

**DIRECTIVE 056 PROCESS FOR PIPELINE APPLICATIONS  
OF FIBERSPAR, FLEXPipe, FLEXCord OR FLEXSteel COMPOSITE PIPES**

*Note: Updated April 2016, reflects CSA Z662-15 and Pipeline Rules AR 91/2005.*

All Directive 056 pipeline applications using FIBERSPAR, FLEXPipe, FLEXPipe HT, FLEXCord OR FLEXSteel pipe may be submitted routinely. Note that both FLEXSteel AND FLEXCord contain metallic reinforcement and subsequently have specific sour service restrictions as per the chart below. There are also sour service limits found in the *Pipeline Rules* and *CSA Z662* that apply to all composite materials and these are also reflected in the following chart.

Any of the spoolable composite pipes may be used either as 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 Rules*.

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 (AER 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 3.0 mol/kmol (AER limitation)	Any pressure to maximum rating of pipe for that service condition	Routine
	NG, FG	H <sub>2</sub> S content limit of 3.0 mol/kmol (AER 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 (AER limit) but also 50 kPa H <sub>2</sub> S partial pressure maximum (CSA Z662 limit)	9930 kPa maximum (CSA Z662 limitation)	Routine
Flexpipe High Temperature FPHT	OE, SW, FW, CO, LV	Any amount	FPHT 301: maximum 4960 kPa FPHT 601: 9930 kPa (AER limitation)	Routine
	NG, FG	10 mol/kmol maximum H <sub>2</sub> S content (AER limit) but also 50 kPa H <sub>2</sub> S partial pressure maximum (CSA Z662 limit)	9930 kPa maximum (CSA Z662 limitation)	Routine
Wellstream Flexsteel WSLP	OE	H <sub>2</sub> S partial pressure limit of 5.5 kPa (AER limitation)	maximum 6620 kPa (AER limitation)	Routine
	SW, FW, CO, LV	H <sub>2</sub> S partial pressure limit of 5.5 kPa (AER 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 (AER limitation) but also H <sub>2</sub> S partial pressure limit of 5.5 kPa (AER limitation)	maximum 6620 kPa (AER 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
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NG – Natural Gas, OE – Oil Effluent, SW- Salt Water, FW – Fresh Water, CO – Crude Oil, LV – Low Vapour Pressure

Questions regarding the application process may be directed to: [inquiries@AER.ca](mailto:inquiries@AER.ca) or the Applications helpline at (403) 297-4369. Questions regarding operational or technical issues relating to composite pipe may be directed to the Authorizations Infrastructure Technical Variance and Evaluations Section mailbox at: [pipelineoperations@AER.ca](mailto:pipelineoperations@AER.ca).