

**DIRECTIVE 056 PROCESS FOR PIPELINE APPLICATIONS  
OF FIBERSPAR, FLEXPIPE, FLEXCORD OR FLEXSTEEL COMPOSITE PIPES**

*Note: Updated May 2011, reflects CSA Z662-07 and Regulation AR 91/2005.*

All Directive 056 pipeline applications using FIBERSPAR, FLEXPIPE, FLEXCORD, OR FLEXSTEEL pipe may be submitted routinely. Note that both FLEXSTEEL AND FLEXCORD contain metallic reinforcement and consequently have specific sour service restrictions as outlined in the chart below. Sour service limits that apply to all composite materials are also found in the *Pipeline Regulation* and *CSA Z662*, and these are also reflected in the following chart.

Any of the spoolable composite pipes may be used as either free-standing liner or direct-burial pipe.

The following chart describes the allowable pressures and services for each pipeline type. Note this chart is subject to change with new editions of *CSA Z662* or the *Pipeline Regulation*.

Pipeline Type	Service	Allowable H <sub>2</sub> S Content	Allowable Pressures	Application Type
Fiberspar FSLP	OE, SW, FW, CO, LV	Any amount	Any pressure to maximum rating of pipe for that service condition	Routine
	NG, FG	10 mol/kmol maximum H <sub>2</sub> S content (ERCB limit), but also 50 kPa H <sub>2</sub> S partial pressure maximum (CSA Z662 limit)	9930 kPa maximum (CSA Z662 limitation)	Routine
Flexcord FCLP	OE, SW, FW, CO, LV	H <sub>2</sub> S content limit of 0.8 mol/kmol (ERCB limitation)	Any pressure to maximum rating of pipe for that service condition	Routine
	NG, FG	H <sub>2</sub> S content limit of 0.8 mol/kmol (ERCB limitation) but also 50 kPa H <sub>2</sub> S partial pressure max (CSA Z662 limit)	9930 kPa maximum (CSA Z662 limitation)	Routine
Flexpipe FPLP	OE, SW, FW, CO, LV	Any amount	Any pressure to maximum rating of pipe for that service condition	Routine
	NG, FG	10 mol/kmol maximum H <sub>2</sub> S content (ERCB limit), but also 50 kPa H <sub>2</sub> S partial pressure maximum (CSA Z662 limit)	9930 kPa maximum (CSA Z662 limitation)	Routine
Flexsteel WSLP	OE	H <sub>2</sub> S partial pressure limit of 5.5 kPa (ERCB limitation)	6620 kPa maximum (ERCB limitation)	Routine
	SW, FW, CO, LV	H <sub>2</sub> S partial pressure limit of 5.5 kPa (ERCB limitation)	Any pressure to maximum rating of pipe for that service condition	Routine
	NG, FG	10 mol/kmol maximum H <sub>2</sub> S content (CSA Z662 limit), but also H <sub>2</sub> S partial pressure limit of 5.5 kPa (ERCB limitation)	6620 kPa maximum (ERCB limitation)	Routine
	OE, SW, FW, CO, LV	If zero H <sub>2</sub> S	Any pressures to maximum rating of pipe for that service condition	Routine
	NG, FG	If zero H <sub>2</sub> S	9930 kPa maximum (CSA Z662 limitation)	Routine

NG – Natural Gas, OE – Oil Effluent, SW- Salt Water, FW – Fresh Water, CO – Crude Oil, LV – Low Vapour Pressure

Questions may be directed to the Directive 056 electronic helpline at [Directive056.help@ercb.ca](mailto:Directive056.help@ercb.ca) or to the Directive 056 telephone helpline at (403) 297-4369. Questions about operational or technical issues relating to composite pipe may be directed to the Pipeline Technical Operations mailbox at: [Pipelineoperations@ercb.ca](mailto:Pipelineoperations@ercb.ca).