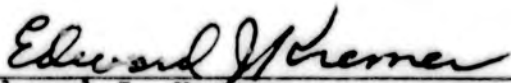


ALASKA LEGISLATURE SPECIAL COMMITTEE / SUBJECT FILES 8672

1045 SCOMM 28: JOINT GAS PIPELINE COMMITTEE. 1981-82

Mr. John P. Roddy
Page 2
December 29, 1980

1. The estimated contingency utilized by ARCO in determining expected value of major projects applies to the total project and is not broken down by categories such as normal contingency, abnormal events, central bias adjustment or possible design and scope changes.
2. Contingencies are developed at various stages from early concept through final design.
3. ARCO does not calibrate. Overall revisions of expected values are made when deemed appropriate as a matter of judgment and often have the effect of increasing the contingency.
4. ARCO does not have a special analysis for unknown-unknowns. The risk of such events is deemed to be covered, where applicable, by the overall estimate of contingency.

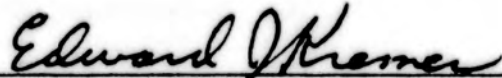


Edward J. Kremer
Attorney for
ARCO Oil and Gas Company,
Division of Atlantic
Richfield Company

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official restricted service list compiled by the Secretary in Docket No. CP80-435, in accordance with the requirements of Section 1.17 of the Rules of Practice and Procedure.

Dated at Dallas, Texas this 29th day of December, 1980.



Edward J. Kremer
Attorney for
ARCO Oil and Gas Company,
Division of Atlantic
Richfield Company

FEDERAL ENERGY REGULATORY COMMISSION

Delegation of Authority by the Federal Energy Regulatory Commission to the Office of the Federal Inspector

AGENCY : Federal Energy Regulatory Commission

ACTION : Delegation

SUMMARY: Notice is hereby given of a delegation, by the Federal Energy Regulatory Commission to the Office of the Federal Inspector (OFI), of the Commission's authority under Sections 4, 5, 7, and 8 of the Natural Gas Act (15 U.S.C. Sections 717c, d, f, and g) and related regulations to review and approve costs and related accounts of the Alaska Natural Gas Transportation System (the ANGTS) for inclusion in the ANGTS sponsors' rate base.

DATE : The Delegation Order is effective upon publication in the Federal Register.

FOR FURTHER INFORMATION CONTACT:

Barry Smoler
Office of the General Counsel
Room 8600B
Federal Energy Regulatory Commission
825 North Capitol Street, N.E.
Washington, D. C. 20426
(202) 357-8433

or

Ned Hengerer
General Counsel
Office of the Federal Inspector
Room 2413, Post Office Building
1200 Pennsylvania Avenue, N. W.
Washington, D. C. 20044
(202) 275-1144

SUPPLEMENTARY INFORMATION:

I. Background

Control of capital costs during construction is perhaps the most complex regulatory issue facing the ANGTS. Two Federal agencies, the Commission and the Office of the Federal Inspector (OFI), have cost control authority, sometimes mutual and sometimes discrete. Cost control has two primary purposes: protection of the U.S. gas consumer from excessive transportation rates; and assistance to private financing of the ANGTS.

The Commission's cost control responsibilities come from two sources. First, under Section 7 of the Natural Gas Act (15 U.S.C. Section 717f), the Commission must, pursuant to certification, assure that credible capital cost estimates (and a financing plan) for a proposed pipeline project are "in the public convenience and necessity." Once the pipeline is in operation, the Commission must act pursuant to Sections 4 and/or 5 of the Natural Gas Act (15 U.S.C. Sections 717c and 717d) to assure that rates to be charged are "just and reasonable", which indirectly entails approval of capital costs for rate base. Second, the President's Decision and Report to Congress on the Alaska Natural Gas Transportation System (Decision) imposes similar requirements, which are specifically tailored to the ANGTS. The Commission must develop the Incentive Rate of Return (IROR); it must approve rate base inclusions on a timely basis; and it must assure that the certification cost estimate does not "materially and unreasonably exceed" the March 1977 cost estimate, upon which the Decision was based.

The OFI's cost control responsibilities come from three sources. (1) Under Section 7(a)(5)(C) of the Alaska Natural Gas Transportation Act (ANGTA), 15 U.S.C. Section 719e, the OFI must monitor, among other things, actions taken to assure cost control. (2) Under Section 5 of the President's Decision the OFI must enforce a number of construction cost and schedule conditions, as well as, under

Section 7 of the Decision, review procurement for general competitiveness. (3) Reorganization Plan No. 1 of 1979 transferred to the OFI responsibility to enforce the requirements imposed on the ANGTS by the Commission pursuant to the Natural Gas Act.

The cost control responsibilities of the Commission and the OFI are more or less split between the certification and construction phases, respectively. This is in keeping with the Reorganization Plan. The only aspect of cost control oversight which requires further delineation concerns rate base audit and approval. Both agencies agree that, due to the OFI's ongoing cost control responsibilities, the continued process of project rate base audit and approval during pre-construction and construction should rest there. In this manner, once the ANGTS has been completed and commences operations, the Commission will include the initial, OFI-approved project rate base in the project cost-of-service tariff for each ANGTS leg, and then commence its ongoing rate regulation of ANGTS, in accordance with Sections 4 and 5 of the Natural Gas Act. Whether or not an explicit delegation is now required to achieve this result, caution dictates such an interagency action at this time.

The OFI finds adequate authority for its rate base audit and approval actions in the Reorganization Plan. While subsection 102(d) of the Reorganization Plan explicitly transferred enforcement of the ANGTS certificates of public convenience and necessity (issued under Section 7 of the Natural Gas Act), Section 102 begins by expanding the transfer of the specifically cited statutory authority, as "including but not limited to the specific sections of the statute cited." Moreover, Section 102(h)(3) transfers enforcement of the terms and conditions established in Section 5 of the President's Decision (at page 37); the second finance term and condition found therein mandates that the "applicant shall, however, submit to the FPC for approval on a timely basis all components of construction work in

progress." In light of the expansive scope of the Reorganization Plan -- transferring to the OFI "exclusive responsibility for enforcement of all Federal statutes relevant in any manner to pre-construction, construction, and initial operation" of ANGTS -- the OFI regards such a transfer as encompassing the rate base process.

The Commission believes that this particular function is extremely important, that it should be performed by a single agency, and that all uncertainty as to responsibility for its performance should be eliminated. Because Section 202(b) affords both agencies the ability to assure that this function will be centralized in the OFI until construction is completed, it will be utilized to authorize the present delegation. Section 202(b) specifically provides that:

Upon agreement between the Federal Inspector and the head of any agency, that agency may delegate to the Federal Inspector any statutory function vested in such agency related to the functions of the Federal Inspector.

This delegation provision has already been employed by the Commission to delegate to the OFI certain certificate conditioning authority. 45 Fed. Reg. 24224 (April 9, 1980).

II. Delegation Order

Paragraph (a) of the attached Delegation Order delegates to the Federal Inspector the Commission's authority to review and approve ANGTS construction work in progress (for inclusion in rate base) pursuant to Sections 4, 5, and 7 of the Natural Gas Act.

Paragraph (b) of the Delegation Order delegates to the Federal Inspector the Commission's authority to review and approve the ANGTS sponsors' accounts, records, and other papers, pursuant to Section 8 of the Natural Gas Act and to the Commission's Uniform System of Accounts, 18 CFR Part 201, and to monitor compliance with procurement policy and practices, 18 CFR Part 160.

The determinations of the Federal Inspector with respect to the prudence of costs incurred, and approval of their inclusion in rate base, shall be final and shall not be subject to review or revision by the Commission.

III. Effective Date

Pursuant to Paragraph (e) of the Delegation Order, the delegation becomes effective upon publication in the Federal Register, and shall include all project costs incurred on or after January 1, 1980.

Department of Energy Organization Act, 42 U.S.C. Section 7101, et seq.; Natural Gas Act, 15 U.S.C. Section 717, et seq.; Alaska Natural Gas Transportation Act, 15 U.S.C. Section 719, et. seq.; Reorganization Plan No. 1 of 1979, 44 Fed. Reg. 33663.

By the Commission.

(S E A L)



Kenneth F. Plumb,
Secretary.

FEDERAL ENERGY REGULATORY COMMISSION
DELEGATION ORDER NO. ANGTS-2 TO THE
OFFICE OF THE FEDERAL INSPECTOR

Pursuant to the authority vested in the Federal Energy Regulatory Commission ("the Commission") and in the Office of the Federal Inspector ("the Federal Inspector") by Section 202(b) of Reorganization Plan No. 1 of 1979 --

(a) The Commission hereby delegates to the Federal Inspector the Commission's authority under Sections 4, 5 and 7 of the Natural Gas Act (15 U.S.C. Section 717 et. seq.) to the extent necessary to enable the Federal Inspector to review and approve the construction costs for the Alaskan Natural Gas Transportation System ("the ANGTS"), for inclusion in the respective rate bases of Alaska Northwest Natural Gas Transportation Company, Northern Border Pipeline Company, and Pacific Gas Transmission Company. The Federal Inspector shall perform this function consistent with the Commission's Uniform System of Accounts, 18 C.F.R. Part 201, and Order Nos. 31 and 31-B issued in Docket No. RM78-12 on June 8 and September 6, 1979, including any amendments adopted by the Commission subsequent to the date of issuance of this order.

(b) The Commission hereby delegates to the Federal Inspector the Commission's authority under Section 8 of the Natural Gas Act and the Commission's Uniform System of Accounts, 18 C.F.R. Part 201, to the extent necessary to enable the Federal Inspector to review and approve the ANGTS project sponsors' accounts, records and other papers pertinent to the construction of the ANGTS, including the monitoring of compliance with procurement policy and practices pursuant to 18 CFR Part 160.

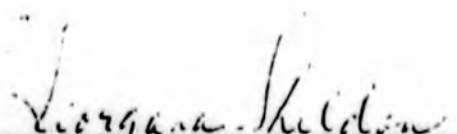
(c) The Federal Inspector shall perform the above delegated functions pursuant to whatever procedures he shall determine to be consistent with applicable provisions of law, including, but not limited to, the U.S. Constitution, the U.S. Code, and the President's Decision and Report to Congress on the Alaska Natural Gas Transportation System (September 1977) ("the President's Decision").

(d) Nothing in this order shall be construed to delegate any of the Commission's authority to issue or condition certificates of public convenience and necessity pursuant to Section 7 of the Natural Gas Act, to determine the respective certification cost estimates for the Alaska and Northern Border segments of the ANGTS, to approve or modify any tariffs, or to perform any functions allocated to the Commission by the President's Decision (except for the functions allocated in the last sentence in Finance Condition No. 2 on page 37 of the Decision).

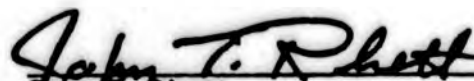
(e) The Federal Inspector hereby accepts the authority delegated by this order, and agrees to perform all of the functions delegated herein.

(f) This order shall become effective upon publication in the Federal Register, and shall include all project costs (as defined above) incurred on or after January 1, 1980.

Issued in Washington, D. C. on December 19, 1980.



Georgiana Sheldon
Acting Chairman
Federal Energy Regulatory Commission
(By agreement of the Commission)



John T. Rhett
Federal Inspector

UNITED STATES OF AMERICA
Before The
FEDERAL ENERGY REGULATORY COMMISSION

ALASKAN NORTHWEST NATURAL
GAS TRANSPORTATION COMPANY

)
)
)

DOCKET NO. CP80-435

REPORT OF ALASKAN NORTHWEST NATURAL GAS TRANSPORTATION
COMPANY ON ITS UNDERSTANDING OF AGREEMENTS REACHED WITH
THE COMMISSION STAFF REGARDING THE CERTIFICATION COST
AND SCHEDULE ESTIMATE

To: John B. Adger, Jr.
Alaskan Delegate to the Commission

Richard Berman, Director
Office of Audit and Cost Analysis
Office of the Federal Inspector

Pursuant to the request of the Alaskan Delegate and the Division Director in the above-referenced docket, the Commission Staff filed comments on November 7, 1980 setting forth its tentative position on various matters addressed in the technical conferences held pursuant to the Commission's August 1, 1980 order. On December 8, 1980, the Commission Staff and representatives of Alaskan Northwest met to determine whether agreements could be reached on any of the tentative Staff positions. 1/ The following reflects Alaskan Northwest's understanding of the discussions at this conference with respect to each of the 22 tentative Staff positions set forth in Staff's November 7, 1980 comments:

1. Project Directorate Estimate Issues

The Commission Staff and Alaskan Northwest agree that \$75.2 million of the \$278.6 million estimated for third party monitoring costs, which represents that amount required by Federal and Alaska

1/ Also in attendance at this conference were representatives from the State of Alaska and Foothills Pipe Lines (Yukon) Ltd.

statutes, should remain in the base CCE for approval by the Commission. However, in accordance with Alaskan Northwest's request in its July 1, 1980 filing the CCE will be adjusted to reflect actual third party monitoring costs be for purposes of establishing the cost performance ratio, provided that any such costs directly caused by Alaskan Northwest would have to be reviewed and approved by the OFI.

Alaskan Northwest proposes that the remaining \$203.4 million in socio-economic costs estimated to be reimburseable to the State of Alaska, and currently included in the CCE, remain in the CCE until the Commission decides on their allowability. Again, the cost performance ratio will be adjusted to reflect actual State of Alaska costs incurred. The Commission Staff does not agree with this position and will request that these amounts be removed from the CCE until the Commission rules that such costs are allowable.

Finally, the Commission Staff and Alaskan Northwest disagree on the proper treatment for costs yet to be determined for required minority training programs and an EEO compliance program. Alaskan Northwest's position is that since the OFI has not yet approved Alaskan Northwest's EEO program and Alaskan Northwest has not yet established the training programs required by the December 1, 1980 ROW grant such costs cannot be realistically ascertained at this point in time. Alaskan Northwest submits that the proper approach is for the submission of the costs of such programs to the Office of the Federal Inspector for approval as a design change in accordance with the procedures of Condition 9 of Orders Nos. 31 and 31-B.

2. DOI Reroute

The Commission Staff does not now question the reroute itself or the costs associated therewith. 2/

3. Embankment Construction Mode

The Commission Staff does not now question the cost estimate for the embankment mode set forth in Alaskan Northwest's November 11, 1980 Embankment and Snow Road/Pad Report.

2/ Staff's environmental questions concerning the reroute are dealt with in Item No. 22.

4. Snowpad - Snow Route Construction

The Commission Staff agrees with Alaskan Northwest's position in its November 11, 1980 Embankment and Snow Road/Pad Report that snowpad and snowroad construction should not be utilized. The Commission Staff further agrees with Alaskan Northwest's cost assessment for this construction mode.

5. Atigun Pass Tunnel

The Commission Staff and Alaskan Northwest agree that in the event Alaskan Northwest is required to utilize a tunnel alternative the costs currently in the CCE for traversing Atigun Pass will be replaced by those costs approved by the OFI for tunneling Atigun Pass.

6. Thermal Workpad

Alaskan Northwest recognizes that some use of thermal workpads may be required by the State and the owners of Alyeska and that any such use will increase costs above those in the current filing. The amount of thermal workpad required will depend upon negotiations with the State and the owners of Alyeska. Alaskan Northwest is currently analyzing Staff's estimated cost increase of \$73 million for the use of thermal workpads for Sections 1 through 4. Any costs associated with the required use of thermal workpads are costs appropriately included in the CCE.

7. Aerial Crossing of Yukon River

Both the Commission Staff and Alaskan Northwest consider the costs associated with an aerial crossing to be de minimus. Therefore this matter is now moot with respect to the establishment of a CCE for Commission approval.

8. Reduction or Elimination of Workpad in Spreads 5 and 6

Both the Commission Staff and Alaskan Northwest disagree on this issue and will set forth their respective positions in comments to be filed with the Delegate and Division Director on December 15 and 22, 1980.

9. Ambient Temperature Pipeline in Spreads 5 and 6

See response to Item 8.

10. Less Conservative Frost Heave Mitigation

See response to Item 8.

11. An Increase Of One Year In Construction Schedule

The Commission Staff and Alaskan Northwest agree this is no longer an issue.

12. Communications System Design

The Commission Staff and Alaskan Northwest agree that those costs currently in the CCE for the communications design should be replaced with the costs required by the final design to be approved by the OFI.

13. New Construction Camps

See response to Item 8.

14. Pipeline Lay Rate

See response to Item 8.

15. Pipeline Construction and Contingency for Weather and Delay

See response to Item 8.

16. Ditch Gravel Quantity Error

Staff will file comments on December 15, 1980 modifying its position with respect to this issue.

17. Line Pipe Specifications and Price

The Commission Staff has no problem with the random placement of the higher toughness level of pipe.

Alaskan Northwest agrees with the Commission Staff that if a crack arrestor approach is ultimately chosen the CCE will be adjusted to reflect the costs associated therewith.

The Commission Staff and Alaskan Northwest disagree with respect to the method of estimating pipe costs and will set forth their respective positions in comments to be filed on December 15, and 22, 1980.

18. Miscellaneous Unspecified Materials

Staff will readdress this matter in its December 15, 1980 filing.

19. Compressor and Metering Station Estimate Concerns

The Commission Staff and Alaskan Northwest agree that this is no longer an issue.

20. Temporary Facilities and Service Estimate Concerns

See response to Item 8.

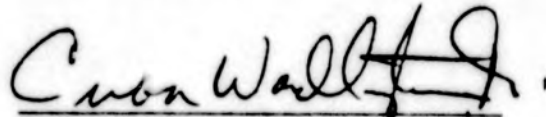
21. The Communications and Supervisory System Estimate

See response to Item 12.

22. Environmental Concerns

See response to Item 8.

Respectfully submitted,



Cuba Wadlington, Jr.
Director, Regulatory Affairs
Northwest Alaskan Pipeline Company
1120 20th Street, N.W.
Suite S-700
Washington, D.C. 20036

cc: Restricted Service List
Docket No. CP80-435

224 South 108th Avenue
P. O. Box 3330
Omaha, Nebraska 68103
Telephone (402) 691-2100



**Northern Border
Pipeline Company**

New Natural Gas for America

September 18, 1981

Federal Energy Regulatory Commission
825 North Capitol Street, N.E.
Washington, D.C. 20426

Attention: Mr. Kenneth F. Plumb, Secretary

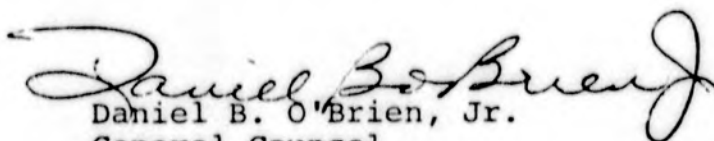
Re: Alaskan Northwest Gas Transportation
Company, Docket No. CP80-435

Dear Mr. Plumb:

Attached for filing in the above docket are an original and fourteen (14) copies of Initial Comments of Northern Border Pipeline Company on the Final Report of the Alaskan Delegate and Director, Audit and Cost Analysis, Office of the Federal Inspector.

As indicated by the Certificate of Service, service will be made on all parties.

Very truly yours,


Daniel B. O'Brien, Jr.
General Counsel

DBO:acm
Enclosures

cc: Parties of Record

Northern Plains Natural Gas Company, Managing Partner
Northwest Border Pipeline Company • Pan Border Gas Company
TransCanada Border Pipeline Ltd. • United Mid-Continent Pipeline Company

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Alaskan Northwest Natural)
Gas Transportation Company)

Docket No. CP80-435

Initial Comments of Northern Border
Pipeline Company on the Final Report
of the Alaskan Delegate and Director,
Audit and Cost Analysis, Office
of the Federal Inspector

I.

Pursuant to the Commission's August 21, 1981 order, Northern Border Pipeline Company (Northern Border) submits these initial comments in response to the Final Report to the Commission by the Alaskan Delegate and the Division Director, Audit and Cost Analysis, Office of the Federal Inspector (OFI) dated August 14, 1981 concerning the Certification Cost and Schedule Estimate (CCE) and Center Point requests of Alaskan Northwest Natural Gas Transportation Company (Alaskan Northwest).

Alaskan Northwest's proposed CCE and Center Point were considered in a series of technical conferences conducted by the Alaskan Delegate and the OFI Director in the Fall of 1980. Also participating in this review were the OFI's consultants, Williams Brothers Engineering Company (WBEC), the Commission Staff and its consultants, Pervin & Gertz, and the State of Alaska. A Draft Report was issued in March of 1981 by the Delegate and the Director which contained tentative recommendations based primarily on an appended draft audit prepared by WBEC. Two further conferences preceded the final Report together with the filing of additional comments on the issues addressed, one conference in March which considered the issues disputed in the draft Report and a second brief conference in May on a limited issue.

II.

Northern Border is filing these comments to refute the conclusions reached in the Report concerning the issue of pipeline lay rate. Based on the contention by WBEC that a higher lay rate can be achieved than that estimated by Alaskan Northwest, the Report concludes that the Alaskan Northwest CCE should be reduced by \$172.2 million.

In its CCE, Alaskan Northwest estimated that an average lay rate of 40 joints per day for 80-foot double jointed noninsulated pipe and 35 joints per day for insulated pipe could be achieved. This rate was collectively arrived at by the execution contractors (EC) who assisted Alaskan Northwest and Fluor in the preparation of the CCE and is based upon their prior arctic experience, including TAPS where each of these EC's achieved a much lower lay rate, generally 25-30 joints per day. Their justification for a 30 to 40 percent higher lay rate for this project vis-a-vis TAPS is that, unlike TAPS, the Alaskan Northwest EC's will exercise total control over the spread under fixed price contracts, including all labor relations matters. WBEC contends, however, that the lay rate should be higher. Based on what WBEC refers to as a "time and motion study," WBEC concludes that a lay rate of 48 joints per day can be achieved. As will be hereinafter shown, Northern Border's actual experience completely refutes the contentions of WBEC as adopted in the Report.

III.

Northern Border is presently in the process of installing 42-inch, X-70, 80 foot double jointed non-insulated pipe with a wall thickness of .598 inches. Northern Border has analyzed the lay rate achieved on 387 miles of installed pipe. The results of this analysis were then adjusted to take into account the difference in pipe size, the number of welders utilized in preparing Alaskan

Northwest's CCE and to account for winter-summer construction.^{1/}
The results of this analysis are set forth in Exhibit 1.

Line 3 of the first three columns of Exhibit 1 sets forth the actual weighted average number of joints per day experienced by Northern Border in installing 387 miles of pipe. The first column shows that it took .83 welders to weld one joint per day. Column 2 shows that an average of 62.5 welders were employed per contractor and column 3 shows that an average lay rate of 76.6 joints was achieved per day per contractor, ranging from a high of 100 joints per day by one contractor to a low of 49 joints per day by another contractor.^{2/}

Columns 4, 5 and 6 show the adjustments that must be made to the Northern Border experience to reflect the use of 48-inch pipe by Alaskan Northwest and to reflect the number of welders included in the Alaskan Northwest CCE. With more inches to weld, the 48-inch pipe will take more welder hours to complete one joint per day. Column 4 shows the adjustment to the Northern Border experience to accommodate to this difference in pipe diameter. No adjustment is required to account for wall thickness since the wall thickness is the same for both the 42-inch and the 48-inch pipe.

^{1/} In an apparent effort to shore up the lay rates estimated by WBEC, the Report refers to lay rates typically reaching "70-80 Joints per day on the Western Delivery System." Such a comparison on its face is neither accurate nor reliable because it fails to account for the variables that exist between the two projects. For example, the pipe size on the Western Delivery System ranges from 24 inch to 30 inch.

^{2/} A pipeline spread laying more joints per day by employing more welders is not necessarily accomplishing the work at the lowest cost per mile. It should also be noted that this weighted average was computed using the miles of pipe completed. Since the more efficient contractors have more miles completed, the weighted average shown will be less at the end of construction when the less efficient contractor's miles are included.

Column 5 reflects the fact that Alaskan Northwest proposes to employ 46 welders per spread. To arrive at a 48-inch lay rate in joints per day equivalent to the Northern Border experience, column 5 is divided by column 4 (i.e. $46 \div 0.94$) which results in an estimated average summertime lay rate of 49 joints per day.

In arriving at its conclusion as to lay rate, WBEC first computed an "ideal rate" of 68 joints per day. Because the Alaskan construction will be carried on in both winter and summer, WBEC provided winter and summer efficiency factors to be applied to the "ideal rate." These efficiency factors are shown on page 1 of Exhibit 2. Utilizing the data on page 1 of Exhibit 2, Northern Border has computed on page 2 of Exhibit 2 the average efficiency for the winter (57.5%), summer (87.0%) and the winter-summer average (70.9%). By applying these efficiency factors to WBEC's number of joints per day (68), the number of joints per day can be determined for each of the seasons and for the winter-summer average. As shown on page 2 of Exhibit 2, these equate to 39 joints per day for the winter season, 59 joints per day for the summer season and 48 joints per day for the combined winter-summer season.^{3/} Since Northern Border's average lay rate of 49 joints per day was experienced during the summer months, the most appropriate comparison is that shown on column 6 of Exhibit 1. This shows that the average lay rate for the summer months computed from WBEC data is 59 joints per day compared to the Northern Border experience of 49 joints per day.

To complete the comparison, the Northern Border experience average lay rate was adjusted to a combined winter-summer rate. Accepting WBEC's seasonal lay rate relationship as correct, this adjustment results in an estimated average lay rate of 40 joints per

^{3/} The 48 joint per day lay rate is the lay rate that WBEC contends can be achieved as an overall average for the Alaskan segment.

day^{4/}. Column 7 of Exhibit 1 compares this average lay rate with that estimated by Northwest Alaskan and that estimated by WBEC. As can be seen, the estimated average lay rate based on the actual experience of Northern Border substantiates the lay rate estimated by Alaskan Northwest and refutes the lay rate estimated by WBEC.

But even here caution must be exercised in assuming that the average lay rate of 40 joints per day will be achieved by Alaskan Northwest. Northern Border's average work day was 10.6 hours for welders whereas the Alaskan Northwest CCE and the WBEC report reflect a 10 hour day for welders. Further, many other intangible factors will also affect productivity, such as weather, competition for labor, skill of contractor's management, working conditions, reliability of equipment and severity of x-ray interpretation. It is far from certain that these other factors can be maintained in Alaska at a level comparable with that experienced by Northern Border so as to permit Alaskan Northwest to achieve the same level of productivity as that actually experienced by Northern Border.

For all of the above reasons, Northern Border submits that the conclusions contained in the Report as to the lay rate to be achieved should not be adopted.

Respectfully Submitted,

NORTHERN BORDER PIPELINE COMPANY

By *Daniel L. Lauen*
Its Attorney

Dated: September 18, 1981

4/ From Exhibit 1: Line 3 Column 6 X Line 2 Column 7 or 49 X 48
Line 2 Column 6 59

EXHIBIT I

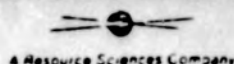
NORTHERN BORDER ACTUAL LAY RATE APPLIED TO ALASKAN NORTHWEST CCE PARAMETERS

	<u>1</u>	<u>2</u> 42"	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u> 48"	<u>7</u>
	<u>Welders/ Jt /Day</u>	<u>No. Welders</u>	<u>Jt /Day</u>	<u>Welders/ Jt /Day</u>	<u>No. Welders</u>	<u>Jt /Day Summer Average</u>	<u>Jt /Day Winter/Summer Average</u>
1. Alaskan Northwest CCE	-	-	-	-	46	-	40
2. Adger/Berman/WBEC Recommendation	-	-	-	-	-	59 <u>2/</u>	48
3. NBPL Experience <u>3/</u>	0.83	62.5	76.6	0.94	46	49 <u>1/</u>	40

1/ Assumes same weld productivity in Alaska as Lower 48

2/ Exhibit II (Taken from WBEC, Vol. 1, page 1-46)

3/ 387 miles installed, weighted average



a) Efficiency Factor for Sections 1, 2, and 3 (excluding Atigun Pass):

February, March, April, October, November, December	55%
May, June, July, August, September	85%
Average Efficiency Factor	68.6%
68.6% of 68 = 47 joints per day, which is equivalent to 3,760 feet per day.	

b) Efficiency Factor for Section 4:

February, March, April, October, November, December	60%
May, June, July, August, September	87%
Average Efficiency Factor	72.3%
72.3% of 68 = 49 joints per day, which is equivalent to 3,920 feet per day.	

c) Efficiency Factor for Sections 5 and 6:

February, March, April, October, November, December	60%
May, June, July, August, September	90%
Average Efficiency Factor	73.6%
73.6% of 68 = 50 joints per day, which is equivalent to 4,000 feet per day.	

	<u>Efficiency</u>	<u>Joints/Day</u>
<u>Summary (Average of a, b and c from Page 1):</u>		
Winter: February through April and October through December	57.5%	39
Summer: May through September	87.0%	59
Winter/Summer Average	70.9%	48

CERTIFICATE OF SERVICE

I hereby certify that I have served the foregoing document upon each person designated on the official service list compiled by the Secretary in Docket No. CP80-435, in accordance with the requirements of Section 1.17 of the Rules of Practice and Procedure.

Dated at Omaha, Nebraska, this 18th day of September, 1981.


Daniel B. O'Brien, Jr.

29

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

ANGTS
Importation Authorization

Before Commissioners: Georgiana Sheldon, Acting Chairman;
J. David Hughes and A. G. Sousa.

Northwest Canadian Gas Sales Company	)	Docket Nos. CP81-388-000,
	)	CP81-388-001, and
	)	CP81-388-002
	)	
Northwest Alaskan Pipeline Company	)	Docket No. CP78-123, <u>et al.</u>
	)	

FINDINGS AND ORDER AFTER STATUTORY HEARING,
AUTHORIZING THE IMPORTATION OF NATURAL GAS,
ACCEPTING TARIFF AND RATE SCHEDULE,
AND GRANTING PETITIONS TO INTERVENE

(Issued October 1, 1981)

On June 19, 1981, Northwest Canadian Gas Sales Company (Northwest Canadian) filed in Docket No. CP81-388-000 an application pursuant to the Alaska Natural Gas Transportation Act of 1976 (ANGTA) and Sections 3 and 7(c) of the Natural Gas Act for an import authorization and for a certificate of public convenience and necessity authorizing Northwest Canadian to import and sell Canadian natural gas in lieu of Northwest Alaskan Pipeline Company (Northwest Alaskan).

Northwest Canadian is a subsidiary of Northwest Energy Company formed for the purpose of purchasing and selling Canadian natural gas as part of the first phase of construction of the Alaska Natural Gas Transportation System (ANGTS). Northwest Alaskan, also a subsidiary of Northwest Energy Company and the contracting party for the Canadian gas, would assign those contracts to Northwest Canadian.

By an order issued on January 11, 1980, as modified by an order on rehearing issued on June 13, 1980, in Docket No. CP78-123, et al., Northwest Alaskan was authorized to import from Pan Alberta Gas, Ltd. (Pan-Alberta) up to 300,000 Mcf of gas per day for resale to Pacific Interstate Transmission Company (Pac-Interstate). 1/

1/ Findings and Order Issuing Certificates of Public Convenience and Necessity and Authorizing the Importation of Natural Gas, issued January 11, 1980 (11 FERC ¶61,032), and Supplemental Order Issuing Certificates of Public Convenience and Necessity and Authorizing the Importation of Natural Gas, and Order on Rehearing, issued June 13, 1980 (11 FERC ¶61,279), both in Docket No. CP78-123, et al.

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By an order issued on April 28, 1980, as modified by an order on rehearing issued June 20, 1980, in Docket No. CP78-123, et al., Northwest Alaskan was authorized to import up to 800,000 Mcf of gas per day for resale to Northern Natural Gas Company, a Division of InterNorth, Inc. (Northern), Panhandle Eastern Pipe Line Company (Panhandle), and United Gas Pipe Line Company (United). 2/

Northwest Canadian states in its application that Northwest Alaskan has entered into contracts with Pan-Alberta, Pac-Interstate, Northern, Panhandle and United pursuant to which Northwest Alaskan may assign or transfer its contractual rights and obligations to an affiliate. Upon execution of the assignment of contracts between Northwest Alaskan and Northwest Canadian, Northwest Alaskan would have assigned its rights as buyer under contracts dated March 9, 1978, as amended, for the purchase of 1,040,000 Mcf of natural gas per day from Pan-Alberta to Northwest Canadian, and would have assigned its rights as seller of the imported gas to Northwest Canadian under the following contracts:

- (1) with Pac-Interstate, dated March 9, 1978, as amended, for the resale of up to 240,000 Mcf of gas per day; 3/
- (2) with Northern, dated March 24, 1978, as amended, for the resale of up to 200,000 Mcf of gas per day;
- (3) with Panhandle dated April 14, 1978, as amended, for the resale of up to 150,000 Mcf of gas per day; and
- (4) with United dated March 9, 1978, as amended, for the resale of up to 450,000 Mcf of gas per day.

Notice of Northwest Canadian's application was issued on July 14, 1981, and was published in the Federal Register on July 16, 1981 (46 F.R. 36924).

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- 2/ Findings and Order Issuing Certificates of Public Convenience and Necessity and Authorizing the Importation of Natural Gas, issued on April 28, 1980 (11 FERC ¶61,088), and Order Granting Applications for Rehearing in Part, issued June 20, 1980 (11 FERC ¶61,302), both in Docket No. CP78-123, et al.
 - 3/ The March 9, 1978 contract for the resale of the gas, as well as the March 9, 1978 contract for the importation of the gas, both provide for purchase and sale of gas in excess of 240,000 Mcf per day on a best efforts basis.

On August 31, 1981, Northwest Canadian filed in Docket No. CP388-001 a "petition to amend a prior order authorizing the importation of natural gas." The petition requests the Commission to amend its above referenced orders of January 11, April 28, and June 13 and June 20, 1980, so as to authorize Northwest Alaskan to import Canadian natural gas through the Western Delivery System of the ANGTS at the increased border price of \$4.94 (U.S.) "per Mcf" ^{4/} approved by the National Energy Board of Canada (NEB) for exports of gas from Canada. Citing the above described application of June 19, 1981, the petition concludes by requesting authorization for Northwest Canadian to import natural gas from Canada, at a price of \$4.94 "per Mcf", at a point on the international boundary near Kingsgate, British Columbia, for transportation through the prebuilt Western Delivery System of the ANGTS, in the volumes previously authorized to be imported by Northwest Alaskan, with the import authorization to be effective October 1, 1981.

Notice of the petition was issued on September 10, 1981, and was published in the Federal Register on September 21, 1981 (46 F.R. 46622).

In response to the notices, timely petitions to intervene were filed by Southern California Gas Company and Pacific Lighting Gas Supply Company, Pacific Interstate Transmission Company, TransCanada Pipelines Limited, and Northern Natural Gas Company, (all on August 4, 1981) and by Mountain Fuel Supply Company (September 21, 1981). No protest or request for hearing was received.

^{4/} The presently effective Canadian border price is \$4.94 per MMBtu, not per Mcf. We will construe the Northwest Canadian petition as seeking authority to import the gas in question at the \$4.94 per MMBtu border price, rather than at the \$4.94 per Mcf price stated in the petition.

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In supplemental information filed on September 25, 1981, Northwest Canadian states that the "principal purpose" of the proposed transfer of certificate and import authority "is to ensure that the sole business of Northwest Alaskan is to act as operator for the Alaskan Northwest partnership under its partnership agreement." Alaskan Northwest Natural Gas Transportation Company (Alaskan Northwest) is the partnership holding a conditional certificate to construct and operate the Alaska segment of the ANGTS. Northwest Alaskan is, in effect, the managing partner of the Alaskan Northwest partnership.

Northwest Canadian states that section 8.6 of the Alaskan Northwest partnership agreement restricts Northwest Alaskan's "sole business" to management of the design, construction, and operation of the Alaska segment, liason with governmental agencies and applications for governmental permits necessary to the construction and operation of the Alaska segment, and supervision of the project management contractor and all other independent contractors involved in the project. Northwest Canadian states that the partnership consented to Northwest Alaskan negotiating and entering into contracts with Pan-Alberta for the purchase of Canadian gas to support the ANGTS prebuild project, and consented to Northwest Alaskan's applications to the Commission for certificate and import authority to implement the prebuild project. The filing states that "Northwest Alaskan became the importer for the prebuild volumes, because of their nexus to the construction of the entire ANGTS and the importance of acting in an expeditious fashion to secure these imports." Northwest Canadian would now assume the prebuild import and resale functions and "could also potentially seek to purchase and import additional volumes of Canadian gas" . . . "in order to allow Northwest Alaskan to devote itself more completely to the design and construction of the Alaska segment, as required by the partnership agreement." As a secondary purpose, Northwest Canadian states that the transfer to Northwest Canadian of Northwest Alaskan's responsibility for the imports would simplify Northwest Alaskan's accounting.

The Commission has previously determined that Northwest Alaskan's importation of Canadian gas in connection with the prebuild of the ANGTS, and the sale of that gas for resale in interstate commerce, are related to the construction and operation of the ANGTS within the meaning of Section 9 of ANGTA. ^{5/} As noted in prior Commission orders on this subject, the Secretary of Energy, in Delega-

^{5/} Order issued January 11, 1980, at pages 23 and 43, and Order issued April 28, 1980, at pages 7 and 138, both in Docket No. CP78-123, et al. See also Midwestern Gas Transmission Co. v. F.E.R.C., 589 F.2d 603, 614-616 (D.C. Cir. 1978).

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tion Order No. 0204-8 (42 F.R. 61491), has delegated to the Commission the authority under Section 3 of the Natural Gas Act to approve the importation of gas in connection with the construction and operation of the ANGTS, including importation of Canadian natural gas in support of the prebuild phase of the project. 6/

The Commission is not prepared at this time to act on Northwest Canadian's application for certificate and importation authority. Further information is required with respect to the need for separate certificate and importation authority for Northwest Canadian in lieu of the authority previously granted to Northwest Alaskan. In particular, the September 25 filing does not provide adequate explanation of why Northwest Alaskan signed the gas purchase contract with Pan-Alberta, and why Northwest Alaskan filed applications for authority to import and resell the gas, and accepted such certificate and importation authority, in its own name, if the terms and conditions of its partnership agreement precluded it from exercising such authority. Alternatively, if Northwest Alaskan's partnership agreement does not in fact preclude Northwest Alaskan from exercising that authority, then the September 25 filing does not provide adequate explanation of why the public convenience and necessity requires issuance of a certificate to Northwest Canadian in lieu of Northwest Alaskan. The September 25 filing also provides insufficient explanation as to how issuance of a certificate to Northwest Canadian would simplify Northwest Alaskan's accounting, and why Northwest Alaskan cannot perform that accounting as easily by itself without creating another corporate entity.

Accordingly, the Commission will defer consideration of the Northwest Canadian application of June 19, 1981 to afford Northwest Canadian an opportunity to provide additional information as to the purpose of its application and the need for the authority requested.

The Commission does, however, recognize the national importance of the ANGTS as determined by the President and the Congress, and wishes to avoid if at all possible any delay in the inauguration of service through the Western Delivery System. Accordingly, the Commission will proceed with consideration of the August 31, 1981 petition with respect to the Canadian border price, on the premise that

6/ Order issued January 11, 1980, at page 2, n. 2, and Order issued April 28, 1980, at page 2, n. 1, both in Docket No. CP78-123, et al. See also Midwestern Gas Transmission Co. v. F.E.R.C., supra, 589 F.2d at 617.

Northwest Alaskan could adopt Northwest Canadian's application so as to amend Northwest Alaskan's own importation authorization to reflect the present border price.

In its orders of April 28 and June 13, 1980, the Commission approved importation of the Canadian gas at issue at the then prevailing border price of \$4.47 per MMBtu. Since that time, the Canadian Government has increased the border price for exports of gas from Canada to \$4.94 per MMBtu. With respect to the natural gas to be imported at Kingsgate, British Columbia, for transportation through the Western Delivery System of the ANGTS, Northwest Canadian, in its petition of August 31, 1981, requests authority to import that gas, effective October 1, 1981, at the current border price, \$4.94 per MMBtu. ^{7/} It is our understanding that the applicant is prepared to commence importation through Kingsgate on or about October 1, 1981.

In an order issued on April 24, 1981, the Commission authorized a group of four companies (the "ProGas Purchasers") to import certain volumes of Canadian natural gas for transportation through Northern Border, at the present border price of \$4.94 per MMBtu. ^{8/} In so doing, the Commission adopted the findings of the Department of Energy's Economic Regulatory Administration (ERA), in its order issued March 22, 1981, approving the continued importation into the U.S. of the Canadian natural gas imports subject to ERA's jurisdiction at the new (effective April 1, 1981) border price of \$4.94 per MMBtu. That order was based on ERA's determination that "... the new border price remains within the competitive range of alternative fuel prices in the United States and is, therefore, reasonable."

^{7/} Northwest Canadian's application does not seek comparable authority with respect to the price of the Canadian natural gas to be imported at a point on the border near Monchy, Saskatchewan, for transportation through Northern Border. Accordingly, this order does not address that issue. The Commission stands ready to address it at such time as an application requesting such authority is filed.

^{8/} Order Authorizing the Importation of Natural Gas, Issuing Certificates of Public Convenience and Necessity Upon Statutory Hearing, and Granting Interventions, issued April 24, 1981, Docket No. CP79-332-001 (15 FERC ¶61,073). The four companies authorized therein to import that gas were Natural Gas Pipeline Company of America, Michigan Wisconsin Pipe Line Company, Tennessee Gas Pipeline Company and Texas Eastern Transmission Corporation.

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(DOE Opinion and Order No. 29, "Opinion and Order Authorizing Payment of an Increased Border Price for Natural Gas Imported from Canada," ERA Docket No. 81-09-NG, et al., at page 5.) The same reasoning would be equally applicable to importation through the Western Delivery System.

In this regard, on September 30, 1981 Northwest Alaskan filed a letter in "Docket No. CP81-388" requesting the Commission "to find that the import is authorized at the increased border price of \$4.94 per Mcf," and "to effectuate its orders authorizing Northwest Alaskan to import the subject gas." For the reasons discussed earlier (see footnote 4, *supra*), we will construe the Northwest Alaskan letter as seeking authority to import the gas at \$4.94 per MMBtu, and will approve that amendment to Northwest Alaskan's importation authorization for the Western Delivery System so as to authorize importation of that gas at the present Canadian border price of \$4.94 per MMBtu.

In addition to its petition of August 31, Northwest Canadian filed on the same date, in Docket No. CP81-388-002, Northwest Canadian's FERC Gas Tariff, Original Volume No. 2, and its Rate Schedule X-4, which is a part of that same tariff. 9/ Northwest Canadian requested that its Tariff and Rate Schedule X-4 be made effective October 1, 1981. In the above described letter of September 30, 1981, Northwest Alaskan filed another copy of the Northwest Canadian tariff and rate schedule, requesting that the Commission "accept and place into effect the tariff filed by Northwest Canadian by substituting the name Northwest Alaskan for Northwest Canadian." In order to avoid delay in the in-service date for the Western Delivery System, the Commission will waive its regulations to the extent necessary to accept the tariff and rate schedule tendered by Northwest Alaskan in its own name pursuant to its own certificate authority, to be made effective October 1, 1981, subject to the minor modifications discussed below.

Under the provisions of the tendered tariff and rate schedule, Northwest Alaskan will flow through concurrently on a monthly basis to Pac-Interstate the purchased gas costs Northwest Alaskan is required to pay Pan-Alberta. In addition to flowing through purchased gas costs, Northwest Alaskan also proposes to flow through administrative costs previously incurred by it in arranging for the

9/ Rate Schedule X-4 is applicable to Pac-Interstate. Rate Schedules X-1, X-2, and X-3 are to be filed at a later date and are applicable to Eastern leg prebuild volumes to be purchased by Northern, Panhandle and United.

prebuild volumes and administrative costs to be incurred. Northwest Alaskan's proposed charges to Pac-Interstate commencing October 1, 1981 would thus be \$4.9400 per MMBtu for purchased gas costs plus 0.463¢ per Mcf for administrative costs. The 0.463¢ per Mcf charge reflects amortization over a one-year period of 23.1 percent ^{10/} of the \$1,480,678 administrative costs attributed to Northwest Alaskan (0.390¢ per Mcf), plus 23.1 percent of the \$275,000 projected annual administrative costs (0.073¢ per Mcf). Acceptance of the administrative cost component of Northwest Alaskan's charges to Pac-Interstate is conditioned to any reduction that may be required pursuant to the auditing of the "pre-certification" expenditures (Docket No. CP78-123, et al.), or subsequent auditing of the subject claimed costs.

Northwest Alaskan proposes also to adjust the administrative cost component of its rates on a semi-annual basis. The company also proposes to provide for deferred accounting of actual administrative costs incurred and the recovery of such costs through its rates and to compute carrying charges on any over or under recovery at interest costs computed in accordance with Section 154.67(d) of the Commission's regulations. The Commission approves this methodology for computing carrying costs and semi-annual rate adjustments, subject to Northwest Alaskan computing carrying charges and adopting the principles of interperiod income tax allocation in a manner similar to that prescribed in Section 154.33(d)(4)(iv) of the Commission's Regulations.

Northwest Alaskan states it also applied the same above described methodology to compute carrying charges on certain administrative costs previously incurred by it relative to the prebuild import arrangements. However, review of the data filed by the applicant indicates that the claimed carrying costs were computed at higher interest rates ^{11/} than permitted by the Commission's Regulations. Accordingly, Northwest Alaskan shall be required to recompute carrying costs in accordance with the procedures set forth in the Commission's Regulations.

The tariff filed by Northwest Alaskan provides a description of and provisions for implementing the take-or-pay "cap" required by previous Commission orders dealing with the prebuild project. However, that description does not reflect fully the Commission's determination on take-or-pay obligations attached to the prebuild volumes. Specifically, Northwest Alaskan's tendered tariff fails

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- ^{10/} The 23.1 percent factor reflects the relationship between pre-build volumes assigned to the Western Leg (240,000 Mcf per day) and the Eastern Leg (800,000 Mcf per day).
- ^{11/} The interest rates actually used are referenced to the prime rate as determined by the Bank of America, plus one (1) percent.

to incorporate the escalation adjustment factor 12/ for general inflation established by the Commission's order dated June 20, 1980, in Docket No. CP78-123, et al. (pages 8-10). Northwest Alaskan therefore shall be required to file revised tariff sheets 13/ to properly and clearly define the take-or-pay "cap" in accordance with the mechanics described in the Commission's orders related to the prebuild project. 14/

At a hearing held on October 1, 1981, the Commission on its own motion received and made a part of the record in this proceeding all evidence, including the application and exhibits thereto, submitted in support of the authorization sought herein, and upon consideration of the record,

The Commission finds:

(1) The petition of Northwest Canadian Gas Sales Company in Docket No CP81-388-001, as adopted by Northwest Alaskan Pipeline Company in its letter of September 30, 1981, and the tariff and rate schedule tendered by Northwest Alaskan Pipeline Company on September 30, 1981, are related to the overall construction and operation of the Alaska Natural Gas Transportation System within the meaning of Section 9 of the Alaska Natural Gas Transportation Act.

(2) The importation of natural gas from Canada at a point on the international border near Kingsgate, British Columbia, for transportation through the Western Delivery System of the Alaskan Natural Gas Transportation System, at a border price of \$4.94 per MMBtu, will not be inconsistent with the public interest under Section 3 of the Natural Gas Act.

(3) Northwest Alaskan Pipeline Company's FERC Gas Tariff, Original Volume No. 2, and Rate Schedule X-4, should be accepted for filing to become effective October 1, 1981, conditioned upon the filing of the revisions required by this order.

12/ Application of this factor has the effect of increasing the "dollar cap." The quotient obtained by dividing the take-or-pay dollar cap by the Canadian export price defines the minimum import volume obligation of Northwest Alaskan.

13/ Special attention should be directed to Tariff Sheet Nos. 406, 419, 420, 456, 479 and 480.

14/ If the intent of the exporter and the importer is to establish a take-or-pay "cap" at a lesser level than previously prescribed by the Commission, that intent is not clear from the proposed tariff provisions, but the Commission would view such a proposal favorably if it were the agreement of the affected parties.

(4) Participation in this proceeding by the petitioners to intervene may be in the public interest.

The Commission orders:

(A) Northwest Alaskan Pipeline Company is authorized to import natural gas from Canada, at a point on the international border near Kingsgate, British Columbia, for transportation through the Western Delivery System of the Alaska Natural Gas Transportation System, at a border price of \$4.94 per MMBtu, subject to all of the conditions set forth in the Commission's above referenced orders of January 11, April 28, and June 13 and 20, 1980 in Docket No. CP78-123, et al.

(B) Northwest Alaskan Pipeline Company FERC Gas Tariff, Original Volume No. 2 and Rate Schedule X-4 are accepted for filing and made effective October 1, 1981, conditioned upon Northwest Alaskan Pipeline Company filing, within 30 days from the date of issuance of this order, revised tariff sheets to reflect the modifications discussed in the text of this order.

(C) Parties to the above-captioned dockets may file applications for rehearing of this order within 30 days of the date of issuance of this order. The applications for rehearing shall be submitted pursuant to the procedures set forth in Section 1.34 of the Commission's Rules of Practice and Procedure.

(D) The petitioners to intervene listed above are permitted to intervene in this proceeding subject to the Rules and Regulations of the Commission; Provided, however, that the participation of such intervenors shall be limited to matters affecting asserted rights and interests as specifically set forth in their petitions to intervene; and, Provided, further, that the admission of said intervenors shall not be construed as recognition by the Commission that they may be aggrieved because of any order of the Commission entered in this proceeding.

By the Commission.

(S E A L)

Lois D. Cashell

Lois D. Cashell,
Acting Secretary.

John B. Adger, Jr.
Alaskan Delegate
Federal Energy Regulatory Commission
Richard Berman, Director
Office of Audit and Cost Analysis
Office of the Federal Inspector

Re: Trial Staff's Understanding of Areas of Agreement with Applicant; Docket No. CP80-435

On December 15, 1980, Alaskan Northwest Natural Gas Transportation Company (Applicant) filed its Report of Alaskan Northwest Natural Gas Transportation Company on Its Understanding of Agreements Reached with Commission Staff Regarding the Certification Cost and Schedule Estimate. Please be advised that the staff believes that certain clarifications of our position are required.

First, as to the staff's general offer of settlement on outstanding design issues, the offer is described in the staff's filing of December 15, 1980: (Mimeo at 31)

"The offer was that for those design issues or alternatives identified but for which cost figures are unavailable, the cost analysis need not be done at this juncture. Provided, however, that NWA agree that if such alternatives were ordered and adopted and resulted in next savings over the cost figures in the CCE that the CCE would be reduced to reflect such savings." [Emphasis supplied]

Should such alternatives increase costs over the CCE, the determination of the upward cost adjustment made to the CCE is the responsibility of the Office of the Federal Inspector. The staff recommends that the OFI should determine if the particular design change is covered by the estimate contingency before allowing upward adjustment. (See Staff Comments of December 15, 1980, at 10 and 31-32).

The staff's statement of December 15, 1980, should supercede all other descriptions of the staff's offer should any difference exist between the filings as to exactly what was offered and accepted.

On those areas where agreement was reached, the staff believes some additional comment is necessary. Due to the lack of time to prepare the staff's comments and to review this document, all our concerns could not be addressed or corrected. Specifically, the staff's concerns are:

Item 1. Project Directorate Estimate Issues

The staff's understanding of the agreement on the treatment of overruns in the \$75.2 million Third Party Monitoring Costs is explained in the Commission Staff Comments of December 15, 1980. (Mimeo at 32).

Item 9. Ambient Temperature Pipeline in Spreads 5 and 6

Technical representatives of Foothills Pipeline Co., Ltd., have contacted the staff to voice concerns over increased costs for an ambient temperature pipeline for the first 64 kilometers of the Canadian segment. Rough cost estimates would indicate \$80 to 100 million in additional costs for thaw settlement mitigation. Although the staff cannot analyze the technical basis of the claimed mitigation costs, we still note a cost savings overall (Alaskan & Canadian segments) for the ambient temperature approach. Therefore, the staff recommendation for treatment of this potential design change remains the same as put forth in the Commission Staff Comments of December 15, 1980. (Mimeo at 33).

Item 10. Less Conservative Frost Heave Mitigation

The staff expects NWA to show that a reduction of insulation requirements would be a net benefit to the consumer under the IROR. Absent such a showing, the CCE should be reduced to reflect such savings.

Item 11. An Increase of One Year in Construction Schedule

The staff believes that this issue relating to completion of the gas processing plant and initiation of gas flow and the consequent tracking of costs is more properly addressed in the Shipper Tariff phase of this Docket. The Commission Order of April 28, 1980 in Docket No. CP78-123, et al., certifying the Northern Border pre-build segment instructs the Alaskan Delegate to prepare a report for use in a future proceeding on the issue of shipper tracking of Alaskan and Canadian transportation charges.

Item 19. Compressor and Metering Station Estimate Concerns

The staff continue to have serious concerns about refrigeration capacity requirements and equipment testing as stated in the Commission Staff Comments of December 15, 1980. (Mimeo at 16, 35-36). NWA submitted a workpaper on December 9, 1980, showing the following agreement with the staff calculations on refrigeration capacity requirement:

<u>Compressor Station</u>	<u>Milepost</u>	<u>Chiller Load-Tons</u>	
		<u>NWA</u>	<u>Staff</u>
No. 15	684.92	7970	7706
No. 13	579.69	7197	5740
No. 11	494.15	7809	6760
No. 9	380.93	7708	6970
No. 7	273.93	7942	7834
No. 4	141.32	3717	3283
No. 2	80.06	4013	3778

The tabulated NWA results were generated using site specific design parameters in a new, recently implemented and more rigorous

heat transfer model and computational procedure superceding that used for the July, 1980, NWA application.

Based on this relative agreement, the staff recommends two 4000 ton refrigeration units, for Compressor Station 7 through 15, and one 4000 ton refrigeration unit for Compressor Stations Nos. 2 and 4, rather than two 4500 ton refrigeration units for each station as proposed by NWA.

Respectfully,



John P. Roddy

David L. Huard

Thomas J. Burgess

Commission Staff Counsel

cc: All Parties

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Alaskan Northwest Natural Gas)
Transportation Company)

Docket No. CP80-435

PROPOSED TRANSCRIPT CORRECTIONS
TECHNICAL CONFERENCE CP80-435
VOLUMES SEVEN THROUGH EIGHTEEN

These proposed corrections are not intended to be exhaustive but are intended to adhere as much as is possible to the sense of what transpired.

OCTOBER 21

Corrections

Page Line

3	19	Should read "Trounson, James E. FERC Staff".
20	21	Change "pack" to "packet".
29	12	Should read "MR. BURGESS: Not to beat a dead horse, but some of the".

OCTOBER 22

3	19	Should read "Trounson, James E. FERC STAFF".
13	13	Change "Certaint" to "certain".

OCTOBER 23, 1980

3	19	Should read "Trounson, James E. FERC STAFF".
13	25	Change "request" to "quest".
23	5	Change "the sections" to "a section".
23	7	Should read "that is the efficiency in terms of preventing initiation of the crack or preventing the".
27	16	Change "is" to "are"
32	11	Change "a related" to "as related".

Page	Line	Corrections
36	11	Should read "to could we get a set of this stuff in Washington, and one sent".
40	10	Change "as" to "and is".
40	14	Delete "or".

NOVEMBER 10

22	4	Change "begun" to "began".
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NOVEMBER 11

12	13	Delete "point".
13	1	Should read "MR HUARD: I believe the point we are making is we've asked".
34	14	Change "84-35" to "80-435".

NOVEMBER 12

39	4	Change "ever" to "every".
41	1	Change "80" to "90".
"	16-17	Change "20th to 70" to "720".
58	15	Change "and" to "to the".
65	11	Change "so" to "from".
66	6	Change "is" to "as".

NOVEMBER 13

10	14	Delete first "you".
"	21	Change "proceeded" to "proceed".
13	18	Change "files" to "filings".
15	6	Change "is" to "are".
29	23	Change "by" to "of".
40	25	Change "continuance" to "contingency".

NOVEMBER 14

3	16	Change to "trial staff."
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3	21	Change to "trial staff".
28	13	Change to "I'm willing ...".
30	9	Delete "but".
32	22	Delete "been".
42	20	Change first "the" to "not".
59	9	Add "to" after "way".

NOVEMBER 17

3	16	Change to "trial staff".
3	21	Change to "trial staff".
17	25	Change to "... was no site-specific ..."
21	16	Change to "... Hammond and the Koyukuk."
30	23	Change to "... going to be real hard ..."
36	10	Change "my" to "may"
"	12	Change "Sotrk" to "Sotak"
49	22	Change "comparitive" to "comparable".
55	2	Change "counsel" to "countries".
58	9	Change "put on" to "put it in".
61	11	Change "a" to "of".
73	24	Change "found" to "find".
76	24	Change to "permafrost ...".

NOVEMBER 18

3	16	Change to "... trial staff".
3	21	Change to "...trial staff".
9	9	Change to "unk-unks, unknown-unknowns..."
17	1	Change "acknowledged" to "knowledgeable".
28	9	Delete "that".
29	4	Delete "not".
47	18	Change "whish" to "which".
48	2	Change "possible" to "impossible".
54	21	Change "always" to "also".
64	19	Delete "an".

NOVEMBER 19

3	16	Change to "... trial staff."
3	21	Change to "... trial staff."

NOVEMBER 20

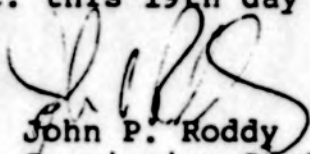
3	16	Change to "...trial staff".
3	20	Change to "...trial staff".
9	21	Change "phrase" to "phase".


John P. Roddy
Commission Staff Counsel

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing documents upon each person designated on the official restricted service list compiled by the Secretary in Docket No. CP80-435, in accordance with the requirements of Section 1.17 of the Rules of Practice and Procedure. ---

Dated at Washington, D.C. this 19th day of December, 1980.


John P. Roddy
Commission Staff Counsel

BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Alaskan Northwest Gas Transportation) Docket No. CP80-435
Company

REQUEST TO AMEND MOTION
TO COMPEL DISCOVERY

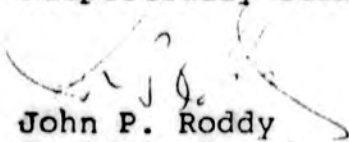
On December 17, 1980, trial staff in this docket filed with the Commission a motion to compel discovery. Staff thereby requested the Commission to divert Alaskan Northwest Gas Transportation Company to respond to Interrogatories propounded by Staff on October 21, 1980, and November 6, 1980, respectively.

Staff noted at the time of filing its motion that a third set of Interrogatories had been propounded to the Applicant on December 5, 1980, but that sufficient time for response had not elapsed. (See footnote 1 of attachment).

Sufficient time has now elapsed for Applicant to respond to the December 5, 1980, Interrogatories and no such response has been received. 1/

Staff, therefore, requests that its motion of December 17, 1980 be amended to include December 5, 1980 Interrogatories, and that the Commission compel production of proper answers to them for the reasons stated in the original motion.

Respectfully submitted,


John P. Roddy
David L. Huard
Thomas J. Burgess
Commission Staff Counsel

1/ Answer of Northwest Alaskan Pipeline Company to Commission Staff Motion to Compel, was filed, apparently unsigned and unverified, on December 29, 1980.

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing documents upon each person designated on the official restricted service list compiled by the Secretary in Docket No. CP80-435, in accordance with the requirements of Section 1.17 of the Rules of Practice and Procedure.

Dated at Washington, D.C. this 6th day of January, 1980.


John P. Roddy
Commission Staff Counsel

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

In the Matter of:	)	
	)	Docket No. CP80-435
Alaskan Northwest Natural	)	
Gas Transportation Company	)	

ANSWER OF NORTHWEST ALASKAN PIPELINE
COMPANY TO COMMISSION STAFF MOTION TO COMPEL

Pursuant to Section 1.12(c) of the Commission's Regulations, Northwest Alaskan Pipeline Company herewith files its answer to the motion of the Commission staff seeking to compel a reply, in writing, to staff interrogatories directed to Northwest Alaskan on October 21, 1980 and November 6, 1980. Staff asserts that Northwest Alaskan has not responded to the interrogatories.

Staff is in error. The questions posed in the interrogatories relevant to the matters before the Commission for decision -- resolution of the outstanding IROR matters, including approval of a CCE and center point -- have been answered either in writing or at the technical conferences authorized by the Commission's August 1, 1980 order in Docket No. CP80-435. 1/

The August 1, 1980 order established a special procedure to address the issues presented by the July 1st filing. The focus of this procedure was a series of technical conferences, and the process agreed on was to hold informational discussions off-the-record with a summary of these exchanges provided for the record by the presiding officer. The questions posed by the October 21, 1980 set of interrogatories were asked by the staff during the technical conferences and answered by Northwest Alaskan at that time. An examination by staff of its notes on the informal discussions and a review of the conference transcripts will provide staff with the information it seeks.

1/ Staff states in footnote 1 of its motion that it has served an additional set of interrogatories (December 5, 1980) and that the "time for response has not yet elapsed." Upon review of these particular interrogatories, Northwest Alaskan notes that these interrogatories as well were discussed at the technical conferences which the Alaskan Delegate commenced on September 3 and concluded on November 20, 1980.

The remaining questions posed by staff in the two sets of interrogatories go beyond the "limited purview of the subproceeding" as staff itself recognizes. Staff Motion at 1. As noted in its July 1, 1980 filing, Alaskan Northwest has not yet filed its financing plan and related economic materials. In its August 1, 1980 order the Commission "defer[red] such matters to a final certification proceeding which will be initiated upon submission of the financing plan." August 1 Order at 4-5 (footnote omitted). Since staff's unanswered questions relate to these types of concerns, Northwest Alaskan is unable to reply to questions that pertain to matters that are not part of the filed application. Northwest Alaskan will respond to the remaining questions at such time as it is able and when the questions posed correspond to the issues before the Commission.

Staff has filed a motion to compel replies to questions that Northwest Alaskan has already answered. Staff has received the information relevant to the certificate matters now pending before the Commission for decision. Therefore, since the relevant interrogatories have been answered, and the remaining questions are not ripe for Commission determination, the staff motion to compel should be denied.

Respectfully submitted,

William J. Grealis

Akin, Gump, Hauer & Feld
1333 New Hampshire Avenue, N.W.
Suite 400
Washington, D.C. 20036

Attorney for Northwest Alaskan
Pipeline Company

VERIFICATION

DISTRICT OF COLUMBIA) ss.

WILLIAM J. GREALIS being duly sworn, on oath, says that he is an attorney for Northwest Alaskan Pipeline Company; that he has read the foregoing Answer of Northwest Alaskan Pipeline Company to Commission Staff Motion to Compel and he is familiar with the contents thereof; that as an attorney, he has executed the same for and on behalf of said Company with full power and authority to do so; and that the matters set forth therein are true to the best of his information, knowledge and belief.

William J. Grealis

SUBSCRIBED AND SWORN TO before me this 29th day of December, 1980.

Sheila Lowenstein

Notary Public

My Commission Expires:

My Commission Expires April 30, 84

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon all parties of record in Docket No. CP80-435 in accordance with the requirements of §1.17 of the Rules of Practice and Procedure.

Dated at Washington, D.C. this 29th day of December, 1980.

William J. Grealis

BEFORE THE
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

To: John G. McMillian
Chairman of the Board of Partners
Alaskan Northwest Natural Gas
Transportation Company

c/o William J. Grealis, Esq.
Akin, Gump, Hauer, & Feld
1333 New Hampshire Avenue, N.W.
Suite 400
Washington, D.C. 20036

INTERROGATORIES PROPOUNDED BY THE COMMISSION STAFF

The following are propounded by the Commission Staff by reason of its lack of success in obtaining information by less formal means.

In responding to these Interrogatories, please follow these instructions:

(A) As used in the following requests, references to facts or documents include all facts or documents known to, prepared or reviewed by Alaskan Northwest, its affiliated companies, officers, representatives, employees, agents, or consultants.

(B) Unless agreed to in advance by the staff, all answers herein requested shall be submitted within 30 days of the date of receipt of these Interrogatories.

(C) These Interrogatories are to be deemed continuing in nature so as to require updated responses at a later time if the answer requested is pertinent to facts not now in the custody or possession of Alaskan Northwest.

(D) A response to any Interrogatory herein to the effect that the information sought has been, in whole or part, previously submitted by any party in this or any other proceeding before the Commission is insufficient.

(E) Unless otherwise specified, the Interrogatories herein are not intended to elicit the submission of voluminous material, computer printouts, or run data.

(F) In the event that any question or objection arises concerning these Interrogatories, such questions or objections should be communicated in writing, specifically detailing the nature of such concerns.

(G) If for any reason a requested document cannot be produced, the reason for its nonproduction must be stated. If such a

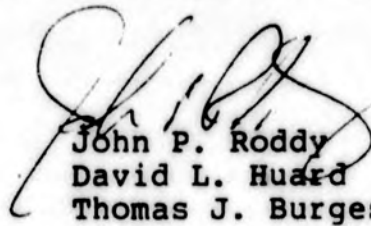
document is no longer in the possession, custody, or control of Alaskan Northwest, please set forth the control of said document and the identity of the person who currently is in possession, custody, or control such document.

(H) As to each Interrogatory, please identify the person answering by name, position, and employer, as well as the identity and degree other sources were relied upon to provide response.

1. Please state the general policy reasons why the 1977 design is considered to be substantially different from that submitted in 1980. (Please refer to the question posed by Mr. Essley to Mr. Hauser on September 30, 1980).
2. a. Please provide the specific instructions given by applicant to the panel of Execution Contractors in preparation of their report to NWA.
b. If these instructions were given orally, please reduce them to writing and indicate which individual or individuals gave the oral instructions. Identify the instructing individuals by name, position, and relationship to the Applicant.
3. a. Please provide a list of all technical reports given to the members of Execution Contractor's panel.
b. If technical information were provided to the Execution Contractors orally, please provide a narrative description of the topic areas and a summary of the conversation(s).
4. Please identify by name, position, and relationship to the applicant those individuals who provided basic estimate data that was used by Dr. Spetzler in conducting his computer simulation to develop ranges and distribution of cost impacts.
5. Please provide the instructions given to those individuals whose identity is requested in question numbered #4, above.
Where oral instruction was given, please summarize that instruction in writing and identify each individual who gave said instruction.
6. When does Applicant intend to enter into a project labor agreement?
7. a. What number of welds per day was premised in NWA's 1977 estimate?
b. What, if any, cost contingency was included in the 1977 estimate?
8. a. What, if any, agreement has been reached between NWA and Alyeska regarding NWA's use of the Yukon River Bridge? Please provide a copy of any such agreement(s).
b. What discussion have taken place between NWA and Alyeska regarding NWA use of the Yukon River Bridge. Give the date of any such discussions.

9. Please provide a copy of NWA's Equal Employment Opportunity Plan for construction of the Alaskan Leg of ANGTS.
10. What specific programs has NWA initiated and/or planned for the training native Americans to participate in construction of the Alaskan Leg of ANGTS?
11. a. Please provide a list of the individuals comprising the Board of Directors of Wilbros Energy Co.
b. Please indicate what if any relationship each of the members of the Wilbros Energy Co. Board of Directors has with NWA or Fluor Corporation.
12. Please provide a detailed estimate (1980 dollars) of the cost to Alyeska to dismantle existing Alyeska work camps and restore the camp sites. Please provide the figure estimated for NWA to dispose of them and restore the sites after construction.
13. Please specify the exact location and expected date of completion for all proposed frost heave test sites.
14. What steps does NWA plan to take to prevent theft of spare parts or the cannibalizing of equipment?
15. Please provide a detailed schedule showing how NWA developed its cost estimate and financing information.
16. If final certification were delayed 3 months, (6/81) what would the impact be on each specific schedule milepost? Show the same information assuming a six month delay (9/81) in certification.
17. If Fluor's piping manhour standard charts are in Gulf Coast hours, how is the efficiency factor for Alaska arrived at?
18. a. Please provide a breakdown describing Fluor's overhead structure on jobs where Fluor was bidding competitively.
b. The multiplier factor for base pay is 3.33. Has the factor been that high on any competitive bids?
19. When insulated pipe is to be bent in the field, what percentage of the insulation was assumed to become damaged, and what basis was used for estimating repair charges?
20. Please identify by name and experience the most likely appointments to NWA's Cost and Schedule Control Staff.
21. What impact will employing a seven-day week for headquarters have on the cost estimate?
22. What procedures exist or have been approved for radiographic document retrieval, transportation, and/or retention?

23. Please provide a detailed schedule for development of financing and cost of service information.
24. What information does NWA have on the correlation of Alyeska's borehole tests to the actual conditions encountered by Alyeska during construction. Please explain if information not detailed.
25. Please identify as accurately as possible the share of gas upon completion of the Alaskan segment of the partners.
26. On what basis was 4% of the labor cost selected to represent tools and consumables in the estimate?
27. How much diesel fuel, gasoline, and lubricating oil is required for this project? Where will it come from and what effect will shortages have on the costs?
28. What is included in the 70% overhead? Please provide a breakdown of this amount.


John P. Roddy
David L. Huard
Thomas J. Burgess

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official restricted service list compiled by the Secretary in Docket No. CP80-435, in accordance with the requirements of Section 1.17 of the Rules of Practice and Procedure.

Dated at Washington, D.C. this 21st day of October, 1980.


John P. Roddy
Commission Staff Counsel

**PLEASE NOTE: THE FOLLOWING PAGES WERE TREATED
AS A UNIT IN THE ORIGINAL DOCUMENT**

Alaskan Northwest Natural Gas
Transportation Company

)
)

Docket Nos. CP78-123, et al.
and CP80-435

COMMENTS OF THE COMMISSION STAFF TO
FINAL REPORT TO THE COMMISSION BY
THE ALASKAN DELEGATE AND THE
DIRECTOR, AUDIT AND COST ANALYSIS,
OFFICE OF THE FEDERAL INSPECTOR

Richard W. Foley
Commission Staff

John P. Roddy
Thomas J. Burgess
William J. Froehlich
Commission Staff Counsel

Washington, D.C.
September 18, 1981

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Executive Summary

On August 21, 1981, the Federal Energy Regulatory Commission (FERC or Commission), issued an Order Inviting Comments and Granting Intervention in Docket Nos. CP80-435 and CP78-123, et al. (Order).

Therein, the Commission sought the views of the parties to the aforementioned dockets regarding the Memorandum to the Commission From the Alaskan Delegate and the Director, Audit and Cost Analysis, Office of the Federal Inspector and the accompanying Report to the Commission on Certification Cost Estimate and Related Incentive Rate of Return Issues for the Alaskan Segment of the Alaskan Natural Gas Transportation System, dated July, 1981 (Adger/Berman Report or Report).

1. Staff Agreement With the Report

The Order sets out accurately and in great detail the chronology of the Commission's review of the application for a final certification of public convenience and necessity filed by Alaskan Northwest Natural Gas Transportation Company (Applicant or Alaskan Northwest) on July 1, 1981, as amended November 17, 1980. Trial staff, therefore, will forgo a repetitious presentation of that history. Staff notes, however, that the record will demonstrate that the Commission has gone to great lengths and expended much of its resources to process in a careful yet expedited fashion the vast amount of material submitted by the Applicant in support of its proposal.

The Adger/Berman Report calls for the setting at this time of a Certification Cost Estimate (CCE) at a level substantially below that requested by Alaskan Northwest in its July 1, 1980, filing as amended November 17, 1980. Where certain elements of the CCE lacked sufficient cost analysis data, the Report recommended a deferral in setting necessary CCE values for those elements. ^{1/} In addition, the Report recommends values for normal contingency and Center Point as required by the mechanics established in Order Nos. 31 & 31B for the Incentive Rate of Return (IROR) governing the proposed project.

Subject to our statements below, the Commission trial staff is in general agreement with and supports, the conclusions of

^{1/} In effect the Commission is being asked at this time to establish a partial CCE. Approximately 10% of the total base estimate of the Project is comprised of those elements which the Report targets for some form of deferred treatment.

the Report and the proposed values for CCE and Center Point. Staff acquiesces to the normal contingency contained therein. The staff strongly recommends a rapid adoption by the Commission of nearly all CCE values now proposed by the Report. In light of the ANGTa mandate for expedition, the Applicant's repeated request for same, and the exhaustive examination of the data provided thus far, Staff urges that no additional material be considered prior to a Commission decision on all proposed CCE matters set out in this Report. This recommendation need not apply to those elements recommended by the Report or Staff for deferred treatment.

Williams Brothers Engineering Company (WBEC or Williams Brothers) was chosen by the Office of Federal Inspector (OFI) to evaluate the Alaskan Northwest estimate. The Adger/Berman Report then adopted the Williams Brothers report with minor exceptions. The exceptions were items which are recommended to be deferred until a more definite cost can be determined. The bottom line values recommended by the Adger/Berman Report appear very close to the value recommended by the trial staff in its December 15, 1980, Comments. The following tabulation shows the deferrals recommended by staff and the deferrals recommended to the Commission by the Adger/Berman Report:

<u>Millions of 1980 \$</u>			
	<u>Adger/Berman Report</u>		<u>Commission Trial Staff</u>
Total (Excluding Finance Charge)	9,140		9,140
Deferrals	*(807)		**(1,390)
Related Contingency	(80)		(136)
Center Point Reduction	(177)		(305)
Recommended for Approval	<u>8,076</u>		<u>7,309</u>
*/ Management Plan	485	**/ Management Plan	485
Communication	97	Communications	97
Socio-Economic Costs	<u>225</u>	Pre-Certifica- tion Cost	130
	<u>807</u>	FERC Fees	20
		Construction Camps	379
		Third Party Monitoring	<u>279</u>
			<u>1,390</u>

While trial staff may differ with some of the avenues the Adger/Berman Report uses to reach its overall cost, we can support these values as being reasonable for approval by the Commission. That support is subject to the clarifications and the proposed procedural safeguards outlined below. Staff believes these safeguards should be set in place by the Commission. The safeguards would ensure that the proposed values set out in the Report, and ultimately a just and reasonable rate of return, are not eroded either by the ill-defined residual procedures necessary for final project certification by the Commission or the administration by OFI of the design change procedures.

2. Staff Recommendation for Treatment
of Deferred Items

The Adger/Berman Report isolates three major CCE base elements for deferred treatment. ^{2/} These items could exceed \$887 million. The recommendation for deferral results from Applicant's continued inability or unwillingness to provide cost estimate or reliable background data for the items in question. This is despite the passage of over 14 months since the filing of the partial Application in July, 1980. ^{3/} Staff notes that despite Applicant's assertion that the design data was frozen as of March, 1981, Applicant has filed two revisions.

There is no question that the items recommended for deferral, except for the socio-economic costs claimed by the State of Alaska, are CCE elements. They are, therefore, within incentive rate of return rubric. The establishment of any value for these items is clearly the responsibility of the FERC. Applicant's delay in providing the necessary information to set appropriate values should not allow these important elements to escape the level of Commission scrutiny brought to bear on the rest of

^{2/} The list of elements includes Communication Systems, Socio-economic and Monitoring costs, and certain costs under the heading of Project Directorate.

^{3/} The Commission has in its Notice and Procedural Order of August 1, 1980, noted major deficiencies in the Application as filed.

the project estimate. At this time there is no valid basis for abdicating the responsibilities for setting values on these items to OFI. Staff believes that the OFI is less expert at resolving these rate base related issues. Indeed, considerable work on this project still awaits Commission consideration before any final certificate can be issued. ^{4/} In short, trial staff recommends that the Commission order the Applicant to perfect its application as to items recommended for deferral as quickly as possible so that a complete and reliable CCE can be fixed.

If the Commission determines, contrary to staff recommendation, to delegate the setting of values for any items in question to the OFI, staff urges procedures be established to allow a vigorous participation by the trial staff in the OFI decision-making process on these matters.

^{4/} Staff notes that no financing plan, a major prerequisite to certification, has been filed as yet. In addition, the threshold question remains before the Commission as to whether the present estimate "materially and unreasonably exceeds" the 1977 Estimate. That estimate was the premise of the President's Decision and excessive costs may render the project no longer in the public interest. At present, certain waivers are being advanced by the Applicant to Congress which could curtail or change the normal scope of Commission review. As a result of these waivers a processing plant (approximate cost 6 billion dollars) may be brought within the scope of the project and the Commission jurisdiction for certificate review.

Staff CommentsI. Staff's Support for the
Certification Cost Estimate

As stated previously, the Commission trial staff generally supports the Adger/Berman Report and its analysis of the CCE. From the Report it is clear that Williams Brothers evaluated the Alaskan Northwest estimate, and did not prepare a new estimate of their own. The Commission trial staff, assisted by the engineering consulting firm of Purvin & Gertz, did likewise. The fact that their figures were wholly corroborative of WBEC, irrespective of acceptable differences in methodology, lends further credence to the validity of the Report. It is trial staff's observation that the Williams Brothers' analysis, as embodied in the Report, effectively extracts the excess contingencies from the CCE as directed by Order Nos. 31 and 31-B. The WBEC evaluation of the CCE recommends a 7% reduction in the filed CCE, as adjusted for the \$.9 billion recommended to be deferred. The Report is quite accurate in describing this reduction as not overly significant in terms of the range of estimated costs, but quite significant as regards a cost-performance target for the IROR and the goal of risk-neutrality. Staff further agrees with the Report's reasoning, at II-6, II-7, for reduction of the overstated Alaskan Northwest CCE construction costs past the point of equilibrium of risk-neutrality. The analysis in the Report, as corroborated by staff and its consultants, is subject to no perverse incentives nor self interest. The Report's analysis of the CCE should be approved by the Commission as reasonable.

The CCE figure, adjusted by the Center Point allowance as recommended by the Report, is virtually identical to the result reached independently by staff and its consultants. ^{5/} For a project of such magnitude, the limited differences merit only brief mention below.

II. Areas of Disagreement or Qualified SupportA. Productivity & Lay Rate

With respect to pipeline adjustments, WBEC correctly assails the productivity rates and material quantities estimated by

^{5/} Accord: Staff comments of December 15, 1981.

Applicant. Further, WBEC examined the projected lay rate and found it in need of adjustment. Recent construction on the Western Leg and the Foothills (Canadian) portions of ANGTS indicates that the WBEC productivity and lay rate evaluation was low, if anything. ^{6/} Staff believes the WBEC lay rate to be reasonable for Commission approval. Similarly, the analysis in the Report of trench excavation and backfill quantities compares with staff estimates as does treatment of some of the temporary facilities, compressor and metering stations, and operations and maintenance facilities.

B. Crack Propagation Resistance

The uncertainty in conceptual design this late in the design finalization process was not envisioned in the CCE or Final Design Estimate as described in Order No. 31. Some of these uncertainties have the potential for major impacts on other IROR parameters. For instance, the high liquifiabiles content proposed for the gas requires more stringent pipe toughness (crack propagation resistance) specifications than would be the case if the gas were free of liquifiabiles. It is quite probable that the liquifiabiles will be removed at the processing plant at the line's point of origin for use as petrochemical feedstocks. This probability, plus the demonstrated successful development of crack arrestors by Northern Border on the Eastern pre-build segment, make a relaxation of pipe toughness specifications and use of crack arrestors just as probable in final design of the Alaskan segment. However, the decision to remove liquifiabiles may not be finalized until after construction is completed. The costs for extreme crack propagation resistance required by liquifiabiles would not be allocated to the cost of transporting these liquifiabiles to the end user by the general tariff approved in Order No. 31; thus, the gas consumer would be forced to pay a disproportionate share of these costs. For these reasons, deferral is not a feasible resolution if only the estimated costs were to be considered; rather the Commission should seriously reconsider the tariff to allocate the transportation costs more properly.

C. Construction Camps

With respect to the best reasonable estimate for construction camps, the Report aptly notes that the figures included in the filed CCE are conceded by Alaskan Northwest to be void at this time. The figures are predicated on existing camps

^{6/} Attachment "G" to the Final Report; Report at II-11.

owned by Alyeska, which is no longer negotiating to sell them. Notwithstanding the Report's explanation sanctioning their use, 7/ the unusable figures should be replaced expeditiously with the relevant costs for new camps. The value of those camps to Alyeska is a minus unless they can sell them to their only possible buyer, Alaskan Northwest. Alaskan Northwest is in the incongruous position of having alleged that they have applied for a final certificate without knowing who will be recruited to construct the project, nor where they will stay while doing so. Analysis of these costs should also be deferred to a subsequent proceeding before this Commission.

D. Design Change Mechanism

As described in the Report, there are two significant points relating to cost estimate approval. Of primary interest is the CCE to be considered by this Commission; the second is the Final Design Estimate. Of great concern to staff and the authors of the Report is a formula for categorizing CCE items which may change the design or cost from the time the CCE is set to the formulation of the Final Design Estimate. These items are variable because either the Applicant has not chosen among outstanding alternatives; has not established sufficient detailed data to constitute a design worth consideration at this juncture; or has not eliminated the possibility that further alternatives may be necessary as a result of additional testing or experimentation. If these variables were to have major cost implications, then the intent of the IROR could well be subverted, absent a formula for control. To the extent possible, these matters should be resolved by this Commission, which is the agency most capable. Indeed the Commission mandated the resolution of these concerns prior to certification. 8/

This concern leads staff to recommend that the Commission ensure to the fullest extent possible the adoption of and adherence to the proposed guidelines to OFI relative to design changes, as contained in Attachment "E" to the Report. Indeed, staff's general support of the Report is premised upon the adoption of procedural safeguards against abuses of the intent of the IROR. These guidelines provide such safeguards. It had been staff's contention that, due to its relative inability to penetrate the CCE items to any great extent, a normal contingency level of 7.3% was sufficient. This was demonstrated at some length

7/ Report II-15; footnote 44; IV-10.

8/ Commission Notice and Order issued August 1, 1980.

in staff's December 15, 1980, comments. 9/ The staff is willing to accede to the WBEC recommended level of 12% in view of the much more detailed examination of the CCE items WBEC was able to achieve. It is staff's position that such a level is indeed reasonable if the guidelines in Attachment "E" are followed. If the contrary were true, however, a much lower level of normal contingency would be in order. 10/

E. TAPS Experience

The Report quite properly draws on the TAPS experience and the subsequent report of the General Accounting Office (GAO). The GAO report has analyzed the TAPS overruns leading to the development of the IROR. Staff would draw a single analogy between the ANGTS case and TAPS: TAPS had a base budget control estimate of \$6.4 billion developed in 1975, and a final design estimate of \$7.9 billion in 1977 after project completion. This base budget control estimate did not allow for contingency. If one were to allow 12% for normal contingency the adjusted estimate would have been \$7.2 billion. If the final costs are diluted by an index in common use, the adjusted actual costs would be \$7.3 billion. 11/ A \$.1 billion overrun or a cost performance ratio of 1.01 would have been realized by TAPS under an IROR framework. Thus, if TAPS were operating under a Center Point of even 1.05, it would have been completed under budget. Likewise, if TAPS had had the 1.2 Center Point advocated by the Report, it would have had an incentive rate of return of 19%. A fortiori, to allow them 1.20 for a Center Point would be more than "truly generous". Staff believes it quite reasonable for the Commission to adopt a Center Point at a level less than 1.2. 12/

III. Design Change Agreements

Staff advocates the use of its agreement with Alaskan Northwest to control the design change process. Minor design issues

9/ See Commission Staff Comments, December 15, 1980, pp. 3-14.

10/ See the Commission's Order issued in Docket No. CP78-123, et al., on April 28, 1980, at 97. Commission Staff Comments of December 15, 1980, pp. 4-14.

11/ Hardy Whitman Index and FERC oil pipeline index would permit 5% for 1975 & 1976, and 2% for 1976-1977.

12/ Order No. 31 at p. 54; see also Report III-8, footnote 22, and III-14.

raised in Section IV of the Report might seem fit for handling by such a process, but their value should not be automatically altered. By rough count the design items most susceptible to change might represent up to a \$1.5 billion increase in the final CCE. 13/

The Adger/Berman Report makes several references to proposed stipulations and agreements advanced by staff and Alaskan Northwest for the establishment of CCE values for those items where underlying data was unavailable or unreliable. 14/ The Report errs in its representation of staff's position as to these stipulations.

The Report suggests that staff had agreed to the substitution of actual costs for estimated costs for certain items. The source of this misunderstanding is an undated document titled, Report of Alaskan Northwest Natural Gas Transportation Company on its Understanding of Agreements Reached With Commission Staff Regarding the Certification Cost Schedule Estimate. That document was filed unilaterally by the Applicant and did not accurately reflect staff position at that time. 15/

Staff position regarding stipulations was correctly set out in its filing of December 15, 1980. Staff reiterated its position on December 19, 1980, in a memorandum (Staff memo, attached as Appendix I) to the authors of the Report and thereby repudiated Alaskan Northwest's interpretation of the proposed stipulations. The Report (see I-12, especially footnote 46) failed to credit staff with this repudiation, and yet made reference to the Staff memo at I-15, especially footnote 56.

Staff is hard pressed to understand the continued difficulty of the authors of the Report to grasp the staff position on this issue. Staff called this error to the attention of the authors

13/ Yukon River Crossing, Workpad, Borrow Quantities, Refrigeration Level, Pipe Insulation, Full Load Testing, Ambient Operation, Communications, Management Plan, Atigun Pass, Temporary Facilities, Frost Heave Mitigation, Snow Pads, and Pipe Metallurgy.

14/ The initial reference to these proposed agreements is at I-11 of the Report, especially footnote 40.

15/ Though undated, the document was received at the Commission on December 15, 1980.

at the Tulsa conference where the preliminary version of the Report was reviewed. 16/

Staff has always contended that its offer was to substitute actual costs into the CCE only where they were lower than estimated costs. If actual costs were higher, no upward adjustment would be allowed unless approved by the OFI and then only after a determination that the cause for the increase was not otherwise allowed for in the normal contingency or Center Point. Any other interpretation of staff's offer is incorrect and would be untenable from the point of view of consumer protection.

The passage of time and availability of additional information calls for an individual re-examination of staff's position regarding each of those issues which was targeted for treatment by stipulation.

IV. Items Proposed By Report For Deferral

The Adger/Berman Report cites three issues for which it maintains the construction plan and pipeline design does not offer a basis for CCE approval. The Report finds the sponsors' plan has not crystallized sufficiently to allow preparation of a reliable estimate. These three items are: the Communications System, the Affirmative Action Training Plan, and the Management Plan. The Report recommends that the Commission defer selecting values for these three components of the CCE until sponsors make an adequate filing. In the alternative, the Report suggests that Alaskan Northwest provide adequately based estimates to the Federal Inspector for his approval. 17/ By footnote to the alternative, the Report suggests that because the OFI has design approval functions, it should be in a good position to review these costs.

The Commission trial staff urges the Commission to qualify the recommendation and reject the alternative recommendation which would delegate items to OFI. The proper forum to decide these issues is the FERC, and the proper time to finalize

16/ At the Tulsa Conference in March, 1981, Staff pointed out orally and in writing where the preliminary report had misconstrued its position on stipulations.

17/ See Report IV-1 through IV-6.

these components of the CCE is now. The rationale advanced to defer to some future unspecified date or in the alternative to defer to the OFI, is not well taken. Approval of the Report's recommendation or the alternative recommendation would amount to abdication of the Commission's responsibility to establish the CCE. 18/

Addressed seriatim, staff urges the following approach to the subject three items:

A. The Management Plan

The President's Decision requires that "prior to the issuance of [a] certificate [of Public Convenience and Necessity], the successful applicant shall provide a detailed overall management plan, to be approved by the Federal Inspector, for the pre-construction and construction phases of the transportation system project." 19/ Alaskan Northwest estimates total project management costs (including PMC and outside service contracts) at \$485.1 million. However, as the Adger/Berman Report correctly notes, a detailed overall management plan, as required by the Decision, was not submitted with the CCE. 20/ Staff would note that Northern Border submitted its management plan in seven volumes prior to the setting of its CCE.

Williams Brothers' evaluated project management cost estimate is \$446.8 million, a reduction from the filed CCE by \$38.3 million. The Report recommends that the Commission defer consideration of this portion of the CCE until a detailed management plan has been submitted to and approved by the Federal Inspector. 21/ Applicant has been on notice since the issuance of the

18/ See President's Decision as qualified by Order Nos. 31 and 31-B. By failing to adhere to the guidelines provided in Attachment "E", the Federal Inspector will endanger the fragile interdependent balance struck between the CCE and the Center Point.

19/ President's Decision, at page 27, Condition I.1.

20/ A "basic management philosophy" was presented in the filing to support the estimate.

21/ The exact figure is unclear in that there is a discrepancy between the chart on page 7 of the Executive Summary and the text on page IV-7.

President's Decision to prepare a detailed management plan. Since March, 1981, at the Alaskan Delegate's request, Alaskan Northwest has submitted additional voluminous material which they assert is all that is possible to demonstrate the Williams Brothers' reductions are not justified. ^{22/} After careful analysis of these materials, the Report concludes, "While these submissions have convinced Williams Brothers to recommend a lesser reduction of \$38 million, ^{23/} neither we nor Williams Brothers are satisfied with the material provided thus far." Trial staff believes the sponsors have had ample time and opportunity to submit the material required by the Decision. No basis exists for rewarding Applicant for its lack of diligence in this expedited proceeding. The material heretofore filed should not be the basis for setting the CCE component for the management plan. The Commission should order immediate submission of a detailed management plan and withhold any CCE value until that time. Deferral of this component to OFI would serve no useful purpose.

B. Affirmative Action Training Programs

On May 8, 1980, the Commission adopted rules implementing Section 17 of the ANGTA, ^{24/} which requires agencies to take affirmative action to prevent discrimination based on race, creed, color, national origin, or sex in the construction and operation of ANGTS. These rules, inter alia, require the Applicant, most contractors, and subcontractors, to develop affirmative action plans. Except for certain costs associated with project management, Alaskan Northwest has not included in its filed estimate any costs attributable to affirmative action training. Alaskan Northwest, reasoned that until the plan was approved by OFI, no cost consequences of its elements could be estimated for CCE purposes. The Adger/Berman Report, issued August 21, 1981, concludes that because the OFI has not yet approved Alaskan Northwest's affirmative action training programs, these costs can not be included in the CCE at this time. The Report states, "in light of our uncertainties as the content of the approved plan, (sic) we recommend not setting a time period for filing the cost estimate until all facts are known." ^{25/}

^{22/} See, e.g., Alaskan Northwest Response, vol. III, sec. 7.

^{23/} Initially Williams Brothers recommended reduction of sponsor management costs by \$87 million.

^{24/} P.L. 94-586, October 22, 1976, 90 Stat. 2903.

^{25/} Report page IV-5.

The Report's recommendation is based upon the assumption that an affirmative action training program had not been approved by the OFI. Events seem to have overtaken the Report, which was issued August 21, 1981. Prior to that, on August 13, 1981, the Federal Inspector approved the affirmative action plan submitted by Alaskan Northwest, thereby voiding the major basis for deferral of cost analysis of this item. Costs associated with the hiring, training, and staffing of the labor and management force should be in place at the earliest stages of this project. For that reason, if this matter can be resolved at this juncture, it should be done. The Report compounds its oversight by reciting an agreement reached between Alaskan Northwest and the staff and then cancelling its effect. The Report notes that staff urged in its December 15, 1980, Comments that Alaskan Northwest "be required to file (with the Commission) the costs of the training programs for inclusion in the CCE within 30 days of OFI approval of the affirmative action plan". Alaskan Northwest accepted the staff position but requested 60 days to file. 26/ The staff urges the Commission to enforce the agreement voluntarily entered into by Alaskan Northwest and the staff, and to require the costs be filed with the Commission by October 12, 1981. The recommendation of the Report should be modified to reflect the understanding and agreement of the parties. In this regard, the Report accepted the staff proposal but delayed its implementation because of "uncertainties as to the content of the approved plan." 27/ Reason dictates that it is cost beneficial to identify and train the work force at the earliest phase. Failure to do so was painfully evident in the TAPS experience. Resolution of the cost consequences of this item affects other elements of the CCE. Staff traces the effect of this program to at least Center Point item 23, the Competition in the Domestic Market for Craft Labor. Staff finds that the \$107.2 million in protection from the consequence of competition for the same trained craft labor was requested in the CCE. The need to provide protection from this threat would certainly be reduced significantly if Alaska had its own indigenous craft labor force as a result of a vigorous

26/ If the agreement between staff and Alaskan Northwest is given effect, the affirmative action training costs would be filed with the Commission on October 12, 1981 (Date of approval by the OFI, August 13, 1981, plus 60 days).

27/ Report at IV-5, V-6.

affirmative action plan. The Report would seem to agree. 28/ Since this cost can be resolved at this time there is no need to delay its consideration.

C. Communications System

The Alaskan Northwest filing contains no specific design for a communications system. The Report therefore recommends the Commission defer consideration of this portion of the CCE until a valid basis for approval is submitted. By footnote the Report states, "the appropriate cost estimate value could probably be settled by stipulation among the various parties, then submitted to the Commission or OFI for approval." 29/

Staff believes this item may be deferred, but the value of this item, as with all items comprising the CCE, should be set by this Commission rather than OFI. Staff's belief, in this regard, is premised upon the philosophy that the FERC has the primary responsibility to establish the CCE and Center Point. This is because these items directly affect the ultimate rates consumers will pay.

D. CCE Elements Requiring Actual Costs

Three items are, in the opinion of staff, clearly distinguishable for the purpose of CCE. For these three items no values are appropriate for inclusion at this time. Only actual costs should be used, if and when incurred. These items are: Pre-Certification Costs, Fees paid to FERC, and Fees paid to DOI/OFI.

28/ Report III-A-17; footnote 58, which reads:

We note here that one of the items we must recommend for deferral is any allowance in the CCE for training costs. The reason for deferral is the absence of an approved plan for training programs. It seems illogical for Alaskan Northwest to argue for a significant allowance for inability to obtain the services of skilled labor prior to having completed an evaluation of the possibility of obtaining additional skilled labor through training.

29/ Report at IV-4, See footnote 14.

1. Pre-Certification Costs

The accurate setting of total allowable pre-certification costs resides with the Commission. It should be determined exactly and all parties expect, promptly. 30/

There is no reason to accept an estimate from the Applicant when an exact figure, beyond the control of Applicant, is imminent. Applicant had agreed to accept actual costs for this item.

2. Fees Paid to FERC

Applicant has requested that \$20,261,500 be included in the CCE for incremental fees paid to the FERC. The Adger/Berman Report surprisingly makes no attempt to remove these costs. Staff strongly recommends that no amount be placed in the CCE under this category at this time since Applicant has to date refused to pay. Applicant has challenged the Commission's authority to assess such fees under existing regulations. 31/ Only upon a determination by the Commission of the exact fee owed and prompt payment thereof, can an exact figure as to total fees paid to the Commission be placed in the CCE. Any other course of action has the potential for rewarding a recalcitrant Applicant with a windfall benefit under the IROR should the Commission elect to apply a less stringent standard for fee collection to this Applicant.

3. Fees Paid to DOI/OFI

Similarly, staff notes that Alaskan Northwest refusal to pay the DOI reimbursable monitoring costs of \$398,582 for the 1st

30/ Applicant has requested a Commission determination of those pre-certification costs. This matter is pending.

31/ Under the Commission's Regulations (18 CFR 159.2), an initial incremental fee of \$5,315,505 is now due and owing. The Commission requested and received on June 26, 1981, briefs from concerned parties on issues relating to the collection or adjustment of the incremental fees in Docket No. CP80-435. This matter is pending.

quarter of 1981. 32/ The overall figure is estimated in Section V of the Report is \$53.6 million. Again, such an entry can hardly be counted as an expense under these circumstances until such time as the sum is actually remitted. That figure should be the only one used, and then, only after actually paid.

V. Other IROR Issues

Beyond the three items discussed above, the Report recommends deferral of certain other items. Under the heading "V. Other IROR Issues" the Report addresses Third Party Monitoring and Socio-Economic Costs. 33/ Portions of these items are also recommended for deferral. The Federal right of way monitoring figures are addressed, supra.

Alaskan Northwest's filing contains an allowance of \$278.6 million for reimbursable costs to be incurred by Federal and state agencies.

On February 13, 1981, the State of Alaska submitted a revised estimate of monitoring and socio-economic costs. The Adger/Berman report addresses these figures and makes recommendations. The chart below compares these figures:

(See Page 16a)

32/ See Attachment H to the Report.

33/ Report at V-4.

	<u>NWA ESTIMATE</u>	<u>State of Alaska Estimate</u>	<u>Report's Recommended Values</u>
1. Federal right of way monitoring/OFI/DOI	\$53.6 million		\$53.6 million
2. State of Alaska monitoring	\$21.6 million	\$51.3 million	deferred to further proceeding
3. Socio-economic payments to State of Alaska	\$203.4 million	\$19.8 million	deferred to further proceeding

Staff recommends the following disposition of these items:

With regard to the OFI/DOI monitoring costs, the staff previously stated its belief that only the actual costs incurred should be included, and then, only when they are incurred.

State of Alaska Monitoring (originally submitted as \$21.6 million) has mushroomed to a figure of \$51.3 million for "surveillance" costs; more than double the original estimate. Staff concurs with the Adger/Berman Report's observation that some of these increased "surveillance" costs appear to be more properly classified as socio-economic expenditures. Staff recommends a Commission proceeding be instituted to classify and quantify monitoring costs properly. Staff believes it is impossible at the present time to decide the proper cost figure to be included in the CCE for State of Alaska monitoring costs. At the present time neither figure submitted by Alaska should be included in the CCE.

Staff reiterates its opposition to the inclusion of any figure attributable to socio-economic payments to the State of Alaska. The Report recommends further Commission proceedings to develop fully the factual and legal basis for the socio-economic costs filed by Alaska in the subproceeding. Staff urges the Commission reject this recommendation of the Report and include a value of \$0 in the CCE for socio-economic payments to the State of Alaska. If the Commission, however, is not disposed to rule on the lack of merit of this line item, staff urges that this be deferred to a future proceeding before this Commission.

Conclusion

The Adger/Berman Report has recommended, after extensive analysis, values for most elements comprising the base CCE, normal contingency, and Center Point. It has recommended deferred treatment for several elements.

Trial Staff recommends prompt acceptance by the Commission of nearly all of those values set out in the report and the establishment of a partial CCE at this time subject to staff's exceptions.

Staff takes exception to the recommendations of the Report regarding treatment of some deferred items. Where residual review is required, staff recommends that such review remain with the Commission.

As to those items targeted for deferral and as to other minor differences the staff recommends the following:

Crack Propagation Resistance

To avoid the potential for excessive burdens on the consumer, the Commission should reconsider the tariff to allocate the transportation costs should removal of the liquefiabiles cause a reduction in pipe specifications and costs.

Management Plan

The Commission should order immediate submission by the Applicant of a detailed management plan to the OFI. An in-depth cost analysis of the plan should be ordered submitted to the Commission immediately so that the Commission can set an appropriate CCE value for this element.

Affirmative Action Training Program

Because the OFI has already approved the Applicant's affirmative action plan, the Commission should order Applicant to submit by October 12, 1981, a detailed cost estimate of that plan for Commission evaluation and inclusion in the CCE.

Communication System & Construction Camps

Staff agrees that sufficient cost data has not as yet been submitted to set CCE values for these elements and agrees that deferral for these items is appropriate. However, the setting of those values should not be delegated to OFI.

Pre-Certification Costs Fees Paid to FERC
and Reimbursable Costs Paid to DOI/OFI

For the reasons stated above, staff recommends that CCE values for these elements reflect only actual expenses incurred.

State of Alaska Monitoring Costs

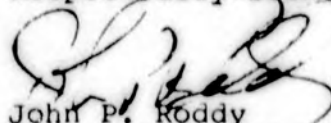
The cost element is sufficiently confused at this time to warrant staff's recommendation for a future Commission proceeding before setting a CCE value.

State of Alaska Socio-Economic Costs

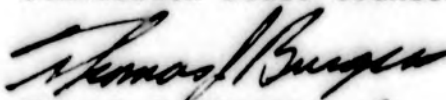
Staff recommends no value be placed in the CCE for this element.

Finally, the staff recommends the Commission ensure adoption of the Design Change Guideline (Report Attachment E) to prevent undue escalation of project costs and detriment to the consumer.

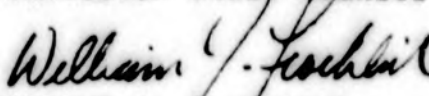
Respectfully submitted,



John P. Roddy
Commission Staff Counsel



Thomas J. Burgess
Commission Staff Counsel

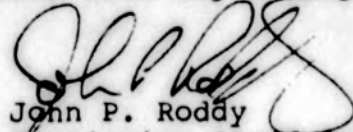


William J. Froehlich
Commission Staff Counsel

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service lists compiled by the Secretary in these proceedings in accordance with the requirements of Section 1.17 of the Rules of Practice and Procedure.

Dated at Washington, D.C. this 18th day of September, 1981.

A handwritten signature in dark ink, appearing to read "John P. Roddy", is written over the typed name.

John P. Roddy
Commission Staff Counsel

ATTACHMENT I

December 19, 1980

John B. Adger, Jr.
Alaskan Delegate
Federal Energy Regulatory Commission
Richard Berman, Director
Office of Audit and Cost Analysis
Office of the Federal Inspector

Re: Trial Staff's Understanding of Areas of Agreement with Applicant; Docket No. CP80-435

On December 15, 1980, Alaskan Northwest Natural Gas Transportation Company (Applicant) filed its Report of Alaskan Northwest Natural Gas Transportation Company on Its Understanding of Agreements Reached with Commission Staff Regarding the Certification Cost and Schedule Estimate. Please be advised that the staff believes that certain clarifications of our position are required.

First, as to the staff's general offer of settlement on outstanding design issues, the offer is described in the staff's filing of December 15, 1980: (Mimeo at 31)

"The offer was that for those design issues or alternatives identified but for which cost figures are unavailable, the cost analysis need not be done at this juncture. Provided, however, that NWA agree that if such alternatives were ordered and adopted and resulted in next savings over the cost figures in the CCE that the CCE would be reduced to reflect such savings." [Emphasis supplied]

Should such alternatives increase costs over the CCE, the determination of the upward cost adjustment made to the CCE is the responsibility of the Office of the Federal Inspector. The staff recommends that the OFI should determine if the particular design change is covered by the estimate contingency before allowing upward adjustment. (See Staff Comments of December 15, 1980, at 10 and 31-32).

The staff's statement of December 15, 1980, should supercede all other descriptions of the staff's offer should any difference exist between the filings as to exactly what was offered and accepted.

On those areas where agreement was reached, the staff believes some additional comment is necessary. Due to the lack of time to prepare the staff's comments and to review this document, all our concerns could not be addressed or corrected. Specifically, the staff's concerns are:

Item 1. Project Directorate Estimate Issues

The staff's understanding of the agreement on the treatment of overruns in the \$75.2 million Third Party Monitoring Costs is explained in the Commission Staff Comments of December 15, 1980. (Mimeo at 32).

Item 9. Ambient Temperature Pipeline in Spreads 5 and 6

Technical representatives of Foothills Pipeline Co., Ltd., have contacted the staff to voice concerns over increased costs for an ambient temperature pipeline for the first 64 kilometers of the Canadian segment. Rough cost estimates would indicate \$80 to 100 million in additional costs for thaw settlement mitigation. Although the staff cannot analyze the technical basis of the claimed mitigation costs, we still note a cost savings overall (Alaskan & Canadian segments) for the ambient temperature approach. Therefore, the staff recommendation for treatment of this potential design change remains the same as put forth in the Commission Staff Comments of December 15, 1980. (Mimeo at 33).

Item 10. Less Conservative Frost Heave Mitigation

The staff expects NWA to show that a reduction of insulation requirements would be a net benefit to the consumer under the IROR. Absent such a showing, the CCE should be reduced to reflect such savings.

Item 11. An Increase of One Year in Construction Schedule

The staff believes that this issue relating to completion of the gas processing plant and initiation of gas flow and the consequent tracking of costs is more properly addressed in the Shipper Tariff phase of this Docket. The Commission Order of April 28, 1980 in Docket No. CP78-123, et al., certificating the Northern Border pre-build segment instructs the Alaskan Delegate to prepare a report for use in a future proceeding on the issue of shipper tracking of Alaskan and Canadian transportation charges.

Item 19. Compressor and Metering Station Estimate Concerns

The staff continue to have serious concerns about refrigeration capacity requirements and equipment testing as stated in the Commission Staff Comments of December 15, 1980. (Mimeo at 16, 35-36). NWA submitted a workpaper on December 9, 1980, showing the following agreement with the staff calculations on refrigeration capacity requirement:

Compressor Station	Milepost	Chiller Load-Tons	
		NWA	Staff
No. 15	684.92	7970	7706
No. 13	579.69	7197	5740
No. 11	494.15	7809	6760
No. 9	380.93	7708	6970
No. 7	273.93	7942	7834
No. 4	141.32	3717	3283
No. 2	80.06	4013	3778

The tabulated NWA results were generated using site specific design parameters in a new, recently implemented and more rigorous

heat transfer model and computational procedure superceding that used for the July, 1980, NWA application.

Based on this relative agreement, the staff recommends two 4000 ton refrigeration units, for Compressor Station 7 through 15, and one 4000 ton refrigeration unit for Compressor Stations Nos. 2 and 4, rather than two 4500 ton refrigeration units for each station as proposed by NWA.

Respectfully,



John P. Roddy

David L. Huard

Thomas J. Burgess

Commission Staff Counsel

cc: All Parties

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**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

**ALASKAN NORTHWEST NATURAL GAS }
TRANSPORTATION COMPANY } DOCKET NO. CP80-435**

**INITIAL COMMENTS OF ALASKAN NORTHWEST
NATURAL GAS TRANSPORTATION COMPANY
ON THE FINAL REPORT OF THE ALASKAN DELEGATE
AND DIRECTOR, AUDIT AND COST ANALYSIS,
OFFICE OF THE FEDERAL INSPECTOR**



**NWA
For
ANNGTC**

SEPTEMBER 18, 1981

WASHINGTON, D. C.

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