

Section 5

Pipelines



5. Pipelines

The section examines the issues that you as a landowner or occupant need to consider when the construction of pipelines will occur near or across your land. Although a company is required to provide you with some information, this chapter contains additional information and questions to ask when considering signing a pipeline right-of-way. For interprovincial or international pipelines, this section outlines the requirements that are governed by the National Energy Board.

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5.1 Overview of pipelines

Pipelines are used to transport oil and gas from wells to processing plants (e.g., oil *batteries* and *gas plants*) and from processing plants to market. Pipelines are also used to carry water that is produced by oil or gas wells (produced water) to processing plants so that it can be cleaned and disposed of. In unconventional production, pipelines also transport steam, CO₂ and *effluents* for injection.

Pipelines come in different sizes and have different pressures, depending on the volume and type of fluid or gas they contain. A pipeline's class, for regulatory purposes, is defined by an index that is based on a product of its size and length. *Class II pipelines* have an index less than 2690, and are generally small and/or short pipelines. Class II pipelines also include any pipeline regulated by the National Energy Board (NEB). All other pipelines are defined as *Class I*, and require approval from the Alberta Energy Regulator. Class is important, because it determines how environmental issues are handled (see Section 5.2.3).¹ Determination of the class of a pipeline under application is one of the first steps a *landowner* should take.

It is important to distinguish between pipelines that are regulated by the Alberta Energy Regulator (AER) and those that are regulated by the NEB, since the requirements may differ.

The AER regulates the majority of energy pipelines in Alberta, but Alberta Infrastructure is responsible for low-pressure gas distribution lines. The NEB regulates all pipelines that cross provincial or national borders.²

Pipelines must be operated in compliance with Canadian Standards Association (CSA) standards, specifically CSA ZA662, which are enforced by both the AER and NEB. The Canadian Energy Pipeline Association is the professional body that represents all the major federally regulated pipeline companies in Canada (see Section B.2.7 for information on their landowner relations policy).

¹ Alberta Environment and Parks, *Environmental Protection Guidelines for Pipelines*, C&R/IL/94-5. (2014). Conservation and Reclamation Information Letters are available at Alberta Environment and Parks, "Information Centre."

<https://extranet.gov.ab.ca/env/infocentre/info/listing.asp?page=4&subcategoryid=50>

² Type of pipelines that are regulated by the AER are listed in AER, Directive 056: Energy Development Applications and Schedules (2014), table 6. AER Directives are available at AER, "Directives." <http://www.aer.ca/rules-and-regulations/directives/>

The beginning of a pipeline project involves contact with the energy company, a consultation and visit of the *land agent* who will discuss the route selection. Although the process of consultation and *negotiation* is similar to that for wells, there are different issues relating to pipelines that you need to consider. A good overview can be found in *Pipelines in Alberta — What Farmers Need to Know*.³

Rural gas distribution lines

The pipelines described in this section are gathering lines and transmission lines that operate at high pressure. Low-pressure gas distribution lines have different issues and requirements. There is no entry fee for gas distribution lines, as defined in the Gas Distribution Act.⁴ To make rural gas distribution affordable, rural landowners customarily allow gas distribution lines on their property for a nominal one-dollar fee and a compensation payment for crop damages.⁵

5.2 Pipelines regulated by the Alberta Energy Regulator

The AER regulates all oil and gas pipelines that link wells to facilities in Alberta, in accordance with the Pipeline Act, Pipeline Regulation and applicable CSA standards.⁶ Over half of all pipelines in Alberta are regulated by the AER; the remainder are utility pipes and those regulated by the NEB.⁷

There are a number of aspects of pipeline project development that are important for landowners to understand, including selecting a route through good consultation, ensuring proper pipeline *setbacks*, and understanding environmental impacts. This

³ Alberta Agriculture and Rural Development, *Pipelines in Alberta: What Farmers Need to Know* (2009) Agdex 878-4.

[http://www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/agdex1125?opendocument](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/agdex1125?opendocument)

⁴ The Gas Distribution Act applies to lines with an operating pressure of 700 kilopascals or less, but excludes rural utility lines. Alberta, Gas Distribution Act, RSA 2000, c G-3, s 1(h). Alberta government acts are available at Alberta Queen's Printer, "Laws Online/Catalogue."

http://www.qp.alberta.ca/Laws_Online.cfm

⁵ *Pipelines in Alberta: What Farmers Need to Know*.

⁶ *Pipelines in Alberta: What Farmers Need to Know*.

⁷ AER, "Rules and Directives by topic: Pipelines." <http://www.aer.ca/rules-and-regulations/by-topic/pipelines>

section outlines how to resolve known issues and how to be prepared in case of an emergency.

5.2.1 Route selection

The first step in constructing a pipeline is for the company to survey the proposed route (Section 4.2). Before a company can apply to the AER for a permit to construct a pipeline the company will send a land agent to landowners and *occupants* to discuss the proposed route and ask them for input, such as the terms to access land. Once the route has been decided, the landowner and occupant are asked to enter into a negotiation to sign a *right-of-way* agreement (or pipeline *easement*).⁸ The agreement should list all the things the company must do when constructing, operating and eventually *reclaiming* the pipeline. Once the agreement is signed, a caveat is created on the landowner's land title, specific to the pipeline. For more information consult the AER Directive 056: Energy Development Applications and Schedules, which includes a full list of technical and public involvement requirements for pipelines, similar to that for wells. The licence to construct a pipeline expires if no work has begun within a year of its issue.⁹

In selecting the pipeline route, the surveyor must provide reasonable notice to the landowner when accessing their land. While the Surveys Act and Surface Rights Act allow access, they also place responsibility for damages with the surveyor.¹⁰ For pipelines, like wells, the company must obtain consent for right of entry from both the landowner and the occupant.¹¹

Objecting to the pipeline route

If you do not like the exact location of the proposed pipeline, you can object and/or suggest an alternative route. If you and the company are unable to negotiate a satisfactory location for the pipeline or if you disagree on other issues relating to the construction of the line, the procedure for pipelines is similar to that for wells: either party can request *mediation* or *facilitation* by AER *Alternative Dispute Resolution (ADR)*

⁸ For more information on land agents, see Section A.7, or Alberta Labour, *Surface Rights and the Land Agent: A Guide for Landowners and Occupants Concerning Land Agents and Surface Rights Agencies*. <https://work.alberta.ca/documents/surface-rights-and-the-land-agent.pdf>. See Sections B.2.1 and B.2.5 for professional associations.

⁹ AER, Directive 056.

¹⁰ Province of Alberta, Surface Rights Act 2000, current as of December 17, 2014, Section 14.

¹¹ Province of Alberta, Surface Rights Act 2000, current as of December 17, 2014, Section 12(1).

staff, or by a member of the third-party mediator roster (Section 2.4).¹² If it is still impossible to reach agreement, the pipeline company must file a *non-routine application*, telling the AER about the outstanding issues. The application process, *routine* and *non-routine*, is outlined in Directive 056. At this time, the company can also request an AER *hearing*. As a landowner, it is a good idea to inform the AER in writing of your concerns, so they can be considered when reviewing the application. Informing the AER in writing is considered a *statement of concern*, which should be sent to both the AER and to the pipeline company.¹³ Even when the company has filed its application, you and the company will usually continue with the appropriate dispute resolution process.

A hearing on a disputed pipeline application can be slow and expensive for a company, so they will usually try to resolve issues directly with the landowner before the hearing date. The hearing process is summarized in Section 11. For detailed information on the participant involvement process, see Directive 029: Energy and Utility Development Applications and the Hearing Process.

The AER can reject the company's application or grant the permit with or without conditions. The AER rarely rejects an application due to environmental issues, but may include conditions that reflect a landowner's concerns. If the AER gives the company a permit and you have not reached agreement with the company, the company will then apply to the Surface Rights Board for a *right-of-entry order*. The Surface Rights Board will usually grant the right of entry and determine the amount of compensation that the company must pay you as the landowner or occupant (Section 10.2).

Section 2 deals with negotiations and appropriate dispute resolution.

Remember that the AER only deals with issues relating to the pipeline itself; compensation is handled by the Surface Rights Board (Sections 10.2 and 11.2).

Issues to consider

Things to consider in the negotiation process of selecting a pipeline route include pipeline location and setback distances, the depth and number of buried pipes,

¹² It is important to know that AER does not mandate the use of ADR, nor does it negotiate on behalf of either party for resolving disputes or deal with matters relating to compensation.

¹³ AER, Directive 056, section 3.8 and Appendix 11 explain the application processes and the participant involvement process.

implications for *topsoil* removal, and specific requirements for pipe *abandonment* and reclamation of land at the end of project life. Compensation for pipelines, unlike for wells, is based on one-time payments that may include compensation for hiring legal assistance for the negotiation.¹⁴

The company must advise you about the type and size of the pipeline and its operating pressure. It is a good idea to inquire about the proximity and spacing of shut-off valves, and the location of tie-ins, *compressor* stations or pumping stations.¹⁵ You may also want to inquire about future plans if more oil or gas is developed upstream: ask whether the company might increase the pressure in the line by putting in more compressors, or lay a new pipeline parallel to the initial line.

Where topography and soil conditions are suitable, small-diameter plastic pipelines (often less than 10 cm but up to 15 cm in diameter) can be installed by plough-in operations, instead of the traditional trenching. This reduces the surface disturbance. Ploughed-in pipelines are given special regulatory treatment, including exemption from the requirement to obtain a *reclamation certificate*.¹⁶ AER regulation still requires pipeline companies to follow strict requirements regarding end-of-life activities, regardless of pipeline installation method. In 2001, Alberta Environment identified some concerns with ploughed-in pipeline construction and emphasized that the work must be carried out using the right equipment under the right environmental conditions.¹⁷ The most suitable pipeline construction method will depend on timing and soil conditions.

In-depth technical requirements for pipelines are detailed in Directive 056, including setback distances, leak detection, and emergency response plan requirements. The directive also covers discontinuation, abandonment and removal of pipe.

¹⁴ *Pipelines in Alberta: What Farmers Need to Know*.

¹⁵ Valve spacing is in accordance with CSA standards and takes into account pipeline profile, water crossings, etc. If the valve is some distance away, it will take longer to stop the flow. Additional guidance on spacing and pipeline safety is available in the *Landowner's Guide to Pipelines* (Pipeline Safety Trust, 2011).

<https://puc.sd.gov/commission/pipelinesafety/landownersguide.pdf>

¹⁶ Province of Alberta, *Conservation and Reclamation Regulation*, AR 115/93 with amendments up to and including Alberta Regulation 169/2014, section 15.1. Rural gas utility pipelines as defined in the Rural Gas Act are also exempted from reclamation certificates.

¹⁷ Alberta Environment, *Ploughed-In Pipelines* (2001), Conservation and Reclamation Information Letter C&R/IL/01-4.

Other unique requirements exist for steam distribution pipelines, which are regulated by the Pipeline Regulation (under authority of the Pipeline Act) and governed by the Alberta Boiler Safety Authority.

Also, the company will always need access to its pipeline when flowing. This working area must be defined through the landowner and company negotiations. You may want to include specific requirements in the pipeline agreement, or create a separate agreement with the company.

5.2.2 Setbacks

When reviewing the proposed route for the pipeline, consider whether the pipeline might affect future plans you have for the land, such as the location of new farm buildings or plans for subdivision. Depending on what is flowing through the pipeline, the setback may be wider than the right-of-way, which could constrain options for future land developments. Even if the pipeline is constructed to carry *sweet gas*, it may later be approved to carry *sour gas*, which could result in greater setback distances for buildings.

A setback is the minimum distance that must be maintained between an energy facility and various surface developments for land use and public safety purposes.

Setback distances from the pipeline depend on the level of *hydrogen sulphide* (H₂S) gas contained in the flowing natural gas or oil effluent. Table 5.5 in Directive 056 summarizes minimum distances from the pipeline to permanent dwellings, *unrestricted country developments*, *urban centres* and public facilities. The higher the level of H₂S gas, the higher the minimum distance required. Since 2005, Directive 026 requires the same setback rules to be applied for oil effluent pipelines, which can potentially release sour gas that is contained in the oil.¹⁸ For both natural gas and oil effluent, the regulated threshold to apply the minimum setbacks distance is at least 10 mol of H₂S per 1 kmol of natural gas. Below this threshold gas is considered “sweet”, as opposed to “sour”.

¹⁸ Alberta Energy Regulator, *Directive 026: Setback Requirements for Oil Effluent Pipelines* (2005), section 1. <https://www.aer.ca/rules-and-regulations/directives/directive-026>

Sweet gas or oil — The required pipeline setback distance is the width of its right-of-way. However, there are special requirements for high vapour pressure lines, including the provision of an emergency preparedness plan.¹⁹

Sour gas or oil — The setback distances depend on the volume of sour gas that would be released if the pipeline ruptured, as indicated in Table 4. To calculate the volume, engineers account for the distance between shutoff valves and diameter of the pipe. The minimum setback distance from a permanent dwelling is 100 metres, applied to Level 1 sour gas pipelines; other developments require larger setbacks.²⁰

Table 4. Setback requirements for sour gas pipelines

Level of facility	H ₂ S volume (m ³)	Minimum distance
1	<300	At least 100 m to a pipeline right-of-way
2	300–2,000	At least 100 m to individual permanent dwellings and unrestricted country development At least 500 m to urban centres or public facilities
3	2,000–6,000	At least 100 m to individual permanent dwellings up to 8 dwellings per quarter section At least 500 m to unrestricted country developments At least 1.5 km to urban centres or public facilities
4	>6,000	As specified by the AER, but not less than Level 3

Source: This table is based on information in AER Directive 056: Energy Development Applications and Schedules, Tables 5.5, 6.3 and 7.5.²¹ The reader should refer to these tables for full details.

¹⁹ Alberta Energy Regulator, *Directive 071: Emergency Preparedness and Response Requirements for the Petroleum Industry* (2008), section 5 and 8. <https://www.aer.ca/rules-and-regulations/directives/directive-071>

²⁰ AER, Directive 056, table 5.5.

²¹ The AER refers to Category D pipelines (where the pipeline associated with the facility contains gas with more than 10 mol/kmol H₂S) and Category C, D or E facilities, which are classified according to the volume of sulphur inlet to the facility. This includes gas processing plants, some gas and oil batteries and straddle plants, etc. Facilities with less than 0.01 mol/kmol H₂S in the inlet stream are in Category B and thus exempt. See AER, Directive 056, table 5.1 for full description of categories. The AER provides a H₂S Conversion Calculator on their website: <http://www.aer.ca/rules-and-regulations/directives/directive-056>

5.2.3 Environmental issues

Since 2014, environmental impacts from pipelines are regulated by the AER;²² guidelines for pipeline development have been outlined by Alberta Environment and Parks.²³ Adherence to and consideration for the guidelines are particularly important for Class II pipelines, which are not bound by a formal review process.

Read *Environmental Protection Guidelines for Pipelines* before signing a lease agreement.

Class I pipelines — those that are relatively long and/or large, and not regulated by the NEB — must be approved by the AER and meet any specific conditions in this approval in addition to those in the guidelines. However, both Class I and II pipelines must follow the same environmental protection guidelines.²⁴ The guidelines point out the importance of identifying potential environmental concerns through pre-construction site assessments and pre-planning, taking precautions to minimize the amount of remedial work after construction, and proper operations and maintenance activities, including hydrostatic testing of old and new pipelines.

You may need to discuss or negotiate one or more of the following concerns with the land agent, making sure to include provisions in the pipeline agreement:

Pipeline route selection

- minimize right of way requirements by considering existing/future pipelines
- avoid forested areas, areas with environmental sensitivities and high wildlife value, and archeological or historic sites
- if tree stumps will need to be removed from the entire width of the right-of-way, this must be negotiated

Scheduling and timing

- avoid weather that could contaminate/move soils
- if reclamation does not immediately follow construction, timing of *backfill*, topsoil replacement and revegetation efforts will need to consider factors such as access to fields for spring seeding, weed control, livestock movement in

²² Alberta, Environmental Protection & Enhancement Act, RSA 2000, c E-12.

²³ *Environmental Protection Guidelines for Pipelines*.

²⁴ *Environmental Protection Guidelines for Pipelines*.

- presence of temporary right-of-way fencing, and erosion monitoring and prevention
- consult with Alberta Fish and Wildlife about constraints they may have to protect wildlife

Construction

- follow environmental guidelines for clearing the pipeline right-of-way and salvaging the topsoil, to be replaced when backfilling the pipeline with minimal loss; practices should minimize soil disturbance
- when backfilling, ensure adequate compaction of backfill material to prevent soil slumping and erosion
- when grading, ensure that results do not cause increased erosion, slope instability and sedimentation, which would reduce success of reclamation
- consult the guide for specific requirements on water crossings
- the company should document and remediate all contamination, following up construction with soil sampling

The above requirements are high-level, but the guidelines also have very specific requirements — for example, consideration for removal of any tree stumps, rocks or other debris from the right-of-way; the reseeded of the surface with appropriate seed (e.g., native grasses); the location of any above-ground structure associated with the pipeline; and the minimum depth at which a pipeline is buried (with respect to deep surface operations).

Monitoring

When the pipeline is operating, the company is responsible for monitoring leaks and spills. You may want to ensure that the company notifies you of any leak or break that occurs in the pipeline, and tells you how they are repairing the damage and cleaning up.

You may also want to find out how the company will monitor for corrosion, which can cause leaks or other pipeline failures. Ask if the pipeline route will be inspected by air or land and how often the pipeline itself will be checked internally. You should inquire if the pipeline will be cathodically protected (which means that a low-voltage current is passed through it) to reduce the risk of corrosion. If the substance being transported in the pipeline changes, corrosion control needs to be re-evaluated by the company.²⁵

²⁵ AER, Directive 056, sections 6.9.3, 6.9.17 and 6.11.2.4.

You will also want to know if the temperature of material in the pipeline will affect the temperature of surface soil, since warmer soil above the pipeline can cause the crops to ripen at different times than the rest of the field, which makes harvesting difficult.

A number of other environmental issues that should be considered when negotiating with a company are identified by questions in the next section.

Pipeline failures are discussed in Section 8.1.2. Leaks of oil or *saline water* may contaminate soil and affect vegetation. While much of the spilled hydrocarbon and saline water can be contained and removed quickly, the affected sites can take years to completely recover.

5.3 Questions to ask before signing a pipeline right-of-way agreement

Some landowners prefer to request a right-of-entry order from the Surface Rights Board rather than signing a right-of-way agreement with a company, even though they have reached agreement on all issues and on the amount of compensation. The reasons landowners prefer this are explained in Section 10.3.2.

Before signing a lease, read Section 10 on compensation. Section 10.3 discusses the use of a right-of-entry order.

Before you decide whether to sign a pipeline right-of-way agreement with a company, it may be helpful to seek answers to the following questions:

Legal

Have you read the AER brochure *Proposed Oil and Gas Development: A Landowner's Guide* and other relevant AER FAQs that the company's land agent will have given or offered?²⁶

The company's land agent will have given or offered you these documents, together with the company's information package, and outlined the right-of-way agreement.

²⁶ AER, *EnerFAQs: Proposed Oil and Gas Wells, Pipelines, and Facilities: A Landowner's Guide* (2015), 9. https://www.aer.ca/documents/enerfaqs/AER_EnerFAQs07_Landowner.pdf

Have you read Pipelines in Alberta – What Farmers Need to Know?

This publication from the Farmers' Advocate office is available online²⁷ or by calling their office.

Does the agreement allow for additional pipelines to be constructed along the right-of-way in the future?

If you wish to prevent this, you should ask for a clause limiting the right-of-way agreement to one pipeline.

Will the pipe be left in the ground after abandonment? Does the agreement provide for the eventual clean up and abandonment of the pipeline and reclamation of the land when the pipeline is no longer in use?

If you want the pipeline removed, you should inquire if this can be included in the initial agreement. (Alberta Environment does not recommend line removal where it causes significant additional disturbances.) You should also ensure that all liens that the company may have registered are removed when the pipeline is abandoned.

Have you agreed how you want to settle any future issues such as poor vegetation establishment and reduced crop yield due to soil compaction, a sinking trench or damage to surface drainage?

You may want to stipulate that the alternative dispute resolution process should be used as a first step, before escalating this through a legal process. The agreement should contain an arbitration clause that enables disputes to be settled under the Alberta Arbitration Act, without going to court.

Have you read about compensation in Section 10 of this guide?

It is important to negotiate and agree on compensation before signing the lease agreement.

Do you want to request a right-of-entry order from the Surface Rights Board rather than signing a lease?

Some landowners prefer to request a right-of-entry order from the Surface Rights Board, rather than sign a lease agreement, even if they have reached agreement with the company on all issues. See Section 10.3.2.

²⁷ Pipelines in Alberta: What Farmers Need to Know.

Is everything you have negotiated with the company included in the written agreement?

The Office of the Farmers' Advocate can provide advice on wording, if you need an addendum.

Do you need to check with a lawyer or other consultant before signing the right-of-way agreement to ensure it is satisfactory?

A lawyer or consultant knowledgeable about surface rights issues can help with negotiations.

Background

Is the pipeline in the best location, given the *surface water* drainage, water wells and other environmental considerations?

You also need to consider whether the location of the line will affect future plans for farm expansion or the creation of a subdivision.

What is intended to be transported through the pipeline (oil, diluted bitumen, natural gas, condensate, other)?

Depending on the material to be transported, there may be other construction materials or operational requirements that reduce the risk of leakages or other accidents.

How deep will the pipe be buried?

Determine if you need to specify a minimum depth for the pipeline to prevent interference with farm operations, such as deep ploughing.

If the pipeline will contain sour gas, has the company worked with other companies in the area to minimize the amount of sour gas infrastructure in your area?

The AER has increased their proliferation requirements to limit additional sour gas developments in areas of development is already concentrated.²⁸ Before a company applies to construct a new pipeline or processing facility, it must contact other

²⁸ AER, Directive 056, section 5.9.3.

operators in the area to investigate whether it is feasible to upgrade a facility or form a partnership with existing operators instead of constructing a new facility.²⁹

Water

Is the pipeline close to a water well?

If so, ask the company to test the well before they start construction.

Land

How will the topsoil be protected?

The agreement with the company should state how the topsoil will be removed, how it will be conserved to prevent erosion, and how the land will be reclaimed to the same condition that existed prior to the company's operations. You should find out what the company will do to minimize soil compaction along the right-of-way and where heavy vehicles will be moving during construction.

How will weeds be controlled?

Decide if you want the equipment to be steam-cleaned to remove weed seeds before entering your property. Cleaning also prevents establishment and further spreading of soil-borne diseases such as clubroot, especially for canola crops.³⁰ Take note of cleaning stations that may be closely situated to your lands.

You may want to ask the company to obtain consent before using any chemical, pesticides or herbicides. This is especially important for certified organic farms, or if you use organic production practices.

Do you require the company to construct any fences or gates to prevent livestock from straying?

Ensure that the company is required to maintain and immediately repair any fences to your satisfaction. Include compensation requirements. You may also ask to be compensated for managing fences yourself, and for moving and feeding livestock at a separate location.

²⁹ AER, Directive 056, section 5.9.3.

³⁰ "Clubroot is a serious soil-borne disease of canola, mustard and other crops in the cabbage family." Alberta Agriculture and Forestry, *Alberta Clubroot Management Plan* (2015), 1. [http://www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/agdex11519](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/agdex11519)

Do any trees have to be felled?

Tell the company what they should do with any trees that have to be felled and if you want merchantable timber, logs and firewood. Typical options for wood disposal are burning, mulching or a combination of both. Excessive mulch depth on the right-of-way may impact vegetation re-establishment. You may also want to include a penalty for trees that are cut or damaged without your permission.

Does the company need any temporary workspace outside the right-of way while the pipeline is being constructed?

If so, include this in the agreement, or sign a separate agreement for workspace use. Compensation for workspace should be valued similar to right-of-way.

Do you want to specify that all travel and movement of personnel, equipment, vehicles, etc. occurs along the surveyed right-of way?

You might want to include a penalty if the company's activities extend outside the right-of-way without your prior approval.

Waste management**Will the company clean up quickly after the pipeline is constructed?**

The right-of-way agreement should require the company to quickly clean up the right-of-way, including removal of all stumps, rocks, roots and other debris. Also, clarify with the company how to dispose of waste (e.g. hauling or burning).

Do you have any special requirements with respect to reclamation?

You may want to specify how the land is reclaimed and whether you want the company to reseed the land using a specific seed type. You may want to indicate the date by which this is to be completed. The company should redistribute and level the topsoil, cultivate (to remediate compaction), prepare an adequate seedbed, and reseed the land where required. Any special requests cannot breach regulation(s).

Does the agreement require the company to immediately notify you about any leak or spill?

This is an AER regulatory requirement. In addition to this specific requirement, you will also want to be told how any leak or spill will be contained and cleaned up.

Nuisances

Is any above-ground installation required on the right-of way?

If so, you should ensure that it will be located in an area that causes the minimum inconvenience and will be clearly marked and that a surface lease is negotiated.

Is the proposed compensation adequate to cover the crop loss, adverse effect, nuisance and inconvenience that will occur while the pipeline is being constructed?

If there is any above-ground installation on the pipeline, you should arrange for annual compensation for loss of use and adverse effect, with the rental being reviewed every five years.

Does the company agree to cover costs for any accidental damage that may arise due to the location of the pipeline or above-ground installations?

It is a good idea to check that you are not liable for any accidental damage.

As explained above, should you be unable to resolve issues with the pipeline and company, as a result of asking the above questions or otherwise, the company must file a non-routine application as explained in Section 5.2.1.

If there are any outstanding problems once a pipeline has been constructed, such as inadequate clean up of the right-of-way, drainage problems, or trench sinking, you should first try to resolve the difficulties directly with the company. If this is not successful you can contact the Farmers' Advocate Office (Section A.4) or the regional conservation and reclamation inspectors of the AER (Section A.2.2). Any leak should be reported to the AER (Section A.2.1).

5.4 Response to problems and emergency response plans

If problems such as leaks do occur, they are usually noticeable during construction or within two years of operation. One common problem area is clean-up of the right-of-way. Land cleared or used during construction is also supposed to be reclaimed to an equivalent original state; this too can be a source of conflict.

Pipeline trench sinking from inadequate backfilling, soil compaction or erosion and sedimentation should be compensated for by the company, as should drainage problems

that include changes in the natural flow of water. Any slumping of land, and its reclamation to an equivalent state prior to pipeline installation, is the responsibility of the pipeline company. Compensation payments by the company include payment for crop loss and damages.

Common problems and suggestions for resolving them are listed in the Pipelines in Alberta document.³¹

If problems are not resolved, call or write the company. Failing this, the AER or the Farmers' Advocate may offer assistance when the company is unable or unwilling to resolve the concern(s). If a portion of the pipeline becomes exposed, also notify the AER to ensure corrective work is completed. Also, when excavation work is planned be sure to consult the Safe Excavation Near Pipelines guide published by the AER, which lists all landowner and industry responsibilities.³²

Disputes over damages are best resolved through an *arbitration* process with the company. When damages do not exceed \$25,000 and are identified within two years of occurrence, they may be considered by the Surface Rights Board.

5.4.1 Emergency response plans

All companies are required to have a corporate emergency response plan (ERP) so that they know what action to take in the event of leaks from a pipeline and the risk of explosion.³³ For sweet gas pipelines and those with low levels of H₂S, a corporate response plan is sufficient. For sour gas and oil effluent pipelines with higher levels of H₂S (where the pipeline contains more than 10 mol/kmol of H₂S), and for high vapour pressure lines, an *emergency planning zone* is calculated, and a specific ERP is required if there are occupied dwellings or campgrounds within the zone. The process is very similar to the ERP process for sour wells (Section 4.6.1).

In the case of sour gas and oil effluent pipelines, you should find out about the spacing between shut-off valves. In the case of a pipeline failure, these valves close to limit the amount of oil, gas or water that could escape to the amount between the valves. Companies should have the ability to shut down the pipeline and the shut-off valves

³¹ *Pipelines in Alberta: What Farmers Need to Know.*

³² AER, *Safe Excavation Near Pipelines: Requirements for Landowners and Industry*, 7th Edition (2013). <http://www.aer.ca/documents/reports/SafeExcavationNearPipelines.pdf>

³³ AER, Directive 071: Emergency Preparedness and Response Requirements for the Petroleum Industry (2009).

automatically, as this is much quicker than manual shut-off. A company should report its threshold leak detection level — that is, the size of leak that would automatically result in a shutdown (as opposed to a small leak that could remain undetected).

Remember to “Call Before You Dig”: Call Alberta 1-Call at 1-800-242-3447 to locate pipelines and utility lines. Or “Click Before You Dig” at albertaonecall.com.

5.5 Pipelines regulated by the National Energy Board

The National Energy Board (NEB) is an independent federal regulatory agency that is responsible for, among other things, approving the construction and operation of interprovincial and international pipelines. A hearing is required for any applications to construct a pipeline more than 40 kilometres long,³⁴ or for any other applications at the discretion of the NEB. The NEB does not get involved with pipelines that lie completely within the borders of a single province. Whereas for Alberta pipelines, responsibilities are shared among several boards and departments (including the AER, the Surface Rights Board), the NEB is responsible for almost all aspects of the planning, construction, operation and abandonment of an interprovincial or international pipeline.³⁵

The issues involved in reviewing a transboundary pipeline application are similar to those for a provincial pipeline, as described in Section 5.2, and the same factors should be considered when landowners and occupants negotiate with a pipeline company. The NEB requires companies to anticipate the environmental issues and concerns that could arise from the proposed project and to discuss these with all levels of government, public interest groups, and affected landowners. In determining whether a pipeline project should proceed, the NEB reviews not only the economic, technical and financial feasibility of the project, but also the environmental and socio-economic impacts.

³⁴ NEB, *Pipeline Regulation in Canada: A Guide for Landowners and the Public* (2010), 36.

<https://www.neb-one.gc.ca/prtcptn/Indwnrgd/Indwnrgd-eng.pdf>

³⁵ The exception is unresolved issues concerning compensation, which are the responsibility of the Minister of Natural Resources Canada.

Unlike the AER, which may hold a hearing if landowners and a company are unable to negotiate an agreement, a hearing is part of the routine NEB process.³⁶ NEB hearings are dealt with briefly in Section 11.4.

Another helpful publication available from the NEB is *Living and Working Near Pipelines: Landowner Guide*.³⁷ Further information on the NEB is provided in Section A.12.

³⁶ *Pipeline Regulation in Canada*.

³⁷ NEB, “Living and Working near Pipelines.” <https://www.neb-one.gc.ca/sftnvrnmnt/dmgprvntn/lvngwrkngnrpplns/index-eng.html>

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