

ALBERTA ENERGY AND UTILITIES BOARD

Calgary Alberta

GULF CANADA RESOURCES LIMITED STRACHAN GAS PLANT APPROVAL AMENDMENT NGTL GAS SIDESTREAMING APPLICATION

**Decision D 96-07
Application No. 950983**

1 INTRODUCTION

1.1 Application

Gulf Canada Resources Limited (Gulf) applied to the Alberta Energy and Utilities Board (the Board) to amend EUB Approval No. 6253 for the Strachan gas plant located in Legal Subdivision 11 of Section 35, Township 37, Range 9, West of the 5th Meridian. The application was made on behalf of all working interest owners of the plant except Petro-Canada. The amendment would allow Gulf to reprocess a sidestream volume of gas from the NOVA Gas Transmission Ltd. (NGTL) system. This volume would be limited to gas volumes owned or controlled by the Strachan gas plant owners upstream of Strachan, to a maximum of 5917 thousand cubic metres per day ($10^3 \text{ m}^3/\text{d}$). This sidestream gas would be reprocessed through the existing deep-cut portion of the plant for the recovery of propane-plus and pentanes-plus liquids. No ethane would be extracted from the sidestream volume. Approximately 2 kilometres of pipeline would be required to tie into the NGTL system. Some 500 m of process piping, additional metering, and minor plant equipment modifications would also be required. All the costs associated with the reprocessing proposal would be paid for by the Strachan plant owners. The residue gas would be returned to NGTL via an existing pipeline and the recovered liquids would be transported via the CO-ED pipeline system along with the liquids already recovered at the plant.

1.2 Hearing

The application was considered by the Board at a public hearing in Calgary, Alberta, from 27 February through 7 March 1996, inclusive, before Board Members F. J. Mink, P.Eng., A. C. Barfett, and B. F. Bietz, P.Biol. Those who appeared at the hearing are listed in the attached table, together with the abbreviations used in this report. Canadian Hunter Exploration Ltd. (Canadian Hunter), Chevron Canada Resources (Chevron), and Imperial Oil Company Limited (Imperial Oil) appeared for the purposes of cross-examination and argument. The Canadian Association of Petroleum Producers attended to monitor the proceedings. Canadian 88 Energy Corp. and Crestar Inc. submitted written interventions but did not appear at the hearing.

1.3 Background

On 23 November 1995 the Board held a pre-hearing meeting to hear representations on the timing of the hearing, the information needs, and the range of issues which should be considered at the hearing. A Memorandum of Decision was issued on 1 December 1995 as a result of this pre-hearing meeting. The Board concluded that the scope of the hearing should be limited to Gulf's application and potential direct impacts that might arise from approval and

implementation of Gulf's proposed scheme. However, the Board also recognized the potential for policy implications regarding and/or impacts on the straddle plant system if sidestreaming of NGTL gas were to become common practice. The Board, therefore, indicated that it would accept and consider relevant information from interested parties regarding these broad policy matters, including the potential for cumulative impacts on the straddle plant or provincial gas transportation systems. The Board adopted an interrogatory process to allow parties to exchange this information.

2 ISSUES

In the Board's view, the critical issues for evaluating this application include consideration of:

- ownership/control of the gas stream,
- resource conservation,
- economic and orderly development in Alberta, including the need for the scheme,
- the public interest,
- the potential impact on the natural gas liquids (NGL) business rules in Alberta, and
- the need for a tracking methodology and/or component balancing on the NGTL system.

3 BASIC PRINCIPLES FOR RESOURCE DEVELOPMENT

The Board maintains that, subject to any matters of compelling public interest, the right of resource ownership should remain with the producer of that resource until the producer relinquishes that ownership through a commercial contract. The Board continues to be of the view that it should minimize regulatory intervention in what should normally be commercial decisions. For resource processing, this position was reinforced by the Board in the ethane inquiry and endorsed by the Alberta government in the subsequent policy established in 1990.

In determining whether a broader public interest issue would cause the Board to override normal business decisions made in the market place, the Board has traditionally considered such factors as resource conservation, economic and orderly development, environmental concerns, and the broader public interest. These tests are identified in the statutes. In weighing any public interest issues in the Gulf application, the Board believes it must determine whether the negative impacts of sidestreaming would outweigh the rights of producers to reprocess their gas at a location other than at the field where it is produced.

4 OWNERSHIP/CONTROL OF THE GAS STREAM

4.1 Gulf's Views

Gulf submitted that it is legally entitled to reprocess its volumes of gas on the NGTL system. Gulf stated that this is a result of both common law and the NGTL Gas Transportation Tariff (NGTL tariff) structure. It noted that NGTL had consented to its reprocessing proposal. It pointed out that, under common law, where personal property of two or more persons is inter-mixed by agreement such that each person's property can no longer be distinguished or identified, individual title to the specific property is lost even without a sale or an expressed transfer of title. Gulf noted that this is consistent with the NGTL service agreement, including the NGTL rate schedules and the NGTL tariff and conditions, which all shippers on NGTL must sign. Under the NGTL tariff, the shipper becomes an owner in common of the entire mixture (that is, the common gas stream), in proportion to the amount which it put into the NGTL system, measured in terms of energy content.

Gulf stated that NGTL is defined by law as a bailee and under the law of bailment, goods given to a bailee are to be redelivered at the end of the term of the bailment. The goods can be redelivered either in their original or in an altered form. The ultimate fate of the goods is a direct result of specific contractual arrangements between the bailor (Gulf) and the bailee (NGTL). For natural gas the bailee's obligation may be to redeliver the goods to a third party such as a straddle plant but this is also solely as a result of contractual agreements. Such actions are independent of other parties who may also have deposited their goods with the same bailee under the same arrangements. Gulf stated it has directed NGTL to deliver its gas to Strachan for reprocessing where it will take delivery of the gas used as fuel and of the NGL recovered, just as some shippers on NGTL have directed NGTL to deliver their gas to one or more of the straddle plants for reprocessing. Gulf said that just as it could not interfere, intervene, or restrain the private commercial arrangements of other shippers with NGTL, those other shippers ought not to be able to interfere, intervene, or restrain the private commercial arrangements which Gulf proposes to make.

Gulf also noted that the NGTL service agreements make NGTL a bailee for hire of shippers' gas with an obligation to deliver. In Gulf's view, NGTL has an obligation to do as Gulf directs it as long as that direction does not contravene the terms and conditions of the bailment contract which, in this case, is the NGTL tariff.

Gulf submitted that, under rate schedule 'OS', NGTL has the discretion to provide whatever other service is required, and that NGTL is apparently prepared to provide to Gulf "main line extraction service" under that schedule. Gulf noted that the charge for this service can be zero if the capital and operating costs of the service are borne by the shipper. Gulf also noted that this service is not fundamentally different from the service provided by NGTL to the shippers delivering gas to the straddle plants. Gulf went on to say even if that wasn't the applicable service, NGTL has the discretion to provide services other than the services set out in the NGTL tariff, if it is prepared to do so.

Gulf noted that NGTL, as a regulated gas utility under the Gas Utilities Act, is required to make its service offerings to all who are prepared to enter into a service agreement, irrespective of that

service. Gulf added that NGTL, as a regulated gas utility, is statutorily prohibited from offering an unjustly discriminatory or unduly preferential rate or service to any particular customer.

Gulf viewed its application as no more than an application to amend the existing Strachan plant approval to supplement the raw gas supply with some of its own gas on the NGTL system. It pointed out that there had been a lack of evidence from any of the interveners about how their rights might be directly and adversely affected by approval of Gulf's application or about how the operation of the straddle plants might be adversely affected either from a resource conservation or an economic point of view. In Gulf's view, approval of its application would not cause injury to the straddle plant owners, Husky Oil Operations Ltd. (Husky), or TransCanada Gas Services Limited (TransCanada) either directly or indirectly. In particular, Gulf did not consider commercial impact, which it defined as the impact sustained as a result of an action taken by another party in a competitive marketplace, as an impact on anyone's rights. Gulf expressed concern that denial of its application would create a precedent which would confirm that the only NGL extraction rights that NGTL shippers would have are those that involve the straddle plants.

4.2 Views of Intervenors In Support of Sidestreaming

Canadian Hunter, Chevron, and Imperial Oil maintained that it was acknowledged by the straddle plant owners that straddle plants have no pre-emptive rights to liquids in the NGTL common stream, given that the straddle plant owners must contract with the owners of the resource, the shippers, and the producers using the NGTL system, to acquire the liquids extraction rights. In their view, a Board decision to prevent sidestream operations would, in effect, grant a franchise to the straddle plant owners, which would restrict the processing alternatives available to NGTL shippers. This would confer an unfair market advantage upon the straddle plant owners and infringe upon the NGTL shippers' rights. The end result would be to prevent owners of the resource from maximizing the value of their investment in upstream facilities.

Canadian Hunter, Chevron, and Imperial Oil suggested that there is no policy or legal basis for restricting the rights of the owners of gas on the NGTL system from reprocessing that gas through sidestream facilities. They submitted that accessing the NGTL common stream in the manner proposed by Gulf is consistent with the NGTL tariff, the practices of the straddle plants themselves, and a competitive marketplace. In particular, they noted that the NGTL tariff and operating practices permit straddle plants to access the common stream at points which are not specified as delivery points and without the shipper paying a second receipt charge. Canadian Hunter, Chevron, and Imperial Oil suggested the Board encourage the straddle plant owners to negotiate a solution. They were confident that some combination of competitive market terms, contractual language, and accounting methodology would keep the straddle plants commercially viable while still accommodating useful innovations such as Gulf's Strachan proposal. They also saw no need to change the NGTL tariff since the "other services" rate schedule would accommodate Gulf's proposal.

The parties also maintained that a lengthy hearing to reaffirm the Board's recognition of the proprietary rights of resource owners, such as occurred in the ethane inquiry, is not needed.

4.3 Views of Interveners Opposed to Sidestreaming

The straddle plant owners noted that all of the gas injected into the NGTL system from the more than 900 receipt points is commingled such that individual supplies can no longer be identified or distinguished among shippers. They argued that under the common law, all owners having a share in the NGTL common stream have a joint interest as tenants-in-common in the whole of the common stream. Therefore, because all of the gas in the common stream is owned by all of the NGTL shippers as tenants-in-common, there is no basis to the claim that shippers upstream of the straddle plants have an exclusive right to any share of that common stream. In their view, the common law does not allow Gulf to divert some of the NGTL commingled gas in order to extract NGL entrained in it, and it would be unlawful for the Board to allow Gulf to do so.

The straddle plant owners noted that in assessing rights in addition to the common law, the Board must have regard for the contracts that have been signed with NGTL and which are subject to NGTL's general terms and conditions and form part of the NGTL tariff. PanCanadian Petroleum Limited and Alberta Energy Company Ltd. (PanCanadian/AEC) noted that the NGTL tariff does not deal with the liquids content of the common stream but only with the energy content, and possibly the volume, in setting tolls. An NGTL shipper is entitled, under both the NGTL tariff and common law, to take back from the common stream the equivalent aggregate energy content to that which it put in. To do that, the shipper must officially take possession of its gas at a delivery point. Until gas is delivered at such a delivery point, it remains in the NGTL common stream under the joint ownership of all NGTL shippers. Because Gulf is not proposing to take delivery of its gas as defined by the NGTL tariff, the straddle plant owners concluded that Gulf's proposal is also not allowed under the NGTL tariff. They stressed that shippers can only exercise an exclusive right with respect to the gas in the common stream by acquiring full dominion over the gas, which requires that the party take delivery of the gas. They pointed out that the straddle plants only reprocess gas for shippers who take delivery of their gas by virtue of having export nominations at the border, and who have signed contracts with the straddle plants.

In response to Gulf's assertion that NGTL has to do whatever it is directed to do, subject to the NGTL tariff, the straddle plant owners emphasized that the gas in the common stream has only been entrusted to NGTL's custody and control. NGTL has no right to let one shipper access a part of the common stream to remove liquids to the detriment of the other shippers. In their view the issue is not whether the service Gulf is requesting is available from NGTL, but rather whether NGTL can lawfully offer that service. They concluded that this must be determined by the Board since the Board, as NGTL's regulator, has an obligation to ensure that NGTL does not act unlawfully.

The straddle plant owners saw several problems with the suggestion from Gulf that it could take its liquids at Strachan and forego any claim to liquids at the straddle plants. The first is that Gulf is not entitled, in their view, to have its gas reprocessed at a straddle plant unless it has an export delivery point nomination. They stated that the Board cannot confer a property right on Gulf and deny it to other shippers on the NGTL system. Secondly, individual parties should only be entitled to take liquids from the common stream based on what they put into the system. In their view there is insufficient information available in the evidence for the Board to be able to determine the liquid entitlement in the common stream, and it would be folly for the Board to attempt to do so. In approving Gulf's application, they indicated that the Board would be setting a precedent that Gulf is entitled to liquids from gas for which it has not taken official delivery,

which in turn would mean a fundamental change in the NGL business rules under which everyone operates. Whatever rights Gulf has on the NGTL system must be in accord with the rights of all other shippers on the system.

TransCanada added that Gulf's proposal to redefine and expand the points where shippers can assert their right to ownership, such as upstream of a straddle plant, may be positive in terms of promoting competition and allowing the owner of property to use it as they see fit; but it cannot work in the real world of the NGTL system. TransCanada argued that the Board should not interfere or rewrite the NGTL tariff to allow it. TransCanada contended that, if some shippers are allowed to enforce their proprietary interests in an unstructured way, the unavoidable effect would be to degrade or reduce the interests of the other shippers. In its view the current practices for resource extraction and reprocessing may limit how a shipper can deal with its proprietary interests and liquids. However, the compromises that have been made assure all shippers that their interests exist independently of those of other shippers, so that other shippers' behaviour cannot adversely affect them. Petro-Canada said that allowing Gulf to extract NGL upstream of the straddle plants would end the current use of the common stream.

Petro-Canada also expressed the concern that ultimately there would be no high value NGL components left for downstream extraction and allocation to other shippers if enough upstream extraction via sidestreaming occurred. In its view this would not be fair to the other shippers on the NGTL system.

Husky agreed with the straddle plant owners that the gas that Gulf proposes to reprocess from the NGTL common stream is not owned by Gulf, but rather, by all NGTL shippers irrespective of where they injected the gas into the system. Husky rejected Gulf's view that the sidestream proposal would be limited to Gulf's proportionate share, or less, of the common stream based on Gulf's contribution to the common stream upstream of Strachan. If Gulf did not officially take delivery of its gas prior to reprocessing it, and thereby sever the co-tenancy or co-ownership, then Husky argued that the gas which Gulf proposes to reprocess at Strachan would still be owned by the shippers in their proportionate shares. Therefore, part of this gas would be owned by Husky. Husky noted the competitive advantage, in terms of attracting third party raw gas processing, that would be conferred on Gulf if Gulf were allowed to sidestream Husky's proportionate share of the NGTL stream. Husky reiterated that, in common law and under the NGTL tariff, a shipper must take delivery of its gas before it can do whatever it wants with that gas. As long as the gas remains in a state of co-ownership, a shipper is not entitled to use the gas for its own benefit without being accountable to the other co-owners.

Husky also maintained that its firm transportation contract with NGTL does not allow a shipper to access the common stream for sidestream processing. It argued that NGTL had no other category of service that would permit the sidestreaming of the common stream nor had any evidence been presented to show that NGTL is prepared to accommodate Gulf under the 'OS' service category.

Husky noted what it believed was an inconsistency in Gulf's argument in that, on the one hand NGTL has a discretion to provide this form of service while on the other hand, it must provide that service on demand by Gulf. Husky indicated that the Board needed the evidence of other parties, including NGTL, to be able to make any determination as to whether a refusal by NGTL to provide Gulf with the service would constitute undue discrimination.

4.4 Board's Views

The Board has maintained that, subject only to public interest issues, the discretion to use and direct the disposition of resources should be left to market forces or as per conditions agreed to by contract. The Board accepts the position of Gulf that it is legally entitled, under its contract with NGTL, to sidestream its share of the NGTL common stream.

The Board acknowledges that joint ownership, with its associated issues, exists among shippers in the NGTL common stream but maintains that individual owners should be afforded the right to reprocess their share of the stream provided this does not afford that producer an exclusive privilege. The Board notes that the straddle plant owners do not have a pre-emptive right to liquids in the common stream and believes that the right of producers to process their raw gas to extract liquids in the field is unchallenged. The Board also notes that the interveners do not contest the right of producers to receive the benefit of their liquids after reprocessing at the straddle plants even though the gas is commingled in the NGTL system. Therefore, in principle, it appears proper for the Board to accept that producers should be entitled, as a minimum, to reprocess the NGTL common stream, at a point other than a straddle plant, to the extent that:

- the producer is eligible to do so in the field, or
- to the extent of the producer's entitlement for liquids if extracted at the straddle plants, or
- to the extent of restrictions for other public interest reasons.

The Board sees no compelling reason why the NGTL tariff per se should pre-empt the movement of nor should it be an impediment to sidestream gas for private reprocessing of the producer-owned entitlement of the common stream.

In the Board's view, the current NGTL tariff rules afford straddle plants an opportunity, prior to export, to sidestream the commingled gas comprising the common stream for reprocessing. Such reprocessing is done without taking title to the gas or the imposition of a special tariff by NGTL. Further, the delivery tariff at the border is not related to whether the commingled volumes are reprocessed, that is the delivery tariffs paid whether or not the gas is reprocessed. Nor is the delivery tariff related to the location of the straddle plant. As the Board understands it, all such reprocessing now occurs under contract between the producer or shipper who owns a share of the common stream and the straddle plant. The straddle plant takes physical delivery of each owner's share of the commingled stream but pays no special NGTL tariff for such service, with the understanding that all costs for the sidestream reprocessing at the straddle plants are borne by the straddle plant owners. The Board also accepts that, unless the arrangement proposed for sidestreaming would materially affect other shippers on the NGTL system, the Board would see no reason to expect a special NGTL tariff for such service, regardless of whether it takes place close to the export point or not. To the extent that sidestream reprocessing at the Strachan plant would provide the same reprocessing service as that offered by the straddle plants, NGTL should collect the same tariff at both. To do otherwise could well be seen as undue discrimination in favour of the straddle plants. Subject to any other reasons to the contrary, the Board believes Gulf should have the right to sidestream its share of the gas at Strachan.

5 RESOURCE CONSERVATION

5.1 Gulf's Views

Gulf suggested that the principles of personal property were not very complicated. It stated that having private and personal property rights as well as proprietary rights of ownership is a concept that tends to lead directionally towards conservation and maximization of resource recovery.

Gulf indicated that there would be net additional liquids recovered because some of the liquids recovered at Strachan would otherwise be consumed as gas in intra-Alberta markets before reaching the straddle plants and also, whenever gas is bypassed at the straddle plants. Under cross-examination, Gulf conceded that the incremental liquids recovery was based on the straddle plants reprocessing a volume of gas equivalent to the volume it reinjected into NGTL after reprocessing at Strachan. Gulf expressed a willingness to contract such gas volumes with the straddle plants so that the gas could be reprocessed in accordance with the straddle plants' operating procedures; and it agreed not to "double-dip", that is to take liquids from the same volume of gas twice (at Strachan and again at the straddle plants).

5.2 Interveners' Views

The straddle plant owners noted that NGL recovery efficiencies are higher at the straddle plants than at Strachan. However, the interveners generally agreed that, if gas bypasses the straddle plants or there are intra-Alberta gas deliveries occurring between Strachan and the straddle plants, some incremental liquids could be produced with Gulf's sidestreaming proposal. It was also generally conceded that the Gulf application alone would have little impact on the recovery efficiencies of the straddle plants. However, there was considerable concern expressed that, should sidestreaming become common, the reduced liquids content could have a significant downstream economic impact.

5.3 Board's Views

The Board does not see the conservation of resources to be a significant issue in determining the merits of the application. The Board also believes its decision should not presume significant volumes of gas would by-pass the straddle plants for an extended period. Notwithstanding the differences in NGL recovery efficiencies between Strachan and the straddle plants, the Board agrees that there would be a small increase in liquids recovery with Gulf's project and if the volume of gas reinjected by Gulf were reprocessed a second time at the straddle plants. The Board notes Gulf's willingness to contract with the straddle plants to allow this gas to be reprocessed in accordance with the current industry practices and Gulf's intention not to "double-dip". Given that Gulf's reinjected gas volumes would be commingled with the gas in the NGTL system, if the application were approved, the Board would consequently direct Gulf to ensure that the reprocessing of its sidestreamed volumes would not become an impediment to the straddle plant owner's ability to optimize the recovery of the entrained NGL in the common gas stream.

6 ECONOMIC AND ORDERLY DEVELOPMENT

6.1 Gulf's Views

Gulf pointed out that plant proliferation should not be a concern with its proposal because Strachan is not a new plant. In its view one of the main purposes of the Board's plant proliferation policy is to encourage better use of existing facilities, an obvious benefit resulting from Gulf's proposal for the Strachan plant, since it is currently under-utilized and would likely face early shutdown. Gulf stated that its sidestreaming project would substantially reduce the unit cost of liquids production in the deep-cut section of the plant as well as reduce the unit processing costs of the inlet raw gas. This would prolong the economic life of the Strachan plant and allow more raw gas reserves to be processed, including some currently marginal reserves, thus yielding greater ultimate gas and NGL recovery. A further benefit of the lower unit processing costs would be to attract additional raw gas supplies in the area, especially raw sour gas with significant liquid content. In turn this would encourage more exploration and development in the region with the attendant benefits to the owners, the local community, and the Province.

Gulf noted that the Board does not regulate commercial relationships, and gas plant rationalization is a business decision that facility owners must make in light of their own particular circumstances. In response to Husky's promotion of a forum to rationalize facilities on a regional basis, Gulf stated a distinct preference for its current proposal over the alternatives, which appeared to favour Husky's interests over Gulf's. It said that it would always be willing to consider plant rationalization opportunities that make economic sense to Gulf but would not engage in negotiations through the regulatory process.

6.2 Interveners' Views

There was general agreement among all parties that the Board must determine whether the Gulf application represents economic, efficient, and orderly development and that the onus was on Gulf to prove this was the case. Those opposing the application claimed that Gulf had not demonstrated these public interest aspects.

Husky noted that excess gas plant capacity exists in the Strachan/Ram River area and that operators have explored ways to improve plant utilization. Husky was concerned that approval of Gulf's application would introduce complications for the gas plant rationalization process in this region. It maintained that the approval of sidestreaming would prolong operating inefficiencies for all producers in the area, including itself, since it would delay or prevent the consolidation of raw gas processing capacity. In its view Gulf's proposal would entrench rather than reduce gas processing overcapacity. Husky also disagreed with Gulf's suggestion that the only way to ensure that area reserves are fully exploited is to approve the sidestreaming proposal. Husky submitted that the raw gas that is currently processed at Strachan could be economically processed at Ram River. Denying Gulf's application would encourage the cooperative approach that was started earlier with the plant utilization task force, the objective of which was to develop a proposal that has the support of all of the stakeholders in the region.

Petro-Canada viewed Gulf's application as a stop-gap measure to deal with the real problem of declining field gas reserves. As such, Gulf's proposal would merely forestall the inevitable round

of plant shut-downs as reserves in the area continue to decline. In the meantime, however, approval of Gulf's application would spawn similar proposals from others, leading potentially to chaos in the traditional structure of Alberta's gas liquids industry.

Several interveners suggested the Board should have regard for its plant proliferation policy in considering Gulf's application. Husky, in particular, took the view that, while the policy is worded to apply to new plants, the same principles should apply to any significant overcapacity that might exist in a region. PanCanadian/AEC viewed any approval of Gulf's proposal as contrary to the policy since it would act as a disincentive to plant rationalization.

Some interveners stated that market forces should determine a gas plant's economic life or, in the alternative, that the Board, with industry input, should develop a policy framework that would address regional capacity issues. It was also suggested that benefit-cost analysis, as it was previously applied in similar circumstances, could provide useful analytical guidance in this instance, particularly as this application implies a significant departure from traditional business practice.

There was a concern raised by some interveners that the ability to access secure supplies of NGTL gas might limit Gulf's willingness to be competitive in the rates it charges third parties for custom processing of raw gas, and so reduce competition in the area rather than increase it.

6.3 Board's Views

Typically, producers have used field processing plants located relatively near the source to process their raw natural gas streams. Deep-cut facilities have been installed at a number of field plants to recover a larger proportion of the NGL in the raw gas stream; and in a few instances, ethane recovery facilities have been installed in the field where there was a market for the ethane. But no matter what equipment was installed, raw gas processing has always occurred prior to the residue gas being injected into the NGTL system.

The straddle plants were constructed to reprocess the large volumes of sales-quality gas in the NGTL system, prior to it leaving Alberta, to recover the remaining volumes of propane, butanes, and heavier liquids entrained in the NGTL gas. When the petrochemical industry was developed, it relied on the straddle plants to provide the needed ethane feedstock in economic quantities. In the Board's view the petrochemical industry benefitted from these developments by having a reliable source of feedstock. As well, the straddle plant owners benefitted by providing a value-added processing service, and the producers benefitted by having additional liquids recovery and an additional market by way of the required make-up gas. In summary the Board believes that both the industry and the Province have been well served over the years by the field processing and straddle plant systems.

Given the diverse resource base, the multiple ownership of the resource, and the different economic circumstances of each producer, the Board anticipates that the reprocessing need which the straddle plants fill in Alberta will continue to be necessary and the straddle plants will remain viable operations well into the future. The Board sees a viable straddle plant system as being in the public interest. The Board also notes, however, that in the past as circumstances have changed, the industry has successfully adapted to meet new challenges in an orderly fashion.

The Board's policy of avoiding plant proliferation, as outlined in *Informational Letter (IL) 91-1*¹ was intended to apply largely to new gas processing. The policy was to encourage industry to take a more holistic view of gas processing requirements in an area rather than a narrow company-focused view which could lead to a larger number of smaller gas plants being built than was necessary, leading in turn to negative impacts on both the public and the environment.

The Board also strongly supports the concept of rationalization of existing gas plants. However, it recognizes the issues involved in rationalization are complex. The timing for such rationalization should be determined on the basis of commercial effects, levels of plant usage, and possible public interest issues in the area. The Board sees Gulf's proposal as a means to increase plant utilization, increase resource depletion in the area, and possibly increase processing efficiency. In turn, the Board does not see a compelling public interest issue in the area of the Strachan plant that would suggest any restriction should be placed on ongoing utilization of the plant. Since all field gas processing plants are designed to process raw gas, raw-gas processing will clearly offer a plant owner the best economic returns. In the Board's view, reprocessing gas from the NGTL system is at best a secondary, less desirable option to improve the economic viability of the plant and dampen the eventual shutdown of the facility. The Board notes Gulf's undertaking that it would continue to work to attract new raw gas supplies to Strachan. While the Board believes that market forces will cause Gulf to continue to prefer to process raw gas in preference to NGTL gas, it would also make this a condition of the permit should it approve the Gulf application.

The Board will continue to encourage Gulf and all other operators facing declining raw gas supplies to their plants to consider all opportunities for plant rationalization in order to reduce environmental and social impacts in that area. In the absence of environmental and social concerns, however, the Board believes that gas plant rationalization should be a business decision that rests with the various parties involved. The Board is satisfied that increased utilization of existing facilities at Strachan would represent a net benefit to the economy and is in the public interest.

7 PUBLIC INTEREST

7.1 Gulf's Views

Gulf summarized the public interest benefits provided by its project as follows:

- the value added to the owners of the plant,
- the additional royalties paid on the incremental NGL recovery,
- the increased number of jobs created and taxes paid,

¹Applications for Approval of Gas Processing Schemes - Policy on Plant Proliferation. Energy Resources Conservation Board, 29 January 1991.

- additional resource development, and
- cost-effective gas processing which provides producers an opportunity to extract more value from their raw gas.

Gulf stated that approval of its application would have no material impact on the straddle plants and discounted the risk of future cumulative impacts on the straddle plants since it anticipated few applications of this type in future.

Gulf did not attach great value to the use of a benefit-cost analysis for this type of application. Gulf's past experience with this type of analysis, such as when ethane upstreaming was an issue, suggested that the conclusions of benefit-cost analysis can vary significantly depending on the assumptions used. Therefore, in Gulf's view, while the analysis might be somewhat informative, it would be by no means sufficiently definitive to use as a policy guide in these circumstances.

Although there is no automatic mechanism for assessing royalties on liquids once the gas is in the NGTL system, Gulf indicated that it would be willing to have its approval conditioned on the payment of royalties on the incremental liquids recovered.

7.2 Views of Interveners In Support of Sidestreaming

Canadian Hunter, Chevron, and Imperial Oil suggested that approving Gulf's application might improve the market and level the playing field between shippers and straddle plant owners by forcing the straddle plant owners to become more competitive when negotiating for NGL extraction rights.

Canadian Hunter, Chevron, and Imperial Oil also indicated that whatever undertakings or conditions Gulf makes or proposes regarding its application are specific to Gulf's situation and therefore, should not become a template for future sidestreaming applications. In their view each applicant should be able to make its own case as to the appropriate conditions of approval for its application.

7.3 Views of Interveners Opposed to Sidestreaming

Husky stated that Gulf had not met its obligation to show that its proposal would be in the public interest and would constitute an efficient, economic, and orderly development of energy resources. Husky added that approving Gulf's application, even with conditions, would send a message that private profitability takes precedence over the public interest.

In addition, Husky objected to the idea that Gulf would be using Husky's proportionate share of the liquids in the NGTL stream to compete against Husky for raw gas processing in the Strachan region, thus gaining a competitive advantage over Husky. Husky suggested that the Board carefully consider all legal and policy issues, which ought include exploring all alternative options.

On the basis of the benefit-cost report prepared by Wright-Mansell, the straddle plant owners concluded that Gulf's proposal represents an inefficient use of society's resources and that there would be a net cost to Alberta, even in the no-bypass scenario (that is, no gas bypassing the

straddle plants). Petro-Canada pointed out that the Board's mandate is to evaluate a proposal from a broad public interest perspective, which includes social aspects, and that this must include a consideration of the net social loss associated with this project. In addition, Petro-Canada stated that the change in the nature of the rights relationship resulting from approval of Gulf's application, could potentially undermine the straddle plant investments. Thus, Petro-Canada submitted that the application should be denied because it is not in the public interest.

PanCanadian/AEC stated that small independent producers have to rely on the existing straddle system because they have limited access to alternative reprocessing capacity. Gulf's proposal, on the other hand, would create new reprocessing capacity which would not be accessible to independent producers. Additionally, PanCanadian/AEC viewed Gulf's offer to pay royalties on the incremental liquid as complicating the government's royalty simplification program.

Novacor Chemicals Ltd. (Novacor) stated that it is affected by any action that impacts the straddle plants because of the implications for the cost and availability of ethane. Novacor encouraged the Board to develop a policy respecting upstream reprocessing of NGTL gas in order to establish the ground rules for all participants.

7.4 Board's Views

The Board believes that, while there could be some incremental liquids recovery from Gulf's proposal, the overall economic implications of approval would generally be minor for the downstream interests. The Board recognizes that the benefits to Gulf from sidestreaming would have some cost impacts on the straddle plants and other shippers on the NGTL system. The Board believes that a "social" benefit-cost analysis would show approximately the same result and, depending on small changes to the assumptions and perspective, that result is likely to be either marginally positive or marginally negative. However, the Board does not regard the absence of significant and unequivocal net social benefits as an important reason for denial of this application. Such a philosophy would have the Board intervening in many industry decisions which ought properly to remain in the commercial arena.

The Board also accepts that approval of the Gulf proposal may lead to some similar applications. It would be of significant concern if this application, and its possible successors, were to constitute a threat to the long-term viability of the straddle plant system. The Board believes however, that if future applications continue to be restricted to existing facilities and are structured to limit the sidestream volumes to proprietary gas of the gas plant owners, as proposed by Gulf, the number of applications will be limited.

In principle, the Board would only see merit in sidestreaming if it involved no new grass roots facilities or if other public benefits existed. The Board would be concerned if significant third party gas were sidestreamed at the expense of the straddle plant system. At this stage the Board is satisfied that Gulf's proposal, in and of itself, would not pose any threat to the commercial integrity of any of the straddle plants. Furthermore, even if the interveners' forecasts of additional sidestreaming activity were to be realized, the Board does not consider the total likely impact on the straddle plants to be significant. Based on the Purvin & Gertz evidence, the Board notes that, in most of the potential cases, upstreaming would be undertaken by producers who are also co-owners of straddle plants. Their economic decisions as to how best to process their own gas is not something that would normally concern the Board from a public interest

perspective. In the long term, the Board believes that downstream straddle plant owners are in a position to protect their commercial interests through contracts with producers.

With respect to the payment of royalties on the additional NGL that would be extracted, the Board agrees that this would be an additional project benefit. However, it does not see it as an overriding reason for approval or denial of a sidestreaming application. Whether or not Gulf pays such royalties is, in the Board's view, a matter between Gulf and the Crown.

8 POTENTIAL IMPACT ON NGL BUSINESS RULES

The Board accepts that the actual title to individual gas molecules is lost once a shipper injects gas into the NGTL system. It appears the shipper retains ownership of a proportion of the common stream, and the NGL contained therein, based on his total deliveries into the NGTL system. Subsequently, the shipper is entitled to receive a total amount of energy equivalent to its injected volumes. A shipper can inject gas or take delivery of gas from anywhere on the NGTL system. The straddle plants contract with the shippers on NGTL for recovery of the products contained in the shippers' share of the gas in the NGTL common stream. The Board understands that for allocation of NGL among the shippers, the energy content is assumed to be the same for all and, therefore, the allocation of the recovered NGL is done on a volume basis, using the shippers' export volumes.

Ownership of gas in the NGTL system can also be transferred, anonymously or not, through a mechanism called a NOVA inventory transfer (NIT). All shippers using NITs are bound by the terms and conditions of the NGTL tariff which all shippers using the NGTL system are required to sign.

8.1 Gulf's Views

Gulf argued that approval of its sidestreaming application would not in any way change the status quo respecting the business rules under which the NGL business operates in Alberta, nor would it result in chaos in the business as some of the interveners argued. In response to concerns expressed by the straddle plant owners regarding NITs, Gulf said that it did not really matter how much gas it sold through NITs because very little of this gas would be delivered upstream of Strachan. Further, it proposed to condition its NITs to prevent the purchasers from entering into NGL extraction agreements with the straddle plants for those NIT volumes that Gulf wanted to reprocess at Strachan. Gulf added that it would not use NITs if there proved to be problems with its proposal or if it became commercially unattractive due to price discounts that might be negotiated with the inclusion of the condition. In response to questioning, Gulf conceded that conditioning NITs, as it was proposing to do, had not been done before.

8.2 Views of Intervenors In Support of Sidestreaming

Canadian Hunter, Chevron, and Imperial Oil stated that the allocation methodology used by the straddle plants is merely established business practice which is not mandated by any law or any provision in the NGTL tariff.

8.3 Views of Interveners Opposed to Sidestreaming

The straddle plant owners and Novacor agreed that approval of Gulf's application would cause a fundamental change in the NGL processing rules and therefore, in how NGL extraction takes place in the province. They contended that this should not be allowed without consideration of all of the effects of such a change, and that the Board should develop a policy framework which clearly states the new rules and provides for a level playing field for all players.

Several interveners foresaw a problem with Gulf's proposal for conditional NITs to resolve concerns about "double-dipping" respecting volumes of gas sidestreamed through Strachan. While Gulf maintained it could condition its NITS to retain ownership of the liquids involved with sidestreamed gas, interveners noted that there is currently no such thing as a conditional NIT and that there is no way to verify that any conditions in a NIT have been met. Even if there were a way to verify NIT conditions, such verification would have an associated cost and a degree of inconvenience.

Interveners also pointed out other factors that would make it very difficult for Gulf's proposed methodology to maintain any real control over NIT transactions or for Gulf to track or regulate its NITs. These included:

- the volume of daily transactions,
- the fact that NITs do not specify a location for transfers,
- the difficulty of physically tracking gas moving downstream in the NGTL system,
- liquids losses due to gas being bypassed at the straddle plants, and
- the fact that some NITs are anonymous.

PanCanadian/AEC indicated that if the application were approved, Gulf should be prohibited from carrying out NITs because of the complications caused to current configurations in the NGTL common stream.

8.4 Board's Views

The Board notes that the current business practices for NGL extraction in Alberta are largely conventions adopted by the industry over the years in response to their commercial interests. While the Board accepts that the Gulf proposal is unique and would require some change to those practices, it believes future contracting practices could be modified to accommodate the concerns expressed by the interveners. The Board does not foresee that the changes would be particularly onerous or costly to enforce, nor does it believe they are sufficient to require the delay of approval or denial of Gulf's application.

If the Gulf proposal is approved, the board expects Gulf to avoid "double-dipping" on the reinjected volumes. The board accepts the concerns expressed by some interveners that the use of NITs may not prevent the "double-dipping" effect on other shippers. However, the Board expects Gulf to work diligently with NGTL and the other shippers to ensure that future contracts

are designed so as to address the concerns raised by the interveners. The Board expects Gulf to confirm to the Board's satisfaction that suitable arrangements have been worked out before implementation of the proposal.

9 TRACKING METHODOLOGY/COMPONENT BALANCING

9.1 Gulf's Views

Gulf originally proposed a tracking methodology based on energy content to ensure that it was not taking any more than its fair share of liquids from the common stream. This process would not distinguish between the various constituents of liquids originally injected into the NGTL system. If the Board found it necessary to make a distinction, Gulf indicated that it would be willing to go to a propane-plus component balancing methodology and it provided a proposal that, in its view, would accomplish that task. It acknowledged, however, that its component balancing proposal was an evolutionary process and that there might be a better way to carry out tracking. Gulf noted that the hearing was not the best place to determine the specific accounting details and it was prepared to participate in a follow-up discussion with interested parties to refine the methodology.

9.2 Views of Intervenors In Support of Sidestreaming

Canadian Hunter, Chevron, and Imperial Oil stated that neither system averaging nor component balancing was required under common law principles. Because the allocation methodology used by the straddle plants is a practice, not mandated by any law or the NGTL tariff, it does not alter common law principles. In their view, the richness of the gas at Strachan is irrelevant to Gulf's right to access its proportionate share of the common stream at Strachan.

9.3 Views of Intervenors Opposed to Sidestreaming

Husky viewed any tracking methodology that Gulf might use to be irrelevant because the co-owner would be doing something that the law did not allow.

The intervenors opposing the application generally agreed that separating liquids from the gas would force component balancing onto the NGTL system in order to ensure that all parties receive their fair share of NGL in the common stream. Some of the intervenors indicated that there were many problems and unresolved questions regarding Gulf's proposed tracking methodology. Some indicated that the tracking methodology would be very complicated and would become even more complex as additional sidestreaming applications were approved, and that it would not solve the problem of fair allocation of NGL among shippers. Novacor stated that an acceptable tracking methodology could not be developed or implemented in a cost-effective manner. POCO Petroleum Limited was of the view that some sort of component-balancing system would be needed, but that the specific determination should be left to an industry task force convened for this purpose. TransCanada stated that acceptance of Gulf's proposed methodology was too simplistic given the competing interests involved and the considerable revenues at stake, and would set a dangerous precedent.

9.4 Board's Views

The Board accepts that Gulf has proposed to extract only the liquids content equivalent to that commingled by the owners upstream of Strachan and that Gulf could have removed if it had field deep-cut facilities available where the gas is injected into the NGTL system. The Board does not consider it significant whether Gulf recovers its liquids by reprocessing its share of the common stream at the straddle plants or whether it recovers them, or a portion of them, upstream at its Strachan gas plant. However, given that Gulf's gas is commingled with other producers' gas in the NGTL system, the Board accepts that sidestreaming on a volumetric basis could technically result in greater volumes of liquids being removed by Gulf than it would extract in the field. Thus, there may be an impact on the straddle plant owners and other shippers downstream of Strachan. Accordingly, the Board believes an information system would be necessary to avoid undue impact on downstream shippers and other plant owners.

The Board also accepts the argument that a component-balancing process would be necessary since individual NGL components are of different market value. Such a system should be sufficiently detailed to provide confidence to other shippers that the extraction is fair. In the Board's view such a process should be flexible and provide monthly or other periodic balancing. Such a system should be developed and maintained by Gulf and provided to interested parties. The Board expects Gulf to work with affected parties to develop such a system and report to the Board prior to implementation. Should the parties be unable to agree on the framework for such a program, the Board would be prepared to receive submissions and assist in reconciling the differences.

The Board is not persuaded that approval of the Gulf side streaming proposal, with a suitable monitoring system, would necessarily negate the current NGL processing practices in the province. Given the applications expected, the tracking of sidestream volumes could be carried out by exception.

10 DECISION

Having regard for the evidence and the views expressed, the Board is satisfied that the Gulf application meets the tests of economic and orderly development and is in the public interest. Accordingly, the Board is prepared to approve the application subject to the following conditions:

1. Gulf is restricted to reprocessing at Strachan a maximum daily volume of $5917 \times 10^3 \text{ m}^3$ of NGTL sidestream gas.
2. Gulf must satisfy the Board on an annual basis that it has continued to make reasonable efforts to optimize the use of the Strachan plant for raw gas processing.
3. In conjunction with other interested parties, Gulf will develop, maintain at its own expense, and conform to, a component-based monitoring system which will track and ensure that Gulf and the other Strachan plant owners recover no more NGL than they are entitled to on the basis of their own gas physically injected into the NGTL system upstream of the Strachan gas plant.

4. Gulf will implement whatever commercial arrangements are needed to ensure the same volumes of gas, which it reprocesses at Strachan and reinjects into the NGTL system for export, are sidestreamed by the straddle plants without commercial benefit to Gulf. The benefits of such reprocessing should be appropriately distributed among the other shippers. Gulf will confirm with the Board that these suitable arrangements have been made prior to implementation of its proposal.

DATED at Calgary, Alberta on 26 September 1996.

(Original signed by)

F. J. Mink, P.Eng,
Presiding Member

(Original signed by)

A. C. Barfett
Board Member

(Original signed by)

B. F. Bietz, Ph.D., P.Biol
Board Member

THOSE WHO APPEARED AT THE HEARING

Principals and Representatives (Abbreviations Used in Report)

Witnesses

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S.H.T. Denstedt

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K. Nelson

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THOSE WHO APPEARED AT THE HEARING (continued)

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