in Alaska, concluding that a world-scale industry could be economically feasible in the late 1980's or early 1990's.

The 10-volume report, which culminates a year-long study, said such a petrochemical industry could cost between \$8.6 and \$10 billion in 1981 dollars, and would establish Alaska as a major producer of petrochemical derivatives and supplier of liquefied petroleum gas.

Conditions which the Dow-Shell Group thinks are necessary to make a petrochemical industry in Alaska economically healthy and competitive in world markets include the need for an increase in the real value of world crude oil, further growth of markets for petrochemical products in the Pacific Rim; development of an infrastructure in Alaska to support economic growth; availability of natural gas liquids at a competitive value, and the resolution and timing of the ANGTS pipeline issue.

Inquiries on the report should be directed to the Dow-Shell Group, 101 W. Benson Boulevard, Anchorage, Ak. 99503 (907) 276-7721, or in D.C. to Hugh Depland, Shell Oil, 466-1433.

NORTHWEST DRILLING AT ATIGUN

Northwest Alaskan Pipeline Company has been drilling about 15 boreholes along the Atigun Pass revised right-of-way. The company is gathering additional data to assess the cost of the overland route versus a tunnel under Atigun Pass. The borings will gather soil samples to assist with the design of that segment.

The State of Alaska asked Northwest to use a special traffic control plan during its tests, since some of the holes are being drilled right on the edge of the haul road that threads through the pass, and truck traffic combined with heavy dust or snow could create a hazardous work zone.



This photo shows construction of the oil line through Atigun Pass.

CANADIAN NEWS

NEB Issues Decision on First Phase Cost

Canada's National Energy Board in a recent decision adjusted downward the final design cost estimates for initial construction on the East and West Legs in Canada. The West Leg was reduced from \$167,379,000 to \$164,031,420, and the East Leg from \$653,942,000 to \$621,244,900. The decision also deals with other tariff-related issues.

B.C. Gets New Administrator

The Northern Pipeline Agency recently appointed Robert W. Hornal as its Administrator for British Columbia, replacing Eldon Shorn who resigned last spring. Hornal, who is based in Vancouver, is responsible for NPA oversight in B.C. to assure Foothills meets socioeconomic and environmental terms and conditions.

U.S.-Canadian Visits

The Federal Inspector and his two Deputies will be travelling to Ottawa for an October 22 meeting with NPA Commissioner Mitchell Sharp, Administrator Harold Millican from the Calgary Operations Office, Geoff Edge, Chairman of the National Energy Board, and other officials involved in the project. It will be the third of a series of quarterly meetings which are held to assure that mutual interests are explored in a timely and cooperative fashion.

The week of September 9 Commissioner Sharp, his Assistant, Terry Cameron, and others were in Washington to meet informally with various agency and Congressional people.

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Alaska Gas Pipeline Update

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November 13, 1981
No. 25

CONGRESSIONAL COMMITTEES VOTE FAVORABLY ON WAIVERS

Three Congressional committees or subcommittees have favorably voted on the waivers of law requested by the President on October 15 to facilitate private financing of the Alaska gas pipeline. The votes followed conclusion of extensive hearings in both the Senate and the House.

Senate hearings concluded October 26, and on November 10 the Senate Energy Committee favorably voted on the waivers, 14 to 1, with two Members voting Present. The Committee report is to be issued soon, and Senate Floor action is tentatively scheduled for November 19 as first order of business.

In the House, the seventh and final day of hearings was November 9. On November 12 the House Interior and Insular Affairs Committee voted 32 to 7 to discharge the waivers to the full House. The Subcommittee on Fossil and Synthetic Fuels, of the Energy and Commerce Committee, on November 17 voted 12-9 to send the waivers for full Committee vote, which is scheduled for November 19. If that Committee votes favorably, the waivers will then be ready for action by the entire House.

OFI has prepared a Fact Sheet summarizing the most controversial provisions of the waiver proposal as discussed during the Congressional hearings. Copies are available on request from OFI Public Affairs.

CORRECTED COMMENT DATE ON RATE BASE POLICY

The last issue of the Update stated that public comments were due November 29 on an OFI policy statement on its procedures for auditing and approving costs incurred by the two ANGTS sponsors to which the incentive rate of return applies. The correct date for comments is November 20, as indicated in the policy statement published in the October 22 Federal Register. Comments should be filed with either Edward Hengerer (General Counsel), or Richard Berman (Director, Audit and Cost Analysis).

CULTURAL RESOURCES UPDATE

In February 1980 OFI reached agreement with the Interior Department to use their cultural resources expertise to assure early identification and preservation of archeological resources discovered in construction on the lower U.S. segments of the ANGTS system. The large part of that work has been successfully completed, and the agreement was terminated last November 13.

Cultural resource work on the East Leg will continue to be done by Steve Chomko, an OFI archeologist, and by William Butler, a National Park Service archeologist on detail to OFI. Both are located in Denver, and will now work under the direction of Dennis Schroeder, OFI's East Leg Field Director. In Alaska, David Ruppert, a cultural anthropologist on OFI's staff, is located in Fairbanks while Floyd Sharrock, an archeologist, on detail from the Park Service, works with OFI environmental staff in Anchorage.

The East Leg survey work is essentially complete, except for short portions of the right-of-way in North Dakota. Survey and excavation work was done under four major contracts. All work in Montana was done by Professional Analysts, Inc.; in North Dakota by the University of North Dakota; in South Dakota by South Dakota State University; and in Minnesota and Iowa by Archeological Field Services, Inc. Northern Border estimates the cost of the program to date at \$2.4 million, including about \$300,000 for excavation and testing of the Mondrian Tree Archeological Site in North Dakota.

The Mondrian Tree site is considered to be a significant find, yielding the longest continuous cultural record for the Northern Great Plains area covering a period from about 2000 to 3000 B.C. up to 1500 to 1800 A.D. Carbon dates from the site, now being performed by the University, will firmly establish dates and periods of habitation.

Much of the survey and excavation work at Mondrian Tree was done by University students last summer. The site is located on the south side of the Missouri River crossing near Williston, N.D., and is about 200 feet wide by 500 feet long. The deepest excavations were done along the trench line and areas of significant disturbance, and ranged in depth from 7 to 10 feet. Actual trench depth in the area will range from 7 to about 25 feet. Artifacts recovered will be curated and, with the consent of the landowner, are currently being housed at the University Laboratories. Reports on the work will be supplied by Northern Border to the State of North Dakota and OFI. The final reports will be public documents and available for review and study by the professional community and concerned public. This archeological work, funded by Northern Border, is considered a major contribution to understanding of the pre-history of the Northern Great Plains area.

OFI BUDGET STATUS

OFI's budget for fiscal 1982 is not yet appropriated. The Senate and House Appropriations Committees have agreed on an amount of \$28.5 million. At a conference committee held November 4 some differences were worked out, and the full House on Nov. 12 narrowly approved the bill (H.R. 4035) containing OFI's appropriation at \$28.5 million. A second continuing resolution is being considered, in the event that the Senate doesn't vote on our bill before the first continuing resolution expires November 20.

DOT'S REP MOVES TO OFI QUARTERS

This week the Department of Transportation's official representative on the Alaska gas pipeline project is relocating to OFI headquarters. Lloyd Ulrich and two senior engineers, Paul J. Cory and John Houk, will be located in Room 2313 (telephone number 275-0388).

The relocation will enable closer daily coordination between the two agencies on safety, pipeline welding, and other related matters, as construction proceeds. DOT has been quite active in helping to assure compliance with the Federal gas pipeline safety standards.

Mr. Ulrich is DOT's Agency Authorized Officer--that is, its primary staff expert and adviser on the project. He has been involved in ANGTS engineering matters since 1977, and prior to that worked on Alaska oil pipeline matters for DOT.

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:

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Alaska Gas Pipeline Update

Office of the Federal Inspector
Alaska Natural Gas Transportation System

LB MTH

*MARK
FYI
MARY*

August 4, 1980
No. 10

CANADIAN
GOVT.
APPROVES
PREBUILD

On July 17 the Canadian Government acted to clear the way for construction this summer on prebuilding the southern Canadian portion of the ANGTS. The announcement was made by Senator H.A. Olson, Minister Responsible for the Northern Pipeline Agency. The Government took three steps:

- Key POINT* ★
- 1) It accepted U.S. assurances on timely completion of the entire system, including Alaska;
 - 2) it approved an amendment of Condition 12 of the Northern Pipeline Act concerning the financing of the system in Canada; and
 - 3) it approved a National Energy Board recommendation authorizing Pan Alberta Gas Ltd. to export an additional 522 million cubic feet of gas per day through the prebuild section.

The Canadian prebuild involves 526 miles of pipe on both legs of the system, and will cost about \$662 million. Construction of the West Leg will begin next month and should be completed early in 1981. Eastern Leg construction is due to be started next spring with completion in November 1981. Senator Olson, in outlining the reason for the Government's action, noted that sale of natural gas liquids byproducts through the prebuild facilities will produce revenue of about \$17 billion, and improve Canada's international balance of payment position by about \$2 billion annually. He said, "The Government has decided there is minimal risk of non-completion or long delay of construction of the entire Alaska Highway Gas Pipeline System...I do not believe there can be any doubt that our National interest lies in proceeding with this important undertaking at the earliest possible date."

Canadian approval of its prebuild puts fresh pressure on the U.S. to expedite work on the lower 48 prebuild sections. Construction on the U.S. West Leg is scheduled to begin in December of this year, with completion by spring. Construction of the East Leg

(more)

prebuild is now scheduled to begin in the spring of 1981 with completion by the fall of that year. The U.S. sponsors have been moving forward during the last several months, despite absence of a Canadian decision, and now are in good position to immediately gear up to actual construction.

PRESIDENT
CARTER
ISSUES
STATEMENT
ON ANGTS

President Carter issued a statement reiterating his support of the ANGTS and expressing pleasure with the Canadian Government's approval of its prebuild segment of the system. The President's one-page statement also refers to a letter he sent to Prime Minister Trudeau expressing confidence that the project will be carried forward to completion and, "become an example to the world of how international cooperation can serve the common energy needs of both partners." The statement was released at a July 18 White House press briefing along with a Department of Energy fact sheet, map, and the text of the President's letter to the Prime Minister.

FI SELECTS
EAST LEG
FIELD DIRECTOR

The Federal Inspector has selected Dennis E. Schroeder, a 12-year Department of the Interior veteran, as Director of OFI's Omaha Field Office. He will be the FI's representative and the "one-window" for all Federal activity on the Eastern Leg of ANGTS. Mr. Schroeder is a native of Muscatine, Iowa, and holds BA (1967) and MS (1968) degrees in engineering from the University of Iowa. For the past four years he has been Assistant Regional Supervisor of Water and Land for the Water and Power Resources Service (formerly the Bureau of Reclamation) in Billings, Montana. For the two years prior to that he was Field Representative to the Authorized Officer for the Alaska Pipeline Office in Anchorage, working directly with personnel of State and Federal agencies and Alyeska Pipeline. Before that he did structural engineering work with the Bureau of Reclamation in Billings and Denver.

At OFI Mr. Schroeder will oversee all Northern Border's pre-construction and construction activities for the East Leg, to avoid delays, cost overruns, and assure compliance with all certificate and permit conditions. He will also supervise monitoring of environmental and cultural resource matters.

(more)



Alaska Gas Pipeline Update

see Keltone photo of Kelt's hands-on visit to Barrow, p 4

Office of the Federal Inspector
Alaska Natural Gas Transportation System

MARK - ANOTHER ITEM FOR YOUR UPDATE

MW LB PL

AUGUST 25, 1980
No. 11

DOI ISSUES
GRANT FOR
ALASKA
SEGMENT

Department of Interior Assistant Secretary Guy Martin on August 20 approved and sent to Congress the grant of right-of-way for the 430 miles of Federal lands that will be crossed by the pipeline in Alaska. After Congress reviews and approves the grant it goes for signature by Alaska's State Director of the Bureau of Land Management and Northwest Alaska Pipeline. Congress has 60 days in which to act, unless it waives the 60-day rule. Interior requested a waiver of the normal approval time to expedite the project.

The application for the grant was received by DOI on July 1. Intensive review began immediately, and on July 31 representatives of various Federal agencies met to reach agreement and make recommendations to the Assistant Secretary. Key issues were native Alaskan concerns of land transfer prior to Grant; training and employment; protection of cultural resources and subsistence values. Negotiations between agencies and individuals representing native Alaskan interests have produced an agreement that the Grant will not apply to Federal lands where allotments to natives under the Alaskan Native Claims Settlement Act are pending. The Grant also requires strict compliance to EEO plans and requirements for training.

Technical concerns are numerous, but some have already been mitigated by the separation distance of 200 feet between TAPS and ANGTS. Special environmental considerations include endangered species and construction-related soil disposal and erosion control. The grant requires submission of detailed mitigation plans on these matters.

STEEL
CONTRACTS
LET FOR
TWO SYSTEM
SEGMENTS

Commitments to purchase steel pipe have been made by Pacific Gas Transmission Co. for the Western Leg prebuild, and by Northwest Pipeline Corporation for the Western Delivery System. PGT on August 13 announced award of a \$60 million purchase from Kaiser Steel of

SEE NEXT PAGE (more)
FOR ADDRESSES TO GET ON THIS NEWSLETTER MAILING LIST

prepared by the Northern Pipeline Agency and include requirements that the company consult with interested parties, orient field employees, train and hire natives and women, and compensate for property damage.

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OFI ALASKA
OFFICE
DIRECTOR
SPEAKS

Mo Mathews, OFI Alaska Director, on August 14 addressed the Resource Development Council in Anchorage. His topic was progress made towards start of construction since President Carter approved the plan. His talk was informal, but questions on it may be directed to Paul Steucke, OFI Anchorage.

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OFI
ENVIRON-
MENTALIST
SPEAKS

David Critchfield, a biologist in the Office of Environmental Review, spoke at the summer annual meeting of the Natural Resources Council of America. The meeting was held in Rose Haven, Maryland on July 25, and was attended by thirty local representatives of national conservation groups. In his presentation, Critfield discussed the status of the ANGTS project, the background of the Federal Inspector's Office, and major environmental impacts anticipated on the Alaska leg of the pipeline project. He also called attention to the Alaska Citizen's Environmental Advisory Committee and the recent call for nominations published in the Federal Register on June 20, 1980.

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NORTH DAKOTA
PUC TO HOLD
HEARINGS ON
ROUTE

The North Dakota Public Utilities Commission has scheduled two days of hearings August 28-29 on routing of the East Leg through that state. It previously held hearings last March. The hearing will be held at Stanley, North Dakota on the 28th and in Bismarck the following day. The hearings are part of the 3-member Commission's consideration in issuance of a Certificate of Corridor Compatibility.

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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., Room 2413, Washington, D.C. 20044 (202) 275-1100.

OFFICE OF THE FEDERAL INSPECTOR



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

August 18, 1981
No. 37

TOSKEY APPOINTED DIRECTOR OF OFI'S ALASKA FIELD OFFICE

William M. Toskey, Director of Permits and Compliance for the Office of the Federal Inspector, has been appointed by Federal Inspector John T. Rhett to be the Director of the Alaska OFI Field Office.

His office will be located in Fairbanks, Alaska, and he will be responsible for Federal surveillance of all preconstruction activity, processing of all Federal permits related to the Alaska natural gas pipeline, construction and logistics planning, and supervision of the surveillance office in Fairbanks and the permits office in Anchorage. He will assume his new duties in Alaska in early September.

Prior to his appointment, Mr. Toskey was the Department of the Interior's Agency Authorized Officer for the gas pipeline project, and on April 7, 1980, also began serving as the Federal Inspector's Director of Permits and Compliance in Washington, D.C.

Amos "Mo" Mathews, Deputy Federal Inspector for the Alaska segment of the gas pipeline said, "Mr. Toskey is a multi-talented person and we are fortunate in having him on our staff in Alaska."

Mr. Toskey was previously the Director of the Institute for Water Resources located at Ft. Belvoir, Virginia; Chief of German Funded Construction for the U.S. Army in Europe; and a NATO construction programmer in Norway. He is a graduate from the U.S. Military Academy at West Point and holds a Masters of Science Degree in Civil Engineering from the University of Illinois. He has received numerous awards including the Legion of Merit, four Bronze Stars, Air Medal, Commendation Medal, Meritorious Service Medal, and three foreign awards for public works construction.

-OFI-

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Gas begins to flow through Canadian leg of pipeline

The Associated Press

CALGARY, Alberta — Without much fanfare, the first shipment of Canadian natural gas began moving to the United States this week through the pre-build section of the Alaska Highway pipeline.

The gas, which began to flow when a valve was opened Thursday on the western leg of the pre-build, should reach its destination in Los Angeles Saturday, said G. W. Cameron, president and chief executive of Pan-Alberta Gas Ltd. The company negotiates sales to U.S. customers.

Nothing was done to mark the occasion in Canada, Cameron said in a telephone interview, but there was a bit of a celebration in Los Angeles where the buyer, Pacific Gas and Electric Co., had lobbied hard and long for the line.

The pre-build section, on which \$1.6 billion was spent in 1980, will be completed next September, when the gas will begin to flow through an eastern leg to the U.S. Midwest and on to eastern customers.

Cameron said the western leg was completed on schedule and under budget despite work stoppages. The eastern leg, too, is on time and under budget.

The pre-build, the first section of the 4,774-mile pipeline, was built after a U.S. government commitment that the rest of the line would be constructed.

But construction of other portions of the \$30 billion (Canadian) line has been stalled because President Reagan's administration insists that the line be privately financed.

If the project goes ahead, natural gas from Prudhoe Bay fields will start to flow to the lower 48 states in five years.

Meanwhile, Canadian gas is being exported through the pre-build. Export contracts call for 240 million cubic feet a day to flow through the western leg, which runs from a point north of Calgary, across the Rocky Mountains through the Crows-

nest Pass and into the United States at Kingsgate, British Columbia.

The eastern leg will carry about 900 million cubic feet a day from a compressor at Monchy, Saskatchewan to Ventura, Iowa. Peak flows of 1.36 billion

cubic feet a day are expected through both legs between 1983 and 1986.

About \$500 million a year in revenue is expected from deliveries through the western leg and \$2.5 billion through the eastern leg at a border price of

\$4.94 U.S. or about \$6 Canadian, Cameron said.

Some 200 producers are putting gas through the western leg, and Cameron said there will be "well over 400" producers on the eastern leg starting next year.

But, he said, the pre-build will not add significantly to the volume of gas exports to the United States. The amount's will total only about 10 percent of exports and producers are still complaining they have too much unsold gas in reserve.

Anchorage Daily News

Saturday, October 3,

1981

Energy Conservation. With an average inflation rate of 10%/yr, the price would be more than \$3/gal by 1990.

The study predicted petroleum products demand will decline at a rate of 0.3% annually because of "increasing automobile and truck efficiency."

The price of natural gas will rise from \$2.32/Mcf in 1979 to at least \$3.77, not including the inflation factor, the study predicted. Gas use in 1990 is predicted to be up 36% over 1979.

* * *

N. SLOPE GAS FORUM: A workshop to examine alternatives for North Slope natural gas use will take place Sept. 14-15 in Fairbanks, organized by the University of Alaska's Dept. of Petroleum Engineering, School of Mineral Industry. The objective is to provide a forum for informal, confidential discussions, according to Russell D. Osterman, assistant professor of chemical engineering, Texas A & M University, who helped organize the forum. Participants will be of "decision-making rank" within their respective companies or organizations.

Further information may be obtained from M. J. Economides, University of Alaska (907) 479-7388 or from Osterman (703) 845-3361.

-7734

part of meeting?

FINANCIAL REPORTS

(Total Net Figures in Million \$)

	1981	1980
Entex		
4th qtr net	6.9	3.4
Net per share	\$0.32	\$0.17
12 mos net	42.9	39.3
Net per share	\$2.03	\$1.87

#

**Conference On
World Trade In Hydrocarbons:
The Overlap of Strategic & Corporate Interests**

Sept. 21-22, 1981
Washington, D.C.

This executive conference of Platt's OILGRAM NEWS, developed in cooperation with Conant & Associates, will provide a worldscale review of political, strategic and economic factors affecting crude oil and natural gas exploration, production, supply and logistics. Here's a partial list of speakers and discussants:

- U.S. Senate Energy Committee Chairman McClure (R-ID), on "The International Energy Responsibilities of the U.S. Government."
- Ulf Lantzke, executive director of the 21-member International Energy Agency, on the "Role of the IEA."
- Hermann Eilts, career U.S. diplomat in the Mideast.
- Robert F. Ellsworth, former Deputy Secretary of Defense, on "The Global Strategic Setting for

As hot as the real thing

Firefighter Roy Reich grimaces and turns away from the intense heat as he battles a fire that engulfed an abandoned building on

Barbara Street Friday. The blaze was part of a training exercise, but Reich found it no more comfortable than the real thing.

Gas line on schedule in Canada

The Associated Press

CALGARY, Alberta — The Canadian pre-build section of the Alaska natural gas pipeline is, in a fragmented fashion, progressing right on schedule.

If the current pace continues, three-quarters of the 500-mile southern Canadian section will be completed by the end of this year. Part of it even will be transmitting gas to the western United States from Alberta by October.

Alberta pipeline crews are at present working near Sundre, north of Calgary. Saskatchewan crews are working their way west from the community of Burstall on the Alberta-Saskatchewan border.

The crews are working at what can be considered a fast clip. Some crews are welding together about 4,300 feet of pipe each day, while others coat and then lower nearly a mile of pipe into the ground daily.

The westward line travels through part of British Columbia, where it will join a seg-

ment under construction in Washington, Idaho and Oregon. It will eventually terminate near San Francisco.

The eastward leg moves through part of Saskatchewan, then takes a sharp east turn through Montana, the Dakotas, Minnesota and Iowa, eventually ending near Chicago.

The Canadian sections of the \$23 billion, 4,600-mile project have advanced the farthest because construction began last August.

Work on the first U.S. section through the Western states began last December.

Construction on the main portion of the pipeline, which passes through uninhabited land in Alaska, the Yukon and northern British Columbia and Alberta, is to begin after the pre-build section is completed.

The final phase, the proposed Dempster lateral gas pipeline, would run from the main line through the Yukon and to the Mackenzie Delta. That phase is not yet approved.

Completion of the entire pipeline, which will carry gas from Alaska to U.S. markets, is scheduled for 1986.

If completed as planned, the pipeline will be the largest civil engineering task ever undertaken in the world by private

sector companies.

The mammoth project has been coordinated by five leading companies in Canada and the United States. Foothills Pipe Lines (Yukon) Ltd. of Calgary is in charge of the Canadian sections.

Anchor Point brush fire is brought under control

Our Kenai bureau

ANCHOR POINT — A four-acre fire that broke out on the outskirts of town at about 4 p.m. Thursday was under control and in the mop-up stage Friday morning.

Tom Merock, spokesman for the state Division of Forest, Land and Water Management, said the fire apparently started from dormant brush piles burned when the area was logged last April. The fire went underground, Merock said, and

restarted in the current extremely dry conditions.

Less than a half dozen state firefighters along with volunteers and one bulldozer contained the fire, Merock said. A helicopter will be stationed in Soldotna over the holiday weekend to provide quick response to any other fires.

Merock said the cloudy weather here recently is deceptive, suggesting little fire danger when actually the danger is extreme.

They were there, in force for the 1981 legislative session. Hundreds of hours were spent discussing politics at talks that ranged from what to do with the oil billions to the gritty of what was to happen on the House and Senate floor the next day.

Politicians could be found at the table much less often this year than in past sessions, a sign of the many problems abrew up the street in the state capital.

Suddenly last week, the solid, dark-brown table was empty. They were gone — both the legislators and the staff members scattered across the state and the country.

Just as suddenly, this week you could bump open the doors of the Red Dog and find yourself face-to-face with a standing-room-only crowd at the round table. Juneau's other migratory species has arrived, marking a turning point in the state's economy. Thousands of tourists are off the ferries, airplanes and mammoth cruise ships into the Red Dog with flash cubes a-popping.

There seem to be more visitors sitting and standing at the table this year than last, in fact. One passenger ship, the giant Rotterdam — is putting ashore more than 1,000 people a week in Juneau, and more ships than ever steam the Gastineau Channel.

They're everywhere now, but the end of the cruise season will chase them away, too.

But the legislators will depart from their normal session in a few days, called back to Juneau for another session. They'll make another try at fashioning a session which some see as the only hope of injecting a little life into the spending of the oil billions. They'll talk about the course, unless the tourist crowd forces them to another street.

And yet another group soon will claim the table. And just like the others, the tired fishermen will open the doors and make their way through the smokey haze of their time of year, and their turn to gather at the table for some serious talk in the back of the Red Dog Saloon.

Jon Matthews staffs The Daily News Juneau bureau.

Alaskans will feel cut in federal home insulation funds

By NANCY SHUTE
States News Service

WASHINGTON — Alaskans counting on the federal government's wildly popular home weatherization grant program to help insulate their homes against winter's icy blasts may

and Power Development.

Money allocated for this year's program should last through the fall in the bush and through December in Anchorage, according to Mike Carr, state program director for weatherization in Anchorage.

of prospective applicants, according to Rod Betit of the state's division of public assistance.

The provision repealing the program was included in one of the several major amendments offered at the last minute Friday by Republicans unhappy

with the measure, but a Young aide said the congressman wasn't aware of the program cut.

Proponents of the weatherization program are now gearing up for a last-ditch effort to have it returned to the budget.

grants. States could use no more than 10 percent of what they get from this pool "for low-income residential weatherization or other energy-related home repair."

But the Alaska legislature failed to keep funds for a state-sponsored weatherization pro-

gram, Carr said. "It's really the state failed program."

Carr said that voters have active state programs, "it's hard to tell federal funds will



FERC's Butler: "It's not something that you can shoot from the hip about."

REGULATORS

A new route for decontrolling gas

Shortly after taking office, top Reagan Administration officials privately unfolded a strategy for the quick decontrol of natural gas: coupling legislation to speed the 1985 end of price controls for newly discovered gas with rule changes by a Republican-controlled Federal Energy Regulatory Commission to lift prices for some gas already under contract. But in selecting 38-year-old Charles Butler III to head FERC, the White House has picked a fiercely independent, free-market chairman who wants to take a look for himself.

"It's not something that you can shoot from the hip about," said "Mike" Butler, a longtime top aide to Senator John G. Tower (R-Tex.), shortly after he was sworn in on June 8. Although he has placed the issue of administrative decon-

A free-marketer takes the helm at the Federal Energy Regulatory Commission

control of gas prices at the top of his early agenda and pledges to be "a loyal part of the Reagan Administration," the new chairman also stresses that under his guidance FERC—an independent regulatory agency—"will not be a bootstrap operation" to push White House directives blindly.

Still, Butler believes that "natural gas never should have been regulated at the wellhead" and that interstate price controls contributed to the periodic gas shortages of the 1970s. Whether FERC can increase prices through price regulations, however, will await a thorough

analysis of the cost and benefits of that action and a determination of whether FERC has the latitude to raise prices under the 1978 Natural Gas Policy Act. "If we're going to do something," Butler stresses, "I'd like to do it in a way that will stand up in court."

'Just' pricing. Walking that tight line will be a challenge. The act authorizes FERC to consider price increases for gas contracted for before its passage—which currently can be priced as high as \$2.05 per 1,000 cu. ft.—and allows for incentive prices of \$4.95 per 1,000 cu. ft. and higher for gas that FERC determines to "present extraordinary risks or costs" to produce. But at the same time, the law requires that the prices must be "just and reasonable." That provision has already prompted a petition by California and its public utilities commission asking FERC to reconsider incentive prices granted last year.

Butler has hired Robert C. Means, a former law professor at the University of Texas, to spearhead the analysis. Means, who has focused on what he calls gas's "market-ordering problem," believes—as does Butler—that the current multiprice system may actually cost more than full deregulation. Under Means's reasoning, gas pipelines with a "deep cushion" of price-controlled gas can bid as high as \$9 per 1,000 cu. ft. for newer, uncontrolled gas supplies because the expensive gas can be "rolled-in," or averaged with the cheaper gas.

Ironically, Butler's go-slow approach toward administrative decontrol so far sits well with the nation's gas producers,

who have launched a massive effort to raise wellhead prices as an inducement for increased exploration. "We've always thought the issue needed to be settled through legislation," says David H. Foster, president of the Natural Gas Supply Assn. "Doing it by regulation may save you time, but you'll probably wind up with a lawsuit. Congress may take as long, but you know where you stand."

Other goals. Even as Butler moves cautiously on gas decontrol, he is committed to bringing his free market philosophy to the commission. He intends to study whether the government should continue its 75-year role of setting rates for oil pipelines and whether a "generic" rate of return would help the financially strapped electric utility industry by allowing utilities to collect rates for interest on construction costs. Butler also intends to study "whether there isn't something reasonably innovative we can do to help the Northeast out of its critical energy problem." One option, he says, would have New England import Canadian gas in return for shipments to Canada of Alaskan gas.

Butler also plans to sit in on meetings of the Cabinet Council on Natural Resources & Environment, the energy policymaking forum headed by Interior Secretary James G. Watt. In that role, he can help the White House in forming both its policies regarding natural-gas decontrol legislation and the Clean Air Act, which he acknowledges is "far afield" for FERC but which significantly affects the economic viability of utilities' converting to coal.

Cash-hungry utilities explore deregulation

Deregulation fever is spreading to electric utilities. Economists, regulators, and Congress are beginning to debate the feasibility of restructuring the investor-owned electric utility industry as one way to finance the \$365 billion in outlays on plant and equipment that companies will need to make by 1990.

Ideas under consideration include removing restrictions on marketplace entry and earnings, lifting consumer rate regulations, and permitting increased diversification by utilities into unregulated businesses. So far there is little agreement on the impact of any of these options or on whether such moves could solve the utilities' basic problem: declining earnings and dropping stock prices that hobble efforts to raise money for capital construction.

But the issue is being raised seriously. The energy subcommittee of the House Science & Technology Committee has scheduled hearings for June 23 and 24 to weigh the technological and financial implications of less regulated operations. "The most likely candidates" for new competitive opportunities is the generation sector, suggests Ronald G. Carr, acting deputy assistant attorney general of the Justice Dept.'s Antitrust Div., who is overseeing a one-year study of the issue that may lead to legislative recommendations. Regulators and financial analysts generally agree that transmission operations should remain regulated monopolies.

Success story. Although legislation is far off, some federal regulators look sympathetically at proposals for substantial changes. Increased use of electricity, according to Federal Energy Regulatory Commissioner David Hughes, has created "more and more geographic markets capable of supporting more than one optimally sized company." But some state officials are skeptical. John Bryson, president of the California Public Utilities Commission, says deregulation would result in "innovative utilities, vigorously managed and responsive to economic changes." But Bryson warns that

working. In Lubbock, Tex., the city-owned Lubbock Power & Light Co. is in direct competition with the investor-owned Southwestern Public Service Co., based in Amarillo. Each operates its own generating, transmission, and distribution systems, and although rates are equal—they are controlled by the city—customers can choose which company they will do business with on the basis of service. "If the customer isn't satisfied with us, they have another place to go," points out Carroll McDonald, director of sales for Lubbock Power.

But, whether free-market operations would, in fact, lead to an improved investment outlook for utilities is open to dispute. In the short term, "we still have to resuscitate the languishing financial integrity" of utilities, says Charles L. Benore, first vice-president of Paine Webber Mitchell Hutchins Inc. Benore questions whether deregulated utilities with no assured earnings could attract sufficient capital for new construction. And Irwin M. Stelzer of the National Economic Research Association Inc. insists "better regulation" with higher rates of return is the real answer. Growing talk about deregulation "stems from the fact that earnings stink" and from industry "despair that regulation can ever work," he says. The impetus for such talk, Stelzer suggests, comes from utilities "who want to make their stock look better." ■

Rural Letter Carriers' Assn. The four unions represent 590,000 workers.

All four unions are angry at Bolger. The larger unions, which view his action as an attempt to push them around, had already urged a militant stand in negotiations. Their presidents, Morris Biller of the Postal Workers and Vincent R. Sombrotto of the Letter Carriers, came to office as critics of the 1978 postal agreement. They have vowed to resist Bolger's attempts to place a cap on a cost-of-living adjustment (COLA) provision that yielded \$3,619 per worker over the past three years.

Throwing a 'hardball.' The smaller unions think they would have lost their identities if the NLRB had upheld Bolger's posi-

The Postmaster General upsets workers by pushing for joint contract talks

tion. Now these unions, which a few months ago talked of "taking the responsible position" in bargaining, are enraged. "I admire Bolger for his operational ability," says James LaPenta, chief negotiator of the Mail Handlers, "but I am mad as hell at him. At a time when we should be taking an approach like that of other threatened industries, like autos and railroads, and talking about better work rules for the industry in exchange for better safety rules for us, Bolger has to go and throw a hardball at us."

The postal contracts expire July 20. Strikes against the federal government and the Postal Service are prohibited by law, and Bolger has warned that he will fire anybody who strikes. His threat will dampen militancy as the contracts run out, but the unions' anger will make bargaining very difficult. Facing a possible \$2 billion shortfall in 1981-82 revenues, the Postal Service wants to keep labor costs as low as possible.

The unions also realize that the service must maintain or improve its 5.5% productivity gain of 1980 if it is to remain competitive with private carriers, especially in electronic mail. But the unions will resist any weakening of a rule that prohibits layoffs of workers with six or more years of service. Citing a spate of injuries and deaths in mail handling operations, they are demanding new safety rules.

Postal Service insiders insist that the effort to force the unions to bargain jointly was necessary. In addition to the problems of conducting three sets of talks, Bolger noted that the two larger unions were creating interunion animosities by attempting to raid the smaller unions and siphon off their memberships. But both an NLRB hearing examiner and the board itself rejected Bolger's petition on the ground that no postal



Bryson: Deregulation boosts innovation, but is not the remedy for financial ills.

deregulation is not a panacea for "the immediate problem of unprecedented financial constraints on utilities," which will have to be solved by public utility commissions that now are reluctant to grant rate increases.

In at least one case, competition is

EMPLOYMENT

How Bolger Increased postal strike chances

A bold attempt by Postmaster General William F. Bolger to simplify this year's labor negotiations by forcing four unions to negotiate jointly has backfired. Moreover, in losing his point, Bolger stirred so much animosity in the unions and in Congress that he reduced the chances of negotiating a moderate, strike-free settlement. His plan for a nine-digit Zip code may also die.

The postal bargaining began on June 16, a few days after the National Labor Relations Board ruled that the four unions had the right to conduct negotiations as in the past. In that structure, which Bolger described as "chaotic," the two largest unions—the American Postal Workers Union and the National Association of Letter Carriers—will bargain jointly with the U. S. Postal Service in Washington. The service must engage in two other sets of negotiations with the Mail Handlers Div. of the Laborers' International Union and the National

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 \$353 million, or \$1.14 a share, up from \$293 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 \$822.9 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 a drop in sales volumes of petroleum

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

By ANDY PASZTOR

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 40% 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 atmos-

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.



Gas: It Americ energy

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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 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 increased to an average of 275,000 barrels a day from 236,000 a year earlier. The company's total domestic and foreign production of crude oil and natural gas liquids in the third quarter averaged 587,000 barrels a day, up from 571,000 barrels a year earlier.

Arco and Shell fall in line with most domestic oil companies, which are receiving higher prices for domestic oil as government-imposed price controls gradually are lifted. Overall, however, oil company earnings have been nearly flat, with many companies showing their first earnings declines in nearly two years. The declines stem mostly from sluggish petroleum markets and decreases in refining and marketing margins.

Clark Oil Planning Refinery Expansion At \$120 Million Cost

By a WALL STREET JOURNAL Staff Reporter
MILWAUKEE, Wis.—Clark Oil & Refining Corp. said its board gave preliminary approval to a \$120 million expansion of the company's Wood River refinery in Hartford, Ill.

Slaps Price Tag

The 4,300-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.

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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-

Sun Co. Unit to Pass On Tax To Customers in Connecticut

PHILADELPHIA—Sun Co.'s Sunmark Industries operating division said it will pass on Connecticut's petroleum-products tax to gasoline customers there.

Sunmark, Sun's retail-marketing arm, said it's acting as the result of a U.S. Department of Energy interim order allowing such a pass-through. A company spokesman said it will add about two cents a gallon at the pump at current prices.

In April, Connecticut approved a 2% tax on gross earnings from petroleum products sold in the state. Sun estimated that it will pay \$1.5 million a year because of the levy.

Corrections & Amplifications

JONES & LAUGHLIN STEEL CORP., a subsidiary of LTV Corp., said it will raise prices on wire and rod products effective next Monday. Those increases were omitted in an earlier edition because of a company error.



Make Spline Maple

oil companies will only be equity 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.



The Gas Option

Gas: Its America energy

Consider America's gas energy:

- Enough clean, efficient primary energy options to come.
- Unsurpassed environmental benefits.
- A million-mile underground delivery system.
- Modern, energy-saving gas appliances.

It all adds up to America's most efficient energy system. It adds up to the Gas Option America cannot afford to ignore as the nation develops the potential of various energy sources.

All sources of energy will play an important role in meeting America's future energy needs. And it is consistently recognized that each should contribute in the jobs it does best. Oil, natural gas, coal, and nuclear power are essential as our primary transportation fuel; electric power, and industrial automation; gas for the homes in America—and provides new energy for industry and agriculture. And we have a tremendous supply—can and to a far greater extent, and gas energy can greatly enhance its use.

The critically important contribution gas can and should continue to make to our nation's total energy mix is described

10/30

Chomski on WSJ -

What's New? -

original draft of cooperative agreement
discusses 40% figure
Antitrust questions will probably not arise

Kennedy - not a committee - only involved if arbitrage gains
Metzenbaum - on Energy Committee
giving of up to 40% always reasonable
but they are not unreasonable w/ 40%
problem - MacMillan will want 40% in debt
w/o giving up voting interest

Antitrust - access problem
since oil companies will agree

Problem - guarantees to Canadian investors

law - US consumers cannot pay until pipeline is
finished

Even w/ producers in at 40%, private financing is in question
Producers want project financing, won't put balance
sheet on line

MacMillan claimed positively pipeline could be privately financed
(but smallest, least able applicant got contract to build ^{biggest} project
in history.)

→ NS producer involvement → ^{major oil} NS involvement → NS + State → NS State & FICOs

US producers can't, and don't want, to own more than 49% -

integration problems - Kennedy & Metcalf
+ big oil pipelines - super high priced pipeline

★ Next step is squeeze on Alaska

Phase I meetings - not getting too much done

If Reagan wins, MacMillan will have big problems - but Fed financing will be tough
" Carter wins, pipeline could go quickly

Additional discussions will ~~be~~ ^{be} large catalyst for pipeline
National perception - extension of life of pipeline
Arctic range, also

Canadians - get cheap access to their Arctic - hence their interest

Canadian - Canadianization - sending stocks down

look also come up for gas - based petrochemicals
vs. oil - based petrochemicals

Ultimately - basic petrochemicals will be available for in-state manufacturers -

eg cleaning fluid

reduced cost



SEP 8 1981

An exclusive weekly report on federal energy activities

OFFICE OF THE COMMISSIONER

Inside Energy Interview

September 4, 1981

McMILLIAN: PRODUCERS MIGHT SHOULDER DECONTROL DURING ANGTS' EARLY YEARS

The gas-producing companies participating in the Alaska Natural Gas Transportation System (ANGTS) might be willing to buffer the pipeline from the initial shocks of gas decontrol, according to John McMillian, chairman of Northwest Alaskan Pipeline, lead sponsor of ANGTS. "We've been hearing a lot of the producers saying: 'Yes, decontrol could come . . . if it does come, we realize that the wellhead price of the gas might have to be adjusted in early years where we receive less, but in later years we would receive more.' And we [the pipeline sponsors] would be in favor of that," said McMillian in an interview with *Inside Energy* this week. (See related story on page 4b.)

Since the Reagan Administration first began to seriously consider decontrolling natural gas, speculation has ranged the gamut on how the Alaska gas pipeline would be affected by the elimination of the gas cushion and thus rolled-in pricing. McMillian, for one, doesn't believe ANGTS would have difficulty weathering decontrol. He maintained that the producers and pipeline companies could work out an arrangement "decoupling" the pipeline from decontrol. He granted, however, that the impact on consumers, industries using gas, transmission companies, and the economy will be considerable and should be carefully thought out. And, despite President Reagan's personal promise not to seek a windfall profits tax should he decontrol gas, McMillian observed that some type of tax would be necessary because of the massive transfer of economic benefits from consumers to producers.

During the interview, McMillian also discussed the commitment of the sponsors to the project, the con-

(continued on page 4a)

DOE CONSIDERS SAVANNAH RIVER LWR FUEL AS SOURCE OF PLUTONIUM FOR BREEDER

High-level DOE officials are seriously considering an internal proposal to modify the Savannah River plant so that it could reprocess N-reactor and civilian light-water-reactor (LWR) fuel to provide plutonium for both the breeder and weapons programs, *Inside Energy* has learned. Currently the Savannah River plant reprocesses only military and DOE r&d fuels and provides plutonium only for the weapons program.

The proposal - considered but quashed in DOE's budget exercise last year - is being pushed hard for FY-83 by DOE's Defense Program (DP) division, officials there said. Those officials claim that modifying the Savannah River plant would be less expensive and faster than building a new defense reactor, the only other alternative under consideration to eliminate a potential shortage of plutonium (besides steps already taken).

According to the DP officials, the proposed plant modification - if approved by DOE, other Reagan Administration officials and Congress - would be started in FY-83, cost a total of about \$500 million and take about six years to complete. This is compared to the \$1- to \$2-billion total cost and 10- to 12-year period it would take to build a new facility, those officials said.

No conflicts seen. DP officials claim that taking civilian fuel and producing plutonium for a civilian program at the Savannah River plant - in effect, combining civilian and military uses of the plant - would not cause problems. "We don't worry about civilian application so much as commercial application" for military facilities, one DP official said. The problem with commercial facilities, he said, is that they have to be licensed - a potentially delaying process from which military facilities are exempted. "We don't see that [licensing is needed]

Inside this Issue

RESIDENTIAL CONSERVATION: Loeffler calls for Congress to kill DOE program	page 2
NUCLEAR REPROCESSING: DOE seen seeking r&d funds related to Barnwell	page 3
COAL-SLURRY PIPELINE: Development issues on Cabinet council agenda	page 3
COAL LEASING: Questions over environmental criteria delay Watt package	page 4a
ENERGY BUDGET: House Republicans pose added \$4.8 billion in FY-82 cuts	page 7

is crucial for [DOE] to know at the earliest possible date."

Said Davis, "... I am focusing on what is needed to accelerate the first major project milestone, namely commencing site preparation." DOE sources said this means that Davis wants to begin site preparation before April 1983, construction by June 1984, and startup of the project in February 1990.

DEBATE ON TWO ISSUES DELAYS WATT PACKAGE ON COAL-LEASING PROGRAM CHANGES

Internal department debate — over the unsuitability criteria used to determine the environmental qualifications of federal lands for coal development, and on surface-owner consent — is delaying the unveiling of Interior Secretary James Watt's package of changes to the federal coal-leasing program, Interior sources said.

The comprehensive package of changes, which Watt had hoped to sign for proposed rulemaking prior to his appearance before the Western Governor's Assn. conference Sept. 11 in Teton Village, Wyo., isn't expected to be completed until late September, Interior officials said (Issue of 24 July, 10).

In fact, before making a decision on how to handle these two issues, Watt may wait for input from the Western governors, staffers said. In the case of unsuitability criteria, Interior officials are debating when and how the criteria should be applied to 171 remaining preference-right lease applications (PRLAs) and to approximately 535 so-called existing leases on federal-coal properties.

Interior focuses on PRLAs. In the case of PRLAs, the outcome of this debate could influence the number of affected properties that actually could be mined. At present Interior Dept. applies the unsuitability criteria to PRLAs and places stipulations on the PRLAs that must be complied with when environmental problems are found, Interior staffers noted. Meeting these environmental stipulations in some cases makes mining commercial quantities of coal from PRLAs uneconomic and results in Interior not awarding a lease to the holder of a PRLA, sources said.

Under the changes now being considered by Interior, some or all of the unsuitability criteria wouldn't be applied until the time a mine plan was submitted. This would mean that Interior wouldn't withhold leases from PRLA holders because environmental stipulations imposed by the department made a tract uneconomical to mine, one Interior source explained.

Non-transferrable consents eyed. Also posing problems for the department is whether to lease federal coal that underlies privately held surface rights (known as split estates) when the surface-owner consent for the mining of the coal isn't transferable. Under Carter Administration policy, such property would not have been offered for lease. The argument against leasing these tracts was that companies would be discouraged from participating in competitive coal-lease sales where the surface-owner consent wasn't transferrable because they would have no assurances of being able to negotiate a mining-consent agreement with the surface owner.

Despite this argument, Watt now is considering changing the policy on PRLAs in order to give the department greater flexibility in leasing some federal parcels of land even though such lease sales might give the holder of a non-transferrable consent a distinct advantage.

Meanwhile, the National Wildlife Federation is expected to take the lead among environmental groups in monitoring the changes to the federal coal-leasing program. The changes to diligent-development regulations, the application of environmental unsuitability criteria; tract ranking and leasing targets; exploration; and environmental impact statements are considered "significant" by NWF, which plans to develop a position in the next few weeks on the changes being drafted by Interior.

McMILLIAN: ANGTS WILL BE BUILT . . . begins on page 1

trolling role played by the bankers and its ensuing complications, the proposed waiver package, the weakness of DOE, and the Canadian factor.

The inevitability of ANGTS. "It's a project that has to be, although the time frame it has to be in is another matter," said McMillian wryly. "At one time we had the moral equivalent of war upon energy and now they're saying we've solved that. But that's temporarily. At the first international disruption, we'll go back and reinvent the energy crisis," he predicted.

Speaking with a tenacity worthy of the Great Plains project, McMillian asserted that ANGTS will be built, come what may this fall. "A corporate life is a long life," he observed, "and governments change every four

"If we don't get it this time . . . we'll wait until the next moral equivalent of war."

years . . . the energy questions will be here for a long time and all of us feel that we've put enough money in the project to keep pushing it forward." If the waiver package doesn't meet with success, McMillian said the project would go on hold — a state of suspended animation — until the next moral equivalent of war rolls around.

McMillian, however, doesn't expect that to happen. He claimed to have canvassed the leadership in the House and members of the House Energy Committee without discovering the degree of opposition he said several House Energy staffers "were beating

their chests about." "Once the package [of waivers] reaches the floor of the House, it will pass without too much trouble," he said.

Bankers call the tune. The critical role played by the bankers was emphasized repeatedly by McMillian who confided parenthetically that he had received, last week, a "very favorable" letter from the bankers. According to McMillian, the bankers informed the sponsors that they believe the project can be privately financed and outlined several possible financing plans. "It was a very favorable, positive first-step commitment," said McMillian, adding that the bankers had asked each of the sponsors, including the producers, to "step up and take a little more responsibility, a bigger bite of the apple."

As McMillian made clear, ANGTS might be Northwest Alaskan's project but the bankers own Northwest Alaskan. For example, while McMillian said that the project sponsors would support advance billing for just the Canadian segment, not for the Alaskan segment and conditioning plant as well, he doubted whether the banks would agree. "That's beyond our control . . . it's not me negotiating; it's the banks," McMillian said, adding that the House doesn't seem to understand the distinction. The same situation is true for the package of "regulatory-certainty" waivers of the Natural Gas Act (NGA), he continued. "We've got to have it," he said of the NGA waivers. "You look at what they [the Federal Energy Regulatory Commissioners] have done over time . . . private bankers won't take that risk; it won't be privately financed" without the NGA waivers.

Compounding the problem of bankers seeking maximum flexibility and security is the lack of communication between House staffers and the bankers, McMillian said. It's partly a problem of generation gaps, he explained, since the bankers are in their 50s while the staffers are in their 20s and 30s. "There's a lot of distrust between the two," he said. "The bankers think that some of the things they're putting in the waiver package are required . . . [they've] also said that this is a kind of minimum case: 'if it doesn't work this time, it's not going to be this easy next time.'" Meanwhile, McMillian continued, one or two naysayer House staffers are contending that the waivers go too far and that the package would never make it through the House.

Lack of DOE support. As for the administration, McMillian lamented the passing of a "strong DOE" with strong secretaries at the helm. "Now there's nobody to talk to over there. No one," said McMillian. "Now we just talk to [Interior Dept. Secretary James] Watt and he's had his problems."

But if there has been a lack of movement on the waiver package, McMillian doubted whether it has been directed at the pipeline sponsors. "It's more a batting around of the Canadians than us," he argued, citing the "sensitivity" of the administration to Canada's national energy policy and the recent takeover moves of U.S. companies by Canadians. — Sam Rovit



McMILLIAN

ALASKA GAS PIPELINE GEARS UP FOR CONGRESSIONAL DEBATE ON WAIVER PACKAGE

The proposed Alaska Natural Gas Transportation System (ANGTS) has come before Congress several times over the last few years and each time has received an approving pat on the back and a general affirmation of support. It is unlikely that the next meeting will be as smooth. Northwest Alaskan Pipeline, lead sponsor for the project consortium, will be shifting into high gear this fall in an effort to win approval for a controversial package of waivers of law which the sponsors contend is essential to project financing.

Discussions among project sponsors, House and Senate staffers, White House aides, and representatives of the banks, led to several waiver packages earlier this summer, the most recent being a July 24 package which the Senate sought to have the White House officially submit for congressional review (Issue of 31 July, 1). That waiver package was submitted to the administration despite earlier protests by several House Energy committee members who argued that a number of the waivers warranted further discussion, notably the ones dealing with pre-billing and regulatory certainty. The White House subsequently declined to officially submit the package, leaving the issue dormant for the summer, though ripe for controversy when Congress returns next week.

Administration's move. "The administration has a decision to make: Are they going to send something to Congress or not," commented one congressional staffer who doubted there will be further House-Senate discussions. "I wouldn't rule it out, but I wouldn't plan on it," the staffer said. Bicameral debate on the proposed waivers has been considered important by the House side because waivers submitted by the president aren't subject to amendment; they must be approved or disapproved. While the Senate has thrown its support behind the July 24 package, House Energy members are leery of the reception the waivers might get in the House and are reluctant to share Northwest's optimism.

Of major concern is the \$30-billion price tag, several times greater than initial projections. As the sponsors

themselves have indicated, the waivers are being sought to facilitate project financing but they will not guarantee that lenders will reach deep into their pockets. It is partly for that reason that the sponsors are seeking waivers which are viewed by some as "goldplating" in the name of preserving flexibility for the lenders.

Flexibility limited. "Northwest's flexibility is considerably limited by the banks," commented one attorney who follows the project closely. "The banks are the third party and Northwest is inflexible because [Northwest

"The banks are the third party and Northwest is inflexible because [Northwest is] trying to serve the banks and the banks aren't particularly politically astute."

is] trying to serve the banks and the banks aren't particularly politically astute," he said. This point was underscored by a representative of one of the three Prudhoe Bay gas producers in the project who observed: "Northwest is catering to the most conservative of the bankers since they have to work with the nth billion dollar in mind."

A banker working on the financing plan for ANGTS agreed that flexibility, in their eyes, is key to the success of fund raising. "What we're asking for is that the administration leave open as much as they can," he said. The banker confirmed that the four major banks — Bank of America, Citibank, Chase Manhattan, and Morgan Guaranty — had recently sent Northwest Alaskan a letter commenting favorably on the July 24 waiver package and outlining possible financing routes for the project.

One of the issues where leeway has been deemed most desirable by the banks is that of billing under the tariff prior to the completion of the entire pipeline. They further prefer that the question of treating the system as one or dividing it into segments be left unclear in order to provide further flexibility. As envisaged in recent Senate proposals, the system would be divided into three parts: the Alaskan and Canadian legs and the \$6-billion gas conditioning plant. The subject of advance billing is a particularly sensitive one in the House and has been the target of criticism by many of the groups recently solicited for comments by Rep. Philip Sharp, D-Ind. (Issue of 21 Aug. 4).

Canadian concern. Advance billing is of particular importance to the Canadians who have "counted on it from day one," said a project source, who noted that Canadian involvement in the project is a major issue in Canada. "A [Canadian] government could fall on this issue," added the source. An official of the Canadian government would say only that Canada is "concerned that the waiver package is adopted and achieves its objectives."

Friction between the House and the Senate and between the House and the project, however, leaves the outcome of the debate a mystery. The Senate has actively supported its proposed waiver package, going so far as to ask that the administration submit it to Congress. "The principle members in the Senate [Sens. Frank Murkowski, R-Alaska; Ted Stevens, R-Alaska; James McClure, R-Idaho; and Henry Jackson, D-Wash.] have been interested for years and are genuinely, personally committed to the project," a Senate aide said in explaining Senate support. "They see it as a high-priority, national-security, national-interest pipeline project; they've always been more committed than the House," the aide elaborated.

House staffers were more reserved, with several expressing doubts that the waivers will succeed but denying any significant friction and others maintaining that "the Senate set us up." One of the more displeased of House staffers working on the issue went so far as to warn that Northwest Alaskan is "setting themselves up for the biggest fall and no one wants to see it." According to the staffer, "the people telling McMillian he's got it in the bag must be on drugs . . . almost anywhere you stand on the issue you're a loser." The staffer said he had conducted his own informal poll of House Energy members and was unable to find more than a few who would support the waivers. "The question is 'who will get the blame for allowing the pipeline to die?'" he said, adding that the House has been maligned in that respect and is willing to compromise but hasn't received similar signals from anyone else.

"The people telling McMillian he's got it in the bag must be on drugs . . . almost anywhere you stand on the issue you're a loser."

The steel factor. Another twist in the debate concerns the purchase of steel for both the pipeline and the conditioning plant. According to McMillian, only one U.S. Steel Corp. mill is capable of producing the 48-inch pipe required by the project. And McMillian accused U.S. Steel of "kicking the project in the teeth each time we turn around." Project sponsors would prefer to use American products but they might not have the choice, he said in explaining that the sponsors have been keeping an eye on the international market.

McMillian based his charges on a position piece produced earlier this year by the Process Gas Consumers Group (PGC) of which U.S. Steel is a member. PGC argued that "government authorities should reject gas-supply project-financing methods which require ratepayers to bear the types of risks normally borne by project sponsors." A U.S. Steel source maintained that the PGC paper was prepared with the Great Plains Coal Gasification project and an LNG project in mind. "We're not saying it isn't applicable [to ANGTS]," he said. "U.S. Steel would want to see how this general policy fits a unique system such as the Alaska pipeline but we haven't taken a position yet." A spokesperson for Northwest Alaskan later retracted McMillian's charges but offered no assurance that the steel used in the project would be domestic.

Decontrol's impact. The final controversy centers upon decontrol. Producers have always maintained

the decontrol of gas will have little effect on ANGTS and are naturally supportive of decontrol since they benefit through a rise in prices for their reserves in the lower-48. And McMillian told *Inside Energy* that the producers are considering various tacks they can take, among them adjustments in wellhead prices under decontrol, such that the gas will be marketable in the early years of the project (netback pricing).

Analysis prepared for both the Cabinet Council on Natural Resources and Environment and for Northwest Alaskan by Jensen Associates indicates uncertainty. According to a June 26 Cabinet council working paper, "The effect of deregulation on the financing of the pipeline depends on how the financial community evaluates this tradeoff between higher expected returns and increased risk. Since it would take a fairly substantial increase in costs or decrease in pipeline revenues to make the parties involved worse off than under the NGPA [Natural Gas Policy Act], the impact of deregulation on the pipeline could be favorable. However, because full decontrol could result in considerable uncertainty about the near-term marketability of Alaskan gas, the pipeline sponsors may be reluctant to proceed."

Jensen Associates, in a recently completed marketability study, maintained that decontrol of just new gas "would not significantly alter the relationship between clearing prices and the average price of old regulated gas, and thus — in our view — would not substantially change the extent of roll-in." Jensen barely touched the subject of what might be expected under decontrol of all gas — under the NGPA, most old gas would remain controlled, thus providing a vehicle to subsidize high-priced Alaskan gas — and a Jensen executive said they plan a more in-depth study in the future. But the study did concede that full decontrol could eliminate a large portion of roll-in capacity and suggested alternatives that Northwest Alaskan might consider to bridge the first few years of decontrol. Among the items were variations in rate design and greater use of market-risk clauses or netback-pricing approaches. The latter was cited by McMillian as a possibility. — S. R.

CONSTITUTIONALITY OF PURPA DEFENDED BY FOUR STATES, NUMEROUS TRADE GROUPS

A federal court in Mississippi erred miserably earlier this year in declaring unconstitutional Titles I and III and section 210 of the Public Utility Regulatory Policies Act (PURPA). That's the resounding opinion contained in briefs filed at the U.S. Supreme Court by the Justice Dept., which appealed the Feb. 27 decision (80-1749) of a U.S. District Court in Mississippi, and by four states, industry groups and various public interest groups.

At stake is the authority of the federal government: to remove inequities in interstate utility rate-making; to encourage cogeneration of electricity by requiring utilities to buy surplus power; to promote generation of power from renewable sources; and to boost efficient use of electricity through time-of-day rates and escalating-consumption rates.

State regulatory arms unfettered. In its brief to the high court, the Justice Dept., representing the Federal Energy Regulatory Commission (FERC) and Energy Secretary James Edwards, emphasized that there was no way the affected PURPA passages could be construed as directed at the states' authority to regulate. To the contrary, Justice said, states are free to design their own rate structures.

In rejecting the arguments brought by the plaintiffs, the State of Mississippi and Mississippi Power & Light (MP&L), Justice argued that: "Congress enacted the provisions at issue in order to protect interstate commerce from the adverse effects of these and other practices by utilities that led to inefficient utilization of energy resources. The means chosen by Congress are rationally related to this legitimate legislative purpose. That is enough to sustain Congress' exercise of its commerce powers."

PURPA imposes no burden. The Justice Dept.'s assertion was supported in *amicus curiae* briefs filed by the states of Maryland, Maine, California and Oregon. Maryland, in a brief filed jointly with Consumers Union of the United States, National Consumer Law Center, National Wildlife Federation, Natural Resources Defense Council and the Solar Lobby, argued that: "Although section 210 preempts certain state policies regarding public utilities, it effects no impairment of states' ability to structure their operations, since the section requires only that a federal rule of decision be respected in certain state adjudications between private parties.

"... The structure of the states' adjudicatory process is no more constrained here — and the 10th amendment is no more offended here — than they are every time a traditional state court is obliged to respect a federal rule of decision."

NAVAJO REFINING CO. AUG. 26 FILED A MEMORANDUM AS AMICUS CURIAE with the Temporary Emergency Court of Appeals (TECA) in support of DOE's motion for an accelerated mandate in TECA's entitlements-case decision against Mobil Oil Corp. Mobil has requested TECA to stay its mandate pending application to the U.S. Supreme Court for a *writ of certiorari* while DOE has asked that TECA issue its mandate — finalizing its decision — prior to the expiration of the appeals period on Sept. 4 (Issue of 28 Aug. 9).

Navajo, an independent refiner, estimated it would receive approximately \$6 million net through the sale

half of the 41 turbine compressor stations needed for the line: That portion of the deal could amount to \$2-billion—"a very big prize for us," Schreiber said.

Prorata Contracts

AEG officials expect that companies from each of the major gas purchasing countries—West Germany, France and Italy—will receive equipment contracts equivalent to the percentage of gas taken from the USSR.

AEG supplied 17 turbine compressor stations for the Orenburg pipeline from the Volga region to Russia's western border, and most observers in Moscow expect AEG will receive some share of the West Siberian deal. To increase its chances, AEG officials say their company, along with Mannesmann, has been paying all the expenses of the 30-person Machinimport delegation that has been stationed in Cologne since early May.

"They've been running up quite a tab," said one official, "but compared with \$2-billion, it's nothing."—Alex Beam

OILGRAM NEWS HEARS

That Canadian Finance Minister MacEachen has quietly sent word out to the Canadian financial community to "go slowly" on buybacks of foreign oil companies. The move is largely due to anxieties in Ottawa over U.S. Congressional reaction to the Canadian National Energy Plan (ON 9/11).

Meanwhile, British Petroleum continues to maintain that it will hold on in Canada rather than sell off its Canadian unit (ON 7/23). The Canadian company is at least profitable, if not wildly so, while other BP units around the world are having profitability difficulties.

Nonetheless, speculation persists that BP is looking to make a deal for the unit, and several sources note that a swap of some sort may be arranged whereby BP Canada would be picked up by Husky Oil, while Husky's U.S. operations (ON 9/8) would go to Standard of Ohio. BP officials are reportedly scheduled to visit Calgary Sept. 22 for meetings with undisclosed parties, and a meeting is supposedly scheduled in London involving top BP officials.

ALGERIA, ITALY TALKS ON LNG INCONCLUSIVE; FRENCHMAN SETS STAGE

Tunis 9/11—The latest round of LNG price negotiations between Algeria and Italy in Algiers didn't yield any results, judging from local press reports (ON 9/10).

Meantime, French External Trade Minister Michel Jobert said there's no "disagreement" between France and Algeria on gas pricing. He explained there's "global awareness of economic realities," and the problem is "to find a price permitting the development of both Algeria and France."

Jobert's comments at the end of a visit to Algiers

stressed that British policy on phasing out flaring of North Sea gas remains unchanged; so the onus shifts to industry to find some way to bring the gas ashore.

The Frigg gas pipeline operated by Total remains under-utilized, and expansion of the Shell/Esso Flagg pipeline now seems likely. Beyond that, Gray predicted that a number of smaller lines would probably be organized.

The government may have given up on a large-scale integrated system. But given the fact that a number of companies, including British Petroleum, took the position throughout the discussions that an integrated system was a good idea and could be privately financed if acceptable gas prices were forthcoming, it may be premature to rule out a private initiative on a single, large-scale system.

However, the government's official statement noted that the "private sector hasn't come forward with proposals to invest in the scheme at the necessary levels."

Gray pinpointed two major concessions sought by industry as preconditions to participation that the government had been unwilling to satisfy.

The first and major one, in Gray's view, was tax relief, particularly that the companies be allowed to offset investments in the pipeline against the petroleum revenue tax. He described this as "a non-starter" and indicated the government saw this as a bigger stumbling block than the demand emphasized more heavily by industry itself—prior agreement on a higher gas price.

Gray insisted that agreement between British Gas and the producers on gas prices is something "that could be achieved and I think will be achieved." He admitted that the producers are "still some way" from British Gas on non-associated gas prices, in particular, and it's clear that some of the companies involved see this as more crucial than the tax issue.

CANADIAN NEB REVIEWS 20-YEAR HYDROCARBON, PRODUCTS SUPPLY/DEMAND

Ottawa 9/11—Canada's National Energy Board, citing lead times required to produce oil from new fields, says the country could be importing 60% of its projected crude requirements of 1.92-million b/d by the year 2000.

That forecast is in the NEB's 425-page review of supply and demand for all primary energy forms to the end of the century. The projection is based on data provided by the petroleum industry, utilities, various levels of government and other interested sectors during public hearings held across the country late last year.

Although the forecast doesn't take into account the possible effects of the Alberta-Ottawa petroleum pricing and revenue-sharing agreement (ON 9/3) and NEB officials wouldn't try to update the report in light of the pact, some NEB officials said overall percentages of Canada's energy mix shouldn't change "that much."

Referring to the long lead times for new projects,

RECEIVED



Platt's Oilgram News

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the NEB in its middle scenario says, "the supply of indigenous oil cannot be increased significantly in the short term and will decline from current levels by about 5%/yr until the mid-1980s."

Total imports by 1985 are forecast to about 640,000 b/d with total demand that year of 1.81-million b/d. After 1985 demand will drop to 1.7-million b/d with exports covering 600,000 b/d. In 1995 the demand and export requirements increase to 1.76-million and 740,000 b/d, and in 2000, to 1.92-million and 1.15-million b/d, respectively. The 1990 drop is due to expected penetration of traditional oil-consuming areas by natural gas, mainly because the eastern extension of the Trans-Quebec & Maritimes Pipeline is expected to be completed.

Demand for several products is expected to drop—mogas by an average rate of 0.9%/yr in the 1980-2000 period, light fuel oil and kerosine by 5.0%/yr and heavy fuel oil by 4.9%/yr. Demand for aviation fuels, is expected to rise by 3.3%/yr, diesel fuel by 3.8%/yr, petrochemical feedstocks by 4.7%/yr and other products by 1.4%/yr.

'Frontier Gas Unneeded Until 1998'

The NEB estimates that natural gas supply from currently established reserves will be adequate to meet most domestic and export needs for the next 10 years. Further, if reserves additions in the conventional producing areas occur as expected, "it is likely that frontier gas will not be required to serve domestic markets until 1998." Also, NGLs are expected to remain in surplus until the late 1980s.

Supply capability of gas in petajoules per year is forecast at 4,139 from established reserves and 398 from reserves additions for a total by 1985 of 4,537. By 1995 capability from established reserves is set at 1,853 and from additions at 1,300 for a total of 3,153. At current production rates of 2.7 exajoules annually, the year-end 1980 established reserves of 76.2 exajoules would last 28 years.

NGL production also is forecast to peak in 1985 at 78,300 cu meters/d, which is broken down into 26,100 cu meters/d of ethane, 21,800 of propane, 13,400 of butanes and 17,000 of pentanes plus. Ten years later, it is expected to average 52,300 cu meters/d—18,400 ethane, 14,800 propane, 9,200 butanes and 9,900 pentanes plus.

Hibernia—314.5-Million Bbl

The frontier regions remain essentially a question mark for the NEB and the agency didn't include most offshore or Arctic oil supplies in its forecasts, even though it acknowledged "encouraging" discoveries had taken place off the East Coast in the past two years, in the Arctic Is. and in the Beaufort Sea.

Only Hibernia has been developed to a point where supply could be reasonably estimated, and NEB worked 314.5-million bbl into its forecasts. Much the same case is made for frontier gas, with the NEB generally leaving its 1979 forecast untouched.

\$41.35-47.70/Bbl Oil Sands Price Needed

The NEB also ruled oil sands plants out for the purposes of its forecast, saying "these schemes are not economic under current pricing and revenue-sharing agreements." However, the agency did say the new plants would need a price of C\$41.35-47.70/bbl and noted that the National Energy Program offered only \$40.00/bbl.

The Ottawa-Alberta agreement beefed up the offer, but the question of economic viability of plants

while "to at least enter into a study company with the concessionaires, Elf Aquitaine and Agip."

IGDC currently has agreements with Angola and Tanzania and is "planning to work with" Mozambique officials on "what to do with the gas they have already discovered."

DEL I STILL ACTIVELY DISCUSSING SALE OF ASSETS

Houston 9/11—Delhi International said its investment bankers "have been actively engaged in preliminary discussions with interested parties" about the possible sale of its Australian assets or the company as a whole.

Last month Delhi disclosed it received no bids to buy Delhi or its Australian assets pursuant to its offer by the deadline of Aug. 17. It said it had received offers for some U.S. and Colombian properties.

Delhi wouldn't identify with whom it is currently negotiating and added no assurance can be given that the talks will produce an acceptable proposal. Meantime, it will continue its exploration and development program in Australia.

JAPANESE FIRM TO BUY 400,000 MCF/D OF DOME PETE'S B.C. LNG

Calgary 9/11—Nic Resources (Nissho-Iwai) of Japan has agreed to buy 400,000 Mcf/d of LNG from Dome Petroleum. The LNG would be from Dome's proposed British Columbia liquefaction plant (ON 4/23). Deliveries to four Japanese utilities are to begin in late 1985.

The companies noted the agreement "marks the first sale of LNG between Canada and Japan, and provides a major new market for surplus Canadian natural gas."

The Japanese firm has also agreed to provide an undisclosed amount of financing for the plant. Approvals for the facility and for gas removal and export from Canada must still be received from the Canadian government (ON 9/3). Japanese approvals have been received.

IMF SEES ECONOMIC GROWTH IN MOST OPEC COUNTRIES

Washington 9/11—The International Monetary Fund anticipates that economic activity will continue to accelerate in most OPEC member-countries and, barring further destruction resulting from the Iran-Iraq war, the IMF expects an appreciable further rise in the average rate of growth in real non-oil gross domestic product (GDP).

In its 1981 annual report, the IMF said the substantial drop in the volume of oil output in these countries in 1980 more than offset the increase in non-oil production, resulting in a 3% decline in total real GDP.

"The contrasting movements of oil and non-oil output are expected to extend into 1981, when the total GDP is expected to change little," the report said. "Despite the lack of growth in total GDP since 1978, real national income of the oil-exporting countries—a measure that takes account of changes in the terms of

and new gas are 29% and 11%.

• For 1982-85, the net effect of deregulation of new gas prices on projected real gross national product (GNP) is a \$21.5 billion increase. Compared to the base case, projected real GNP under this option is lower in 1982 and 1983 but higher in 1984 and 1985. For deregulation of both old and new gas, projected real GNP for 1984 and 1985 is also higher; however, for 1982-85 as a whole, this old-new option results in about a \$5.5 billion decline of real GNP.

• Deregulation of gas prices in 1982 would increase inflationary pressures in 1982 and 1983 if old as well as new gas were deregulated, but earlier deregulation results in lower projected increases in the consumer price index for 1984 and 1985.

Tax effects. Energy Action says de-

control of natural gas prices will at least partly offset effects of the administration's 3 year tax cut for most families that use gas to heat their homes.

Edwin Rothschild, director of Energy Action, says his study is based on conservative price estimates that lead to decontrolled prices of \$5/Mcf in 1982, \$6 in 1983, and \$7.25 in 1984.

Using this assumption, he says a typical family earning \$20,000—the national median income—will face additional direct and indirect natural gas costs of \$2,600 in each of those years. In contrast, the tax cut for this family will be \$1,060.

Energy Action projected indirect consumption of natural gas by assuming that purchases of goods and services manufactured from natural gas

increase proportionally with income.

For direct costs of gas decontrol alone, the family earning \$20,000/year would pay \$310 in increased costs and have taxes cut by \$228.

As income rises, the effect of the tax cut becomes stronger. For a family making \$35,000/year, under the direct cost calculation, the tax cut (\$520) is larger than the gas cost increase (\$350). Including both direct and indirect costs, the tax cut of \$520 is eclipsed by increased gas costs of \$960.

"This report reconfirms the inherently regressive and pro-big business nature of this administration's economic and energy programs," says Rothschild.

"If decontrol takes place, then most people will simply see one tax replaced by another."

Early plans for Prudhoe Bay gas plant unveiled

Ralph M. Parsons Co., Pasadena, Calif., has unveiled some of the preliminary design features of the proposed \$6 billion natural gas conditioning plant to be built in Alaska's Prudhoe Bay field.

The plant, which would condition about 2.7 billion cfd of raw gas for movement to the Lower 48 through the proposed Alaska Natural Gas Transportation System (Angts) pipeline, likely would be the world's largest gas conditioning plant, say Angts sponsors.

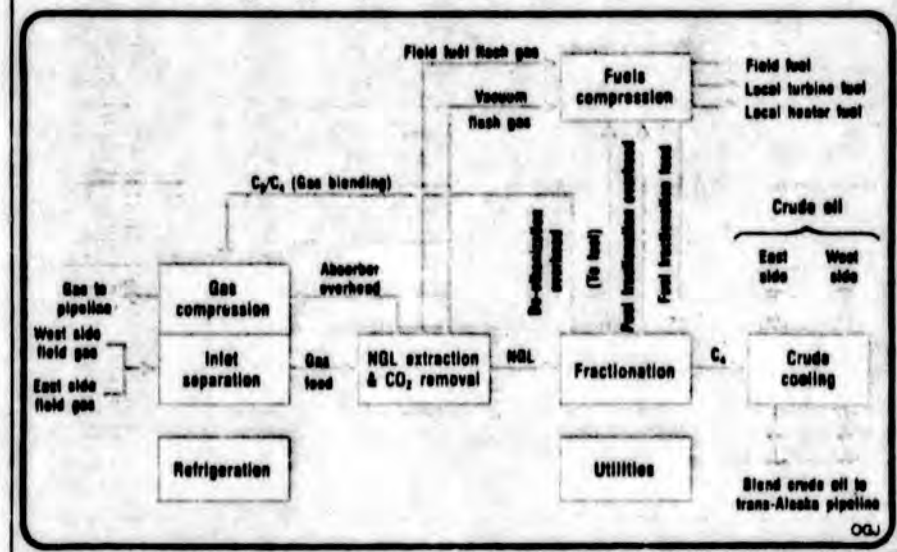
Parsons is conducting preliminary engineering design work on the gas plant while the U.S. Congress wrestles with waivers in federal law to permit financing of the Angts line.

Consideration of the plant as part of the Angts project for financing purposes is part of the waiver package. Another financing concern is whether North Slope producers will be allowed equity participation in the gas line. And it's still uncertain whether North Slope producers or the pipeline company group backing the Alaska segment of the Angts line will finance the plant.

Parsons' contract is for design, engineering, and planning, with a provision to broaden its responsibility to total construction management. The firm signed the contract last fall with Northwest Alaskan Pipeline Co., lead partner in the group backing the Angts Alaska leg (OG), Oct. 13, 1980, p. 98). Northwest Alaskan is a unit of Northwest Energy Co., Salt Lake City.

Extraordinary costs. Parsons cited the great size of the proposed plant

How the Angts gas plant would work



and severe environment of the North Slope as the main elements in the huge projected cost.

The \$6 billion price includes costs for the base plant and contingency, escalation, financing, and other owner/operator costs.

The plant, which would cover 1-1.2 million sq ft, would require about 100,000 tons of steel. Its central utilidor alone would be 2,200 ft long. Some of the process pipe envisioned would range up to a diameter of 72 in. Either of the natural gas liquids extraction/carbon dioxide removal trains would be one of the largest, if not the largest, single train plant in the world, Parsons said.

Some of the 200-220 modules to be built for the plant would weigh as much as 2,000 tons and be 170 ft long by 65 ft wide, with heights equivalent to an eight story building. That adds considerably to logistical costs to handle and haul the modules by barge, apart from bad weather.

Construction must be as modular as possible because of the severe North Slope environment.

The modular construction also entails additional supervision and construction costs of waterfront fabrication sites in the Lower 48.

North Slope construction work calls for the setting, connection, mechanical completion, and precommission-

for each employment job group. The 1981 target figures include goals for females to make up 13% of the total of officials and managers, 9% of professionals, 6% of laborers and 46% of clerical employes. Hiring goals for minorities through the end of this year include planned figures of 8% of officials and managers, 9% professionals, 20% clerical and 22% laborers.

The 1981 goal for minority business enterprise participation is \$31-million, or 15% of contractable opportunities, and \$4-million, or 2% for female firms. John Alexander, former Alaska Labor Commissioner and currently in charge of equal employment opportunity for OFI, stressed that the minority contracting would be competitive, with "no set asides as in the small business administration."

Team hopes to Avoid TAPS 'Mistakes'

Base information used by Northwest in formulation of its goals was 1970 census data updated to 1980. The company will revise and update its plan annually. The team which prepared the plan was determined to avoid the "horrible mistakes, actual and perceived, made on the trans-Alaska oil pipeline," Alexander said.

The employment goals in the plan are for each year through completion of construction.

"fairly broad" authority to change gas tariffs to protect the public interest, even at the expense of project lenders. A "respectable case" could be made against such a change, based on due process requirements of the Constitution. But the analysis said that the courts haven't yet made an authoritative ruling on this issue.

The study also noted that a Congressional waiver on tariff changes wouldn't create an extra risk to the public, but would merely reduce the "regulatory risk" of government actions that might hold up the gasoline.

Moore also said in the report that FERC chairman Butler would support passage of the waiver if it was consistent with positions outlined in the study.

The waiver proposal in question was one of a seven-point package submitted to the White House by Senate leaders in July (ON 7/30). So far, House committee leaders haven't approved the proposal. Sources say key House members would prefer a waiver that would preserve FERC's ultimate power to change the tariff, but only by a unanimous commission vote, after lengthy consideration.

AP's mistakes
thwest in formulation of
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and perceived, made on
Alexander said.

The employment goals in the plan are for each year through completion of construction. However, because the information was based on 1985-86 project completion, the goals will have to be revised to reflect the new schedule (ON 6/18).

No steps have been taken toward a project labor agreement, Alexander said. He doesn't believe there will be one this year, but "we will be heavily involved" when it does begin, he said.

Alexander told OILGRAM NEWS that the OFI hasn't received any indication from the Reagan Administration that the regulations on EEO would be altered in the light of the push to cut back on federal regulations. Enforcement of the EEO regulations is the responsibility of the federal inspector.

UNTRACEABLE VOLUMES OF OIL NOTED IN STUDY FOR DOE

Washington 8/19—Some 269-million bbl of stripper well oil appeared "out of nowhere" in 1979 and 1980, according to a study prepared for the Dept. of Energy's Energy Information Agency. At the same time, volumes of old oil seemingly disappeared.

The study offered several explanations, ranging from technical reporting problems to miscertification of old oil as stripper oil to gain larger entitlements benefits.

However, EIA said the report, prepared by an outside contractor, didn't contain sufficient information "to quantify the various explanations for the disappearance of old oil."

Further more, since the entitlements system was ended by decontrol, EIA would make no recommendations on the study's findings.

Based on statistics compiled in the report, if miscertification accounted for all stripper production that materialized without explanation, about one-third of stripper well output reported to the entitlements system in 1980 would have to have been illegally classified.

A comparison of domestic crude oil first-purchase data and entitlements system data showed that for the 1977-1980 period, approximately 335-million bbl of oil disappeared, or 230,000 b/d.

WAIVER HELD ESSENTIAL TO PREVENT CHANGE IN ALASKA GASLINE TARIFF

Washington 8/19—A legal opinion by the Federal Energy Regulatory Commission found that a Congressional waiver is advisable if the Alaska gasline project is to be protected against any future FERC decisions to change the project's gas tariff structure in a way that might impair loan repayment.

The legal analysis, written by FERC General Counsel Charles Moore, was requested by the House Energy & Commerce Fossil subcommittee.

The analysis found that the Congressional waiver being sought by the gasline sponsors would provide a "far better assurance" to lenders than any type of FERC order. Previous orders notwithstanding, FERC has

leaders in July (ON 7/30). So far, House committee leaders haven't approved the proposal. Sources say key House members would prefer a waiver that would preserve FERC's ultimate power to change the tariff, but only by a unanimous commission vote, after lengthy consideration.

ALASKA TO SELL 20,000 B/D OF ROYALTY CRUDE TO SOHIO

Anchorage 8/19—The Alaska Royalty Oil & Gas Development Advisory Board has unanimously approved sale of 20,000 b/d of the state royalty oil allotment for six months retroactive to Aug. 1 to Ohio Standard, which will pay the state the in-value price minus transportation and other costs.

Originally the oil was sold at the December 1980 competitive sale to Alaska Petroleum Co. (Coastal Corp.) for an average premium of \$2.83/bbl above the in-value price. In the face of deteriorating market conditions the company last month defaulted on its contract (which became effective July) and stopped taking the oil July 27 (ON 6/5).

Alaska is considering legal action against Coastal. Alaska Natural Resources Commissioner John Katz said the state rejected the firm's request to amend the royalty oil contract because "a company should not gain the benefit of a reduced price simply because it chose to do business with the state in a manner which would possibly allow them an out if the risk they assumed materialized, but would still guarantee them enormous profits if the market for oil had turned out differently."

Competitive bidding was waived in the Sohio transaction because the state would have faced serious storage problems if the oil weren't immediately committed to a buyer. It has yet to be decided how the state will dispose of the five days of unsold royalty crude which has been stored in the Valdez tank farms of the trans-Alaska Pipeline terminal since the end of July.

U.S. AGENCIES RECOMMEND OKAY OF WYO. WILDCATS, DESPITE OPPOSITION

Denver 8/19—Two federal agencies are recommending drilling of two wildcats in the Jackson Hole region, one of Wyoming's popular scenic attractions over intense citizen opposition.

Environmental concerns aren't sufficient to justify disapproving the wells, the U.S. Forest Service and U.S. Geological Survey said in a draft environmental impact statement for the exploration in the Bridger-Teton National Forest.

National Cooperative Refinery Association has proposed a 10,000-ft wildcat six miles north of the town of Jackson in Cache Creek. Getty Oil is proposing a test at Little Granite in a wilderness study area seven miles beyond the Cache Creek location. Both are on the Overthrust Belt.

The EIS acknowledges that most of Jackson's businessmen and 60-80% of the entire community oppose the NCRA operation at Cache Creek. There is less local opposition to the Little Granite exploration.

The report says Congress would have to sanction canceling the leases and reimbursing the lease owners in view of the agencies' recommendation.

The Jackson Hole Alliance for Responsible Planning,

MAY 27 1981

Oil Concerns Get 30% Stake in Alaska Line

AN ASIAN WALL STREET JOURNAL Roundup

SAN FRANCISCO—The long and sometimes bitter fight over who will own the proposed Alaska natural gas pipeline appears over, and what would be one of the world's largest energy projects has taken an important step forward.

An agreement has been reached between John McMillian, chairman of Northwest Energy Co., the lead partner in an 11-member consortium sponsoring the project, and three major oil companies that gives the oil giants a 30% ownership in the project. They are Exxon Corp., Atlantic Richfield Co. and Standard Oil Co. (Ohio).

Mr. McMillian, a 55-year-old former West Texas oil entrepreneur, conceived the project in 1977, but he needed the oil companies' bankrolls to help underwrite the project's debt and to provide funds in case the line cost more than expected. The two sides have been at loggerheads over the ownership question for more than a year.

The three oil companies, which own nearly all of the natural gas discovered in the rich oilfields of Alaska's Prudhoe Bay, weren't part of Mr. McMillian's group and had steadfastly declined to provide any money unless they were given part ownership in the line that would channel the gas from the North Slope across western Canada to the U.S. West Coast and Midwest. Mr. McMillian initially opposed giving up any ownership for fear the oil companies, particularly Exxon, would wind up running the project by virtue of their financial muscle.

Spokesmen for Exxon and Northwest Energy confirmed that an agreement had been reached, but declined to give details. However, The Wall Street Journal obtained copies of a letter and report sent to Energy Secretary James Edwards last Thursday that contained the specifics.

In addition, the Journal learned that meetings have already begun between the partnership, the oil companies and prospective lending institutions. A joint presentation by the consortium and the oil companies was made to Citibank last Thursday. Further presentations are to be made this week and over the next several weeks to other banks and to insurance companies. Citibank

and Bank of America are banking advisers to the project.

OTTAWA, CANADA
CITIZEN
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MAY 29 1981

U.S. backs gas pipeline

WASHINGTON (CP) — The U.S. government pledged support Thursday for a new plan to raise money to build the U.S.-Canada Alaska natural gas pipeline, a necessary step in the private financing plan.

At the same time, U.S. and Canadian authorities took different tacks on a question whether the estimated \$30.5 billion cost of the U.S. portion—up from the original estimate of \$12 billion four years ago—is padded or likely to be right on.

Energy secretary James Edwards said the government will ask Congress within two weeks to approve a resolution clearing away legal hurdles to the U.S. financing plan.

Congress will be asked to waive a feature of its 1977 pipeline directive forbidding owners of Alaska gas from owning any of the pipeline designed to carry the gas to U.S. markets through Canada.

The financing plan presented to the U.S. government last week by Northwest Energy Co. of Salt Lake City, Utah, leader of the pipeline consortium building the line, includes a proposal that the gas owners put up \$9 billion of the cost in return for a 30-percent ownership interest in the consortium.

The rest would be sought in loans from banks and other financial institutions. Edwards reiterated the U.S. government position that it will not contribute to the costs or guarantee private loans, but said the Reagan administration "will move expeditiously on the necessary waivers required to get a northern gas pipeline under way."

MAY 29 1981 *ALL*

Soaring costs threaten Alaska gas pipeline

By John Honderich Toronto Star

WASHINGTON — A 150 per cent jump in the expected cost of a major portion of the Alaska gas pipeline has left the entire project hanging precariously in the balance.

The pipeline's future now rests in the hands of Wall Street's bank barons as they decide whether to put up the needed \$22.5 billion. A decision should come in the next few weeks.

"It's clearly the make or break time," one senior congressional aide told The Star yesterday. "If the banks don't come through or if the strings they attach are too tough, then the whole thing would have to be put off."

If it is, then Canada will face the grim prospect of losing an estimated \$1 billion worth of steel pipeline contracts and thousands of jobs to complete the Canadian part of the 2,700-mile venture.

The \$22 billion needed in loans is a staggering amount when it is considered the top credit limit for the 50 biggest U.S. firms is about \$4.5 billion.

Major snag

The major snag now centres on the Alaska portion of the pipeline running from Prudhoe Bay on the Arctic Ocean to the Yukon border. A little over a year ago the price tag for this section was set at \$12 billion.

Earlier this week, John McMillian, head of the consortium of U.S. companies planning to build the American section, wrote the cost would be at least \$30 billion.



JOHN HONDERICH

Washington bureau

This whopping increase also means that the gas would have to be sold in 1986 at about \$15 per thousand cubic feet to be viable — a figure roughly three times the current world price.

"Some people are going to be very surprised by this," one U.S. energy expert said. "The jump in price comes at a time when there is a gas glut in the U.S. and at a time when oil prices have stabilized for the first time in years. The bankers may get a little nervous."

Financial go-ahead

Most of New York's major banks, including the Bank of America, Citibank, the Chase Manhattan and Morgan Guaranty, will be involved in the decision whether to give the financial go-ahead.

But they must also ponder another problem. When the pipeline was finally approved by former president Jimmy Carter in 1977, the U.S. legislation prohibited the three oil companies involved from owning any shares in the project.

The three are Exxon Corp., Standard Oil Co. of Ohio and Atlantic Richfield Co.

However, under the terms of an agreement hammered out last week between McMillian and the

three oil giants, the three are to receive 30 per cent of the shares.

Although the Reagan administration is in favor of the agreement, a change in the U.S. law must be made to take account of the oil companies' equity participation.

Some White House officials have argued this can take place by a simple executive order signed by President Ronald Reagan — a procedure similar to a Canadian order-in-council passed by cabinet.

However, the prevailing view is that the change must be approved by both the Senate and the House of Representatives. And that, of course, takes time.

"I think any thoughts this project ever could be completed by 1985 are out the window," one Canadian observer said. "We're looking at 1986 at the earliest."

Considering the enormity of the loans needed, the banks may well try to secure a U.S. government guarantee for the project.

Conservative attitude

But there seems little prospect the Reagan administration, with its conservative everyone-fight-for-themselves-attitude, would ever go along.

When Reagan was in Ottawa last March he told the House of Commons he favored "prompt completion" of the pipeline provided it is privately financed.

When asked later if the administration would ever go along with a guarantee, Secretary of State Alexander Haig told reporters, "that's a question to be faced."

Privately, White House officials said such an option "is just not in the cards."

No one questions that if the Alaska part is scuttled, the Canadian part is also dead.

Proven reserves

Proven gas reserves on Alaska's north slope now exceed 26 trillion cubic feet, roughly 10 per cent of the U.S. reserves.

If and when the pipeline is completed, it will carry about 2.4 billion cubic feet a day, about five per cent of total U.S. consumption.

Following are details of the agreement between the gas transmission consortium and the oil producers:

□ 25 per cent of the \$30 billion is to be raised through the issuance of shares and the remaining 75 per cent through loans;

□ Actual construction of the Alaskan leg is pegged at \$21 billion which includes a \$4 billion pool for cost overruns;

□ \$6 billion is tagged for construction of a gas conditioning plant, needed to upgrade the gas for passage through the pipeline;

□ 30 per cent of the total amount is to be raised by the three oil companies;

□ The deal is also specific that all parties must be assured of completion of Alaska portions of the line and also assured that the Canadian portions will be funded without U.S. financing.

As one Canadian official summed it up: "We're all just holding our breath."

White House Won't Support Major Aspects Of Financing Plan for Alaska Gas Pipeline

By ANDY PASZTOR

Staff Reporter of THE WALL STREET JOURNAL
ANCHORAGE, Alaska—Plans to build a natural gas pipeline linking Alaska with western Canada and major U.S. markets have had more setbacks, this time primarily at the hands of the Reagan administration.

Energy Secretary James Edwards said Friday that President Reagan won't support the \$35 billion project if its sponsors insist that the "consumer shoulder so much of the financial risk." The Secretary's warning, in an interview at the start of a four-day visit to Alaska, is the first clear-cut indication that the White House opposes major elements of the financing package the pipeline's backers are developing.

According to Mr. Edwards, the administration urged companies working on the project "in the strongest terms" against pushing for controversial legislative changes that would permit them to pass on much of their construction costs to consumers before

the 4,800-mile project is completed. The administration "has some real concerns" about asking U.S. consumers to pay for current construction on the project's Canadian leg regardless of whether the most difficult segment across Alaska is ever completed.

Reagan Told Trudeau

The companies, however, claim that they won't finance the project unless the President and Congress approve a host of legislative amendments, including one covering the charges to consumers.

The administration is expected to send a package of proposed legislative changes to Capitol Hill later this summer. But Mr. Edwards made it clear that the project's sponsors, led by Northwest Energy Co. of Salt Lake City, and the Canadian government, which also has been pushing for certain amendments, won't get as much as they want.

Mr. Edwards said President Reagan personally delivered that message to Canadian

Prime Minister Pierre Trudeau last week when the two leaders met in Washington. In response to a question, Mr. Edwards conceded that the pipeline question is "becoming one of the real sore points" in U.S.-Canadian ties.

But Mr. Edwards asserted that the White House isn't planning to placate the Canadian government on the pipeline issue in exchange for help in other areas.

The pipeline, if completed, 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 Alaskan portion of the line is still in the engineering stage, and many industry executives and state officials question whether it can ever be financed.

State Participation Sought

The Reagan administration appears interested in trying to convince Alaska Gov. Jay Hammond to pledge a substantial chunk of money to the project to assure its completion. Among other things, Mr. Edwards said he intends to ask Mr. Hammond about possible state participation in the construction of a \$4 billion gas-conditioning plant slated to be part of the project.

In return, Alaska could get control over some of the gas and use it to establish a local petrochemical industry, Mr. Edwards said.

But that idea is getting a lukewarm reception in Alaska. "I don't think that I am ready or the legislature is ready to make that kind of commitment" until all the private financing is in line, Gov. Hammond said during a weekend interview.

Meanwhile, state officials concede that the sponsors' hope of breaking ground on the Alaskan leg of the project by next spring is unrealistic. To begin with, these officials said, the sponsors are at least five or six months behind in obtaining environmental and other permits from the state. And the companies are arguing with state officials over the financing of roads necessary for the construction.

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MAY 27 1981

Pact reached on Alaska gas

SAN FRANCISCO (DJ) — The long and sometimes bitter fight over who will own the proposed Alaska high-way natural gas pipeline appears to be over, and what would be one of the world's largest energy projects has taken an important step forward.

An agreement has been reached between John McMillan, chairman of Northwest Energy Co., the lead partner in an 11-member consortium sponsoring the project, and three major oil companies that gives the oil companies a 30 per cent ownership in the project. They are Exxon Corp. of New York, Atlantic Richfield Co. of Los Angeles and Standard Oil Co. of Ohio, Cleveland.

Mr. McMillan, a 55-year-old former west Texas oil entrepreneur, conceived the project in 1977. But he needed the oil companies' bankrolls to help underwrite the project's debt and to provide funds in case the line cost more than expected. The two sides have been at loggerheads over the ownership question for more than a year.

that authorized the project.

Of the Alaska segment's total \$30-billion cost, including the \$3-billion overrun pool, the oil companies would provide \$9-billion — \$2.25-billion of their own money and \$6.75-billion of borrowed funds. The 11-member consortium would provide the remainder.

The current plan is contingent upon U.S. President Ronald Reagan asking Congress to amend portions of the 1977 legislation to allow the oil companies to own part of the project. Oil company ownership was prohibited under the law because of anti-trust concerns by the Justice Department.

Since then the department has said it would not oppose ownership so long as the oil companies did not have a controlling ownership position.

Spokesmen for Exxon and Northwest Energy confirmed that an agreement had been reached, but declined to give details. However, the Wall Street Journal obtained copies of a letter and report sent to U.S. Energy Secretary James Edwards that contained the specifics.

In addition, the Journal learned that meetings have already begun among the partnership, the oil companies and prospective lending institutions.

A joint presentation by the consortium and the oil companies was made to Citibank of New York, to other banks and to insurance companies. Citibank and Bank of America, San Francisco, are banking advisers to the project.

The agreement covers the 745-mile Alaska segment of the 4,800-mile line and discloses that the Alaska segment is estimated to cost \$27-billion after allowing for inflation, interest costs and a plant to treat the gas before it is injected into the pipeline.

Other portions of the line in Canada and the United States, which are already under construction, have been estimated to cost a total of about \$7.5-billion, which would make the project the most expensive privately financed project in history.

The total of about \$34.5-billion for the entire project is lower than earlier unofficial estimates, which had ranged as high as \$40-billion. But it is about \$4-billion higher than estimates of a year earlier.

An important feature of the agreement provides for a \$3-billion cost overrun pool, of which 30 per cent will be provided by the oil companies. Such a pool has been deemed essential if the project is to attract lenders.

It, still may not be enough to ensure the project's success. Many critics maintain that lenders will participate only if the U.S. Government guarantees their loans. This was prohibited by the 1977 legislation

TORONTO, ONT., CAN.
GLOBE & MAIL
DAILY, 266,498

JUN 6 1981

Phase 1 contracts awarded for Alaska pipeline

Foothills Pipe Lines (Yukon) Ltd. of Calgary has awarded compressor and meter station construction contracts for Phase 1, eastern leg construction on the Alaska Highway gas pipeline project.

In Saskatchewan, two contracts have been awarded to Interpro

6217
Contractors Ltd. of Richmond, B.C., for compressor stations at Piapot and at Monchy. Interpro will also build a meter station at Monchy.

In Alberta, one contract has been awarded to Brown and Root Ltd. of Edmonton for a compressor station at

Jenner. Estimated cost of the station is \$33-million. The estimated direct capital cost of the stations being installed in Saskatchewan is \$47-million.

Gas pipeline priority item for Alaska's men in Congress

By GEORGE BRYSON
Daily News reporter

WASHINGTON — An effort to save the life of the \$30 billion Alaska Natural Gas Pipeline System should dominate the headlines generated by Alaska's congressional delegation this fall.

That's the consensus of the state's all-GOP contingent as it enters the home stretch in this first session of the 97th Congress.

Much more is on the agenda, of course. Congress will focus most of its time this fall on the federal budget. Billions of dollars in new spending cuts will have to be decided during the next 60 days — a blood-letting that isn't likely to leave Alaska unscathed.

There also will be:

- A bill to transfer federal ownership of the Alaska Railroad to the state.
- An Interior Department schedule for offshore oil leasing.
- A variety of bills affecting Alaska's fishing industry.
- Probably more news over the management of Alaska's new national parks and wildlife reserves.

But nothing that happens in Washington this fall, delegation members say, is likely to affect directly the future of the state quite as much as the outcome of the pipeline story. "It's the most important thing we'll be



Sen. Frank Murkowski expects Canada to pressure the U.S. on the gas line.

working on," Alaska Sen. Ted Stevens said last week as Congress returned from its August recess.

Still in search of money, the pipeline sponsors have asked the president and Congress to approve changes in the law that would make an investment in the inflation-prone project less risky.

One such change would allow North Slope oil producers to share in the ownership of the pipeline system — an arrange-

ment the Carter administration ruled out as a violation of antitrust laws.

Another waiver sought by the sponsors would allow them to begin billing American gas consumers for the cost of the pipeline, on a section-by-section basis, before it's completed.

The "pre-billing waiver" — by shifting much of the risk of the project onto the shoulders of consumers — could work wonders in securing loans from the international banking community. But it's also being attacked by consumer organizations as "a complete betrayal" of the sponsors' promise to finance the project on their own.

Members of Alaska's congressional delegation support the waiver package proposed by the pipeline sponsors. But key congressmen in the House oppose it. Both sides are waiting for President Reagan to strike a compromise.

"We're still trying to get the president to submit the waivers that were authorized under the Alaska Natural Gas Transportation Act," Stevens said last week.

At the same time, he acknowledged that the future of the project may be hanging in the balance. Said Stevens: "It's clear that the financial communities say they cannot finance the pipeline without waivers and certain (new)



provisions of federal law."

Timing is also a problem. The sponsors need to secure their financing soon if they're to avoid the loss of another construction season — and the impact that would ultimately have on the price-tag of the 4,800-mile gas line. The 740-mile Alaska segment alone, once estimated at \$8 billion, has more than tripled in cost in recent years.

Alaska Sen. Frank Murkowski thinks the impetus for a solution may come ultimately from Canada, where construction of the Canadian segment is already well underway.

"I think the pressure (on President Reagan) from the Canadian government is getting stronger and stronger,"

Murkowski said this week. "And I think that's working for the project."

If it doesn't — and the president and Congress fail to rescue the project this fall — the ever-increasing cost of the pipeline may drift out of the reach of private enterprise once and for all.

Stevens, Murkowski and Congressman Don Young also have their committee assignments to see to this fall.

Stevens in particular. As a member of the Senate Appropriations Committee, he'll be partly responsible for moving the Senate's 14 appropriation bills through Congress in the coming weeks. As chairman of the Senate Defense Appropriations Subcommittee, he'll also be a key figure in the new debate over defense spending.

A member of the Senate Environment and Public Works Committee, Murkowski will be participating in hearings to reauthorize the federal Clean Air Act. "It'll probably be a renewal of the previous legislation," Alaska's freshman senator predicts, "but we'll be making it more readable."

Murkowski was active last spring in a Senate Energy Committee debate for funding the nation's Strategic Petroleum Reserve. At one point, he proposed the state and the U.S. Department of Energy negotiate a deal to fill part of the reserve with Alaska's royalty oil. But the idea ran out of gas during the summer. "We found it wouldn't be economically beneficial to either party," Murkowski says.

Young, on a moose-hunting trip in Alaska during the first week following the recess, will be a key player in the pipeline debate if-and-when the waivers are forwarded to the House.

Young also is the delegation's watchdog over federal appropriations for the fishing industry and Coast Guard operations, serving as ranking minority member of the House Merchant Marine and Fisheries Committee.

The Fort Yukon native was able to win House funding for a number of marine programs tailored to Alaska earlier in the session, but he'll be hard-pressed to retain them as the budget tightens this fall.

C3 8/Sept. 19 '81

that the total number of Kuwaitis working in the oil sector doubled last year to 12,231.

SPAIN: Hispanoil, the state agency for overseas exploration and production, lifted 2,252,097 metric tons of crude from foreign fields in the first half of the year. Aside from small volumes in Algeria, Gabon, Egypt and Libya, the bulk of this production—2,221,889 metric tons—was lifted from Hispanoil's Saudi concession.

Domestic crude production fell 23.8% in the first five months of this year, compared with last year's like period. Output for the January-May 1981 period was 493,000 metric tons.

federal, state or local permits to begin operations have, in some cases, been of such length that they jeopardizes exploration and development within the lease term, normally five years.

Delays to be considered would include administrative or judicial challenges or appeals. The USGS director would determine on a case-by-case basis which delays are inordinate.

No More Segregation

Interior is also proposing to eliminate regulations that require segregation of the portion of an OCS lease outside a unit formed by holders of adjoining leases. Segregation separates the unitized portion of a lease from the rest of it, splitting the lease in two.

Interior's Office of Solicitor recently concluded that the department doesn't have the legal authority to require such segregation.

UNITED STATES

NPDC TAKES OPTION ON EGSI MAGNETO TELLURICS SYSTEM

New York 8/20—National Patent Development Corp. has taken a 12-month option to acquire majority interest in privately-held EGS International of Seattle, Wash., which has developed a system to detect oil-gas deposits through magneto tellurics which NPDC said appears to be ahead of similar systems suspected to be under development by major U.S. oil companies.

Donald A. Gainty, NPDC senior vice president, said that the EGSI system is expected to cut wildcatting risk beyond that achieved through conventional seismic. A more precise determination of the extent of risk reduction will be gained during the 12-month option period, during which the process will be made available to independents at NPDC cost for further feasibility tests. Field demonstration of the technology will begin Aug. 24.

The science of magneto tellurics correlates variations in electromagnetic fields of rock strata with existence of oil-gas deposits.

OCS LEASE EXTENSIONS TO BE EASED, UNIT RULES MODIFIED

Washington 8/20—The Interior Dept. is considering changes in procedures for unitizing and for extending offshore leases.

Interior is proposing to give the director of the U.S. Geological Survey the authority to take into account excessive delays in obtaining government permits for OCS operations when evaluating requests to suspend operations and extend the time of a lease.

The department noted that delays in obtaining

CALIF. UTILITIES COMMISSION FAULTS ALASKA GASLINE WAIVERS

Washington 8/20—The California Public Utilities Commission has approved the purchase of Canadian gas to be transported through the western prebuild portion of the Alaska Natural Gas Transportation System, starting in the fall.

In a letter to Rep. Sharp (D-IN), chairman of the Energy & Commerce Fossil Fuels, subcommittee, John Bryson, president of the commission, said purchase of the gas is a "sacrifice" on the part of California ratepayers as the gas isn't required to meet "high priority" needs, yet it will cost over \$7/Mcf. Sharp had requested comments from the commission on the financial waiver package for the gasline.

Bryson said California distribution companies expect to purchase 20% of Prudhoe Bay gas production when the Alaska gasline is completed. It will be difficult, if not impossible, for this commission to authorize purchase of the gas by our distributing utilities should price or supply conditions make that gas unmarketable," he noted.

His letter stated the following positions on the various waivers requested by the ANGTS sponsors:

—If the ANGTS can't be privately financed and if Congress decides the project should be built for national security reasons, then the entire U.S.—not just certain ratepayers—should share in the risk of noncompletion of the gasline.

—The inclusion of the gas conditioning plant in the system violates the pricing concept enunciated in the Natural Gas Policy Act, which established wellhead prices for pipeline quality gas. If Congress decides it is necessary to charge ratepayers for the conditioning plant, then "consideration must be given to their

PRINCIPAL DATA OF API'S WEEKLY STATISTICAL SUMMARY OF U.S. OPERATIONS
(Stocks figures in thous. bbl—all others in thous. b/d)

Weeks Ended	PROCESSING						STOCKS					Unfin. Oils	
	Ref'y Input	Mogas Total	No Lead	Kero-sine*	Distil-late	Resid.	Crude	Mogas Total	No Lead	Kero-sine*	Distil-late		Resid.
8/14/81	1,407	659	345	34	382	142	19,248	66,625	31,333	14,286	87,368	35,945	16,331

receiving a more equitable share of the value of the natural gas liquids² extracted by the plant.

—Congress must make an effort to determine whether Prudhoe Bay gas priced at \$15 to \$20/Mcf in 1987 can be absorbed into a natural gas market that will be substantially deregulated.

FERC REPORT CITES \$1.4-BILLION EXCESS COST FOR ALASKA GASLINE SECTION

Washington 8/20—A final cost report by federal energy officials on the Alaskan segment of the Alaskan gasline recommends that the Federal Energy Regulatory Commission adopt a certified cost estimate of \$6.73-billion instead of the sponsor's figure of \$8.13-billion for construction of that portion.

John Adger, FERC's Alaskan representative, and Richard Berman, director of audit and cost analysis for the Office of the Federal Inspector, said in their report that Alaskan Northwest Natural Gas Transportation Co.'s certified cost estimate contained "excessive inputs" and thus reflected a higher target cost than allowed by the incentive rate of return formula.

The final recommendations will be considered by FERC before it issues a final certificate for construction of the Alaskan portion. Adger and Berman based their recommendations on analysis done by Williams Brothers for the OFI as an independent evaluation of Alaskan Northwest's filing last summer.

The Adger-Berman report said the following aspects of Alaskan Northwest's cost estimate must be modified to reach a "risk-neutral" status:

—Excessive costs, including overpaid crews, low productivity assumptions, overstated material and equipment quantities and high unit costs for materials and services.

—Errors in estimates such as duplication of operations and the inclusion of costs for hauling material-site losses to the right-of-way:

—Insufficient resource optimization.

The report noted that, with minor exceptions, the status of the Alaska segment design is sufficiently advanced to estimate the target cost for the project.

The rate of return for the Alaska segment, to be determined by FERC, will provide an incentive for controlling construction costs and will be adjusted for inflation. This incentive rate of return will be calculated by comparing the target estimate with actual construction costs.

TEXAS BIDS, ESTIMATED OUTPUT FALL—TRC

Austin, Tex. 8/20—The Texas Railroad Commission staff estimates that crude production in Texas will average 2,460,000 b/d in September, 5,000 b/d less than expected for August.

Nominations announced at the commission's monthly proration hearing total 2,516,299 b/d, down 8,381 b/d from requests for August. Continued production on a 100% market demand factor was authorized for September.

Actual production in May, the latest month available, averaged 2,472,049 b/d, up 8,949 from April, according to preliminary commission reports. During part of May a temporary increase of 25,000 b/d was

For the Record

WYO. LEASE FILING FEE: The Wyoming State Land Board voted to raise the filing fee for state oil-gas leases to \$25 effective Nov. 1, matching a new fee schedule of the U.S. Bureau of Land Management, also effective No. 1 (ON 7/22). The state fee for both residents and non-residents, now is \$15.

Earlier the board had approved raising the non-resident charge to \$25 with no change for residents (ON 6/23). However, State Land Commissioner Oscar Swan said administering the two-tiered system would be an administrative nightmare and the board made the raise uniform. The BLM filing fee currently is \$10.

HOUSTON NATURAL ACQUISITION: Houston Natural Gas and Etacado Inc., of Hobbs, N. Mex., have signed a letter of intent for HNG's purchase of certain Estacado operations, including Llano Inc., NMESCO Fuels, and Minerals Inc. HNG proposes to obtain all of Estacado's natural gas facilities by exchanging a maximum of 1,100,000 shares of its common stock for all Estacado's capital stock. Estacado would first dispose of its interest in two other subsidiaries, New Mexico Electric Service and Hobbs Gas.

WILDCATting IN THE NEWS

OFFSHORE PHILIPPINES: The Philippines-Cities Service Galoc-1, located in 1,100 ft of water off Palawan Is., flowed during a drill stem test at an average rate of 1,850 b/d of 35.3-degree oil on a 3/4-in. choke with 275 psi wellhead pressure from perforations between 7,338-64 ft. Another drill stem test near the top of the same reservoir flowed some 1,800 b/d of oil through a 3/4-in. choke with 318 psi between 7,255-85 ft. The Galoc-1 wildcat, drilled to a total depth of 12,141 ft, is the first indicated discovery in a sandstone reservoir offshore Philippines. It is 65 km northeast of the Matinloc field.

THAILAND: Union Oil of California reports that the Jakrawan No. 2 in the Gulf of Thailand showed 37,000 Mcf/d of gas and 394 b/d of condensates through a 1/2-in. choke during four intervals at 5,200-7,137 ft. The wildcat is some 3.5 mi. north of the Jakrawan No. 1 and is in Block No. 12, held 80% by Union of Thailand and 20% by South East Asia Petroleum Exploration Co. of Japan.

FINANCIAL REPORTS

(Total Net Figures in Million \$)

	1981	1980
Canada Development Corp.		
3 mo. net	\$35.9	43.2
Net per share	\$0.78	\$1.19
6 mo net	79.6	92.3
Net per share	\$1.82	\$2.58

Washington 8/31—The Interior Dept. has scheduled OCS sale No. 60, covering 858,246 acres in Alaska's Lower Cook Inlet/Shellkof Strait, for Sept. 29 (ON 5/12).

Two bidding systems will be used: bonus bidding with a fixed net profit share and bonus bidding with a 16 2/3% royalty. All tracts will be offered for initial lease terms of five years.

FERC MEMBER WARNS OF INEQUITIES UNDER GAS ACT

9/1/81

San Antonio 8/31—Serious market-ordering problems that could result under the Natural Gas Policy Act after 1985 were described by Federal Energy Regulatory Commissioner David Hughes at a meeting of the Texas Independent Producers & Royalty Owners Assn. here. Specifically, he cited the so-called "fly-up" or "spike" of decontrolled prices and the potential inequities resulting from the "gas cushion."

Noting that interstate pipelines will control the bulk of price-controlled gas after 1985, Hughes said they will be in a position to pay a premium above the market price for deregulated gas because of their ability to roll in its cost with the lower cost of regulated gas.

The result, he said, will be prices for gas above its commodity value, or market clearing price. Indeed, he said there is evidence that the fly-up problem may already exist, noting that interstate pipelines are now regularly paying more than \$7.00/Mcf for deep gas, and that one producer recently sold to Southern Natural Gas for \$9.26/Mcf.

FERC Hobbled

Hughes noted that state regulators are concerned that prices currently paid for deregulated gas are too high, but he pointed out that under the NGPA, FERC's authority to reduce prices for decontrolled gas is limited to cases of "fraud, abuse or similar grounds."

Because of the lack of a FERC ruling so far in any case to determine fraud, and also because of the possible effect of high prices on area rate clauses if all gas were decontrolled, Hughes believes that interstate pipelines may also be concerned about the high prices.

NGPA Goes Awry

Hughes said the framers of the NGPA intended that the benefits of "cushion" gas—production which will remain controlled after 1985—would flow to high-priority gas consumers. But he said there are indications that consumers may derive no benefit from the cushion.

"Because of the fly-up problem, the average price under partial decontrol may be no lower than it would under complete decontrol. Thus, the benefits of the gas cushion will flow to the producers of unregulated gas, who will receive premium prices for their supplies."

Hughes said that though this may seem desirable, the fly-up and gas cushion issues could present two serious problems. "First, they may provide an uneconomic stimulus to the production of high-cost gas.

"Additionally, since intrastate pipelines will control very little of the price-regulated gas after 1985, and thus will be unable to roll in high-cost gas with low-cost gas, they will be at a disadvantage in bidding against interstate pipelines for new gas supplies."

NO. DAKOTA RIG INSPECTORS CAN'T KEEP UP WITH WORKLOAD, OFFICIAL SAYS

Dickinson, N.D. 8/31—North Dakota safety inspectors are finding it difficult to inspect all rigs working in western North Dakota.

The safety director for the state Worker's Compensation Bureau, Allan Stuart, said, "we're not even getting to 2% of the rigs." He said his two inspectors are "getting 60-70% of the safety violations when they go out to the rigs, "which is not as good as the 95-100% I'd like."

Rig injury claims are "way out of line," he said.

PETROLEUM PRODUCTS DELIVERED (million b/d)

	Avg. for 4 Wks Ending		% Chg. 81/80
	8/21/81	8/21/80	
Mogas	6.642	6.671	—
Jet Fuel	0.999	1.062	- 5.9
Kerosine	0.118	0.132	-10.6
Distillates	2.530	2.161	17.1
Resid	2.051	2.287	-10.3
Other Oils	3.240	3.480	- 6.9
Total	15.580	15.794	- 1.4

Source: U.S. Dept. of Energy, "Weekly Petroleum Status Report."

TEXAS INDEPENDENT USES SOLAR TO DRIVE REMOTE GAS WELL

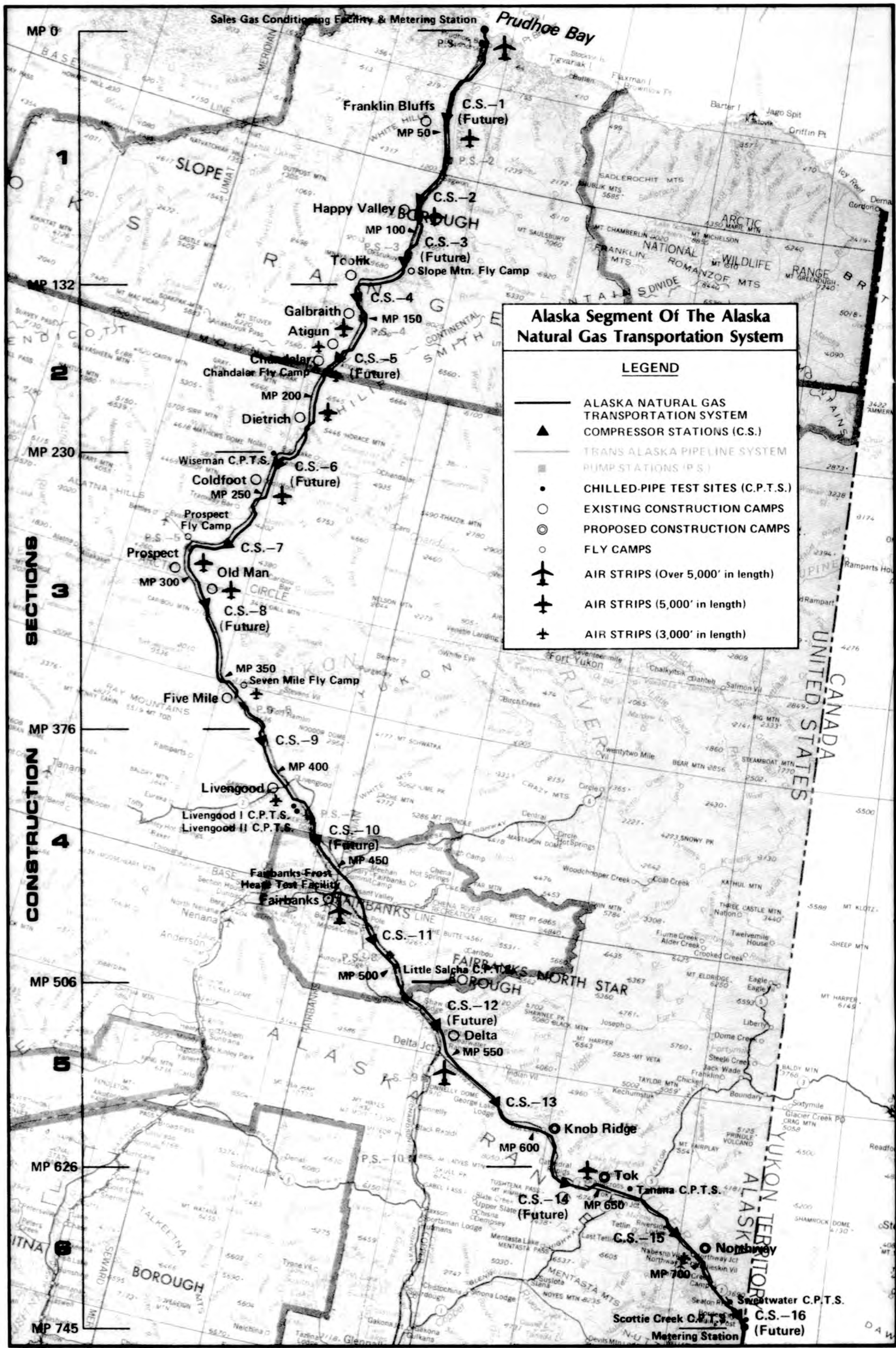
Austin 8/31—Texas Railroad Commission has approved an application to increase gas production from a stripper well in Lipscomb County by use of solar energy and chemical foam.

Pioneer Production Co. of Amarillo said the use of solar power to replace electricity is economic in remote areas to operate chemical injection pumps. Taking an idea from use of electric current to reduce corrosion in pipeline metal, Pioneer spokesmen said the experiment with solar panels for power at gas wells reduced the cost of generating electricity to about 20% of the expense of other methods. The firm said chemical pumps require less electricity than the cathodic pipeline protection system.

After installing a solar-powered chemical pump at its Fry-Wheatley No. 1 well in Mammoth Creek, North (Cleveland) field in the upper Texas Panhandle, Pioneer said it increased gas production from the stripper well to about 12,000 Mcf/mo from about 1,000 Mcf/mo. Current production is estimated at 8,000 Mcf/mo.

Although solar power operates only during daylight, Pioneer said shutting the well down at night apparently doesn't reduce production. The company plans to install a 12-volt battery at the pump to operate at night, when desired.

Based on its success at the Wheatley well, Pioneer plans to install solar-powered pumps at 10 more Panhandle stripper wells. Final approval of the project must be received from the Federal Energy Regulatory Commission.



****PLEASE NOTE****

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