Facility Licence Requirements

Directive PNG001

January 2023

Revision 1.2

Governing Legislation:

Act:	*The Oil and Gas Conservation Act*
Regulation:	*The Oil and Gas Conservation Regulations, 2012*
Order:	95/20

Record of Change

Revision	Date	Description
0.0	April, 2014	Initial draft
1.0	November, 2015	Update due to implementation of the Integrated Resource Information System (IRIS) in 2015. This replaced the former Facility Licence Guideline and Facility Licence Instructional Directive documents.
1.1	June, 2020	Update due to implementation of new IRIS facility licence application.
1.2	January, 2023	Consequential amendment to remove reference to payment of $10,000 orphan fund fee by licensees in section 2, as this requirement has been repealed from *The Oil and Gas Conservation Regulations, 2012* (section 16) effective January 1, 2023.

Contents

1. Introduction

This Directive outlines the obligations that organizations must meet to license facilities in Saskatchewan. The requirements of this Directive are reflected in the Integrated Resource Information System (IRIS).

Persons wishing to apply for a facility licence should be aware of and in compliance with the requirements of this Directive. Further information on licence applications and how to use IRIS to submit an application may be found in *Guideline PNG001: Facility Licensing Process* (Guideline PNG001).

As stated in section 8.01(1) of *The Oil and Gas Conservation Act* (OGCA), no person shall without a licence authorizing that activity, construct, alter, operate, suspend the operation of or abandon an upstream facility.

1.1. Governing Legislation

The requirements outlined in this Directive are authorized under and supported by:

- The OGCA
- *The Oil and Gas Conservation Regulations, 2012* (OGCR)
- Associated Directives and Guidelines
  - *Directive S-01: Saskatchewan Upstream Petroleum Industry Storage Standards* (Directive S-01)
  - *Directive S-20: Saskatchewan Upstream Flaring and Incineration Requirements* (Directive S-20)
  - *Directive PNG032: Volumetric, Valuation and Infrastructure Reporting in Petrinex* (Directive PNG032)
  - *GL 97-01: Guidelines for Construction and Monitoring of Oily Byproduct Storage Structures in Saskatchewan* (Guideline GL 97-01)
  - *Guideline S-18: Reduce Benzene Emissions from Glycol Dehydrators* (Guideline S-18)
  - Guideline PNG001

2. Applicant Responsibilities

An applicant is responsible for:

- Having an IRIS account and the appropriate permissions assigned by IRIS Security Administrator.
- Being registered through Information Services Corporation (ISC) to do business in Saskatchewan.
- Completing the applicable Saskatchewan Environment Environmental Assessment process. Please refer to the Ministry of Environment (ENV) webpage for details.
- Obtaining applicable municipal permits and approvals.
- Obtaining a surface lease access agreement.
- Complying with any other regulatory requirements.
- All aspects of a facility application including planning, retaining and submitting the application with supporting documents.

- Once the facility infrastructure has been built, the licensee must obtain a Facility ID from PETRINEX in accordance with *Directive PNG017: Measurement Requirements for Oil and Gas Operations*.
- 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 the Ministry of Energy and Resources (ER), 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 ER 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 ER 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 applicant/licensee is required to fulfill an obligation on the licence in IRIS to notify ER when facility construction is completed.

3. Applicable Facilities and Exemptions

3.1. Applicable Facilities

The following types of permanent upstream facilities must be licensed:

- Multi-well Oil batteries;
- Multi-well Gas batteries;
- Multi-well Swabbing Oil Battery;
- Water Injection/Disposal Facilities;
- Enhanced Oil Recovery (EOR) injection facilities;
- Injection/Production Satellites;
- Gas Processing Plants;
- Gas Compression Facilities
- Waste Plant/Reclaimer/Skim Oil;
- LPG Storage Facility;
- Oily Byproduct Storage;
- Custom Treating Plant;
- Water Source Facility; and
- Any other upstream facilities designated by the Minister.

Each one of the above-noted upstream facilities requires a licence issued by ER. Multiple types of facility licences can be issued at one surface location. Refer to *Appendix 1: Facility Type List* for a list of applicable facilities and their corresponding ER 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 required;
- Replacing measurement and separation equipment;
- 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 compression to an existing licensed facility 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 design capacity of the facility is not increased and if the additional storage tanks added meet requirements set out in Directive S-01; and
- Any other activities designated by the Minister.

If the activity does not trigger a formal facility licence amendment, the updated equipment spacing and process diagrams should be updated on the site licence in IRIS.

4. Facility Licences

An Upstream Oil and Gas Facility Licence is a licence to construct and operate an upstream oil and gas facility. When an application is received in IRIS, the application will follow one of two processes:

- Routine: the information provided is of a routine nature and is automatically approved when submitted; or

- Non-routine: the information does not meet the criteria for a routine application and must be reviewed by ER.

Whether an application is routine or non-routine depends on the information provided by the applicant and how the applicant enters the information into IRIS. For validation purposes, any routine application may be audited for correctness. If an error has been made in the routine application, the applicant will be contacted and notified of the errors and/or omissions that require addressing.

4.1. Facility Infrastructure ID, Facility Infrastructure Status and Facility Site ID

A single facility licence or a combination of facility licences issued at the same surface location to an individual licensee is considered a site and each site is issued a facility site ID. Each facility licence is issued a facility infrastructure ID.

The facility infrastructure ID status represents the state of the physical facility. This includes:

- Planned;
- Built;
- Operating; or
- Decommissioned.

The corresponding facility licence status is:

- issued for as planned, built and/or operating;
- cancelled when, for example, the licence application was entered in error, no work was completed in the two-year time frame; or
- suspended.

4.2. Prior Approvals and Other Requirements

Prior to submitting a facility licence, all authorizations for disposal wells and enhanced oil recovery projects must be in place. These authorizations must be entered in the facility application. See the ER website for further details on obtaining these approvals.

The facility design must comply with the requirements specified in the OGCR and other applicable guidelines, policies and standards.

If the facility will not be compliant with one or more requirement set forth in this Directive, Directive S-01 or Directive S-20, an exemption will be applied for during the facility application process. Requirements for an exemption request may also be determined through the disclosure questions or declarations in the facility application. Information on facility exemptions is discussed in section 2.6 of Guideline PNG001.

As part of the facility licence application, an emergency contact number is required for each facility. This information is required to 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 ER. The licensee must have a Corporate ERP and an emergency contact number for each licensed

facility. Corporate ERPs must be retained by the licensee in their corporate records and where appropriate at their licensed facilities. Digital copies of the Corporate ERP should be submitted to the appropriate ER Field Office (Estevan, Lloydminster, Swift Current and Kindersley) in electronic format.

As part of a facility ERP, an optional emergency planning zone (EPZ) may be calculated for a facility. If the H_2S concentration of the facility is 1 mole/kilomole (mol/kmol) or greater, the EPZ may be calculated for the facility as per section 2.3.4 of Guideline PNG001.

4.3. Application Requirements

The following is a list of information that may be required with a facility licence application:

- Audit
- Consent
- Dispersion Air Quality Assessment
- Exemption
- Gas Processing Plant Application
- Process Flow Diagram
- S-20 Compliance
- Site Survey
- Spacing Diagram
- Waste Processing Facility Application
- WIP File
- Other

Applicants are responsible for submitting the appropriate documentation when applying for a licence. For more information on requirements for the documents to be submitted, refer to Appendix 2: Facility Licensing Document Requirements.

4.4. Retrospective Facility Licence (RFL)

Retrospective facilities are those that existed, were under construction, or licensed 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:

- When there is a licence or site amendment; or
- When there is an infraction or non-compliance.

4.5. New Facility Licence

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 facility or any existing facility not previously licensed under the retrospective facility licence program prior to June 19, 2007.

4.6. Facility Licence Amendment

A facility licence amendment must be submitted when there is a change in the facility site such as increasing the flare rate, an increase in the H_2S concentration, adding an additional facility licence type to an existing licensed facility site or an increase of the design inlet rate.

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

When a facility licence is being amended, the applicant will amend all facility licences associated with a facility site.

4.7. Facility Licence Resubmission

A licence resubmission is required if a previous licence application was denied.

4.8. Facility Infrastructure Decommissioning

When a facility is at the end of life and the equipment has been removed, an application to decommission the facility infrastructure can be submitted. If the facility was never constructed, the licence must be cancelled.

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 to be decommissioned. The wells that will remain in operation must have their own facility code or be attached to a different operating facility code. The facility code the wells are attached to must reflect where the oil being produced by the well is being sent.

In order to decommission a facility infrastructure, the following must be supplied:

- A short summary of the application;
- The associated wells must be abandoned or attached to a new facility infrastructure ID;
- Cover letter that includes:
  - the type and location of the facility;
  - a request to change the status of the facility infrastructure to decommissioned and that the abandonment liablity be set to zero; and
  - the signature of an official within the company.
- Legal land survey;
- 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.

Guideline PNG001 describes the necessary steps to enter the information for this application type into IRIS.

4.9. Waste Plant/Skim Oil/Reclaimers (Waste Processing Facilities)

As part of the application for a Waste Processing Facility (WPF), which is included in the facility licence type "Waste Plant/Skim Oil/Reclaimer", the licensee must specify the wastes they are applying to receive. The specified wastes will be included on the waste acceptance list approval. The approval will utilize the waste types specified in Tables 7.3 and 7.4 of Directive PNG032. Refer to section 7 of Appendix 2: Facility Licensing Document Requirements for further information.

4.10. Waste Processing Facility Conditions

WPFs are environmentally sensitive installations that have oversight provided by more than one ministry. The following conditions must be met in order to operate a WPF in Saskatchewan:

1) The company is approved to receive, store and process materials approved on the facility licence.
2) Waste screening procedures shall be implemented in accordance with the licence.
3) The company shall incorporate appropriate security measures such as a fenced perimeter surrounding the facility to prevent unauthorized access. Warning signs that contain the operating company's name, the legal land description and a 24-hour telephone number that can be used in the event of an emergency shall be posted.
4) The company shall incorporate handling procedures to minimize tracking of waste materials on surface of the facility.
5) If applicable, the construction and operation of an Oily Byproduct Storage Structure (OBSST) at the facility shall be in accordance with Guideline GL 97-01. Unprocessed oily byproducts at the facility shall be stored in the OBSST.
6) Solids recovered at the facility must be transported for offsite disposal at an approved disposal facility.
7) Permanent groundwater monitoring wells (minimum of three – two upgradient and one downgradient) shall be installed around the perimeter of the facility.
8) Any change(s) to the facility which may affect the overall process or impact the environment requires prior approval from ER and/or any other agency having jurisdiction in relation to the change(s).
9) The company shall conduct groundwater monitoring annually and test for pH, conductance, total dissolved solids, hardness, alkalinity (HCO_3, CO_3), Ca, Mg, Na, K, Cl, SO_4, NO_3+NO_2 and total extractable hydrocarbons.
10) The company shall carry out regular inspections of the facility, containment systems and equipment for leaks or failures and conduct required pressure testing, mechanical integrity testing and/or visual inspection of pipelines and storage devices.
11) The company shall submit monthly reports to ER through the Petroleum Registry in accordance with section 105 of the OGCR.
12) The annual report obligation must be fulfilled in IRIS annually on or before March 31, for the period from, January 1 to December 31, the previous calendar year. The report is to include:
    a. description of abnormal occurrences and corrective measures;
    b. groundwater monitoring data as required in condition 7; and
    c. maintenance and inspection records as required in condition 10.

4.11. Gas Processing Plants

When applying for a gas processing plant, an additional attachment is required. Refer to section 8 of Appendix 2: Facility Licensing Document Requirements for further information on the gas processing plant application.

5. Cancellation Policy

To cancel a facility licence, contact ER Service Desk at ER.Servicedesk@gov.sk.ca or 1-855-219-9373. A licence expiry will also prompt a cancellation.

6. 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 ER is not notified that construction of the facility has 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 licensed to perform. After two years, if construction is not completed and/or ER was not notified of the completed construction, ER will cancel the licence and remove it from the active records. The licensee is responsible to ensure that the facility licence is still valid prior to initiating any activity associated with the licence.

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

If an applicant does not intend to proceed with the licence, they may also contact the ER Service Desk to request a cancellation of the licence.

Due to the complexity of some developments, 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 er.facility@gov.sk.ca for advice on how best to proceed.

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 "Multi Well Oil Battery".

Community Water Well: A well for the purpose of obtaining ground water, owned by a community.

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

Emergency Planning Zone (EPZ): Is a geographical area surrounding a well, pipeline, or facility containing hazardous product that requires specific emergency response planning by the licensee.

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.

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, CO_2 injection, gas injection, steam injection or polymer injection facilities.

Facility: Any building, structure, installation, equipment, or appurtenance over which ER 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.

Facility Infrastructure status: Represents the physical state of the corresponding facility licence as proposed, built, operating or decommissioned.

Facility Licence: Is a licence granted by ER to build and operate the facility applied for.

Facility Licence status: Reflects state of the licence as issued, suspended or cancelled.

Facility Site ID: Encompasses all facility types and facility related equipment on one surface lease. Distance to nearest occupied dwelling, public facility, total design inlet rates, H_2S concentration, emission rates, and gas handling rates are related to the facility site and not to a specific facility licence within the facility site.

First Time Licensee: An applicant for a licence who has not previously held a licence issued under the OGCR.

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, H_2S scavenger where < 0.1 t/d of sulfur 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 m^3/d of liquids or processes more than 0.1 t/d of sulfur.

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 sulfide, 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 m^3/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 sulfur (< 0.1 tonne/day) through the use of nonregenerative scavenging chemicals that generate no hydrogen sulfide or sulfur dioxide.

Hydrogen Sulfide (H_2S): 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. H_2S 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 ER; includes a trustee or receiver-manager of property of a licensee (also see “Applicant/Licensee”).

Licence Amendment: A change that will cause the licensed 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.

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

Major Water Body: Means a water body that includes, but is not limited to a lake, river, creek, stream, or other body of water that is fish bearing.

Minor Water Body: Means a water body that includes, but is not limited to field/seasonal drainage, a water run, an irrigation ditch, a slough, a wet low area(s), or an area that may potentially flood (e.g. dry sloughs, slow areas, etc.).

Multi Well Facility: A facility handling production from more than one pipelined well at one surface location.

Multi Well 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.

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

New Licence: The upstream facility that is being licensed but has not been built yet and has never been licensed by ER.

Occupied dwelling: Means a building occupied by a person on a temporary or permanent basis.

Oily Byproduct Storage: Used for temporary storage of materials contaminated with produced fluids, constructed in accordance with Guideline GL 97-01.

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.

Private Water Body: Means a water that belongs to an individual or group (e.g. a dugout).

Private Water Well: A well that provides drinking water and is considered private property.

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

Processing Equipment: Equipment used for the extraction of components such as water, H_2S, and liquids from gas or oil.

Right of Way: Is an easement reserved from the land for a surface improvement.

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.

Surface Improvement: A railway; an above-ground pipeline; a canal; an above-ground power, telephone, or other utility line; a road allowance; a surveyed roadway; an aircraft runway or taxiway.

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

Underground Utility: Includes, but is not limited to, pipelines, Saskatchewan water lines, power cables, etc.

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 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.

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 1: Facility Type List

Facility Type Code	Description
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

Appendix 2: Facility Licensing Document Requirements

1. Process Flow Diagram

The applicant must attach a process flow diagram (PFD) for each facility application. Piping and instrumentation diagrams (P&IDs) should be submitted. The PFD must identify all existing and proposed equipment at the facility.

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.

The applicant must clearly identify the following on the PFD:

- Process equipment;
- Measurement points;
- Storage vessels and tanks (including pop tanks);
- Source(s) of all inlet/receipts and/or deliveries, including all fuel lines, flare lines, and vent points; and
- Safety instrumentation (i.e. PSVs, High/Low Pressure Indicators, High/Low Level indicators, location of emergency shutdown device [ESD] block valves and depressure points).

When notifying ER of completion of construction of the facility, if the process diagram is different from what was approved, an updated diagram is to be attached at that time.

2. Equipment Spacing Diagram

A site specific diagram (plot plan) identifying the surface area is 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 gates and/or access control measures;
- how the access continues past the facility site if applicable;
- the equipment layout with distances shown in meters including such things as:
    - all storage tanks
    - buildings
    - compressors
    - flare stacks
    - flare knock out drums
    - line heaters
    - pump jacks, etc.
- all wellhead positions (clearly labelled by location); and
- where the riser/pipeline starts and ends on a site and how it leaves the site going into the right-of-way.

The Equipment Spacing Diagram attached to the licence is required to be updated when equipment is added or removed from a site. When notifying ER of completion of construction of

the facility, if the equipment spacing diagram is different from what was approved, an updated diagram is to be attached at that time.

3. Site 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; occupied public facilities and dwellings;
  - aircraft runways or taxiways; and
  - structures of every kind within a radius of 500 meters 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; and
- state in the legend the latitude and longitude of the well site, in North American Datum 1983 (NAD83).

4. Request for S-20 Documentation

If flaring and venting is greater than 900 m^3/day or the site is flaring and venting gas containing 10 mol/kmol of H_2S or greater, the following Directive S-20 Compliance Documentation for the facility will be required with the licence application:

a) Assurance that a professional engineer, certified technician, certified engineering technologist or registered engineering technologist is responsible for the design or review of flare and incinerator systems, including separation, related piping, and controls, and for the specification of safe operating procedures.
b) Design related drawings and detailed design information of the flare stack and associated equipment and controls.

c) Operational limits of flare. Ensuring that these procedures meet the design requirements. Flare must be operated within operational ranges and type of service specified by the designing or reviewing engineer, technician, or technologist.
d) If H_2S scrubbers are being used to chemically remove the H_2S from the vent stream associated with the storage tanks, confirmation that the scrubber is designed for the volume of gas and concentration of H_2S expected.

Acceptable documentation includes:
a) Flares, combustors, and/or incinerators design drawings and process and instrumentation diagrams (P&ID's) showing all the piping, vessels, control valves, instrumentation and other components in the flare system. These design drawings are to be stamped by certified personnel and/or a professional engineer; and
b) A declaration from certified personnel stating the operational limits of the combustion device or scrubber on site is designed to handle the expected volumes.

5. Air Dispersion Model

If flaring and venting is greater than 900 m^3/day and the gas contains 10 mol/kmol of H_2S or greater, the aforementioned Directive S-20 Compliance Documentation is required and a dispersion model must be submitted to ensure that Saskatchewan Ambient Air Quality Standards (SAAQS) are being met. The dispersion model should be conducted in accordance with *Saskatchewan Air Quality Modelling Guideline, 2012.*

6. Exemption Requests

Exemption requests are handled on a case-by-case basis. The request must include technical rationale. An exemption may be granted by ER if the licensee provides acceptable technical rationale that the sites can be operated in a safe and environmentally responsible manner to support the requested exemption. If an exemption is granted, it will be approved as part of the facility licence. Depending on the situation additional information may be required.

The required information for a spacing or setback exemption request includes:
a) Explanation of what equipment will not meet the requirement and why. For existing equipment, information on when it was installed and whether it met the regulations at the time it was installed. If this involves tanks or vessels, include the year the tanks and vessels were manufactured and/or registered in Saskatchewan.
b) Tank inspection reports, if the exemption request involves an existing storage tank.
c) Documentation that the tanks and secondary containment meets the requirements specified in Directive S-01.
d) Indication of engineering controls and any instrumentation associated with the equipment (high level alarms/shutdowns, high pressure alarms/shutdowns, burner management systems, backflash control[s] in flare system, flare knockout drum information, vapour recovery units, sour gas scrubbers, emergency shutdown valves are automated or manual control fail-safe mode, etc.).
e) Description of fluids involved and all sources of gaseous vapors (include oil/gas analysis).
f) Gas vent rates (if applicable).
g) Topographical map (if terrain is the cause).

h) Description of how safety will not be compromised by relaxation from the requirement, response time for call out and a safety hazard or risk assessment.
i) For existing equipment, a plan to get the site into compliance in the future through turn-around, expansion, decommissioning or replacement of dated equipment.
j) If it is a setback issue, written consent or proximity agreement from the owner of the right-of-way and/or Rural Municipality in addition to the technical information presented.
k) Dispersion model (if applicable).

7. Waste Processing Facility Application

When applying for a Waste Processing Facility this application will require an additional attachment. The additional attachment should include the following information**:**

a) A description of the oil-and-gas wastes (physical waste as that term is ordinarily understood in the oil and gas industry) that will be accepted for processing or treatment, the corresponding waste type specified in Directive PNG032 and their anticipated annual volumes.
b) A description of the treatment and process technologies to be used including the specifications of the receiving, inlet measuring, treating, separating and recycling equipment, and their minimum and maximum flow capacities, retention times, and operating pressures and temperatures.
c) An estimate of the annual volume of freshwater to be used in the operation of the facility and the fresh water source, including where applicable, a copy of the groundwater diversion permit or water withdrawal permit.
d) A description of the plans developed to monitor any leakage from tanks and other containment devices, including:
   (i) the leakage monitoring system, including sampling frequency and test parameters;
   (ii) the corrosion monitoring system; and
   (iii) the management or control of tank inventory to minimize spills or overflows.
e) A discussion of the method proposed for the disposal of waste solid, sludge and liquid materials.
f) A description and example of the accounting procedure from the receipt to disposition of all products as required in Directive PNG032. This description shall include:
   (i) the method used to verify the composition and volume of the incoming streams; and
   (ii) the procedures used to measure and account for any recovered oil, water, and solids.
g) The location of all surface waters and inferred areas of groundwater discharge within a 3 kilometers radius of the site.
h) A summary of local groundwater and surface water users within a 3 kilometers radius of the site.
i) A summary of the regional hydrogeology and geology for the area in which the site is located derived from existing data in the public domain.
j) The description of site-specific hydrogeology information as determined during the drilling and installation of monitoring wells, including the following:
   (i) the description of the surface geology, including the type and thickness of strata;
   (ii) the depth of the shallowest water bearing strata and the hydraulic conductivity of this zone;
   (iii) the horizontal and vertical directions, rates and approximate velocities of the groundwater flow;

(iv) a description of the quality of the groundwater including pH, electrical conductivity (EC), major ions, total metals and total petroleum hydrocarbon (C7-C60 scan) using Gas Chromatography Flame Ionization Detector (GC/FID) or equivalent methods;
(v) the depth, location and type of any contaminant encountered, the probable source of the contaminant;
(vi) the rationale for the location, depth and screened interval for each monitoring well; and
(vii) detailed descriptions of groundwater monitoring well completion information, including construction materials and methods employed to develop the well, ground level elevation, depth to water, depth of well and screened intervals for each well.

k) The description of the soil including the following:
   (i) the physical characteristics of the soil including thickness, texture, internal drainage characteristics, evidence of fracturing and estimated moisture content; and
   (ii) the background chemical characteristics of the soil, including pH, EC, major extractable ions, cation exchange capacity, sodium adsorption ratio, total trace metals and total petroleum hydrocarbon (C7-C60 scan) using GC/FID or equivalent.
l) A description of how the surface run-off water will be controlled, accumulated, and discharged including, if applicable, the pond or dike design and sizing calculations for containment of a 1 in 10 years, 24-hours storm, and the path taken by the surface run-off discharge.
m) A description of how the quality of the surface soil, subsurface soil, surface water, groundwater, and ambient air quality will be monitored.
n) Written confirmation indicating that the landowner of the land where the facility is to be sited has consented to the construction and operation of the facility.
o) Verification that approval (a development permit) from the local authority has been obtained or in the process of being obtained.
p) A description of the consultative process undertaken to inform the public, including:
   (i) the names of the landowners/occupants personally contacted within a 0.5 kilometer radius of the proposed facility and any concerns they had regarding the proposed development;
   (ii) a copy of the information package delivered to all landowners/occupants within a 2.0 kilometers radius of a proposed facility, as well as any resulting concerns about the proposed development and how these concerns will be mitigated; and
   (iii) a map showing the landowner/occupant of all lands within 2.0 kilometers radius of the facility.
q) A description of the plan developed to perform any planned or unplanned closure of the facility, or any part of it, at any point during its active life including:
   (i) an estimate of the maximum inventory (waste and products) expected onsite and how these inventories will be eliminated;
   (ii) an estimate of the time required to eliminate inventories;
   (iii) a schedule of closure activities including the elimination of inventories, the dismantling of surface equipment, the abandonment of wells or pipelines and the reclamation of the facility;
   (iv) a description of the post-closure monitoring; and
   (v) an estimate of the expected year of final closure of the facility.

8. Gas Processing Plant Application

When applying for a gas processing plant licence, an additional attachment is required. The attachment should include the following information:

a) A map or maps covering the area within an 8 kilometer radius of the plant showing:
   (i) the plant location;
   (ii) the topography of the area;
   (iii) the location of all lakes, streams and other surface bodies of water in the area;
   (iv) the location of all residences and occupied buildings;
   (v) the location of other gas processing plants, oil batteries or other industrial plants in the area;
   (vi) the gathering facilities including line size; and
   (vii) the general land use of the area;
b) Explain the rationale for proposing a new gas processing plant in the area;
c) A detailed description of the overall process scheme proposed;
d) Tabulation of:
   (i) the analysis of the raw gas from each pool from which the gas would be gathered and a composite analysis of the feed gas to the processing plant under normal operating conditions and anticipated conditions of maximum hydrogen sulfide content;
   (ii) an overall plant material balance based on normal operating conditions and anticipated conditions of maximum hydrogen sulfide inlet rate; and
   (iii) a forecast of the raw gas to be processed and the plant products to be recovered by years over the life of the scheme;
e) A discussion of the reasons for the choice of the plant location having regard for the protection of the environment and safety of the public;
f) Provide the concentration and emission rate of every contaminant that would be discharged from the plant;
g) A description of the incinerator(s) or flare stack(s) and maximum design rate. Include data and interpretation of results of air dispersion modelling performed to support that ambient air quality standards will be met;
h) A detailed description of the methods proposed for control of hydrocarbon vapor emissions including emissions from product storage tanks;
i) A detailed description of the method by which and the manner in which the release of any other contaminant to the atmosphere during normal or abnormal plant operations would be controlled;
j) Discuss the feasibility of conserving any sulfur or hydrocarbons that would not be recovered;
k) A discussion of air quality monitoring that will be done to ensure that ambient air quality standards are being met;
l) A general discussion of the methods proposed for control of noise;
m) A general discussion of the manner in which water produced in association with gas and oil would be treated and disposed of;
n) A general discussion of the manner in which any process waste water would be contained, treated, and disposed of;
o) A general discussion of the manner in which surface water drainage within the plant site would be contained, treated, and disposed of;
p) A discussion of product specifications and composition and the facilities to be provided for product storage;

q) A discussion of the type and the amount of chemicals and processing materials to be used;
r) An outline of emergency procedures to ensure public safety that will be followed in the event of an uncontrolled release of contaminants to the air, water or land;
s) As part of the notification process, provide a copy of the information package sent to parties (landowners, residents, occupants, local authorities, municipalities, etc.) within 2 kilometers from the lease edge of the gas processing plant. Include a map showing the location of parties and provide a spreadsheet summarizing the following:
   (i) name of party;
   (ii) specify whether they are landowner, resident, occupant, local authority, municipality or other;
   (iii) land description (Dominion Land Survey);
   (iv) date party received the information package;
   (v) response by party (no concerns, concerns);
   (vi) if concern, provide details of concern and measures taken to mitigate the concern; and
   (vii) any other comments.

All of the above information should be combined into a single PDF and attached to the facility licence attachments.

9. Other General Requirements

The following list contains other requirements that must be met when applying for a facility licence. In IRIS, the compliance with these requirements are asked through a series of disclosure questions. For more information or to see the actual disclosure questions, refer to section 2.5 of Guideline PNG001.

Other general requirements include:

- The licensee is in good standing with the local Spill Response Unit;
- The requirements of Directive S-01 have been met with regard to:
  - all setbacks to private and/or community water bodies with evidence to show that the consent of the owner/community has been obtained
  - all setbacks from major and/or minor water bodies
  - all setbacks from the facility to the right of way of any surface improvement and/or utility
  - all setbacks from occupied public facities and dwellings
  - all lease equipment spacings
  - any oil storage and/or salt water storage tanks included in the facility design
  - secondary containment for storage tanks
  - pressure relief devices
- Following the guidance of Guideline S-18 if a dehydrator is included in the design; and
- Disclosing if any facility/site is on Provincial Crown Agriculture, Resource and/or special designation land.