

HEALTH RISKS ASSOCIATED WITH FRACKING

This writer's research indicates that the exposures and health risks associated with Fracking are extremely high and very dangerous to health, welfare, and safety.

In this document, of the twenty-nine (29) states reviewed where Fracking has already taken place, the following medical conditions have repeatedly occurred as well as numerous deaths. Opinion - A contributing factor appears to be

Toxic Chemical Poisoning.

Source: List of the Harmed, contact pacwainfo@gmail.com

Abdomen with fluid

Aches

Asthma

Ataxia (loss of muscle control)

Auto immune issues

Barium poisoning

Blackouts

Bleeding

Bleeding ulcers

Blisters

Blood count erratic

Bloody stool

Bone deformities in fingers

Bones and joints ache

Breathing difficulties
bronchitis
Burns
 Scarring
 Disfigurement
Burning eyes
Burning nose
Burning skin
Burning throat
Chest burning
Collapsing
Comatose (3 weeks)
Coughing
Crippling neuropathy
Deformities of the bones on hands
Depression
Dermatitis
Diarrhea
Disoriented
Dizziness
Enlarged spleen and ovaries
Elevated heart rate
Elevated liver count

Emotional distress
Epilepsy
Eye irritation
Eyes burn
Face and neck tingle
Face itching
Fainting
Fatigue
Fear of developing cancer
Fevers
Fingernails curling under
flu-like symptoms
Gastrointestinal discomfort
Hair loss
Hand trembling
Headaches
Hearing difficulties
Heart palpitations
Inability to concentrate
Inflammation (leg nerve)
Irregular heartbeat
Itching skin
Joint swelling

Kidney pain/problems
Lack of sleep
Leg cramps
Lesions
Lethargy
Liver disease
Lightheadedness
Lips swollen and quivering
Liver failure
Liver pain
Loss of balance
Loss of muscle control
Loss of sensation in extremities
Lost voice
Lungs burn
Lungs (filled with fluid) impairment
Memory loss
Mental distress
Metallic taste in mouth
Migraines
Mouth ulcers
Multiple myeloma (blood cancer)
Muscle spasms

Muscle weakness
Nausea
Neurological systems
Neuropathy
Nose irritated
Nosebleeds
Numbness (body)
Numbness (face and hands)
Numbness (lips)
Pain
Pain in spine and back
Paralysis in legs due to lesions in spinal cord
Polyps (in lungs)
Post traumatic stress disorder
Pulmonary disease
Rashes
Rectal bleeding
Respiratory distress/problems
Ringing in the ears
Ruptured ear drum
Ruptured spleen
Seizures
Sense of taste and smell lost

Shaking
Shortness of breath
Sinus congestion
Skin reaction (red, swollen) over entire body
Skin lesions
Slurred speech
Sores
Soft tissue of nose, throat and mouth irritated
Sore throats
Speech impediment
Stomach cramps
Stomach pain
Swelling of the face, lips, and extremities
Swelling of the hands
Swollen liver
Swollen lymph nodes
Tongue bleeding
Tooth loss
Toxic level chemicals in body
Tremors
Uncontrolled eyebrow twitching and jaw clenching
Vision problems
Vomiting

Vomiting blood

Walking difficulties

Water stung eyes

Wheezing

White bumps on elbows and hands

OTHERS:

Deaths

Intestinal cancer

Leukemia

Multiple myeloma (blood cancer)

Pituitary tumors

Primary Hyper Aldosteronism (tumor on adrenal gland)

Pancreatic cancer

Liver cancer, other cancers

Kidney tumors

growth on gall bladder

Fracking Causes Health Impacts

Pennsylvania Fracking Victims Come to Albany to Detail *Serious Health Issues*

*As Residents from Across Pennsylvania Tell Legislators Their Stories, New Yorkers Against Fracking Releases New Television Ad *Highlighting Dead Cows and Poisoned Water**

New York City markets stories of **dead cows and poisoned water**.

Since fracking began in states outside of **New York**, there have been numerous reports of water contamination. Studies link fracking-related activities to **contaminated groundwater; air pollution; illness, DEATH, and reproductive problems in cows, horses and wildlife; and human health problems**.

Dr. Sheila Bushkin, MD, MPH of the Institute for Health and the Environment at University at Albany said "When you listen to the personal experiences of actual residents of **Pennsylvania and other states** where fracking has gone forward, you will hear stories of **dead cows, pets, sick children, poisoned water and other serious health and environmental problems**."

"My story is not unusual," said **Terry Greenwood, a farmer from Southwestern Pennsylvania**. "After my cows drank from a pond that was contaminated by frackwater, **10 of the 19 calves were born stillborn**."

When the industry came to **Northeastern PA**, our **water turned black and started bubbling**. Our **kids would cough and choke in the shower**. **Ron Gulla, a farmer from Hickory in Southwest Pennsylvania said**, "These are not isolated incidents. I've talked to so many people whose water has been contaminated and whose families have been **poisoned by fracking**."

List of the Harmed – a **growing list of over 800 individuals who have been harmed by fracking.** It has been compiled by Jenny Lysk.

Sue Kinchy, a nurse and more than 30 year resident of Bradford County, PA who fled to New York a year ago after the impacts of fracking destroyed the nature of her community said, “Medically, we saw fracking linked to rashes, dizziness, headaches, and many, many more accidents. Crime skyrocketed, trucks crowded the roads, and kids went to school within sight of well pads and flaring.

Jodi

I’ve had inflammation of the cornea and chemical burns to my eyes.

Pam

My children have had nosebleeds and blisters in their mouths.

John

When we first moved here, it was, it was heaven on Earth. Now it’s hell on Earth.

CONTINUED

FRACKING - The Chemically Injured and the Dead - A Human Toll

(From List of the Harmed)

<u>Page #.</u>	<u>Line #</u>	<u>Name</u>	<u>Exposure and Effects</u>
4	14	Stephanie Boggs	Deceased at age 47 CANCER
Exposure: Water, land, and air Well water inspected and found to contain <u>Methane</u> and <u>Hydrogen Sulfide</u> . <u>Methane Gas</u> was very frequently found to be a problem in the water and air. Extremely flammable, will explode when heated, At high concentrations, unconsciousness or death may occur. <u>Hydrogen Sulfide</u> - A "rotten egg" smell is an indicator of its presence. Impact - Respiratory effects, headache, dizziness, nausea, coughing, vomiting, difficult breathing. At high concentrations - shock, convulsions, unable to breathe, coma, death, effects can be extremely rapid (within a few breaths) (OSHA). (Relationship to her Cancer unknown) *****			
8	26	John Barnes' niece	Comatose state for three weeks, liver failure and lungs filled with fluid. Also had pneumonia along with an impaired kidney and heart functions.

Exposure: Water, Barium

A gas well was drilled 200 feet from his nieces' drinking water well. Her blood was tested for Arsenic and Barium. A couple of months later her Arsenic test came back negative; however, the Barium level was 11 times the acceptable maximum allowable limit and that was nearly after a two year absence from the well site. The EPA refused to test the well water which was responsible for poisoning Barnes' niece.

Barium - Slow or irregular heartbeat, may produce collapse and death due to respiratory failure.

Current situation: Unknown

9 30 Sandra DenBraber Blood tested for chemicals
Carcinogenic chemical found

Exposure: Air

Benzene - Carcinogenic effects

9 31 Kim McEvoy Gas well 1,000 feet
from house
Carcinogenic chemicals
found

Exposure: Water

Arsenic - Carcinogenic effects

Methylene Chloride - Carcinogenic effects

9 32 Carl Stiles Deceased at age 46
Intestinal CANCER

Exposure: Water - strontium, uranium and radium

A toxicologist found barium, arsenic, and VOC's (volatile organic chemical) in Carl's blood. Strontium, uranium and radium were found in their water. They were told to expect to get leukemia within two years.

The radioactivity level in their home was almost 7 times the EPA standard limit. The Stiles were forced to abandon their home and all the possessions in it. Carl died on January 26, 2012.

10 35 Sherry Vargson Tested for chemical
and husband exposure, confirmed

Exposure: Water

Chemicals found - methane, radium, manganese and strontium

Radium and Strontium: both chemicals Radioactive material

12 43 Chrystal Stroud Chemicals tested and confirmed

Exposure: Water

Strontium - Radioactive chemical

14 52 Judy Armstrong Stiles Chemicals tested and confirmed

Exposure: Water

Barium - May cause slow or irregular heartbeat. Severe cases may produce collapse and death due to respiratory failure. Lawsuit filed.

15 55 George Zimmermann Chemicals tested and confirmed

Exposure: Air, Water

Arsenic: Carcinogenic effect - 2,600 times the acceptable level

Benzene: - Carcinogenic effect

Naphthalene: Anticipated Human Carcinogen

15 56 Tommy Boylan Chemical tested and confirmed

Exposure: Air

Hydrogen Sulfide: Target organs : May cause damage to the following organs: lungs, upper respiratory tract, eyes, central nervous system (CNS). Boylan states his lungs burn. He also has nosebleeds.

15 57 Doris Van Ness Chemical tested and confirmed

Exposure: Air

Hydrogen Sulfide: Target organs : May cause damage to the following organs: lungs, upper respiratory tract, eyes, central nervous system (CNS). Prolonged exposure at 30 minutes may result in pulmonary edema with risk of death. Immediately following: rapid breathing, unconsciousness, and death.

Van Ness was medically treated for exposure - irritated eyes, nosebleeds and respiratory difficulties.

16	58	Robert Blackcloud	Died Pancreatic CANCER
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Exposure: Blackcloud died after drinking from a creek that he did not know was polluted with high levels of benzene

Benzene - Carcinogenic effects

16	59	Tim Ruggiero	Chemical tested and and confirmed
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Exposure: Water

Methane, Sodium, Heavy Metals: Ruggiero family suffered medically. Tim - Loss of sensation in his extremities, Christine - Rashes, Nausea, and memory loss, Daughter - Asthma.

Overexposure to this chemical - Death may occur.

16	60	Mike Bastion	Chemical tested and confirmed
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Exposure: Air, Water

Methane, as well as Sodium and Barium - Very serious exposure to these chemicals relates to Barium -May cause slow or irregular heartbeat. Severe cases may produce collapse and death due to respiratory failure.

17	63	Shirley McNall	Chemical tested and confirmed
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Exposure: Air

Hydrogen Sulfide - McNall maintains there are twenty (20) gas wells within a mile. She suffers from dizziness and nausea, breathing difficulties, headaches, numbness in her lips and muscle weakness.

This chemical causes damage to the following organs: lungs, upper respiratory tract, eyes, central nervous system (CNS). Prolonged exposure at 30 minutes may result in pulmonary edema with risk of death.

Immediately following: rapid breathing, unconsciousness, and death.

19	75	Charles and Dorothy Harper, Grandson Baelee	Entire Family Deceased
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Exposure: Methane Gas

The most tragic Pennsylvania methane case began on March 5, 2004, in Jefferson County, about 80 miles northeast of Pittsburgh. According to Baldassare, gas seeped into the home of 64-year-old Charles Harper and his 53-year-old wife, Dorothy, from one of several adjacent wells being drilled by Snyder Brothers. The gas collected until it exploded and, according to court records and news reports at the time, reduced the home to "a pile of rubble." Debris was found across the road, and insulation hung from trees 30 feet in the air. The bodies of the Harpers and their grandson, Baelee, 17 months old, were found buried in the debris.

20	77	Louis and Donna Meeks	Numerous chemicals found, tested, confirmed
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Exposure: Water

According to tests conducted by the EPA, the following toxic chemicals were found: two forms of a volatile organic compound called adamantane, and 2-butoxyethanol (2-BE), a solvent that is used in fracking foaming agents and is suspected of causing a whole range of ailments, from cancer to respiratory issues to nervous system problems. The EPA also found methane in well water. In a second test, the EPA found more petroleum compounds: benzene, xylene and naphthalene; a component of jet fuel called methylcyclohexane; and phenol.

Benzene is Carcinogenic, Naphthalene is an anticipated human carcinogen,

Methylcyclohexane is toxic to the lungs and the nervous system.
Phenol - Target organ effects: Kidney, Liver, Central nervous system (CNS)

Louis Meeks indicated that he has lesions, sores and neuropathy, as well as chronic obstructive pulmonary disease. His wife Donna is suffering as she has undergone eight (8) operations for polyps in her lungs.

26 103 Joseph Buchanan Deceased

Exposure: Falling equipment

Died as a result of falling equipment.

28 126 Jose Lara Deceased 42 years old
Pancreatic and
Liver CANCER

Exposure: Air, contact

Before Jose Lara of Rifle died, he recorded a six-hour deposition detailing his work in the natural gas industry. He said emotionally, "If I would have known the damage those tanks would do to me, I would never have cleaned them." For years, Lara said he was not supplied with a respirator protective gear, or any warning of what he could be exposed to.

Lara passed away three (3) months after recording his deposition. OSHA would later cite and fine Rain for Rent with nine violations, six of them serious, for exposing Lara to a cyanide-like gas called hydrogen sulfide.

Hydrogen Sulfide: This chemical causes damage to the following organs: lungs, upper respiratory tract, eyes, central nervous system (CNS). Prolonged exposure at 30 minutes may result in pulmonary edema with risk of death. Immediately following: rapid breathing, unconsciousness, and death.

33 209 Mary Mack Chemical tested and
confirmed

Exposure: Water, Arsenic

Mary Mack suffers from paralysis in her legs (partial) due to lesions in her spinal cord. Symptoms developed a few months after bath water caused a severe skin reaction (red, swollen) over entire body.

Arsenic - Carcinogenic chemical

33 211 Brian Norberg Deceased 52 Years Old

Exposure: Stress

Mr. Norbert felt completely defeated that he could not halt Procore from moving in and destroying their lives. He died of a heart attack. His family is convinced that his death was a result of the stress caused by the conflict.

37 245 Maggie Golden Deceased

Exposure: Water - Arsenic, Benzene

Her well water contained Arsenic and Benzene Carcinogenic chemicals.

The E.P.A. arranged last August for the delivery of bottled water to folks with tainted wells. Some residents, however, have been less fortunate. Maggie Golden, a 73-year-old cousin of Mr. Hudson's mother, had been getting water piped in by Basic Energy to replace her hand-pumped spring-fed system which had been contaminated, said her sister, Mary Lee Kellum, a Houston teacher.

38 247 Kimberly Glenn Home Explodes near
Gas Well

Exposure: Air - Methane

Home exploded due to fire. Residents in the neighborhood have complained of headaches and feeling sick all the time.

Methane gas in the air is explosive. At high concentrations, UNCONSCIOUSNESS or DEATH may occur.

39 254 Richard and
Thelma Payne Home Explosion

Exposure: Air, Methane

Explosion - Gas seeped into nearby water wells from the Ohio Valley Energy well and caused an explosion in December 2007 at the home of Richard and Thelma Payne.

Methane gas in the air is explosive. At high concentrations, unconsciousness or death may occur.

40 297 Ben Bounds Chemical Explosion

Exposure: Air, Methane

Problems with the Bounds well and an explosion at another home weeks earlier forced Colorado to suspend natural gas drilling around this southern plains town until someone could find out why dangerous levels of methane were getting into the groundwater.

"The water is so saturated with methane and other chemicals it is not to be used for human consumption," said Bernice Angely, who's had water trucked to her home 10 miles west of town since her well blew up in July 2007.

Methane gas in the air is explosive. At high concentrations, unconsciousness or death may occur.

40 298 Claude DeGraw Fire at Well Site

Exposure: Air, Methane, Hydrogen Sulfide

A fire occurred at the top of the casing to DeGraw's domestic well.

Methane gas in the air is explosive. At high concentrations, unconsciousness or death may occur.

Hydrogen Sulfide - Carcinogenic chemical.

41 301 Dustin Bergsing Deceased 21 Years Old

Exposure: Hydrocarbon Poisoning

Death was not of natural causes, but due to inhalation of petroleum vapors. Bergsing was an oil worker in North Dakota.

47 328 Brian Wallace Deceased 60 Years Old

Exposure: Explosion

Wallace expired from multiple blunt-force injuries that occurred when pressurized gas was released when workers prepared one of three wells to begin pumping.

51 349 Timothy Roth Deceased

Exposure: Accident

Roth was exposed to sleep deprivation as a result of his job. His death was due to working a straight 17-hour shift and then driving home, he had an accident.

52 351 Jeffery Kindaid Deceased

Exposure: Tank explosion

Due to a tank explosion, Kinkaid suffered burns over 90% of his body.

53 358 Chris Albert Deceased

Exposure: Oilfield accident

Workers were using a 275-ton hydraulic crane to erect the mast of a drilling rig when a six-foot beam fell to the ground.

53 359 Randy Baumann Deceased

Exposure: Oilfield accident

Same accident as Chris Albert, above entry. Both men were together on the job.

54 513 Charles E. Bevins III Deceased 23 Years Old

Exposure: Inadequate safety measures at drilling site

Charles "C.J." Bevins was pinned against a trailer by a forklift. The vehicle was partially sunk into the ground. Bevins expired hours later.

58 560 Paul C. Sherman Deceased 19 Years Old

Exposure: Gas well explosion

Sherman, a subcontractor, was painting at a well site when a gas well exploded. The blast remains under investigation.

65 622 Scott Manley, et al Explosion

Exposure: Fire

Two men were burned in an industrial accident after an explosion occurred at a well site. Two tanks partially filled with oil and two foam injection trailers were on fire. Under investigation.

80 776 Jimmy Dale Deweber Deceased

Exposure: Air, hazardous fumes from spillover of condensate

Deweber was found expired near a natural gas pad site. The Sheriff indicated that Deweber was unloading condensate which they believe killed the man.

80 779 Mike Krajewski Deceased

Exposure: Oil Field Accident

While Krajewski was working, a valve was turned wrong and a pipe became disconnected and ending up hitting him in the head. Hydraulic fracturing, or fracking, is a process to extract oil and gas underground using pressurized fluids and sand. Krajewski's job involved pumping fluids at high pressures.

82 787 Troy Orth Deceased

Exposure: Air - H₂S

Orth, with Williams, another worker, while working on a gas well referred to as "swabbing, were exposed to high levels of Hydrogen Sulfide. The chemical level was believed to be above levels considered safe by the Centers for Disease Control.

Swabbing, McWilliams explained, is a process for clearing blockages from a gas well bore in order to get the natural gas flowing freely to the surface. He said the process frequently brings large volumes of gas vapors to the surface.

Orth died three days later of a heart attack. Williams believes that exposure to the Hydrogen Sulfide had something to do with the heart attack.

86 808 Seven Workers Chemical Explosion

Exposure: Flames 70 feet high

A crew drilling a natural gas well through an abandoned coal mine hit a pocket of Methane gas that ignited, triggering an explosion that burned seven workers. Methane is a known risk when working near old mines.

88 821 Five Workers Gas Well Accident
One Death

Exposure: Air, Hydrogen Sulfide

The workers were preparing to cap a well and encountered "poison gas," which was Hydrogen Sulfide. One worker died, and the other four were wounded in the accident.

88 826 Brian Hopkins Deceased

Exposure: Explosion

The incident appeared to have occurred while Hopkins was attempting to transfer briny wastewater from an onsite tank to a truck that would haul the material to a disposal site. Officials could not conclusively determine the source of the ignition.

90 834 Adbal Audeh Deceased

Exposure: Traumatic injury

Audeh suffered a traumatic injury when hit in the back by equipment at a drilling site.

93	886	Julio Barrera	Deceased
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Exposure: Fatal accident

Barrera climbed up a particular piece of equipment owned by a drilling company to fix a locking pin in the metal frame as the structure was swaying. Before he could accomplish the job, the structure tipped over and crashed to the rig floor fatally crushing him under tons of metal.

100	1124	Brian Calliccoat	Deceased
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Exposure: Fatal accident

Calliccoat sustained fatal injuries from a heavy drilling pipe that landed on him.

104	1200	Juan Rios	Deceased
		Olegario Rios	Deceased

Exposure: Explosion

A well blew out and the explosion blew the work crew off the well head. Incident is under investigation by OSHA.

105	1206	Devon Byrd	Deceased
		Wade White	Deceased

Exposure: Flammable vapors from tank

The boys were killed while at an oil tank site, the tank suddenly exploded. No further details were available.

108	1228	Raymond Miller	Deceased
		Bruce Phipps	Deceased

Exposure: Explosion

The incident resulted from an explosion at a compressor station. A flash fire occurred at a "pig receiving station." Pigs are devices used to clean out or to inspect pipelines. Reports indicate that natural gas liquids ignited in tanks during "pigging" operations and fueled the fire.

109	1238	Fred Kuntz and two families	Spilled Frac Fluid
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Exposure: Land

Approximately 9,000 gallons of fracking fluid spilled at a nearby natural gas well pad and forced families from their homes. The Department of Environmental Resources said a drill malfunction caused thousands of gallons of fracking fluid to shoot out, and for a while workers were worried there could be a natural gas explosion.

111	1354	Coby Thibodeaux	Deceased
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Exposure: Fatal accident

Thibodeaux was killed at a drill site. The incident occurred after a payload backer over him according to authorities.

114	1430	Zachary Green Scott Thrower 77 Others	Deceased Deceased
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Exposure: Massive fire, Explosion

There were approximately 600 people at the plant when the explosion occurred. A nearby community was given a shelter-in-place order as a precaution, meaning they were asked to stay inside their homes with doors and windows closed. Seventy-seven people were hospitalized. Hospitals reported that workers mostly had burns, cardiac and respiratory issues and bruises.

The first round of air monitoring showed nothing hazardous was in the air. The tests were preliminary, officials said. Air monitoring was expanded.

116	1559	John and Diane Pitcock and Eight Workers incl Jason Mearns Tommy Paxton	Deceased Deceased
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Exposure: Fire and possible explosion of storage tanks

The Pitcocks were evacuated, two workers died from thermal burns, and other workers had burns and injuries. Two tanks were ruptured as a result of the explosion. It is believed that a pump that the employees were working on may have ignited vapors in the immediate area, causing the tanks to rupture. Other tanks on the site were damaged, too. It is not clear whether there was a fire that continued to burn, or if the explosion consumed all of the vapor. The well site was shut down for inspections and investigations.

117	1562	Charles McHenry	Deceased
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Exposure: Rig accident

An accident at a drilling rig in Trego County, Kansas left one man dead and another man was flown to a nearby hospital due to serious injuries. The man who was killed was crushed when a derrick basket fell. The incident is under investigation.

120	1656	John Roberts	Deceased 27 Years Old
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Exposure: Fell approximately fifty (50) feet from a platform

Roberts slipped and fell from an oil rig. Fire Department crews responded to the scene, but were unable to help him. He died from serious head injuries. His death was ruled accidental.

125	1738	Jesse Grimsley	Deceased
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Exposure: Construction accident

Grimsley was killed while working as a sub-contractor on a Sheehan Pipeline Construction site at the time of the accident. According to the Jefferson County Sheriff's Department, Grimsley was the operator of a pipe loader on a hill, when the vehicle came off-track, and began rolling

backward. Officers say they believe Grimsley tried to jump off the vehicle and became entangled in the track – falling backward – the initial cause of death; a head injury.

141 4910 Daniel Rice Deceased 33 Years Old

Exposure: Explosion

An explosion at a Knoxville trucking company resulted in the death of a Clarksville man, according to a news release from the Johnson County Sheriff's Office. Daniel Rice, 33, of Clarksville was killed after a tank he was working on exploded. Rice and other workers were using a propane torch to loosen ball valves on the back of the tanker trucks, the release states. Other personnel were near the explosion but were not injured. A metal hatch plate that was blown off the back of the tank struck Rice, the release states. Two other hatches on top of the tanker also were blown off by the force of the explosion, according to the release. The tankers are designed to haul wastewater from drilling sites, and officials believe the explosion occurred because of a buildup of methane gas inside the tank.

143 5065 Brendan Wegner
and Ray Hardy Deceased
Deceased

Exposure: Explosion

Wegner and Hardy expired from burn injuries after an oil well exploded. Two others were hospitalized.

The cause of the explosion is under investigation by the federal Occupational Safety and Health Administration and others.

OSHA area manager Tim Deutscher said his office investigates all fatalities or hospitalization incidents at work sites and his investigators were at the explosion scene.

He said fatalities are on the increase and his office has investigated seven fatal accidents in the oil and gas industry in the past year.

"One of the first questions we ask is whether the victim was wearing fire retardant clothing," Deutscher said. Companies are on their own to assess fire risk and require the clothing at job sites, but not all do, he said.

McKenzie County Emergency Manager Jerry Samuelson said it's likely that pressurized oil and gas escaped the well during the work over.

"When you're dealing with high pressure, you just never know, anything can happen," Samuelson said.

He said local fire, rescue and ambulance responders are feeling heavy strain from the constant barrage of calls resulting from oil activity. That includes responding to a four-fatality accident when a pickup carrying two small children collided with a semi truck. All four in the pickup were killed.

This is the second, injury-causing oil rig explosion in recent months.

143	5067	Andrew Rohr	Severely Burned
		Timothy Bergee	Severely Burned
		Jeff Morton	Deceased

Exposure: Explosion

Rohr and Bergee burned over more than half of their bodies.

The cause of the explosion is under investigation by the federal Occupational Safety and Health Administration and others.

151	5172	Nikolai G. Briggs	Deceased
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Exposure: Explosion

Briggs was welding on top of a tank when his torch caused vapor in the tank to ignite and explode. Fatal injuries.

153	5591	Anonymous	Deceased
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Exposure: Explosion

Authorities say the truck was carrying a compressed natural gas fuel system. Something shifted in the truck causing the system to detonate.

The male driver was pronounced dead at the scene. A male passenger was thrown from the vehicle and taken to an area hospital with critical injuries.

Area roads will remain closed for several hours while the investigation continues.

154 5604 Zachary Buckles Deceased 20 Years Old

Exposure: Air, Hydrogen Sulfide

A worker was found dead over an open cover crude oil tank at a Continental Resources well site in Williston, North Dakota. The McKenzie County Sheriff's Department identified the worker as Zachary Buckles. Buckles, 20, was a native of Glasgow, Montana. The Sheriff's Department said likely cause of death was hydrogen sulfide gas poisoning.

The North Dakota Occupational Safety and Health Administration said Buckle worked for Black Gold Testing, a subcontractor at the site. The Sheriff's Department said no foul play is suspected.

155 5605 Amos Ortega Deceased
Roberto Magdaleno Deceased
Nine Injured

Exposure: Explosion

The sheriff said his best guess was that a valve wasn't closed, allowing natural gas or other high-pressure fumes from underground to build up and blow out one of two nearby wellheads. Shrapnel nicked several workers and spewed debris. The apparent force of the explosion -- with vibrations felt miles away -- led to the two deaths, Hopper said.

"I'm kind of dumbfounded myself," he said. "There was no active drilling on location. Just a truck and one of these equipment things to take off the control head."

According to the initial 911 caller, he said, a separator that divides oil from gas had blown up. But authorities didn't find a separator in operation at the scene, Hopper said.

156 6012 David Zamora Deceased 43 Years Old

Exposure: Accident

David Zamora, a 43 year-old father of a 10 year-old son, and subcontractor, was killed when a piece of equipment crushed him at a Rice Energy drill site in Belmont County, OH. Further details may be forthcoming.

162 6085 Richard Shaw Deceased

Exposure: Explosion

Shaw's missing body was recovered after the explosion and fire at the Chambers County natural gas plant. The accident had produced a towering fireball that burned for hours before diminishing as the sun set. One of the workers that was working with Shaw said that he was in the middle of the gas cloud when it happened, so I don't really think he got out. It was a big fire.

167 6140 John Combs Deceased

Exposure: Explosion

Fracking explosives were hauled through our streets. It appears the explosives are loaded with pipe and that pipe is explosive. The perforations that blow holes in the casing to allow the fracking fluid into the formation is accomplished using perf guns. They either load the perf guns full of explosives at the site, or they haul loaded perf guns through our streets to the drill site. Either way, it's another example of why fracking is not clean, not safe and it's not the answer.

Combs may have explosively discharged prematurely fatally injuring himself.
