

Facility Licence Requirements

Directive PNG001

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Governing Legislation:

Act: *The Oil and Gas Conservation Act*

Regulation: *The Oil and Gas Conservation Regulations, 2012*

Record of Change

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1. Introduction

Saskatchewan Ministry of Economy (ECON) Facility Licence Guideline coincides with ECON's Upstream Oil and Gas Facility Licence Application (ECON-47). In reference to section 8(1) of The Oil and Gas Conservation Act, no person shall without a licence authorizing that activity, construct, alter, operate, suspend the operation of or abandon an upstream facility.

2. Application Responsibilities

An applicant is responsible for:

- Have an IRIS account and the appropriate permissions assigned by your IRIS Security Administrator.
- Be registered through Information Services Corporation (ISC) to do business in Saskatchewan.
- Completing the applicable Saskatchewan Environment Environmental Assessment process. Please refer to Ministry of Environment webpage for details.
- Obtaining applicable municipal permits and approvals.
- Obtaining a surface lease access agreement.
- Submit a \$10,000 non-refundable Orphan Fund fee if the licensee has not previously held a well/facility licence pursuant to The Oil and Gas Conservation Regulations, 2012 in the province of Saskatchewan. Use the Payment Detail Form to submit the "Orphan Fund – First time application fee" to the Government of Saskatchewan .
- Complying with any other regulatory requirements.
- All aspects of a facility application including planning, retaining and submitting the application with supporting documents.
- Once a licence has been issued, the licensee must obtain a facility ID from PETRINEX in accordance with section 105 of The Oil and Gas Conservation Regulations, 2012.
- Obtaining any necessary exemptions related to the facility licence. These exemption requests should be submitted with the facility licence application.
- Once a licence application is approved by ECON, the company becomes a licensee and bears responsibility for the construction, installation, and safe operation of the facility. The licensee is also responsible for decommissioning, dismantling, abandonment and reclamation of the facility and lease.
- Obtaining the appropriate ECON licence(s) or approvals prior to commencing any site preparation, construction, or operation. Applicants are not permitted to initiate pre-lease construction prior to acquiring an ECON licence. Applicants must limit pre-lease activities to surveying and obtaining soil samples and environmental site investigation or assessment.
- The applicant/licensee is responsible for outcomes of actions conducted on its behalf by contracted personnel.
- The applicant/licensee is expected to maintain an ongoing dialogue with potential directly or adversely affected parties during the life of the project.
- The licensee is required to notify the local ECON field office of completion of facility construction.

3. Application Facilities and Exemptions

3.1 Applicable Facilities

The following types of permanent upstream facilities must be licensed:

- Batteries:
 - multi-well oil batteries
 - multi-well gas batteries
- Produced-water disposal facilities:
 - any tank or collection of tanks, processing or pumping equipment setup to handle produced wastewater from upstream oil and gas wells or facilities for the purpose of subsurface disposal;
- EOR injection facilities:
 - any storage device or collection of storage devices, processing or pumping equipment setup to handle water, steam, gases, surfactants, solvents or other substances for the purpose of enhanced oil recovery;
- Satellites;
- Gas processing plants;
- Gas compressor facilities that are part of the production operations of gas wells or groups of gas wells that have a combined power rating equal or greater than 186.5 kW (250 hp);
- Waste Processing Facilities; and
- Any other upstream facilities designated by the Minister.

Each one of the above noted upstream facilities require a licence issued by the Ministry of the Economy's, even though more than one facility may exist at one lease or at one given site. Refer to Appendix 3 for a list of applicable facilities and their corresponding ECON facility code.

3.2 Exempted Facilities

The following facilities are exempt from facility licensing requirements:

- Oil or gas pipelines that are licensed under the Pipelines Act, 1998. This includes equipment, apparatuses, mechanisms, machinery, or instruments incidental to the operation of the pipeline;
- Petro-chemical refineries, manufacturing plants, distribution, bulk stations, service stations and heavy oil upgraders;
- Single-well batteries;
- All midstream and downstream facilities and sites; and
- Any other facilities exempted by the Minister.

3.3 Exempted Activities

The following activities do not require a facility licence or an amendment to an existing licence:

- Temporary compressors, flares and incinerators in continuous use for less than 21 consecutive days for initial gas well tests or plant turnaround, unless otherwise exempted;
- Replacing measurement and separation equipment;
- Adding production from well(s) to an existing multi-well facility;
- Changing products and/or product recovery at a gas processing plant without changing processing equipment;
- Replacing a compressor with the same type and size or a smaller one, such that total emissions do not increase;
- Adding separators, dehydrators, pressurized bullets, process pumps, group or test vessels to an existing licensed facility;
- Adding a line heater to an existing licensed facility;
- Adding a vapour recovery unit, scrubber, flare/thermal destruction system or other air pollutant emission control system to an existing licensed facility;
- Adding a natural gas booster compressor to a well, provided that you comply with the requirements of Petroleum and Natural Gas (PNG) Guideline 22;
- Adding compression to an existing licensed facility (other than a gas compressor) such that the total combined power rating of the facility does not exceed 186.5 kW (250 hp) (this does not apply to acid gas injection compressors regardless of size);
- Adding any amount of compression to an existing licensed gas compressor facility;
- Adding storage tanks to an existing licensed facility; if the additional storage tanks added meet requirements set out in the Saskatchewan Upstream Petroleum Industry Storage Standards (S-01); and
- Any other activities designated by the Minister.

4. Application Types

The facility licence (ECON-47) applies to new construction and licence amendments.

4.1 Retrospective Facility Licences (RFL)

Retrospective facilities are those that existed, were under construction, or licenced under the Retrospective Facility Licensing Program prior to June 19, 2007. Facilities that hold retrospective facility licences are grandfathered from the information submission requirement that apply to the new or amended facilities. This grandfather period expires:

- a. when there is a licence amendment; or
- b. when there is an infraction or non-compliance under the regulations.

4.2 Licence to Construct a New Facility

The licence to construct a new facility applies to any upstream facilities that do not currently hold a retrospective facility licence. This would include new construction of a permanent facility or any existing facility not previously licensed under the retrospective facility licence program prior to June 19, 2007.

4.3 Licence Amendment

A licence amendment is needed when any licensed facility is making a change that will cause the facility type to change, a switch from sweet to sour service, sub-divide the facility into more than one facility or increase the design throughput of an oil battery, gas plant or injection facility.

For example, if compression is added to an existing oil battery such that the new total compression exceeds 250hp, the compressor requires its own facility licence or if water disposal/injection is being added to an existing oil battery a disposal/injection licence is required

5. Submission Procedures

5.1 Applying for a Facility Licence

To apply for a licence to construct and operate an upstream Facility in Saskatchewan:

1. Ensure you meet the eligibility criteria listed in SECTION 2 APPLICANT RESPONSIBILITIES.
2. Download and complete the Upstream Facility Licence Application (pdf, excel) in accordance with the Facility Licence Directive. Please ensure you have the latest versions of the form, directive and guideline from the website when applying for a facility licence.
3. Prepare the required documents which accompany the form as separate pdf documents:
 - Saskatchewan Land Surveyors Association (SLSA) certified land survey.
 - Facility process flow diagram.
 - Equipment spacing diagram.
4. Log in to IRIS, provide a brief description of the type of Facility Licence Application being requested, and complete the submission process.
5. Attach the following documents as separate pdfs:
 - Facility Licence Application Form(required)
 - Facility Survey (required)
 - Process Flow Diagram (required)
 - Equipment Spacing Diagram (required)
 - An Exemption Request Report is required when the proposed facility does not meet the Standard Conditions of Part Two of the application.
 - Waste Process application is required when the facility type being applied for is a Waste Processing Facility.
 - Public Notice/Consents
 - A consent is required when the facility does not meet the setback requirements specified on Standard Conditions 9 or 10 of Part Two of the application.

6. ECON Facility Licence Process

An Upstream Oil and Gas Facility Licence issued is a licence to construct and operate an upstream oil and gas facility. After ECON licensing staff receives and registers an application, ECON performs numerous electronic checks that determine the application's acceptability and the path for processing. This may include a preliminary technical screening that helps to identify issues that require further assessment.

6.1 Prior Approvals and Other Requirements

Prior to submitting a facility licence all prior approvals must be in place and a copy of the approval or approval number included as part of the application. Gas processing plants, enhanced oil recovery projects and disposal wells require approval from the Engineering Services Branch of ECON. See the ministry website for further details on obtaining these approvals.

The facility design must comply with the requirements specified in The Oil and Gas Conservation Regulations, 2012, and other applicable guidelines, policies and standards.

If a licensee feels that an exemption to a standard condition as listed on part two of the facility licence is necessary, a letter of request can be submitted to the Petroleum Development Branch either prior to or with the facility licence application. If a request is made prior to submitting a facility licence, a copy of the approved exemption letter should be included with the licence application.

As part of the facility licence application, Emergency Response Information (ERI) is gathered for each facility. This information can be updated anytime by the licensee when the information is no longer current. Additionally, each licensee in the province is required to submit an acceptable Corporate Emergency Response Plan (ERP) to keep on file with the ministry. Licensee must have a Corporate Emergency Response Plan (ERP) and a facility specific Emergency Response Information (ERI) form for each licensed facility. Corporate ERP's should be retained by the licensee in their corporate records and where appropriate at their licensed facilities. ERP's should not be submitted to ECON head office in Regina. Digital copies of the Corporate ERP should be submitted to the appropriate ECON field office in electronic format. (Estevan, Lloydminster, Swift Current and Kindersley).

6.2 Cancellation Policy

Written notice to the Facility Licencing staff is required to cancel a facility licence. A licence expiry will also prompt a cancellation

6.3 Inactive Licence Expiry

A facility licence will expire because of inactivity. A new facility licence will expire two years from the date of issue if construction and notification of the upstream facility has not been completed. This means that within a two year time period, the facility must be at a stage where it is capable of performing the function that it was licenced to perform. After two years if construction is not completed or ECON was not notified of the completed construction, ECON will cancel the licence and remove it from the active records. It is the licensee's responsibility to ensure that the facility licence is still valid and has not expired prior to initiating any activity associated with the licence.

If an applicant intends to proceed with a project for which a licence has expired, it must fulfill all applicable regulatory requirements before filing a new application.

If an applicant does not intend to proceed with the licence, it must notify Facilities Licensing staff in writing and cancel the licence.

Due to the complexity of some developments, it is possible the applicant may not be able to complete construction before the two year expiry date. If a licence expiry is imminent, the applicant should contact Facilities Licensing staff for advice on how best to proceed.

6.4 Notification Policy

The ministry requires notification to ensure that a Facility Licence does not expire prematurely. Notification to the appropriate ECON Field Office is required when construction of the facility is complete. It is the licensee's responsibility to provide the notice of the completion of upstream facility construction prior to the two year expiry.

Appendix 1: Glossary

Applicant/Licensee The Company responsible for the accuracy and completeness of the application and all supporting information. Upon licence approval, the applicant becomes the licensee and bears responsibility for the construction and safe operation of the facility or well. The licensee is also responsible for the decommissioning, abandonment, and reclamation of the facility or well, including the leased area.

Battery See Oil Battery

Completed Construction The stage of development where a facility can be operated for the purpose in which it was licensed.

Compressor Station/Site Service equipment that receives natural gas from a well, battery or gathering system prior to delivery to market or other disposition and is intended to maintain or increase the flowing pressure of the gas, and includes any equipment for measurement.

Consultant A person or corporation authorized by an applicant to prepare its application. The applicant is still responsible for the accuracy and completeness of the application if filed on its behalf by a consultant.

Custom Treating Plant A system or arrangement of tanks and other surface equipment receiving oil/water emulsion exclusively by truck for separation prior to delivery to market.

Dehydrator Equipment designed to remove water from raw gas.

Design Capacity The maximum capable throughput of volumes based on the engineering design of all on-site equipment associated with the facility.

EOR Injection Facility A system or arrangement of surface equipment associated with the injection of different fluids and gasses through one or more wells for the purpose of enhanced oil recovery. EOR injection facilities include air injection, CO₂ injection, gas injection, steam injection or polymer injection facilities.

Emergency Response Plan (ERP) A comprehensive plan to protect the public and the environment during emergencies. The ERP includes: (i) criteria to assess an emergency situation; (ii) procedures to mobilize and deploy response personal and agencies; and (iii) procedures to establish communications and co-ordination.

Facility Any building, structure, installation, equipment, or appurtenance over which the ECON has jurisdiction and that is connected to or associated with the recovery, development, production, handling, processing, treatment, or disposal of hydrocarbon-based resources or any associated substances or wastes. This does not include wells or pipelines.

First Time Licensee An applicant for a licence who has not previously held a licence issued under *The Oil and Gas Conservation Regulations, 2012*.

Gas Battery A system or arrangement of surface equipment (including interconnecting piping) that receives the effluent from one or more wells that might provide measurement and separation, compression, dehydration, dew point control, H₂S scavenger where < 0.1 t/d of sulphur is being treated, line heater or other gas handling functions prior to the delivery to market or other disposition. This does not include gas processing equipment that recovers more than 2 m³/d of liquids or processes more than 0.1 t/d of sulphur.

Gas Processing The changing of the composition of raw natural gas either at processing facilities at the gas field or at straddle plants located on pipeline systems.

Gas Processing Plant A system or arrangement of equipment used for the extraction of hydrogen sulphide, helium, ethane, natural gas liquids, or other substances from raw gas; does not include a wellhead separator, treater, dehydrator, or production facility that recovers < 2 m³/day of hydrocarbon liquids without using a liquid extraction process (e.g., refrigeration, desiccant). In addition, does not include an arrangement of equipment that removes small amounts of sulphur (< 0.1 tonne/day) through the use of nonregenerative scavenging chemicals that generate no hydrogen sulphide or sulphur dioxide.

Hydrogen Sulphide (H₂S) A naturally occurring gas found in a variety of geological formations and also formed by the natural decomposition of organic matter in the absence of oxygen. H₂S is colourless, heavier than air, and extremely toxic. In small concentrations it has a rotten egg smell and causes eye and throat irritation.

Licensee The holder of a facility, pipeline, or well licence according to the records of ECON; includes a trustee or receiver-manager of property of a licensee (also see Applicant).

LPG Storage Facility A facility used primarily to store liquefied petroleum gasses (LPG) in pressurized storage vessels.

Licence Liability Rating (LLR) is a ratio of deemed asset versus deemed liability as specified in the Regulations.

Multi Well Facility A facility handling production from more than one pipelined well at one surface location; multiple single-well facilities operated within one surface lease.

Multi Well Swabbing Oil Battery A central storage facility used to store emulsions from two or more swab wells.

Oily Byproduct Storage Used for temporary storage of materials contaminated with produced fluids, constructed in accordance with *Guidelines for construction and monitoring of Oily Byproduct Storage Structures in Saskatchewan, GL 97-01*.

Oil Battery A system or arrangement of tanks or other surface equipment or devices receiving the effluent of one or more wells for the purpose of separation and measurement prior to the delivery to market or other disposition.

Operator A person or company that has control of or undertakes the day-to-day operations and activities of a facility, pipeline, or well, whether or not that person is also the licensee for the facility, pipeline, or well.

Processing Equipment Equipment used for the extraction of components such as water, H₂S, and liquids from gas or oil.

Process Vessel A heater, dehydrator, separator, treater, and any vessel used in the processing or treatment of produced gas or oil.

Satellite An arrangement of surface equipment (not including oil storage tanks) located some distance between a number of wells and the main battery that will receive the effluent, that separates and measures the production from each well, after which the fluids are recombined and piped to the main battery for further treatment; may include water handling equipment.

Sour Gas Contains H₂S in concentration greater than 1000 parts per million (ppm) or 1 mol/kmol as measured at the source (inlet header, tank vent, etc...) or concentration greater than 10 ppm or .01 mol/kmol measured at the edge of the lease or property boundary.

Tank A device designed to contain materials produced, generated, and used by the petroleum industry that is constructed of impervious materials.

Water Injection/Disposal Facility A system or arrangement of surface equipment associated with the injection or disposal of water through one or more wells for the purpose or disposal or reservoir pressure maintenance.

Waste Processing Facility A system or arrangement of tanks or other surface equipment receiving waste material for processing and disposition from any gas, oilfield, or oil sands operations.

Water Source Facility A system or arrangement of equipment used to collect water from an above or below ground source for use in recovery, development, production, handling, processing, treatment, or disposal of hydrocarbon based resources.

Appendix 2

This appendix specifies the requirements for filing a Facility Licence Application (ECON-47) for an upstream oil and gas industry facility.

Application Information and Completeness Check

The purpose of this section is to have a one page summary of the information that is being submitted and who is submitting that information. It is intended that a licensee use this page to ensure all of the necessary information is being sent with the application. ECON will be using this page to quickly scan the application for completeness and decide whether to accept or reject the application for review purposes only.

Applicant Information

Enter the full name of the company that will own the proposed facility and the mailing address that will be used if the licence needs to be returned. The company or agent contact should be an individual that can answer questions about the licence application and the telephone number, fax number and e-mail address should all correspond to that individual.

Completeness Check

Check the boxes corresponding to the completed sections of the licence application form and the supplementary information (surveys, diagrams or fees) included. Note: Some sections of the form will only apply to certain types of facilities therefore it is not expected that every box should be checked. The licensee should use this portion as a review to ensure that they are sending all the required information. Please note that an incomplete application may be returned.

Process Flow Diagram

The applicant must attach a process flow diagram (PFD) for each facility application.

- b) The PFD must identify all existing and proposed equipment at the facility.
 - i. For licence amendments, the applicant must identify the new equipment proposed for installation on a full-site PFD; a partial PFD is not acceptable.
 - New equipment must be identified in the legend and annotated on the diagram.
 - Equipment designated for removal by the application must also be clearly identified.
 - c) The applicant must clearly identify the following on the PFD:
 - i. process equipment
 - ii. measurement points
 - iii. storage vessels and tanks (including pop tanks)
 - iv. source(s) of all inlet/receipts and/or deliveries, including all fuel lines, flare lines, and vent points
 - v. safety equipment (i.e., location of emergency shutdown device [ESD] block valves and depressure points)

Typical diagrams are acceptable, providing that they accurately represent the actual operations of the facility and contain the correct location and applicant name. Piping and instrumentation diagrams (PIDs) should be submitted if available at the time of application.

Equipment Spacing Diagram

A site specific diagram identifying the surface area required for the facility and the proposed equipment, including but not limited to, the lease area, the access road point of entry including proposed fencing and/or access control measures, and how the access continues past the facility site if applicable, the equipment layout with distances shown in meters, (for example all storage tanks, buildings, compressors, flare stacks, flare knock out drums, line heaters, pump jacks, etc), all wellhead positions (clearly labelled by location), where the riser/pipeline starts and ends on a site and how it leaves the site going into the right-of-way. Fencing and/or gates must also be shown on the plot plan.

Survey

As a minimum, a facility survey plan must:

- be in a scale acceptable to the minister;
- be prepared from a survey made by a Saskatchewan Land Surveyor, within the meaning of The Land Surveyors and Professional Surveyors Act;
- be dated, certified, and signed by the surveyor, with the signature duly witnessed;
- show the location of the proposed facility lease in relation to:
 - the boundaries of the section;
 - water bodies;
 - mines, whether worked or abandoned;
 - existing wells and abandoned wells;
 - roadways, road allowances, railways, pipelines, power lines, and any other right of way;
 - aircraft runways or taxiways; and
 - structures of every kind within a radius of 500 metres of the proposed facility site;
- show the elevation of the facility site and the locations of:
 - the surface lease boundaries;
 - the access road; and
 - the target area (if applicable);
- have all measurements and distances tied to:
 - a surveyed monument or evidence of a surveyed monument in a surveyed area; or
 - a surveyed base line, or
 - some prominent topographical feature acceptable to the minister in an unsurveyed area;
- state in the legend the true East/West and North/South co-ordinates of the well site relative to the initial reference point (section corner monument, surveyed base line, etc.) used in the survey;
- existing wells and abandoned wells within the drainage unit(s) from which the proposed well is intended to produce;
- state in the legend the latitude and longitude of the well site, in North American Datum 1983 (NAD83).

Section 1: Participant Involvement Requirements

1. **Distance to the nearest occupied dwelling?** Enter the distance in metres from the edge of the facility to the nearest occupied dwelling.
2. **Distance to the nearest public facility?** Enter the distance in metres from the edge of the facility to the nearest public facility.
3. **Is the applicant a good standing member of a Spill Response Unit?** Answer yes or no accordingly as to whether the licensee is a member in good standing with a Spill Response Unit.

Section 2: Application Type

Enter an "x" in the appropriate box that best describes what type of application for a facility licence is being submitted. If the type of application does not fit any of the descriptions check the last box and describe the situation.

New Licence

The upstream facility that is being licensed has not been built yet and has never been licensed by ECON.

Licence Amendment

A licensed facility is making a change that will cause the facility type to change, a switch from sweet to sour service, sub-divide the facility into more than one facility or increase the design throughput of an Oil Battery, Gas Plant or Injection Facility.

Section 3: Facility Type

Facility Location

The facility location is best described by entering the legal subdivision (LSD), section (SEC), township (TWP), range (RGE) and meridian that the facility is located in.

LSD

Pertains to the LSD in which the facility is located. Single digit LSD's shall be preceded by a zero. The numbers 01 to 16 can appear in the LSD columns.

Section

This position is allotted for the number of the section in which the facility is located. Single numbered sections will have a preceding zero. The numbers 01 to 36 can appear here.

Township

This position indicates the number of the township in which the facility is located. The first digit is a constant 0 therefore township 1 is indicated as 001 up to and including township 99 indicated as 099.

Range

This position indicates the number of the range in which the facility is located. The numbers 01 to 34 can appear here.

Meridian

This position indicates that the well is drilled west of a certain meridian. In Saskatchewan this column will indicate 1, 2, or 3.

Lease Size

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

MRO Number

Enter the Minister's Order (MRO) number if the facility required this type of approval prior to making application for a licence.

ECON Designated Field Area

Enter an "x" in the box that corresponds to the appropriate ECON Field Area in which the facility is located. A map defining the field areas can be found on Sakstachewan.ca.

ECON Facility Type Code

Enter the ECON facility type code. A list of the codes can be found in Appendix III of the Facility Licence Guideline. If the facility in question will have more than one facility type at the location, enter each facility type in the space provided. A facility licence number will be assigned to each process.

Description of Facility Type

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

Section 4: Facility Design Criteria

Total Design Inlet Rates

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

Estimated Total Recovered Products

For gas processing plants only, enter the maximum daily design rates of all applicable recovered and sales products to two decimal places, in the units specified.

SECTION 5: GAS TREATING/PROCESSING INFORMATION

Sweetening Process

Enter an "x" in the appropriate box to indicate the type of sweetening process used. Enter an "x" in the N/A box if a sweetening process is not applicable to the facility being licensed.

Acid Gas

Enter the maximum daily design rate of acid gas (hydrogen sulfide (H₂S) and carbon dioxide (CO₂)) removed from the sour gas inlet stream to two decimal places, in thousand cubic metres per day. Enter the H₂S content of the acid gas stream to two decimal places, in moles per kilomole (mol/kmol). To convert parts per million (ppm) H₂S or percent (%) H₂S to moles per kilomole H₂S use the following equations:

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

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

Enter an "x" in the appropriate boxes 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.

Sulphur Recovery

Enter an “x” in the appropriate boxes for all sulphur recovery processes used. If you indicate “other” provide a brief description and attach details of the process. Enter the sulphur recovery efficiency to one decimal place, as a percentage or specify if the question is not applicable.

Section 6: H2S Information

Maximum H2S Content of Inlet Gas/Fluid

Enter the estimated maximum H2S content of the raw inlet gas/fluid to two decimal places, in moles per kilomole. For facilities with multiple inlet streams, use the value from the inlet stream with the highest estimated H2S content. The following equations can be used to convert to mol/kmol H2S:

$$\text{mol/kmol H2S} = (\text{ppm H2S})/1000$$

$$\text{mol/kmol H2S} = (\% \text{ H2S}) * 10$$

Maximum Continuous Sulphur Emission Rate (estimate)

Enter the estimated maximum continuous sulphur emission rate to two decimal places, in tonnes per day. This number should represent the sum of the sulphur content of the tail gas emission from a sulphur recovery process, continuous acid gas flaring/incineration, emissions from produced water tanks, and continuous or routine flaring/incineration of gas containing H2S. This number however, does not include sulphur emissions from infrequent emergency or maintenance flaring/incineration.

Section 7: Continuous Emissions

NOx Emissions (estimate)

Enter the estimated nitrogen oxide (NOx) emission rate from the facility to two decimal places, in kilograms per hour.

CO2 Emissions (estimate)

Enter the estimated CO2 emission rate from the facility to two decimal places, in tonnes per day.

Maximum Continuous Flaring/Incineration Rate (estimate)

Enter the estimated maximum rate of continuous flaring or incineration occurring at the facility to two decimal places, in thousand cubic metres per day.

Maximum Continuous Venting Rate (estimate)

Enter the estimated maximum continuous rate of venting occurring at the facility to two decimal places, in thousand cubic metres per day.

If flaring is greater than .9 10³ m³/day provide the S-10 approval authorization number (this must be obtained prior to submitting Facility Licence Application)

This is the approval authorization number generated through IRIS when the S-10 Economic Evaluation application is approved. This is required to be obtained prior to submitting the facility application.

Section 8: Cumulative Gas Handling Information

Maximum Continuous Flaring/Incineration Rate (estimate)

Enter the estimated maximum rate of continuous flaring or incineration occurring at the facility to two decimal places, in thousand cubic metres per day.

Maximum Continuous Venting Rate (estimate)

Enter the estimated maximum continuous rate of venting occurring at the facility to two decimal places, in thousand cubic metres per day.

Recovered Gas Used as Lease Fuel (estimate)

Enter the estimated recovered gas rate used as lease fuel at the facility to two decimal places, in thousand cubic metres per day.

Gas Delivered to Market/Injected (estimate)

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 cubic metres per day.

Section 9: Natural Gas Compressors

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:

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

Power Source

Enter an "x" to indicate the appropriate driver source for each natural gas compressor unit proposed for installation at the facility.

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. Using the check box, indicate whether a separate table has been attached to the licence application that provides more detail on the compressors. This check box can also be used if there are more natural gas compressors in the facility than the table has rows available for entry. In that case, please ensure that the table attached has, at minimum, the requirements as listed in the table in section eight of the licence application. Enter individually, the total number of natural gas powered, electric powered and other-powered natural gas compressors located on site. Also provide the total on-site compressor/ pump wattage in kilowatts.

Section 10: Detailed Material Handling History (Note: this section applies to existing facilities only)

- 1. Has an environmental site assessment been completed at the site of this facility?**
 - YES means that an environmental site assessment has been completed at the site. If YES, the remaining portion of this section does not have to be completed.
 - NO means that an environmental site assessment has not been completed for the site. If NO, complete the following questions.
- 2. Are you currently storing/using PCB containing equipment?**
 - YES means that currently the facility is storing or using polychlorinated biphenyl (PCB) containing equipment.
 - NO means that currently the facility is not storing or using PCB containing equipment.
- 3. Are you currently storing/using asbestos containing equipment?**
 - YES means that currently the facility is storing or using asbestos containing equipment.
 - NO means that currently the facility is not storing or using asbestos containing equipment.
- 4. Have you ever had PCB spills in reportable quantity (1kg)?**
 - YES means that the facility lease has had a PCB spill in a quantity greater than 1kg.
 - NO means that the facility lease has not had a PCB spill in a quantity greater than 1kg.
 - DON'T KNOW means that this information is unknown.
- 5. Is there open or buried earthen or flare pits?**
 - YES means that currently the facility lease contains open or buried earthen or flare pits.
 - NO means that currently the facility lease does not contain open or buried earthen or flare pits.
 - DON'T KNOW means that this information is unknown.
- 6. Are you currently storing Naturally Occurring Radioactive Materials (NORM)?**
 - YES means that currently the facility or the facility lease is storing NORM.
 - NO means that currently the facility or the facility lease is not storing NORM.
- 7. When was the last time a chemical sterilant was used at the facility?**
 - NEVER means that a chemical sterilant was never used at the facility or the facility lease.
 - If a sterilant was used at the facility or the facility lease, enter the year in which the sterilant was used. -DON'T KNOW means that it is unknown if a sterilant was used.

Section 11: Detailed Facility Emergency Response Information

Company Contact Information

Enter a 24 hour company emergency dispatch number.

Enter the full name of the facility contact person or operator of the facility with their 10 digit work telephone number, fax number, cellular phone, home number and an email address.

Enter if available, the full name and contact information for two more emergency company contacts that can be reached 24 hours a day, 7 days a week.

Local Emergency Contact Information

Enter a name (if available) and a 10 digit phone number (24 hour line, if available) for the local emergency agencies as listed and include other agencies on the form or a separate page if necessary. As a minimum, the Facility Operator, local fire department and the local police/RCMP contact information must be entered.

Standard Conditions and Approval Provisions

- 1. This licence does not grant surface right of entry.**
The licensee is responsible for securing surface access rights from the landowner prior to construction of a facility.
- 2. Construction on the facility shall be completed within two years from the date of issue. Notice of completion must be provided to the ministry by the licensee.**
If the facility has not been completed within two years after the licence approval date, the facility licence may be cancelled. An extension may be granted from the ministry upon request of the licensee prior to the two year deadline.
- 3. The Licensee shall notify the ministry local field office of the completion of facility construction within 48 hours after the completion.**
Completed construction is defined as the point in time when the facility can be used for its intended purpose. Notice of completion for a facility can be made to the appropriate ECON area field office.
- 4. Licensee shall notify the rural municipality prior to starting construction.**
A listing of municipalities and their respective contact information contact can be found at <http://www.municipal.gov.sk.ca/Programs-Services/Municipal-Directory>
- 5. Equipment spacing requirements must be met, in accordance with the Storage Standards Guideline S-01, Appendix 2.**
- 6. Within 30 days after construction has been completed, the licensee must submit to the ministry an as-built equipment spacing diagram, a process flow diagram and an as-built survey (if different from the originals submitted).**
Only re-submit documents that differ from ones originally submitted with the Facility Licence Application.
- 7. Operators shall provide an appropriate secondary containment system for storage tanks in accordance with the Storage Standards Guideline S-01 and the facility must be constructed with a perimeter berm if prescribed by the minister.**
Details on storage and berm requirements can be found in the Saskatchewan Upstream Petroleum Industry Storage Standards (S-01).
- 8. Setback requirements must be met in accordance with the Storage Standards Guideline S-01, Appendix 1.**
- 9. If the facility has a total daily fluid design throughput less than 350 cubic metres, it must not be constructed within 100 metres of an occupied dwelling, public facility or urban centre. If the facility has a total daily fluid design throughput volume equal to or greater than 350 cubic metres but less than 500 cubic metres per day, it must not be constructed within 300 metres of an occupied dwelling, public facility or urban centre unless a request for an exemption is provided with the facility licence application and is subsequently approved by the ministry.**
Further detail regarding these setback requirements can be found in the Saskatchewan Upstream Petroleum Industry Storage Standards (S-01).

10. The following facilities:

- a. an upstream facility with a total daily fluid design throughput volume greater than 500 cubic metres per day;
- b. a compressor station with a combined power rating of the compressor(s) greater than 186.5 kw (250hp);
- c. a gas processing plant;
- d. a waste processing facility
- e. any facility, excluding a satellite, where [H₂S] concentration of inlet gas/fluid is equal to or greater than 10 mol/kilomol as measured at the source of emission or 0.01 mol/kilomol as measured at the edge of the lease; or
- f. a facility venting and/or flaring greater than 900 cubic metres of gas per day must not be constructed within 500 metres of an occupied dwelling, public facility or urban centre unless an exemption was provided by the ministry and a copy of that exemption included with that facility licence application.

11. The facility must not be situated on land that floods more frequently than 1 in 100 years.

12. Oilfield waste management requirements must be met, in accordance with the Waste Management Guidelines, SPIGEC 1.

13. Ministry of the Economy (ECON) storage requirements must be met, in accordance with the Storage Standards Guideline S-01.

Details of storage requirements can be found in the Saskatchewan Upstream Petroleum Industry Storage Standards (S-01).

14. Upstream products or chemicals used in conjunction with the facility must be stored by methods prescribed by the minister.

Details regarding the storage of these products can be found in the Saskatchewan Upstream Petroleum Industry Storage Standards (S-01).

15. Licensee must have a Corporate Emergency Response Plan (ERP) and a facility specific Emergency Response Information (ERI) form for each licensed facility. Corporate ERP's should be retained by the licensee in their corporate records and where appropriate at their licensed facilities. ERP's should not be submitted to Ministry of the Economy (ECON) head office in Regina. Digital copies of the ERP and facility specific ERI forms should be submitted to the appropriate ECON field office in electronic format. A Corporate Emergency Response Plan (ERP) for each licensee and a facility specific Emergency Response Information (ERI) form for each licensed facility (Section 10 of the Upstream Oil and Gas Facility Licence) must be filed with the ministry and kept current.

16. In the event of an incident involving the facility, the Corporate ERP is to be followed by all parties.

17. The facility must meet all current TSASK, SaskPower, SaskEnergy, TransGas, Saskatchewan Watershed Authority, R.M., CSA, API, ULC, OH&S, Ministry of Environment and Ministry of Highways and Transportation standards and any other applicable standards.

18. The licensee of the facility must be a member in good standing with the local spill response unit.

A copy of a registration or membership in a local spill response unit should be included with the facility licence application.

19. Flaring and venting requirements must be met in accordance with the Associated Gas Conservation Standards, Directive S-10. For any sites that have combined routine flaring and venting volumes greater than 900 cubic metres day, conservation economics must be evaluated and updated every 12 months. Licensees are not required to provide copies of evaluations to ECON unless requested. Upon request, licensee must provide the evaluation to ECON within 5 working days.

Details of flaring and venting requirements can be found in the Saskatchewan Associated Gas Conservation Standards (S-10).

20. Flaring and incineration requirements must be met in accordance with Flaring and Incineration Specifications, Directive S-20 .If applicable, a vapour recovery unit must be implemented at the facility.

Details of flaring and incineration requirements can be found in the Saskatchewan Flaring and Incineration Specification (S-20).

21. Ministry of Economy (ECON) production measurement requirements must be met.

22. Applicable facilities must comply with the Saskatchewan Upstream Petroleum Industry Guideline to Reduce Emissions from Glycol Dehydrators S-18 and submit an annual dehydrator benzene inventory list.

A copy of the annual dehydrator benzene inventory list can be found on the ECON website.

23. The licensee must obtain a facility ID from PETRINEX in accordance with section 105 of The Oil and Gas Conservation Regulations, 2012.

Additional information can be found on Saskatchewan.ca

24. The licensee must comply with any special conditions that may be attached as Part Three of this licence.

Exemptions

Are there any exemptions to the standard conditions as listed on part two of this application being requested?

- YES means that there are exemptions to the standard conditions as listed on part two of this application. If YES, complete the exemption table. In the left-hand column indicate the condition number that the exemption relates to. In the right-hand column please provide a brief description of the situation or reason for the exemption. The letter of request for the exemption must be attached with the licence application.
- No means that the facility conforms to all the conditions of the licence and therefore no exemptions are needed.

Note: Though it is the preference of ECON to have requests for exemptions submitted at the time of licensing, it is realized that situations may occur in which prior approval is necessary. In cases where an exemption is pre-approved.

Appendix 3: Facility Type List

| <u>Facility Type Code</u> | <u>Description</u> |
|----------------------------------|-----------------------------------|
| B | MULTI WELL OIL BATTERY |
| BW | MULTI WELL SWABBING OIL BATTERY |
| GC | GAS COMPRESSION FACILITY |
| H | MULTI WELL GAS BATTERY |
| IE | EOR INJECTION FACILITY |
| IW | WATER INJECTION/DISPOSAL FACILITY |
| L | LPG STORAGE FACILITY |
| OB | OILY BYPRODUCT STORAGE |
| R | CUSTOM TREATING PLANT |
| V | WASTE PLANT/RECLAIMER/SKIM OIL |
| W | WATER SOURCE FACILITY |
| Y | GAS PROCESSING PLANT |
| Z | INJECTION/PRODUCTION SATELLITE |