

# **ALBERTA ENERGY AND UTILITIES BOARD**

Calgary Alberta

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**UNION PACIFIC RESOURCES INC.  
APPLICATIONS FOR WELL LICENCES AND TO  
CONSTRUCT AND OPERATE A SOUR GAS  
PROCESSING FACILITY AND ASSOCIATED PIPELINES  
TELFORDVILLE FIELD**

**Examiner Report 99-3  
Applications No. 1026077,  
1036629, 1038235, 1038236,  
1038237, 1038810, 1038811,  
and 1038820**

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## **2 RECOMMENDATION**

The Examiners have carefully considered all the evidence and the views of the applicant and interveners. For the reasons noted in this report, the Examiners recommend approval of well licence Applications No. 1036629, 1038235, 1038236, 1038237, 1038810, and 1038811.

The Examiners acknowledge UPRI's withdrawal of its sour gas processing facility Application No. 1026077 and the significant change the withdrawal has on the project. Therefore, the Examiners recommend that all proposed pipelines applied for under Application No. 1038820 be denied without prejudice to any future applications. Additionally, the Examiners recommend that Licences No. 31775, 31776, and 31777, associated to the subject pipelines applied for by UPRI under Application No. 1038820, be cancelled.

## **3 APPLICATIONS AND HEARING**

### **Applications and Intervention**

Union Pacific Resources Inc. (UPRI) submitted Application No. 1026077 in accordance with section 26(1)(b) of the *Oil and Gas Conservation Act* requesting approval to construct and operate a new sour gas processing facility in the Telfordville Field. The proposed facility would be located at Legal Subdivision 16, Section 29, Township 50, Range 2, West of the 5th Meridian and would serve UPRI's wells in the Telfordville, Highvale, Genesee, and Holburn Fields. The facility would be designed to process a maximum of 850 thousand cubic metres ( $10^3 \text{ m}^3$ ) per day of sour gas with a hydrogen sulphide ( $\text{H}_2\text{S}$ ) content of 1.0 mole per kilomole. The facility would recover  $832 \times 10^3 \text{ m}^3$  per day of sales gas, 23.9 cubic metres per day of  $\text{C}_5+$  (condensate), 50.4 cubic metres per day of LPG mix and extract 1.2 tonnes per day of sulphur inlet equivalent in the proposed chemical absorption process.

Subsequently, UPRI submitted Applications No. 1036629, 1038235, 1038236, 1038237, 1038810, and 1038811 in accordance with section 2.020 of the *Oil and Gas Conservation Regulations* for licences to drill six gas wells from surface locations in LSD 13-27-50-2 W5M (projected bottom-hole location LSD 4-34-50-2 W5M), LSD 14-15-50-3 W5M, LSD 13-1-50-3 W5M, LSD 10-9-50-3 W5M, LSD 3-17-50-2 W5M (3-17), and LSD 2-17-50-3 W5M (2-17) respectively. The proposed 13-27 well is a sweet gas well and the other five wells are Level 1 sour gas wells each containing 4.2 moles per kilomole  $\text{H}_2\text{S}$ , or less, and potential corresponding cumulative drilling  $\text{H}_2\text{S}$  release rates of 0.0563 cubic metres per second ( $\text{m}^3/\text{s}$ ), or less.

Additionally, UPRI submitted Application No. 1038820 in accordance with Part 4 of the *Pipeline Act* requesting approval to construct and operate approximately 23.4 kilometres (km) of sour gas pipeline with a maximum 219.1-millimetre (mm) outside diameter (OD) originating from ten well locations and terminating at the proposed sour gas processing facility in LSD 16-29-50-2 W5M. UPRI's proposed sour gas pipelines would be maintained as Level 1 pipelines transporting sour gas containing a maximum of 10 moles per kilomole hydrogen sulphide.

Further, UPRI proposed to construct approximately 1.3 (km) of oil effluent pipeline with a maximum OD of 114.3-mm for the purpose of providing spare lines in the drilled crossings of the North Saskatchewan River and the nameless creek in the northwest quarter of section 28-50-2 W5M for future development. In addition, UPRI proposed to construct and operate approximately 2.7 km of sweet gas pipeline with a maximum OD of 219.1-mm originating from the proposed sour gas processing facility in LSD 16-29-50-2 W5M and terminating at a meter station located in LSD 5-31-50-2 W5M.

Pipeline Licences No. 31775 (sour natural gas), 31776 (sweet natural gas), and 31777 (oil effluent) were approved in June 1998 and subsequently expired in December 1998. The pipelines were never constructed and therefore, UPRI re-applied for its proposed pipelines under these existing licence numbers.

The Board received objections to Application No. 1026077 from area landowners Gary and Lynn Poole (the Pooles) on 8 September 1998 and 20 December 1998. Accordingly, the Board directed, pursuant to Section 29 of the *Energy Resources Conservation Act*, that an examiner hearing be held to hear the Application.

The attached figure shows the location of UPRI's proposed six new wells, pipelines, sour gas processing facility, the surrounding area, and other existing facilities and residences in the immediate area.

## **2.2 Hearing**

Application No. 1026077 regarding the proposed sour gas processing facility and intervention by the Pooles was considered at a hearing in Leduc, Alberta, on 6 January 1999, before Board appointed examiners W. J. Schnitzler, P.Eng., D. Waisman, C.E.T., and R. Elle.

Mr. T. Munroe of Edmonton Power Generation Inc. (EP), a subsidiary of EPCOR, registered as a participant at the hearing held in Leduc, Alberta, on 6 January 1999, in order to conduct cross-examination and present closing argument, however, Mr. Munroe did not present direct evidence. Mr. Munroe noted that EP did not receive notification of the hearing and did not become aware of it until just prior to the hearing.

In response to a request from Edmonton Power Generation Inc. and Fording Coal Limited (EP & FC) to reopen the hearing to consider their evidence relating to Application No. 1026077, the Board directed that the hearing be reopened to consider this evidence. UPRI then requested that the reopening of the hearing set for 9 March 1999 be adjourned so it could file all related applications and have them considered at the same hearing. Accordingly, all the applications and

intervention by EP & FC were considered at a hearing in Nisku, Alberta, on 6 May 1999, before the Board appointed examiners listed above. The Pooles did not attend the 6 May 1999 hearing.

Those who appeared at the hearing and abbreviations used in this report are listed in the following table:

### **THOSE WHO APPEARED AT THE HEARING**

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Principals and Representatives (Abbreviations Used in Report)	Witnesses
Union Pacific Resources Inc. (UPRI) B. Gilmour A. Evans	W. Hemy, P.Eng. J. F. Graca, P.Eng. R. O. Litun, P.Eng. D. Hass, P.Eng. B. Virginillo, P.Eng. L. Smith, P.Eng. of Tartan Engineering Ltd. R. G. Patching, M.Eng., P.Eng. of Patching Associates Acoustical Engineering Ltd. I. Dowsett, R.E.T. of Conor Pacific Environmental Technologies Inc.
Garry and Lynn Poole (the Pooles) L. Poole	G. Poole L. Poole
Edmonton Power Generation Inc. and Fording Coal Limited (EP & FC) T. R. Davis	B. DeNeve D. Topping T. Munroe, P.Eng. B. Johnston
Alberta Energy and Utilities Board staff D. L. Schafer B. K. Eastlick, P.Eng. D. F. Brezina, Board Counsel M. Craig M. D. Brown, P.Eng. T. Chan	

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#### **5.1 Subsequent Changes to the Applications**

On 16 July 1999, UPRI submitted an amendment to its pipeline Application No. 1038820 and withdrew its Telfordville sour gas processing facility Application No. 1026077. UPRI indicated it had made arrangements to process its Telfordville gas at Atco Midstream Ltd's (AML) Golden Spike sour gas processing facility located at LSD 8-27-51-27 W4M.

UPRI indicated that its pipeline Application No. 1038820 remained fundamentally the same except for Licence No. 31776 (sweet natural gas) which it withdrew as it would no longer be required. UPRI filed an amendment to Licence No. 31775 (sour natural gas) under the above application. It requested a flow reversal and a pipeline OD increase from 168.3-mm to 219.1-mm for Line No. 13 (LSD 16-29-50-2 W5M to LSD 10-4-51-2 W5M) and the installation of block valves at either end of the North Saskatchewan River crossing. UPRI indicated that there were no changes to Licence No. 31777 (oil effluent) and that since there were no material changes to its Application No. 1038820, it requested that the Board proceed with its approval process based on the evidence submitted by UPRI and through the 6 May 1999 hearing.

Additionally, UPRI requested that Well Licence Applications No. 1036629 (LSD 13-27-50-2 W5M), 1038810 (LSD 3-17-50-2 W5M), 1038811 (LSD 2-17-50-3 W5M), and 1038235 (LSD 14-15-50-3 W5M) be approved as these applications include title preserving wells and one well with a contractual time commitment.

UPRI indicated that it would be submitting an application in September 1999 for a centralized compression and dehydration facility with inlet separation at LSD 16-29-50-2 W5M. This facility would deliver its raw gas via its proposed pipelines to a trunkline that would be proposed by AML and then transported to the existing AML Golden Spike gas plant for processing

On 17 August 1999, UPRI indicated that it had inadvertently omitted references to Well Licence Applications No. 1038236 and 1038237 and requested that those licences be approved in accordance with its earlier request of 16 July 1999.

On 19 August 1999, the EUB requested that interested parties file written submissions regarding UPRI's proposed changes to its applications by 8 September 1999.

EP & FC filed a written submission on 8 September 1999 indicating that their intervention and evidence adduced at the hearings on 6 January 1999 and 6 May 1999 remains the same.

## **DISPOSITION OF THE PLANT AND PIPELINE APPLICATIONS**

The Examiners note that issues raised at the hearing relate to the assessment of risks and emergency response associated with potential sour gas releases. The applicant's evidence at the hearing regarding the sour gas release risks was based on the proposed design of the gas processing facility, sour gas pipelines, emergency shutdown devices, operations staffing plans and control, and data acquisition systems. The applicant has now withdrawn its sour gas processing facility Application No. 1026077 in favour of pipelining the sour gas to an existing plant for processing. The Examiners understand that a sour gas compression and dehydration facility will be applied for at the site originally proposed for UPRI's Telfordville sour gas processing facility.

The EUB has not received applications for the complete revised sour gas project including the following:

- additional sour gas pipelines required to connect to the existing AML Golden Spike gas plant;
- the proposed UPRI compressor and dehydration facility; and,
- potential modifications to the existing AML gas plant where UPRI's gas would be processed.

The Examiners are of the view that since such applications have not been received, the evidence addressed in the hearing on sour gas release risks, emergency response, and other matters of concern to the parties may not be relevant to the revised project. In so much as the overall scope of UPRI's project has changed significantly subsequent to the hearing, it is the view of the Examiners that it would be inappropriate to recommend approval of the pipeline applications. The Examiners further note that pipeline approvals issued to UPRI prior to the original 6 January 1999 hearing had expired and have not been constructed.

The Examiners recommend to the Board that all pipelines applied for under Application No. 1038820 be denied without prejudice. In making this recommendation, the Examiners note that a decision to deny the applications would not preclude the applicant from submitting new applications for pipelines, compression and, if necessary, modifications to the existing AML plant once related design work has been completed and stakeholder notification has taken place.

The Examiners expect that UPRI would complete its notification process and submit applications on a project basis given the interrelated nature of the pipelines, compression, processing, control, operations, and emergency response systems. This would facilitate a more efficient application review process and a better understanding of the entire sour gas project.

## **ISSUES**

The Board-appointed examiners consider the issues respecting the well licence Applications No. 1036629, 1038235, 1038236, 1038237, 1038810, and 1038811 to be the need for the wells, emergency preparedness and other impacts.

### **4.1 Views of UPRI**

UPRI discovered potential gas reserves in the Telfordville area in July 1997 and currently have nine gas wells that are drilled, cased, and ready to be put on production. In addition, UPRI stated reserves in Sections 21 and 27-50-2 W5M are being competitively drained and that by mid 1999, UPRI will lose 2.5 billion cubic feet (bcf) of natural gas which in conjunction with the delay of this project, represents a financial loss in excess of \$4,000,000. UPRI also stated its proposed wells would benefit the community through municipal tax payments, government royalties, local employment and charitable community involvement.

UPRI said the primary need for the six new wells is to capitalize on the mineral resource it currently owns and has the ability to develop. They said the six wells would be drilled to meet their drilling commitments and expand their area of development. UPRI said it proposed to tie-in only the 13-27 well initially and that the other five wells may be added later. UPRI noted that it has valid surface leases for four of the six wells it proposes to drill, however, they were unable to obtain surface leases for the 3-17 and 2-17 wells proposed on EP's lands.

UPRI said that its assessment of risk and dispersion modeling summaries concluded that evacuation of the Genesee power station and/or coal mine due to an emergency at UPRI's proposed wells and facilities would not be required. A draft site-specific drilling and completion ERP, as an example, for one new well location on EP lands, was submitted by the Applicant. UPRI said that it had diligently worked with EP to complete an ERP for the proposed operations, and it committed to having final site-specific ERP's in place prior to any drilling operations on EP's lands.

UPRI stated that it would continue to work cooperatively with EP & FC to ensure appropriate emergency response procedures would be in place. UPRI said that it would hold information sessions for employees of the power station and coal mine to educate them on sour gas operations and emergency procedures.

## **5.2 Views of the Interveners**

EP & FC said they are not able to comment on whether or not there is a need for UPRI's proposed wells and facilities, however, they rather focused on the proposed sour gas processing facility and suggested UPRI should look at alternative processing options in more detail.

In response to questioning, EP & FC said they did not see any problem with the physical location of the applied-for wells and access roads. They acknowledged that eventually the wells may impact mining operations, however, they noted that the wells would not impede or affect its current mining operations. FC said that it was currently mining in sections 19, 20 and 21-50-2 W5M and section 24-50-3 W5M. Notwithstanding there would be no direct interference or land use conflict with the Genesee Power station or coal mine license, EP & FC said they are concerned with the proximity of UPRI's proposed wells and facilities to the power station and coal mine and the potential for an H<sub>2</sub>S release.

EP & FC stated that they were not satisfied with UPRI's evidence that there would be no need for evacuation of the Genesee Power station and/or coal mine due to an emergency at UPRI's proposed wells and facilities. EP & FC said that sheltering would not be an acceptable emergency response measure due to the high air infiltration rate into the Genesee Power station and the large area covered by the coal mine with no place to shelter.

EP & FC requested UPRI develop a detailed ERP for its wells and facilities which would incorporate specific actions EP & FC would be required to take under various levels of emergency. EP & FC said that, to date, UPRI had not incorporated these specific actions and therefore they believed their concerns had not been addressed.

EP & FC stated that they would work cooperatively with UPRI to develop joint ERP's which would be acceptable for both UPRI and EP & FC operations. They would also be willing to work with UPRI to develop a process to educate employees about each others operations and emergency procedures.

The Pooles did not attend the 6 May 1999 hearing nor did they provide evidence on the six new wells proposed by UPRI.

### **4.3 Views of the Examiners**

The Examiners recognize the benefits of the wells to UPRI, the community, and to the province of Alberta. In addition, the Examiners note UPRI's evidence regarding loss of reserves due to competitive drainage, and agree there was sufficient evidence provided to support this claim. However, the subsequent withdrawal of the processing facility application makes the panel question how critical the competitive drainage issue was to UPRI.

The Examiners acknowledge UPRI's need to capitalize on the mineral resource it has obtained and that it has valid surface leases for four of the six wells it proposes. The Examiners also understand that EP & FC do not have concerns related to land use conflicts associated directly with the physical location of the 3-17 and 2-17 wells, however, note that they are mainly concerned with the wells proximity to the power station and coal mine and the potential for an H<sub>2</sub>S release.

The Examiners believe that given the low levels of H<sub>2</sub>S expected at the proposed wells and that the corresponding emergency planning zones for the 3-17 and 2-17 wells are 370 metres, or less, these concerns can be adequately addressed by emergency response planning. The Examiners acknowledge UPRI's commitment to develop site-specific drilling and completion ERP's for the proposed wells on EP's lands. It is expected the ERPs and UPRI's community relations efforts will ensure that residents have adequate information regarding potential emergencies and appropriate response actions, as well as contacts for reporting problems or obtaining assistance. In addition, the Examiners note UPRI's commitment to develop its site-specific ERPs in consultation with EP & FC and to coordinate the plans with those in place for the Genesee Power station and coal mine.

## **6 UPRI'S PAST PERFORMANCE IN DEALING WITH THE POOLES**

### **5.1 Views of UPRI**

UPRI expressed disappointment over problems caused by its company and contractors. UPRI said it was unfortunate that these incidents had not been reported to it until it held their open house. UPRI did discuss these matters with its contractors and advised them such incidents would not be tolerated in the future. If incidents occur they must be reported to UPRI in a timely manner and may result in dismissal.

### **5.2 Views of the Pooles**

The Pooles stated the Genesee By-Pass road is the only access to their property and they were concerned that traffic, particularly during springtime, would damage the road and make access difficult, especially for a small car. The Pooles described truck traffic and access problems that had occurred during UPRI's drilling program and indicated concern for the future as to whether UPRI would take the necessary action with their contractors or staff if problems developed.

The Pooles stated their concerns with UPRI's past history in the area and therefore had difficulty in trusting UPRI's commitments and ability to respond to resident concerns. The Pooles explained that they have had numerous problems with UPRI's contractors in the past such as

unsafe driving practices and dust from truck traffic, road access gates being left unlocked, and contractors attempting to use their plug-ins for access to electrical power. The Pooles said in the past they had to contact Fording Coal to get anything done about their concerns and as a result they wanted some assurances UPRI would respond quickly to concerns raised by residents and then take appropriate and timely action.

The Pooles noted they had developed a fairly good relationship with FC and had contacted EP to obtain information on UPRI when problems occurred during UPRI's drilling operations. The Pooles said they now have adequate contacts for UPRI but that these were not provided prior to the drilling program.

### **5.3 Views of the Examiners**

The Examiners note the Pooles' evidence and UPRI's commitments at the original hearing on 6 January 1999. The Examiners recognize the traffic concerns raised by the Pooles were in response to UPRI's proposed gas plant application which has been withdrawn, however, the Examiners expect UPRI to meet the commitments it made with respect to limiting its truck traffic and monitoring the condition of the road. While the Examiners understand that maintenance of the road is the responsibility of the County of Leduc, UPRI committed in the hearing to monitor the condition of the road and have the county do a weekly upgrade of the road, if required.

With respect to the past incidents and UPRI's performance in dealing with the Pooles' concerns, the Examiners believe that UPRI must hold itself responsible for these incidents and must improve their performance in dealing promptly with such concerns. The Pooles should not have had to go through FC or EP to get UPRI's attention and to ultimately have their concerns addressed. Additionally, the Examiners note that the Pooles are now aware that they may also contact the local EUB field centre and express their concerns.

Dated at Calgary, Alberta, on 15 October 1999.

### **ALBERTA ENERGY AND UTILITIES BOARD**

W. J. Schnitzler, P.Eng.\*

*[Original signed by]*

D. Waisman, C.E.T

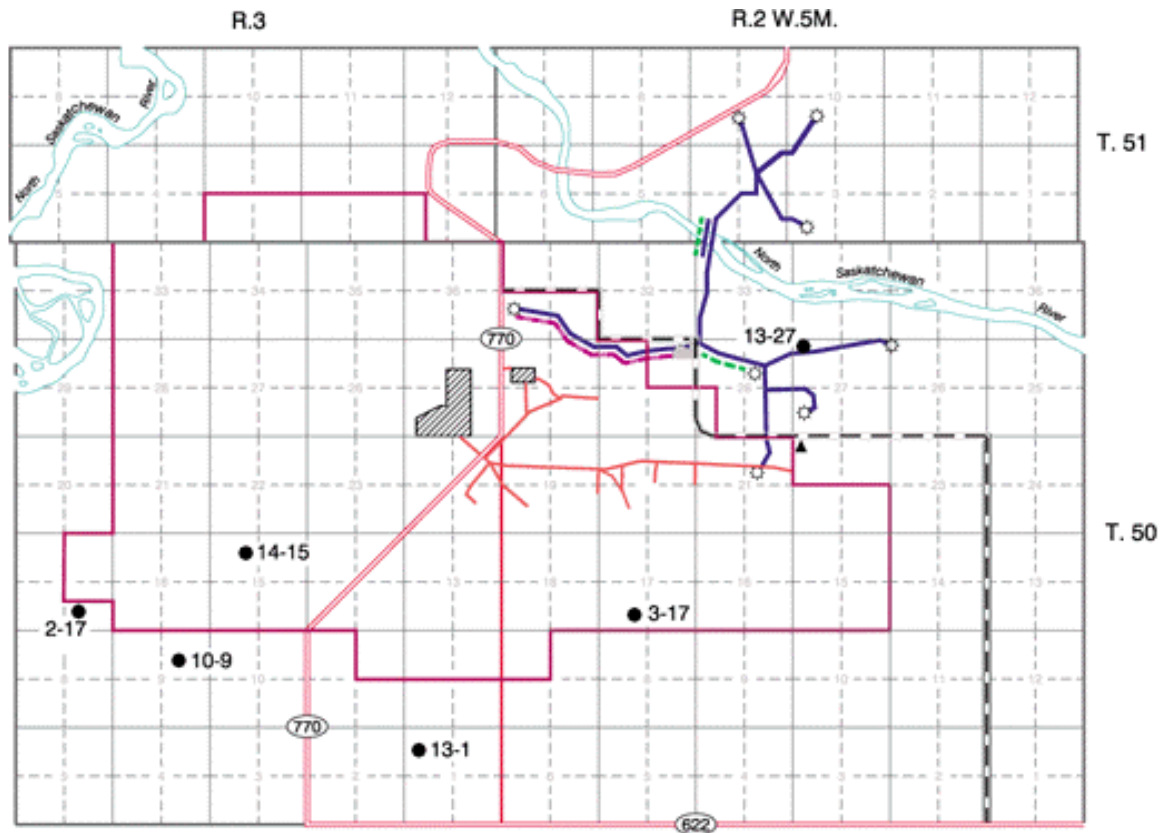
*[Original signed by]*

R. Elle

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\*W. J. Schnitzler was not available to sign but concurred with the report and recommendation



**Legend**

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|--|--------------------------------|
| Genesee Power Station and Facilities       | Proposed Sour Gas Pipeline     |
| UPRR Proposed Sour Gas Processing Facility | Proposed Sweet Gas Pipeline    |
| Proposed Gas Wells                         | Proposed Oil Effluent Pipeline |
| Existing Gas Wells                         | Mine Haul Roads                |
| Genesee By-Pass Road                       | Mine Permit Area               |
| Pooles' Residence                          |                                |

**Telfordville Area**

Applications No. 1026077, 1036629, 1038235, 1038236  
 1038237, 1038810, 1038811, 1038820  
 Union Pacific Resources Inc.