



# Reference Tool for Interpreting Jurisdictional Relationships for Pipeline, Pressure Equipment, and Pressure Piping

June 2006

**ALBERTA ENERGY AND UTILITIES BOARD**  
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and Pressure Piping**

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## Introduction

The purpose of this document is to aid in the interpretation of the interrelationships of the Alberta Oil and Gas Conservation Act and Regulations, the Alberta Pipeline Act and Regulation, the Alberta Safety Codes Act and Pressure Equipment Safety Regulation, and CSA Z662: Oil and Gas Pipeline Systems.

The document provides sketches of nine example facilities as general information for assistance only. The simplified illustrations are not intended to replace the requirements and details in the applicable acts, regulations, and standards. Although every effort has been made to ensure that the information provided is accurate, the user is still responsible for ensuring that the facility or pipeline complies with all requirements, irrespective of the information provided herein.

Definitions of selected items are included on the last page.

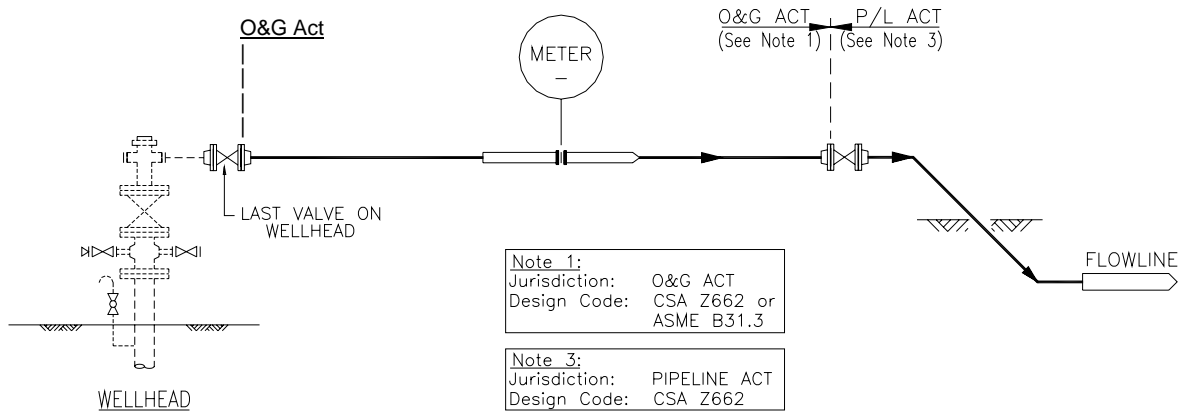
### User Notes

- 1) This document applies to all oil and gas pipelines in Alberta other than
  - a) a pipeline situated wholly within the property of a refinery, processing plant, coal processing plant, marketing plant, or manufacturing plant,
  - b) a pipeline within National Energy Board jurisdiction,
  - c) a gas or oil fuel pipe wholly within the property of a consumer,
  - d) a boiler, pressure vessel or pressure piping system within the meaning of the definitions under the Safety Codes Act, and
  - e) low-pressure gas distribution pipelines.
- 2) When several pipelines enter into a manifold, the jurisdictional break may be on individual inlet pipelines on the header, or at the common header piping inlet to the facility, depending on the location of the block valve(s).
- 3) Pig traps or scraper traps in the pipeline are specifically excluded from the Pressure Equipment Safety Regulation under the Safety Codes Act. Pig traps or scraper traps are to be built in accordance with the requirements of CSA Z662 Clause 4.3.4.2.
- 4) Design and licensing requirements of the wellhead are not covered in this document. Refer to the Oil and Gas Conservation Act. If only a single valve is shown on the wellhead outlet, that valve is considered part of the wellhead.
- 5) Other than as expressed in (4), the last valve before a pipeline leaves the lease is generally considered to be included under Pipeline Act jurisdiction.
- 6) Piping designated as being under the Oil and Gas Conservation Act may be designed and built as either ASME B31.3 piping or CSA Z662 piping.

### Acknowledgements

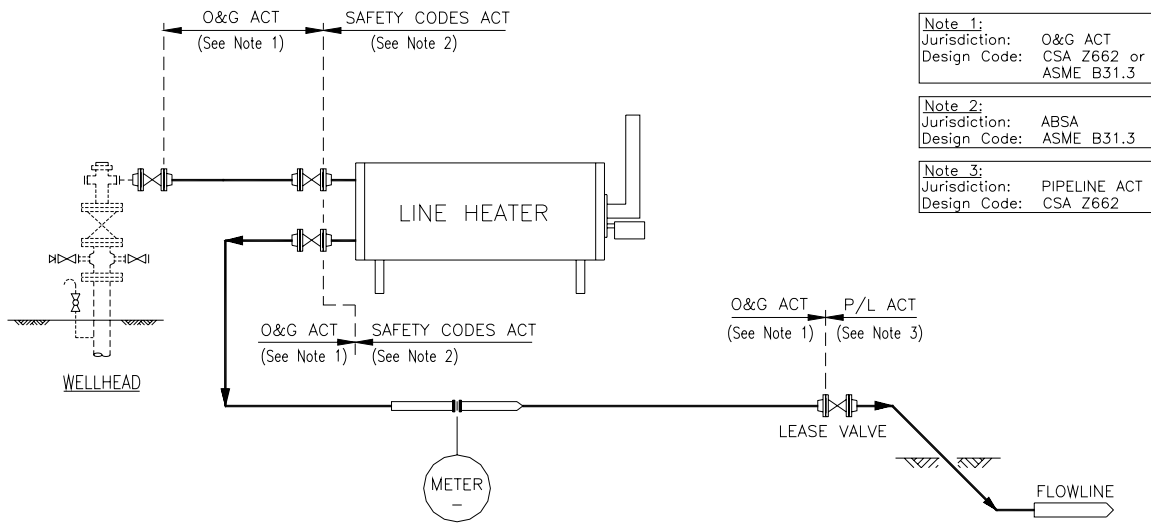
The EUB gratefully acknowledges the assistance of Alberta Boilers Safety Association (ABSA), EnCana Corporation, and Shell Canada in helping to develop and review this document.

1. Gas well site with no dehydrator or separator, with or without a lease block valve, including a pipeline leaving the well site



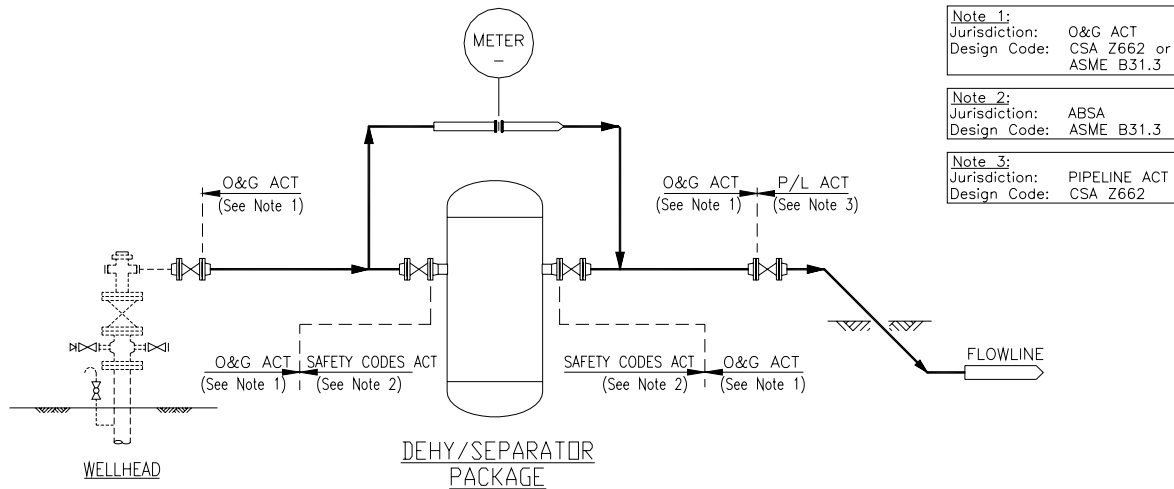
Licence Jurisdiction:	Oil and Gas Conservation Act and Regulations (Well Site Facilities)  Pipeline Act and Regulations (Pipeline)
Licensing Requirements:	Pipeline leaving the lease from the lease block valve is covered under the D56 S-3 application for a pipeline licence.  If the lease block valve is part of the wellhead, the Pipeline Act would apply from that point.
Design Jurisdiction (Design Review and Acceptance):	EUB
Design Code / Code of Construction:	Piping from wellhead to lease block valve: CSA Z662 or ASME B31.3  Pipeline from lease block valve: CSA Z662
Comments:	Metering is included in the Oil and Gas Conservation Act.

2. Gas well site with well site heater, with or without a lease block valve, including a pipeline leaving the well site



Licence Jurisdiction:	Oil and Gas Conservation Act and Regulations (Well Site Facilities)  Pipeline Act and Regulations (Pipeline)
Licensing Requirements:	Piping from the wellhead (up to the lease block valve, if applicable) is covered under the D56 S-2 application for a gas battery licence.  Pipeline leaving the lease boundary from the lease block valve is covered under the D56 S-3 application for a pipeline.  If the lease block valve is located at the heater outlet, the pipeline leaving that valve is covered under a D56 S-3 application for pipeline.
Design Jurisdiction (Design Review and Acceptance):	EUB: Piping from the wellhead to the inlet flange on the well site heater and the outlet flange leaving the heater to the lease block valve  ABSA: Well site heater coil  EUB: Pipeline from the lease block valve and leaving the lease boundary
Design Code / Code of Construction:	CSA Z662 or ASME B31.3: Piping from the wellhead to the inlet flange on the well site heater and from the outlet flange leaving the heater to the lease block valve  CSA B51: Well site heater coil from inlet flange to outlet flange  CSA Z662: Pipeline leaving the lease boundary
Comments:	Regardless of length, if a pipeline covered by the Pipeline Act leaves the lease boundary, a pipeline licence is required.

3. Gas well site with a dehydrator and/or separator, with or without a lease block valve, including a pipeline leaving the well site



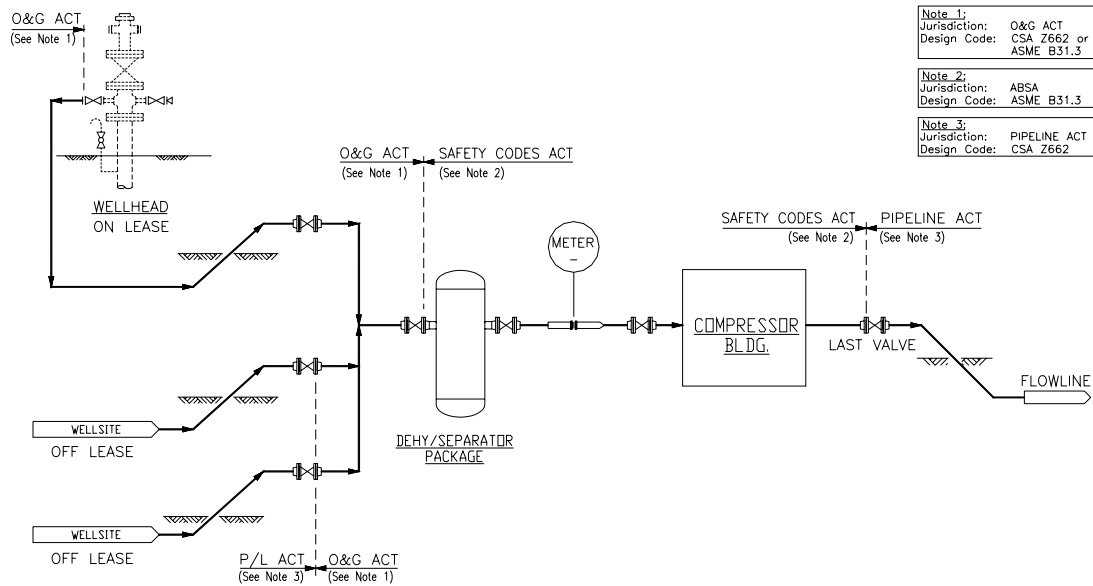
Note 1:  
Jurisdiction: O&G ACT  
Design Code: CSA Z662 or ASME B31.3

Note 2:  
Jurisdiction: ABSA  
Design Code: ASME B31.3

Note 3:  
Jurisdiction: PIPELINE ACT  
Design Code: CSA Z662

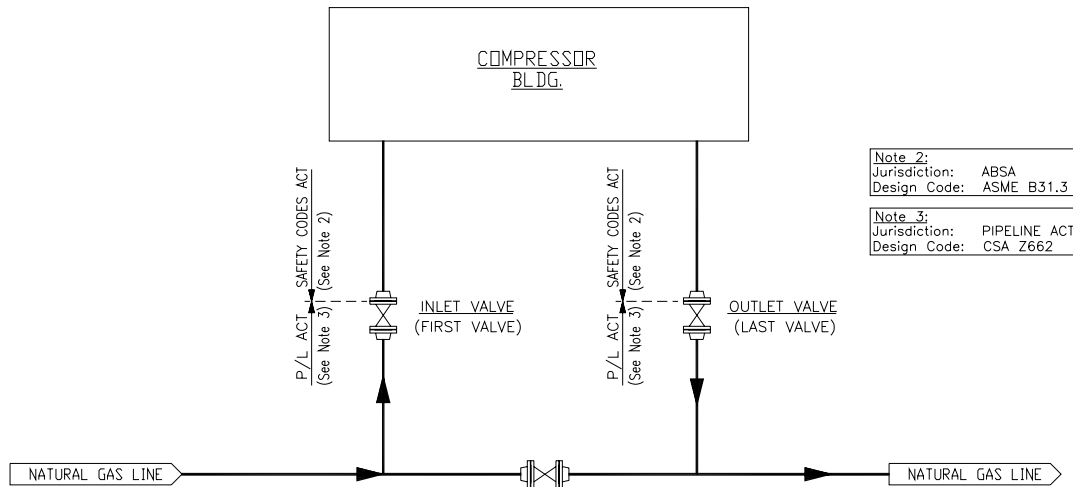
Licence Jurisdiction:	Oil and Gas Conservation Act and Regulations (Well Site Facilities)  Pipeline Act and Regulations (Pipeline)
Licensing Requirements:	Piping from the wellhead (up to the lease block valve, if applicable) is covered under the D56 S-2 application for a gas battery licence.  Pipeline from the lease block valve leaving the lease boundary is covered under the D56 S-3 application for a pipeline.
Design Jurisdiction (Design Review and Acceptance):	EUB: Piping from the wellhead to the inlet valve on the dehydrator and/or separator; after the discharge, valve leaving the dehydrator and/or separator up to the lease block valve  ABSA: Piping and vessels between the inlet and discharge valves on the dehydrator and/or separator  EUB: Pipeline from the lease block valve leaving the lease boundary
Design Code / Code of Construction:	CSA Z662 or ASME B31.3: Piping from the wellhead to the inlet valve on the dehydrator and/or separator; after the discharge, valve leaving the dehydrator and/or separator up to the lease block valve  CSA B51: Dehydrators, separators, and all associated piping are designed and built to CSA B51. CSA B51 refers to ASME B31.3 for piping design.  CSA Z662: Pipeline leaving the lease boundary
Comments:	Since the wellhead lease is not considered a “processing plant” under the Pipeline Regulation, only the pipe between adjacent pressure vessels is considered a “pressure piping system” and the pressure vessels together with the “pressure piping system” would constitute a “pressure plant” under the Pressure Equipment Safety Regulation.  Regardless of length, if a pipeline portion covered by the Pipeline Act leaves the lease boundary, a pipeline licence is required.

#### 4. Gas satellite or group gas gathering facility



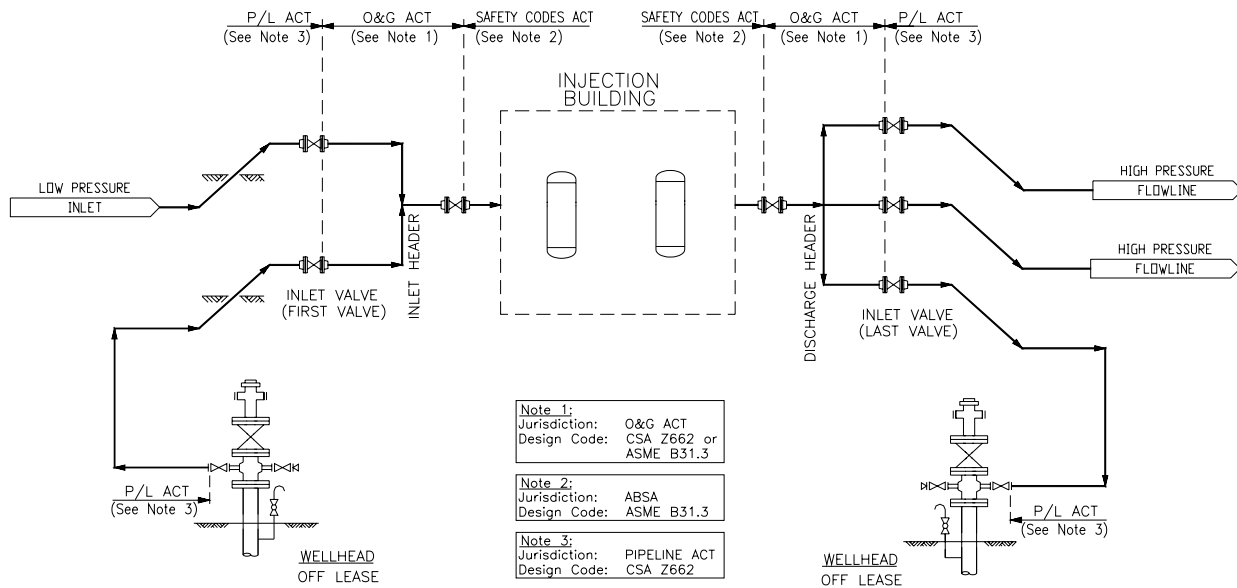
Licence Jurisdiction:	Oil and Gas Conservation Act and Regulations (Gas Battery) Pipeline Act and Regulations (Pipelines)
Licensing Requirements:	<p>Piping from a wellhead(s) for an off-lease well to the block valve on the manifold upstream of the dehy/separator package is covered under the D56 S-3 application.</p> <p>Piping from an on-lease well is covered under the D56 S-2 application for a gas battery licence.</p> <p>Piping from an on-lease well and piping from the isolation valve on the manifold upstream of the dehy/separator package, meter run, and compressor package through to the last valve on the lease (lease block valve) is covered under the D56 S-2 application for a gas battery licence.</p> <p>Cases where there is only a piping junction and no vessels are covered under the D56 S-3 application for the pipeline.</p> <p>Pipeline from the lease block valve leaving the lease boundary is covered under the D56 S-3 application for a pipeline.</p>
Design Jurisdiction (Design Review and Acceptance):	<p>EUB: Piping from the wellhead(s) to the block valve on the manifold upstream of the dehy/separator package</p> <p>ABSA: Dehydrators, separators, and all associated piping are designed and built to CSA B51 for the dehy/separator package, meter run, and compressor package through to the last valve on the lease (lease block valve). CSA B51 refers to ASME B31.3 for piping design.</p> <p>EUB: Pipeline leaving the lease boundary</p>
Design Code / Code of Construction:	<p>CSA Z662: Pipeline from an off-lease wellhead(s) to the block valve on the manifold upstream of the dehy/separator package</p> <p>CSA Z662 or ASME B31.3: piping from an on-lease wellhead(s) to the block valve on the manifold upstream of the dehy/separator package</p> <p>CSA B51: Dehydrators, separators, and all associated piping are designed and built to CSA B51 for the dehy/separator package, meter run, and compressor package through to the last valve on the lease (lease block valve). CSA B51 refers to ASME B31.3 for piping design.</p> <p>CSA Z662: Pipeline leaving the lease boundary</p>

## 5. Compressor station



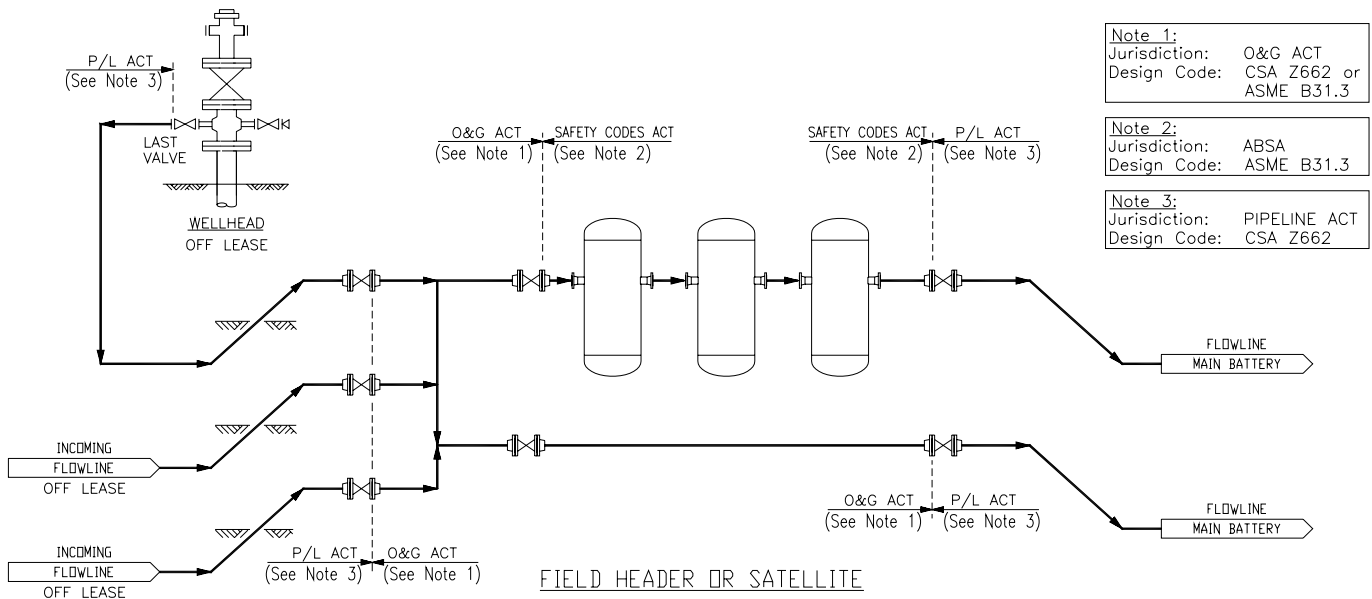
Licence Jurisdiction:	Oil and Gas Conservation Act and Regulations (Upstream Compressor ) Pipeline Act and Regulations (Pipelines; Downstream Compressor)
Licensing Requirements:	Pipeline entering the compressor station to the block valve on the manifold upstream of the compressor station is covered under the D56 S-3 application for a pipeline.  In the case of a production (upstream) pipeline, piping from the isolation valve on the manifold upstream of the compressor station through to the last valve on the compressor station lease (lease block valve) is covered under the D56 S-2 application for a compressor station.  For a transmission (downstream) pipeline, piping from the isolation valve on the manifold upstream of the compressor station through to the last valve on the compressor station lease (lease block valve) is covered under the D56 S-3 application for a pipeline installation licence.  Pipeline leaving the compressor station lease boundary is covered under the D56 S-3 application for a pipeline.
Design Jurisdiction (Design Review and Acceptance):	EUB: Pipeline entering the compressor station to the block valve on the manifold upstream of the compressor station  ABSA: Separators, other vessels, and all associated piping, including interconnecting piping, are designed and built to CSA B51 for the compressor station through to the last valve on the lease (lease block valve). CSA B51 refers to ASME B31.3 for piping design.  EUB: Pipeline leaving the compressor station lease boundary
Design Code / Code of Construction:	CSA Z662: Pipeline entering the compressor station to the block valve on the manifold upstream of the compressor station  CSA B51: Pressure vessels and all associated piping, including interconnecting piping, are designed and built to CSA B51 for the compressor station through to the last valve on the lease (lease block valve). CSA B51 refers to ASME B31.3 for piping design CSA Z662 for the pipeline leaving the compressor station lease boundary.
Comments:	CSA Z662 permits the use of ASME B31.3 to design pressure piping systems for compressor stations.

## 6. Source water collection, injection, and disposal, wells off lease



<b>Licence Jurisdiction:</b>	Oil and Gas Conservation Act and Regulations (Injection Facility) Pipeline Act and Regulations (Pipelines)
<b>Licensing Requirements:</b>	Pipeline from off-lease water well site to the first lease block valve at the injection facility unit is covered by D56 S-3 pipeline application.  Disposal well site (off lease): D56 S-3 from the injection facility last lease block valve to the lease block valve on the disposal well site (i.e., lease block valve on lease or wellhead)  The source water pipeline entering the injection facility unit to the lease block valve on the manifold upstream of the injection facility unit lease boundary is covered under the D56 S-3 application for a pipeline.  Piping from the lease block valve on the manifold upstream of the injection facility building through to the last lease block valve on the injection facility is covered under the D56 S-2 application for an injection facility.
<b>Design Jurisdiction (Design Review and Acceptance):</b>	EUB: Pipeline entering the injection facility to the lease block valve on the manifold upstream of the injection facility  ABSA: All pressure vessels and pressure plant piping are designed and built to CSA B51 for the injection facility unit through to the last valve on the lease (lease block valve). CSA B51 refers to ASME B31.3 for piping design. Piping falling under Oil and Gas Conservation Act can be designed to CSA Z662 or B31.3.  EUB: Pipeline leaving the injection facility unit lease boundary
<b>Design Code / Code of Construction:</b>	CSA Z662: Pipeline entering the injection facility unit to the block valve on the manifold upstream of the injection facility  CSA B51: All pressure vessels and pressure plant piping are designed and built to CSA B51 for the injection facility unit through to the last valve on the lease (lease block valve). CSA B51 refers to ASME B31.3 for piping design. Piping falling under Oil and Gas Conservation Act can be designed to CSA Z662 or B31.3.  CSA Z662: Pipeline leaving the injection facility unit lease boundary
<b>Comments:</b>	Typically, all piping within the injection facility contains nonexpansible fluid; however, if any vessels or piping are associated with expansible fluids, these facilities must be designed to CSA B51 and ASME B31.3.

## 7. Oil/gas satellite with field header to group pipelines



**Licence Jurisdiction:** Oil and Gas Conservation Act and Regulations (Oil/Gas Satellite)

Pipeline Act and Regulations (Pipelines)

**Licensing Requirements:** Pipeline entering the oil/gas satellite to the block valve on the manifold upstream of the oil/gas satellite lease boundary is covered under the D56 S-3 application for a pipeline.

Vessels and piping from the isolation valves on the manifold upstream of the oil/gas satellite building through to the last valve on the oil/gas satellite lease (lease block valves) are covered under the D56 S-2 application for an oil/gas satellite licence.

Cases where there is only a piping junction and no vessels are covered under the D56 S-3 application for the pipeline.

Pipeline leaving the oil/gas satellite lease boundary is covered under the D56 S-3 application for a pipeline.

**Design Jurisdiction (Design Review and Acceptance):** EUB: Pipeline entering the oil/gas satellite to the block valve on the manifold upstream of the oil/gas satellite

ABSA: All pressure vessels and pressure plant piping are designed and built to CSA B51 for the oil/gas satellite through to the last valve on the lease (lease block valve). CSA B51 refers to ASME B31.3 for piping design.

EUB: Pipeline leaving the oil/gas satellite lease boundary

EUB: For cases with no pressure vessels, all piping will be designed and built to CSA Z662.

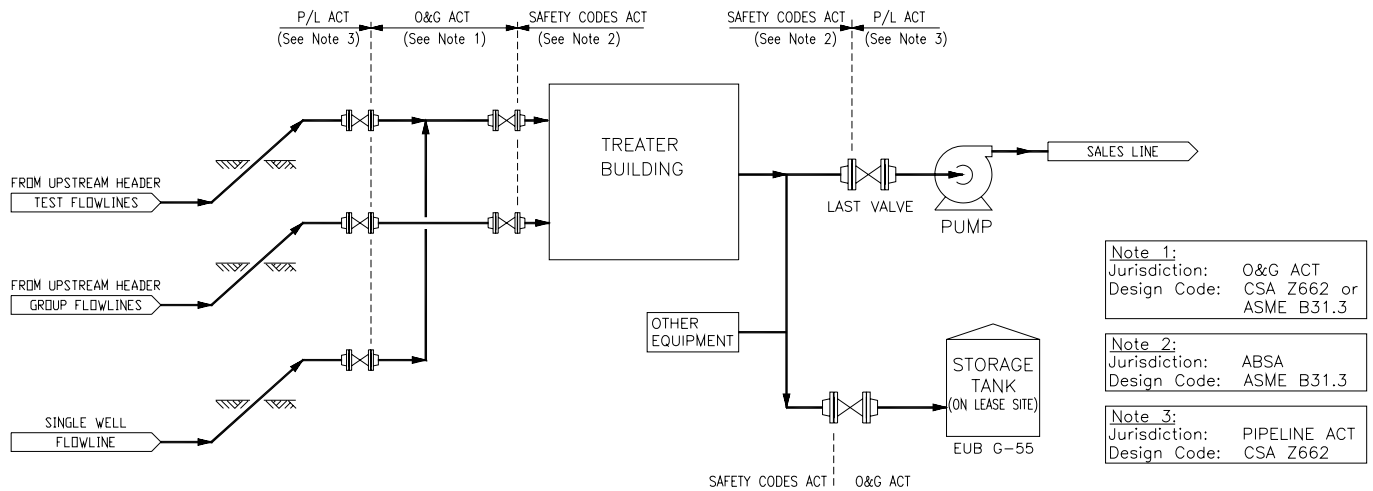
**Design Code / Code of Construction:** CSA Z662: Pipeline entering the oil/gas satellite to the block valve on the manifold upstream of the oil/gas satellite

CSA B51: All pressure vessels and pressure plant piping, including interconnecting piping, are designed and built to CSA B51 for the oil/gas satellite through to the last valve on the lease (lease block valve). CSA B51 refers to ASME B31.3 for piping design. Piping falling under Oil and Gas Conservation Act can be designed to CSA Z662 or B31.3.

CSA Z662: Cases with no pressure vessels and only piping, including interconnecting piping, are designed and built to CSA Z662.

CSA Z662: Pipeline leaving the oil/gas satellite lease boundary

## 8. Oil battery facility



**Licence Jurisdiction:** Oil and Gas Conservation Act and Regulations (Oil Battery)

Pipeline Act and Regulations (Pipelines)

**Licensing Requirements:** Pipeline entering the oil battery unit to the block valve on the manifold upstream of the oil battery is covered under the D56 S-3 application for a pipeline.

Piping from the isolation valve on the manifold upstream of the oil battery through to the last valve on the oil battery lease (lease block valve) is covered under the D56 S-2 application for an oil battery unit licence.

Pipeline leaving the oil battery unit lease boundary is covered under the D56 S-3 application for a pipeline.

**Design Jurisdiction (Design Review and Acceptance):** EUB: Pipeline entering the oil battery unit to the block valve on the manifold upstream of the oil battery unit lease boundary

ABSA: All pressure vessels and pressure plant piping are designed and built to CSA B51 for the oil battery unit through to the last valve on the lease (lease block valve). CSA B51 refers to ASME B31.3 for piping design.

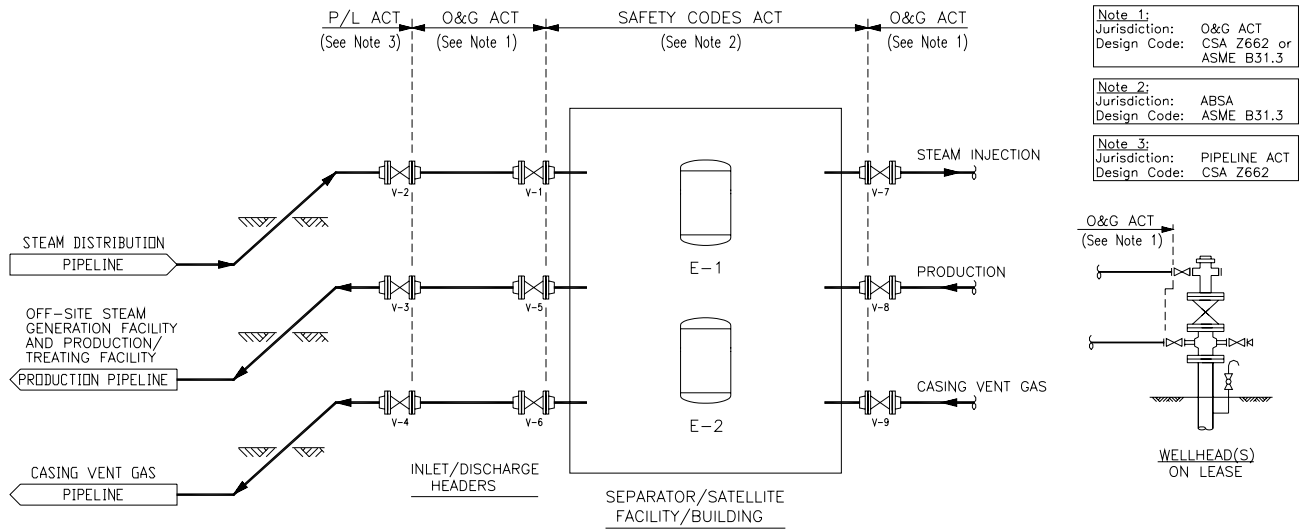
EUB: Pipeline leaving the oil battery unit lease boundary

**Design Code / Code of Construction:** CSA Z662: Pipeline entering the oil battery unit to the block valve on the manifold upstream of the oil battery

CSA B51: All pressure vessels and pressure plant piping are designed and built to CSA B51 for the oil battery unit through to the last valve on the lease (lease block valve). CSA B51 refers to ASME B31.3 for piping design.

CSA Z662: Pipeline leaving the oil battery unit lease boundary

## 9. Heavy oil / in situ steam flood facilities



**Licence Jurisdiction:** Oil and Gas Conservation Act and Regulations (Production Piping, Casing Vent Gas Piping, Steam Distribution Piping, Well Site Pad and Wells)

Pipeline Act and Regulations (Pipelines)

**Licensing Requirements:** The steam distribution pipeline leaving an off-lease steam generation facility unit to the steam wells and steam well site pad is covered under the D56 S-3 application for a pipeline.

The production pipelines and casing vent gas pipelines leaving the well site pad are covered under the D56 S-3 application for a pipeline.

The production piping, casing vent gas piping, and steam distribution piping on the well site pad from the wellhead through to the last valve on the well site pad lease (lease block valve) are covered under the D56 S-2 application for an oil satellite/battery unit licence.

Cases where there is only piping and no vessels are covered under the D56 S-3 application for the pipelines.

**Design Jurisdiction (Design Review and Acceptance):** EUB/ABSA: For the steam distribution pipeline, the design review and acceptance is a joint ABSA and EUB jurisdiction. The EUB approves and issues a pipeline licence based on ABSA design review and registration.

EUB: For the production and casing vent gas pipelines leaving the well site or well site pad, the design jurisdiction is the Pipeline Act.

ABSA: For the steam distribution, production, and casing vent gas piping and vessels and associated piping between the inlet and discharge valves on the separator. All pressure vessels and associated piping are designed and built to CSA B51. CSA B51 refers to ASME B31.3 for piping design.

EUB: For the production piping, casing vent gas piping, and steam distribution piping on the well site pad from the wellhead through to the inlet valve on the pad satellite building, the design jurisdiction is the Oil and Gas Conservation Act.

(continued)

Design Code / Code of Construction:	<p>CSA Z662, Clause 14: Steam Distribution Pipelines: Pipeline leaving the steam generation facility unit to the steam wells and steam well site pad</p> <p>CSA Z662: For the production and casing vent gas pipelines leaving the well site or well site pad, the design is to CSA Z662.</p> <p>CSA B51: All pressure vessels and pressure plant piping in the separation facility are designed and built to CSA B51 through to the discharge valve leaving the separator. CSA B51 refers to ASME B31.3 for piping design.</p> <p>Since the wellhead lease is not considered a “processing plant” under the Pipeline Regulation, only the piping between adjacent pressure vessels is considered a “pressure piping system,” and the pressure vessels together with the “pressure piping system” constitute a “pressure plant” under the Pressure Equipment Safety Regulation.</p> <p>CSA Z662 or ASME B31.3: For steam distribution piping from the manifold block valve in the satellite building to the wellhead, the design code is to CSA Z662 or ASME B31.3, depending on whether the piping goes off lease or not.</p> <p>CSA Z662 or ASME B31.3: For production and casing vent gas piping from the wellhead to the manifold block valve in the satellite building, the design code is to CSA Z662 or ASME B31.3.</p> <p>CSA Z662: Cases with no pressure vessels and only piping, including interconnecting piping, may be designed and built to CSA Z662 or ASME B31.3.</p>
Comments:	<p>If there is common steam injection and production piping, the steam injection piping must meet CSA Z662, Clause 14, and the design be reviewed by ABSA.</p> <p>If the casing vent gas and production are commingled and produced down a common pipeline, the Pipeline Act applies for the common line.</p>

## Definitions

**ABSA** – Alberta Boilers Safety Association

**Accepted** – registered and accepted by the regulatory authority

**ASME** – American Society of Mechanical Engineers

**CSA Standard B51** – Boiler, Pressure Vessel, and Pressure Piping Code

**Design** – calculations, drawings, specifications, specimens, models

**D56** – *Directive 056: Energy Development Applications and Schedules*, September 12, 2005; replaced *Guide 56*, October 2003 edition; **S** – Schedule

**EUB** – Alberta Energy and Utilities Board

**O&G Act** – Oil and Gas Conservation Act

**Pipe** – a tubular product manufactured in accordance with a pipe specification or standard

**Pipeline** – a pipe used to convey a substance or combination of substances, including installations associated with the pipe

**Piping** – pipe or pipeline contained on the lease site, may or may not be located above ground

**P/L** – pipeline

**Pipeline system** – pipelines required for the measurement, processing, storage, and transportation of oil or gas industry fluids

**Pressure piping system** – pipe, tubes, conduits, fittings, gaskets, bolting, and other components that make up a system for the conveyance of an expansible fluid under pressure and may also control the flow of that fluid (ABSA definition)

**Pressure plant** – a pressure vessel or a system or arrangement of pressure vessels and pressure piping system used in connection with the pressure vessel, the system of pressure vessels, or the arrangement of pressure vessels (ABSA definition)

**Pressure vessel** – a vessel used for containing, storing, distributing, processing, or otherwise handling an expansible fluid under pressure (ABSA definition)

**Processing plant** – a plant for extracting hydrogen sulphide, helium, ethane, natural gas liquids, or other substances from gas, but does not include a wellhead separator, treater, or dehydrator

**Pump unit** – a facility used to pump oil industry fluids, including pumps, drivers, controls, piping, and other appurtenances.