

CAPP Hydraulic Fracturing Operating Practice: FRACTURING FLUID ADDITIVE DISCLOSURE

OVERVIEW

To support CAPP's Guiding Principles for Hydraulic Fracturing, seven Operating Practices have been developed in collaboration with CAPP member companies. These Operating Practices strengthen industry's commitment to continuous performance improvement in shale gas, tight gas and tight oil development.

The Fracturing Fluid Additive Disclosure Operating Practice supports the Guiding Principle: **“We will support the disclosure of fracturing fluid additives.”**

WHAT DOES THIS PRACTICE MEAN?

CAPP and its member companies support and encourage greater transparency in industry development. To reassure Canadians about the safe application of hydraulic fracturing technology, this practice outlines the requirements for companies to disclose fluid additives and the chemical ingredients in those additives that are identified on the Material Safety Data Sheet (MSDS).

HOW WILL THIS WORK?

Under this Operating Practice, companies will disclose, either on their own websites or on a third-party website, those chemical ingredients in their fracturing fluid additives which are identified on the MSDS. The ingredients which must be listed on the MSDS are identified by federal law. The well-by-well disclosure includes:

- The trade name of each additive and its general purpose in the fracturing process.
- The name and the Chemical Abstracts Service number of each chemical ingredient listed on the MSDS for each additive.
- The concentration of each reportable chemical ingredient.

We continue to support action by provincial governments to make fracturing fluid disclosure a mandatory component of shale gas, tight gas and tight oil development.

TECHNICAL DESCRIPTION

The purpose of this practice is to describe minimum requirements for disclosure of fracturing fluid additives used in the development of shale gas, tight gas and tight oil resources.

The objective of this practice is to enable and demonstrate conformance with the following CAPP Guiding Principle for Hydraulic Fracturing:

We will support the disclosure of fracturing fluid additives.



BACKGROUND

Hydraulic fracturing is a controlled operation that pumps a fluid and a propping agent through the wellbore to the target geological formation at high pressure in multiple intervals or stages, in order to create fractures in the formation and facilitate production of hydrocarbons. Hydraulic fracturing is a safe and proven way to develop natural gas and oil; it has been used throughout the oil and gas industry for about 60 years.

The public has expressed interest and concern about fracturing fluid additives used in shale gas, tight gas and tight oil development. To address the concerns, this practice defines the requirements for disclosing the fracturing fluid additives and the chemical ingredients in those additives.

SCOPE

This practice applies to CAPP member companies engaged in the development of shale gas, tight gas or tight oil resources through the application of hydraulic fracturing processes in Canada. While use of this practice is voluntary (subject to applicable laws and regulations), CAPP strongly encourages its use by member companies.

The practice is to be utilized to direct service companies regarding what information will be submitted to operators, and to inform operators what information will be disclosed and how it will be disclosed.

Operational Requirements

CAPP member companies meet or exceed the following requirements when disclosing fracturing fluid additives on their websites, or on a third party website:

- There is a brief description on the website of the intended use or function of each additive that is used in fracturing fluid such as acid, biocide, breaker, corrosion inhibitor, crosslinker, demulsifier, friction reducer, gel, iron control, oxygen scavenger, pH adjusting, etc.
- There is a link on the website to well-by-well disclosure of fracturing fluid additives. The information is presented on the CAPP-endorsed disclosure form.
- The type and volume of base fluid(s) used in the hydraulic fracturing treatment, expressed in cubic metres.
- The trade name of each additive and its general purpose in the fracturing process.
- The name of each chemical ingredient listed on the Material Safety Data Sheet (MSDS) for each additive, and the Chemical Abstracts Service registry number (CAS number) for each chemical ingredient. Where the specific identity of a chemical ingredient is considered a trade secret, a more general identification is to be used consistent with the MSDS.
- Disclosure of any compound that is incidental to the chemical manufacturing process is not required unless the compound is listed on the MSDS for the additive.
- The concentration of each chemical ingredient within the additive, expressed as a per cent of the total mass of the additive.
- The concentration of each chemical ingredient, expressed as a per cent of the total mass of the fracturing fluid including base fluid and additives.

Performance Measures

Conformance with this practice will be confirmed by demonstrating that:

- Procedures are in place for the operator to collect the required information from service providers and for the operator to publicly disclose the information on its website or a third-party website, using the CAPP endorsed disclosure form.
- Procedures are in place to ensure the fracturing fluid additives and chemical ingredients of each well are disclosed on the operator's website or a third-party website, such as FracFocus.ca

Reporting Expectations

Companies are expected to make their process for fracturing fluid additive disclosure publicly available.



DEFINITIONS

Additive: Any substance or combination of substances comprised of chemical ingredients found in a hydraulic fracturing fluid, including a proppant, which is added to a base fluid in the context of a hydraulic fracturing treatment. Each additive performs a certain function and is selected depending on the properties required.

Base fluid: The base fluid type, such as water or nitrogen foam, used in a particular hydraulic fracturing treatment. Water includes fresh water, brackish or saline water, recycled water or produced water.

Chemical Abstracts Service (CAS): The chemical registry that is the authoritative collection of disclosed chemical substance information.

Chemical Abstracts Service registry number (CAS number): The unique identification number assigned by the Chemical Abstracts Service to a chemical constituent.

Chemical ingredient: A discrete chemical constituent with its own specific name or identity, such as a CAS number, that is contained in an additive.

Fracturing fluid: The fluid used to perform a particular hydraulic fracturing treatment and includes the applicable base fluid and all additives.

Material Safety Data Sheet (MSDS): A document, as required by the Controlled Products Regulations under the federal Hazardous Products Act, that contains information on the potential hazards (health, fire, reactivity and environmental) of an additive and its components.

Propping agent (Proppant): Typically non-compressible material, most commonly sand, added to the fracturing fluid and pumped into the open fractures to prop them open once the fracturing pressures are removed.

Service company: A company that performs hydraulic fracturing treatments for an operator.

Shale gas, tight gas and tight oil: For the purposes of this practice, shale gas, tight gas and tight oil refers to unconventional resources from low permeability reservoirs being developed using horizontal wells with multi-stage hydraulic fracturing.

Supplier: A person, including an operator but excluding a service company, who sells or provides an additive directly to an operator for use in hydraulic fracturing treatments.

Trade name: The name under which an additive is sold or marketed.

Trade secret: Any confidential formula, pattern, process, device, information, or compilation of information entitled to protection as a trade secret under the applicable law which is used in a business and which gives the business an opportunity to obtain an advantage over competitors that do not know or use it.