

ALBERTA ENERGY AND UTILITIES BOARD

Calgary Alberta

SHELL CANADA LIMITED APPLICATION TO CONSTRUCT AND OPERATE AN OIL SANDS BITUMEN UPGRADER IN THE FORT SASKATCHEWAN AREA

SHELL CANADA PRODUCTS LIMITED APPLICATION TO AMEND REFINERY APPROVAL IN THE FORT SASKATCHEWAN AREA

**Addendum to Decision 99-8
Applications No. 980137 and 980337**

1 BACKGROUND

On 6 April 1999, the Alberta Energy and Utilities Board (the Board) issued Decision 99-8 with respect to Shell Canada Limited's (Shell's) Application No. 980137 to construct and operate an oil sands bitumen upgrader in the Fort Saskatchewan area, and Shell Canada Products Limited's (Shell's) Application No. 980337 to amend its existing Scotford refinery approval. The applications are described in detail in Decision 99-8.

The Board considered the applications and interventions at a public hearing in Josephburg, Alberta on 26 – 28 October 1998. The participants in the hearing and parties who submitted correspondence to the Board are listed in Decision 99-8.

Subsequently, in a letter dated 20 April 1999, Shell requested that, under Section 42 of the Energy Resources Conservation Act, the Board review Decision 99-8 as it related to sulphur recovery. In Decision 99-8, the Board required Shell to recover, on a quarterly basis, at least 98 per cent of the sulphur during the first two years from start up of the upgrader. Shell made no request relative to this provision. The Board also required Shell to recover, commencing two years after start up, 98.5 per cent of the sulphur on a quarterly basis, and 98.8 per cent on an annual basis. Shell requested that the Board amend this provision to require, commencing two years after start up, 98.5 per cent recovery on a quarterly basis, but no annual requirement. It also requested that the Board require, commencing four years after start up, 98.5 per cent on a quarterly basis, and 98.8 per cent on an annual basis.

In a letter dated 21 April 1999, the Board requested comments on Shell's proposed terms by 12 May 1999 from those individuals of record who made submissions to the Board at the hearing.

Four submissions were received:

1. The Scotford Landowner Group, represented by Norman & Loretta Demuele, objected to any revised terms. The group gave no reasons for their objections. However, they stated that their objections would be withdrawn if they reached a successful conclusion to their land purchase negotiations with the County.
2. Redwater Water Disposal Company Limited stated that it had no further comments to add to those previously submitted to the Board.
3. Alberta Environmental Protection (AEP) stated that it did not have any objections to Shell's request. AEP will take any final Board ruling into consideration when making related decisions about approval under the Alberta Environmental Enhancement and Protection Act.
4. Environment Canada stated that it had no objections to Shell's request.

2 DECISION

The Board has carefully considered Shell's request and the submissions it received from interveners. The Board is prepared to grant Shell's request based on the following:

- Shell stated that it will meet the sulphur recovery requirements specified in the decision report after the initial start up period.
- An additional two-year period for start up is not unreasonable given the complexity of the operation.
- The land use conflicts remain. However, the landowners and Strathcona County are now in the process of negotiating a settlement.
- Emissions could increase by approximately six tonnes per calendar day of sulphur dioxide (SO₂) during the additional two-year start up period. In its approval, the Board will require Shell to strive to meet a 98.8 per cent annual sulphur recovery level, and to report its performance to the Board.
- Shell's environmental impact assessment included an assessment of the impacts of various SO₂ emission levels, including those from a 98.5 per cent sulphur recovery level. Within the scenarios examined by Shell, AEP concluded that the proposed upgrader would contribute only a small increase in the overall SO₂ levels in the area.

If Shell is unable to meet the 98.8 per cent annual sulphur recovery during the two-year extension, the Board will require Shell to report in writing the reasons why it was unable to meet the target and what steps it will take to achieve the target.

DATED at Calgary, Alberta on 2 June 1999.

ALBERTA ENERGY AND UTILITIES BOARD

J. D. Dilay, P.Eng.
Presiding Member

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

H. O. Lillo, P.Eng.
Acting Board Member

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**Decision 99-8
Applications No. 980137 and 980337**

1 INTRODUCTION

1.1 Application

Application 980137 was made pursuant to Section 11 of the Oil Sands Conservation Act by Shell Canada Limited (Shell), for approval to construct and operate an oil sands bitumen upgrader (the upgrader). The upgrader would be on Shell's property adjoining the existing Scotford refinery on the Northeast quarter of Section 31 and the Northwest quarter of Section 32, Township 55, Range 21, West of the 4th Meridian, approximately 10 kilometres (km) northeast of Fort Saskatchewan in the County of Strathcona. The upgrader would principally process bitumen from Shell's proposed Muskeg River Mine, located approximately 70 km north of Fort McMurray, and other feedstocks available in the area.

Application No. 980337 was made pursuant to Section 13 of the Oil Sands Conservation Act by Shell, for an amendment to the existing Scotford refinery approval, Industrial Development Permit (IDP) 89-10, for the processing of 3.75 million cubic metres per year of sour conversion feedstock.

Under a coordinated application process adopted by Alberta Environmental Protection (AEP) and the Alberta Energy and Utilities Board (the Board), Shell filed a joint Shell Scotford Upgrader Application/Environmental Impact Assessment (EIA). Shell also applied to AEP for environmental permits under the Alberta Environmental Protection and Enhancement Act (EPEA) and the Water Resources Act (WRA).

1.2 Hearing

The applications were considered by the Board at a public hearing in Josephburg, Alberta, held on 26 - 28 October 1998, before J. D. Dilay, P.Eng. (Presiding Member), F. J. Mink, P.Eng. (Board Member), and H. O. Lillo, P.Eng. (Acting Board Member).

Those who appeared at the hearing are listed in Table 1.

TABLE 1 THOSE WHO APPEARED AT THE HEARING

Principals and Representatives (Abbreviations Used in Report)	Witnesses
Shell Canada Limited (Shell) R. B. Low, Q.C. S. H. T. Denstedt	N. Camarta, P.Eng. R. Seeley, P.Eng. C. Yeung, P.Eng. A. Barber of Broken Hill Proprietary Company Limited B. F. Vagi, P.Eng. D. Davies, PhD of Cantox Environmental Inc. D. Leahey, PhD of Jacques Whitford Environment Limited D. Quinn, P.Eng. J. Smith, P.Biol. B. Ramsay L. Frank, P.Eng. of HFP Acoustical Consultants Limited
Strathcona County (the County) L. J. Burgess, Q.C.	B. Horton, P.Eng. L. Burton V. Hartwell R. Powell G. Klassen
Residential Interveners H. I. Shandling, Q.C. A. P. Geisterfer	W. Zayac N. Demeule E. Schotte A. Dzurny
Government of Alberta (Alberta) D. A. Day	J. Phelps, P.Eng. (Alberta Transportation and Utilities [AT&U]) A. Mackenzie (Alberta Health [Health]) R. George (Alberta Environmental Protection [AEP]) R. Dobko, P.Eng. (AEP) C. Liu, P.Eng. (AEP)
Corridor Pipeline Limited (Corridor) C. K. Yates	
Redwater Water Disposal Company Limited (RWDC) M. J. Zelensky, P.Eng.	
Lakeland Regional Health Authority (Lakeland) N. Bayliss L. Skjonsby	

THOSE WHO APPEARED AT THE HEARING (cont'd)

Principals and Representatives (Abbreviations Used in Report)	Witnesses
Alberta Energy and Utilities Board staff K. Eastlick, P.Eng D. DeGagne A. Larson, P.Eng. R. Germain, P.Eng.	

Environment Canada, the Oil Sands Environmental Coalition, D. Orsten, W. Sarchuk, and W. Bellmore submitted letters of intervention but did not attend the hearing. Corridor presented closing argument but did not present any evidence or conduct any cross-examination. RWDC attended the hearing but did not present evidence, conduct cross-examination, or present closing argument. Lakeland conducted cross-examination and presented closing argument but did not present evidence.

The attached Figure 1 shows the proposed location of the upgrader, the existing Shell refinery, the locations of the residents who intervened and other residences, and some major features of the area.

2 ISSUES

The Board notes that no concerns were expressed respecting the need for the upgrader or modifications to the existing Scotford refinery. The Board is satisfied that there is a market for the finished products derived from the upgraded bitumen, that adequate bitumen resources exist to supply the project's needs, and that the proposed plant represents an efficient use of energy resources. The project meets all other technical standards.

The Board believes the remaining issues to be considered with respect to these applications are:

- technology selection,
- air/health,
- sulphur recovery,
- noise/traffic, and
- land use conflict.

3 TECHNOLOGY SELECTION

3.1 Views of the Applicant

Shell proposed to locate its upgrader north of and adjacent to its existing Scotford refinery. Shell stated that its Scotford refinery is the most energy efficient refinery in the Americas and that it has the highest liquid yield per unit volume of crude oil feedstock of any refinery in the world.

Shell noted that the refinery's hydrocracking capacity would enable it to use hydroconversion technology for its upgrader. Hydroconversion would provide the following benefits over conventional coking technologies:

- high sulphur coke would not be produced,
- product yields would be higher,
- emissions of sulphur dioxide (SO₂) and carbon dioxide would be lower, and
- the project's environmental impacts would be minimized.

Shell noted that, on a production-to-consumption basis, overall greenhouse gas emissions as a result of Shell's project would be less than some imported crude oil alternatives such as Venezuelan heavy oil. It also noted that hydroconversion would result in a low aromatic hydrocarbon content of the gasoline and diesel fuels derived from the upgrader products.

3.2 Views of the Board

The Board accepts that Shell's choice of upgrading technology offers material improvements in environmental performance and liquid hydrocarbon yield relative to other technologies. The Board is satisfied that the technology is appropriate in light of the synergies available from Shell's adjacent refinery and acknowledges the benefits that the province would derive from upgrading bitumen to finished products within the province.

4 AIR/HEALTH

4.1 Views of the Applicant

Shell noted that the emission limits requested in its application would be the most stringent of any similar oil sands operation in the province. Shell stated that it had completed extensive air dispersion modelling based on normal operating and worst-case or upset conditions and concluded that the operation of the upgrader would not contribute to exceedances of ambient air quality guidelines. It noted that emissions from the RWDC operations currently result in occasional exceedances of the Alberta ambient SO₂ and hydrogen sulphide guidelines in the vicinity of the Redwater Field. While Shell's modelling indicated that the upgrader would not add to these exceedances, it committed to provide technical advice and assistance to RWDC in order to find a solution to its emissions.

Shell stated that it had not assessed ozone precursor emissions from the proposed upgrader, as it believed that Alberta's climatic conditions were not conducive to ozone formation. Nonetheless, it committed to convene an expert forum on ozone to encourage an exchange of information and advance the science. It stated that its own comprehensive air monitoring program included an ambient air quality monitoring trailer and would include a second continuous ambient air quality trailer with ozone monitoring equipment.

Shell stated that it had conducted air quality modelling for all the upgrader emissions and the results formed the basis for its human health risk assessment. Shell concluded that its health risk assessment indicated that air emissions from the upgrader, either in combination with the region's existing facilities or with approved projects, would pose no unacceptable risks to human or animal health.

Shell further stated that, based on its predicted maximum ground level air emission concentrations from the upgrader, alone or in combination with other industries in the area, there were adequate margins of safety for the people living in close proximity to the Scotford site. Shell's assessment included consideration of sensitive subpopulations such as asthmatics.

At the hearing, Shell provided updated estimates for fugitive benzene emissions from the existing Scotford refinery, the Shell Chemicals Canada Limited plant, and the predicted fugitive emissions of benzene from the upgrader. Shell found that the revised emissions from these facilities would be less than half of the estimate originally submitted in its EIA. Shell stated that it re-analyzed the potential health risks associated with its benzene emissions, both on an acute and chronic basis, and found that the health risks would be reduced by a factor of one-half from those previously stated. Shell stated that the incremental cancer risk for the residences would all be at or less than 1 in 100,000 with the exception of one receptor location which would be at 1.1 in 100,000.

Respecting the request by Health for an intensive regional health study, Shell committed to participate with the regulatory agencies and local stakeholders in a regional air monitoring program that would include a process to assess the need for additional air quality or personal health monitoring. Shell believed that an emissions inventory would be the appropriate first step and that, if the results indicated a concern, a personal exposure study would be the logical next step. However, Shell did not believe that a health impacts study was necessary at this point in time based on Health's conclusions that the upgrader would not significantly impact human health. Shell committed to provide a status report on the regional air monitoring program to the Board within twelve months of approval of the upgrader.

4.2 Views of the Interveners

The residents stated that the Alberta ambient air quality guidelines for SO₂ were already being exceeded in the area and expected additional exceedances if the project were approved. They were concerned about increased benzene emissions from the upgrader and stated that benzene should have a zero emission target. The residents also took exception to Shell's conclusion that the project would not affect health, as their personal experience suggested to them that there were already health effects from industrial emissions in the area.

AEP stated that its policies for industrial development are:

- to maintain established air and water quality objectives, and
- to minimize air and water emissions to the extent that current technology allows.

AEP stated that its review team considered Shell's ambient air quality modelling and concluded that the work was adequately performed with appropriate scenarios. It noted that the upgrader would add only a small increment to overall pollutant levels in the area.

AEP explained that monitoring and modelling indicated that exceedances of the 1-hour and 24-

hour Alberta ambient air quality guidelines for SO₂ in the area were largely attributed to emissions from the RWDC facilities. It concluded that the upgrader would have minimal impact on the number of SO₂ ambient air quality exceedances in the area.

AEP stated that a regional air quality monitoring forum would pool existing resources to, not only assess compliance with ambient air quality, but also address related issues such as health. AEP recommended that the Board use its influence on industry and leadership role towards the establishment of a regional air quality forum that would include proactive involvement by existing operators and new project proponents. The forum would address regional ambient air quality monitoring, implement a personal exposure monitoring study, and establish response plans if emission guidelines were consistently exceeded, or if health risk levels required action. AEP requested that, as part of any Board approval, Shell be required to participate in a regional air quality forum and in a personal exposure monitoring study to be implemented prior to start-up of the upgrader.

AEP stated that ozone was not comprehensively addressed by Shell, however, it did not expect that ozone precursor emissions from the upgrader were likely to be significant in the regional airshed.

Health stated that, based on its review of the existing data and the information in Shell's EIA, it did not believe that the upgrader alone would significantly impact human health. However, it stated that it had concerns about the cumulative effect of the emissions from all of the industrial activity in the area.

Health maintained that there was a need to conduct a personal exposure study similar to one conducted in the Fort McMurray area. It stated that such a study undertaken prior to start-up of the upgrader would establish a baseline to provide for a better understanding of health impacts, allow for more complete health assessments in the future, and provide information to better understand the link between ambient air quality and human health effects. Health requested the Board's assistance in establishing a multi-stakeholder study by requiring Shell's participation as a condition of its approval.

Lakeland stated that it supported Health's proposed personal monitoring study and supported the Board's involvement in ensuring participation by Shell and other industries in the area under the Board's jurisdiction.

4.3 Views of the Board

The Board accepts the information provided by Shell that indicates that emissions from the upgrader will not significantly impact existing ambient air quality. The Board acknowledges Shell's efforts to work with stakeholders towards the establishment of a regional air monitoring program and its consultation with the RWDC with respect to control of SO₂ emissions.

The Board recognizes that air quality issues in the region are the result of both urban and industrial sources and, given the present and foreseen level of activity in the area, it supports the need for comprehensive monitoring of emissions in the airshed. In order to assess air quality and cumulative effects, the Board believes a coordinated monitoring approach by all stakeholders would be more productive than independent programs mandated by approvals on individual industrial operators. Such a program must adequately monitor air quality and assess emissions in

the area to detect and evaluate potential cumulative environmental and public health impacts. The Board believes that local industry should play an active role in the development of such a program. The Board will work with AEP, municipal officials, and industrial operators to arrange for a coordinated, regional air monitoring program.

The Board notes that Shell stated that it currently has a comprehensive air emissions monitoring program that it intends to augment if the upgrader is approved. The Board expects that Shell will use its independent program to aid in future air quality monitoring and will integrate its program with regional air monitoring initiatives as they are developed.

The Board agrees with Health and other interveners that a personal exposure monitoring study would establish a baseline, allow for more complete health assessments in the future, and provide information to better understand the link between ambient air quality and human health effects. Given the level of activity and the nature of the operations foreseen in the area, the Board supports the establishment of baseline health data at the earliest date and the implementation of a program to monitor impacts in the future. The Board also believes that such a study would require and should have the support and cooperation of the region's industrial operators. The Board supports the regional air monitoring program which would, in part, assess the need for a health study and personal exposure study. The Board supports the leadership shown by Health to develop a personal exposure study and notes Shell's commitment to participate in the regional air monitoring initiative.

5 SULPHUR RECOVERY

5.1 Views of the Applicant

Shell indicated that acid gas generated by the upgrader and adjacent refinery would be routed to a two-train sulphur recovery unit. On a design basis, the acid gas stream would contain 1092 tonnes per day (t/d) of sulphur, although there was a possibility of higher rates.

Shell indicated that it used the Sulphur Recovery Guidelines for Sour Gas Plants in Alberta as set out in Information Letter 88-13 for the selection of its sulphur recovery technology. It stated that the alternatives it had under consideration, Superclaus and the Shell Claus Off-gas Treating process (SCOT), would be technically capable of sulphur recoveries in excess of 99 per cent. However, Shell requested that the upgrader be approved to meet a 98 per cent quarterly sulphur recovery level and a daily maximum SO₂ emission based on 95 per cent recovery. It noted that the upgrader would be considerably more complex than a sour gas plant and that operating criteria such as sulphur recovery requirements needed to recognize the difficulties in reducing throughput and the economic costs of production constraints.

Shell also indicated that the flexibility would permit processing of other feedstocks and increasing upgrader throughput in the future. It stated that the upgrader would have much less SO₂ emissions per unit of throughput than any other bitumen upgrader due to its choice of hydroconversion technology. Shell noted that 98 per cent sulphur recovery was similar to requirements imposed on other oil sands operations and stated that it would like the same limits.

Shell explained that the sulphur recovery facilities were designed so that during emergency maintenance on one train the facilities could still maintain full upgrader throughput and achieve a 95 per cent recovery. Such maintenance periods could last up to two weeks. However, even with this length of shutdown, when averaged with normal efficiencies, the quarterly average sulphur recovery would still be 98 per cent. Shell stated that it was applying for a maximum annual average SO₂ emission rate of 43.8 t/d including flaring events with a maximum daily SO₂ emission rate of 109 t/d.

5.2 Views of the Interveners

The residents stated that they did not want additional sulphur emissions in the area and that they believed technology was available to recover more than 99 per cent of the sulphur.

AEP stated that the sulphur recovery guidelines for sour gas plants have found wider usage for any facility recovering sulphur. It stated that, based on the guidelines, it was satisfied with the technology options being considered by Shell and expected that either alternative could be consistently operated in the 99 per cent recovery range. AEP said that it had reached no conclusions on the acceptable emission levels for the upgrader and that it would rely on the direction given in the Board's decision report in making its final decision.

5.3 Views of the Board

The Board notes that the sulphur recovery guidelines were developed for gas processing plants. However, it is the Board's view that the guidelines represent reasonable pollution control expectations for acid gas streams recovered in other petroleum industry facilities, and particularly for new grass roots facilities. The Board also notes that the upgrading and sulphur recovery technologies proposed by Shell are capable of conforming to the sulphur recovery guidelines. Given that the upgrader is proposed for a heavily industrialized and populated area and that the operation would more than double sulphur emissions in the region, it is the Board's view that the sulphur recovery guidelines represent a reasonable long-term expectation for the upgrader.

The Board also recognizes the complex integration of production and processing infrastructure between the Muskeg River Mine and the Scotford refinery which could be affected if production was curtailed for sulphur recovery unit upsets and emergency maintenance. Insofar as Shell has indicated that the Alberta ambient air quality guidelines for SO₂ would not be exceeded at the 95 per cent recovery level (109 t/d SO₂ emissions), the Board agrees that project approvals should permit a reasonable level of flexibility in sulphur recovery during the commissioning stage of the project to accommodate a start-up period. The Board could accept that such accommodation would apply during the first two years from start-up of the upgrader provided that the related quarterly sulphur recovery would be at least 98 per cent. Excluding periods affected by initial start-up, the Board concludes that 98.5 per cent quarterly and 98.8 per cent annual average sulphur recoveries, based on the sulphur content of the acid gas feed to the sulphur unit, would be appropriate for the upgrader.

6 NOISE/TRAFFIC

6.1 Views of the Applicant

Shell stated that it had completed a noise impact assessment using ambient survey data from 1980, which reflects less industrial intrusion into the area than currently exists. Shell calculated that the maximum night-time sound levels at the residences would be 47 decibels (dBA), energy equivalent sound level (Leq), based on ambient data that included noise levels from non-Board regulated facilities. Shell also stated that it would take reasonable steps to mitigate noise from the proposed facility and that it would be within the Board's noise control guidelines. Shell committed to conduct a post-construction survey to ensure that permissible sound levels at the residences were not being exceeded.

Shell recognized the public's concerns with respect to increased traffic, in particular from construction operations, and that traffic would have to be managed effectively to reduce and mitigate adverse effects. Shell stated that it had commissioned a traffic management study that would include recommendations on the best way to reduce impacts and improve safety. Shell committed to provide this report to the County and AT&U and to work towards a unified approach to traffic control.

6.2 View of the Interveners

The residents were extremely concerned that the applicant would be allowed to deviate from the normal permissible sound level assessment process in the noise directive and to use ambient sound level data to justify a higher permissible sound level. The residents stated that industrial noise levels in general were unacceptable and believed that this facility would certainly add to the deterioration in their quality of life. The landowners were also extremely concerned about the transportation-related noise, particularly during plant construction, that would be present and were critical that Shell did not account for this in its assessment.

The landowners viewed increased traffic as an unacceptable increase in risk to safety and noise levels. The residents believed that the increased traffic could result in blockage of emergency evacuation routes should a major incident occur. Overall, they believed that their health and quality of life would be seriously affected and inconvenienced when accessing Highway 15 during peak morning and evening traffic times.

AT&U confirmed that plant construction traffic would have a serious impact on Highway 15 and also the related Range Road 214 intersection. AT&U stated that the province would be prepared to undertake modifications to Highway 15 by adding a single left-hand turning lane onto Range Road 214. This single lane, however, would not be able to handle peak level traffic in the years 2000 and 2001. AT&U stated that a second left-hand turning lane off Highway 15 would be required to handle increased traffic and that Range Road 214 would also need to be twinned. AT&U also maintained that the developer of a project should be responsible for access to that project, and therefore, Shell should pay for the second left-hand turning lane.

The County supported the timely upgrading of Highway 15 and its associated intersection. The County noted that it has responsibility for the secondary range roads only. It stated that timing and extent of upgrades on Range Road 214 would depend on the province's commitment to upgrade Highway 15, the traffic mitigation plan that Shell was developing, and the approval of Shell's project by the Board. The County believed that, whatever the outcome from Shell's commissioned traffic management plan, it would be able to upgrade Range Road 214 from the Highway 15 intersection to the proposed upgrader site in time to accommodate construction traffic.

6.3 Views of the Board

The Board recognizes the disparity that exists between Board-regulated and non-Board-regulated facility requirements relating to noise control and acknowledges that this fact can result in higher permissible sound levels. However, the Board is satisfied that Shell has conformed to the requirements of its noise control guidelines. While the Board acknowledges Shell's efforts to minimize noise levels, it continues to see noise as one of the adverse impacts that are becoming progressively worse as a result of increased industrialization in the area.

The Board believes that it is unreasonable to expect that lifestyles would not be impacted for rural residents subjected to the traffic volumes expected during peak project construction. Should the project be approved, the Board will expect Shell to work with AT&U and the County to resolve transportation problems arising from the construction and operation of the upgrader.

7 LAND USE CONFLICT

7.1 Views of the Applicant

Shell stated that it recognized and was sympathetic to the concerns of local residents about the level of industrialization in the area and the related impacts. Shell confirmed that it had participated in initiatives aimed at addressing the concerns of area residents, but that these initiatives had not provided results. However, Shell initiated discussions with its two closest neighbours who potentially would be affected by the upgrader and has signed options to purchase their properties in the event the project proceeds.

Notwithstanding the need to resolve land owner concerns, Shell maintained that landowners in the area would not be significantly impacted by its proposed development. Shell stated that, while it would continue to support efforts by the County to address the concerns of other area residents, funds to purchase these properties should come from the additional tax revenue Shell would be paying to the County if the upgrader were built. Shell said that it would not be fair to expect it to pay additional monies when it is only one of seventeen industrial developments in the area.

7.2 Views of the Interveners

The residents requested that they have an opportunity to relocate and that their properties be purchased. They were opposed to any further development in the area until the land use conflict has been resolved.

The residents said that they have appeared before the Board on several occasions in good faith

and believed that all parties would also act in good faith in order resolve this land conflict issue as has been urged by the Board in previous decisions. However, the residents felt betrayed by the County and industry and believed that neither party has acted in good faith to resolve this issue. The County has advertised the land as “Alberta's industrial heartland”, zoned the area for heavy industrial use, and has invited industry on a world-wide basis to locate and build even more in the area further affecting their quality of life, health, environment, and safety. The residents believed advertising and promotion of the area is the start of full industrialization, which should not happen without their relocation. Also, they believed that further industrialization would be in direct conflict with the views of the Board as expressed in its previous decision reports on development in the area.

The County stated its support for Shell’s project. It stated that this project would be located in the Northeast industrial area in Bylaw 3898 of the County’s municipal development plan. The area is proposed to accommodate major industrial development as identified in both the municipal development plan and land use bylaw. Therefore, from the perspective of existing plans and industrial development, the Shell site represents an appropriate location for the proposed upgrader. The County stated that no lands within the Northeast industrial area are specifically zoned or planned for residential development. There are, however, in the vicinity of the upgrader site a number of smaller parcels with residences built primarily in the mid-1960s. The County indicated that the Heartland initiative is a protocol signed by four municipalities, the City of Fort Saskatchewan, Sturgeon County, Lamont County, and Strathcona County to promote economic development in this area.

The County acknowledged the area residents’ concerns and their desire to be bought out by the County. The County stated that it had no legal obligation to address these concerns as part of its land use planning responsibility. However, the County acknowledged the unique circumstances of the residents and stated that, given the number of residences and their parcel size, it was not likely that their lands would be assembled by the private sector for industrial development. However, in consideration of the overriding benefit of industrial development to the entire municipality, and to remove a potentially costly source of public opposition to regional development, the County stated its commitment to participate in discussions aimed at resolving landowner concerns. The County acknowledged that to date efforts have not been successful and that its time lines have been extended beyond what has been presented to the Board at previous hearings. While the current absence of direct involvement by industry creates a number of challenges, the County has advised the residents by letter that it is prepared to consider the option of municipal land acquisition.

7.3 Views of the Board

The Board recognizes the problem of land use conflict and is sympathetic to the quality of life concerns raised by local residents.

The Board acknowledges the efforts of the County to resolve landowner concerns. It is encouraged that the County is prepared to take a lead role in resolving this issue. However, the Board notes that efforts to date have failed to address residents’ concerns in any meaningful way and urges all parties to continue to work towards an early resolution. As stated in previous decisions, the Board believes that full industrial development of the area is ultimately not acceptable without relocation of the residents in the area. The Board has no jurisdiction in the

process to affect settlement, but in the future, the Board may not be able to approve any additional projects in the area that would create significant incremental impacts to the residents, until the issue has been resolved.

The Board is encouraged by the steps that Shell has taken to purchase the properties of adjacent landowners and acknowledges Shell's efforts to resolve this issue jointly with other industries in the area, the County, and the landowners. With respect to the subject applications, the Board is influenced by the fact that the upgrader is proposed to be located north of the existing refinery, further from the residents, and that the amendments to the refinery do not involve a new site.

8 DECISION

The Board has carefully considered all of the evidence pertaining to these applications and finds the projects to be in the public interest. Accordingly, the Board is prepared, with the approval of the Lieutenant Governor in Council, to approve the Scotford Upgrader and Scotford Refinery modifications with conditions that will be specified in the approval and subject to Shell meeting all of its commitments made during these proceedings.

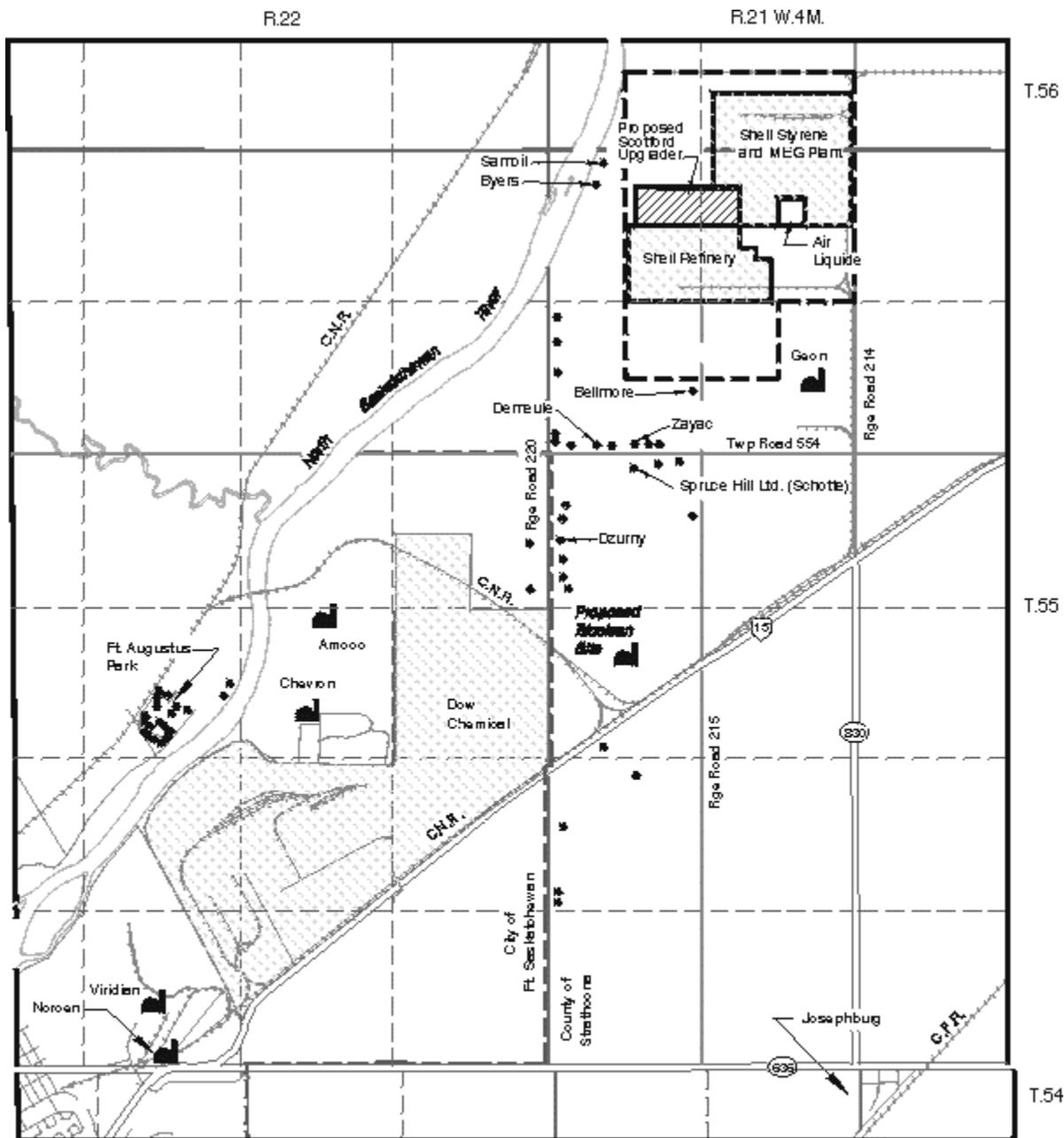
DATED at Calgary, Alberta on 6 April 1999.

ALBERTA ENERGY AND UTILITIES BOARD

J. D. Dilay, P.Eng.
Presiding Member

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Board Member

H. O. Lillo, P.Eng.
Acting Board Member



LEGEND

-  Plant/Refinery
-  Residences
-  Shell Canada Ltd. Site Boundary

Figure 1 Shell Scotford Plant Site and Surrounding Area

Applications No. 980137 and 980337
 Shell Canada Ltd.

Decision 99-8