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Caution required when farming around oil and gas facilities

Agriculture is Alberta’s largest renewable industry and a significant contributor to our provinces’s economic and rural development. Being aware of hazards when farming is a priority and as is the case when working around power lines, farming around oil and gas facilities requires extra attention to protect everyone involved.

Energy Resources Conservation Board (ERCB) regulations require companies to clearly mark oil and gas facilities with flags, fences, or cement barriers. However, it is important that farmers be aware of the location of wellheads and pipeline risers and make working safely around oil and gas equipment a priority.

Exercising caution when operating farm machinery around oil and gas equipment can prevent incidents that are potentially dangerous. Damage to oil and gas facilities can cause explosions, fires and/or the escape of sour gas. Any of these incidents could result in the loss of life, personal injury, environmental damage, evacuation of residential areas and costs to repair facilities and farming equipment.

Energy companies are required to have emergency response plans in

the event damage does occur. The best way to deal with an emergency is to prevent it from happening to begin with.

If you do hit oil and gas surface equipment, stop work immediately and notify the appropriate oil and gas company. If you don’t know the company’s name, please call your local ERCB Field Centre. The Field Centres listed below can be reached 24 hours a day and toll free by first dialling 310-0000 and then the number of the closest ERCB Field Centre:

- Bonnyville: (780) 826-5352
- Drayton Valley: (780) 542-5182
- Grande Prairie: (780) 538-5138
- High Level: (780) 926-5399
- Medicine Hat: (403) 527-3385
- Midnapore (403) 297-8303
- Red Deer: (403) 340-5454
- St. Albert: (780) 460-3800
- Wainwright: (780) 842-7570

The ERCB regulates the safe, responsible and efficient development of Alberta’s energy resources: oil, natural gas, oil sands, coal and pipelines. The ERCB’s mission is to ensure that the discovery, development and delivery of Alberta’s energy resources take place in a manner that is fair, responsible and in the public interest.

Summer farm safety planning tips

- Wear protective clothing when applying pesticides
- Keep all shields on power take off parts and other moving parts in place
- Wear steel toed shoes with non-slip soles
- Use sunscreen on exposed skin with at least an SPF 20
- Turn off equipment and block wheels when making repairs or adjustments
- Always use seat belt on tractors
- Ensure tractors are equipped with a roll over protective structure (ROPS)
- Use slow moving vehicle signs on all equipment and farm vehicles on highways
- Use flashing lights on tractors when on public roads
- Use sunglasses with appropriate UV protection
- Keep children away from all equipment and know where they are at all times
- Do not allow children to ride on tractors or other vehicles and equipment
- Use respirators in conditions of high dust or chemical potential
- Make sure equipment is properly hitched and all potentially loose items are secured tightly in place

Understanding flight zones and points of balance

Adapted from www.grandin.com and Cattle Handling: In the Zone) Farm Animal Council of Saskatchewan Inc.)

Understanding the concept of an animal's point of balance and flight zones will allow handlers to have an easier time moving the animal.

Points of Balance and Movement:

The point of balance on an animal is located at the animal's shoulder. Animals will move forward when the handler stands behind the point of balance. Animals will move backward when the handler stands in front of the point of balance. Groups of animals will move forward in a chute system when the handler walks past the point of balance in the opposite direction of the animals in the chute.

Flight Zones and Movement:

A flight zone is described as an animal's personal space. If someone stands too close to you, you feel uncomfortable and will move away. The same principle can be applied to animals. The size of an animal's flight zone is determined by the wildness or tameness of the animal.

If the handler moves too quickly and deeply into an animal's flight zone, the animal will turn away from the handler and try to get away. If the handler is on the edge of the flight zone of an animal, the animal will turn and walk away. If the handler is outside the animal's flight zone, the animal will face the handler.

If the animal becomes aggressive, then the handler should remove him or herself from the animal's flight zone.

Unintentional ingestion of toxic alcohols: Think before you drink!

By Michael Cull, Colleen Noble & Mark Yarema, Poison and Drug Information Service. Submitted by Injury Control Alberta

The unintentional ingestion of toxic alcohols (e.g. methanol and ethylene glycol) can be a common occurrence in Alberta. The Alberta Poison Centre recorded 188 cases of accidental toxic alcohol exposures between April 1, 2008 and March 31, 2009.

Products containing toxic alcohols are commonly found at home and at work. These include: windshield washer fluid, gas line antifreeze, paint thinners, radiator fluid, fondue fluid, de-icing solutions, and model car and plane fuels. All of the above products contain methanol with the exception of radiator fluid which contains ethylene glycol.

When methanol or ethylene glycol are ingested (or inhaled), they are broken down by the body into toxic byproducts. Side-effects include nausea and vomiting, intoxication, acid indigestion, seizures, blindness, kidney failure, loss of consciousness and death. As little as a mouthful is enough to cause serious consequences.

One example of an unintentional and preventable exposure is a recent case that was called into the Alberta Poison Centre. A healthy 34 year old male was working at an oil and gas site. He was thirsty so he took a drink from a sport drink bottle containing a blue liquid. After the second mouthful he realized the contents were not what he thought and shortly thereafter

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Hazard management: Six questions to keep you safe

By Lindsey Grover

“Go to the barn and check the cows” is a common phrase heard by many rural teens across Alberta. On a cool, crisp April morning James Smith, a young man from southern Alberta, heard those words uttered by his father, as he has heard many times before.

On this morning James left the warmth of his home en route to a catastrophe that would change his life forever.

While Smith was tagging a new calf in a pen, like he had done many times before, the calf’s mother viewed James as a threat and charged at him. James retreated to the safety of a panel; he didn’t realize it was the panel by the swinging gate. While James was scrambling up the panel the enraged cow hit the gate with such force that when the gate slammed into James’ ankle, the breaking of bone could be heard throughout the barn. The cow then charged again, this time breaking James’ forearm.

After the cow went back to her young calf, James was finally able to escape to safety. As he limped back to the house, his hand dangled in the wind as blood gushed from a gaping hole in his ear.

James now realizes he should have done things differently. “I should have thought ahead as to what could happen in the pen with the crazy cow and her new calf,” James said. By reflecting on his experience with the cow and her calf, James now thinks daily about the potential hazards that exist on a farm.

Thinking ahead or hazard assessment is an important aspect to everyday life. However, when farming or working with livestock, the skills required to assess situations becomes even more important. A hazard can be defined as something that could cause you or

others harm.

A hazard assessment can be completed in a few simple steps and will result in the prevention of many incidents and injuries. Using the “SafeThink Six” (from the HDC Inc. SafeThink© program) questions allow you to quickly assess hazards for any job that you are doing on the farm. By asking these questions, you can change the way you do a task to make it safer:

- 1 Does the work involve hazardous material, such as propane, gasoline, medicine, or battery acid?
- 2 Does the work involve objects, motion or force, like machinery, equipment, livestock, or sharps that could cause harm?
- 3 Does the work involve non-ambient conditions, such as hot or cold weather, welding flashes, noise or lack of oxygen that could cause intense discomfort or death?
- 4 Is current or static electricity a factor in doing the work? Electricity can be in many forms such as power lines, outlets, frayed power cords, and static build up in vehicles.
- 5 Is radiation present when doing work? Radiation can come from x-rays, microwaves and the sun.
- 6 Could changes in conditions create a hazardous situation? Such changes include sudden weather shifts, tire blow outs and machinery malfunction.

James now uses the memory of this incident to his advantage by ensuring any task he does is carried out safely. Thinking of the SafeThink Six approach, when asked what he would change to avoid the incident, James said, “I



would not have stood in that spot. I would have surveyed the situation and asked myself if it would be safe to enter the pen. I also would have not been by myself; I would have asked my dad to help me.”

Protecting yourself, and others, while on the farm might seem like an overwhelming task – there are so many variables. But by following through on these four suggestions, safety becomes a more manageable part of your daily routine:

- 1 Make a commitment to safety.**
Make safety personal – stay alert and take action to reduce illness or injury.
- 2 Ask questions by using the SafeThink Six.**
- 3 Get proper training for the task.**
By gathering proper skills and knowledge you can better assess hazardous situations.
- 4 Stay safe for the good times.**
Assess risk and use your knowledge to manage that risk.

After the incident James vowed to make safety a priority for himself and his family on their farm. James now uses the SafeThink Six in his every day life to stay safe for the good times.

For more information about hazard management please visit www.agriculture.alberta.ca/farmsafety.

Canadian Farm Fatalities Decreasing

Fatal agricultural injury data from 1990 to 2005 show the safety record on Canadian farms is improving. Based on the most recent report from the Canadian Agricultural Injury Surveillance Program (CAISP), the number of people killed on farms in Canada has declined during the past 16 years.

According to CAISP data, there were fewer fatal injuries among children in Canada aged one to 14 and among adults 15 to 59.

Marcel Hacault is the executive director of the Canadian Agricultural Safety Association which oversees CAISP. He says, "The statistics are evidence of a safety culture changing for the better within Canadian agriculture – except in adults over 60."

The CAISP data showed no change in the rolling average of fatal injuries for farmers over 60. "That," he says, "is an indication that older

adults are actually at increased risk on farms."

Hacault also points out that the data show agricultural injuries are not due to random or isolated "accidents." Instead, there are many recurrent patterns of injury – with agricultural machinery involved most often.

In the sixteen years from 1990-2005, 1,769 people were killed in agricultural injury events in Canada.

Hacault points out that agricultural machines were involved in 71 per cent of the fatalities with rollovers accounting for almost a quarter of the deaths and machine runovers just slightly behind. Nine out of 10 of those fatally injured as a result of agricultural work were boys and men. Hacault says over 95 per cent of those were 65 years of age or older. Fatality rates were lowest for adults of normal working age, though they had the greatest



exposure to the hazards of agricultural work.

Hacault says if more producers made sure all of their tractors had Roll Over Protection and seatbelts, it would go along way toward making farm work safer. He also advises parents to keep all children under 12 from operating tractors of any size.

For the complete report *Agricultural Fatalities in Canada 1990 – 2005* from the Canadian Agricultural Injury Surveillance Program, go to www.casa-acsa.ca.

Think before you drink continued...

started to experience nausea.

He learned from a co-worker that the bottle was filled with windshield washer fluid containing methanol, which is often used for flushing out lines or preventing machine parts from freezing. He called the Poison Centre for advice and was directed to the local hospital for evaluation.

Upon arrival at hospital the patient complained of a mild feeling of intoxication. Blood work was ordered and he was started on intravenous medication to prevent the conversion of methanol to formic acid, a toxic by-product. His peak serum methanol level was 6 mmol / L. Concentrations at or below this level are not typically treated unless there is evidence of organ damage (e.g. blindness). The patient was therefore discharged from hospital in stable condition.

In this case, the man was lucky. However, in some instances patients must undergo further treatment, such as dialysis, to remove the toxic alcohol and its by-products from the blood.

How can this type of situation be prevented?

- Store products in original containers with labels intact.
- If products must be decanted for practical reasons, ensure the new container does not resemble a beverage container or water bottle and is properly labeled with standard warning labels that clearly and prominently indicate the ingredient.
- Ensure material safety data sheets are available in the workplace for all products.

- Be aware of which products in your home or at work contain methanol and ethylene glycol.
- Read the labels on containers and always use as directed.
- Do not leave products in use unattended, and store unused products in locked cabinets.

Poison and Drug Information Service (PADIS) staff are available 24 hours a day, 365 days of the year to offer advice on poison management and prevention. For assistance, contact PADIS toll free throughout Alberta at 1-800-332-1414 or in Calgary at 403-944-1414. You can also visit us online at www.padis.ca.

Live to ride another day

Stay safe riding ATVs

They're exciting and a wonderful way to enjoy the Alberta landscape. They are also a great way of getting around to do chores on the farm or acreage. But all-terrain vehicles – or ATVs – are more than a tool and are definitely not toys. The very power that makes them exciting and useful can also make them deadly.

ATVs cause more injuries than any other consumer product. In one year in Alberta alone, there were about 780 hospital admissions for injuries related to ATVs and more than 5,800 emergency department visits.

“Most people who die in ATV crashes suffer a head injury,” said Dr. Donald Voaklander, Director of the Alberta Centre for Injury Control & Research. “One of the most important steps people can take to stay safe is to wear an approved ATV helmet that has face and eye protection.”

The provincial centre recently studied the available research on ATV-related injuries and learned that many crashes and injuries could have been avoided by following the seating limit of the ATV. “ATVs built for one person are harder to control and more likely to tip when a passenger tags along,” explains Voaklander. “We urge people to refuse to carry or be a passenger on an ATV that’s only built for one.”

Intoxication by drugs and alcohol has been implicated as one of the most pervasive risk factors in ATV injuries. Even slight intoxication increases both the likelihood of a crash and the likelihood that the injuries sustained will be more severe. Of the ATV fatalities in

Alberta between 2002 and 2009, 55 per cent of those checked for alcohol had tested positive – 72 per cent of whom were over the legal limit.

“Most recommendations for safety on ATVs are straightforward, like zero tolerance for drugs or alcohol,” says Brent Hodgson, President of the Alberta Off-Highway Vehicle Association. “And ATVs are unique vehicles just like motorcycles or snowmobiles. It takes specific skills to ride an ATV safely.” Organizations like the Alberta Off-Highway Vehicle Association and the Alberta Safety Council offer hands-on training which provides riders the special skills and practice they need.

ATVs may look easy to operate, but it takes practice and experience to learn to navigate the terrain and situations that riders will come across. When it comes to children and ATVs, the evidence is clear: children and youth do not have what it takes to ride safely. Children have less strength, control, coordination and judgment than adults which ultimately translates to a higher risk of injury and death. People younger than 16 years of age have a substantially greater risk of injury than someone over 16. They accounted for 15 per cent of all ATV-related deaths in Alberta between 2002 and 2009. ATV dealers and safety advocates recommend that anyone under 16 years of age ride an ATV that is appropriate to their age, weight, and maturity. Youth-size ATVs may reduce the risk of injury.

Any rider under 16 should also have constant, close, visual supervision by a responsible adult. “The power, speed and weight of an ATV along with the unpredictable nature of the off-road conditions make the consequences of an ATV crash or rollover just too serious to ignore,” says Voaklander. “By respecting ATVs and making smart choices, we can reduce the risks.”

More information about ATV safety is available on the Alberta Centre for Injury Control & Research website at www.acicr.ualberta.ca or by calling 780-492-6019.



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We're on the web:

www.agriculture.alberta.ca/farmsafety

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