The long-term care industry continues to witness escalating injury frequency and severity rates throughout Alberta. Over the past two years, however, the Shepherd’s Care Foundation has tried to reverse the trend in injury numbers, severity and costs.

Data for the long-term care industry identifies musculoskeletal injury, and specifically back injury, as the primary incident type. These injuries, estimated at 72 per cent of incidents and 83 per cent of costs, are directly related to the increased care needs of residents. We are finding that our residents are heavier and frailer (needing more assistance). It is not uncommon for caregiving staff to do as many as 100 resident moves per day.

As well, long-term care demographics show an aging workforce. At Shepherd’s Care, over 40 per cent of employees have worked in long-term care for nine years or more. The combination of an aging workforce and a frailer resident is a recipe for injury.

The preferred control for hazards lies in engineering out the risk. For Shepherd’s Care, this means substituting safer methods such as using mechanical equipment. As well, we have introduced special techniques, education, orientation, training and inservice. Canadian research into zero lift, two-lift and mechanical lift policies has compellingly proven that they reduce back and musculoskeletal injuries dramatically.

Shepherd’s Care has implemented new programs involving:
• training and education in ergonomic lifts, transfers and repositioning techniques
• improved physical conditioning of caregivers
• increased supervisory follow-up and assessment to ensure staff competency
• increased reporting of investigation into incidents
• improved control of potential risks

Keys to the Shepherd’s Care program

Management leadership and organizational commitment. The first step is for senior management to commit the organization to a strategy for reducing musculoskeletal injuries. This commitment, which was initiated through the board of directors, includes the empowerment of our intra-disciplinary health and safety committee, and a considerable capital investment.

Hazard identification/assessment/control. We began using a new hazard assessment tool that facilitated hazard identification and assessment, thus enabling hazard control and reducing or eliminating the risk of injury.

Engineering methods. Engineering controls include the arrangement, design or alteration of the physical work environment, and the use of equipment or specialized materials. Engineering controls at Shepherd’s Care include ceiling track mounted lifts, portable lifts, new beds (both electric and manual) and transfer belts.

Inspection. Ongoing formal and informal inspection ensures that correct methods are utilized, staff competency hazard assessments are current and appropriate controls are in use.

Employee orientation and training. All new employees undergo an introduction to back care, including a lifting assessment. Orientation affords the opportunity to change the culture, beginning with new incoming employees, by setting expectations. We have developed a physical demands analysis (PDA) for each position to ensure employees are capable and aware of the expectations. As well, ongoing training in back care forms part of our regular educational programs.

Incident investigation. Investigating injuries or near misses helps prevent further related injuries. Staff are actively encouraged to report incidents and identify all potential preventive actions. Completed incident investigation results are communicated to employees.

Other initiatives include a health and safety newsletter, a best practices committee, expansion of modified work programs, the addition of a health and safety component to annual performance appraisals and ongoing revision of policies and procedures.

The results

Before 2000, the Shepherd’s Care Foundation did little tracking of workplace injuries. We now track these injuries as they happen, and this data provides a base from which to begin. Over the past three years there has been a considerable decrease in WCB claim costs – $114,943 in 2000, $81,743 in 2001 and $42,068 in 2002 – and the number of musculoskeletal injuries has been minimal.

John Pray is the President of Shepherd’s Care Foundation.

[Watch for an article about lifting and handling loads in the September issue.]
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Much More
After almost a year and a half of planning and preparation, Dow Canada’s Western Canada Operations manufacturing site in Fort Saskatchewan is kicking off a six-week maintenance turnaround project at its Hydrocarbons Products production facility. Plans are to shut down the HCP facility in late April in order to conduct maintenance, reliability, environment, and health and safety projects. This significant undertaking will require 450,000 hours of work and an additional 1,000 contract personnel to complete.

“As always, safety is our number one priority during all project activities,” says Shawn Griffiths, HCP production leader at the Dow Western Canada Operations site. “Dow is committed to providing everyone on the project with all the knowledge and understanding of policies, procedures and expectations they need to achieve excellence in safety performance.”

Dow’s safety program focuses on providing project personnel with essential skills and resources so they can take ownership of their own safety and the safety of their coworkers. Workers use tools like Dow’s behaviour-based performance model to look at safety behaviours, identify activities and areas that could be improved, and implement changes to continue meeting safety expectations.

Dow strives to create a Target Zero workplace – one with no injuries, no illnesses and no environmental incidents. Dow’s employees have made significant progress towards this goal and have helped their company maintain its status as an industry leader in safety performance.

For more information, go to www.dowcanada.com.

NAOSH Week activities will be held in many communities throughout Alberta May 2-8. The purpose of this annual event is to focus the attention of employers, employees and the general public on the importance of preventing injury and illness in the workplace and encouraging new health and safety activities.

For details, go to www.naosh.ca.
Changes Introduced by Bill C-45
by David Myrol

Bill C-45 has introduced several changes into our criminal law. (Although the Bill became law in Canada when it received Royal assent on November 7, 2003, most of the changes came into force on March 31, 2004.)

The most dramatic of these changes is the creation of a new legal duty in s. 217.1: for the first time in our country, anyone who directs work now has a legal duty to take reasonable steps to prevent physical harm from occurring to anyone else as a result of the work. A breach of this new legal duty will not automatically result in a conviction for criminal negligence. The Crown must still prove beyond a reasonable doubt that the breach of duty represented a “marked and significant departure from the standard of a reasonably prudent person in the circumstances.” In other words, there must be more than a mere failure to meet the minimum standards set out in the Occupational Health and Safety Act. There must be evidence of a complete disregard for, or indifference to, the duty itself.

Other major changes:

- a broadening of the kinds of “organizations” that are subject to the law, such as corporations, firms, partnerships, trade unions, municipalities and other related associations
- an expansion of the ways in which the Crown can prove that an organization had the necessary guilty mind to commit the offence in question

All of these changes make it “easier” for the prosecution to prove criminal negligence against a corporation or individual. However, it is still by no means “easy” to do so.

David Myrol was a Crown Prosecutor responsible for occupational health and safety legal issues until December 31, 2003. He is now with McLennan Ross in Edmonton.

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Heads Up campaign in its sixth year

The Heads Up campaign, now in its sixth year, strives to get the workplace safety message out – especially to young males (18 to 34) who are new to an industry and/or new to a work site. The campaign includes radio commercials, posters in bars, restaurants and work sites throughout Alberta, and articles in employers’ magazines.

In 2003, nearly 52,000 inexperienced workers were injured on the job in Alberta, and eight died of work-related injuries. “These are not just statistics,” says Guy Kerr, President and CEO of Workers’ Compensation Board-Alberta. “They are our children, spouses, friends and neighbours.”

For more information, go to www.wcb.ab.ca.

No OH&S training for most Canadians in a new job

Using data collected by Statistics Canada during the 1999 Workplace and Employee Survey, an Institute for Work & Health researcher found that just 19.8 per cent of workers who had started with a new employer in the past six months had received either occupational health and safety or orientation training. Only 16 per cent of those who had been with a new employer for six to twelve months said they had received either type of training. Eighty per cent of young workers (those under age 25) reported they had not received either type of training.

For more information about IWH and its research, go to www.iwh.on.ca.
Contact stress happens when force is concentrated on a small area of the body, pinching or crushing tissue and causing discomfort and often pain. You experience contact stress, for example, when the edge of a work surface digs into your forearm or wrist, when ridges and hard edges on tool handles dig into your hand, and when you use your hand, foot or knee as a hammer. The sides of the fingers, palms, wrists and forearms, elbows and knees are most susceptible to contact stress because in those areas the nerves, tendons and blood vessels are close to the skin and underlying bones.

When you rest some or most of your body weight on a small portion of your forearms, elbows, knees or thighs, the resulting highly concentrated forces may be enough to restrict the movement of tendons and cause inflammation, restrict the flow of nutrient and oxygen-carrying blood in the blood vessels, or bruise the muscles.

Avoiding injury
The sharp edges of tables and workstations can often be covered with soft padding, and some workstations come equipped with leading edges that are already rounded or have padded inserts.

For most people, tools that have grooves for the fingers don’t work well because the grooves are either too big or too widely spaced. The resulting pressure ridges across the hand can damage nerves or create hot spots of pain. Grooves along the length of the handle, which are intended to prevent slipping, can also cut into the hand and create pressure ridges, especially if the tool is in continuous use. If a grooved handle is the only choice available, ensure that the grooves are many, narrow and shallow.

Workers should avoid continually using the base of the palm of the hand or the knee as a hammer. For example, carpetlayers often use the knee repeatedly to install carpets, and in doing so are at high risk of injury.

Other suggestions:
• Redesign workstations or work processes to eliminate contact stress.
• Avoid resting against sharp edges, or try to have them rounded.
• If a part of the body must rest against a sharp edge, pad the edge or pad yourself to better distribute forces.
• Spread contact forces over a greater surface area to minimize tissue injury. For example, increase the size and length of tool handles.
• Wrap handles with tape or soft, grippy materials.
• Cover hard armrests with foam.
• Consider using wrist and mouse rests at computer workstations.

Ray Cislo, P.Eng., B.Sc.(H.K.) is a safety engineering specialist at Workplace Policy and Standards, Alberta Human Resources and Employment.
“How often do we have this much change in the legislation?”
That question from a member of the magazine’s advisory board aptly describes where we are in workplace health and safety in Alberta today. The introduction of the Occupational Health and Safety Code means change of a magnitude that has not been seen in this province for a couple of decades. Or even longer.

Since the Code requires a number of significant shifts in the way Albertans do their work, we have made it the major focus of this special issue. In the following pages you will find articles on the three elements of the Code that apply to all work sites and that require written documentation:

1. violence
2. hazard assessment and control
3. emergency preparedness and response

Each of these articles provides an overview of some of the issues involved in complying with the new Code, which came into effect on April 30, 2004. As many of our readers will have already discovered, the OHS Code Highlights and OHS Code Explanation Guide (both available at the Workplace Health & Safety Web site, www.whs.gov.ab.ca) are excellent sources of detailed information.

Note that the Code has 39 parts with 796 sections. The following articles refer to both parts (or chapters) and specific sections within these parts.
In recent years domestic violence, once accepted and kept hidden, has come into the open as behaviour that is unacceptable in today’s society. Now workplace violence is following the same path, coming out of the shadows and becoming the subject of government regulation.

Sections 390 and 391 of the Occupational Health and Safety Code (Part 27) require employers to:

- recognize and assess workplace violence as a hazard
- develop a policy and procedures on potential workplace violence
- communicate the organization’s policy and procedures related to workplace violence
- instruct workers on recognizing workplace violence
- develop appropriate responses to workplace violence
- develop procedures for reporting, investigating and documenting incidents of workplace violence.

The underlying principle of these regulations is to recognize violence as a workplace hazard that is covered under Occupational Health and Safety legislation. "The Code sends a message that violence must be treated like any other hazard in the workplace, such as chemicals and noise," says Sharon Chadwick, best practices specialist, Alberta Human Resources and Employment. “Employers are responsible for assessing the hazard and putting controls in place to prevent illness or injury due to the hazard.”

Defining workplace violence
Many Albertans believe workplace violence is something that doesn’t happen here, but it does, says Heather Gray, a workplace violence consultant with Edmonton-based TAMA Inc. “A lot of people think of news stories about people coming into the workplace with a gun and shooting their former boss. But lots of other things go on that don’t make the news, and they can be just as profoundly devastating.” For example, one employee might punch another, or there might be harassment and verbal threats.

Studies show that some groups of workers are more at risk for violence – people who work in bars and nightclubs, health workers, teachers, convenience store staff, taxi drivers, government inspectors, security staff – but Gray says workplace violence can occur anywhere, even among white collar professionals. She points out that a study released in 1998 by the International Labour Office identified Canada as one of the world’s front runners for workplace violence.

Exactly what is workplace violence? The Occupational Health and Safety Code defines it as “the threatened, attempted or actual conduct of a person that causes or is likely to cause physical injury.” That can cover a wide range of actions, from a major assault to shoving a person and making them fall, or threatening in such a way the person is afraid further action is “likely” to cause physical injury.

Gray uses a wider definition that includes harassment, insults and verbal threats. She points out that when employers create a workplace violence policy they can go beyond the requirements of the Code, and also notes that harassment is covered under Human Rights legislation. “But don’t get caught up on where the incident fits in legislation,” Gray says. “Just identify the incident and deal with it.”

Workplace violence often involves more than just employees, says Ross Arrowsmith, senior security advisor with the Workers’ Compensation Board-Alberta. There is customer...
violence, “a tough one because nobody wants to lose a customer,” and stranger violence, such as fares who rob a taxi driver. Domestic violence can move into the workplace as well, says Arrowsmith. “Traditionally we think of domestic violence as a personal issue, but when it walks in the door in the form of one spouse looking for another at the job site, it becomes the employer’s problem.”

**Code requirements**

No matter what form workplace violence may take, the Code lays out specific steps for dealing with it. The first is creation of a policy. Arrowsmith says the more comprehensive the policy, the more confidence employees will have in it. Many companies use the term “zero tolerance” in their policies, but Arrowsmith advises against it. “It sounds great and tough, but if that’s all you say, it can backfire and scare people away from reporting an incident because they don’t want to see someone fired.” On the flip side, if an employee expects an incident will end in termination and it doesn’t, he or she can lose confidence in the policy.

Communication is another requirement of the Code. Most experts say that, in addition to making the policy readily available to employees, employers should post it in a way similar to the notices seen in hospital emergency rooms. Gray also recommends sending letters to customers that clearly state your workplace violence policy.

The Code requires employers to develop appropriate responses, which include training managers and staff in recognizing incidents and dealing with them. Much of the information available is from the U.S., but the Workers’ Compensation Board-Alberta offers help for employers through its Preventing Violence at Work program introduced in 2001 (see sidebar, page 10).

A critical part of the WCB course (like most courses on workplace violence) is recognizing the early warning signs. Some of these are:

- threatening behaviour
- inappropriate statements
- veiled threats
- radical changes in behaviour
- an escalation in complaints about the job or a particular employee
- constant arguments on the phone with a spouse

- signs of distraction or increased inability to cope with work
- a sudden tendency to quietness or keeping to themselves by formerly sociable people

However, both Arrowsmith and Gray agree that these are only some of the pre-incident indicators, and therefore encourage people to follow their own instincts. “Employees may be too quick to dismiss warning signs,” says Arrowsmith. “In doing so they may be missing their only opportunity to prevent the situation from escalating into violence.”

The Code also requires employers to have written reports about serious incidents of violence and the follow-up actions taken. These reports must be available for occupational health and safety officers when required.

“Violence must be treated like any other hazard in the workplace, such as chemicals and noise.”
However, not all incidents will be investigated by these officers, and the onus is on employers to take appropriate action. “It’s also important that employees report incidents,” says Chadwick. “If there are 10 different threats by a person and nobody reports it, then the eleventh person doesn’t know there’s a problem.”

Some incidents of workplace violence end up in the hands of the police. Assault and uttering a threat are Criminal Code offences, says Sgt. Marty Fulkerth of the Calgary Police Service’s Crime Prevention Unit. But even if it isn’t clearly a Criminal Code offence, Fulkerth encourages individuals and companies to report it to the police “so that this information is on the police system if the situation escalates in the future.”

Talking about it
To Arrowsmith, the most important action any employer can take is to bring the topic of workplace violence out into the open and encourage employees to talk about it. “We have to get people to understand that it can happen anywhere. It’s a tough subject to talk about, but all of us have to get more comfortable doing this.”

Experts agree that more and more people are talking about it. Like domestic violence, incidents of workplace violence aren’t numerically increasing. What’s increasing is society’s awareness of it and, thanks to legislation like the OHS Code, a willingness and ability to do something about it.

Norma Ramage is a freelance writer and communications consultant living in Calgary.

WCB-ALBERTA’S
Preventing Violence at Work program

WCB-Alberta offers half-day Preventing Violence at Work workshops at its Calgary and Edmonton offices, and has plans to hold similar workshops in Lethbridge and Red Deer. Because of heavy demand, the WCB offers on-site presentations only to larger groups, but it has developed a step-by-step workbook and video. Workbook topics include creating a policy, workplace risk assessment, staff training and strategies for dealing with workplace violence.

For more information, including course dates, go to www.wcb.ab.ca and follow the links. Or contact Ross Arrowsmith, phone (403) 517-6003, or e-mail ross@wcb.ab.ca.

Resources

WEB LINKS

www.gov.ab.ca/hr/whs/publications/pdf/vah001.pdf
Preventing Violence and Harassment at the Workplace (Govt. of Alberta)

www.oshforeveryone.org/ntnu/hazards_prev/social/violence_new.html?noframe
List of resource URLs on workplace violence

www.workplaceviolence.ca/home.html
The Canadian Initiative on Workplace Violence, a social research organization

cnews.canoe.ca/CNEWS/Canada/2003/11/13/256770-cp.html
News article (“Alta. employers responsible for workplace violence”)

IN THE ALBERTA GOVERNMENT LIBRARY – LABOUR BUILDING

For contact information, see page 20.

Videos

Workplace Violence 29 min.
Different types of violence, their causes, how to protect yourself and your co-workers, and why reporting workplace violence is extremely important. (VC 0274)

Workplace Violence: It’s Everybody’s Business 19 min.
Different types of workplace violence situations and typical components of a workplace violence prevention program. (VC 0348)

Violence: Keeping It out of the Workplace 12 min.
Preventing violence in the workplace by recognizing that violence is a real problem, and one that is preventable. Highlights include early warning signs and how to diffuse hostility, developing a “crisis plan,” contributing organizational factors and suggestions for increasing awareness. (VC 0339)
Put it in writing! Remember that phrase. The Occupational Health and Safety Code now requires employers to identify worksite hazards, assess them and specify controls to deal with them. And, an added twist: everything must be written down.

At some workplaces the Code requirements will mean major changes in procedure while for others it will mostly mean business as usual. For example, Edmonton-based Waiward Steel Fabricators Ltd. already documents hazards and controls as an integral part of their safety practices. “With the new Code, our approach to safety will stay the same,” says Jim McElveen, Waiward’s safety and loss control manager. “The Code will require a new awareness of accountability and responsibility, but there will be no fundamental change.”

Even before the new Code came into effect, Alberta employers were required to inform workers of workplace hazards and to eliminate or control them. That obligation remains under Part 2, Section 7 of the new Code. However, employers, in cooperation with employees, must now conduct a proactive hazard assessment, prepare a written report on the results and date the report. Provincial occupational health and safety officers can requisition such reports, and employers who fail to meet the reporting requirements may find themselves in non-compliance.

John Brogly, chair of the Construction Owners Association of Alberta Best Practices Committee, believes there is tremendous benefit in having written reports. “If it’s just done mentally or verbally,” he says, “there is no way of telling whether it’s been done.”

Flexibility built in

The introduction of the new Code followed extensive public and industry consultation, starting in the late 1990s. These discussions confirmed that flexibility in the requirements for hazard assessment and control is important because the hazards and the means of dealing with them vary greatly among, and even within, work sites. For instance, the hazards facing a receptionist, as well as the responses to those hazards, can differ greatly from those encountered by a machine operator working just meters away in a fabricating shop.

For larger work sites, including construction projects, hazard assessments may occur at several levels. A tier-one assessment could cover an entire plant or project and involve personnel who are able to assess hazards and suggest plant or project-wide controls. Tier-two assessment could entail portions of a plant or part of a construction project, say, the installation of a large vessel. The workers and supervisors involved would assess existing or potential hazards and recommend controls.
Finally, small crews or even individual workers might “walk through” a specific task to conduct a field level risk assessment. Hazards or conditions that have the potential to cause injury come in many guises – chemicals, electricity and biohazards among them. Just as types of hazards vary, so do risk levels (high, medium or low). Low-risk hazards can’t be ignored, but they might not require the same responses as high-risk situations.

Some employers and employees may worry about the timing of reports under the new Code requirements. But, just as the Code doesn’t serve up a one-fits-all checklist of hazards, it doesn’t set timetables for assessments. Employers are expected to complete assessments at “reasonably practical intervals.” Furthermore, assessments should take place when introducing new or changed work processes, and when work starts at a new site. This means mobile workers such as line crews might adjust their hazard assessment if they switch locations or the weather changes.

**Filling in the blind spots**
Spotting hazards isn’t always easy. Routine, repetition and familiarity can leave hazards ignored or overlooked. For instance, an office worker may not consider an uncomfortable chair or open filing-cabinet drawers as hazards. Similarly a scaffolder, alert to risk of falling, may ignore ongoing danger to his fingers as he repeatedly pounds with a heavy hammer.

Brogly, says it is particularly valuable to have written hazard assessments that use a field level risk assessment approach. Dow Chemical, where Brogly works, uses something called pre-task analysis. Other employers have similar field level risk assessment programs, sometimes with different names. When starting a shift or a new task, Dow employees (and other on-site workers) must identify and record tasks, along with anticipated hazards and how they will deal with them. All workers on site must carry a standardized field level risk assessment sheet. Spot checks of employees and contractors ensure that these sheets are completed. Such confirmations also offer excellent opportunities to give workers positive feedback and to fill in “blind spots” in their hazard assessments.

Workers who change tasks may have to update their sheets several times a day. Meanwhile, Dow’s office workers are expected to spend a few minutes weekly checking for hazards in their work areas and recording them on their field level risk assessment sheets. Employers can delegate someone to conduct periodic formal hazard assessment through physical inspection (walking around the workplace), task analysis (breaking down processes to determine specific hazards) or process analysis (identifying hazards at various stages of a procedure). Lessons can also be learned after an incident occurs, but that’s certainly not a preferred method of hazard assessment.

Information from hazard assessments and about recommended controls must be shared with employees. This could be through safety and toolbox meetings, posters, notices, newsletters and other appropriate methods of communication.

“Being aware of hazards on an ongoing basis is everyone’s
responsibility,” notes Sharon Chadwick, best practices specialist with Alberta Human Resources and Employment.

Safety consultants can help with hazard assessments but workplaces can’t depend only on “outside” experts. Usually front-line workers are the ones who are most familiar with the hazards associated with specific procedures, processes and equipment.

Controlling hazards

Hazard assessment and “appropriate” controls go hand in hand. The best way to handle a hazard is to eliminate it. Sometimes that can mean taking an action as straightforward as mopping up a spill, picking up a cord off the floor or tightening a screw on vibrating machinery. If such steps don’t solve the problem, then employers and workers need to look for engineered solutions. The vibrating machinery might be replaced with quieter equipment or isolated within a sound barrier. If that’s impractical, there might be an administrative solution such as rotating workers through the area to minimize individual noise exposure or using personal protective equipment such as earplugs. Engineered solutions can’t always be installed immediately but should certainly be a long-term option, particularly when expansions, renovations or process changes take place.

“Hazard assessment and control is the foundation of any health and safety program,” states Chadwick. “It should be the way you do your work, not an add-on.”

Nordahl Flakstad is an Edmonton writer and communications consultant.

Note: See also the article in this issue about Work Safe Alberta Web-based awareness programs. One of these programs deals with hazard assessment and control.
It isn’t rocket science, but it is important – and the Occupational Health and Safety Code requires it. Emergency Preparedness and Response hasn’t been in the Code before (Part 7, added in October 2003), and it is one of the shortest parts (just four sections covering a bit more than one page). But that doesn’t mean you can ignore this section or take it lightly, since it deals with life-and-death situations that could happen almost anywhere. And have.

In the Code “emergency preparedness” and “emergency response” deal with incidents that require evacuation or rescue. Fire is the first example that comes to mind for many people. It could also be a flood, a violent storm, a gas leak or explosion, a chemical or biological spill or release, a nearby derailment or highway accident involving hazardous materials, a hostage taking, or any other unpredictable and unexpected critical incident.

Unlike the hazards that are part of some industrial environments, emergencies as envisioned in Part 7 can happen anywhere. No workplace is immune. There can be no better reason than that for the Code to require an Emergency Response Plan for every workplace – and for occupational health and safety officers to enforce the requirement rigorously.

Code requirements for employers are simple and straightforward (Section 115, with interpretation):

• Have a plan and keep it up-to-date.
• Consult with workers on the plan’s content.
• Put the plan in writing.
• Share the plan with all workers.
• Identify workers who have special responsibilities.
• Train workers who have responsibilities for their duties and provide them with appropriate protective clothing and equipment.
• Repeat training and drills as appropriate.

For their own safety and security, workers should:

• Find out if their employer has an emergency response plan.
• Read the plan and know where it is kept, in case they need to refresh their memory.
• Know their personal responsibilities under the plan.
• Make sure they are properly trained and equipped to carry out their responsibilities.
• Take every opportunity to provide input to the plan.

The basic contents of an emergency response plan include (Section 116):

1. a list of potential emergencies
2. procedures for dealing with such emergencies, including a clear description of the emergency response organization
Response

1. the location of and operational procedures for emergency equipment
2. training requirements
3. the location and use of emergency facilities
4. fire protection requirements
5. alarm and emergency communication requirements
6. first aid services required
7. procedures for rescue and evacuation
8. designated rescue and evacuation workers, with provisions to ensure they know their roles and responsibilities
9. additional provisions that are appropriate to your site

The Code pays particular attention to designating and training workers (Section 117) and equipment (Section 118).

Kenn Hample, a safety team leader at Alberta Human Resources and Employment, points out that basic provisions should include a procedure for “counting noses” to ensure that everyone in the workplace has been accounted for and then taking action when anyone is or might be missing.

Paul Riopel of Emergency Response Management Consulting, Ltd. notes that evacuating the workplace may not be the correct response to extreme weather events such as tornados. The best thing may be to retreat to a designated safe place within the building or, if the work site is outdoors, a previously identified shelter area. Emergency response procedures would normally include a call to 911 for municipal or provincial emergency services support, Riopel adds, and it should provide for briefing and handing responsibility to those crews as appropriate.

Many workplaces already have a written fire response plan and periodic drills to make sure workers know what to do and how to do it. Most organizations will probably be able to meet Part 7 of the Code by modifying their fire plan for other emergencies after conducting a hazard assessment that identifies events that could happen and helps determine how best to deal with them.

The important thing is to do it. Now. And then to keep doing it.

Allan Sheppard is as freelance writer and researcher who lives in Edmonton

WEB LINKS

www.ocipep.gc.ca/ep/index_e.asp  Government of Canada
www.ccep.ca/  Canadian Centre for Emergency Preparedness
www.municipalaffairs.gov.ab.ca/ema/  Emergency Management Alberta
www.aepp.ab.ca/index.htm  Alberta Emergency Preparedness Partnership

IN THE ALBERTA GOVERNMENT LIBRARY – LABOUR BUILDING

For contact information, see page 20.

Videos
Building Evacuation  12 min.
Factors to consider in developing and implementing a successful emergency evacuation plan for a building. Basic principles covered are individual responsibilities, types of emergencies, evacuation and the role of wardens. (FVC 182)

Bomb Threat Strategy  15 min.
Suitable for all staff who may become involved in a bomb threat incident, this video examines the nature of bomb threats, search procedures, planning for and assessing threatening situations, prevention measures and evacuation procedures. (FVC 181)

Fire Prevention and Safety  15 min.
Shows employees how to prevent fires and what to do in case of fire. (FVC 263)

How to Select and Safely Use Portable Fire Extinguishers  15 min.
Discussion of the two common mistakes. Also covers factors to consider when deciding whether to fight a fire, size and type of fire extinguishers, classes of fire, and proper procedures in using fire extinguishers. (FVC 197)
A drilling rig can be a hazardous place for the unskilled, untrained or unwary worker. Huge pieces of pipe are continually being moved or are being operated by powerful motors. The potential for being struck, jammed, caught or wrenched by this equipment is exacerbated by the fast-paced, around-the-clock nature of a rig, often working in the depths of an Alberta winter.

“It’s a very unforgiving environment,” says Bruce Jones, president and chief executive officer of Calgary-based Seamans Drilling Ltd. “Everything we touch weighs a couple of thousand pounds, and the input horsepower to drive this equipment can be in excess of 1,000 horsepower.”

There is proper operating and safety training for rig workers throughout the Alberta drilling industry, but this training is neither formalized nor standardized. It varies from company to company, and sometimes even from rig to rig. But that will soon change. The Canadian Association of Oilwell Drilling Contractors is now working with Alberta Learning to design an apprenticeship program for oil and gas well rig technicians, and it is hoped that this standardized program will provide a career path that produces better-trained rig workers and a safer rig environment.

“It’s especially challenging in today’s environment because of how quickly we have to ‘make hole,’” says Jones, who is the chair of the rig technician apprenticeship committee. “With the apprenticeship program, we will be able to provide a better formal training background for our people, both on the job and in the classroom.”

Under the proposed program, which could be in place by the fall of 2005, a trade designation would be compulsory for three progressively advanced levels of rig workers: motor hand, derrick hand and driller. To become certified at each level, an apprentice would have to complete an estimated 1,500-hour training period. Four-fifths of that time would be spent in on-the-job training under an experienced journeyman and the remainder in a classroom. From a general safety perspective, training would include standard courses in WHMIS, dealing with hydrogen sulphide, fall protection, working in confined spaces and spill response.

The more industry specific training would include rigging and slinging, tubulars, hydraulics and rig moves and set-ups. (Consider that just leveling a rig involves using hydraulic jacks weighing up to 100 tons.) Not all training will focus on the rig site. The Canadian Association of Oilwell Drilling Contractors also hopes to address a relatively high occurrence of motor vehicle incidents.

Other industries with standardized training programs have seen their overall incident rates improve.
involving rig workers moving to and from leases, often on rough roads and in winter conditions.

“Alberta Learning has found that other industries with standardized training programs have seen their overall incident rates improve,” says committee member Cindy Soderstrom, the CAODC’s research coordinator. “Our rate has been improving the last few years, but we’d like to see it continue to improve.” (See sidebar.)

Communication skills will be a key component of the standardized training program, so senior workers will be able to train junior rig hands in safe operating procedures. Training for the entry-level positions of lease hand and floor hand (roughnecks), which are traditionally high-turnover jobs, will not be covered in the apprenticeship program.

*Bill Corbett is a Calgary writer.*

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**LOST TIME CLAIMS IN THE OIL AND GAS INDUSTRY**

- 15 per cent of the upstream oil and gas industry’s lost-time claims from 1998 to 2002 were from the drilling of wells.
- The drilling sector’s lost-time claim rate fell from 5.0 per 100 person years in 2000 to 2.7 in 2002.
- For the upstream industry as a whole, the most common injuries were sprains, strains and tears, with the back suffering the highest number of injuries. One-third of incidents involved workers being struck by objects or overexerting themselves when maneuvering objects.
- Vehicles were involved in 11 per cent of the lost-time claims.
- While the industry’s overall incident rate was fairly low, the injuries tended to be serious, with one-quarter requiring more than 50 days off the job.
The Last Resort

Reporting on RECENT CONVICTIONS under the Occupational Health and Safety Act

EMPLOYER Morgan’s Transfer and Roger’s Repair and Welding

INCIDENT On May 16, 2002, an explosion occurred in Grande Prairie at a shop leased by Morgan’s Transfer when a contract welder employed by Roger’s Repair and Welding was performing maintenance work on a tanker trailer. There were no injuries, but the building was severely damaged.

FINES Both Morgan’s Transfer and Roger’s Repair and Welding were fined for failing to ensure that hot work not be performed in a location where flammable substances are present [section 185(2)(a)(ii), General Safety Regulation].

Morgan’s Transfer was fined $1,000 plus a victim surcharge of $150. Roger’s Repair and Welding was fined $1,000 plus a victim surcharge of $150.

Both companies also agreed to sponsor Petroleum Industry Training Service courses on Detection and Control of Flammable Substances. Morgan’s Transfer agreed to sponsor courses valued at $10,000 and Roger’s Repair and Welding agreed to sponsor courses valued at $5,000.

EMPLOYER Burlington Resources Canada Ltd.

INCIDENT On March 17, 2002, at the Berland Dehydration Facility located approximately 65 km southwest of Fox Creek, a worker was fatally injured when overexposed to hydrogen sulfide while attempting to clear an obstruction in a discharge line on a piece of equipment.

The company was found guilty of failing to a) conduct a hazard assessment for working alone and b) establish an effective means of communication [section 14.1(2)(a) and (b), Occupational Health and Safety Act]. Two Burlington Resources Canada Ltd. workers were found guilty of disturbing the scene of an accident [section 18(6), Occupational Health and Safety Act].

FINES Burlington Resources Canada Ltd. was fined $5,000 plus a 15 per cent victim surcharge, and was required to pay $100,000 to the Job Safety Skills Society. Burlington Resources employee Brian Plontke was fined $4,000 plus a $600 victim surcharge. Employee John Veldhuis was fined $2,000 plus a $300 victim surcharge.

EMPLOYER ARC Resources Ltd.

INCIDENT On November 5, 2001, a supervisor was fatally injured in an explosion of a controlled product on a well site 20 km southwest of Drayton Valley. The worker was struck by components of a coil tubing unit in a piping system.

FINE ARC Resources Ltd. was found guilty of not ensuring that workers receive education, instruction or training with respect to a controlled product [section 24.1(c), Occupational Health and Safety Act].

ARC Resources was fined $30,000 plus a victim surcharge of $4,500.

EMPLOYER Crispin Energy Inc.

PRIME CONTRACTOR Red’s Oilfield Services Ltd.

INCIDENT On March 14, 2001, two Red’s Oilfield Services Ltd. workers were replacing a hatch from a tank at a Crispin Energy Inc. lease site located in northwest Alberta. The 400-barrel tank was one-quarter full of oil and gas drilling wastewater that was contaminated with oil and gas components. The workers could not remove four of the sixteen bolts holding the hatch to the tank, and therefore used a grinder to grind off the remaining four bolts. A spark from the grinding process ignited gases inside the tank, and an explosion blew the tank apart. One worker was fatally injured after being hurled 30 metres across the lease site. The other worker received burns to his face.

FINES Crispin Energy Inc. was found guilty of not ensuring that the employer was complying with the Occupational Health and Safety Act and regulations [section 2(5), Occupational Health and Safety Act] and of not ensuring that work was being performed by competent worker(s) [section 14(2)(a), General Safety Regulation]. Red’s Oilfield Services Ltd. was found guilty of not ensuring the health and safety of workers [section 2(1)(a)(i), Occupational Health and Safety Act].

Crispin Energy Inc. was fined $80,000 plus a $12,000 victim surcharge. Red’s Oilfield Services Ltd. was fined $75,000 (the victim surcharge was waived).
New Partners in Health and Safety
Welcome to the Alberta Restaurant and Foodservices Association, the Environmental Services Association of Alberta, the Job Safety Skills Society, the Propane Gas Association of Canada Inc., Rogers Sugar Limited and the Small Explorers and Producers Association of Canada.

There are now 66 Partners in Health and Safety. Each of these companies and agencies has an exemplary health and safety management system and is recognized as a leader in their industry. Through a Memorandum of Understanding the Partners commit to taking a proactive role with the Alberta government’s Workplace Health & Safety staff in promoting workplace health and safety throughout Alberta. In return, the Partners receive public recognition for their efforts.

Walking the Talk at Rogers Sugar
Rogers Sugar Ltd., one of the most recently named Partners in Health and Safety (see above), and the Alberta Association for Safety Partnerships jointly supported the goals of Work Safe Alberta by offering a seminar called “Planting the Seeds for Farm Safety” in Taber on March 11, 2004. The seminar was designed to heighten awareness of health and safety among local growers of beets, canola and potatoes, as well as those who provide services to regional farmers.

The topics covered at the seminar included WHMIS, electrical safety, confined space entry, trenching and emergency response. Other major sponsors of the seminar were McCain Foods Canada, Lamb-Weston Division of ConAgra Limited, Canbra Foods and Aquila Networks Canada.

Rogers Sugar Ltd. operates a sugar beet processing plant in Taber that produces granulated and liquid sugar. The plant also dries the leftover beet pulp, which has a high nutritional value, and sells it across western Canada for livestock feed.

Groundbreaking Certificates of Recognition
On December 15, 2003, Rob Feagan, Manager of Partnerships, presented the first Certificate of Recognition for an independent IGA retail store to Scenic Square Garden Market IGA (Hartek Holdings) in Lethbridge. Owners Katrina and Dallas Harty and their staff are extremely proud of their health and safety management system and other initiatives they have developed and implemented at the store. And rightly so. At Scenic Square Garden Market IGA, management is committed to health and safety, and the employees are actively involved in supporting it.

In December 2003 the Petroleum Services Association of Canada became the first petroleum association to gain a Certificate of Recognition for their own operation. PSAC was the first association to require all of its member companies with operations in Alberta to either have a COR or provide evidence that they were working toward one.

Hazard Assessment and the OHS Code
The new Code requirement that all employers assess and control hazards (see article on page 11) will not be a problem for participants in the Partnerships in Health and Safety program. Hazard assessment and control has been part of our safety management system ever since the program began 15 years ago. For an example of a hazard assessment, visit www.gov.ab.ca/hre/whs/partners/publications/pdf/building.pdf.

OTHER SOURCES of assistance in completing hazard assessments:

- Phone the Contact Centre toll free at 1-866-415-8690.
- Ask a Workplace Health & Safety expert for help by e-mail, www.gov.ab.ca/hre/whs/expert
- Check www.worksafely.org and/or your local phone directory for the names of health and safety consultants.
Contact Workplace Health & Safety any time

For occupational health and safety information and assistance, or to order Workplace Health & Safety publications, phone the Contact Centre at 1-866-415-8690 or visit the Workplace Health & Safety Web site at www.whs.gov.ab.ca/hre/whs/expert.

Sign up for Workplace Health & Safety news

To be notified by e-mail of all new Workplace Health & Safety Web site postings, sign up for a FREE subscription service through www.worksafely.org.

Alberta Government Library Labour Building Site

To review the large selection of occupational health and safety information materials available through the Alberta government, go to www.gov.ab.ca/hre/library.

To borrow materials, either contact your local library and make your requests through the inter-library loan system or visit the Alberta Government Library, Labour Building Site, at this address:

3rd floor, 10808 - 99 Avenue
Edmonton, AB T5K 0G5

Library phone (780) 427-8533
Audio-Visual Services phone (780) 427-4671

To reach either of the above numbers toll-free in Alberta, dial 310-0000 followed by the area code and phone number.

Fax (780) 422-0084

Workplace Health & Safety is a division of Alberta Human Resources and Employment and falls under the jurisdiction of Minister Clint Dunford.

WORK SAFE ALBERTA HAS LAUNCHED two new Web-based projects to help Albertans find province-specific safety resources and information. Both of these projects have been developed through teamwork. Representatives of industry, safety associations, labour and government have worked together to understand the need, collect the required information and develop effective ways of getting the information out to Albertans.

INFORMATION SHARING NETWORK

Often workers are hurt on the job because they don’t know there is a danger or don’t know how to prevent a problem. Sometimes, workers or employers don’t know or understand the legislation that provides information on preventing incidents that might cause injury or death.

It can be an imposing task to find the answers, or even ask the right the questions.

That’s the rationale behind the Work Safe Alberta Information Sharing Network Web site, launched February 23, 2004. Searchers can go to the site (www.worksafely.org) to get information on or resources for any safety topic, from the nuts and bolts of setting up a program to the names of industrial hygienists practicing in their area.

“It’s a virtual library,” says Peter Dunfield, senior loss advisor at Syncrude Canada Ltd., who was a member of the subcommittee that helped design the network. “It’s not populated fully with information yet, but it will be. It’s fabulous work,” he says.

Dunfield explains that a worker, a supervisor or an owner should be able to get into the site and find information on, for example, back injuries and programs. He is excited about the concept because this is a uniquely Alberta product that will “create venues of free-sharing of information across all sectors.”

Right now, the network has links to information bulletins, how-to advice on setting up everything from health and safety committees to training programs for new workers, a safety-related events calendar and a consultant directory.

Melinda Yiu, a technical communications specialist with Alberta Human Resources and Employment who is working on
the project, says that the next step is to get a discussion forum up and running. It won’t be a live chatroom, but it will be a place where people can ask questions on safety challenges, and post solutions they have found.

While current information on the site is mostly from the provincial government, Yiu says this will change as the network partners get their information into a format everyone can use. The government’s role here is to administer and host the network, not to fill it with information. Material posted on the site will come primarily from industry.

This network will help everybody as it develops, says Lloyd Harman, director of health, safety and loss management at the Alberta Forest Products Association. “Its strength will come over time. An employer will be able to click on a topic like ‘new employee orientation’ and get enough information to develop an orientation program quickly.” Harman says that the network needs associations as well as employee and employer groups to make information available for posting. Right now, he says, there are “tons of people” who don’t know where to go or who to talk to when hunting for good information to make a safety program work.

This network will help fill that gap.

AWARENESS PROGRAMS

Three new, down-to-earth Web-based programs from Work Safe Alberta are designed to be viewed either by workers searching on the Internet for their own information or as part of a customized work site awareness program. The programs are narrated and moderated by Will B. Safe, an animated talking triangle with a nose shaped like a map of Alberta. Will B. takes the learner through the information, gently points out the next logical move within the program and occasionally acts as a marker token and cheerleader during short board games/quizzes.

The topics of the programs, available at www.worksafely.org, are:

1. the Alberta occupational health and safety legislation
2. hazard assessment and control, and
3. incident investigation

Alexis MacMillan of Christie Communications, the company contracted to develop the programs, says it was a challenge to design the contents and graphics in a non-threatening and informative manner that would appeal to a broad base of learners. However, MacMillan notes, “New technology and programming techniques have allowed us to put these complex programs on the Internet.”

Twelve different industry and labour groups, ranging from construction to hospitality, were represented on the teams that pulled together the content and approach for the programs. The team members believe the programs will help Alberta workers and employers to better understand safety issues and practices.

Robin Duke, assistant business manager for the International Brotherhood of Electrical Workers Local 424, was a member of the committee that worked on the legislation program. A computer novice with 35 years of industry experience, Duke says the programs will help raise young people’s awareness of health and safety issues. Years ago, he explains, workers just accepted that people were killed every year while doing certain jobs, but expectations and methods of work have changed. Web-based training is helping to change the perceptions of what level of risk is acceptable. Duke says these new programs will help trainees going through the union’s 10-week pre-apprenticeship program to become better employees when they find jobs.

Teri Sunde-Clay, manager of the Alberta Hotels Safety Association, says members of her association felt they had a great deal to contribute to the program on hazard assessment and control. While this program is quite general, the association (and, she hopes, other associations and industries) will use the format as a jumping-off point for industry-specific training. One of the considerations emphasized throughout the design, Sunde-Clay says, was that many of the workers and owners who use the programs will not speak English as their first language.

Kerry Tremblay is a Calgary freelance writer specializing in safety and training.
A NEW FOCUS: staying closer to home

Shortly after the January issue of this magazine came out, I received a call from a local supplier who delivers health and safety courses, largely using the Internet. His quite reasonable request for a listing of his site and its course materials reinforced my recent thoughts about the direction this column should be taking.

For several years I have been promoting sites from the four corners of the world. Although this approach made sense when the Web was a new resource, it may be giving somewhat short shrift to good tools that are built locally. So now I am planning to turn my attention to reviewing local organizations and companies who send me their site information. No guarantees about whether I give you a brickbat or a bouquet, but I do promise an honest review from both the technical and content perspectives. If you wish me to review your offerings, send me a note at bob@christie.ab.ca. If you have already asked me to include you (and many have) please send the information again, as some of the details may have changed.

One other thing. If you want a search undertaken on a particular topic that you think may be of interest to others in the community and are not in a tearing hurry, feel free to ask. I will do what I can with 300 words three times a year.

International sites that may be of interest to Alberta safety professionals

This is a VERY partial list. I cherry picked from the first 160 of over 7.6 million sites my search engine found using a very broad search.

US Department of Labor, Occupational Safety and Health Administration, www.osha.gov/
Health and Safety Executive, www.hse.gov.uk/
The National Institute for Occupational Safety and Health (NIOSH), www.cdc.gov/niosh/homepage.html
Environmental, Health and Safety FREEWARE, www.ehsfreeware.com/
Osh.net Gateway for Safety and Health Information Resources, www.osh.net/

Bob Christie is a partner at Christie Communications Ltd., a multimedia development company in Edmonton.
Work-related incident fatalities
October 2003 - January 2004

Most work-related incident fatalities that fall under provincial jurisdiction are investigated by Workplace Health & Safety. In general, highway traffic, farm, disease or heart attack fatalities are not investigated.

The following fatalities have been or are being investigated.

A 49-year old painter fell from a rolling scaffold while painting a ceiling. Another worker was moving the rolling scaffold around the work area with the painter on top when one of its wheels slipped into a shallow pit, causing the scaffold to topple. The painter was killed by a fall of 4.9 metres on to a concrete floor.

A 35-year-old contract operator at a small satellite oil battery was found lying on the ground near a water tank. There were indications that the worker was going to change a gasket. The cause of death appears to be H₂S poisoning.

A 51-year-old worker in a pre-cast concrete plant was beneath a 1457 K load suspended from a bridge crane. The load fell from the hook and landed on the worker, causing fatal injuries.

A 48-year-old rig manager with 25 years of experience in the industry was sprayed with steam and received burns to 75 per cent of his body while checking the operation of a boiler on a service rig. The rig was not working due to cold weather, and in such cases it was standard procedure to fire up the boiler every 12 hours and check the water levels. The worker was kneeling down by the feed pump when the ball valve on the blow down line (immediately under the boiler) separated. The worker succumbed to his injuries as a result of complications.

A 17-year-old labourer who had been in the work force for only three months died in an incident involving a hay bale de-stacker. The worker climbed into the machine, and it started moving, trapping the worker’s head between a moving beam and a fixed beam.

A 32-year-old labourer died in hospital two days after a workplace incident involving a tow cable between two bulldozers. The worker was removing the tow cable when the lead bulldozer moved, pinning the worker’s head.

A 60-year-old bridge project manager was hit by a large piece of steel and fatally injured while inspecting a pile-driving operation. The piece of steel broke off a drop hammer when it contacted a pile.

A 52-year-old aggregate manager with more than 20 years of experience was killed while driving a quad ATV on a gravel pit trail. The vehicle hit an obstruction and the worker was thrown from the vehicle, hitting his head on the ground. He was not wearing a helmet.

A 38-year-old worker was killed, on a snowy day with reduced visibility, while driving a 3/4 ton truck on a forestry road. At a blind bend in the road, the worker’s truck collided with a semi-trailer traveling in the opposite direction.

A 27-year-old owner/operator of a log haul truck and trailer was fatally injured while driving his loaded vehicle to a sawmill. The load shifted forward and crushed the cab when the truck/trailer went off the road at a corner.
The innovative Work Safe Alberta Information Sharing Network allows you to:

- search 13 workplace health and safety sites simultaneously
- download how-to-bulletins and e-learning programs to help make your work site safer
- access an extensive directory of Alberta occupational health and safety consultants
- keep up-to-date on health and safety events in Alberta
- subscribe to a safety e-mailing list