CANADA
Province of Alberta

Report to the Minister of Justice and Attorney General
Public Fatality Inquiry

Fatality Inquiries Act

WHEREAS a Public Inquiry was held at the Provincial Court

in the Town (City, Town or Village) of Okotoks (Name of City, Town, Village), in the Province of Alberta,

on the 22nd day of October, 2008 (year), (and by adjournment

on the 23rd day of October, 2008 (year)),

before The Honourable Judge Peter Barley, a Provincial Court Judge,

into the death of Kevan John Chandler (Name in Full) 35 (Age)

of Black Diamond, Alberta (Residence) and the following findings were made:

Date and Time of Death: June 18, 2006 at 10:30 a.m.

Place: Tongue Creek feeders near High River, Alberta

Medical Cause of Death:
("cause of death" means the medical cause of death according to the International Statistical Classification of Diseases, Injuries and Causes of Death as last revised by the International Conference assembled for that purpose and published by the World Health Organization – The Fatality Inquiries Act, Section 1(d)).

Smothering

Manner of Death:
("manner of death" means the mode or method of death whether natural, homicidal, suicidal, accidental, unclassifiable or undeterminable – The Fatality Inquiries Act, Section 1(h)).

Accidental.

CIRCUMSTANCES UNDER WHICH DEATH OCCURRED:

Summary:

1) The deceased, Kevan Chandler, was an employee of a feedlot. Just before noon he went inside a silo to clean out grain that was encrusted on the inside wall. He was attempting to knock down the grain when it collapsed, burying him and causing his death by smothering.

Circumstances:

2) Roseburn Ranches and Tongue Creek Feeders are associated operations that, in 2006, employed 35 to 40 people in the raising and feeding of cattle.

3) Of particular interest to this inquiry, there were a number of silos used in the feeding of the cattle. Most were used to mix and prepare the feed, but silo 7 was simply used to receive and store grain.

4) Silo 7 was metal, 90 feet high and 30 feet in diameter. It had a small opening at the top, that could be opened to vent the silo. There was also a hatch with a door at the base of the silo, that was big enough to climb into.

5) Entry into the silo became necessary when the silo needed cleaning, which occurred approximately once a year. At this time, grain on the floor of the silo needed to be shoveled out. The difficulty arose when grain would be stuck to the interior walls of the silo. Unlike the mixing silos, which had sweeps on the bottom that kept the contents moving, silo 7 had no internal mechanism for bringing grain down. As a result, silo 7 was more difficult to clean out.

6) Tongue Creek Feeders had written policies in place dealing with the procedure to be followed by employees cleaning out silos. The Mill Handbook provided that silos must be shoveled out ASAP, and that there should always be two people present when cleaning out a silo. Safety gear was to be worn. Other instructions unrelated to the present inquiry were also given on the same page.

7) The Safety Policy provided, among other instructions, that personal protective equipment was to be used at all applicable areas, and that Confined Space Entry procedures must be followed and adhered to at all times.

8) The Confined Space Entry Procedure is set out elsewhere in the written instructions to employees. It states:

Roseburn Ranches Ltd.

Confined Space Entry Procedure

1. Consult with the Production Supervisor or Shift Foreman for entry approval.
2. Check and wear protective equipment provided.
3. Ensure that a qualified person trained in the entry and emergency procedures is in attendance outside the confined space.
4. Ensure that the qualified person is in communication with the person inside the confined space.
5. Ensure that two or more persons are in the immediate vicinity of the confined space to assist in the event of an emergency.

7. PERSONS WILL NOT ENTER OR WORK BELOW THE HIGHEST LEVEL OF INGREDIENTS OR FEED AT ANY TIME.

9) The job description for the mill crew repeated the instructions in the Mill Handbook, and added that the grain in the silo was to be at a 45 degree angle before the silo was entered.

10) Mr. Chandler was hired by Tongue Creek Feeders in August, 2005. He was trained by experienced workers at the mill. Peter Chrysler, who was the Mill supervisor, had worked with him for the first two weeks of his employment. During this time, they reviewed the Mill Handbook, and Mr. Chandler was shown a silo with grain on the inside walls. According to Mr. Chrysler, they had cleaned out two silos together.

11) Mr. Chrysler testified that a silo was to be aired out for 24 hours before cleaning. During that time, it was hoped hanging grain would fall on its own. If it did not, it could be chipped down with a pole, or blown down with an air compressor. An auger could be used on the side to get a good slope. Once sloped, the grain was safe to shovel out.

12) This procedure had been followed on the two cleanings done by Mr. Chrysler and Mr. Chandler. Mr. Chrysler testified that the mill crew tried to get together monthly to discuss issues, and that Mr. Drabbe and Mr. Chandler suggested using poles and air compressors to clean the silos.

13) After the two week orientation, Mr. Chandler worked with Matt Drabbe, who had nine years of experience at Tongue Creek Feeders. In his performance review in November, 2005, Mr. Chandler expressed satisfaction with the information available to him and with the help that he received from Mr. Drabbe, although he felt that there should be more frequent meetings with all the workers at the feedlot. By June, 2006, Mr. Chandler was a supervisor.

14) On June 17, 2006, Kevan Chandler and Matt Drabbe went to silo 7 with the intention of cleaning it out. Wet grain had been put into the silo during the winter of 2005 – 2006, and when the silo was emptied, there were still pillars of grain stuck to the walls of silo 7 to a height of twenty to thirty feet. These had to be cleaned out before silo 7 could be refilled. Kevan Chandler went inside the silo, but Matt Drabbe believed that the grain was not stable enough to allow a safe entry and told him to exit. They tried blowing the grain down with an air compressor, but this was not very successful.

15) On June 18, 2006, the two men returned to clean out silo 7. Mr. Chandler entered the silo, while Mr. Drabbe waited by the hatch. Mr. Drabbe again expressed a concern that the grain was not stable and Mr. Chandler exited the silo. The grain was hanging vertically on the wall.

16) Shortly before 10:30 a.m. Mr. Chandler entered the silo again. He was on top on the grain that was stuck to the side poking it down so Mr. Drabbe, who was outside the hatch, could shovel it out.

17) Mr. Drabbe left to get a longer pole. He returned within five minutes and noticed that the grain had fallen in and was blocking the hatch entrance into the silo. He cleared the door, and found Mr. Chandler lying on top of the grain about five feet from the opening.

18) Mr. Drabbe pulled Mr. Chandler out of the silo, and noted that he was still wearing the dust mask that he had on earlier. Mr. Chandler was not responding, so Mr. Drabbe tried to clear his mouth and nose. After a few minutes, Mr. Drabbe called for help on his phone, and others arrived within five to ten minutes. One of them called 911.

19) Others tried to clear the grain from Mr. Chandler's mouth and nose, and to provide CPR.

20) Paramedics and the fire department were called at 11:42 a.m. and arrived at noon, and tried to revive Mr. Chandler. All attempts were unsuccessful, in that Mr. Chandler never breathed thereafter and was pronounced dead at the High River Hospital at 12:49 p.m. that same day. He had been smothered by the grain.

21) The silo was later cleaned out by using an air compressor and longer poles.

22) A Fatality Inquiry was ordered after the Fatality Review Board recommended that one be held to determine if the death of Kevan Chandler was preventable, and address the advisability of having *Occupational Health and Safety Act* investigators involved in farming accidents that occur on large farming and livestock operations.

23) Evidence was given at the inquiry by a number of experienced co-workers of Mr. Chandler, including Mr. Chrysler and Mr. Drabbe. Their opinion was that it was a judgment call in every case as to when it was safe to enter a silo to shovel out grain.

24) Grain that is hanging from the walls must be removed before entry into the silo is safe. This can be done by the use of poles or air compressors operated through a hatch from outside. In the alternative, pounding on the walls from outside, or having a worker lowered if a silo has top entry might be explored.

25) It is grain that is hanging from the walls, sloped at an angle that is greater than 45 degrees that is dangerous. Grain at a lower angle is apparently stable enough to walk on, so the height of it should not be an issue.

26) It was noted that Mr. Chandler had expressed concern on the morning of June 18th as to the danger in clearing out silo 7. However, Mr. Chandler was known to be eager to please, and confident in his abilities, and the opinion of the co-workers was that Mr. Chandler made an error in judgment, caused by enthusiasm and lack of experience.

27) It was common ground among the co-workers that despite the instruction that silos were to be cleaned out ASAP, that safety was always to be of greater importance than speed, and that there was no pressure to cut corners on safety to increase efficiency.

28) The co-workers also opined that a safety harness would not have helped Mr. Chandler. He could not be lowered from the top to clean out the silo, since the opening was limited in size and there was no means of securing any harness from the top. The harness would not have helped to save Mr. Chandler, once the grain fell, because it was too heavy to allow someone to be pulled out from beneath it.

29) The court was greatly assisted by the evidence of Eric Jones, a retired farm safety specialist from Alberta Agriculture. He had been hired after the death of Mr. Chandler by Peter Morrison, the owner of the feedlot.

30) He suggested that records be kept of prior experiences in cleaning silos, so people presently undertaking a task can review the experiences of previous cleaners and perhaps learn from that. This would be required under the *Occupational Health and Safety Act*, R.S.A. 2000 Ch. 0-2., for occupations governed by that *Act*. Farming is not.

31) He also suggested that there be a form to be completed before undertaking a hazardous task that would assess the present hazard, as a means of ensuring that a worker had assessed the various dangers present in the task. This would also be necessary under Occupational Health

and Safety legislation, if it applied to farms.

32) The use of these forms and the recording of results would allow knowledge to be passed on to new employees. It is not expected that a form be filled out every time machinery is activated, for example. However, some activities are inherently dangerous like cleaning silos, and there is no realistic way to assess the danger without the benefit of experience. Mr. Chandler had the benefit of experience of Mr. Chrysler and Mr. Drabbe, but there is no guarantee that such people will always be available to mentor new workers. A record of past cleaning would provide the benefit of experience to inexperienced workers, and the use of the hazard assessment form would require the worker to focus on the potential danger.

33) He noted that Roseburn Ranches/Mill Creek Feeders had a procedures manual that covered the cleaning of silos, and that it contained a recommendation that no one enter a silo with grain sloped higher that 45 degrees. This provision of a safety manual was unusual in the farming community.

34) Mr. Jones expressed frustration that there was no one to replace him as the farm safety specialist. He felt that there should be a training system set up that would allow him to pass his experience on to others, who could take it to the individual farms.

35) He recommended that standards be set up by a committee of experts, and that the farmers themselves would enforce the standards set. He also expressed concern about the ability to monitor training in a workforce that was highly mobile. He suggested that workers have documentation that they could take from job to job showing what training they had received.

36) He admitted that the death of Mr. Chandler would not have been prevented by regulations because the decision to enter the silo was a personal judgment.

37) Yan Lau from the Alberta Department of Employment and Immigration advised the inquiry that their employees establish and maintain workplace safety rules and provide technical support for workers or employers. They help interpret provisions of the *Occupational Health and Safety Act,* and its regulations. If necessary, they can recommend that prosecution for a violation be conducted.

38) She noted, however, that farming is exempt from the *Occupational Health and Safety Act,* by the Farming and Ranching Exemption Regulation, Alberta Regulation 271-1995. She attributed this to a greater desire in other industries to establish uniform workplace safety rules, whereas the agriculture community was more interested in education. She felt that the non-farm employers appreciate having workplace guidelines in place governing hazardous activities. This allows employers and employees to become aware of what is required to be safe. Employers that follow these guidelines can use them to enforce proper behaviour by their employees, and to claim due diligence if the guidelines are followed and an accident occurred.

39) For instance, if entry into a silo on a farm was covered by the *Act* at a regulated worksite, there would be a written code of practice identifying hazards and worker training. The employers appreciate this because it gives them a reference point that enables them to prove due diligence.

40) Laurel Aitken from the Alberta Department of Agriculture agreed that their approach to farm safety was to provide education, with the emphasis on children.

41) There are three employees of the Alberta Department of Agriculture involved in educating 50,000 Alberta farmers, whereas there are 84 Occupational Health and Safety inspectors from the Alberta Department of Employment and Immigration monitoring 140,000 non-farm employers.

42) It was pointed out that many farms are family run operations, part home and part workplace. Since a non-farmer working at home is not covered by the *Occupational Health and Safety Act*, it was felt by many farmers that they should be exempt for the same reason. No logical explanation was given as to why paid employees on a farm are not covered by the same workplace legislation as non-farm employees.

43) Neither the Department of Employment and Immigration nor the Department of Agriculture investigated farm deaths, because there was no legislation to require it. If the Medical Examiner investigated a death, Alberta Agriculture would review that report to consider if it could assist them in their education program.

44) Evidence was given that the death of a worker in a non-farm setting would be investigated by the Department of Employment and Immigration under the *Occupational Health and Safety Act*.

45) Records of these investigations would show if a death was completely unexpected or similar to others. It would allow a recommendation to be made that would incorporate standards that were not met in the fatal accidents. For instance if a number of workers died in a series of accidents in which they were engulfed in material at cement plants that was stored at a slope exceeding 45 degrees, then it could be recommended that no-one enter the storage area of the material that was stored at a greater angle.

46) No similar investigation with the power to make recommendations applies to fatalities on a farm, because farm workers are specifically excluded from the *Occupation Health and Safety Act* by the Farming and Ranching Exemption Regulation.

47) This causes a problem when recommendations are being sought to prevent deaths from occurring in similar situations in the future. An entity like the Department of Employment and Immigration, if they investigated farm employment deaths to the same extent that they investigate non-farm employment deaths, would obviously have far greater ability to make meaningful recommendations to improve workplace safety on the farm than any entity hearing the facts of a single fatality.

48) The evidence of Mr. Jones is that it is imperative that proper procedures be set for hazardous activities on the farm so that farmers and their employees know what standards have to be met. If the standards were recommended by a committee that included farmers, then the collective experience and knowledge could be set out in a manner that could be accessed by everyone with an interest in the activity. This would allow employers to know what standards would make their workplace safe, and to insist that their employees meet that standard. Lessons learned by experience would be available to all, not just those fortunate enough to work with someone like Mr. Drabbe with his years of experience. Conscientious farms like Roseburn Farms would not need to hire one of the few available farm safety specialists like Eric Jones, because the standards required would be available to all, as part of the regulations made pursuant to the *Occupational Health and Safety Act.*

49) The issues considered by the Issues Inquiry, as agreed to by the parties were:

1. The proper procedure for cleaning of grain silos.
2. The applicability of the *Occupational Health and Safety Act* to farm employment.

50) The widow of Mr. Chandler appeared by counsel at the inquiry, as did the employer, Roseburn Ranch and Tongue Creek Feeders. Both counsel examined witnesses and made submissions.

51) In addition, I granted status to the Farm Workers Union of Alberta, which made submissions,

but did not examine witnesses. I determined that this organization representing hundreds of farm workers had a direct and substantial interest in the subject matter of the inquiry.

Recommendations for the prevention of similar deaths:

1) No entry be made into a silo beneath the top level of the grain contained inside, unless that grain is resting at an angle of less than 45 degrees.

2) There must always be at least one person outside the silo when another person is inside cleaning. This allows them to watch for signs of trouble, signal for assistance if needed, and start immediate attempts at rescue.

3) Written hazard assessment forms should be prepared for use each time that an activity known to be dangerous is undertaken by an employee on a farm. These forms should be kept at the site of the expected undertaking. The results of the undertaking should be recorded and kept available for review.

4) A portable instrument suitable for summonsing help be available when a hazardous operation is being conducted.

The Applicability of *The Occupational Health and Safety Act* to Farms:

1) It is recommended that paid employees on farms should be covered by the *Occupational Health and Safety Act,* R.S.A. 2000 Ch. 0-2., with the same exemption for family members and other non-paid workers that apply to non-farm employers.

2) It is recommended that training programs be set up by the Department of Agriculture to address ways to minimize the risk of hazardous activities, with a system to record training received by both employers and employees.

DATED December 29, 2008 ,

At _____ , Alberta.

Peter B. Barley
A Judge of the Provincial Court of Alberta