----- Original Message -----

Subject: RE: Canadian "reviews" of hydraulic fracturing

[InteractionID:b02fa54e-0500-4820-ac05-e82813337db4]

**Date:**Thu, 26 Jul 2012 16:58:03 +0000

**From:**Health AHCIP AR Writer <a href="mailto:kealth.ahciparwriter@gov.ab.ca">kealth.ahciparwriter@gov.ab.ca</a>

**To:**'magog@sasktel.net' <magog@sasktel.net>

Alberta Health has received your email of concern regarding hydraulic fracturing.

Alberta Health cannot respond to your concern as it falls under the responsibilities of Alberta Energy.

Alberta Energy is responsible for the sustained development of oil and gas resources in a responsible manner that maximizes long-term benefits to the province. You can find their contact information online at: http://www.energy.gov.ab.ca/About\_Us/1010.asp.

Additionally, you may wish to speak to the Energy Resources Conservation Board about your concerns by calling their Customer Connect Centre at 403-297-8311 or toll-free at 1-855-297-8311.

Thank you for contacting Alberta Health.

---- Original Message -----

From: magog <magog@sasktel.net>

**To:** cpremier@gov.ab.ca>, JV Anglin cjanglin@telus.net>, Brian
Mason
Brian.Mason@assembly.ab.ca>, "Duncan, Linda - M.P."

<Duncan.L@parl.gc.ca>,"Sorenson, Kevin - M.P." <Sorenson.K@parl.gc.ca>, "Prime

Minister/Premierministre" <pm@pm.gc.ca>, <danielle@wildrose.ca>,

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<jason.hale@wildrose.ca>,<minister.energy@gov.ab.ca>,

Cc: Jessica Ernst <a href="mailto:sernstj@telusplanet.net">sent: Mon, 23 Jul 2012 02:37:35 -0300</a>

Subject: Canadian "reviews" of hydraulic fracturing [InteractionID:3be3b0d5-5b84-4281-

b13c-04bb7c812a8a]

Dear Elected / Appointed Officials, Alberta's Chief Medical Officer of Health, Canada's Chief Public Health Officer (Email address not provided on Canadian Government Website, sent via <a href="http://www.phac-aspc.gc.ca/contact\_cpho-eng.php#emaill">http://www.phac-aspc.gc.ca/contact\_cpho-eng.php#emaill</a>) and Council of Canadian Academies Panel to Understand the Impacts of Shale Gas Extraction

Is it possible that Mr. Peter Kent intentionally directed the two Canadian "reviews" of hydraulic fracturing to ignore health impacts? The comments by physician Angela LeGresley of New Brunswick at the first link are excellent and well worth 7 minutes of your time. The link to the Colorado Health study she mentions I included below for your convenience. I respectfully request that the two federal "reviews" include health impacts. Otherwise, they'll be meaningless. The panel for the Council of Canadian Academies was just selected recently so there is time to include review of the health impacts (and lack of appropriate "study") completely, honestly, with due diligence, integrity and courage. So what if Mr. Harper fires you for exposing the truth? At least you will sleep well at night.

jç Nationwide Insurance: Fracking Damage Won't Be Covered
Displaced families at center of fracking protests jæ
Episode 1- New Brunswick Government Shale Gas Session, Dr. Angela LeGresley

WATCH: Episode 1- New Brunswick Government Shale Gas Session, Dr. Angela LeGresley 7:09 Min. by CCNBAction TV, July 12, 2012 "I made it known that I was a physician ... I made my health concerns known and stood up despite being very intimidated surrounded by oil and gas industry people and politicians." ... "If they have an abundance of peer-reviewed studies, health impact assessments, etc., all the kind of things that would reassure me, and I need more than regulations to reassure me, I need, as a physician I need more than that ... if they have this kind of thing, they should be giving it to me I think. They should be responding to my letters, they should be calling me." ... "I would just encourage them if they had that information to get a hold of me, but I know that most of the peer-reviewed information has only started in April 2011 and that's why we need a lot more of it, we need more studies, and that's why we cannot go forward right now. We need a moratorium. The Moncton City Hospital physicians have voted for a moratorium." [Standing ovation] ... "You probably already know that The [New Brunswick] College of Family Physicians have also voted for moratorium and I would be willing to say that there are going to be more physicians following this." ... "Try to get answers, I'm not sure how to get them to respond ..." ... "We need health impact assessments, not just environmental impact assessments, there is only one that I know of, and that was in Colorado." ... "I think the people have spoken." ... "It's not just a few little wells, they need to frac a lot" ... "I will sleep well at night, knowing that I spoke up." [Standing ovation]

ic More on Water Pollution

#### <u>Doctors seek hydro-fracking moratorium, New Brunswick</u> <u>College of Family Physicians writes letter to legislature</u> by CBC

News, April 25, 2012

Doctors are worried the potential risks outweigh the benefits, president Dr. Anick Pelletier stated in a recent letter to members of the legislature on the issue. "By this letter, we are urging you to protect our valuable resources and the public's health by putting a moratorium on hydraulic fracturing development in New Brunswick until further research can prove that the benefits clearly outweigh the risk of this practice," Pelletier wrote. The group, which represents about 700 family doctors in the province, is concerned about the potential contamination of public water supplies, as well as possible air pollution or toxic spills, she said.

¡ç Colorado study finds fracking risks for nearby residents

Study shows air emissions near fracking sites may pose health risk jæ Air emissions near natural gas drilling sites may contribute to health problems

# Air emissions near natural gas drilling sites may contribute to health problems by News-Medical.net, March 19, 2012

"Our data show that it is important to include air pollution in the national dialogue on natural gas development that has focused largely on water exposures to hydraulic fracturing," said Lisa McKenzie, Ph.D., MPH, lead author of the study and research associate at the Colorado School of Public Health. The study will be published in an upcoming edition of *Science of the Total Environment*. "The report, based on three years of monitoring, found a number of potentially toxic petroleum hydrocarbons in the air near the wells including benzene, ethylbenzene, toluene and xylene. Benzene has been identified by the Environmental Protection Agency as a known carcinogen. Other chemicals included heptane, octane and diethylbenzene but information on their toxicity is limited." ... "The greatest health impact corresponds to the relatively short-term, but high emission, well completion period." That's due to exposure to trimethylbenzenes, aliaphatic hydrocarbons, and xylenes, all of which have neurological and/or respiratory effects, the study said. Those effects could include eye irritation, headaches, sore throat and difficulty breathing.

¡ç Mystery of fracking chemicals worries Californians

Colorado study finds fracking risks for nearby residents ¡æ Human Health Risk Assessment of Air Emissions from Development of Unconventional Natural Gas Resources

## <u>Human Health Risk Assessment of Air Emissions from</u> <u>Development of Unconventional Natural Gas Resources</u> by Lisa M.

McKenziea, Roxana Z. Wittera, Lee S. Newmana, John L. Adgatea, Colorado School of Public Health, University of Colorado, March 19, 2012, *erierising* 

Results: Residents living  $\leq 1/2$  mile from wells are at greater risk for health effects from NGD than are residents living > 1/2 mile from wells. Subchronic exposures to air pollutants during well completion activities present the greatest potential for health effects. The subchronic non-cancer hazard index (HI) of 5 for residents  $\leq 1/2$  mile from wells was driven primarily by exposure to trimethylbenzenes, xylenes, and aliphatic hydrocarbons. Chronic HIs were 1 and 0.4. for residents  $\leq 1/2$  mile from wells and > 1/2 mile from wells, respectively. Cumulative cancer risks were 10 in a million and 6 in a million for residents living  $\leq 1/2$  mile and > 1/2 mile from wells, respectively, with benzene as the major contributor to the risk.

jç Finding answers for Pavillion residents

DEP: Cabot drilling caused methane in Lenox water wells jæ Fracking Moratorium Urged By U.S. Doctors Until Health Studies Conducted

# Fracking Moratorium Urged By U.S. Doctors Until Health Studies Conducted by Alex Wayne, January 9, 2012, Bloomberg

Gas producers should set up a foundation to finance studies on fracking and independent research is also needed, said Jerome Paulson, a pediatrician at George Washington University School of Medicine in Washington. Top independent producers include Chesapeake Energy Corp. (CHK) and Devon Energy Corp. (DVN), both of Oklahoma City, and Encana Corp. (ECA)of Calgary, according to Bloomberg Industries. "We've got to push the pause button, and maybe we've got to push the stop button" on fracking, said Adam Law, an endocrinologist at Weill Cornell Medical College in New York, in an interview at a conference in Arlington, Virginia that's the first to examine criteria for studying the process. ... The industry, though, hasn't disclosed enough information on chemicals used, Paulson said, raising concerns about tainted drinking water supplies and a call for peer- reviewed studies on the effects. ... "We need to understand fully all of the chemicals that are shot into the ground, that could impact the water that children drink," Representative Ed Markey of Massachusetts, a senior Democrat on the House Energy and Commerce Committee, said in a phone interview. The industry is trying "to block that information from being public," he said. The gas industry has used hydraulic fracturing for 65 years in 30 states with a "demonstrable history of safe operations," said Chris Tucker, a spokesman for Energy In Depth, a Washington-based research and advocacy group financed by oil and gas interests, in an e-mail. Drilling in shale deposits in the eastern U.S. began in 2004. Gas drillers have to report to the U.S.,

state and local authorities any chemicals used in fracking that are "considered hazardous in high concentrations" in case of spills or other emergencies, Tucker said. Those reports don't include amounts or concentrations, he said. The industry created a public website last April for companies to voluntarily report lists of chemicals used in individual wells, including concentrations. Colorado and Wyoming have passed laws requiring drillers to file reports to the website, Tucker said. Despite those disclosures, U.S. officials say they don't know all of the hazards associated with fracking chemicals. "We don't know the chemicals that are involved, really; we sort of generally know," Vikas Kapil, chief medical officer at National Center for Environmental Health, part of the U.S. Centers for Disease **Control and Prevention**, said at the conference. "We don't have a great handle on the toxicology of fracking chemicals." The government has found anecdotal evidence that drilling can contaminate water supplies. In December, the EPA reported that underground aquifers and drinking wells in Pavillion. Wyoming, contained compounds that probably came from gas drilling, including glycols, alcohols, benzene and methane. The CDC has detected "explosive levels of methane" in two wells near gas sites in Medina, Ohio, Kapil said. He said he wasn't authorized to take reporters' questions after his presentation. Fluids used in hydraulic fracturing contain "potentially hazardous chemical classes," Kapil's boss, Christopher Portier, director of The National Center for Environmental Health, said last week. The compounds include petroleum distillates, volatile organic compounds and glycol ethers, he said. Wastewater from the wells can contain salts and radiation, Portier said. ... A moratorium on fracking pending more health research "would be reasonable," said Paulson, who heads the Mid- Atlantic Center for Children's Health and the Environment in Washington, in an interview. ... Tucker called the CDC's participation in the conference "disappointing."

## <u>Alberta Health CEO Bayliss steps down</u> by Darcy Henton, December 8, 2006. Edmonton Sun

Since he took the province's top health officer job in 2000, he has been involved in health issues like infectious diseases, water quality and food safety. Bayliss, who oversees health region medical health officers, says the critical issue in public health today is the inequity and disparity of health status. He says the poorest and least educated Albertans are the most prone to chronic diseases. Bayliss serves on the Alberta Water Council, the Pan-Canadian Public Health Network Council and the Council for Chief Medical Officers of Health.

Permalink to: Alberta Health CEO Bayliss steps down

# Investigators say an accumulation of gases appears to have caused the explosion that destroyed the Rosebud water tower and sent a Wheatland County employee to hospital by Strathmore Standard, January 27, 2005

Tracy Gooler, Wheatland County constable and manager of protective services, said that the county's water operator, John Garvin, was endeavoring to thaw out an inlet supply line, to the portable water reservoir in Rosebud, with a propane tiger torch at about 2:30 p.m. "He had done his checks," Gooler said, adding that when the match was struck to light the torch, an explosion occurred. ... Gooler said the operator was unable to detect the gases by smell and did not use a detection device. Garvin sustained non-life threatening, but fairly substantial injuries, including two broken wrists and some burns to the face and hands. ... Alberta Environment and Occupational Health and Safety are working with the county to ensure standards are met and continue investigation into the mishap.

Permalink to: Investigators say an accumulation of gases appears to have caused the explosion that destroyed the Rosebud water tower and sent a Wheatland County employee to hospital

Above summaries posted at <u>www.ernstversusencana.ca</u>

Thank you.

Sincerely,

Jessica Ernst Box 753 Rosebud, Alberta T0J 2T0 1-403-677-2074 On 7/20/2012 3:20 PM, magog wrote:

Dear Elected / Appointed Officials, Alberta's Chief Medical Officer of Health, Canada's Chief Public Health Officer (Email address not provided on Canadian Government Website, sent via <a href="http://www.phac-aspc.gc.ca/contact\_cpho-eng.php#emaill">http://www.phac-aspc.gc.ca/contact\_cpho-eng.php#emaill</a>) and Council of Canadian Academies Panel to Understand the Impacts of Shale Gas Extraction

#### Link Between Low Birth Weight and Fracking, Says New Research by

Kristen Meriwether, July 19, 2012, Epoch Times

"A mother's exposure to fracking before birth increases the overall prevalence of low birth weight by 25 percent," said Elaine L. Hill, Cornell University doctoral candidate and author of the working paper, "Unconventional Natural Gas Development and Infant Health: Evidence from Pennsylvania." Hill also found a 17 percent increase in "small for gestational age" births, and reduced health scores. She spoke at a fracking forum hosted by Sen. Tony Avella in New York City Wednesday. Hill's paper looked at birth measures, including birth weight and premature birth, for those born in Pennsylvania starting in 2003, before fracking began. The study used data through 2010 and focused on those living up to 1.5 miles from gas development sites. Pennsylvania increased its unconventional natural gas wells from 20 in 2007 to 4,272 by the end of 2010. ... Hill's working paper will not be published until it passes a peer review—a huge risk for a doctoral student who does not share the same protection as a tenured professor. "I think the courage she is showing today in coming forward and speaking truth to power should be matched by other acts of courage by members of our own state government," Sandra Steingraber, distinguished scholar in residence for the department of environmental studies at Ithaca College, said before Hill's testimony. Steingraber said she believes Hill's paper should be peer reviewed, but also feels science is having a tough time keeping up with the rush to get new fracking measures in place. Hill said it may take up to two years to finish the review process, at which time new fracking regulations will likely already be in place. "My study is robust across multiple specifications and it indicates that our future generation may be seriously harmed. I couldn't possibly value my career over their well-being," Hill said by email on Thursday. ... "According to current estimates, a single low birth weight infant costs society, on average, \$51,000 during the first year of life," Hill said, adding that that did not include long-term costs for the child or decrease in parental earnings.

### The hidden health risks of fracking, Nurses demand disclosure of chemicals used in natural gas drilling by Katie Huffling, July 19, 2012, Baltimore Sun

Imagine you are a nurse working in an emergency room, and a worker on a gas fracking well comes in covered in chemicals used in the drilling process. You call the gas company to find out what chemicals are being used to help in your assessment of possible health risks to your patient, and even yourself, but find out they don't have to disclose this information. Or, imagine you are a public health nurse in a community with many natural gas fracking wells, and you notice complaints of well-water contamination. How can you assess the extent of the issue without baseline data on water quality or knowledge of the chemicals used in the fracking process? As nurses, we strongly support our right to know in order to protect the health of our communities and the environment. That's why the American Nurses Association House of Delegates last month passed a resolution highlighting the important role nurses play in advocating for the health of their patients and communities when faced with fracking. As the number of natural-gas fracking wells has increased exponentially over the past 20 years, the public's right to know what chemicals are used in this process has become imperative to protect the public health. Fracking chemicals now being found in our water supplies have been linked to cancer and kidney, liver and neurological damage. Nurses working in rural areas are also

the public is looking to nurses and other health care providers for answers. However, health care workers do not have access to vital chemical information. A new report evaluating how states are dealing with fracking concludes that "no state is requiring enough upfront collection of baseline data and ongoing monitoring of drilling operations to ensure adequate protection of local water supplies and public health." ... States should not allow gas companies to claim blanket "trade secret" exemptions to avoid releasing chemical information. This loophole hampers the ability of health care professionals to monitor for exposures and health effects. If it doesn't get fixed, then companies can claim any chemical is a trade secret, and disclosure becomes a farce. Pepsi and Coke publish the ingredients in their products on every can; the producers of fracking chemicals can do the same without revealing exact formulas that would put a company at a competitive disadvantage. Companies don't want to disclose the chemicals because they know the substances are dangerous, and the industry knows the public would want to stop their use.

REPORT: The Right to Know, the Responsibility to Protect: State Actions Are Inadequate to Ensure Effective Disclosure of the Chemicals Used in Natural Gas Fracking

above summaries posted at www.ernstversusencana.ca

Sincerely,

Jessica Ernst Box 753 Rosebud, Alberta T0J 2T0 1-403-677-2074