

FUELS SAFETY DIVISION

August 1998
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GUIDELINES FOR LOCATING NEW OIL AND GAS PIPELINE FACILITIES

CRITERIA

The following guidelines pertain to the installation of new steel oil and gas pipeline systems designed to operate at hoop stresses of 40% or more of the specified minimum yield strength.

DEFINITIONS

Category II Pipe means a pipe with requirements for proven pipe body notch toughness in the form of energy absorption and fracture appearance.

Maximum Operating Pressure (MOP) means the maximum operating pressure to which a pipeline system may be qualified in accordance with the requirements of the Canadian Standards Association CSA-Z662 Oil and Gas Pipeline Systems standard.

Notch Toughness means the resistance of the steel to fracture under suddenly applied loads at the notch.

Specified Minimum Yield Strength (SMYS) means the minimum yield strength prescribed by the specification or standard under which the pipe material is purchased.

Yield Strength means the stress at which a material exhibits the specified limiting offset or produces a specified total elongation under load in a tensile test as specified in the specification or standard under which the material is purchased.

MINIMUM SETBACKS

Pipelines shall be aligned to provide a minimum setback of 20 metres from their centerline to dwellings intended for human occupancy. A 200 metre setback shall be maintained from the centerline of the pipeline to institutions where rapid evacuation may be difficult, such as hospitals, nursing homes, penal institutions, and institutions for the physically and mentally handicapped. Where these distances are not practicable, the following measures shall be implemented to reduce the minimum respective setbacks to 5 metres and 90 metres respectively:

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1. The use of Category II Pipe with proven notch toughness characteristics as specified by CSA-Z662, and
2. Minimum cover of at least 1.5 metres over the pipeline or where 1.5 metres of cover is not practicable, suitable means of identifying and protecting the pipeline may be used as an alternative.

PUMPS AND COMPRESSORS

Pumps and Compressors shall be situated to provide a minimum setback of 100 metres from dwellings intended for human occupancy.