WITHDRAWAL SHEET

Ronald Reagan Library

Collection Name MATLOCK, JACK: FILES

Withdrawer JET 5/17/2005

File Folder USSR - PIPELINE 1/6

FOIA F06-114/9 YARHI-MILO

Box Number 30

3010

ID	Doc Type	Document Description	No of Pages	Doc Date	Restrictions
10661	CABLE	251715Z FEB 81 ***R 3/24/2011 F2006-114/9***	2	2/25/1981	B1
10649	MEMO	PIPES RE MEO ON STRATEGIC IMPLICATIONS OF PROPOSED SOVIET-WEST EUROPEAN NATURAL GAS ARRANGEMENT ***R 9/25/2012 F2006-114/9***	1	3/4/1981	B1
10650	MEMO	STRATEGIC IMPLICATIONS OF THE PROPOSED SOVIET-WEST EUROPEAN NATURAL GAS ARRANGEMENT ***PAR 9/25/2012 F2006-114/9***	9	3/4/1981	B3
10651	MEMO	USSR--WESTERN EUROPE: PROPOSED NATURAL GAS PIPELINE ***PAR 9/25/2012 F2006-114/9***	3	3/18/1981	B3
10652	MEMO	LENZ TO ALLEN RE DECISION ON SPARE PARTS LICENSES FOR CATERPILLAR TRACTORS ***R 3/24/2011 F2006-114/9***	1	3/25/1981	B1
10653	MEMO	DEAL/LENZ TO ALLEN RE EXPORT CONTROLS: LICENSE APPLICATIONS FOR CATERPILLAR ***R 11/24/2011 F2006-114/9***	4	3/25/1981	B1

Freedom of Information Act - [5 U.S.C. 552(b)]

B-1 National security classified information [(b)(1) of the FOIA]
B-2 Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]
B-3 Release would violate a Federal statute [(b)(3) of the FOIA]
B-4 Release would disclose trade secrets or confidential or financial information [(b)(4) of the FOIA]
B-6 Release would constitute a clearly unwarranted invasion of personal privacy [(b)(6) of the FOIA]
B-7 Release would disclose information compiled for law enforcement purposes [(b)(7) of the FOIA]
B-8 Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]
B-9 Release would disclose geological or geophysical information concerning wells [(b)(9) of the FOIA]

C. Closed in accordance with restrictions contained in donor's deed of gift.

WITHDRAWAL SHEET

Ronald Reagan Library

Collection Name MATLOCK, JACK: FILES

Withdrawer JET 5/17/2005

File Folder USSR - PIPELINE 1/6

FOIA F06-114/9 YARHI-MILO

Box Number 30

3010

ID	Doc Type	Document Description	No of Pages	Doc Date	Restrictions	
10665	MEMO	HIRSCHHORN TO LENZ RE SPARE PARTS FOR PREVIOUSLY EXPORTED CATERPILLAR PIPELAYERS UNRELATED TO SIBERIAN PIPELINE	1	ND	B3	B4
10666	MEMO	KNOWLES TO DEAL RE CATERPILLAR EXPORTS TO USSR	2	1/9/1981	B3	B4
10667	MEMO	APPLICATION FOR EXPORT OF CARTERPILLAR PARTS	1	9/29/1980	B3	B4
10668	MEMO	APPLICATION FOR EXPORT OF CARTERPILLAR PARTS	1	10/6/1980	B3	B4
10669	MEMO	APPLICATION FOR EXPORT OF CARTERPILLAR PARTS	1	10/14/1980	B3	B4
10670	MEMO	APPLICATION FOR EXPORT OF CARTERPILLAR PARTS	1	1/5/1981	B3	B4
10654	PAPER	USSR-WESTERN EUROPE: IMPLICATIONS OF THE SIBERIA-TO-EUROPE GAS PIPELINE ***PAR 9/25/2012 F2006-114/9***	2	3/25/1981	B3	
10662	CABLE	080455Z APR 81 ***R 3/24/2011 F2006-114/9***	1	4/8/1981	B1	

Freedom of Information Act - [5 U.S.C. 552(b)]

B-1 National security classified information [(b)(1) of the FOIA]
B-2 Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]
B-3 Release would violate a Federal statute [(b)(3) of the FOIA]
B-4 Release would disclose trade secrets or confidential or financial information [(b)(4) of the FOIA]
B-6 Release would constitute a clearly unwarranted invasion of personal privacy [(b)(6) of the FOIA]
B-7 Release would disclose information compiled for law enforcement purposes [(b)(7) of the FOIA]
B-8 Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]
B-9 Release would disclose geological or geophysical information concerning wells [(b)(9) of the FOIA]

C. Closed in accordance with restrictions contained in donor's deed of gift.

WITHDRAWAL SHEET

Ronald Reagan Library

Collection Name MATLOCK, JACK: FILES

Withdrawer JET 5/17/2005

File Folder USSR - PIPELINE 1/6

FOIA F06-114/9 YARHI-MILO 3010

Box Number 30

ID	Doc Type	Document Description	No of Pages	Doc Date	Restrictions
10655	PAPER	USSR: LACK OF MOVEMENT ON SIBERIA-TO-EUROPE GAS PIPELINE	1	4/9/1981	B1
10663	CABLE	161412Z APR 81 ***R 3/24/2011 F2006-114/9***	5	4/16/1981	B1
10656	MEMO	LENZ TO ALLEN RE (NON) TREATMENT OF THE SIBERIAN PIPELINE PROJECT IN CURRENT IG'S ***R 3/24/2011 F2006-114/9***	3	4/30/1981	B1
10657	MEMO	NAU TO ALLEN RE LENZ MEMO ON THE SIBERIAN PIPELINE PROJECT ***R 3/24/2011 F2006-114/9***	1	4/30/1981	B1
10658	LETTER	OLMER TO CASEY RE OIL AND NATURAL GAS PRODUCTION EQUIPMENT TRANSFER TO USSR ***R 9/25/2012 F2006-114/9***	2	5/26/1981	B1
10664	MEMO	BREMER TO ALLEN RE SIBERIAN PIPELINE ***R 9/25/2012 F2006-114/9***	2	6/15/1981	B1
10659	PAPER	USSR-WESTERN EUROPE: IMPLICATIONS OF THE SIBERIA-TO-EUROPE GAS PIPELINE ***PAR 9/25/2012 F2006-114/9***	28	ND	B3

Freedom of Information Act - [5 U.S.C. 552(b)]

B-1 National security classified information [(b)(1) of the FOIA]
B-2 Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]
B-3 Release would violate a Federal statute [(b)(3) of the FOIA]
B-4 Release would disclose trade secrets or confidential or financial information [(b)(4) of the FOIA]
B-6 Release would constitute a clearly unwarranted invasion of personal privacy [(b)(6) of the FOIA]
B-7 Release would disclose information compiled for law enforcement purposes [(b)(7) of the FOIA]
B-8 Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]
B-9 Release would disclose geological or geophysical information concerning wells [(b)(9) of the FOIA]

C. Closed in accordance with restrictions contained in donor's deed of gift.

WITHDRAWAL SHEET

Ronald Reagan Library

Collection Name MATLOCK, JACK: FILES

Withdrawer JET 5/17/2005

File Folder USSR - PIPELINE 1/6

FOIA F06-114/9 YARHI-MILO 3010

Box Number 30

ID	Doc Type	Document Description	No of Pages	Doc Date	Restrictions
10660	PAPER	WESTERN EUROPE: POTENTIAL FOR ALTERNATIVE GAS SUPPLIES *R 9/25/2012 F2006-114/9*	9	ND	B1

Freedom of Information Act - [5 U.S.C. 552(b)]

B-1 National security classified information [(b)(1) of the FOIA]
B-2 Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]
B-3 Release would violate a Federal statute [(b)(3) of the FOIA]
B-4 Release would disclose trade secrets or confidential or financial information [(b)(4) of the FOIA]
B-6 Release would constitute a clearly unwarranted invasion of personal privacy [(b)(6) of the FOIA]
B-7 Release would disclose information compiled for law enforcement purposes [(b)(7) of the FOIA]
B-8 Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]
B-9 Release would disclose geological or geophysical information concerning wells [(b)(9) of the FOIA]

C. Closed in accordance with restrictions contained in donor's deed of gift.

NEW YORK TIMES - Thursday, February 12, 1981

SOVIET GAS PIPELINE

THURSDAY, FEBRUARY 12, 1981

Letters

Soviet Natural Gas *Can* Choke America's Allies

To the Editor:

Your Jan. 16 editorial on the proposed Soviet natural gas pipeline project ("Soviet Gas Won't Choke the Allies") implies a misapprehension of the situation that demands correction.

It is true that only a small percentage of West Europe's total energy demand would be met by imports of Soviet natural gas (the estimates range from 3 to 5 percent), but these figures underemphasize the real impact of imported Soviet gas on the West European economies.

Take West Germany as an example: If the pipeline is completed in the mid-1980's, 40 percent of West Germany's natural gas imports, or 425 billion cubic feet per year (bcf/yr), will come from the Soviet Union. This represents just 5 percent of West Germany's total energy demand, but it is a very important 5 percent.

The various sources of energy (petroleum, coal, hydroelectric and nuclear) are not readily interchangeable. West Germany's primary consumers of natural gas are the chemical, petrochemical and steel industries. Petroleum, coal, hydroelectric and nuclear power cannot immediately substitute for natural gas in the event of any significant curtailment of supply because the power-generating facilities of these industries are not configured to use those sources. They could be modified to use some of those sources, but the modification process would take at least six months to complete, and probably longer.

For all practical purposes, if Soviet natural gas is cut off for technical or political reasons, other natural gas supplies will have to be found. Yet no significant "spot market" for natural gas exists, so 425 bcf/yr will not be available on short notice. And adequate stockpiling of natural gas would be prohibitively expensive.

Because the above-mentioned industries are vital to West Germany's economic stability, a large cutback *in this particular 5 percent* of total energy demand would have rapid repercussions throughout that country's economy.

Herein lies immense political vulnerability. The dependence of West German industries on Soviet natural gas, combined with a growing reliance of these same industries on exports to the Soviet bloc for profits and employment, creates a pressure point for Soviet political manipulation.

In the worst case, the Soviets could threaten to cut all economic relations between West Germany and the bloc, including exports of natural gas, and plunge West Germany into economic chaos. Far more likely, the West German leadership, understanding the extent of their dependence and vulnerability, would adopt policies more in line with the Soviet platform. In short, Finlandization. Such an attitude finds precedent in the unwillingness of West Germany to seriously join the American-led embargo of the Soviet Union following the Soviet Army's invasion of Afghanistan.

At least one alternative to the Soviet gas deal exists. This plan deserves the serious consideration of West European and American leaders before they commit themselves to the Soviet proposal.

Huge reserves of coal exist in the Western United States. Those could be exploited, and the coal could be transported to the East Coast via slurry pipeline or rail and then transshipped to Europe. Coal gasification plants could be built in each of the consuming nations and linked to the existing West European pipeline network. Whereas the natural gas reserves to be exploited in the Soviet proposal can supply Western Europe for only 30 years, American coal supplies are sufficient for 300.

Our preliminary inquiries suggest that this alternative plan is technologically feasible and price-competitive with the Soviet pipeline project. Most importantly, because the entire logistical infrastructure (from coal reserves to refining and distribution facilities) would remain in the West, West European vulnerability to Soviet natural gas cutoffs would be nullified. Western unity would grow through energy interdependence rather than disintegrate from the Finlandization of Europe.

MILES M. COSTICK
MARC DEAN MILLOT
Washington, Jan. 19, 1981

The writers are, respectively, president and a research analyst of the Institute on Strategic Trade.

~~CONFIDENTIAL~~

GAS INCOMING PIPELINE 2

Department of State TELEGRAM

PAGE 01 PARIS 05752 01 OF 02 251905Z 3020

ACTION EB-04

INFO OCT-01 ADS-00 INR-05 EUR-08 SS-14 AF-04 CIAE-00
NEA-07 NSC-05 NSAE-00 DOE-01 SMS-01 OES-02 SP-02
DOEE-00 /054 W

----------115416 251918Z /43

P 251715Z FEB 81
FM AMEMBASSY PARIS
TO SECSTATE WASHDC PRIORITY 1232
INFO AMEMBASSY ALGIERS
AMEMBASSY BONN
AMEMBASSY BRUSSELS
AMCONSUL DUSSELDORF
AMEMBASSY LAGOS
AMEMBASSY LONDON
AMEMBASSY MOSCOW
AMEMBASSY OSLO
AMEMBASSY THE HAGUE
AMEMBASSY VIENNA
USMISSION USNATO

~~C O N F I D E N T I A L~~ SECTION 01 OF 02 PARIS 05752

LIMDIS

E.O.12065: RDS-1 02/25/97 (DUNCAN, ROBERT B.) OR-S
TAGS: ENRG, USSR, FR, FRG
SUBJECT: FRG-FRENCH JOINT STUDY ON SOVIET GAS DEAL

REF: STATE 41761

1. SUMMARY: DURING DE WISSOCQ'S FEBRUARY 20 MEETING WITH ENGLEMANN, THE FRENCH TOLD THE GERMANS THAT THEY HAVE NOT YET DECIDED HOW MUCH ADDITIONAL SOVIET GAS THEY WISH TO BUY. THE FRENCH HAVE THE IMPRESSION ON THE BASIS OF GERMAN FIGURES THAT THE FRG HAS NO ALTERNATIVE TO INCREASED GAS IMPORTS, PARTICULARLY FOR HOME HEATING PURPOSES. THE GERMANS SEE LESS RISK THAN THE FRENCH IN INCREASED PURCHASES OF SOVIET GAS AND WILL PROBABLY BE READY TO MAKE THEIR DECISION BY THE BEGINNING OF APRIL. THE FRENCH CLAIM THERE IS LITTLE EUROPEAN INTEREST IN ADDITIONAL ALGERIAN GAS. THEY ALSO SEE GROWING UNCERTAINTY IN EUROPEAN GAS SUPPLY AND WANT ACTIVE US SUPPORT FOR THE EXPEDITED DEVELOPMENT OF NIGERIAN AND NORWEGIAN GAS RESOURCES. END SUMMARY.

2. IN RESPONSE REFTEL, EMBASSY OFFICER ON FEBRUARY 24 MET WITH FRENCH ENERGY DIRECTOR GENERAL DE WISSOCQ FOR READOUT ON HIS FEB 20 MEETING WITH ENGLEMANN ON THE SOVIET/WESTERN EUROPEAN GAS DEAL.

3. DE WISSOCQ SAID THE FRENCH INFORMED THE GERMANS OF THE STATUS OF THEIR EFFORTS TO DEAL WITH GAS SUPPLY DISRUPTION BY MEANS OF INTERRUPTIBLE INDUSTRY CONTRACTS AND INCREASED STOCKING CAPABILITIES; OF THE FRENCH CONVICTION THAT AN ALGERIAN EFFORT TO JOIN OR EXPLOIT A SOVIET SUPPLY DISRUPTION WAS A REAL POTENTIAL RISK; AND THAT THE FRENCH HAD NOT YET MADE A FINAL DECISION ON HOW MUCH SOVIET GAS THEY INTENDED TO BUY.

4. THE GERMANS, ACCORDING TO DE WISSOCQ, OUTLINED THEIR PROJECTED GAS REQUIREMENTS THROUGH 1990. DE WISSOCQ SAID WE COULD UNDOUBTEDLY GET THE SPECIFIC NUMBERS FROM THE GERMANS BUT HIS CLEAR IMPRESSION FROM THE FIGURES WAS THAT THE GERMANS REALLY HAVE NO ALTERNATIVE TO INCREASED GAS IMPORTS TO MEET THEIR ENERGY REQUIREMENTS, PARTICULARLY FOR HOME HEATING. LIKE THE FRENCH, THE GERMANS HAVE NO INTENTION OF INCREASING THEIR DEPENDENCE ON IMPORTED OIL. IN CONTRAST TO THE FRENCH, THE GERMANS DO NOT HAVE ANY EARLY OPTION TO RELY INCREASINGLY ON GREATER USE OF ELECTRICITY FROM NUCLEAR POWER. THE GERMANS, FOR

PARIS 05752 01 OF 02 251905Z 10661

DOMESTIC POLITICAL REASONS, ALLEGE THEY CANNOT SUBSTANTIALLY INCREASE COAL IMPORTS AT THE EXPENSE OF THEIR DOMESTIC HIGH COST COAL INDUSTRY. THE GERMANS CONCLUDE THAT ABOUT ONE-THIRD OF THEIR INCREASED ENERGY REQUIREMENTS FOR THE 1985-1990 PERIOD MUST COME FROM INCREASED NATURAL GAS IMPORTS.

5. IT IS DE WISSOCQ'S IMPRESSION THAT THE GERMANS DO NOT HAVE THE SAME RISK ASSESSMENT OF INCREASED GAS IMPORTS FROM THE SOVIET UNION AS DO THE FRENCH IN THE CONTEXT OF THEIR RESPECTIVE TOTAL GAS SUPPLY SITUATION. ALL GERMAN GAS IMPORTS, EXCEPT THOSE FROM THE SOVIET UNION, COME FROM SECURE WEST EUROPEAN SOURCES.

6. WITH REGARD TO COPING WITH SOVIET SUPPLY DISRUPTIONS, THE GERMANS NOTED THAT THEIR GEOLOGY WAS LESS FAVORABLE THAN THAT OF FRANCE WITH REGARD TO THE DEVELOPMENT OF UNDERGROUND STORAGE CAPACITY. DE WISSOCQ STRESSED, HOWEVER, THAT THE GERMANS WERE HEADING IN THE RIGHT DIRECTION IN TERMS OF EXPANDING THE LEVEL OF INTERRUPTIBLE INDUSTRIAL CONTRACTS TO DEAL WITH SUPPLY EMERGENCIES.

7. DE WISSOCQ RECEIVED THE CLEAR IMPRESSION THAT THE GERMANS WOULD BE READY BY THE END OF MARCH OR THE BEGINNING OF APRIL TO MAKE A FINAL DECISION WITH REGARD TO INCREASED GAS IMPORTS FROM THE SOVIET UNION.

8. BROADENING THE CONTEXT OF THE DISCUSSION, DE WISSOCQ QUESTIONED WHETHER EUROPEAN PROJECTIONS OF THEIR FUTURE GAS SUPPLIES REMAINED VALID. HE SPECIFICALLY REFERRED TO A RECENT DOWNWARD REVISION IN THE ESTIMATED RESERVES OF THE EKOFISK NORTH SEA GAS FIELD AND TO THE LIKELY TWO YEAR DELAY IN THE BONNY LNG PROJECT IN NIGERIA.

~~CONFIDENTIAL~~

~~CONFIDENTIAL~~

Department of State

INCOMING TELEGRAM

3

PAGE 01 PARIS 05752 02 OF 02 251905Z 3026
ACTION EB-04

INFO OCT-01 ADS-00 INR-05 EUR-08 SS-14 AF-04 CIAE-00
NEA-07 NSC-05 NSAE-00 DOE-01 SMS-01 OES-02 SP-02
DOEE-00 /054 W
----------115422 251919Z /43

P 251715Z FEB 81
FM AMEMBASSY PARIS
TO SECSTATE WASHDC PRIORITY 1233
INFO AMEMBASSY ALGIERS
AMEMBASSY BONN
AMEMBASSY BRUSSELS
AMCONSUL DUSSELDORF
AMEMBASSY LAGOS
AMEMBASSY LONDON
AMEMBASSY MOSCOW
AMEMBASSY OSLO
AMEMBASSY THE HAGUE
AMEMBASSY VIENNA
USMISSION USNATO

~~C O N F I D E N T I A L~~ SECTION 02 OF 02 PARIS 05752

LIMDIS
9. REFERRING TO UNCONFIRMED PRESS REPORTS THAT EL PASO HAD DECIDED TO ABANDON ITS ALGERIAN LNG OPERATION, WE ASKED HOW THE FRENCH WOULD FACTOR INTO THEIR PROJECTED GAS SUPPLY EQUATION POSSIBLE PROSPECTS FOR INCREASED ALGERIAN GAS EXPORTS TO EUROPE. DE WISSOCQ REPLIED THAT THE FRENCH DID NOT LOOK WITH FAVOR ON INCREASING THEIR PURCHASES OF ALGERIAN GAS. IN THE FRENCH VIEW, THE ALGERIANS HAD PROVEN THEMSELVES ON SEVERAL OCCASIONS TO BE UNRELIABLE SUPPLIERS. DE WISSOCQ ALSO REFERRED TO UNDERLINING POLITICAL STRESSES BETWEEN ALGERIA AND FRANCE CAUSED BY THEIR HISTORICAL RELATIONSHIP. DE WISSOCQ CONTINUED THAT THESE POLITICAL STRESSES COULD NOT BE ELIMINATED UNTIL THE NEXT GENERATION. DE WISSOCQ ALSO THOUGHT THAT ALGERIAN ENERGY MINISTER NABI WOULD BE MUCH MORE LIKELY TO OFFER TO SELL EL PASO GAS TO THE DUTCH OR GERMANS AS A SUBSTITUTE FOR LNG PROJECTIONS WHICH THE ALGERIANS HAD ABANDONED. HOWEVER, THE DUTCH AND GERMANS, ACCORDING TO DE WISSOCQ WERE IN NO PARTICULAR MOOD TO RUSH TO BUY ALGERIAN GAS GIVEN RECENT INDICATIONS OF ALGERIAN UNRELIABILITY. IN VIEW OF THE GROWING UNCERTAINTIES FOR EUROPEAN GAS SUPPLY, DE WISSOCQ THOUGHT THAT THE AMERICAN GOVERNMENT COULD USEFULLY INTERVENE TO ENCOURAGE BOTH THE NORWEGIANS AND THE NIGERIANS TO TAKE A MORE POSITIVE ATTITUDE TOWARD THE DEVELOPMENT OF THEIR GAS RESOURCES IN TERMS OF THE GLOBAL STABILITY OF THE WEST.

10. DE WISSOCQ CONCLUDED THAT THE FRENCH WOULD APPRECIATE A READOUT OF THE DISCUSSIONS IF THE USG DECIDES TO RAISE THE SOVIET GAS PIPELINE ISSUE WITH FRG FOREIGN MINISTER GENSCHER DURING HIS FORTHCOMING VISIT TO WASHINGTON.
CHAPMAN

~~CONFIDENTIAL~~

ITEM RETURNED TO NSC SECRETARIAT IN APRIL 1987

Log # PA81-10107 March 81 cpy 035

10649 3/5 3

MEMORANDUM FOR: Mr. Richard Pipes
National Security Council

cy sent Treat

The attached memorandum on strategic implications of the proposed Soviet-West European natural gas arrangement responds to the request in your 3 March telephone conversation with Sumner Benson. When printing is completed, you will be sent the full intelligence assessment. Any comment you might have on the usefulness of this typescript would be welcome.

L. K. Gardiner

L. Keith Gardiner
Chief, International
Issues Division
Office of Political
Analysis

Date 4 March 1981

FORM 5-75 101 USE PREVIOUS EDITIONS

10650

file gas

~~CONFIDENTIAL~~

FOIA(b)(3)

CENTRAL INTELLIGENCE AGENCY
NATIONAL FOREIGN ASSESSMENT CENTER

4 March 1981

MEMORANDUM

STRATEGIC IMPLICATIONS OF THE PROPOSED
SOVIET-WEST EUROPEAN NATURAL GAS ARRANGEMENT

The Soviet Union is becoming the world's largest exporter of natural gas. By 1990, Soviet gas is expected to constitute 20 percent of continental Western Europe's gas supplies. The proportion of Soviet gas in total West European energy consumption will be roughly comparable to the current proportion of Persian Gulf oil in total US energy consumption. This poses potential strategic problems for Western Europe and for NATO, although not of the magnitude or type associated with West European dependence on imported oil.

The proposed Soviet-European gas pipeline agreement offers the USSR an opportunity to draw Western Europe into a closer political-economic relationship. Under certain conditions, the Soviet Union might attempt to exploit this relationship to undermine West European willingness to act in concert with the United States on various issues, including those affecting mutual security. Heightened dependence on the Soviet Union for natural gas would, for example, increase incentives for West European footdragging against a United States lead in imposing future economic boycotts on the USSR or in limiting transfer of high technology to the Soviets.

Whether the Soviet Union would choose to exploit that opportunity, and how large its potential leverage to influence European actions might be, will depend on a number of factors:

- *The availability to Europe of alternative supplies of natural gas.*

This memorandum was prepared by [redacted] *Office of Political Analysis, at the request of Richard Pipes, National Security Council. It was coordinated with the Office of Economic Research. Research was completed on 1 March 1981. Comments and questions are welcome and may be directed to* [redacted] *Office of Political Analysis,* [redacted]

PA M 81-10101

~~CONFIDENTIAL~~

[redacted]

- *The amount of "insurance" the Europeans have secured in the form of strategic gas reserves and their capability to substitute other fuels.*

- *West European and NATO cohesion and will to resist Soviet pressures.*

- *Soviet judgments of the risks to its gas-generated hard currency earnings, which would be about equal to current earnings from oil sales to West Europe.*

Thus far, at least, the opportunities for exploitation by the Soviets of the potential leverage in the natural gas relationship appear greater than the risks that they would face in applying leverage.

* * * *

Growing West European Interest in Soviet Gas

The eagerness of the Soviet Union to capitalize on its possession of the world's largest reserves of natural gas coincides with a shift by continental West European countries from near self sufficiency to a condition of rapidly rising requirements for natural gas imports. Through the 1970s, growth in indigenous production enabled Western Europe to increase the share of gas in total energy use from less than 10 percent to almost 20 percent. Nonetheless, plans to limit rates of exploitation and exports by the West European countries that have the greatest potential for increased capacity (UK, Netherlands, and Norway) will force the major West European consumers to turn elsewhere to continue their increases in consumption in the 1980s.

Liquefied natural gas imports from less developed countries (LDCs) will probably be increased but will not be sufficient to meet West European requirements. LDC supplies probably will fall short for a number of reasons:

- West European reluctance to increase sharply dependence for energy on nations that are perceived to be of questionable political reliability.

- Mixed feelings by some of the LDCs with the greatest potential for expanded capacity, such as Iran and Algeria, toward the increased influence and interdependence that would come with Western exploitation and depletion of their natural gas resources.

- Increased competition from Japan and, perhaps in time, the United States for LDC natural gas.

° High technical complexity and cost of transporting (liquefying, special shipping, and deliquefying) the LDC product.

The focus of West European plans concerning natural gas supplies, therefore, is on greater imports of pipeline gas from the Soviet Union. The USSR already supplies Western Europe with about 2.5 billion cubic feet (bcf) per day based on prior agreements with West Germany, France, Italy, and Austria. Current negotiations are for additional Soviet supplies of at least 3.9 bcf/day to these four countries plus Belgium and Netherlands by 1990.

These plans would double the proportion of Soviet gas in total West European gas consumption to about 20 percent. The most important increases would be in France (from 14 to 33 percent), West Germany (from 16 to 26 percent), and Belgium (from 0 to 40 percent). On a broader scale, Soviet gas would rise to about 3.5 percent of total West European primary energy supplies.

Although similar in volume to US dependence on Persian Gulf oil (5 percent of US energy supplies), prospective dependence on Soviet pipeline gas does not pose for West Europe the magnitude and type of security problems that stem from imported oil. Gas will remain less than half as important as oil in the six West European countries on the receiving end of the pipeline. It will provide less than 25 percent of total energy supply in all of the importers except the Netherlands, while oil is projected to remain above 40 percent in all countries except France. Moreover, the setup of the pipeline itself will restrict the USSR's ability to manipulate gas supply to any single West European country without affecting all members of the pipeline system. Soviet gas will flow through Eastern Europe and then enter the West European gas net, where its distribution will be controlled by the West Europeans.

Soviet Stake in the Pipeline Deal

The Soviet Union would have strong reasons after the pipeline was completed not to cut off gas supplies to West Europe. The USSR is counting heavily on hard currency earnings from these gas sales to compensate for a decline in oil export revenues, which accounted for nearly half of Soviet hard currency earnings in 1979. Revenues from gas will be important in securing the Western technology necessary for long-term development of Soviet energy resources and for helping the lagging Soviet economy in the 1980s. Any cutoff of gas supplies would risk the loss of this hard currency and indeed of the whole climate of good faith in Soviet-Western economic dealings that is important to Soviet domestic economic planning and to Soviet diplomacy in a period of strained political relations with the West.

West Europe's view that these economic considerations would restrain the USSR is a large part of the reason why some West Europeans believe that greater Soviet-Western energy cooperation offers no serious threat of a supply cutoff.

Potential Soviet Political Leverage

Nevertheless, there are ways of manipulating the gas dependence short of a cutoff that might create enough apprehension among West Europeans to increase their susceptibility to Soviet influence. Moreover, the extreme case of a Soviet cutoff would create severe enough political and psychological consequences for Western Europe to merit premonitory analysis. The chances that the Soviet Union would attempt to manipulate gas supplies to Western Europe are not inconsequential since they have used energy as a political weapon in the past. For example, they reduced or cut off oil supplies to Yugoslavia in 1948, to Israel in 1956, and to China in the early and mid-1960s.

The natural gas arrangement with Western Europe would yield two major opportunities for increased political influence for the Soviet Union. The first lies in the impetus that the gas deal would impart to broader Soviet efforts to draw Western Europe into closer political and economic relations with the USSR. The aim of this Soviet effort is to increase the legitimacy of Soviet foreign policy goals in the eyes of West Europeans and to persuade them to see US-led or coordinated NATO "anti-Soviet" initiatives as unnecessary or disturbing to a favorable status quo. The Soviets are now pursuing this goal, with mixed success, through individual bilateral and multilateral arrangements and through the Conference on Security and Cooperation in Europe.

The second advantage to the Soviet Union lies in opportunities that the evolving natural gas relationship would provide to help achieve specific political objectives. The pipeline deal might give the Soviets substantial opportunity to gain political benefits if they used their potential leverage indirectly and as only one element in a broader diplomatic offensive. Opportunities would arise during the construction phase of the gas deal (until at least the mid-1980s) because of European eagerness to keep production and employment levels as high as possible. For example, planned Soviet purchases of pipe, compressors, valves, and other equipment will aid some financially troubled European firms and may prevent the closing of several German plants. After the pipeline is completed, the leverage would lie in West European reluctance to cope with Soviet manipulation of gas supplies.

To capitalize on these potential opportunities, the Soviets would have to create the apprehension (in the construction phase) that equipment orders might be cancelled and (later) that the supply of gas might be reduced without appearing so threatening as to provoke a West European backlash and to unify the West European countries' resistance. Thus, they probably would allude to the gas situation only indirectly--by reminding the West Europeans of the benefits of economic cooperation--while stressing the need to avoid "anti-Soviet" actions that could worsen the West European political climate and playing on differences between the West Europeans and the United States and among West European countries. They could avoid direct threats by reducing gas supplies with the explanation that there were "technical problems," which would be "solved" if the political situation improved.

Specific Areas of Leverage

Two issues that the USSR might try to influence by using its potential natural gas leverage as part of a broader diplomatic effort are Western economic sanctions and NATO military modernization. In the first case, the Soviets probably would believe that the prospect of difficulties arising with Soviet gas deliveries would be an important consideration in West European support for a US-led economic boycott on the Soviet Union or in limiting transfers of high technology to the Soviets. That the Soviets are thinking of using energy exports in this fashion is indicated by a TASS commentary in April 1980 which hinted that Western Europe and Japan might risk losing fuel supplies from the Soviet Union if they joined in the economic sanctions that were imposed by the United States after the Soviet invasion of Afghanistan.

The "worst case" situation that could arise from the exercise of Soviet leverage would involve shifts in the decisions by European NATO members on deployment of long range theater nuclear forces (LRTNF) and on implementation of the NATO Long Term Defense Plan. For example, if Belgium had received 40 percent or even 20 percent of its natural gas--rather than none at all--from the Soviets, the USSR would have had an additional lever with which to press for Belgian opposition to LRTNF deployment. Moreover, to the extent that Soviet-West European economic interdependence increases, there will be one more argument for West European groups that are trying to hold down growth in real defense spending. Finally, the prospective doubling of French dependence on Soviet gas may assist the Soviet effort to slow or halt the recent trend toward closer military cooperation between France and its allies.

The critical political factor in any Soviet effort to capitalize on the potential leverage flowing from the natural gas supply relationship is how accurately the USSR judges West European public opinion. The Soviet Union has long tried to influence the West European public on domestic West European issues, most recently in campaigns to prevent deployment of the "neutron bomb" and of LRTNF. This has given the Soviets experience in assessing which groups would be most sensitive to the economic losses posed by difficulties with the natural gas arrangements and how politically influential these groups are. Because the Western European public has been sensitized by the Middle East oil cutoffs of the past, it might be anxious about a prospective loss of Soviet gas.

Would the "Natural Gas Weapon" Work?

Soviet ability to use its potential natural gas lever successfully would depend both on the European political will to resist and on two technical considerations--the relatively short-term factor of national and regional strategic reserves and the mid-term availability of alternative supplies of gas in the world market.

In the short term, the West European response would depend heavily on how willing the Europeans had been to pay the cost of insuring themselves against Soviet leverage. The key questions would be how much gas was available from a strategic gas reserve or through surge production; and whether Europe had retained an effective dual fuel capacity that would allow industrial, commercial, and large residential gas users to switch readily to substitute fuels.

Such a strategic defense would depend, in turn, on the degree of cooperation among West European and other developed countries. If the Soviets were to suggest a general reduction in deliveries, they would have to consider the possibilities of the Dutch expanding production from the Groningen field; the United Kingdom and Norway releasing gas from the North Sea for continental European use; and the United States diverting US-bound shipments of LNG or furnishing oil and coal so that European gas could be channeled exclusively to economic sectors or geographic regions where substitution was difficult.

The second consideration for an effective Western defense against Soviet natural gas leverage would be the degree of mid-term flexibility in the world gas and energy markets. In the mid-1970s Japan and the United States were able to pull back from

projected heavy investment in Soviet Siberian gas because they had the alternatives of relying more heavily on gas from Southeast Asia and Australia and from Canada, Mexico, and Algeria, respectively.

Although the West Europeans appear more sanguine about the implications of dependence on Soviet gas than do Japan and the United States, they agree that diversification of sources is important in denying the Soviets an opportunity to use gas supply to push for concessions on other economic or security issues. The West German cabinet, for example, reportedly has discussed what proportion of total gas consumption Soviet imports would have to reach before Germany became critically dependent on the USSR. In the summer of 1980, the cabinet apparently set a guideline of 30 percent, somewhat above the projected level of German dependence for the 1980s. More recently, German Economics Minister Lambsdorff stated that he did not believe that security against Soviet gas leverage could be much increased through stored reserves or greater surge capacity and that Germany's real protection lay in diversifying its sources of gas supply and types of fuel.

It is not yet clear what degree of diversification the West Europeans will be able to maintain in the 1980s. Continued expansion of LNG production could mean that ocean-transported gas, primarily from LDCs, could be much more important than Soviet pipeline gas. Algeria, for example, has the capability to rival the USSR as a supplier to Western Europe (counting Algeria's trans-Mediterranean pipeline).

The West Europeans, however, face major uncertainties in connection with gas imports from LDCs. Larger than anticipated costs and a somewhat cavalier attitude toward long-term contracts could lead to cancellations of major planned facilities other than Algeria's Arzew-3 LNG plant. Anti-Western political upheavals like the Iranian revolution could lead to suspension of projects like the Iranian-Soviet-West European IGAT-2 natural gas swap that can still be defended on economic grounds. With long-term patterns between gas and oil prices not yet clear, there may be periodic attempts to increase prices radically, such as the Algerian effort to triple the price of gas in 1980.

Developments like these could influence the proportion of Soviet and non-Soviet gas in total West European imports, and thus affect prospective Soviet leverage. For example, a shortfall in projected North or West African gas could

lead to competitive bidding for that gas among several West European countries. If, for whatever reason, the losing West European country were not able to persuade the Netherlands or the United Kingdom to meet its additional needs for gas, it might turn to the USSR for increased supply. Even though this Soviet gas would be supplied through a common European pipeline, the importing country might feel sufficiently pressed economically that it would be receptive to Soviet suggestions on wider ranging political and economic issues. In addition, if current US negotiations with Algeria portend a more active US role in the LNG market, there could be competition between the United States and its European allies for African gas. To the extent that this competition weakened West European prospects for obtaining non-Soviet gas, it could strengthen West European incentives to cooperate with the Soviet Union.

Finally, a tightening of the world gas market might, over time, lead Japan and possibly the United States to renew negotiations for joint energy development with the Soviet Union. Such negotiations could raise strategic issues that would be important, although less far-reaching than those that grow out of the Soviet-West European economic and energy cooperation.

Outlook

The Soviet ability to capitalize on a changing world gas market will depend both on West European and broader allied energy planning and on the availability of alternatives to Soviet gas in the world market. The Soviets probably believe that the West Europeans are capable of establishing gas reserves and a gas and oil surge production capacity. They realize that Western Europe, like Japan, is counting on greatly increased world production of LNG in the 1980s.

The Soviets are also aware, however, that during past oil shortages the West Europeans have often failed to cooperate, either among themselves or with Japan and the United States. The Soviets may judge, therefore, that the Western countries lack the cohesion and strategic perspective to address energy security issues collectively and that they are unlikely to pay the economic and political costs necessary to counter the vulnerability arising from their dependence on imported gas. The Soviets also know that there are political and economic uncertainties associated with increased gas production in LDCs and that the USSR has a reputation for reliability in energy supply that could

appear increasingly reassuring to the West Europeans. For these reasons the Soviets may see more opportunities than risks in testing Western cohesion by trying to exploit the potential leverage in the natural gas relationship.

GAS PIPELINE 15

~~Top Secret~~

10651

FOIA(b)(3)

SPECIAL ANALYSIS

USSR - WESTERN EUROPE: Proposed Natural Gas Pipeline

by

The natural gas pipeline proposed to connect Siberia with six West European countries is the largest trade project ever negotiated by the USSR and Western nations. Soviet oil exports to the West probably will decline in the mid-1980s, and increased gas exports will be Moscow's only major alternative source of hard currency. Without the earnings from the sale of gas sent through the pipeline, Moscow would have to reduce substantially its imports of Western machinery and other goods. The project would increase West European reliance on Soviet gas supplies, although dependence on all Soviet energy supplies as a whole would increase only slightly as Soviet oil exports drop. The West Europeans consider the risk entailed in depending on Soviet gas to be worthwhile, in the interest of keeping the sources of their energy supplies diversified.

The pipeline would be a major new element in Soviet - West European relations, providing the Soviets one additional lever they could use in a broad diplomatic offensive to persuade the West Europeans to accept their views on East-West issues. Such diplomatic pressures and leverage might be directed, for example, at undermining European willingness to act in concert with the US on security issues.

Any temptation the Soviets might have to threaten to cut off gas shipments for political ends would be affected by the Soviet need for hard currency earnings and by the physical setup of the pipeline, which would preclude cutting off any one West European country without cutting off all others.

The pipeline, however, could be exploited more subtly for political leverage. The emphasis would be on the benefits to be gained from cooperation and from avoiding contentious issues.

--continued

Nevertheless, even cutoffs have some precedent. The Soviets cut off oil supplies to Yugoslavia in 1948, to Israel in 1956, and to China in the early and mid-1960s. In all three cases, Moscow faced much less serious consequences than would be at stake with the European pipeline.

West European Perspective

Barring a major increase in East-West tension, West European governments see major reliance on Soviet gas as entailing acceptable political risks. The West Europeans view the USSR as a more reliable supplier than many alternative sources. They argue, for example, that Moscow is less likely than Algiers to use gas leverage as a means of blackmail.

West Europeans point out that their overall dependence on Moscow for energy supplies would increase little, because of the anticipated drop in Soviet oil deliveries.

The West European countries involved see major economic benefits:

--They need to increase gas imports to offset the likely decline in oil supplies.

--Equipment sales related to construction of the pipeline would create thousands of jobs and billions of dollars in business for West European firms.

--The Soviets also would spend a large part of their earnings from gas sales in Western Europe.

As long as the situation in Poland remains volatile, however, West European officials will be reluctant to signal their approval of the project to the Soviets. West Germany and France recently agreed to a joint study of the whole project, which they could use to delay it if necessary.

--continued

Impact of the "Natural Gas Weapon"

The likelihood is strong that the Soviets will attempt subtle exploitation of the West European interest in the pipeline project and, in the longer term, in securing a steady supply of the natural gas. Soviet success will depend on West European and NATO cohesion and resolve and on West European progress over the next few years in developing strategic reserves and a fuel substitution capability.

West European countries are taking such steps to protect themselves from Soviet supply interruptions. Additional progress will be necessary, however, to provide the cushion needed to avoid serious repercussions in the event of a complete Soviet cutoff.

GAS PIPELINE Pipes 18
2 10652 FYI

March 25, 1981

To: Richard V. Allen
From: Allen Lenz
Subject: Decision on Spare Parts Licenses for Caterpillar Tractors

The ~~attached~~ Attached makes the case for your allowing Commerce a go ahead on previously approved licenses for export of Spare Parts for use on Caterpillar Pipe layers previously exported to the USSR.

It is important to note that no existing regulation required Commerce to request your concurrence. Rather, submission indicates a desire to not be "out of step".

I believe this issue merits your prompt attention. My Commerce sources tell me that Secretary Baldrige feels word from you is overdue. A "no" will use up substantial personal capital with him, but a further delayed response would be even worse.

Put less delicately, "my ass is on the line" to deliver a response immediately, if not sooner!

I strongly recommend a personal phone call to Baldrige to restore any good will that might otherwise be lost. If this can't be done, I can relay the decision to Lionel Olmer.

Larry Brady has no objections to the licenses being issued and feels that the decision is a political call.

Lenz is sending talking points

done
Talked to Baldrige
Mon 26 / 1832
Told him AL would be in contact

10653 19

MEMORANDUM

1239

NATIONAL SECURITY COUNCIL

~~CONFIDENTIAL~~

ACTION

March 25, 1981

MEMORANDUM FOR RICHARD V. ALLEN

FROM: TIM DEAL
ALLEN J. LENZ

SUBJECT: Export Controls: License Applications for Caterpillar (U)

Problem: Commerce has sent to us for review the memo at Tab A concerning four license applications by Caterpillar to ship spare parts for pipelayers previously exported to the USSR. Caterpillar has mounted an intensive lobbying campaign to obtain approval of these licenses. While we would prefer to delay a decision on them until we have reviewed our overall policy on the export of oil and gas equipment and technology to the USSR, we may not have that option. Commerce is under heavy pressure to grant the licenses and probably cannot delay action much longer. This memorandum: (1) provides background information on the cases and existing procedures for handling Soviet oil/gas applications, (2) describes the potential policy implications, and (3) recommends that we inform Commerce that the NSC staff has no objection from a foreign policy standpoint to the issuance of licenses for the spare parts. (C)

Background:

Caterpillar has filed four licenses applications to export spare parts used in pipelayers previously sold to the USSR (total transaction value: $2.7 million). These parts are unrelated to the 200 pipelayers for the West Siberian (Yamal) gas pipeline which Commerce licensed last fall, but which the Soviets did not buy. Concerned agencies (Commerce, State, Defense, and Energy) recommend approval of the licenses. (U)

In 1978, the Carter Administration put export controls on oil/gas equipment and technology destined for the USSR. Under procedures established for such cases, Commerce referred all licensing applications which met certain criteria (e.g., the value of the transaction was more than $1 million; the level of technology transfer was medium to high; the potential impact on Soviet oil production was significant) to State and NSC for foreign policy review. In other less important cases, Commerce could issue the licenses without referral to State and NSC so long as the item was not subject to strategic trade controls. (C)

~~CONFIDENTIAL~~
Review on
March 25, 1987

Despite elaborate screening procedures, the Carter Administration did not deny any export license applications for oil and gas equipment or technology until after the Afghanistan invasion. In February 1980, Dr. Brzezinski issued a directive in President Carter's name which set forth new conditions for issuance of export licenses in Soviet oil/gas cases. Accordingly, there was to be a presumption of denial for technology and a presumption of approval for end-use equipment. Based on this guidance, in 1980 the Carter Administration:

-- issued export licenses for various end-use items (e.g., offshore drilling equipment for joint Japanese/Soviet projects off Sakhalin Island);

-- issued export licenses for 200 Caterpillar pipelayers for the West Siberian gas pipeline;

-- denied a license to Dresser Industries for technical training in connection with the much publicized drill bit plant in the USSR;

-- denied five applications for relatively sophisticated computers used by the Soviet Ministry of Energy in seismographic work. (C)

Commerce referred the Caterpillar spare parts applications to the NSC on January 9, 1981. Under the existing policy guidelines, foreign policy review of the applications was not necessary, but Commerce sought guidance on them because of the controversy surrounding the original approval of the licenses for the Caterpillar pipelayers for the Siberian project. On instructions from Dr. Brzezinski, we returned the applications to Commerce without action on January 13. (C)

Policy Implications:

Caterpillar can make a good case for approval of the licenses:

-- The applications cover spare parts, not finished equipment or technology. (C)

-- It has sold 1000 pipelayers to the USSR over the past ten years; there is a continual need for replacement parts to service these machines. (C)

-- The spare parts would not be used on the Siberian pipeline. Approval of the licenses would not, therefore, compromise our eventual position on US/Western participation in that project. (C)

-- We could justify the export of spare parts as consistent with USG policy on Soviet oil/gas cases since the Afghanistan invasion; we would break no new ground. (C)

But it will be difficult to treat this case in isolation. Approval of the license is bound to have broader ramifications:

-- Unless there is a further deterioration in the political environment, we would be expected to take similar action in the near future on other pending applications. Issuance of a large number of export licenses might be perceived as a political signal to the Soviet Union -- whether intended or not. (C)

-- Caterpillar desires to sell an additional 100 pipelayers to the USSR for projects not connected with the Siberian pipeline. Approval of the license for spare parts may encourage Caterpillar to push for immediate authorization to export the pipelayers. Permitting that sale would raise anew questions about the US commitment to the post-Afghanistan sanctions effort and undermine whatever allied cooperation still exists. (C)

-- The farm community and its supporters in Congress would attack a decision to allow Caterpillar to ship additional pipelayers while we continue to block farm sales through the partial grain embargo. Domestic reaction to a favorable decision on the spare parts might not be as severe, but it would hardly go unnoticed. (C)

Comment:

This is a tough call. It would be preferable to defer action on the licenses for the spare parts and other similar applications until US/Soviet relations improve. But we believe that the Administration cannot wait that long. Commerce will have to move soon on the large -- and growing -- backlog of Soviet oil/gas cases. Under Export Administration Act regulations, Caterpillar or other applicants could force the issue because US regulations permit persons who have filed license applications to petition Commerce if it does not meet legislatively-mandated deadlines. If Commerce fails to act within the prescribed period (we are already at that limit in the case of Caterpillar), the applicant can take the USG to court. (C)

On balance, we favor issuance of the licenses, recognizing that Commerce will have to take action soon on other pending cases. To reduce the risk of conveying an unintended political signal, we could suggest to Commerce that it space out license approvals and that it emphasize to Caterpillar that approval of spare parts for previously exported equipment sends no signal on export of additional pipelayers. Commerce should also emphasize on any public statement that approval of the spare parts licenses is "routine" application of long-standing guidelines. (C)

One of the most important considerations is not to impair whatever ability we have to delay West European participation in the Yamal pipeline or toughen their terms for participation. The potential value of this project to the Soviets dwarfs any other individual project. We think approval of the spare part licenses will stir less domestic controversy and give us more flexibility in influencing

the position of our allies on Yamal than would disapproval, which would clearly establish a US position that would be difficult to reverse, absent a marked improvement in US-Soviet relations. A denial on these spare part licenses would constitute a clear signal of escalation of our economic restrictions on the USSR. Even if we are prepared to send such a signal, we do not believe this is the appropriate vehicle for announcing such a policy. (C)

If you agree with this course of action, you should approve the recommendations listed below. (U)

RECOMMENDATIONS

That you inform Commerce that you have no objection to the issuance of licenses for Caterpillar spare parts. (If you approve, Allen Lenz will sign the memo at Tab B.) (C)

Approve ✓ Disapprove _____

That we advise Commerce to move through the backlog of pending Soviet oil/gas cases at a steady, but measured, pace. (C)

Approve ✓ Disapprove _____

NATIONAL SECURITY COUNCIL
WASHINGTON, D.C. 20506

January 13, 1981

Brenda Forman -

MEMORANDUM FOR: KENT KNOWLES
Deputy to the Deputy Assistant
Secretary for Export Administration
Department of Commerce

SUBJECT: Soviet Oil/Gas Cases

402085
402056
515264
516461
517035
517481

I am returning your memos of January 6, 9, and 12, requesting NSC review of the license applications for Dresser Industries, Caterpillar, and Lynes International, respectively. Dr. Brzezinski believes we should hold these and other Soviet oil/gas cases for the incoming Administration.

Tim
Timothy Deal

Please hold - we'll resubmit when new people are in place + procedures set. If any pressure comes on these, please let me know.
V. 1/19

UNITED STATES DEPARTMENT OF COMMERCE
International Trade Administration
Washington, D.C. 20230

30

8473A

Oil/Gas Waiver # 38

Date: January 21, 1981 SOVIET OIL/GAS CASE NO. 529084

To: Operating Committee Members (Defense, Energy and State)

From: Robert L. Spruell
Chief, E-W Trade Branch
PPD/OEA

Subject: Caterpillar - Pipelayer Parts, $910,000

Commerce proposes approval of the attached Soviet Oil/Gas case. Commerce further believes that this case ~~does~~/does not warrant referral to NSC/State for special foreign policy considerations based on the criteria set forth in the NSC memoranda of September 19, 1978 and February 19, 1980.

DOD Defer to NSC 1/29/81 per JHower memo.

Energy _____

State OK 1/22/81 per telcon R Spruell/R Hansen

Concur _____ _____
Director, Policy Planning Division Date

Attachment

Remarks: (If you object to the Commerce recommendation, please explain your rationale.)

NATIONAL SECURITY COUNCIL
WASHINGTON, D.C. 20506

MEMORANDUM FOR ERIC HIRSCHHORN
Deputy Assistant Secretary
for Export Administration
The Department of Commerce

SUBJECT: Caterpillar Spare Parts

This is in response to your memorandum of March 6. The NSC staff has reviewed the four cases (515264, 516461, 517035, and 529084) that you submitted dealing with the export to the USSR of Caterpillar spare parts for previously exported pipelayers. We have no objection on foreign policy grounds to the issuance of export licenses in these cases.

Allen J. Lenz
Staff Director

~~CONFIDENTIAL~~

GAS PIPELINE 35

Department of State

INCOMING TELEGRAM 10662

PAGE Ø1 TOKYO Ø6149 Ø7Ø458Z 6514 TOKYO Ø6149 Ø7Ø458Z
ACTION EUR-12

INFO	OCT-01	ADS-00	AID-07	INR-10	SS-15	CIAE-00	EB-08
	EA-10	ICA-11	DODE-00	H-01	NSC-05	NSAE-00	COME-00
	L-03	DOE-10	TRSE-00	PM-09	INT-05	OPIC-07	CEA-01
	OMB-01	STR-10	SMS-01	XMB-02	OES-09	ACDA-12	SP-02
	SPRS-02	/154 W					

----------124754 Ø7Ø5Ø5Z /13

R Ø8Ø455Z APR 81
FM AMEMBASSY TOKYO
TO SECSTATE WASHDC 7940
INFO AMEMBASSY BEIJING
AMEMBASSY BONN
AMEMBASSY LONDON
AMEMBASSY MOSCOW
AMEMBASSY PARIS
AMEMBASSY ROME

~~C O N F I D E N T I A L~~ TOKYO Ø6149

PARIS FOR USOECD

E.O. 12Ø65: GDS Ø4/Ø1/87 (ANGEVINE, CHARLES) OR-E
TAGS: EEWT, ETRD, UR, JA
SUBJECT: VISIT OF SOVIET DELEGATION TO DISCUSS YAMBURG PROJECT

REF: MOSCOW 43Ø4

1. ~~(C)~~ ENTIRE TEXT.

2. SUMMARY: SOVIET OFFICIALS KOMAROV AND AFANASIEV VISITED JAPAN FROM MARCH 24 TO 27 TO PROMOTE JAPANESE COOPERATION ON FINANCING AND PROVIDING EQUIPMENT FOR THE YAMBURG GAS PIPELINE PROJECT. THE MINISTRY OF FOREIGN AFFAIRS ACKNOWLEDGED INCREASED PRESSURE FROM THE LOCAL BUSINESS COMMUNITY OVER YAMBURG BUT STATED THE SOVIET PRESENTATION REGARDING FINANCING PRODUCED LITTLE REACTION FROM EXIM BANK.

3. FROM MARCH 24 TO 27, THE DEPUTY DIRECTOR OF THE SOVIET FOREIGN TRADE MINISTRY'S FOREIGN EXCHANGE BUREAU, MR. KOMAROV, AND THE PRESIDENT OF THE SOVIET NATIONAL MINING AND INUDSTRIAL PRODUCTS PUBLIC CORPORATION, MR. AFANASIEV VISITED JAPAN FOR TALKS WITH THE JAPANESE EXPORT-IMPORT BANK AND PRIVATE CORPORATIONS ON EQUIPMENT PURCHASING AND FINANCING FOR THE YAMBURG GAS PIPELINE. ACCORDING TO THE FOREIGN MINISTRY, THE SOVIET DELEGATION MET WITH NO GOVERNMENT MINISTRY OFFICIALS AND GAVE THE EXIM BANK ONLY A GENERAL PRESENTATION ON THE SCOPE OF THE PROJECT AND THE AMOUNT AND TYPES OF EQUIPMENT AND CONSTRUCTION MATERIALS WHICH WILL BE NEEDED. THEY SAID THE TOTAL PROJECT COST WOULD BE $15 BILLION AND THAT THEY SOUGHT $3 BILLION IN CREDITS FROM JAPAN. THE FOREIGN MINISTRY TOLD US THAT IN THEIR DISCUSSIONS WITH THE EXIM BANK, THE SOVIETS SAID THAT THEY WERE IN THE FINAL STAGE OF DISCUSSIONS ON CREDITS WITH THE EUROPEANS WHO WERE GIVING THEM PREFERENTIAL TREATMENT. (ON THE BASIS OF THE REFTEL WE COMMENTED TO THE FOREIGN MINISTRY THAT THIS WAS NOT OUR UNDERSTANDING.) THE PRESS CLAIMED THE SOVIETS TOLD EXIM THAT THE W. GERMANS HAD OFFERED 7.5 PERCENT CREDITS. MITI AND THE FOREIGN MINISTRY BOTH HAVE TOLD US THAT THE EXIM BANK MERELY LISTENED TO THE SOVIET PRESENTATION AND MADE NO COMMITMENTS WHATSOEVER. ACCORDING TO THE FOREIGN MINISTRY THE EXIM BANK AND THE SOVIET DELEGATION DID NOT SET A TIME FOR ANOTHER MEETING ON CREDITS FOR THE YAMBURG PROJECT.

4. THE PRESS REPORTED THAT THE TWO SOVIETS MET WITH FOUR JAPANESE PIPE PRODUCERS TO DISCUSS THE PURCHASE OVER FOUR YEARS OF 3.5 MILLION TONS OF PIPE FOR THE PROJECT. THE NIHON KEIZAI STATED THAT THE PIPE COMPANIES WERE INTERESTED IN SELLING TO THE SOVIETS AND WOULD CONTINUE NEGOTIATIONS WITH THEM WHILE MONITORING THE EXIM BANK'S DISCUSSIONS ON CREDITS FOR THE YAMBURG PROJECT. THE FOREIGN MINISTRY WAS UNABLE TO CONFIRM OR DENY THE ASSERTION IN THE PRESS THAT THE COMPANIES WOULD SEND REPRESENTATIVES TO MOSCOW IN LATE APRIL TO CONTINUE DISCUSSIONS ON PIPE SALES.

5. THE JAPAN-SOVIET ECONOMIC COMMITTEE, AN ORGANIZATION OF JAPANESE BUSINESSMEN, MET MARCH 31 TO DISCUSS JAPANESE-SOVIET ECONOMIC RELATIONS. ACCORDING TO THE FOREIGN MINISTRY, A NUMBER OF BUSINESSMEN SPOKE OUT IN FAVOR OF EXPANDING ECONOMIC RELATIONS AND PARTICULARLY IN FAVOR OF PARTICIPATION IN THE YAMBURG PROJECT. HOWEVER, THE CONSENSUS FAVORED CAUTION AND NO BREAK WITH PRESENT PRACTICE IN LIGHT OF THE SITUATION IN POLAND. THE GROUP DISCUSSED THE POSSIBILITY OF HOLDING A MEETING OF THE JAPAN-SOVIET JOINT ECONOMIC CONFERENCE, BUT DECIDED NOT TO HAVE A MEETING SOON AND TO DISCUSS THE SUBJECT ONCE AGAIN LATER THIS YEAR.

6. COMMENT: THERE SEEMS TO BE CONSIDERABLE INTEREST IN THE JAPANESE BUSINESS COMMUNITY IN SELLING EQUIPMENT AND SUPPLIES FOR THE YAMBURG PROJECT. THE FOREIGN MINISTRY ACKNOWLEDGED THAT THE GOVERNMENT IS FEELING MORE PRESSURE FROM THE BUSINESS COMMUNITY. THE JAPANESE SEEM TO BELIEVE THE PROJECT IS VERY MUCH ALIVE AND THE FOREIGN MINISTRY THINKS IT IS CENTRAL TO THE SOVIET UNION'S ECONOMIC PLANS.

MANSFIELD

~~CONFIDENTIAL~~

GAS PIPELINE
10663 37

EOB392 ******C O N F I D E N T I A L******E COPY IN

OP IMMED
UTS2449
DE RUDKGPQ #2718/01 1061413
O 161412Z APR 81
FM AMEMBASSY THE HAGUE

TO SECSTATE WASHDC IMMEDIATE 1289

INFO ALL EC CAPITALS
AMEMBASSY MOSCOW 1239

C O N F I D E N T I A L SECTION 01 OF 02 THE HAGUE 02718

EXDIS
E.O. 12065: RDS-4 4/16/2001 (KENNON, L.)OR-E
TAGS: EFIN, PEPR, SU, NL
SUBJECT: A KEY DUTCH VIEW ON THE SOVIET NATURAL GAS PIPELINE PROJECT

1. (C - ENTIRE TEXT.)

2. SUMMARY. THE LEADER OF THE DUTCH EFFORT ON THE PROPOSED PIPELINE TO TRANSPORT SOVIET GAS TO WESTERN EUROPE TOLD US HE CONSIDERS THE PROJECT ULTIMATELY INEVITABLE, EVEN THOUGH IT IS BOGGED DOWN IN POWER STRUGGLES AND LACK OF COORDINATION ON ALL SIDES. THE PROJECT WILL HAVE TO BE A JOINT WESTERN EUROPEAN ENTERPRISE, SINCE IT IS TOO BIG FOR ANY ONE COUNTRY ALONE. HE DOES NOT FEAR DEPENDENCE BY WESTERN EUROPE ON THE USSR VERY MUCH, BUT RECOGNIZES A NEED TO DIVERSIFY ENERGY SOURCES AND CONSTRUCT NATURAL GAS STORAGE. HIS MAJOR POLITICAL REASON FOR PUSHING THE PROJECT IS TO HELP THE USSR DEVELOP ENERGY SOURCES AND THEREBY AVOID POTENTIAL DEPENDENCE BY IT ON MIDDLE EASTERN ENERGY. DUTCH TALKS WITH THE SOVIETS ON A FINANCING PACKAGE FOR DUTCH COMPONENTS IN THE PROJECT GO ON, ALTHOUGH THE TENTATIVE ARRANGEMENTS AGREED TO LAST FEBRUARY HAVE LAPSED. END SUMMARY.

3. ECON COUNS HAD LENGTHY DISCUSSION APRIL 16 ABOUT PROPOSED SOVIET NATURAL GAS PIPELINE TO WESTERN EUROPE WITH GERRIT WAGNER (STRICTLY PROTECT), WHO IS FORMER CHAIRMAN OF ROYAL DUTCH SHELL AND THE LEADER OF THE GROUP THAT IS TRYING TO PUT TOGETHER THE FINANCING PACKAGE FOR DUTCH PARTICIPATION IN THIS POTENTIAL PROJECT. WAGNER

* *

SIT:
EOB: ECON,EURE,WEUR
WHSR COMMENTS:

******C O N F I D E N T I A L******E COPY

TREATS THE PROJECT AS ULTIMATELY INEVITABLE AND GENERALLY DESIRABLE. THE RUSSIANS DESPERATELY NEED THE FOREIGN EXCHANGE THE SALE OF NATURAL GAS WOULD PROVIDE. THE WESTERN EUROPEANS, ESPECIALLY THE GERMANS AND THE FRENCH, DESPERATELY NEED THE ENERGY. AT THE SAME TIME, HE IS WELL AWARE OF THE ENORMOUS COMPLEXITY OF BRINGING THE DEAL OFF. HE ATTRIBUTES, FOR EXAMPLE, THE SOVIET INSISTENCE ON A RIDICULOUSLY LOW NOMINAL INTEREST RATE AS THE VICTORY OF SOME POWER GROUP OR INDIVIDUAL IN THE USSR (PERHAPS THE STATE BANK). AN EVEN MORE IMPORTANT COMPLICATING FACTOR IS THAT THERE IS NO COMMON EUROPEAN NEGOTIATOR OR NEGOTIATING POLICY. EACH EUROPEAN COUNTRY ACTS ON ITS OWN, EVEN THOUGH THE PROJECT IS SO BIG -- PERHAPS DOLS 15 TO 20 BILLION -- THAT NO ONE EUROPEAN COUNTRY COULD FINANCE IT NOR USE ALL THE GAS ITSELF. (WAGNER IS OBVIOUSLY FRUSTRATED BY THIS ANARCHY AND WOULD EQUALLY OBVIOUSLY LOVE TO BE THE EUROPEAN COORDINATOR.)

4. THE OUTCOME OF THIS MANY-PLAYERED GAME IS TO MAKE PROGRESS FRUSTRATINGLY SLOW, AT LEAST FROM THE STANDPOINT OF A DYNAMIC ACTIVIST LIKE WAGNER. WE ASKED HIM WHAT, ASSUMING THINGS GO WELL IN POLAND, WOULD BE THE EARLIEST TIMETABLE FOR BEGINNING TO GET GAS THROUGH THE PIPELINE. HE SAID THAT AT BEST HE DID NOT EXPECT THE NECESSARY FIRST STEP (AT SOVIET INSISTENCE) OF LINING UP THE FINANCING PACKAGE COULD BE ACHIEVED DURING 1981. IF IT IS ARRANGED NOT TOO FAR INTO 1982, THEN GAS COULD BEGIN TO FLOW SOMETIME IN 1985. SUCH RAPID CONSTRUCTION OF THE PIPELINE WOULD BE POSSIBLE BECAUSE THE SOVIETS WOULD NOT BE BOTHERED BY TIME-CONSUMING LAND CONDEMNATION FORMALITIES. THE BULLDOZERS WOULD JUST GO TO WORK. THE GAS FLOWING IN 1985 WOULD, HOWEVER, BE FROM EXISTING FIELDS, SINCE THE SIBERIAN FIELDS COULD NOT BE DEVELOPED THAT FAST. WAGNER WAS CONFIDENT, HOWEVER, THAT THE SOVIETS COULD DEVELOP THE TECHNOLOGY TO BRING IN THE GAS FIELDS.

5. ON TECHNOLOGY AND EQUIPMENT, HE TOLD US THAT THE SOVIETS WERE ADAMANT THAT NO AMERICAN EQUIPMENT OR LICENSES BE USED IN THE EUROPEAN CONTRACTS. THEY ARE CONCERNED ABOUT THE "WAVERING NATURE" OF AMERICAN POLICY AND FEAR THAT THEY MIGHT NOT BE ABLE TO GET SPARE PARTS FOR AMERICAN EQUIPMENT. (WAGNER ASKED THAT WE HOLD THIS INFORMATION CLOSELY AND THAT IT BE USED IN A WAY THAT WOULD NOT IDENTIFY HIM WITH IT. WE SO ASSURED HIM.)

6. ON THE STATUS OF THE DUTCH NEGOTIATIONS WITH THE USSR, WHILE THE TENTATIVE FINANCING ARRANGEMENT NEGOTIATED WHEN THE SOVIETS WERE HERE IN FEBRUARY (THE HAGUE 1150) TECHNICALLY LAPSED ON APRIL 1, TALKS GO ON AND HE IMPLIED

THEY COULD BE QUICKLY REINSTATED IF THE SOVIETS AND THE DUTCH COME TO AN OVERALL AGREEMENT. HE THOUGHT THIS WOULD BE MUCH HELPED ALONG IF THE GERMANS AND THE SOVIETS COULD GET THEIR BILATERAL ACT TOGETHER, SINCE NOTHING IS GOING TO HAPPEN WITHOUT THE GERMANS. WHILE THE FIGURE OF FINANCING OF ABOUT DOLS 2.1 BILLION OF DUTCH EQUIPMENT FOR CONSTRUCTION HAS BEEN WIDELY USED, HE DID NOT PUT MUCH
BT

EOB393 ******~~C O N F I D E N T I A L~~******E COPY IN

OP IMMED
STU4739
DE RUDKGPQ #2718/02 1061415
O 161412Z APR 81
FM AMEMBASSY THE HAGUE

TO SECSTATE WASHDC IMMEDIATE 1290

INFO ALL EC CAPITALS
AMEMBASSY MOSCOW 1240

~~C O N F I D E N T I A L~~ SECTION 02 OF 02 THE HAGUE 02718

EXDIS
STOCK IN THE NUMBER. HE GAVE A RANGE OF DOLS 250 MILLION TO DOLS 5 BILLION FOR POSSIBLE DUTCH SALES. HE ADDED, HOWEVER, THAT THE DUTCH WERE HANDICAPPED BY HAVING COME INTO THE GAME LATE. IT WAS ONLY LAST DECEMBER THAT THEY ENTERED INTO SERIOUS NEGOTIATIONS WITH THE SOVIETS.

7. WAGNER SAYS HE UNDERSTANDS AMERICAN CONCERNS OVER DEPENDENCE ON SOVIET GAS, BUT MAINTAINS THAT THE SALES ARE A DOUBLE-EDGED SWORD. ONCE THE SOVIETS BECOME DEPENDENT ON THE REVENUES, THEY COULD NOT LIVE FOR LONG WITHOUT THEM. HE RECOGNIZED THAT THE EUROPEANS WOULD HAVE TO BUILD STORAGE AND IMMEDIATELY BEGIN DEVELOPING ALTERNATIVE ENERGY SOURCES TO REDUCE TO ACCEPTABLE LEVELS THE POLITICAL AND ECONOMIC RISKS OF A POTENTIAL CUTOFF. THE PRESENCE OF DUTCH GAS THAT COULD BE SUPPLIED IN STEPPED-UP AMOUNTS IF THE SOVIETS CUT OFF THE SUPPLY WOULD BE AN IMPORTANT BACKGROUND CONSIDERATION. HE DOUBTED, HOWEVER, IF ANY GUARANTEE OF SUCH COULD BE FORMALIZED WITH SO MANY SOVEREIGNTIES INVOLVED AND NO COORDINATING MECHANISM IN SIGHT.

8. WAGNER VOLUNTEERED HIS REASONS FOR TAKING SUCH AN INTEREST IN THE PROJECT, WHICH HE SAID ISN'T AGAINST DUTCH INTERESTS, BUT, GIVEN THE DUTCH FAVORABLE ENERGY POSITION, ISN'T VERY MUCH IN DUTCH INTERESTS EITHER. HE IS IN FAVOR OF ANYTHING THAT DEVELOPS SOVIET ENERGY. THERE WERE TWO FACTORS INSTRUMENTAL IN MAINTAINING WORLD PEACE. ONE WAS THE AMERICAN NUCLEAR UMBRELLA. THE OTHER WAS THE COMFORTABLE SOVIET ENERGY POSITION, WHICH HAD KEPT THEM FROM DEPENDING ON MIDDLE EAST ENERGY (EXCEPT FOR

* *

SIT:
EOB:CLWHSR COMMENTS:

******~~C O N F I D E N T I A L~~******E COPY

SOME LOCALLY-USED IRANIAN NATURAL GAS). HE FEARS THAT
THEY WOULD BE STRONGLY TEMPTED TO GO AFTER MIDDLE EAST
ENERGY, BY FORCE IF NEED BE, IF THEY RAN SHORT OF THEIR
OWN. DUNNIGAN
BTCL

GAS PIPELINE

10656 42

MEMORANDUM

2370

NATIONAL SECURITY COUNCIL

April 30, 1981

MEMORANDUM FOR RICHARD V. ALLEN

FROM: ALLEN J. LENZ

SUBJECT: (Non) Treatment of the Siberian Pipeline Project in Current IGs

The first 90 minutes of a 27 April meeting of the Energy Sub-Group of the East-West Economic IG were devoted to the standard bureaucratic paragraph by paragraph review of the Sub-group's paper on "Export Policy Toward the USSR on Equipment and Technology for Petroleum and Natural Gas Exploration and Development". In its current form, the paper is too short to be termed a study, but probably too long and torturous (8 pages; it will be more when it is finished) to be useful as a cabinet decision document. It is to go to an IG this week for further review.

After the extended review of this "Export Policy" paper, the group was ready to adjourn without much attention to an annex paper, "The West Siberian Pipeline". However, I kept them an additional 10 minutes with the following thoughts:

- Substantial preparatory work has been done toward advancing, at the July Economic Summit, the concept of "economic security".

- The Siberian Pipeline is the largest single East-West Trade transaction ever conceived and the largest single threat to Western economic security ever likely to exist.

- The pipeline project is not dead; it is only slumbering. We cannot wait beyond the Summit to make our case if we intend to have any impact on the course of this project.

- Because of the size and visibility of the pipeline project and U.S. concerns about it, in large measure U.S. export control policy on energy technology for Soviet use will be determined by what we do on the pipeline -- by the license decisions we make on that project -- rather than decisions on pipeline license applications being determined by the kinds of policy questions addressed in general terms in the paper that is being labored over so diligently.

- There is little point in introducing the general concept of economic security at the Summit meeting if we do not follow up at that meeting with a translation of the concept into specifics on the pipeline project. The President's persuasive powers should be used to advance our case on this matter. YES

- Hence, the U.S. needs a clear, carefully thought-out policy on the Siberian Pipeline, both as a determinant in our broader export control policy, and also so that we may put the pipeline in its proper context in Summit discussion of the concept of economic security.

- The four-page paper which has been prepared on the Siberian Pipeline is totally inadequate to even begin any internal examination of what our options and strategy might be in Summit discussions of the pipeline.

- Further, it is evident that little or no attention beyond this paper has been given to developing our options in-depth. The Summit meeting is only 12 weeks away. Given our experience with the "Economic Security" concept, 12 weeks probably isn't enough to deal with the specifics of strategy and tactics on the pipeline, but I think we ought to try.

- We need to begin immediately to really get into this issue in-depth.

Al — If you got all these excellent thoughts across, you worked a miracle!

I think I moved a few people. The Chairman told me that the shortcomings of the paper would be corrected this week, but I can't believe that. He simply hasn't grasped what it seems to me has to be done. Upon receipt of the next iteration of the paper, I will do a more detailed assessment and give you more specific recommendations. In the meantime, I suggest that you discuss with Secretary Haig what he has in mind for downstream efforts on the pipeline, how he sees it fitting into the Summit, and what preparatory work he believes is being done.

I will. See if you can get the paper soon. Then we'll elevate it to higher consideration. You and I could begin by talking with Haig.

Henry Nau's comments on this subject are at Tab A.

RECOMMENDATION

and perhaps VP

will you prepare a memo to accurate this? (from me to H.

That you discuss with Haig his ideas on the Siberian Gas Project; i.e., "Whither are we Drifting?"

Approve You Disapprove _____

That you advise me whether the general views noted above conform with yours, so that if they don't I can avoid embarrassing us in the future.

You are on the right track Absolutely — yes

Let's talk; you need guidance (You always need Spiritual guidance, but none in this case!)

cc: Henry Nau
Richard Pipes
Bill Stearman

10657 45

MEMORANDUM 2370 Add-on

NATIONAL SECURITY COUNCIL

April 30, 1981

INFORMATION

MEMORANDUM FOR RICHARD V. ALLEN

FROM: HENRY R. NAU

SUBJECT: Lenz' Memo on the Siberian Pipeline Project

I agree completely with Allen that we need to develop a position on the pipeline project before we make decisions on U.S. export control policy more generally. However, since the pipeline issue will be resolved more by what the Europeans do than what we do, I would not want our subsequent export control policies to be determined entirely by whether or not the pipeline project goes ahead. I would therefore distinguish between U.S. export control decisions on items related to the pipeline from U.S. export control decisions in the energy sector on other projects. Even if the pipeline goes ahead, our position should be that we oppose such projects in the future and that U.S. policy should deny exports of oil and gas equipment and technology for any such future projects.

GAS PIPELINE

UNITED STATES DEPARTMENT OF COMMERCE
The Under Secretary for International Trade
Washington, D.C. 20230

10658

07 MAY 19 81 3194

~~SECRET~~

May 26, 1981

Honorable William J. Casey
Director, Central Intelligence Agency
Washington, D.C. 20505

Dear Bill:

Decisions will be made shortly as to the Administration's policy on the transfer of oil and natural gas production equipment and technology to the Soviet Union, both in general and specifically for construction of the Yamal pipeline to Western Europe.

Recently, CIA published an excellent report ("USSR-Western Europe: Implications of the Siberia to Europe Gas Pipeline", Nos. ER81-10085, PA 81-10107 (March 1981)) on the strategic impact of Yamal; yet neither that report nor any other current analysis that I'm aware of has addressed what I believe to be the fundamental questions which should be answered in the course of formulating the Administration's policy:

> Can the U.S. Government significantly delay completion of the pipeline by refusing to grant licenses for export of U.S. technology and equipment?
>
> How much of a delay would be required to be "significant" and what would be the effects on the Soviet Union?
>
> To what extent is the cooperation of our trading partners required (and likely to be obtained if asked for) and what is the potential for unobserved diversion to the USSR?

Obviously, the thrust of these questions goes to the issue of foreign availability of the technology and equipment, an issue which under provisions of the Export Administration Act of 1979 is supposed to be given due consideration in deciding whether to deny U.S. companies permission to export their goods and services.

~~SECRET~~

CLASSIFIED BY L.H. Olmer
DECLASSIFY ON May 26, 1987

In preliminary discussions with others on this issue, I'm persuaded that there are differing views regarding the ability of the U.S. to significantly delay the Yamal project. If the Agency can provide an authoritative answer or, at the least, credibly assert that no one presently can provide an answer, resolution of the Administration's policy would be, I think, substantially aided.

Sincerely,

Lionel H. Olmer

c.c. Secretary Malcolm Baldrige
bcc Richard Allen ✓

GAS PIPECINE 48

8118363

3558 10664

DEPARTMENT OF STATE

Washington, D.C. 20520

June 15, 1981

~~SECRET~~

MEMORANDUM FOR MR. RICHARD V. ALLEN
THE WHITE HOUSE

Subject: Siberian Pipeline

The State Department agrees that the USG must have a firm position on the proposed Siberian gas pipeline before the Ottawa Summit. In order to avoid limiting the President's options on broader policy issues, The National Security Council should consider the pipeline issue within the context of overall East-West energy relations, and Western trade with the USSR in general. Our understanding is that the Department of Defense, Commerce and Energy concur in this approach to the issues.

The Interagency Group on East-West Economic Relations is working on advanced drafts of papers on: (a) security controls on exports to the USSR; (b) special controls on the export of oil/gas equipment and technology; and (c) the Siberian pipeline. The security controls paper is essentially in final form. With respect to the other papers, as far as we know, all IG members, with the possible exception of Defense, agree with the format and general content. Since these issues are inextricably tied, the NSC should consider the IG papers as a single package. We believe that the IG can finish its work and submit the papers for NSC consideration in the next few weeks. In order to facilitate the coordination of the papers we request that you schedule an NSC meeting for the week of June 29. It would be appropriate to consider the Caterpillar Corporation's application for export licenses for pipelayers at the same meeting. The Secretary would be happy to discuss these issues with you whenever you can arrange to meet.

At the request of the IG, the CIA provided an initial assessment of many of the analytical points raised in your memo and the attached outline. We appended their report, "USSR-Western Europe: Implications of the Siberia-to-Europe Gas Pipeline",March 1981, to the draft pipeline paper. Another copy is attached for your information. Also attached is an Agency assessment of alternative supplies of gas to Europe.

~~SECRET~~

GDS 6/5/87

2370

~~SECRET~~

Nonetheless, further analytical work remains to be done. We have asked the Agency to provide a technical update to their March 1981 report, with special attention to the question you raised. They promised to respond during the week of June 8. We are preparing a more detailed response to the questions raised in your outline and are revising the IG pipeline paper to reflect better those concerns. We will send you the CIA and State analyses and the latest iteration of the pipeline paper by June 17.

L. Paul Bremer, III
Executive Secretary

Attachments:

as stated

~~SECRET~~

10654

GAS PIPELINE

~~CONFIDENTIAL~~

FOIA(b)(3)

3/25/81

ADDENDUM

USSR-Western Europe: Implications of the Siberia-to-Europe Gas Pipeline*

The proposed project--which would be completed in about 1986--is vital to the Soviets and important to the West Europeans. We expect Soviet oil exports to the West to decline sharply by the mid-1980s. Increased gas exports are Moscow's only major alternative source of hard currency. Without the earnings expected from the pipeline deal, Moscow would have to reduce imports of Western machinery and other goods greatly. Moreover, the project furthers Soviet goals of drawing Western Europe into a closer political-economic relationship.

The Question of Political Leverage

The pipeline would be a major new element in Soviet-West European relations. It would provide the Soviets one additional pressure point they could use as part of a broader diplomatic offensive to persuade the West Europeans to accept their viewpoint on East-West issues. Such pressure might be directed, for example, at undermining European willingness to act in concert with the US on economic sanctions against the Soviets or on security issues.

Circumstances that would affect any thoughts the Soviets might have to threaten to cut off gas shipments for political ends include: (1) the Soviet need for hard currency earnings; and (2) the physical setup of the pipeline, which will preclude cutting off any one West European country without cutting them all off. But political leverage stemming from the gas pipeline could--and probably would--be applied more subtly. The emphasis would be on the benefits to be gained from cooperation and from avoiding contentious issues.

Nevertheless, even cutoffs are not without some precedent. The Soviets cut off oil supplies to Yugoslavia in 1948, to Israel in 1956, and to China in the early and mid-1960s. In all three cases, Moscow faced much less serious consequences than would be at stake with the European pipeline.

* This addendum reproduces the key judgments of a recent OER/OPA Intelligence Assessment titled USSR-Western Europe: Implications of the Siberia-to-Europe Gas Pipeline, ER 81-10085/PA 81-10107, March 1981.

West European Perspective

Barring a major increase in East-West tensions, West European governments see increased use of Soviet gas as an acceptable political risk. Western Europe views the USSR as a more reliable supplier than many alternative sources. They argue, for example, that Moscow is less likely than Algiers to use gas leverage as a means of blackmail. The also point out that their overall dependence on Moscow for energy supplies would increase little, because of declining Soviet oil deliveries.

Moreover, the six West European countries involved see major economic benefits. They need to increase gas imports to offset the likely decline in oil supplies. Related equipment sales by West European firms would create thousands of jobs and billions of dollars in business. The Soviets would also spend a large part of their earnings from gas sales in Western Europe.

West European officials are nevertheless wary of signaling their approval to the Soviets while the Polish situation remains volatile. West Germany and France recently agreed to a joint study of the whole project, which they could use to delay it if necessary.

Impact of the "Natural Gas Weapon"

The likelihood is strong that the Soviets will attempt subtle exploitation of the developing natural gas relationship. The effects of such pressure would depend on: 1) West European and NATO cohesion and will; and 2) progress over the next few years by Western Europe in installing "insurance" in the form of strategic reserves and fuel substitution capability. West European countries are taking steps to protect themselves from Soviet supply interruptions. But additional measures are necessary to provide the cushion needed to avoid serious repercussions in the event of a complete Soviet cutoff.

One policy device yet to be fully explored is a mechanism for sharing shortages in the event of a supply disruption resulting from either technical or political factors.

10659

National Foreign Assessment Center

~~Secret~~ [redacted]

FOIA(b) (3)

USSR–Western Europe: Implications of the Siberia-to-Europe Gas Pipeline [redacted]

An Intelligence Assessment

Information available as of 1 March 1981 has been used in the preparation of this report.

This assessment was prepared by [redacted] International Issues Division, Office of Political Analysis, and [redacted] USSR and Eastern Europe Division, Office of Economic Research. Comments and queries are welcome and may be addressed to the Chief, International Issues Division, OPA, or [redacted] or the Chief, USSR and Eastern Europe Division, OER, on [redacted]

USSR—Western Europe: Implications of the Siberia-to-Europe Gas Pipeline

Key Judgments

The proposed project—which would be completed in about 1986—is vital to the Soviets and important to the West Europeans. We expect Soviet oil exports to the West to decline sharply by the mid-1980s. Increased gas exports are Moscow's only major alternative source of hard currency. Without the earnings expected from the pipeline deal, Moscow would have to reduce imports of Western machinery and other goods greatly. Moreover, the project furthers Soviet goals of drawing Western Europe into a closer political-economic relationship.

The Question of Political Leverage

The pipeline would be a major new element in Soviet–West European relations. It would provide the Soviets one additional pressure point they could use as part of a broader diplomatic offensive to persuade the West Europeans to accept their viewpoint on East-West issues. Such pressures might be directed, for example, at undermining European willingness to act in concert with the US on economic sanctions against the Soviets or on security issues.

Circumstances that would affect any thoughts the Soviets might have to threaten to cut off gas shipments for political ends include: (1) the Soviet need for hard currency earnings; and (2) the physical setup of the pipeline, which will preclude cutting off any one West European country without cutting them all off. But political leverage stemming from the gas pipeline could—and probably would—be applied more subtly. The emphasis would be on the benefits to be gained from cooperation and from avoiding contentious issues.

Nevertheless, even cutoffs are not without some precedent. The Soviets cut off oil supplies to Yugoslavia in 1948, to Israel in 1956, and to China in the early and mid-1960s. In all three cases, Moscow faced much less serious consequences than would be at stake with the European pipeline.

West European Perspective

Barring a major increase in East-West tensions, West European governments see increased use of Soviet gas as an acceptable political risk. Western Europe views the USSR as a more reliable supplier than many alternative sources. They argue, for example, that Moscow is less likely than Algiers to use gas leverage as a means of blackmail. They also point out that their overall dependence on Moscow for energy supplies would increase little, because of declining Soviet oil deliveries.

Moreover, the six West European countries involved see major economic benefits. They need to increase gas imports to offset the likely decline in oil supplies. Related equipment sales by West European firms would create thousands of jobs and billions of dollars in business. The Soviets would also spend a large part of their earnings from gas sales in Western Europe.

West European officials are nevertheless wary of signaling their approval to the Soviets while the Polish situation remains volatile. West Germany and France recently agreed to a joint study of the whole project, which they could use to delay it if necessary.

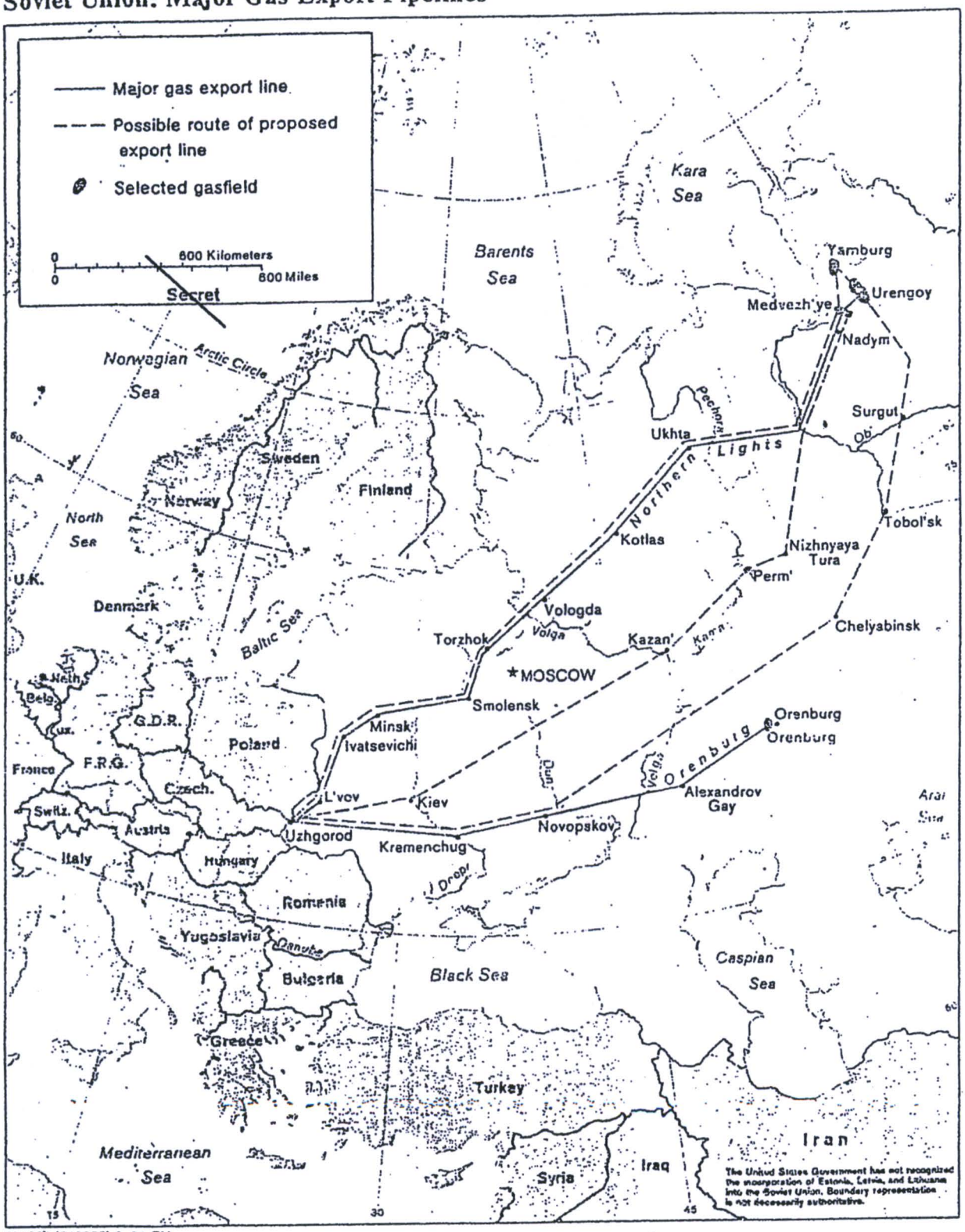
Impact of the "Natural Gas Weapon"

The likelihood is strong that the Soviets will attempt subtle exploitation of the developing natural gas relationship. The effects of such pressure would depend on: (1) West European and NATO cohesion and will; and (2) progress over the next few years by Western Europe in installing "insurance" in the form of strategic reserves and fuel substitution capability. West European countries are taking steps to protect themselves from Soviet supply interruptions. But additional measures are necessary to provide the cushion needed to avoid serious repercussions in the event of a complete Soviet cutoff.

One policy device yet to be fully explored is a mechanism for sharing shortages in the event of a supply disruption resulting from either technical or political factors.

Contents

Soviet Union: Major Gas Export Pipelines



504766 (546685) 3-81 CIA

Secret

USSR—Western Europe: Implications of the Siberia-to-Europe Gas Pipeline

Dimensions and Status of the Project

The proposed Siberia-to-Western Europe natural gas pipeline is the largest East-West trade project ever negotiated. The gas export project entails construction of a trunkline from the Yamburg gasfield in West Siberia to West Germany, a distance of approximately 5,000 kilometers. The pipeline will be almost totally dedicated to export. It will have a capacity of 4.8-5.8 billion cubic feet/day (cf/d), depending on whether it is a single or double line. The gas will be distributed among at least six West European countries—West Germany, France, Italy, the Netherlands, Belgium, and Austria. The agreement would cover a 20-year period, with the pipeline's hard currency costs recouped in two years. The East European countries across which the pipeline travels reportedly will receive roughly 20 percent of the exported gas as a transit fee. (See appendix A.)

Soviet indecision regarding the pipeline's route and capacity has created a range in possible project dimensions. We believe that Moscow will decide to build two lines operating at a lower maximum pressure than would be used in the single-line option, since operating a single line at higher pressures would present greater difficulties. The route in the USSR and Eastern Europe could follow several directions (see map). If a two-line route is selected, hard currency requirements for the Soviet portion of the line could reach $14 billion. (See appendix B.) Interest charges during construction would approximate $3 billion for that particular option. Bringing the pipeline to full capacity in any event will take at least four years from contract signing.

Although no credit agreements have been initialed, the Soviets appear to have lined up perhaps $16 billion in Western financing, largely official and officially backed credits. The six principal West European participants have offered $13 billion, with another $3 billion probably extended by Japan. Gas pricing is an outstanding issue. The Soviets have backed off for now from a demand for gas prices at parity with crude oil, which at the present average OPEC price of $35 per barrel would be about $6 per 1,000 cubic feet (cf). The French believe that Moscow will eventually settle for less than parity with oil, but this seems unlikely given trends in recent gas price agreements within Western Europe.

Benefits to the USSR

The gas pipeline project would constitute a financial bonanza for the Soviets. Specifically, the increase in gas exports will provide a major boost to hard currency earnings at a time when oil exports are declining.

Once the pipeline is operating at full capacity, the USSR would be exporting for hard currency the equivalent of 1.1-1.2 million b/d—roughly the same volume of oil exported to hard currency countries in 1979-80. If prices achieve parity with crude oil by 1985, hard currency earnings from gas at 1980 oil prices would reach $15-19 billion, about matching combined earnings from exports of oil and gas in 1980. By 1990, gas export earnings would be in the $19-24 billion range.

Moscow is counting on the gas project to provide an offset to declining hard currency earnings from oil. The near leveling off of oil production projected in the 1981-85 Soviet plan, coupled with rising domestic consumption and Soviet commitments to maintain current oil export levels to Eastern Europe, imply a drastic reduction in Soviet oil exports to the West. (See appendix C.) The Soviet Government probably expects such a reduction. We believe Moscow will face an even more difficult adjustment—that oil production will begin to decline within the next 1 to 3 years and continue

arough the rest of the decade. Under these nces, even with tight domestic oil rationing, could not avoid an elimination of hard cur- oil exports and probably would have to import stantial amounts of oil for hard currency.

The outlook for Soviet earnings from exports other than oil and gas is dim. Some of the more traditional exports of raw materials—timber and metals—are declining. Gold and arms are more promising, but they are erratic and in any event will not be large enough to offset the decline in export earnings. With the proposed pipeline, therefore, the Soviet Union could probably do no better than maintain the current purchasing power of its exports over imports of Western food, machinery, and materials other than oil. Without the pipeline, we doubt that Moscow could avoid a dramatic decline in such imports.

As for gas production, the project will not initially enhance Soviet output for domestic use because of the export pipeline's absorption of skilled labor and other resources needed on domestic pipeline projects. Over the long run, the technology transfer associated with the project should foster the development of critical gas industry infrastructure. The deal would enable the USSR to purchase Western Arctic–design equipment for gas extraction and transport—such as wellhead assemblies, drill pipe, large-diameter line pipe, and state-of-the-art compressors—essential to Siberian gas development but not mass-produced by the Soviets. Without the pipeline deal and its hard currency earnings, on the other hand, the Soviets would be hard pressed to finance imports of Western pipe and equipment essential to domestic gas projects.

East European Stake

The East Europeans would benefit substantially from the additional gas they would receive from the new pipeline. The precise amount will depend on the proposed pipeline's throughput, of which Eastern Europe will receive approximately 20 percent. Current Soviet gas deliveries of 3.2 billion cf/d annually account for about 6 percent of Eastern Europe's primary energy consumption and over 20 percent of all energy imports from the USSR. Soviet gas exports to the region nearly tripled during 1976-80, yet gas deliveries to the region as a whole over the next five years are currently expected to grow by only about 5 percent a year—with some countries anticipating no further increments. The additional gas deliveries, however, could boost the share of Soviet gas to close to 30 percent of Soviet energy deliveries to Eastern Europe and to 9 percent of Eastern Europe's total primary energy consumption by 1985.

If gas from the pipeline is paid as a transit fee only to those countries that the pipeline crosses, the additional gas would go entirely either to Poland and East Germany or to Czechoslovakia, depending on the route selected. Czechoslovakia appears to be the favored route at present, especially given the turmoil in Poland. If only one or two countries received the entire allotment, the additional gas would substantially improve the recipients' energy balances in the mid-to-late 1980s.

West European Perspective

The pipeline project would benefit Western Europe by further diversifying its gas supplies and reducing its dependence on OPEC oil. West European industries would also benefit substantially from the equipment sales that would be associated with the project. Finally, West European governments realize that most of the foreign exchange Moscow earns from the sale of gas will be spent in Western Europe.

The six West European countries depend on imported energy, primarily oil, for more than half of their energy. While oil remains the dominant energy source, natural gas is becoming increasingly important, accounting for almost 20 percent of total energy use last year compared with only 8 percent a decade earlier. The USSR already supplies Western Europe with about 2.2 billion cf/d based on prior agreements with West Germany, France, Italy, and Austria. The current negotiations are for additional Soviet supplies of at least 3.9 billion cf/d to these four countries plus Belgium and the Netherlands by 1990.

These plans would more than double the proportion of Soviet gas in total West European gas consumption from about 10 percent to about 25 percent. The most important increases would be in West Germany (from 14 to 29 percent) and Belgium (from 0 to 32 percent). France, which received no direct shipments of Soviet gas until 1980, could rely on the Soviets for as much as 28 percent of its gas by 1990. On a broader scale, Soviet gas would rise to about 6 percent of total West European primary energy supplies. (See appendix D.)

The West Europeans recognize that the pipeline deal would increase their vulnerability to Soviet economic leverage, but they have long seen the Soviets as a more reliable source of energy supply than the LDCs. This attitude originated in the Suez crisis of 1956, when Western Europe was affected by cutoffs of Middle Eastern oil and turned to the Soviet oil then beginning to enter the world market. The West Europeans have remained steady customers for Soviet oil, which continued to be delivered during the Middle East war of 1967 and the Arab oil embargo of 1973-74, even though the Soviets verbally supported the Arab action.

Another incentive encouraging the West European move is the prospect of large-scale equipment sales. Indeed, West European suppliers of pipeline, machinery, and equipment expect to benefit substantially from the project. Altogether, pipe and equipment sales of up to $14 billion may be involved. The chief West European beneficiaries would be the firms that have already provided several billion dollars in gas equipment to the Soviets during the 1970s. Many of these firms have developed substantial production capacity dedicated to Soviet needs. (See appendix E.)

Technical Risks to Delivery

Dependence on Soviet natural gas supplies can be risky from a technical, as well as a political, standpoint. Given the difficult terrain, long distances, and heavy demands on equipment, chances are high that supply problems will develop from time to time on purely technical grounds. The past record of Soviet gas deliveries substantiates this. Temporary reductions in gas deliveries for purely technical or seasonal reasons have become frequent in recent years; the new export pipeline would also be subject to such interruptions, particularly during the winter months. The primary causes of cutbacks are difficulties in meeting peak winter gas needs and unreliable operation of pipelines during the winter season.

With or without the project, the Soviet gas industry will have little surge production capacity. In fact, because of adverse winter conditions, output often declines when supplies are most needed. The problem is that gas storage capacity, less than 10 percent of consumption, has not filled the seasonal supply gap. Winter supply problems will persist, with peak demand probably increasing as a share of annual consumption. Substitution of gas for oil in domestic consumption will gain momentum by the late 1980s, enlarging the number of potential winter consumers. Although some fuel switching will be possible, flexibility will remain limited.

Breakdowns in pipeline operations due to pipe and valve failures have also caused export reductions and are likely to do so in the future. Although not confined to the winter season, pipeline failures are more likely during that period and often compound the difficulties of meeting peak gas demand. Operational reliability of the export pipeline will become particularly worrisome if it parallels the Northern Lights trunk system, one of the world's most trouble-prone pipe routes. Although good reliability has been achieved for gaslines in the North American Arctic, the Soviets probably will not fare as well. Pipe ruptures and compressor station breakdowns are probable, even if Western equipment is used. (See appendix F.)

Potential Soviet Political Leverage

Moscow sees definite political advantages in the prospective natural gas arrangement, short of attempting direct leverage through a gas cutoff. A supply interruption is unlikely because of the substantial economic cost to the USSR itself. In addition, cutting off gas supplies to attempt political blackmail would undermine any improvement in the Soviet–West European political climate that the pipeline project is in

part designed to foster. Finally, a supply interruption would be an extremely blunt weapon for the Soviets to apply since Moscow would be unable to interrupt supplies to just one target country. For example, all shipments would pass through West Germany; about 15 percent of the total would continue on to Belgium and the Netherlands. Withholding supplies to these countries, therefore, would require West German cooperation.

Short of a complete cutoff, the natural gas arrangement with Western Europe would yield two major opportunities for increased political influence for the Soviet Union. The first lies in the impetus that the gas deal would impart to broader Soviet efforts to draw Western Europe into closer political and economic relations with the USSR. The aim of this Soviet effort is to increase the legitimacy of Soviet foreign policy goals in the eyes of West Europeans and to persuade them to see US-led or coordinated NATO "anti-Soviet" initiatives as unnecessary or disturbing to a favorable status quo. The Soviets are now pursuing this goal, with mixed success, through individual bilateral and multilateral arrangements and through the Conference on Security and Cooperation in Europe.

The second advantage to the Soviet Union lies in opportunities that the evolving natural gas relationship would provide to help achieve specific political objectives. The pipeline deal might give the Soviets substantial opportunity to gain political benefits if they used their potential leverage indirectly and as only one element in a broader diplomatic offensive. Opportunities could arise during the construction phase of the gas deal (until at least the mid-1980s) because of European eagerness to keep production and employment levels as high as possible. After the pipeline is completed, the leverage would lie in West European reluctance to cope with Soviet manipulation of gas supplies.

To capitalize on these potential opportunities, the Soviets would have to create the apprehension (in the construction phase) that equipment orders might be canceled and (later) that the supply of gas might be reduced without appearing so threatening as to provoke a West European backlash and to unify the West European countries' resistance. Thus, they probably would allude to the gas situation only indirectly—by reminding the West Europeans of the benefits of economic cooperation—while stressing the need to avoid "anti-Soviet" actions that could worsen the West European political climate and playing on differences between the West Europeans and the United States and among West European countries. They could avoid direct threats by reducing gas supplies with the explanation that there were "technical problems," which would be "solved" if the political situation improved.

Specific Areas of Leverage

Two issues that the USSR might try to influence by using its potential natural gas leverage as part of a broader diplomatic effort are Western economic sanctions and NATO military modernization. In the first case, the Soviets probably would believe that the prospect of difficulties arising with Soviet gas deliveries would be an important consideration in West European support for a US-led economic boycott of the Soviet Union or in limiting transfers of high technology to the Soviets. The Soviets, for example, used energy diplomacy as one element in their campaign against West European support for US-led sanctions because of the invasion of Afghanistan. A TASS commentary in April 1980 hinted that Western Europe and Japan would risk losing fuel supplies from the Soviet Union if they joined in these sanctions. It is unclear how West European behavior was affected by such statements, but it is clear that European support for the sanctions was weakened because of a general concern about the economic and political costs of reduced trade with the USSR.

The gas connection could be used to influence decisions by European NATO members on implementation of the NATO Long-Term Defense Plan and deployment of long-range theater nuclear forces (LRTNF). For example, the increase in West German dependence on Soviet gas from 14 to 29 percent, when taken in the context of German efforts to maintain the present level of Soviet–West German economic interdependence, could provide one more argument for those groups that are trying to hold down growth in German real defense

spending. Similarly, the prospective doubling of French dependence on Soviet gas might assist the Soviet effort to slow or halt the recent trend toward closer military cooperation between France and its allies. Finally, if Belgium had been receiving natural gas from the Soviets in 1979, the USSR would have had an additional diplomatic point with which to press for Belgian opposition to LRTNF deployment.

The critical political factor in any Soviet effort to capitalize on the potential leverage flowing from the natural gas supply relationship would be how accurately the USSR judges West European public opinion. The Soviet Union has long tried to influence the West European public on domestic West European issues, most recently in campaigns to prevent deployment of the "neutron bomb" and of LRTNF. This experience may lead the Soviets to believe that they can assess which groups would be most sensitive to the economic losses posed by difficulties with the natural gas arrangements and how politically influential these groups are. The West European public as a whole, sensitized by the Middle East oil cutoffs of the past, might be very concerned about a prospective loss of Soviet gas.

Natural Gas Weapon

Soviet ability to use its potential natural gas lever successfully would depend both on the European political will to resist and on two technical considerations—the relatively short-term factor of national and regional strategic gas reserves and the midterm availability of alternative supplies of gas and other energy sources in the world market. Recognizing that the project entails risks, the West Europeans are taking some steps to protect themselves from Soviet supply interruptions. Plans to expand storage capacity are being formulated, for example. Stronger government initiatives, however, will be required to provide the cushion needed to avoid serious repercussions from a complete Soviet cutoff. Ultimately, some sort of mechanism for sharing shortages in the event of a supply disruption will have to be devised.

Internal Supply Cushion. West European countries are exploring ways to limit their vulnerability to interruptions in Soviet gas supplies should the pipeline project be completed. Dutch gas reserves are the best bet. The Dutch are already creating additional surge capacity in the huge Groningen field, which could serve as a partial offset to reduced Soviet deliveries. Even this additional capacity, however, would probably be sufficient to meet only a small portion of West European winter demand in the absence of Soviet gas supplies. Other West European countries with domestic gas production may opt to drill additional producing wells to create surge capacity that could then be used in the event of a shortfall. Only small amounts, however, could be forthcoming from such an effort.

North Sea gas reserves present the potential for a sizable cushion against reductions in Soviet deliveries, but they will probably not be available until at least 1990. UK policy is to use its substantial gas reserves only for domestic purposes, and it is not likely that other West European countries will be allowed to tie into existing or proposed pipeline networks as a strategic measure to tap additional gas in the event of a hiatus in Soviet deliveries. While additional gas from Norway's Statfjord field will probably begin flowing to continental Europe by 1987, leadtimes are such that further large deliveries from more northerly gasfields are not likely before 1990.

The Europeans are also planning to increase stockpiling capacity. Ruhrgas, the West German utility, is reportedly planning to triple its gas storage capability by 1990. Total West German underground gas storage is less than 20 days of consumption. French officials are also seeking to expand underground natural gas storage to roughly 30 percent of expected gas consumption. France also has the capability of storing LNG at two import locations for use in peak shaving and in meeting shortfalls. Excess volumes of gas during seasonal or other declines in demand can also be reinjected into domestic gasfields and used for offsetting future shortages.

The existing capacity of West European gas consumers to switch to alternative fuels during a gas supply shortfall is unknown. Conversion from gas to oil is relatively simple, however, requiring only an oil storage tank, a pipeline to the furnace, and a different nozzle. In Belgium, all industrial gas users are required to maintain dual energy systems and to switch to alternative

sources when temperatures drop below a certain level. Roughly 15 percent of French gas deliveries are on interruptible contracts. West Germany probably maintains a much higher level of dual capacity than France because a greater proportion of Bonn's gas consumption occurs in the industrial sector and in thermal electricity generation.

Diversifying Supplies. Although the West Europeans appear more sanguine about the implications of dependence on Soviet gas than do Japan and the United States, they agree that diversification of sources is important in denying the Soviets an opportunity to use gas supply to push for concessions on other economic or security issues. The West German Cabinet reportedly has discussed what proportion of total gas consumption Soviet imports would have to reach before Germany became critically dependent on the USSR. In the summer of 1980, the cabinet apparently set a guideline of 30 percent, which is the projected level of German dependence for the 1980s. More recently, German Economics Minister Lambsdorff stated that Germany's real protection against Soviet leverage lay in diversifying its sources of gas supply and types of fuel.

It is not yet clear what degree of diversification the West Europeans will be able to maintain in the 1980s. Continued expansion of LNG production could mean that ocean-transported gas, primarily from LDCs, could be much more important than Soviet pipeline gas. Algeria, for example, has the capability to rival the USSR as a supplier to Western Europe over the next five to 10 years if it used both LNG and the trans-Mediterranean pipeline to fulfill existing and proposed contracts. The West Europeans, however, face major uncertainties in connection with gas imports from LDCs. Anti-Western political upheavals like the Iranian revolution could lead to suspension of projects that are now under consideration.

Such developments could influence the proportion of Soviet and non-Soviet gas in total West European imports and thus affect prospective Soviet leverage. For example, a shortfall in projected North or West African gas could lead to competitive bidding for that gas among several West European countries. If the losing West European country were not able to persuade the Netherlands or Norway to meet its additional needs for gas, it might turn to the USSR for increased supply. In addition, if current US negotiations with Algeria portend a more active US role in the LNG market, there could be competition between the United States and its European allies for African gas. To the extent that this competition weakened West European prospects for obtaining non-Soviet gas, it could strengthen West European incentives to cooperate with the Soviet Union.

Outlook

The Soviet ability to capitalize on a changing world gas market will depend both on West European and broader allied energy planning and on the availability of alternatives to Soviet gas in the world market. The Soviets probably believe that the West Europeans are capable of establishing gas reserves and a gas and oil surge production capacity. They realize that Western Europe, like Japan, is counting on increased world production of LNG in the 1980s.

The Soviets are also aware that during past oil shortages the West Europeans have often failed to cooperate, either among themselves or with Japan and the United States. The Soviets may judge, therefore, that the Western countries lack the cohesion and strategic perspective to address energy security issues collectively and that they are unlikely to pay the economic and political costs necessary to counter the vulnerability arising from their dependence on imported gas. The Soviets also know that there are political and economic uncertainties associated with increased gas production in LDCs and that the USSR has a reputation for reliability in energy supply that could appear increasingly reassuring to the West Europeans. For these reasons the likelihood is strong both that the Soviets fully recognize the potential for subtle exploitation of the developing natural gas relationship and that they will attempt to use it.

Appendix A

Details and Status of the Project

The gas export project entails construction of a trunkline from the Yamburg gasfield in West Siberia to West Germany, a distance of approximately 5,000 kilometers. The pipeline will be almost totally dedicated to export. It will have a capacity of 4.8-5.8 billion cubic feet per day (cf/d), depending on whether it is a single or double line. The gas will be distributed among at least six West European countries—West Germany, France, Italy, the Netherlands, Belgium, and Austria. The East European countries across which the pipeline travels reportedly will receive roughly 20 percent of the exported gas as a transit fee.

Timing and Costs

The Soviets have not yet announced the route—whether it will parallel the Northern Lights trunk system (see map) about half of which would be in the permafrost zone, or a more southerly path, thus minimizing the area of permafrost to be traversed. Recent difficulties in constructing trunklines along the mountainous southernmost route, however, may persuade Moscow to select yet a third but unknown alternative. The pipeline's route across Eastern Europe to West Germany is also unknown, although a path through Czechoslovakia via Uzhgorod seems the most likely. Recent reports indicate that if two lines are to be laid, they may follow two separate routes and be built one at a time rather than simultaneously

Soviet indecision regarding trunkline route and capacity prevents an accurate estimate of the project's foreign exchange costs and the credits needed to cover imports of pipe, compressors, and other components. Given these uncertainties, we estimate that the hard currency costs will range up to $14 billion. The upper range of our estimate assumes an annual 15-percent inflation rate for the pipe and equipment costs and the construction of two 56-inch (1,420 mm) lines with a capacity of approximately 5.8 billion cf/d. If the Soviets opt for a single 56-inch line, capacity would total 4.8 billion cf/d and the costs would be closer to $10 billion. Interest charges during construction will be approximately $3 billion if the more expensive project is chosen.

Bringing the pipeline to full capacity probably will take at least four years from contract signing. If negotiations are completed this summer or fall, gas deliveries would not begin before 1986. Even this assumes no unusual delays. If all Western equipment is delivered on time and accompanied by substantial technical advice, the Soviet pipelaying effort probably will still fall behind schedule because of long persistent problems—particularly a serious shortage of skilled labor and severely inadequate infrastructure. The export line project apparently is included in the Soviets' 1981-85 trunkline construction plans and will be competing for skilled labor needed for the domestic lines.

Status of Negotiations

Although discussed for a long time, the current proposal has gained considerable momentum within the past year. An earlier Soviet plan, North Star, was designed as a joint US-USSR project to pipe gas from the giant Urengoy field in West Siberia through a 2,400-kilometer pipeline to Murmansk, where the gas would have been liquefied for shipment by tanker to the east coast of the United States. When US Government approval and Eximbank financing were not forthcoming in 1976, the US consortium turned to Western Europe as a source of equipment and financing and as a customer for part of the gas. Disagreement over gas prices and uncertainty regarding US liquefied natural gas (LNG) import policy, however, led to an indefinite shelving of the project in 1977.

According to the Soviet Gas Ministry, the pipeline's completion is a major objective of the 11th Five-Year Plan (1981-85). Soviet negotiators have had preliminary talks with all interested European parties on all aspects of the project. Discussion of the current deal

picked up steam following last summer's Moscow summit between West German Chancellor Schmidt and President Brezhnev. Although progress has since been halting, Soviet officials believe that few economic problems stand in the way of the project. The combination of Western governments' willingness to grant sizable concessionary credits and business eagerness for equipment orders have encouraged this view.

Financing

Although no credit agreements have been initialed, the Soviets appear well on the way to lining up perhaps $16 billion in Western financing for the deal, the bulk of which would be a mixture of official and officially backed credits. Of the total, the six principal West European participants have indicated they may provide $13 billion in credits. Another $3 billion will probably be extended by Japan (see table A-1). By our count, Western credit offerings exceed the estimated hard currency cost of the pipeline—even with a built-in inflation factor of 15 percent a year. While we cannot explain the discrepancy, the Soviets may be trying to protect themselves against cost overruns. In any event, Moscow would be under no obligation to draw all the credits.

The linchpin in credit talks will be West Germany, since Deutsche Bank is heading a consortium of 30 banks prepared to offer a credit of $5 billion. The key issue for the consortium is to obtain a return approximating market rates (about 15 percent) while appearing to accommodate Soviet demand that interest rates not exceed 7.75 percent. As in previous deals, the Germans hope to close the gap by manipulating either the price of the Soviet gas they buy or the cost of the equipment and engineering service they sell to the Soviets. Since neither gas pricing nor pipeline costs have been resolved, credit negotiations probably will witness further hard bargaining. Once an accord is reached with West Germany, however, the other countries probably will follow suit.

Gas Pricing

Another major outstanding issue is gas pricing. Discussions with major West European customers last fall ended with the Soviets backing off a demand for delivered gas prices at parity with oil, which at the present average OPEC price of $35 per barrel would be about $6 per thousand cf. Even so, Moscow did manage to obtain a substantial jump in the price of gas under existing contracts—from less than $2.80 per thousand cf, which generally prevailed in early 1980, to more than $4 per thousand cf, or from about $16 per barrel of oil equivalent to approximately $23. The French believe that the USSR eventually will settle on a gas price that is 75 percent of parity with crude oil, but this seems unlikely given trends in recent gas price agreements. Norway, for example, has recently concluded a deal that essentially results in a crude price parity by the mid-1980s.

Impact on Soviet Hard Currency Earnings

Gas exports as a source of Soviet hard currency earnings have grown markedly in recent years. In 1980, the USSR exported 2.1 billion cf/d to Western Europe

Table A-1

Possible Pipeline Credit Packages [a]

Country	Billion US $	Terms
West Germany	5	8.5 to 10 years, 7.75 percent, 85 to 95 percent Hermes guaranteed. German industry sources have stated they plan to inflate the bid for provision of engineering the equivalent market rate.
France, guaranteed	3.2	7.75 percent, 8 to 10 years, 85 to 15 percent downpayment. Paris reportedly is also considering offering a four-year grace period.
	0.32	Commercial credit at market rates (13.5 percent).[b]
Belgium	1	Eight years.
Netherlands	2.2	7.75 percent.
Austria	1.1	NA
Italy	NA	NA

[a] Although Japan will not purchase Soviet gas, Japanese firms hope to be major suppliers to the project and to that end have indicated they are actively considering extending $3 billion in credits for sales of Japanese construction equipment, pipe, and related equipment. Preliminary talks centered around a Tokyo offer of an eight-year 6.5 to 7.25 percent loan.

valued at about $3 billion, up from $100 million in 1975. The volume of gas deliveries in 1980 rose 20 percent over 1979 but foreign exchange earnings more than doubled because of higher gas prices. Gas export earnings in 1981 will increase to perhaps $4 billion, even though export volume will be almost unchanged. Soviet gas exports under current agreements are near their peak of 2.4 billion cf/d scheduled to be reached by 1985.

The Soviets project that the proposed gas export pipeline will be operating at full capacity by 1985. Assuming they are correct, which we doubt, the USSR would be exporting for hard currency 6.3-7.0 billion cf/d or 1.1-1.2 million b/d oil equivalent—roughly the same volume of oil exported to hard currency countries in 1979-80 (see table A-2). If gas prices achieve parity with crude oil by 1985, hard currency earnings from gas at 1980 oil prices would reach $15-19 billion, about matching combined earnings from exports of oil and gas in 1980. By 1990, gas export earnings would be in the $19-24 billion range.

Gas Industry Impact

The Soviets are counting on rapid increases in natural gas output to help meet growing domestic energy needs as well as existing export commitments. If the project goes through, Soviet planners are counting on gas output of about 60 billion cf/d by the mid-1980s, rising to 70 billion cf/d by the start of the 1990s (see table A-3). All of the growth in output will have to come from development of the Urengoy and Yamburg fields in West Siberia. The Soviets will be able to increase the level of natural gas production likely in the mid-1980s by about the amount they would ship through the pipeline. Initially, the project will not enhance the Soviet ability to increase production for domestic use because the enormous resource requirements of the export pipeline, especially skilled manpower, will drain resources from other oil and gas projects. Installing the pipeline along a northerly permafrost route would require more skilled labor and other specialized resources than would following a more southerly route. Over the longer run, the technology transfer associated with the project—possibly including the construction of compressor repair plants and the development of critical infrastructure—should increase production for domestic use.

Table A-2 — Billion 1980 US $

USSR: Oil and Gas
Hard Currency Exports

	1980	1985 [a]	1990 [a]
Total	17.5	15-19	19-24
Oil	14.5	0	0
Gas	3.0	15-19	19-24

[a] Assumes no oil exports, gas price parity with crude oil, and full deliveries under the gas pipeline project by 1985.

Table A-3 — Billion cf/d

USSR: Production of Natural Gas

	1975	1980	1985 [a]	1990 [b]
Total	28.0	42.1	58.0-61.9	66.7-70.6
West Siberia	3.6	15.8	31.9-35.8	43.5-47.4
Of which				
Urengoy [c]	0	5.8	17.4-15.5	21.3-17.4
Yamburg [c]	0	0	3.9-9.7	9.7-15.5
Other	24.4	26.3	26.1	23.2

[a] Plan for USSR total and West Siberia total.
[b] Estimates. West Siberian total estimated by applying roughly current rates of growth for the region to both ends of 1985 plan range.
[c] Estimates for 1985 and 1990 indicate possible magnitudes of Yamburg and Urengoy contribution to overall growth, rather than precise amounts.

High-quality Western equipment for extraction and transport of West Siberian gas would constitute a major benefit to the Soviet gas industry. Specifically, the deal would enable the USSR to purchase Western Arctic–design equipment for gas extraction and processing, including wellhead assemblies and drill pipe, which the USSR has difficulty in manufacturing. The Soviets probably will remain unable to mass-produce quality large-diameter line pipe during much of the 1980s.

Manufacture of inferior specialty steels has made Soviet pipe inadequate for high-pressure gas transmission or for use in corrosive or high-stress environments such as the West Siberian Arctic. The high pressures possible with Western pipe mean a significant rise in throughput capacity for a given investment in steel. As for compressors, Soviet pipeline compressor technology is probably 20 to 30 years behind state-of-the-art technology in the West. The USSR has no equivalent to Western 22-megawatt second-generation aircraft derivative compressor units nor to any 26-megawatt industrial-type units, both of which could be critical to successful operation of the pipeline.

The gas industry would benefit from the project even after the pipeline's completion. For example, Western pipelayers, earthmovers, and related equipment would continue to be used for laying domestic trunklines. The construction equipment could also be used in other civilian industries or in military construction projects. If a compressor repair plant were part of the package, as suggested by the Soviets, the USSR could make a quantum jump in their lagging compressor technology by reverse engineering the purchased compressors. Beyond this, the export pipeline would improve the domestic pipeline network if the Soviets dropped part of the line's throughput in the European USSR.[1]

Even without the pipeline deal, the Soviets would have to import considerable amounts of gas equipment to carry out the remaining portion of the gas development program. The USSR, for example, would still need pipe, compressors, and associated equipment for expansion of its domestic distribution system. As long as the USSR continues to sell oil in the West, it can afford these purchases. By the mid-1980s, however, foreign exchange constraints would limit Soviet access to such equipment unless the pipeline project is under way. The Soviets will be unable to produce substantial amounts of large-diameter line pipe, the costliest gas-related import, until the late 1980s at best. Pipe imports have been averaging 1.5-2.0 million tons per year at an annual cost of $750 million to $1 billion.

[1] If the pipeline followed a northern route, the possibility would not be as great as if the route followed a more southerly direction, where it could be linked more expeditiously with existing lines.

Appendix B

Equipment and Hard Currency Costs

Soviet indecision regarding the pipeline's route and capacity has permitted only rough estimates of hard currency costs. The project's basic foreign exchange expenditures will be for large-diameter pipe, compressor stations, and ancillary equipment and engineering services for the pipeline and the Yamburg gasfield (see table B-1). Our estimates have modified reported current prices for those items in two ways. (1) Because the Soviets are seeking concessionary financing at interest rates below current market rates and EC guidelines, Western suppliers of equipment and services will adjust their final sales prices upward to provide the same yield as could be earned in the West. Our estimates assume a 15-percent price markup to reflect this action. (2) A 15-percent annual rate of price inflation has also been included to reflect increased prices at the time of equipment delivery.

Table B-1 Billion US $

Project Hard Currency Requirements

	Single Pipeline [a]	Dual Pipeline [b]
Total	10.2-11.4	11.9-13.8
Pipe	3.5-4.7	5.2-7.1
Compressors	3.7	3.7
Other	3.0	3.0

[a] 100 atmospheres pressure.
[b] 75 atmospheres pressure.

Pipe

The amount of large-diameter (56-inch) pipe needed is the project's largest variable and will depend on the pipeline's length, its operating pressure, and whether one or two lines are required. Pipe purchases consequently could range from 3.4-7.0 million tons, as indicated in table B-2. A two-line system at the lower throughput pressure of 75 atmospheres would require only about 50 percent more pipe than a single 100-atmosphere line, since less thick pipe walls are necessary. The pipeline's length probably will fall within 4,500 to 5,500 km, depending on whether a northern or longer, southern route is chosen. Given the resulting range of tonnage, and inflation over a three-year delivery period, hard currency expenditures of $3.5-7.1 billion in pipe imports would be required.

Compressors

Compressor costs probably will not vary widely with the pipeline's length or capacity. Roughly the same amount of compressor power would be needed whether a single or dual line were built and whether the pipeline followed a northern or southern route. Only the number of gas turbine compressor units would differ substantially, depending on whether industrial or aircraft designs were used (see table B-2). A combination of compressor types probably would be required. Lighter weight aircraft models would predominate on a northern, permafrost route while industrial models probably would provide the majority of throughput capacity for a southern line. Most combinations, however, would fall between 5,000- and 5,500-MW capacity. A compressor equipment price reflecting inflation over a four-year delivery period would produce only a small difference in costs, with a median of approximately $3.7 billion.

Additional Costs

This category is more difficult to estimate because little information is available. The Soviets have indicated a need for several hundred pipelayers, probably a similar number of earth movers, an extensive computerized pipeline telecommunications and telemetry system, and field development equipment for the Yamburg field, such as drill pipe and well completion equipment built to Arctic specifications. The project probably also would require several hundred wellhead

Table B-2

Pipeline Requirements

Pipe *(million metric tons)*		
	Single Line *(100 atm)*	Dual Line *(75 atm)*
Length *(kilometers)*		
4,500	3.4	5.1
5,500	4.6	7.0

Compressor Units Required *		Number of units	
	Power Ratings *(Megawatts)*	Single Line *(100 atm)*	Dual Line *(75 atm)*
Type of gas turbine drive			
Industrial	26	210	210
Aircraft (first generation)	15	290	340
Aircraft (second generation)	22	250	250

* Number needed if all compressor power for given line were provided by type of turbine drive listed.

assemblies, ball valves, and perhaps transport vehicles designed for operation in swampy terrain. Virtually no information on costs of Western engineering services, which perhaps could include some on-site construction work, are available. A highly tentative estimate of $3 billion for the above items could be in the ballpark.

The Bottom Line

Total estimated hard currency costs for the project of $10-14 billion are lower than some figures provided both in the press and privately by industry. They also are less than the approximately $16 billion in total Western credits tentatively offered so far. Some of the higher estimates probably include Soviet domestic, non-hard-currency expenditures that would add an equivalent of several billion dollars to the total cost. The initial credit offerings, moreover, may be reduced as specific contracts are worked out to eliminate overlapping offers of equipment and services. A Soviet attempt to arrange more concessionary financing than needed for the project is nonetheless a possible explanation of the gap between credit offerings and probable hard currency costs. Another possible cost variation could result if the project involved construction at staggered intervals of both a northern and a southern line. The total hard currency requirements, however, would probably still fall within the upper end of the $10-14 billion range.

Appendix C

Soviet Energy Data

Table C-1

Billion Cubic Feet Per Day

USSR: Natural Gas Exports

	1975	1980 [a]	1985 [b]		1990 [b]	
			Without Pipeline	With Pipeline	Without Pipeline	With Pipeline
Total	1.9	5.4	6.6	11.5-12.4	6.6	11.5-12.4
Eastern Europe	1.1	3.2	4.1	5.1-5.3 [c]	4.1	5.1-5.3 [c]
Czechoslovakia	0.4	0.9	1.0	1.0-2.2 [d]	1.0	1.0-2.2 [d]
East Germany	0.3	0.6	0.6	0.6-1.2 [e]	0.6	0.6-1.2 [e]
Poland	0.2	0.5	0.8	0.8-1.4 [e]	0.8	0.8-1.4 [e]
Bulgaria	0.1	0.6	1.0	1.0	1.0	1.0
Hungary	0.1	0.4	0.4	0.4	0.4	0.4
Romania	0	0.1	0.1	0.1	0.1	0.1
Yugoslavia	0	0.1	0.2	0.2	0.2	0.2
Western Europe	0.8	2.2	2.5	6.4-7.1 [f]	2.5	6.4-7.1 [f]
West Germany	0.3	0.8	1.1	2.1	1.1	2.1
Italy	0.2	0.6	0.7	1.3	0.7	1.3
Austria	0.2	0.3	0.2	0.5	0.2	0.5
Finland [g]	0.1	0.1	0.1	0.1	0.1	0.1
France	0	0.4	0.4	1.3	0.4	1.3
Belgium	0	0	0	0.6	0	0.6
Netherlands	0	0	0	0.5	0	0.5

[a] Estimated.

[b] "Without Pipeline" estimates assume deliveries under existing trade agreements.

[c] Estimated East European total assumes deliveries under current agreements plus 1.0-1.2 billion cf/d from the pipeline project. "With Pipeline" estimates assume achievement of full capacity of export pipeline (20 percent of pipeline capacity of 4.8-5.8 billion cf/d), with the increment going either to Czechoslovakia or divided equally between Poland and East Germany. Actual allocations of the additional gas may vary. Columns do not sum to totals due to variations in possible delivery allocations.

[d] Range assumes Czechoslovakia receives either no additional gas or 1.2 billion cf/d from project.

[e] Range assumes either no additional gas or receipt of half of 1.2 billion cf/d from projects.

[f] Estimated range from West European total assumes delivery of 80 percent of pipeline capacity of 4.8-5.8 billion cf/d. The allocation among individual countries corresponds only to the lower pipeline capacity, which would deliver almost 3.9 billion cf/d. Use of two lines in the project could raise West European imports under the project to 4.6 billion cf/d.

[g] Finland does not pay hard currency for Soviet gas.

Table C-2

USSR: Total Primary Energy Production [a]

Energy Source	1970		1975		1980		1985		1990	
	mb/doe [b]	Percent	mb/doe	Percent	mb/doe	Percent	mb/doe	Percent	mb/doe	Percent
Total	17.8	100.0	22.7	100.0	27.8	100.0	30.1-29.1	100	31.9-29.9	100
Oil	7.1	39.9	9.8	43.2	12.1	43.5	11.0-10.0	37-34	9.0-7.0	28-23
Natural gas	3.3	18.5	4.8	21.1	7.2	25.9	9.4	31-32	11.5	36-38
Coal	6.1	34.3	6.6	29.1	6.7	24.1	7.0	23-24	7.8	24-26
Hydroelectric power	0.6	3.4	0.6	2.6	0.8	2.9	1.0	3	1.2	4
Nuclear power	NEGL	NEGL	0.1	0.4	0.3	1.1	0.9	3	1.6	5
Other	0.7	3.9	0.8	3.5	0.7	2.5	0.8	3	0.8	3

[a] Because of rounding, components may not add to the totals shown.
[b] Million barrels per day oil equivalent.

Appendix D

Western Europe: Energy Stake in Pipeline Project

While oil remains the dominant energy source in the six European countries involved in the project, natural gas is becoming increasingly important (see table D-1). Natural gas is consumed principally in the industrial and residential-commercial sectors of the six European nations, but is also used to generate electricity. During the 1970s, the increase in gas consumption was most rapid in the residential sector where it replaced coal and oil in space heating. Gas has also increased its share of energy use in the industrial sector at the expense of coal and oil. The share of natural gas in total energy use by 1990 is projected to remain the same or increase for all countries except the Netherlands (table D-2).

Total natural gas supplies to the six West European countries amounted to some 16.1 billion cf/d in 1980. The Netherlands supplied about half of this total, including exports of 4.7 billion cf/d to other West European countries. Domestic production in West Germany, France, Italy, and Austria accounted for about nearly 4 billion cf/d. The remaining supplies were imported from the Soviet Union, Norway, Algeria, and Libya, with over half of the imports coming from the USSR, via pipeline. West Germany, Italy, France, and Austria received all the Soviet deliveries.

Increased deliveries of Soviet gas in the mid-1980s would help offset an expected decline in Dutch gas shipments. Several Dutch gas contracts are scheduled to expire beginning in 1986, in part because of The Hague's conservationist policies. In any event, deliveries from the Soviet Union could approximate 6.3 billion cf/d, enough to make the USSR the largest single supplier (tables D-3 and D-4). Realization of all pending contracts would boost total gas supplies to these West European countries by some 30 percent by 1990 despite expected declines in Dutch and other domestic supplies.

Table D-1

Western Europe: Distribution of Total Primary Energy Consumption [a]

	1979	1990 [b]
Oil [c]	56	43
Natural gas	18	20
Coal	18	17
Nuclear	3	15
Hydroelectric and other	4	5

[a] West Germany, Italy, France, Austria, Belgium, and the Netherlands. Because of rounding, components may not add to 100.
[b] Projected.
[c] Inland consumption plus international aviation, marine bunkers, and refinery fuel and losses.

While seeking more gas from the USSR, several European nations are also negotiating with the Algerians for stepped-up deliveries. The Italians are completing the final phase of construction of an underwater pipeline that will deliver 1.2 billion cf/d of natural gas from Algeria beginning late in 1981. The Algerians also have contracts with France and Belgium to deliver a combined total of 1 billion cf/d of LNG annually beginning in 1982. Another Algerian contract to ship 1.8 billion cf/d of LNG annually to West Germany and the Netherlands by 1985 apparently has been canceled. Some of the contracted volume probably will be forthcoming in the form of pipeline exports through Italy or Spain. (See tables D-5 through D-10.

Norway and Nigeria are also being looked to for increased supplies. A consortium of firms in West Germany, France, Belgium, and the Netherlands is negotiating for increased imports from Norway that could add as much as 0.4 billion cf/d to combined

Table D-2

Western Europe: Actual and Projected Energy Shares [a]

	Percent of Total Energy Use					Total Energy *(Million b/d Oil Equivalent)*
	Oil [b]	Gas	Coal	Nuclear	Other	
1979						
West Germany	53	16	27	3	1	5.70
France	60	11	16	5	8	3.79
Italy	68	16	7	1	7	2.96
Netherlands	51	44	5	1	0	1.51
Belgium [c]	56	20	19	5	0	1.05
Austria	48	20	15	0	17	0.52
1985 [d]						
West Germany	46	18	23	10	1	6.76
France	42	16	15	20	7	4.50
Italy	64	18	9	1	6	3.77
Netherlands	46	43	9	1	0	1.57
Belgium [c]	47	21	21	11	0	1.15
Austria	45	15	16	0	24	0.62
1990 [d]						
West Germany	43	17	23	16	1	7.42
France	29	16	14	30	11	4.84
Italy	56	21	12	4	6	4.48
Netherlands	47	41	11	1	0	1.65
Belgium [c]	47	20	21	12	0	1.29
Austria	40	21	14	0	25	0.72

[a] Total primary energy. Because of rounding, components may not add to the totals shown.
[b] Inland consumption plus international aviation, marine bunkers, and refinery losses.
[c] Including Luxembourg.
[d] Projected.

Table D-3 Percent of Total Consumption

Western Europe: Dependence on Soviet Gas

	1979		1990 [a]	
	Gas	Energy	Gas	Energy
West Germany	14	2	29	6
France [b]	0	0	23-28	4
Italy	29	5	29	5
Netherlands	0	0	10	4
Belgium	0	0	32	8
Austria	59	12	82	18

[a] Based on individual government estimates of gas and total energy consumption.
[b] Contracted volumes of Soviet gas were delivered to Italy in exchange for Dutch gas until February 1980.

Table D-4

Western Europe Countries: Dependence on Soviet Energy [a]

	Million b/d Oil Equivalent					USSR Share (*Percent*)
	Energy Consumption	Energy Imports From the USSR				
		Total	Oil	Gas	Coal	
1979	15.5	1.2	0.5	0.3	0.4	8
1985	18.4	1.6	0	1.2	0.4	9
1990	20.4	1.6	0	1.2	0.4	8

[a] Western Europe countries include West Germany, France, Italy, the Netherlands, Belgium, and Austria.

Table D-5 Billion Cubic Feet Per Day

Federal Republic of Germany: Natural Gas Supplies [a]

	1979	1980
Total supplies	5.5	5.2
Domestic production	2.0	1.7
Imports	3.5	3.5

Current sources of imported natural gas

	Contract Expiration	1979 Volume	1980 [b] Volume
Netherlands	1986/87/89 1991-94	2.1	2.0
USSR	1990/94/98	0.7	0.8
Norway	1997	0.6	0.7

Potential suppliers

	Initiation	Volume
USSR additional	Late 1980s	1.2
Nigeria (LNG)	1984-85	0.2
Algeria (LNG) [c]	1985	0.8
Norway additional	1987	Negotiating

[a] Because of rounding, components may not add to the totals shown.
[b] Estimated.
[c] Algeria has not begun continuation of facilities to complement the projects.

Table D-6 Billion Cubic Feet Per Day

France: Natural Gas Supplies

	1979	1980 [a]
Total supplies	2.6	2.7
Domestic production	0.8	0.8
Imports	1.8	1.9

Current sources of imported natural gas

	Contract Expiration	1979 Volume	1980 [a] Volume
USSR [b]	2000	.0	0.4
Algeria	1990, 1998	0.3	0.2
Netherlands	1988	1.3	1.0
Norway	1977	0.2	0.2

Potential suppliers

	Initiation	Annual Volume
USSR additional	Late 1980s	1.0
Algeria (LNG)	1982	0.5
Nigeria (LNG)	1984-85	0.2
Norway additional	1987	Negotiating

[a] Estimated.
[b] Contracted volumes of Soviet gas were delivered to Italy in exchange for Dutch gas until February 1980.

Table D-7 Billion Cubic Feet Per Day

Italy: Natural Gas Supplies

	1979	1980 [a]
Total supplies	2.8	2.7
Domestic production	1.3	1.3
Imports	1.5	1.5

Current sources of imported natural gas

	Contract Expiration	1979 Volume	1980 [a] Volume
USSR	1999	0.8	0.6
Libya (LNG)	1992	0.2	0.2
Netherlands	1994	0.4	0.7

Potential suppliers

	Initiation	Annual Volume
USSR additional	Late 1980s	0.7
Algeria pipeline	1981-85	1.2
Nigeria	1984-85	0.1

[a] Estimated.

Table D-8 Billion Cubic Feet Per Day

Netherlands: Natural Gas Supplies

	1979	1980 [a]
Total supplies	4.4	4.1
Domestic production	9.1	8.5
Imports [b]	0.2	0.3
Exports	4.9	4.7

Potential suppliers

	Initiation	Annual Volume
USSR	Late 1980s	0.5
Nigeria (LNG)	1984-85	0.1
Algeria (LNG) [c]	1984	0.5
Norway additional	1987	Negotiating

[a] Estimated.
[b] All imports from Norway.
[c] Algeria has not begun construction of facilities to implement contract.

Table D-9 Bilion Cubic Feet Per Day

Belgium: Natural Gas Supplies

	1979	1980 [a]
Total supplies	1.2	1.1
Domestic production	NEGL	NEGL
Imports	1.2	1.1

Current sources of imported natural gas

	Contract Expiration	1979 Volume	1980 [a] Volume
Netherlands	1987	1.0	0.9
Norway	Unknown	0.2	0.2

Potential suppliers

	Initiation	Annual Volume
USSR	Late 1980s	0.6
Algeria (LNG)	1982	0.5
Nigeria (LNG)	1984-85	0.1
Norway additional	1987	Negotiating

[a] Estimated.

Table D-10 Billion Cubic Feet Per Day

Austria: Natural Gas Supplies

	1979	1980 [a]
Total supplies	0.5	0.5
Domestic Production	0.2	0.2
Imports	0.3	0.3

Current sources of imported natural gas

USSR	0.3	0.3

Potential suppliers

	Initiation	Annual Volume
USSR additional	Late 1980s	0.3

[a] Estimated.

supplies by 1987. These countries and Italy have signed a contract with Nigeria to import 0.7 billion cf/d of LNG annually by 1985. Lagos, however, is apparently delaying startup of construction of the liquefaction facility, and imports will probably be delayed until late in the decade.

Despite these deals, the emphasis in West European natural gas planning has been toward greater reliance on pipeline gas from the Soviet Union. The West Europeans have long seen the Soviets as a more reliable source of energy supply than the LDCs. This attitude originates in the Suez crisis of 1956, when Western Europe was affected by cutoffs of Middle Eastern oil and turned to the Soviet oil then beginning to enter the world market. The West Europeans have remained steady customers for Soviet oil, which continued to be delivered during the Middle East war

of 1967 and the Arab oil embargo of 1973-74, even though the Soviets verbally supported the Arab action. This favorable image of Soviet reliability in contrast to that of LDCs has been reinforced in the case of gas by revolutionary Iran's cancellation of the Iranian-Soviet-European IGAT-2 natural gas swap, by Algeria's and Libya's suspension of LNG shipments, by Algeria's subsequent cancellation of construction of the Arzew-3 LNG plant, and by what the Europeans considered extreme Algerian and Libyan demands for increases in the price of LNG in 1980.

Appendix E

Western Europe: Industrial Stake in Pipeline Project

The pipeline project would be especially important to Western pipe manufacturers. West European and Japanese companies have devoted substantial capacity to meeting Moscow's growing demand. US firms, however, have never produced the 56-inch-diameter line pipe that has become the predominant Soviet gas pipe purchase. The USSR spent an estimated $2 billion in 1979 for approximately 1.7 million tons of large-diameter pipe. West Germany and Japan each supplied roughly 700,000 tons, with France and Italy providing most of the remainder.

The West German firm Mannesmann, eager to become the prime contractor for the pipeline project, is particularly dependent on Soviet orders, which consume 80 percent of its large-diameter pipe output. Mannesmann apparently is also the only firm capable of mass-producing 56-inch pipe for operating pressures of 100 atmospheres, for which the Soviets are the only conceivable buyers. The Japanese welded pipe industry, which devotes more than one-fifth of its output to the USSR, could also produce such pipe under license from Mannesmann. If Moscow opts for a dual line at 75 atmospheres, however, West Germany, Italy, France, and Japan might all provide some pipe in order to deliver the total purchase by the contracted date.

West European firms also have a good chance of winning the compressor station order—the other major equipment purchase of the pipeline project—if US companies remain subject to government bans on such sales to the USSR. Each of the six countries in the pipeline project, except for Austria, has at least one firm or consortium capable of producing industrial or aircraft-type gas turbine compressor units that Moscow could use. Japan and other European countries are also potential suppliers. The Soviets would prefer US compressor models—they are the satisfied consumers of several hundred to date—but Soviet concern about future US economic sanctions that would interrupt compressor delivery has stalled negotiations. Moscow's efforts to line up several European firms to handle the order have also been hampered by Soviet concern over US sanctions policy, since most leading contenders produce at least part of their units under US company licenses.

Rolls Royce of the United Kingdom reportedly is the only major European compressor manufacturer relying entirely on its own technology. It is also a leading contender for the pipeline project order and possibly the only West European company for which a project contract could mean avoiding severe financial trouble. The Rolls RB-211 aircraft-type compressor station model competes with US designs. Because recent cancellation of aircraft engine orders has threatened the company with substantial idle capacity, Rolls is striving hard to win Moscow's favor, including acceptance of Soviet demands that a compressor repair plant be part of the deal. Devoid of major aircraft engine orders, Rolls Royce conceivably could attempt to fill the entire order for aircraft-type compressors—up to 125 units—a task of at least two years. Rolls, nonetheless, might have to farm out the job to several West European firms, spreading the pipeline project's benefits somewhat wider.

Appendix F

Soviet Pipeline Delivery Problems

The Soviet Union will have a hard time preventing occasional supply interruptions, given the risks of technical failure. Soviet pipeline breaks result from both climatic and technical problems. Laying large-diameter lines across thousands of kilometers of natural obstacles, particularly ice-covered mountains, swamps, and permafrost, creates a large potential for both construction errors and operational stresses. Permafrost construction has been particularly troublesome for the Soviets. Permafrost—perennially frozen soil—is subject to severe buckling over time since its surface layer annually melts and freezes. Heat generated by gas transmitted through pipes laid underground can aggravate the problem of melting. The Soviets have attempted to minimize the stress that this places on pipelines but, like the West, have not been entirely successful. Another potential problem is moisture collecting in pipe valves and then freezing, snapping the valves. All gas pipelines coming west from Siberia must traverse hundreds of rivers and ravines, which can increase pipeline stress. Strong Arctic winds can damage pipes laid above ground.

The Soviets aggravate matters by paying little attention to performance standards. Plan fulfillment and wage bonuses for pipelaying crews are based on the amount of pipe laid, rather than the quality of work done. As a result, high-quality Western pipe is frequently damaged through careless handling and then left exposed for months before installation, reducing its resistance to corrosion often caused by improper removal from gas of impurities such as water and sulfur. Lines have been improperly welded and buried in permafrost, subjecting the pipe to more stress than is necessary from the ground's thawing and freezing. The Soviets reportedly lost large sections of trunkline along the Northern Lights route because of such faulty installation procedures. Although Soviet pipeline construction in permafrost probably has improved during the past decade, Moscow's refusal to allow Western contractors onsite in the Arctic construction zone would give Western gas importers no assurance against substandard performance.

Major pipeline ruptures could occur at any time of the year. Repair work on Arctic portions of a trunkline during winter would require at least several weeks. Although the Soviets have claimed that on occasion they have repaired pipelines within a week or two, they acknowledge that the norm is much longer. The frozen ground in winter does aid the movement of repair vehicles and delivery of new pipe and equipment, but those materials still are often slow to arrive on site. If the Soviets install two lines under the export line project, the chances for maintaining at least a reduced gas flow would be greatly enhanced.

A serious nonwinter pipe rupture could take several months to repair if it occurred in thawed permafrost or swampy tundra. The lack of surface roads, likely to persist even along the export pipeline, prevents rapid use of repair equipment in that environment. Heavy pipelaying vehicles, for example, can sink into the deep mud, causing serious delays. Such a breakdown, moreover, might produce a double impact on Soviet gas exports, not only reducing deliveries at that time but perhaps hampering above-normal spring or summer shipments, which the Soviets have made in the past to make up for wintertime diversion of gas to domestic needs.

Compressor station failures could also reduce exports. Crews operating gas trunklines are judged primarily by the amount of gas they transport annually, rather than for overall performance that would include timely repair and maintenance efforts. The Soviets as a result have let compressor units run without substantial maintenance until major failures have occurred. According to Western observers, compressor stations

on some of the Soviets' major gas export trunklines have been subjected to such inadequate procedures.

The export pipeline would possess some means of reducing the likelihood of complete shutdowns due to compressor failures. Backup compressors at each station on the line could minimize flow disruptions if a few units broke down. Failure of an entire compressor station would reduce the flow substantially but not halt it if the pipe remained intact, allowing gas to bypass the station. The amount of downtime due to a compressor station failure would depend on the problem and the design of the units. Aircraft-type units that the Soviets have requested could be back on line within 30 minutes. A serious explosion in an industrial-type compressor station could require many months to repair. The export pipeline probably will have stations of both types

Western Europe: Potential for Alternative Gas Supplies

The six West European countries involved in negotiations with the USSR for an additional 1.4 trillion cubic feet of natural gas annually have a number of alternative supply sources to pursue to limit dependence on Soviet gas. These sources vary widely with respect to the potential volume and timeliness of deliveries as well as their attractiveness to the Europeans from the standpoint of reliability. Potential increases in supply may come from:

- o Algerian gas in both pipeline and liquefied (LNG) form. The recent stoppage of deliveries to France and the United States, however, because of Paris and Washington's reluctance to accept Algeria's extreme price demands, raises serious questions about Algerian reliability.
- o Nigerian gas from the Bonny LNG project at the rate of at least 265 billion cubic feet annually. If Lagos' sticks to its decision to delay construction of the project until 1984, deliveries could be postponed until 1987 or later.
- o North Sea gas reserves are sufficient to produce a sizable increase in continental European gas supplies. If London maintains its current UK policy on gas utilization, and if technical and economic constraints associated with Norwegian reserve development cannot be overcome quickly, additional

annual imports from this region will be limited to the 150-300 billion cubic feet already envisioned.

- o Other projects to export LNG to Western Europe may develop late in the decade in Cameroon, Qatar and possibly Canada.
- o Flexibility in accepting delivery under Dutch contracts may enable some of the countries to use Dutch gas for surge capacity during unexpected supply shortages or alternatively to extend contract life. (C NF)

Other Gas Suppliers

Three major gas suppliers already have existing or proposed contracts for future gas deliveries to Western Europe. Several other suppliers could potentially increase deliveries later in the decade. (U)

Algeria

Algerian contracts presently call for annual delivery of some 760 billion cubic feet of natural gas to the United States, France, Spain, and the United Kingdom. Algiers has never met full contract volumes to these countries as scheduled because of technical problems with liquefaction facilities, delays in transport delivery, and more recently, disputes over pricing. Still, Algeria is scheduled to begin deliveries of an additional 530 billion cubic feet of LNG annually to France, Belgium, and the United States in 1982. Completion of an underwater gas pipeline will also enable Algeria to begin scheduled deliveries of 450 billion cubic feet annually to Italy later this year if a pricing agreement can be reached. (U)

Algerian natural gas reserves of about 130 trillion cubic feet are sufficient to permit a sizable growth in exports over the coming decade. Moreover, Algeria is likely to be forced to expand gas exports to offset an expected decline in oil revenues as a result of declining domestic production and growing internal consumption. In addition, uncertainty regarding the future of LNG contracts with the United States as a result of pricing disputes may result in additional LNG supplies being made available to Europe. At present, only France, Italy, Spain and the United Kingdom have facilities capable of handling LNG imports. Recent Algerian pricing demands and uncertainties over Algiers' reliability as a gas supplier are likely to cause West Europeans to take a cautious approach in contracting for new supplies. (U)

Nigeria

The proposed Bonny LNG project to export some 530 billion cubic feet of natural gas annually has been delayed recently by the Nigerian government decision to limit funding of the project during the current five year plan. If this decision is not revised, it will result in a delay in the beginning of construction of the export facilities until 1984 -- when deliveries were to begin under the terms of the original contract. Operating companies are still attempting to revive the contract under its original terms. Nigeria has attempted to divide sales volume between Western Europe and the United

States. West European countries are willing to receive the total contract volume if Lagos and Washington cannot reach agreement. (C NF)

North Sea

Natural gas reserves in the British-Norwegian sector of the North Sea presently total some 70 trillion cubic feet with Norwegian reserves estimated at least 43 trillion cubic feet. These reserves represent a sizable potential for increased supplies to those countries involved in the proposed Soviet gas deal. (U)

UK policy, however, is to utilize gas reserves strictly for domestic consumption. There are presently no existing pipeline systems connecting UK gas fields with the continental European pipeline grid, and it appears unlikely that London would allow any future tie-in, even for strategic purposes. The only possibility for any linkage would lie in the failure to construct a second gas-gathering system to allow development of more remote UK gas fields in the general vicinity of Norway's Ekofisk field. If certain factors prevent these fields from being tied to a UK system, operating companies may be permitted to export some of this gas to continental Europe through the Norwegian Ekofisk-Emden line or another future Norwegian pipeline. Reserves in these UK fields probably total some 1.1 trillion cubic feet. (C NF)

Norway presently exports 350 billion cubic feet of gas annually from its share of the Frigg field to the United Kingdom and about 500 billion cubic feet annually of Ekofisk gas to the

continent. The Norwegian government has yet to approve final plans to utilize gas in the Statfjord field. Oslo is expected to opt to build a system which will pipe this gas to Norway. After extraction of liquids and some gas for local use, the remainder will be transported to a riser platform for hookup with gas produced from other Norwegian fields. This gas will then be shipped to Emden, West Germany through a pipeline with an annual capacity of 300 billion cubic feet. Startup of deliveries is expected by 1987 with initial annual volumes of 130 billion cubic feet. (C NF)

The bulk of Norway's present gas potential lies in Block 31-2 just southeast of the Statfjord field. A gas containing structure in the region has probable reserves estimated at 25-64 trillion cubic feet. The reserves are located in water depths of 1000 feet and will pose great technical problems to develop. Moreover, Norway is not expected to allow development of these reserves until assured that a price equal to at least crude oil parity on a delivered basis is guaranteed. In any event, development of these gas reserves will likely require that present Norwegian policy toward hydrocarbon development be modified to allow greater oil/gas production or emphasize gas production at the expense of oil. Oil bearing structures in Block 34-10 adjacent to the Statfjord field contain an estimated 530 billion cubic feet of gas which could also be tied into a future gas gathering system in the region. (C NF)

Exploration north of the 62nd parallel, where the bulk of Norway's offshore continental shelf lies, began last summer.

While no detailed reports of discoveries have been released, the area is believed to hold great potential. Operating companies believe that Norway will take a go slow approach in announcing discoveries and proceeding with development to avoid attracting Soviet interest. (C NF)

It is doubtful that sizable increases in Norwegian gas production beyond those planned for the Statfjord pipeline will occur in the coming decade without a strong push from the government. Most reserves are located in deep water where doubts exist about the technological capability to produce and pipe the gas to the continent. In addition, operating companies in the North Sea continue to push for oil field development where lead times and markets are such that they can realize a quicker and greater return on their investments. (C NF)

Netherlands

Increased exploration both onshore and offshore enabled the Netherlands to boost total gas reserves to 62 trillion cubic feet despite producing over 3 trillion cubic feet for domestic and export markets. Dutch policy is to develop rapidly offshore gas deposits while conserving reserves in the onshore Groningen field for future domestic purposes. Still, the huge Groningen field, with reserves in excess of 40 trillion cubic feet, represents the greatest buffer against a shortfall in gas deliveries from other soures over the next 5-10 years. The Dutch import gas from Norway and are seeking additional supplies from Algeria, Nigeria, the USSR and Norway. (U)

Production from the Groningen field presently totals some 2.2 trillion cubic feet with a rated annual capacity of 6.4 trillion cubic feet. Peak capacity could be sustained for about a year without significant reservoir damage but the productive life of the field would be shortened by more than the Dutch government would consider acceptable. Still, the operating companies (Shell and Esso) have been adding surge capacity to the field, partly as a result of bumping against peak daily capacity during cold weather periods in 1978-79. (C NF)

Offshore fields are being produced rapidly to prevent deterioration of the producing equipment and pipelines. These fields, along with smaller onshore fields, account for about 30 percent of total Dutch gas production and are expected to play a greater role in the future if reserves can be increased. The Dutch also conserve reserves in the Groningen by importing gas. (U)

Present Dutch policy is to conserve gas for future domestic needs and the Hague is refusing to renew contracts with present European customers. At the same time, the Dutch have agreed to allow customers to reduce delivery in the near term to extend the life of the contract or insure added deliveries during periods of shortfall from other suppliers. The Dutch gas supplier, Gasunie, and the government have rejected proposals to serve as a supplier of last resort, but even this policy may be modified in the future. The Dutch probably would be willing to aid its EC partners during a gas crisis if some assurances could be made that withdrawals would be replenished by the EC partners when

supplies were more ample. Indeed, the producing companies of the Groningen field already have contingency plans to reverse flow in the pipeline grid to allow gas to be reinjected into the field. (C NF)

Other Potential Suppliers

Gas discoveries off the coast of Cameroon have raised the possibility of developing an LNG export facility there later in the decade. The size of potential reserves has not yet been established but operating companies, including a French firm, are optimistic about the project. Any exports would probably not be forthcoming until the late 1980s and most likely would be earmarked for France. (U)

Qatar's huge Northwest Dome gas reserves (140 trillion cubic feet) have been the subject of intensive study by several firms, including the West German firm Wintershall. No contracts have been signed to develop the reserves and it is likely that Qatar will opt to develop some of the gas for local use before considering an export project. Participation terms for foreign firms have made the project unattractive. Still, West Germany has shown a great deal of interest in the potential LNG supplies and prospects for declining oil production in Qatar may help push initial development by the mid-1980s. (C NF)

Canada is moving ahead with plans for a pilot LNG project designed to move gas supplies from the Arctic region to Canada's east coast, and Canadian officials have discussed the possibility of LNG shipments to Western Europe. While Canada has sufficient reserves to accommodate a reasonable volume of LNG trade with

Europe, uncertainties regarding domestic energy policy and the unproven Arctic project make it unlikely that this potential will be realized before 1990. (C NF)

Deep Zone Gas Potential

Sizable reserves of natural gas in very deep geological zones--15 thousand to 20 thousand feet or more--exist in the continental United States and are believed to exist in continental Europe. Indeed, some drilling activity has indicated the presence of several hundred billion cubic feet of such deposits in Belgium. (U)

Development of gas deposits in these deep zones is a costly procedure because of the depth and structure of the gas bearing formation. In most cases, it takes a year or longer to drill a producing well and most operating companies find it more profitable to explore for oil or more conventional gas sources. Still, if the existence of such deposits could be proved out, European governments should be encouraged to stimulate development of this resource as another offset to a potential Soviet shortfall. (U)