

# SETBACKS

## Introduction

A “**setback**” is the absolute minimum distance that must be maintained between a well, a production facility or a pipeline and a place where people live or gather. It is set to provide a **safe distance** between oil and gas facilities and third parties.

Setbacks vary according to the type of oil and gas operation and whether the well, facility or pipeline contains **sour gas**.

**Sour gas is natural gas that contains hydrogen sulphide (H<sub>2</sub>S)**

**Current Minimum Well Setback Distances** Minimum well setbacks are established by regulation and may be varied by OGC in special circumstances.

Structure or Development	Minimum Distance
<ul style="list-style-type: none"> <li>Permanent building or installation</li> <li>Right of way or easement</li> <li>Public utility</li> <li>Place of public concourse</li> <li>Reservation for National Defence</li> </ul>	<ul style="list-style-type: none"> <li>80 meters for non sour wells and 100 meters* for sour wells with H<sub>2</sub>S release rates of greater than 0.01 m<sup>3</sup>/s</li> </ul> <p style="text-align: right;"><i>*discretionary distance established by OGC</i></p>
<ul style="list-style-type: none"> <li>Surface waters</li> </ul>	<ul style="list-style-type: none"> <li>100 meters</li> </ul>
<ul style="list-style-type: none"> <li>Water wells</li> </ul>	<ul style="list-style-type: none"> <li>200 meters</li> </ul>

## Current Minimum Setback Distances for Sour Gas Wells and Pipelines

Classification Level of Well or Pipeline <sup>1</sup>	Suspended/Producing Wells, Sour Pipelines <sup>2</sup>	Sour Pipelines <sup>3,4</sup>	Minimum Distance from Proposed Well to Various Developments
1	≥0.01 - <0.3	<300	<ul style="list-style-type: none"> <li>0.1 km to any surface improvements</li> </ul>
2	≥0.3 - <2.0	≥300 - <2000	<ul style="list-style-type: none"> <li>0.1 km for individual permanent dwellings or unrestricted country development</li> <li>0.5 km for urban centres or public facilities</li> </ul>
3	≥2.0 - <6.0	≥2000 - <6000	<ul style="list-style-type: none"> <li>0.1 km for individual permanent dwellings</li> <li>0.5 km for unrestricted country development</li> <li>1.5 km for urban centres or public facilities</li> </ul>
4	≥6.0	≥6000	<ul style="list-style-type: none"> <li>As specified by the OGC, but not less than Level 3</li> </ul>

<sup>1</sup> Based on H<sub>2</sub>S release rates.

<sup>2</sup> H<sub>2</sub>S Release Rate cubic metres per second (m<sup>3</sup>/s).

<sup>3</sup> H<sub>2</sub>S Release Volume cubic metres (m<sup>3</sup>). Sour Pipeline Regulation specifies release volumes or release rates.

<sup>4</sup> At this time there are no reciprocal setbacks in BC. Although it is not recommended the landowner may build up to the edge of the right of way.

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### ***Emergency Response Plans***

Emergency preparedness is an important aspect of development planning. Preplanning ensures the safety of the public and workers should an emergency occur. Plans are based on worst case scenarios to ensure maximum protection.

The OGC has developed an emergency management plan to guide and co-ordinate its activities in oil or natural gas related emergency situations. Operators are also required to prepare emergency response plans for specific wells and facilities based on criteria for accidental release of hazardous materials. The plans include detailed procedures and communication information to ensure that emergencies are handled effectively and safely (see Emergency Response Plan fact sheet).

### ***What is the Difference Between a Setback Distance and an Emergency Planning Zone?***

A setback is the amount of land serving as a buffer zone between people and oil and gas operations or facilities. An emergency planning zone is the space outward from a well or facility where people and the environment could potentially be affected should a worst case incident occur.

### ***What are Release Rates?***

The concentration of hydrogen sulphide and how fast it could potentially be released to the atmosphere determines the release rates.

### ***What are Release Volumes?***

Release volumes are specific to **pipelines**. There is a fixed amount (or volume) of gas that can be released from any pipeline once the valves are closed -- this is called the release volume. Pipelines are built with emergency shutdown valves installed at pre-set points along the pipeline. If the valves detect a pressure drop in the pipeline, they close automatically stopping the flow of gas through the pipeline trapping the gas between the valves closest to the rupture. This limits the gas that can escape and allows for the amount to be calculated quickly.

### ***Information:***

Oil and Gas Commission – ***Oil and Gas Handbook*** [https://www.ogc.gov.bc.ca/pubdoc.asp\\_view=16.html](https://www.ogc.gov.bc.ca/pubdoc.asp_view=16.html)