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# Facility Licensing Process

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Guideline PNG001

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Governing Legislation:

Act: *The Oil and Gas Conservation Act*

Directive: *Directive PNG001: Facility Licence Requirements*

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**Record of Change**

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## Contents

1.	Introduction .....	4
2.	Submission Procedure: Facility Licence Application .....	4
2.1	Setup Screen .....	4
2.1.1	Application Information .....	4
2.1.2	Application .....	4
2.2	Facility Site Screen .....	5
2.2.1	Participant Involvement Requirements .....	5
2.2.2	Facility Type .....	5
2.3	Design Detail Screen .....	5
2.3.1	Gas Processing Plant Information (Applicable for Gas Processing Plants) .....	5
2.3.2	Total Design Inlet Rates .....	6
2.3.3	H <sub>2</sub> S Information (Estimated) .....	6
2.3.4	Emergency Planning Zones (EPZ) .....	6
2.3.5	Sour Gas Management System .....	7
2.3.6	Continuous Emissions (Estimated) .....	7
2.3.7	Cumulative Gas Handling Information (Estimated) .....	8
2.3.8	Natural Gas Compressors .....	8
2.4	Emergency Contact Screen .....	9
2.5	Disclosure Questions for Facility Licence Screen .....	9
2.6	Exemption Request Screen .....	11
2.7	Application Attachments Screen .....	11
2.8	Preview Application Screen .....	11
2.9	Eligibility Screen .....	11
2.10	Approval and Obligations .....	12
3.	Facility Infrastructure Decommissioning Application .....	12
3.1	Application Details Tab .....	12
3.2	Attachments Tab .....	13
3.3	Confirm Application Tab .....	13

## 1. Introduction

This document supports *Directive PNG001: Facility Licence Requirements* (Directive PNG001) by providing guidance on how to license facilities in Saskatchewan using the Integrated Resource Information System (IRIS). Persons wishing to apply for a facility licence in IRIS should use this guide to ensure that the correct information is being provided in their application.

## 2. Submission Procedure: Facility Licence Application

The facility licence application can be found in IRIS under “Applications”. The facility application applies to new construction and licence amendments.

The facility infrastructure decommission application can be found under “Repair, Abandonment and Liability” section of “Applications”.

### 2.1 Setup Screen

#### 2.1.1 Application Information

The purpose of this section is to have the contact information of the applicant. ER will be using this information in the event there are additional questions and/or concerns raised during the review process. The contact should be an individual that can answer questions about the licence application. The email address and telephone number should all correspond to that individual.

#### 2.1.2 Application

Is this a Resubmission:

Select if this application is a resubmission in order to use the cloning functionality of a previously denied application in the drop down menu of “Is this a Resubmission”. The previous application number will be needed. If it is not a resubmission, select “No”.

Application Type:

Select the application types from the “Application Type” drop down menu. The application will be new facility licence or an amendment of an existing facility site.

Coordinates:

Using the NAD83 Coordinate System, enter the coordinates of the centre of the facility site or well within the lease closest to the centre of the site. The latitude and longitude (lat-long) can be entered in decimal degrees in the respective text boxes. The lat-long can also be entered in degrees-minutes-seconds by clicking the “Enter Degree” button next to the latitude and longitude. Then click “Accept”.

Clicking “Resolve Land Location” will bring up the Dominion Land Survey, ER Designated Field Office, Rural Municipality, Agriculture Region and Environment District. Click “Next” at the top or bottom right hand of the screen to validate information entered and to move to the next screen of the application.

## 2.2 Facility Site Screen

### 2.2.1 Participant Involvement Requirements

Distance to the nearest occupied dwelling:

Enter the distance in meters from the edge of the facility to the nearest occupied dwelling.

Distance to the nearest public facility:

Enter the distance in meters from the edge of the facility to the nearest public facility.

### 2.2.2 Facility Type

Facility Licence Type:

Click “Add a Facility Licence Type” icon to bring up the drop down menu to select the appropriate facility type for your application. To add multiple facility types, click “Add a Facility Licence Type” again and another row will be created to add another facility type to the application. For EOR Injection Facility and Waste Plant/Reclaimer/Skim Oil types, any prior-authorizations should be included to proceed with the application process. If a new facility type row was added in error, click the “X” at the right side of the row to remove the row.

Lease Size:

Enter the size, in hectares (ha) to two decimal places, of the lease on which the facility will be built.

Description of the Facility Type:

Provide a brief description of the facility’s purpose and functions/processes that it will perform.

## 2.3 Design Detail Screen

### 2.3.1 Gas Processing Plant Information (Applicable for Gas Processing Plants)

This section will be viewable if you selected gas processing plant for the facility type.

Estimated Total Recovered Products:

Enter the maximum daily design rates of all applicable recovered and sales products to two decimal places, in the units specified.

Acid Gas:

Enter the maximum daily design rate of acid gas (hydrogen sulfide [H<sub>2</sub>S] and carbon dioxide [CO<sub>2</sub>]) removed from the sour gas inlet stream to two decimal places, in thousand m<sup>3</sup> per day.

Sweetening Process:

From the drop down menu indicate the type of sweetening process used. Select “Not Applicable” if a sweetening process is not applicable to the facility being licensed.

H<sub>2</sub>S Content of Acid gas:

Enter the H<sub>2</sub>S content of the acid gas stream to two decimal places, in moles per kilomole (mol/kmol). To convert parts per million (ppm) H<sub>2</sub>S or percent (%) H<sub>2</sub>S to mol/kmol H<sub>2</sub>S, use the following equations:

- $\text{mol/kmol H}_2\text{S} = (\text{ppm H}_2\text{S})/1000$
- $\text{mol/kmol H}_2\text{S} = (\% \text{ H}_2\text{S}) * 10$

Acid Gas Recovery Process:

Select the appropriate process from the drop down menu for all acid gas treatment/recovery processes used. If you indicate “other”, provide a brief description and attach details of the alternative treatment or process.

**2.3.2 Total Design Inlet Rates**

Enter the maximum total daily inlet rates of associated/raw gas, oil/condensate, water and sulfur to two decimal places, in the units specified.

**2.3.3 H<sub>2</sub>S Information (Estimated)**

Enter the estimated maximum H<sub>2</sub>S content of the raw inlet gas/fluid to two decimal places, in mol/kmol. For facilities with multiple inlet streams, use the value from the inlet stream with the highest estimated H<sub>2</sub>S content. The following equations can be used to convert to mol/kmol H<sub>2</sub>S:

- $\text{mol/kmol H}_2\text{S} = (\text{ppm H}_2\text{S})/1000$
- $\text{mol/kmol H}_2\text{S} = (\% \text{ H}_2\text{S}) * 10$

Maximum Continuous Sulfur Emission Rate (Estimated):

Enter the estimated maximum continuous sulfur emission rate to two decimal places, in tonnes per day. This number should represent the sum of the sulfur content of the tail gas emission from a sulfur recovery process, continuous acid gas flaring/incineration, emissions from produced water tanks, and continuous or routine flaring/incineration of gas containing H<sub>2</sub>S. However, this number does not include sulfur emissions from infrequent emergency or maintenance flaring/incineration.

**2.3.4 Emergency Planning Zones (EPZ)**

An EPZ is a geographical area surrounding a well, pipeline, or facility containing hazardous products that require specific emergency response planning by the licensee. The IRIS application process requires an EPZ radius (in metres) when the H<sub>2</sub>S concentration on a facility licence application is 1 mol/kmol or greater. The recommended method for calculating the EPZ is the Alberta Energy Regulator (AER) ERCBH<sub>2</sub>S Model. **If you do not have a calculated EPZ or access to the AER calculator, enter a value of zero (0).**

As part of EPZ development, the following information should be provided to persons or entities directly affected by an EPZ:

- a) Name and contact information of operator;
- b) Map that shows EPZ relative to roads, dwellings, schools, public facilities and private property that may be used by the public in an emergency;

- c) Description of site-specific hazards and risks of the oil and gas activity that is the subject of the ERP;
- d) How operator's response to an emergency may affect the person or entity receiving the information;
- e) How operator will notify the person or entity receiving the information and if/when the operator believes it is necessary to recommend shelter in place or evacuation in the event of an emergency; and
- f) How the person receiving the information can get to safety in an emergency.

The activities described in this subsection should include a request for the person or entity receiving the information to also provide the operator with:

- a) Name and contact information of a contact person; and
- b) Description of how the person/entity may be affected in the event of an emergency.

### 2.3.5 Sour Gas Management System

A facility licence application that has concentrations of H<sub>2</sub>S of 10 mol/kmol or greater will have further questions on the sour gas management system on the application. There will be a drop down list where you can choose one or multiple options that best describe the system:

- a) Flare: The combustion of gas with a flare stack;
- b) Incinerator: The combustion of gas with an incinerator;
- c) None: Select when there is no sour gas management system;
- d) Other: Select when the available options do not describe the sour gas management system proposed for the facility site;
- e) Scrubber: Using a material to remove the H<sub>2</sub>S out of the gas stream;
- f) To Market: Gas is not treated at the facility and is sent to another facility for further processing;
- g) VRU (Vapour Recovery Unit): A System which collects gas from the tanks and processing equipment as a closed venting system so they can be returned to the process or destroyed.

#### Is Combustion System Engineered?

This question is displayed when flare stack and/or incinerator has been selected as the sour gas management system. This question is referencing Directive S-20 compliance for the flare stack and/or incinerator. Answering "Yes" indicates that the flare stack and/or incinerator is compliant with Directive S-20. Answering "No" indicates that the flare stack and/or incinerator is not compliant with Directive S-20 and an exemption will be required to be reviewed by ER.

### 2.3.6 Continuous Emissions (Estimated)

#### NO<sub>x</sub> Emissions:

Enter the estimated nitrogen oxide (NO<sub>x</sub>) emission rate from the facility to two decimal places, in kilograms per hour.

#### CO<sub>2</sub> Emissions:

Enter the estimated CO<sub>2</sub> emission rate from the facility to two decimal places, in tonnes per day.

### 2.3.7 Cumulative Gas Handling Information (Estimated)

This section describes how the associated raw gas entering the site is being handled within the facility site and/or leaving the facility site. The sum of these values should be equal or greater than the sites inlet design rate of associated/raw gas.

Maximum Continuous Flaring/Incineration Rate:

Enter the estimated maximum rate of continuous flaring or incineration occurring at the facility to two decimal places, in thousand m<sup>3</sup> per day.

Maximum Continuous Venting Rate:

Enter the estimated maximum continuous rate of venting occurring at the facility to two decimal places, in thousand m<sup>3</sup> per day.

Recovered Gas Used as Lease Fuel:

Enter the estimated recovered gas rate used as lease fuel at the facility to two decimal places, in thousand m<sup>3</sup> per day.

Gas Delivered to Market/Injected:

Enter the estimated maximum gas rate being delivered to another facility, to market for sales or being injected from the facility to two decimal places, in thousand m<sup>3</sup> per day.

### 2.3.8 Natural Gas Compressors

Enter individually by clicking the icon next to “Add a Natural Gas Compressor”. Enter the total number of natural gas powered, electric powered and other-powered natural gas compressors located on site. If a compressor was added in error, use the “X” at the far right of the corresponding row to remove that row.

Compressor Driver Power Source:

From the drop down menu, indicate the appropriate driver source for each natural gas compressor unit proposed for installation at the facility.

Compressor Rating:

Enter the kilowatt rating of each natural gas compressor unit proposed for installation at the facility. To convert a horsepower rating (hp) to a kilowatt rating (kW) use the following equation:

$$\text{kW} = \text{hp} * 0.7457$$

NOx Emission Rating:

Enter the manufacturer’s rating for NOx emissions to the nearest gram of NOx per kilowatt hour for each natural gas compressor unit proposed for installation at the facility. Enter N/A for electric-driven compressors/pumps.

## 2.4 Emergency Contact Screen

Enter the BA's 24-hour emergency dispatch phone number and email address. To add another contact to this list, click the icon next to "Add Other Emergency Contact".

## 2.5 Disclosure Questions for Facility Licence Screen

This screen contains disclosure questions that are to be answered to the best of the applicant's knowledge. There is a drop down menu to choose "Yes" or "No" on the far right of the question. Depending on how the question is answered, further questions may be asked or documentation may be requested later in the application.

**1. Is the Licensee a good standing member of the local Spill Response Unit?**

The licensee must be a member of the local Spill Response Unit and be in good standing. To be in good standing, all fees and exercise requirements must be met.

**2. Does the Licensee have a Corporate Emergency Response Plan?**

It is a requirement that the licensee must have a Corporate Emergency Response Plan.

**3. Are setbacks to private water bodies compliant with *Directive S-01: Saskatchewan Upstream Petroleum Industry Storage Standards*?**

See Directive S-01 for more information.

**3A. Has consent from the owner been obtained to construct the facility within the setback to the private water body?**

See Directive S-01 for more information.

**4. Are setbacks to major water bodies compliant with *Directive S-01: Saskatchewan Upstream Petroleum Industry Storage Standards*?**

See Directive S-01 for more information.

**5. Are setbacks to minor water bodies compliant with *Directive S-01: Saskatchewan Upstream Petroleum Industry Storage Standards*?**

See Directive S-01 for more information.

**6. Are setbacks from the facility to any private or community water wells compliant with *Directive S-01: Saskatchewan Upstream Petroleum Industry Storage Standards*?**

See Directive S-01 for more information.

**6A. Has consent from the owner been obtained to construct the facility within the setback to the private or community water wells?**

See Directive S-01 for more information.

**7. Are setbacks from facility to the right of way of any surface improvement or underground utility compliant with *Directive S-01: Saskatchewan Upstream Petroleum Industry Storage Standards*?**

See Directive S-01 for more information.

- 8. Are on lease equipment spacing requirements compliant with *Directive S-01: Saskatchewan Upstream Petroleum Industry Storage Standards*?**  
See Directive S-01 for more information.
- 9. Does this facility design include oil storage or salt water storage tanks as defined in *Directive S-01: Saskatchewan Upstream Petroleum Industry Storage Standards*?**  
See Directive S-01 for more information.
- 10. Does your site incorporate any pressure relief valves?**  
See Directive S-01 for more information.
- 11. Does the facility incorporate a dehydrator?**  
See *Guideline S-18: Reduce Benzene Emissions from Glycol Dehydrators* for more information.
- 12. Is the licensee applying for any exemption other than exemptions outlined above?**
- 13. Is the facility site/access road(s) on Provincial Crown Agriculture Land?**
- 14. Is the facility site/access road(s) on Provincial Crown Resource Land as defined in *The Crown Resource Land Regulations*?**
- 15. Is the facility site/access road(s) on land with special designation?**
- 16. Based on self-assessment using the Environmental Evaluation Checklist for Private Land, is Ministry review required prior to approval being granted?**
- 17A. A lease berm is required. Are you planning on building a lease berm?**
- 20. Are the tanks on lease compliant with *Directive S-01: Saskatchewan Upstream Petroleum Industry Storage Standards*?**  
See Directive S-01 for more information.
- 21. Is the design of the secondary containment compliant with *Directive S-01: Saskatchewan Upstream Petroleum Industry Storage Standards*?**  
See Directive S-01 for more information.
- 22. What is the pressure relief system?**  
Choose the option that best describes the pressure relief system proposed at the facility site from flare, pop tank, vent to atmosphere or other (specify).
- 23. Are requirements for PSV to vent to atmosphere as outlined in *Directive S-01: Saskatchewan Upstream Petroleum Industry Storage Standards* being met?**  
See Directive S-01 for more information.
- 24. Have you consulted with all residents and/or public facilities within the EPZ?**  
See section 2.3.4 for more information.
- 25. Is the licensee the only working interest participant on this facility?**

## 2.6 Exemption Request Screen

In this screen, the applicant will choose the Authorization Node Type from the drop down menu. This menu refers to the type of exemption required. If the exemption has already been reviewed by ER and granted, provide the authorization number.

If there are multiple exemptions to be requested with an application, click the icon next to “Add a Facility Exemption Request” to add another row. If a row was added in error, click the “X” at the far right of that row. An exemption to the regulations must be based on the facility site and not each individual facility licence that may make up the facility site.

## 2.7 Application Attachments Screen

This screen is a summary of all attachments that will be required for the facility licence application and indicates where all of these documents will be added. All applications are required to have a spacing diagram, site survey and process flow diagram. Refer to Appendix 2 in Directive PNG001 for more information.

At the top of the screen there will be a list of all documents that will be required. Below this list, click ‘Add Attachments’ to upload the required documents. Provide the document type of each attachment by choosing from the drop down list under Document Type.

All documents listed must be attached and specified by their document type before navigating off this screen. For details on what is required for each attachment to fulfill their regulatory obligations refer to Appendix 2 in Directive PNG001.

## 2.8 Preview Application Screen

This screen allows the applicant to view the entire application and edit any incorrect or missing information.

## 2.9 Eligibility Screen

In order to submit the facility licence application the applicant will have to agree to the following Eligibility/Certification:

I hereby certify that:

1. This submission and any supporting documentation are complete, accurate and in accordance with *The Oil and Gas Conservation Act* and its rules.
2. The Government of Saskatchewan has the authority to deny the submission after notifying the applicant of the deficiencies if this submission is found to be inaccurate or incomplete or does not meet the requirements of Saskatchewan legislation, regulations or directives.
3. The Government of Saskatchewan has the authority to enforce non-compliance if it is found that this submission contains false, inaccurate, incomplete or misleading information.

Once the applicant has selected “Yes” from the drop down menu and agreed to the above, the application can be submitted by clicking the “Submit” button.

## 2.10 Approval and Obligations

The approval of a routine facility licence application will automatically generate a facility licence. From the answers of the disclosure questions some obligations may be applied to the licence. These can be viewed in the Licence Obligations tab.

Approval of a non-routine facility licence application will generate a facility licence once the application is approved by ER. Information on reasons why the application went non-routine can be viewed in the Submission tab and any obligations can be viewed in the Licence Obligations tab.

Once the facility has been constructed the Construction Completion obligation on the facility licence can be fulfilled. To fulfill this obligation, complete the Facility Site Construction Completion Report under Infrastructure to report the completion of construction. Enter the facility site number in the Setup screen. In the Report screen select the Facility Site and disclose if it has been completed as planned and enter the construction date. If construction has been completed as planned the Construction Completion obligation will now be fulfilled in the facility infrastructure. If the construction has not been completed as planned any changes to the survey, equipment spacing and process flow diagram will be declared in the Construction Completion Report. The new documents will then be uploaded to their respective obligations in the facility site in IRIS. When Construction Completion obligation is fulfilled the appropriate field office will be notified and the facility licence number will become available in PETRINEX.

## 3. Facility Infrastructure Decommissioning Application

The Facility Infrastructure Decommissioning application can be found in IRIS in the Applications tab, under Repair, Abandonment and Liability.

### 3.1 Application Details Tab

Industry Application Reference Number:

This is for industry use only to help track your application.

Description:

Supply a short summary of the application.

Additional Information:

Select Facility Site if applying to decommission the entire site. Select Facility Licence to decommission the facility infrastructure relating to one facility licence. Depending on what is selected to decommission, enter the facility site ID or facility licence number in the text box below.

As stated in Directive PNG001, in order to decommission the facility infrastructure ID, all wells associated with the facility code in PETRINEX must be abandoned or removed from the facility code and associated with their own facility code or a different facility code where they are

producing to. More information on facility codes can be found in section 5.6 of *Directive PNG032: Volumetric, Valuation and Infrastructure Reporting in Petrinex*.

### **3.2 Attachments Tab**

The following documents will be required:

1. Cover Letter: the cover letter should include the type and location of the facility and be signed by an official within the company requesting the status of the facility to be changed to abandoned and the deemed abandonment liability set to zero.
2. Legal Land Survey.
3. Photo Log: must be clearly labeled depicting the entire lease with shots from north, south, east and west looking into the centre of the lease.

### **3.3 Confirm Application Tab**

In this tab, you can review all the information that will be submitted with the application before submitting the application.