



National Energy Board

Reasons for Decision

Westcoast Energy Inc.

GH-1-94

May 1994

Facilities and Toll Methodology

National Energy Board

Reasons for Decision

In the Matter of

Westcoast Energy Inc.

Application dated 21 January 1994,
for the Sukunka Fuel Gas Pipeline

GH-1-94

May 1994

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Canada 1994

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Abbreviations

Act	<i>National Energy Board Act</i>
Amoco	Amoco Canada Petroleum Company Ltd.
Board or NEB	National Energy Board
B.C.	British Columbia
Bcf	billion standard cubic feet
BC Gas	BC Gas Utility Ltd.
DFO	Department of Fisheries and Oceans
EARP Guidelines Order	<i>Environmental Assessment and Review Process Guidelines Order</i>
km	kilometre(s)
MELP Columbia	the Ministry of Environment, Lands and Parks of the Province of British Columbia
m	metre(s)
m ³	cubic metre(s)
m ³ /d	cubic metre(s) per day
Ocelot	Ocelot Energy Inc.
Shell	Shell Canada Limited
SPCG	South Peace Consultation Group
Talisman	Talisman Energy Inc.
Tcf	trillion standard cubic feet
Westcoast, the Company, or the Applicant	Westcoast Energy Inc.

Recital and Appearances

IN THE MATTER OF the *National Energy Board Act* ("the Act") and the Regulations made thereunder;

AND IN THE MATTER OF an application by Westcoast Energy Inc. for a Certificate to construct the Sukunka Fuel Gas Pipeline pursuant to section 52 of the Act; and for approval of certain tolls and tariffs associated with the new Fuel Gas Service pursuant to sections 59 and 60 of the Act, and

IN THE MATTER OF the National Energy Board Hearing Order GH-1-94;

HEARD in Vancouver, British Columbia on 18 and 19 April 1994.

BEFORE:

R. Illing	Presiding Member
A. Côté-Verhaaf	Member
C. Bélanger	Member

APPEARANCES:

R. Sirett	Westcoast Energy Inc.
A.R. Fraser	Amoco Canada Petroleum Company Ltd.
A.K. Fung	BC Gas Utility Ltd.
F.C. Basham	Ocelot Energy Inc. Shell Canada Limited Talisman Energy Inc.
L.A. Boychuk	Board Counsel

Chapter 1

Introduction and Preliminary Matters

1.1 1.1 Introduction

Westcoast Energy Inc. ("Westcoast", "the Company" or "the Applicant") filed an application dated 21 January 1994 with the National Energy Board ("NEB" or "Board") pursuant to section 52 of the *National Energy Board Act* ("the Act") for a Certificate of Public Convenience And Necessity to construct a fuel gas pipeline from the Pine River Gas Plant to local producers in northeastern British Columbia, and pursuant to sections 59 and 60 for approval of certain tolls and tariffs associated with the new fuel gas service through those pipeline facilities. The Board issued Hearing Order GH-1-94 dated 25 February 1994 setting out the associated Directions on Procedure, as subsequently amended on 25 March 1994, related to the oral public hearing to be convened to consider the proposed project.

Westcoast owns and operates a natural gas pipeline extending from various points of receipt in the Province of Alberta, the Province of British Columbia, the Yukon Territory and the Northwest Territories to a point on the international boundary between Canada and the United States near Huntingdon, British Columbia. The Company receives raw natural gas from producers for processing at the Company's gas plants, also located in northeastern British Columbia, to be delivered to various points in British Columbia, Alberta and the United States at Huntingdon, British Columbia.

The purpose of the Sukunka Fuel Gas Pipeline would be to deliver residue gas from the Pine River Gas Plant to the Sukunka and West Sukunka areas of northeastern British Columbia for consumption in certain natural gas production facilities located in those areas, as shown in Figure 1-1.

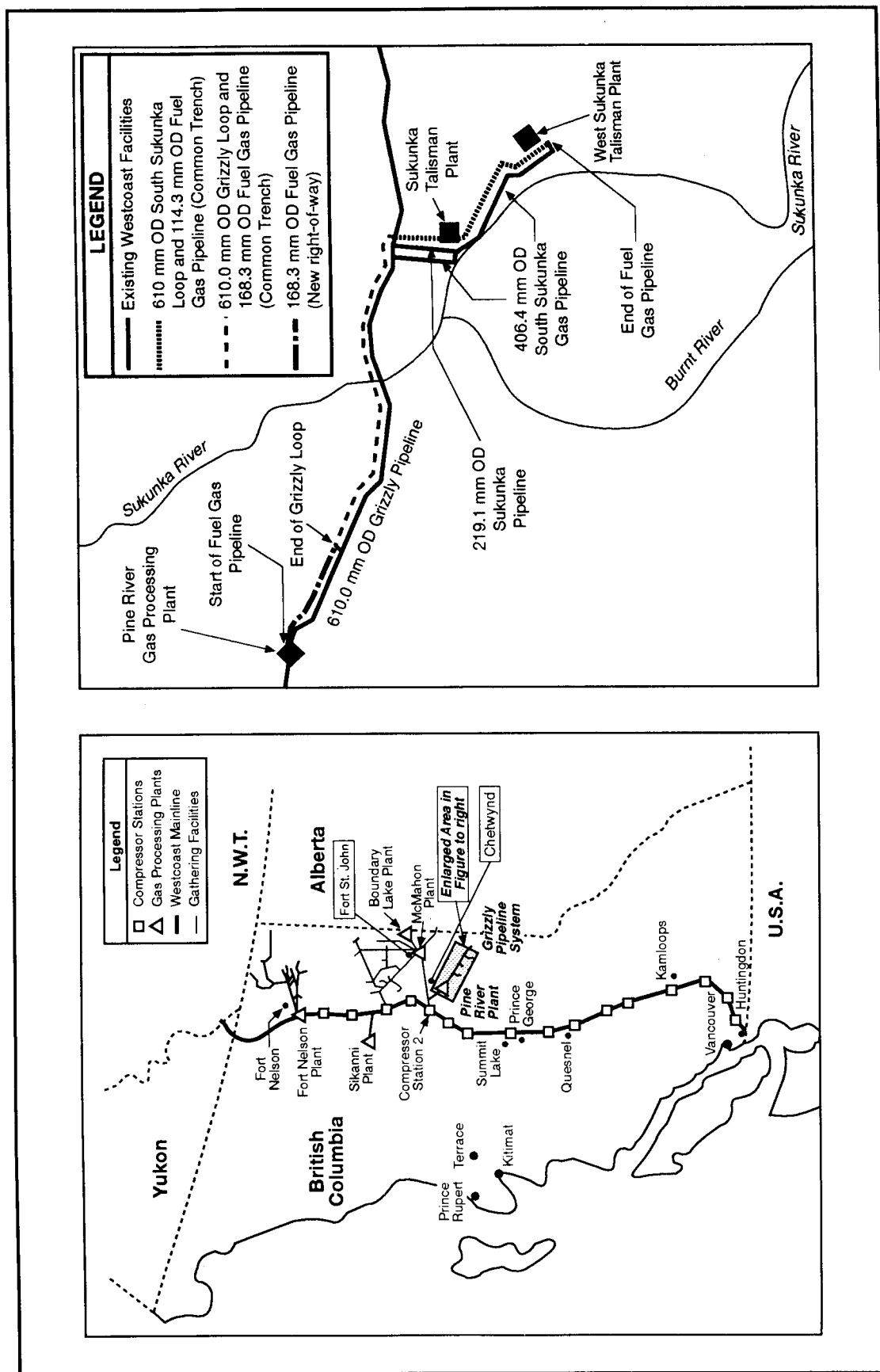
1.2 1.2 Preliminary Matters - The Board's Jurisdiction over the Sukunka Fuel Gas Pipeline

In its intervention dated 9 March 1994, BC Gas Utility Ltd. ("BC Gas") raised the issue of the Board's jurisdiction over the Sukunka Fuel Gas Pipeline suggesting that the proposed line "... may be a natural gas distribution line rather than part of the interprovincial pipeline operated by Westcoast." In accordance with BC Gas' request, the Board amended the List of Issues identified in Appendix III to the Directions on Procedure to include the jurisdictional issue and the Board served a Notice of Constitutional Question on the Attorney General of Canada and the Attorney General of each Province of Canada on 29 March 1994.

Westcoast's Position

Noting that BC Gas acknowledges that Westcoast owns and operates an interprovincial gas pipeline undertaking subject to federal jurisdiction, Westcoast's position is that the only issue to be determined is whether the fuel gas pipeline is part of that interprovincial pipeline undertaking. Westcoast submits that whether the Board has jurisdiction over the fuel gas pipeline turns on whether the facility falls within the

Figure 1-1
Location Map
Sukunka Fuel Gas Pipeline



definition of "pipeline" found in section 2 of the Act which reflects the constitutional basis for federal jurisdiction over interprovincial works and undertakings under sections 91(29) and 92(10)(a) of the *Constitution Act, 1867*.

Westcoast's evidence is that the Sukunka Fuel Gas Pipeline is a natural gas pipeline which is to be owned, constructed and operated by Westcoast and be physically connected to its interprovincial pipeline system at a point near the outlet of the Pine River processing plant. Westcoast asserts that the operation of the line would be fully integrated with its pipeline system in the same manner as any other pipeline which forms part of its existing system.

Westcoast submits that these jurisdictional facts demonstrate that the fuel gas pipeline is a branch or extension of its interprovincial gas pipeline undertaking and, accordingly, falls within the definition of "pipeline".

Relying *inter alia* on the *Winner*¹ and *Flamborough*² cases, Westcoast asserts that once an undertaking is determined to be interprovincial, the entire undertaking and all of its services are subject to federal jurisdiction. Reference is also made to the *Cyanamid*³ case for the proposition that no question of nexus arises if in fact the facility in question is part of the federal undertaking. On this basis, Westcoast argues that the Sukunka Fuel Gas Pipeline, which is itself a natural gas pipeline physically connected to and subject to common ownership and operation with the existing system, is part of - the very essence of - the core federal undertaking of Westcoast. In Westcoast's opinion it is not a subsidiary or collateral activity. It is, therefore, not appropriate to embark upon a consideration of the vital, essential or integral test which has been applied in situations where a local undertaking is considered to be part of a separately owned federal undertaking or situations where common ownership exists but the interprovincial undertaking is engaged in some collateral or subsidiary activity which is different from the operation which is at the core of the federal undertaking.

Westcoast states that the issue is not one of characterizing a particular service as local or interprovincial; the issue is one of defining the natural gas pipeline undertaking of Westcoast. Accordingly, if the fuel gas pipeline is part of Westcoast's interprovincial pipeline undertaking, the fact that the service provided on the Sukunka Fuel Gas Pipeline may be viewed as being local in nature is not relevant to the determination of jurisdiction over the pipeline.

Views of Interested Parties

Province of British Columbia

In a letter to the Board dated 25 March 1994, the Province of B.C., an interested party to this proceeding, stated as follows:

¹*Attorney General of Ontario v. Winner*, [1954] A.C. 541.

²*Township of Flamborough v. National Energy Board* (1984), 55 N.R. 95 (F.C.A.).

³*Reference re National Energy Board Act* (1987), 48 D.L.R. (4th) 596.

“The Province recognizes that BC Gas Utility Ltd. has raised the issue of jurisdiction. The Province does not concede jurisdiction related to this project. However, in this particular instance, it is believed that the environmental and economical advantages of constructing the sweet fuel gas line at the same time, and for the most part in the same trench, as the Grizzly and South Sukunka sour gas lines, outweigh our jurisdictional concerns.”

BC Gas Utility Ltd.

BC Gas notes that Parliament’s authority to regulate pipelines is derived from the exception to exclusive provincial jurisdiction found in section 92(10)(a) of the *Constitution Act, 1867* relating to "Works and Undertakings connecting a Province with any other or others of the Provinces, or extending beyond the Limits of a Province". BC Gas submits that the case law has established that the onus is on the party alleging federal jurisdiction - namely, Westcoast - to demonstrate that the proposed facility is either itself a federal work or undertaking (the primary instance) or that it is joined to a federal work or undertaking through a necessary or logical nexus such that it forms a vital, integral and essential part of the core federal work or undertaking (the secondary instance).

BC Gas argues that the proposed pipeline, which begins and terminates in British Columbia and lies wholly within British Columbia, cannot itself be regarded as a federal work in the primary instance.

BC Gas observes that the sole purpose of the fuel gas pipeline is to divert processed gas from the Pine River plant directly back to the producers in B.C., the end users of the gas, for use in production, exploration and development activities. As well, BC Gas maintains that the proposed fuel gas pipeline is not necessary for the continued operation of the Westcoast system which has operated for some 37 years without any fuel gas lines. Accordingly, BC Gas asserts that the proposed line also does not meet the secondary instance of federal jurisdiction.

BC Gas cautions that although the project, when viewed in isolation, may appear to be relatively minor, the implications and costs of similar future applications by Westcoast could have significant and far-reaching effects. And from a policy perspective, BC Gas argues that the construction, operation and maintenance of a pipeline to distribute fuel gas directly to producers within British Columbia for use in their fields in British Columbia is not a matter that necessarily or logically comes under federal jurisdiction.

In BC Gas’s opinion, the project is fundamentally different from the usual Board-regulated business of Westcoast - operating a fully integrated interprovincial pipeline system, the purpose of which is to take raw gas from the producers, process it, and transmit the gas via its pipeline to a market which extends outside British Columbia.

BC Gas concludes, therefore, that the facts do not support a finding that the proposed fuel gas pipeline is either itself a federal work or undertaking or that it forms an integral, essential or vital part of Westcoast’s usual business of running an interprovincial or international pipeline and that the Board, therefore, lacks the necessary jurisdiction to consider and approve Westcoast’s application in respect of the proposed Sukunka Fuel Gas Pipeline.

Views of the Board

It is not disputed that the existing Westcoast gas transmission system is under federal jurisdiction. The only issue to be determined then is whether the proposed Sukunka Fuel Gas Pipeline is part of that interprovincial pipeline undertaking. This is a question of fact.

The Board agrees with BC Gas that the mere fact of ownership and simple physical connection does not mean that the proposed line automatically comes under federal jurisdiction as part of the federally-regulated Westcoast system. As well, the Board does not agree that the case law establishes that once an undertaking is determined to be interprovincial, the entire undertaking and all of its services are automatically subject to federal jurisdiction. It is evident that there must also be a sufficient connection or link to illustrate that, in this case, the line is part of a continuous system operated together which, as in the *Luscar*¹ case, could consist of an operating agreement.

Having considered the jurisdictional facts taken together, however, the Board is satisfied that the Sukunka Fuel Gas Pipeline - itself a natural gas pipeline - which will be constructed, owned, operated and controlled by Westcoast, is part of the core federal undertaking. The Board as well, is cognizant of the unique nature, design and history of the Westcoast system and the fact that the federally regulated undertaking includes raw gas transmission and processing facilities.

In the Board's view, the fuel gas pipeline is more properly characterized as a branch or extension or part of the Westcoast interprovincial pipeline system than as a subsidiary or collateral activity. On this basis, the Board agrees with Westcoast that it is not necessary to embark upon a consideration of the vital, integral and essential test as that test has been applied to date by the Courts.

The Board is of the view that the applied-for pipeline is properly the subject matter of an application before this Board in that the facility falls within the definition of "pipeline" found in section 2 of the *National Energy Board Act*.

1.3 1.3 Environmental Reviews

During the GH-1-94 proceeding, the environmental and directly related social effects of the project were considered concurrently under two separate processes:

- (i) an environmental screening of the application pursuant to the *Environmental Assessment and Review Process Guidelines Order* ("EARP Guidelines Order"); and
- (ii) a project review pursuant to the Board's mandate under Part III of the Act.

¹*Luscar Collieries v. McDonald*, [1927] A.C. 925; In *R. v. Board of Transport Commissioners*, [1968] S.C.R. 119 at 128, the Court commented that "[in *Luscar*] the criterion of the jurisdiction is the fact that the operations are a part of the interprovincial system."

The Board conducted an environmental screening of the applied-for facilities in compliance with the EARP Guidelines Order insofar as there was no duplication with the Board's own regulatory process. The Board has determined that the potentially adverse environmental effects that may be caused by the applied-for facilities and the social effects directly related to those environmental effects are insignificant or mitigable with known technology. This conclusion, outlined in a separate screening document, represents a finding pursuant to paragraph 12(c) of the EARP Guidelines Order.

The Board's views formed pursuant to Part III of the Act in respect of the environmental effects and socio-economic effects of the applied-for facilities are set out in Chapter 4 of these Reasons for Decision.

Chapter 2

Gas Supply and Service Agreements

2.1 Gas Supply

The Board granted Westcoast's request that its estimates of established gas reserves and undiscovered potential previously filed as part of the Pine River Gas Plant and Grizzly Pipeline Facilities Application (GH-1-93) be incorporated into the proceeding. As in the GH-1-93 application, gas volumes in formations deeper than the Halfway formation were not included since tests have not sufficiently established the economic viability of such formations.

Table 2-1
Comparison of Estimates of Remaining Established Reserves
and Undiscovered Potential¹

	10 ⁹ m ³ (Tcf)	
	Westcoast	NEB
Remaining Established Reserves	33.0 (1.2)	33.8 (1.2)
Undiscovered Potential	<u>170.6 (6.0)</u>	<u>135.8 (4.8)</u>
Total	203.6 (7.2)	169.6 (6.0)

¹ As of 31 December 1993

Westcoast assigned estimates of established gas reserves to 64 pools in 16 fields. For producing pools, Westcoast continues to rely on analysis of production decline and material balance for its estimates of gas reserves. Volumetric methods are used by Westcoast to initially assign estimates of established reserves to non-producing pools.

Similar reservoir evaluation techniques are employed by the Board to assign estimates of established gas reserves to producing and non-producing pools. The Board's review of gas supply indicates that approximately 3.6 10⁹m³ (127 Bcf) of established reserves have been added in three new pools from undiscovered gas potential since December 1992.

In addition to those new wells assigned estimates of established gas reserves, there are another nine confidential gas wells that are expected to contribute additional gas reserves from undiscovered gas potential. Westcoast indicates that about 50 to 70 10⁹m³ (1.8 to 2.5 Tcf) of undiscovered potential is expected to be developed over the next fifteen years and, as the Board indicated in its Reasons for Decision in GH-1-93, it is expected that approximately 100 10⁹m³ (3.5 Tcf) of undiscovered potential could be added over a fifteen year period.

2.2 2.2

Service Agreements

In support of the Sukunka Fuel Gas Pipeline application, Talisman Energy Inc. ("Talisman"), Amoco Canada Petroleum Company Ltd. ("Amoco"), Ocelot Energy Inc. ("Ocelot") and Shell Canada Limited ("Shell") have executed firm Service Agreements with Westcoast, dated 2 December 1993, for fuel gas service totalling $60.3 \times 10^3 \text{ m}^3/\text{d}$ (2.1 MMcfd). Each of these agreements is for a ten-year term commencing 1 November 1994. The gas would be shipped from the outlet of the Pine River Gas Plant to the interconnections of the Sukunka Fuel Gas Pipeline and Talisman's Sukunka or West Sukunka facilities. In addition, Westcoast states that the potential exists to extend the fuel gas pipeline system into the Burnt-Brazion and Bullmoose areas as these areas are developed.

Views of the Board

The Board's and Westcoast's estimates of established reserves remain similar. The Board is satisfied that sufficient demand for sweet fuel gas at future field facilities would provide for sustainable use of the proposed pipeline. Furthermore, the Board finds that the Service Agreements which Westcoast has executed with Amoco, Talisman, Ocelot and Shell demonstrate that the applied-for facilities are required to serve these producers.

Chapter 3

Facilities

Westcoast's applied-for facilities consist of 35.9 km (22.3 miles) of 168.3 mm (6.625 inch) O.D. pipeline and 14.9 km (9.3 miles) of 114.3 mm (4.5 inch) O.D. pipeline. The Company indicates that the design of the pipeline has been developed giving consideration to the capacity required to meet firm service agreements for this project and the forecast long-term fuel demand for the Sukunka, Burnt-Brazion and Bullmoose gas supply areas. Westcoast also states in its application that the pipeline, including the cased crossing of the Sukunka River, would be designed, constructed and tested in accordance with the Canadian Standards Association standard CAN/CSA-Z184-M92, the provisions of the Act and other appropriate governing codes.

Where the fuel gas pipeline crosses the Sukunka River, Westcoast proposes to use 505 m of an existing deactivated 1000 m section of 610 mm (24 inch) pipeline as a casing. This section of pipeline was deactivated in 1982 in accordance with the requirements of section 55 of the *Onshore Pipeline Regulations*.

Westcoast indicates that the pipeline would be tested using water as the testing medium, and also indicates that there are large elevation changes along the route of the proposed pipeline.

Views of the Board

The Board is of the view that the design of the applied-for Sukunka Fuel Gas Pipeline is appropriate for the purposes of delivering fuel gas to producers in the Sukunka and West Sukunka areas for consumption in certain natural gas production facilities. The Board is satisfied that the design is safe and that the company would ensure that all standards and design requirements are met. The Board notes, however, that the elevation changes along the proposed route of the pipeline could cause large variations in pressure during hydrostatic testing, and therefore requires Westcoast to submit for approval its hydrostatic testing program prior to hydrostatically testing the pipeline.

Chapter 4

Early Public Notification, Land and Environment Matters

4.1 4.1 Early Public Notification

As part of its application process, and consistent with the Board's Memorandum of Guidance Concerning Early Public Notification of Proposed Applications, Westcoast undertook a program of Early Public Notification which began in November of 1993. The Early Public Notification Program consisted of the following:

- i) the project was described at the 17 November 1993 meeting of the South Peace Consultation Group ("SPCG");
- ii) the project was described in "Westcoast News", Westcoast's annual newspaper supplement published in all community newspapers in northeastern B.C., during the second week of January 1994;
- iii) although all community governments have information concerning the project through the SPCG and will be in receipt of the newspaper supplement, Westcoast indicated it would review the proposed pipeline with local community councils at general update meetings in January or February 1994. Local communities include the District of Tumbler Ridge, the District of Chetwynd, the Saulteau Band and the West Moberly Band; and
- iv) the public will be reminded of the project through a specific newspaper advertisement printed approximately one month before right-of-way clearing commences.

Westcoast indicated that consultations relevant to this project were initially carried out in connection with the previously approved and publicly reviewed Grizzly Pipeline System Expansion (Hearing Order GH-1-93), since 80 percent of the length of the proposed fuel gas pipeline would be built at the same time as and placed in a common trench with the approved Grizzly and South Sukunka Pipeline Loops.

Views of the Board

The Board is satisfied that Westcoast has notified and adequately discussed the proposed application with all persons having an interest in the project.

4.2 4.2 Land Matters

As a result of the existing pipeline rights-of-way extending from Talisman's West Sukunka Plant to the Pine River Gas Plant, the proposed fuel gas pipeline would be routed immediately adjacent to existing or proposed Westcoast pipelines to minimize both land base disturbances and construction costs. Significant routing deviations from the existing right-of-way system were not considered warranted from a construction, biophysical or land use perspective. Consequently, Westcoast indicates that no routing

alternatives were evaluated for this project. Under such a routing scenario, the construction of the fuel gas pipeline would result in approximately 9.0 hectares (22.2 acres) of new surface disturbance.

Under current design plans, the majority of the proposed fuel gas pipeline would be installed in a common trench simultaneously with the proposed Grizzly and Sukunka loops to be constructed in the summer of 1994. These proposed loops will extend from the West Sukunka Plant to a valve site on the Grizzly system north of the Highhat River (km 41.7). Consequently, approximately 41 km (25.7 miles) of the fuel gas pipeline would fall within the right-of-way to be developed for the looping projects, and no additional disturbance would be required specifically for the fuel gas pipeline over that portion of the route.

To minimize new land disturbance north of the Highhat River valve site, approximately 8 m (26.3 feet) of the fuel gas pipeline right-of-way would fall on the existing cleared right-of-way of the Grizzly pipeline, and only 10 m (32.8 feet) of new clearing would generally be required. The fuel gas pipeline would be routed along the northeast side of the existing right-of-way throughout this 9.1 km (5.7 mile) portion to the Pine River Gas Plant. Extra workspace may be required for grade-rock storage in areas where rock blasting and heavy grading are necessary.

With respect to land acquisition, Westcoast has obtained permits for "clearing and site preparation" from the Ministry of Environment, Lands and Parks ("MELP") of the Province of British Columbia for the Grizzly and Sukunka loops. Those permits allow for multiple line rights which would include the proposed fuel gas pipeline. Westcoast indicated that an application for "pipeline purposes" has been made to MELP. Upon completion of construction, Westcoast will make application to MELP for the required Statutory Right-of-Way. That approval would provide provincial authorization to operate and maintain the pipeline through Crown lands. Westcoast does not anticipate that difficulties would be encountered in obtaining the necessary land rights.

4.2.1 4.2.1 Access

From the Highhat River valve site to the West Sukunka plant, access requirements for the fuel gas pipeline would be developed in conjunction with the previously approved Grizzly Pipeline System Expansion project. North of the Highhat River valve site, the existing right-of-way is currently negotiable by four-wheel drive traffic during dry weather conditions, and would be upgraded to support conventional truck traffic for the construction period. The right-of-way can be accessed from the Pine River Gas Plant road and from a microwave tower road approximately 5.8 km (3.1 miles) south of the Pine River Gas Plant.

Conventional truck travel would be possible along the majority of the fuel gas pipeline right-of-way throughout construction (except during prolonged periods of wet weather). However, after project completion, the right-of-way would not afford such access. In addition, any new "shoo-flies" installed on steep terrain would be reclaimed and decommissioned, unless otherwise advised by the British Columbia Ministry of Forests. If required, slash berms or other measures would be used to control long-term access in sensitive areas.

Views of the Board

The Board agrees with Westcoast's rationale for installing the proposed pipeline either within existing easements or adjacent to existing pipelines. The Board accepts, therefore, the general route proposed by Westcoast for the pipeline.

The Board finds that Westcoast's anticipated land requirements for pipeline construction, installation and operation are reasonable and justifiable. The Board notes that Westcoast would use existing roads and access routes for access to and along the right-of-way.

4.3 4.3 Environmental Matters

In its application, Westcoast identifies a number of potential environmental concerns associated with the Sukunka Fuel Gas Pipeline including impacts related to air quality, geology and soils, vegetation, wildlife and wildlife habitat, fisheries resources, and archaeological resources.

4.3.1 4.3.1 Air Quality

Westcoast stated that installation of the fuel gas pipeline would significantly reduce sulphur dioxide emissions from the Sukunka and West Sukunka producing facilities as well as any future producing facilities in the area. Currently, 5 to 6 tonnes of sulphur dioxide are emitted daily from producer facilities. Once the fuel gas pipeline is operational, gas which was sweetened by the producer facilities would be sweetened at the Pine River Plant which is capable of recovering approximately 98.5 % of the sulphur in the gas. Therefore, regional sulphur emissions would be reduced.

4.3.2 4.3.2 Geology and Soils

The proposed fuel gas pipeline encounters a variety of surface materials and the terrain varies from flat river valley bottoms to steep mountain slopes. The Company acknowledges the potential for slope stability problems as well as surface erosion following surface disturbance resulting from construction, and submits that these concerns could jeopardize long-term pipeline integrity, unless adequate protective measures are incorporated. The Company proposes to establish controls for surface, subsurface and ditchline water flows on slopes which pose stability problems. As well, revegetation of the disturbed lands would be employed as a final stabilizing measure.

Westcoast submits that although soil mixing is a potential concern for pipeline projects, the proposed route crosses poorly developed forest soils and therefore standard topsoil conservation methods are not warranted. The Company notes that a portion of the proposed route crosses Agricultural Land Reserve in the Sukunka Valley; however, the terrain and soil characteristics are not capable of sustaining agricultural activities. Therefore, any soil mixing which may occur during construction would not inhibit revegetation efforts unless coarse gravels or bedrock materials are incorporated with surface materials during grading and ditching operations. The Company submits that should coarse material be encountered, it would be stockpiled separately from surface material and replaced first during clean-up.

4.3.3 4.3.3

Vegetation

Westcoast submits that the majority of the proposed fuel gas pipeline right-of-way was surveyed for rare and endangered plants for the Grizzly and Sukunka Looping project and at that time only one special status species, white wintergreen, was found on the Grizzly right-of-way. Since this is an R3 status species, defined as having widespread or scattered populations but whose individual plants occur in small numbers, it was concluded in the screening for these loops that impacts on this species would be insignificant. The Company indicates that its environmental consultants conducted a review of existing information for the area and determined that there are no botanical associations of particular ecological significance or uniqueness along the portion of the right-of-way which requires additional clearing. Therefore, the Company submits that a rare and endangered plant survey is not required.

The Company also submits that salvageable timber would be managed according to the requirements of the B.C. Ministry of Forests.

4.3.4 4.3.4

Wildlife and Wildlife Habitat

Construction of the pipeline facilities could potentially have an adverse effect on wildlife in the project area. The Company submits that the potential effects include sensory disturbance and habitat alienation, blockage of seasonal or daily movements, habitat alteration and fragmentation, increased access (and associated hunting and poaching pressures), and direct project-related mortalities.

Westcoast submits that wildlife species that reside in the area would experience a brief period of sensory disturbance. However, the Company states that this impact is considered to be short-term localized events of low to moderate magnitude. Westcoast submits that because the pipeline construction is scheduled from July to September, the sensitive reproductive period of May to early June and the late winter period of January to April for most wildlife species common to the area, would largely be avoided by construction activities. The Company notes that there is a potential that nests still occupied by unfledged raptors would be encountered during the early stages of construction. Westcoast states that its environmental inspector would survey the proposed right-of-way prior to the commencement of clearing activities. If nests are located, the sites would be flagged and the Fish and Wildlife Branch of MELP would be notified and clearing in the immediate area would not proceed until appropriate mitigative measures are taken.

Westcoast submits that the proposed construction period would not coincide with major seasonal wildlife movements. Day-to-day forage movements may be obstructed; however, such movement blockages would only be short term. The Company proposes to mitigate this concern by ensuring there are breaks in spoil piles, slash windrows, open ditches and strung pipe at approximately 500 m intervals. Westcoast submits that with the implementation of such measures, pipeline-related obstructions would be short term, localized events of low magnitude. The Company submits that while several wildlife species would be temporarily displaced during construction, there is no evidence in the literature to suggest that this displacement persists or results in a decrease in animal numbers.

Westcoast states that the limited clearing program would have negligible impacts on regional wildlife populations and in the medium to long term, the plant communities which would develop along the rights-of-way through revegetation efforts and natural succession would enhance local habitat diversity.

Westcoast submits that the proposed route parallels the existing Grizzly and Sukunka pipeline rights-of-way. Therefore, effects on wildlife associated with increased access resulting from this project would be minimal or non-existent. The Company submits that a small number of project-related road kills from vehicle-animal collisions during construction would likely occur. Since much of the fuel gas pipeline construction would take place in conjunction with the Grizzly and Sukunka Looping project, the potential for additional impact is minimal.

4.3.5 4.3.5 Fisheries Resources

Westcoast states that potential impacts on local fisheries resulting from stream crossings associated with the proposed fuel gas pipeline include temporary increases of instream total suspended solids and turbidity, downstream sediment deposition and altered substrate characteristics, temporary reduction in flow rates during trenching activities and introduction of contaminants from inadvertent spills.

Westcoast submits that site-specific fisheries information was collected during the summer of 1993 to supplement existing data available for the project area. The field program included aquatic habitat assessments and, for selected streams, electro-fishing surveys. This information was used to determine potential fisheries impacts from construction of stream crossings. The assessment information indicated that for most of the streams crossed by the fuel gas pipeline right-of-way, habitat quality is low due to low flows, high gradients and silty substrates. Also, many of the streams are headwaters to small streams which are not fish-bearing due to inaccessible reaches resulting from obstructions. Only five of the streams were reported to contain fish. Based on the aquatic habitat assessments and fisheries surveys, the Company has proposed a detailed stream crossing program which is dependent on flow rate, width and depth, and on the presence of fish. Proposed crossing techniques would therefore include open cut, dam and pump, and fluming.

The proposed fuel gas pipeline would cross 17 streams of varying fisheries potential. The Company states that the construction schedule for water crossings occurs through July and August and is therefore outside the spawning and egg incubation periods. These periods are considered to be sensitive to high sediment loads. Therefore, avoidance of these sensitive periods serves to mitigate construction-induced sediment loading of streams. Further, the Company states that it is negotiating sediment monitoring requirements with both the Department of Fisheries and Oceans ("DFO") and MELP. Westcoast has undertaken to comply with the requirements of DFO and MELP concerning water quality monitoring.

4.3.6 4.3.6 Archaeological Resources

Westcoast submits that site file searches and on-site route surveys were conducted to determine if archaeological and/or paleontological artifacts occurred along the proposed pipeline route. Two transient use sites were identified and the consultant recommended that "no further archaeological study relative to the identified sites... is warranted." No significant sites are expected to be encountered by the project; however, the Company states that if significant artifacts are found during construction, work would be suspended in the vicinity of a finding until a qualified archaeologist has evaluated the site.

Views of the Board

The Board is satisfied with the environmental information provided by the Company with regard to any potential adverse effects which may result from construction and operation of the proposed Sukunka Fuel Gas Pipeline. The Board is of the view that if all the proposed mitigation measures are implemented, the potentially adverse environmental effects of the Sukunka Fuel Gas Pipeline, including the social effects directly related to those environmental effects, would be insignificant or mitigable with known technology. With respect to fisheries, the Board requires that the Company comply with the requirements of DFO and MELP regarding water quality monitoring for sediment resulting from stream crossing construction.

Chapter 5

Financial, Tolls and Tariffs Matters

5.1 5.1 Financial

Westcoast states that it would finance the cost of the Sukunka Fuel Gas Pipeline, estimated to be \$8.15 million, from internally generated funds and external sources.

Westcoast assumes the pipeline to be a separate rate base section and, on that basis, estimated the cost of service for two months in 1994 and for the years 1995 to 2004. Westcoast uses a depreciation rate of 2.5% based on a 40 year life. For the return on rate base, the Company uses the rate approved in the RH-2-93 decision. For other components of cost of service, Westcoast uses, where applicable, a forecast inflation rate of 3.3%. The Company proposes to recover the estimated annual revenue requirement for the pipeline through tolls paid by the four initial shippers which have entered into 10-year firm service agreements with Westcoast.

The evidence shows that the net book value of the plant at the expiry of the service agreements would amount to approximately \$6.5 million. BC Gas questioned who would be financially responsible for the net book value should the shippers not renew the service agreements. Westcoast states that in undertaking construction of pipeline laterals it normally relies on initial firm service agreements for a 10-year term.

Views of the Board

The Board is of the view that a firm commitment by shippers to pay tolls for a 10-year period is a strong evidence of the economic need for the proposed pipeline. As well, given the evidence on supply and the Board's determination that adequate gas resources exist, the Board believes that producers in the area would continue to use the fuel gas pipeline beyond the 10-year period.

5.2 5.2 Tolls and Tariffs

Westcoast is applying for approval of a Toll Schedule and specific tolls for the new Fuel Gas Service through the pipeline commencing 1 November 1994. For Contract Demand Fuel Gas Service, that is, the Firm Service, Westcoast proposes a demand toll for 1994 of \$1,218.91 per 10^3 m^3 per month. This demand toll was developed using a straight fixed variable rate design from the forecasted cost of service for 1994 and allocation units based on the contract demand volumes specified in the Firm Service Agreements. For Interruptible Fuel Gas Service, Westcoast proposes a toll of \$53.431 per 10^3 m^3 which is equivalent to the demand toll for firm service at a 75% load factor.

Views of the Board

The Board accepts the proposed toll methodology and the proposed Toll Schedule for the Fuel Gas Service. The Board, therefore, finds that the applied for firm service toll of \$1,218.91 per 10³ m³ per month and the interruptible service toll of \$53.431 per 10³ m³ are reasonable.

5.3 5.3 Deferral Accounts

Westcoast is applying for two deferral accounts for 1994: a cost of service deferral account to record the impact on Westcoast's overall fixed cost of service of operating the Sukunka Fuel Gas Pipeline in November and December 1994, and a revenue deferral account to record the actual revenues collected for Fuel Gas Service provided in those months. The Company states that deferral accounts are required only for 1994, since the Company's overall cost of service and tolls for the 1994 test year approved in the RH-2-93 decision do not reflect the impact of operating the Sukunka Fuel Gas Pipeline in 1994. Westcoast proposes that the balance of the deferral accounts be subject to disposition in the Company's next toll proceeding.

Views of the Board

The Board accepts the Company's justification for the applied-for deferral accounts for 1994. Accordingly, the Board authorizes the Company to establish, for 1994, a cost of service deferral account and a revenue deferral account. The Board will consider the disposition of the deferral account balances in the Company's next toll proceeding.

5.4 5.4 Amendment to Toll Schedule for Raw Gas Transmission Service

Westcoast proposes an amendment to its Toll Schedule for Raw Gas Transmission Service such that Shippers would be required to contract for the Fuel Gas Service in order to be entitled to receive firm Raw Gas Transmission Service from a location where Westcoast is capable of providing Fuel Gas Service. Westcoast states that this requirement would ensure the continued use by shippers of the fuel gas pipeline for so long as raw gas from the Sukunka and West Sukunka areas is delivered into Westcoast's pipeline system through the production facilities intended to be served by the fuel gas pipeline. The Company indicates that should the proposed amendment not be approved, there would be no impact on the pipeline prior to the expiration of the ten-year firm service agreements.

Views of the Board

The Board is not persuaded that the Toll Schedule for Raw Gas Transmission Service should be amended at this time as proposed by Westcoast. The Board notes Westcoast's statement that the denial of the proposed amendment would have no impact in the short run, and that other potential shippers could be affected by this proposed amendment.

5.5 5.5 Amendment to Westcoast's General Terms and Conditions - Service

Westcoast proposes a number of alterations and modifications to the General Terms and Conditions-Service as contemplated in the Firm Service Agreements with the shippers. The Company explains that they are intended to be applicable specifically to Fuel Gas Service through the fuel gas pipeline.

Views of the Board

The Board accepts the proposed alterations and modifications to the General Terms and Conditions-Service. The Board notes that the proposed amendments apply specifically to the Fuel Gas Service and would not affect any other service provided by Westcoast.

5.6 5.6 Application of Raw Gas Transmission Facility Expansion Policy

Westcoast is applying for an Order approving the application of Westcoast's Raw Gas Transmission Facility Expansion Policy (excluding Section B - Processing Toll Revenues of that policy) as a guideline for toll methodology to be used for the determination of toll surcharges in connection with the fuel gas pipeline, the future expansion thereof or any other pipeline facilities, the cost of service of which is to be rolled-in with the cost of service of the fuel gas pipeline. The Company provided a sample calculation showing the application of the two-times test to the initial service provided on the fuel gas pipeline.

Views of the Board

The Board believes that it would be appropriate to use the principles set forth in the Raw Gas Transmission Facility Expansion Policy as a guideline for the toll methodology applicable to fuel gas pipelines, future expansions thereof, or other pipeline facilities, the cost of service of which is to be rolled-in with the cost of service of the Sukunka Fuel Gas Pipeline.

Chapter 6

Disposition

The foregoing constitutes the Board's Reasons for Decision in respect of the application considered by the Board in the GH-1-94 proceeding.

The Board is satisfied that the evidence demonstrates a strong likelihood that the facilities will be used at a reasonable level and finds that the proposed facilities are required by the present and future public convenience and necessity. The Board is also of the view that the design and location of the facilities are satisfactory to ensure the safe and environmentally sound construction and operation of these facilities. With respect to the Part IV matters concerning tolls and tariffs, upon approval by the Governor in Council, the Board will issue the appropriate Board Orders under Part IV of the Act.

The Board will recommend to the Governor in Council that a Certificate be issued. The Certificate will be subject to the conditions outlined in Appendix I.

R. Illing
Presiding Member

A. Côté-Verhaaf
Member

C. Bélanger
Member

Appendix I

Certificate Conditions

This certificate is subject to the following terms and conditions:

1. The Sukunka Fuel Gas Pipeline in respect of which this certificate is issued shall be the property of and shall be operated by Westcoast.
2. (a) Westcoast shall cause the Sukunka Fuel Gas Pipeline to be designed, located, constructed and installed in accordance with those specifications, drawings and other information or data set forth in its application, or as otherwise adduced in evidence before the Board, except as varied in accordance with subsection (b) hereof.

(b) Westcoast shall cause no variation to be made to the specifications, drawings or other information or data referred to in subsection (a) without the prior approval of the Board.
3. Unless the Board otherwise directs, Westcoast shall implement or cause to be implemented all the policies, practices, recommendations, procedures and undertakings for the protection of the environment included in or referred to in its application, in its responses to the Board's Information Requests and in the relevant sections of its Environmental Protection Manual Pipeline Construction, September 1992.

Prior to Commencement of Construction

4. Unless the Board otherwise directs, Westcoast shall, at least 15 days prior to the commencement of construction of the Sukunka Fuel Gas Pipeline, file with the Board an update of its Environmental Issues List, prepared in accordance with section 28(1)(a) of the Board's *Onshore Pipeline Regulations* (SOR/89303). If additional issues arise during construction, Westcoast shall file an updated Environmental Issues List in accordance with section 28(2) of the Board's *Onshore Pipeline Regulations*.
5. Unless the Board otherwise directs, Westcoast shall, at least 10 days prior to the commencement of construction of the Sukunka Fuel Gas Pipeline, file with the Board a detailed construction schedule identifying major construction activities and shall notify the Board of any modifications to the schedule as they occur.
6. Unless the Board otherwise directs, Westcoast shall, prior to the commencement of construction, file with the Board copies of any provincial permits or authorizations which contain environmental conditions for the Sukunka Fuel Gas Pipeline as well as maintain an information file(s) in the construction office(s) which would include any changes made in the field, and permits obtained following the commencement of construction.

During Construction

7. Westcoast shall comply with the water quality monitoring requirements related to stream crossing construction of the Department of Fisheries and Oceans and the British Columbia Ministry of Environment, Lands and Parks.

Prior to Hydrostatic Testing

8. Westcoast shall, prior to hydrostatic testing, submit for Board approval the hydrostatic testing program to be used for the Sukunka Fuel Gas Pipeline.

Post Construction

9. Westcoast shall file with the Board post-construction environmental reports in accordance with section 58 of the Board's *Onshore Pipeline Regulations*.

Expiration of Certificate

10. Unless the Board otherwise directs prior to 31 December 1995, this certificate shall expire on 31 December 1995 unless the construction and installation with respect to the Sukunka Fuel Gas Pipeline has commenced by that date.