

## FULL DISCLOSURE

*Separating fact from fiction on what's involved in hydraulic fracturing, what's not, and where you can go for additional information*

Contrary to popular view, not a single element of the fracturing process is a secret. The oil and gas industry has always complied with federal and state disclosure requirements which ensure that regulators, first responders and medical personnel have the information concerning the chemical composition of fracturing fluids they need to protect and safeguard human health and the environment.

In fact, the key consideration related to protecting the public's health and safety has nothing to do with disclosure at all – and everything to do with eliminating pathways of exposure by following industry practices and state regulations on the construction and cementing of wells.

Still, for those interested in learning more about what hydraulic fracturing makes possible, how it's done, and what's involved in the process -- consider the following points:

### **State Disclosure and Regulation: By the Numbers**

33 states currently support some form of oil or natural gas production within their boundaries. Of these 33 states, 27 represent more than 99.9% of all oil and natural gas production in the U.S.

**Permitting:** All 27 oil and gas producing states in the study have permitting requirements governing the locating, drilling, completion and operation of wells. Some have had experience in regulating this process for more than 100 years.

**Fracturing materials:** 18 states require a list of products used in the hydraulic fracturing process to be submitted to state agencies, 19 states require that volumes of products used be disclosed, and 22 require reporting on treatment depths.

**Well construction:** 93 percent of the 27 oil and gas producing states require surface casing to be set through the deepest ground water zone, and 96 percent also require cementing of the surface casing from bottom to top.

**Produced water:** 26 states regulate the surface management and application of wastes either through direct control by the oil and gas agency or through a point source discharge permit administered either by the state or federal government – and in some cases, by both.

### **What Secret? A Number of States/Organizations Publicly Post Frac Materials Online**

New York Department of Environmental Conservation (DEC):  
<ftp://ftp.dec.state.ny.us/dmn/download/OGdSGEISFull.pdf> (page 130 of PDF)

Pennsylvania Department of Environmental Protection (DEP):  
<http://www.dep.state.pa.us/dep/deputate/minres/oilgas/FractListing.pdf>

U.S. Department of Energy / Ground Water Protection Council (page 62 of PDF):  
[http://www.fossil.energy.gov/programs/oilgas/publications/naturalgas\\_general/Shale\\_Gas\\_Primer\\_2009.pdf](http://www.fossil.energy.gov/programs/oilgas/publications/naturalgas_general/Shale_Gas_Primer_2009.pdf)

Energy In Depth: <http://www.energyindepth.org/frac-fluid.pdf>

### **MSDS Sheets**

Mandated by the Occupational Safety and Health Administration (OSHA), informational materials known as Material Safety Data Sheets (MSDS) are required to be kept at all well sites – and are available for use by emergency personnel responding to a potential incident.

These sheets contain required listings of the materials involved in the fracturing process. Written for the specific needs of emergency responders and medical personnel, these documents are also widely available on the Internet.

### **Ground Water Protection Council Report: Key Excerpts**

Earlier this year, the Ground Water Protection Council (GWPC) teamed up with the U.S. Department of Energy to publish a first-of-its-kind report – one that takes a closer look at how state regulators and ground water protection officials are leading the way in ensuring local energy resources are developed safely, efficiently and responsibly. GWPC is a nonprofit organization of state ground water regulatory agencies working toward the protection of our nation's ground and drinking water supplies.

Among the key conclusions issued in GWPC's final report:

“State oil and gas regulations are adequately designed to directly protect water resources.” (page 7)

“All oil and gas producing states have regulations which are designed to provide protection for water resources such as those governing the authorization for drilling, completion, operation and closure of wells.” (page 37)

“Claims that the oil and gas E&P industry in the U.S. is unregulated are not supported by the findings of this report.” (page 37)

“[M]ost additives contained in fracture fluids including sodium chloride, potassium chloride, and diluted acids, present low to very low risks to human health and the environment.” (page 22)

“The risk of endangerment to ground water is further reduced by other physical factors such as the ... presence of vertically impermeable formations between the fractured zone and the deepest ground water zone; which act as geologic barriers to fluid migration.” (page 23)

“[I]t is not unreasonable to conclude that the risk of fracture fluid intrusion into ground water from the hydraulic fracturing of deeper conventional and unconventional oil and gas zones could be considered very low.” (page 24)

“State and federal agencies should remain cautious about developing and implementing regulations based on anecdotal evidence.” (page 39)

“The state review process managed by STRONGER, Inc. is an effective tool for ensuring that state environmental regulatory programs related to the management of E&P waste are conducted in a manner that is protective of the environment.” (page 40)

Report available here: <http://www.energyindepth.org/wp-content/uploads/2009/03/oil-and-gas-regulation-report-final-with-cover-5-27-20091.pdf>