



# Achieving Excellence



By John Ford

## New Lock Out Standard Is Published!

**T**he new C.S.A. Z460 Control of Hazardous Energy - Lockout and Other Methods is now published. C.S.A. Z460 is a Canadian version of the A.N.S.I. Z244. I represented the Canadian Federation of Independence Businesses as an active member of the technical committee that worked on the new standard. Some labour partners, primarily the C.A.W., also sat on the committee and did a good job of representing their interests.

Lockout is simple and easy to do: isolate, block, bleed, or dissipate hazardous energy and lock the isolating device with a personal padlock. There was little discussion and controversy on lockout. The new standard follows traditional methods established by Z244. The problems with controlling hazardous energy start when power is required to trouble shoot, make adjustments, or perform routine and repetitive activities integral to production. In such cases, lockout is not practicable. There was a good deal of controversy involving "Other Methods of Control" for such situations. As a result, the C.S.A. Z460 standard departs radically from A.N.S.I. Z244 on this topic. A few prescribed methods, such as teaching a robot in compliance with the Robot standard C.S.A. Z434-03, were recognized as acceptable. However, in all other cases a risk assessment must be done to determine if the "Other Methods" are safe.

Two flow charts in the Annex were intended to clarify the question of when to use lockout or to use other methods. One chart was developed by yours truly; one chart was developed primarily by labour. Both charts fell victim to trying to achieve consensus in a committee. With some coaching you will find the charts helpful.

Training Services offers seminars on the new C.S.A Z460, provides train the trainer materials, and supplies other helpful solutions for your hazardous energy control programs. We can show you methods for deciding if

or when lockout or "other methods" can be used. We can teach you how to decide if a task is integral to production, how to audit your equipment for lockout capability, and how to develop placards for machines.

Training Services can train your authorized persons and supervisors, and much more.

For help call John Ford 905 873 3031, [jford@cybertrain.on.ca](mailto:jford@cybertrain.on.ca)

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# Ministry of Labour News

**Lakeshore Village Development Corporation fined \$70,000, Supervisor fined \$3,500** for a violation of the Occupational Health and Safety Act that resulted in serious injuries to a worker.

On Aug. 6, 2003, a worker was installing a guardrail at the top of metal, tubular-frame scaffolding when a 2.29m (7.5 feet) piece of rail came in contact with an overhead, 16,000-volt, energized electrical conductor. The worker suffered electrical burns to the foot and hand.

The scaffolding had been erected by a subcontractor a few days before the incident. The injured worker was employed by the subcontractor.

A Ministry of Labour investigation determined a site Supervisor, who worked for a related company that had undertaken construction of the project for Lakeshore Village Development Corporation, was given information regarding the nearness of workers to the power lines, and decided that a protective covering had to be installed. The Supervisor left a message with the wrong company to attend the site and cover the lines. The Supervisor also did not check the scaffolding and power lines while at the site.

Lakeshore Village Development Corporation pleaded guilty, as a constructor, to failing to ensure that scaffolding and/or materials capable of conducting electricity were not stored or used so close to an energized conductor that they could make electrical contact with an energized conductor, as required by Section 194 of the Regulations for Construction Projects, contrary to Section 23(1)

(a) of the Act.

A supervisor pleaded guilty to failing to take the reasonable precaution of ensuring the energized conductor near the work area was equipped with a protective line covering. Contrary to Section 27(2)(c) of the Act.

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**Mancuso Chemicals Limited fined \$120,000** for a violation of the Occupational Health and Safety Act that resulted in the death of a worker.

On Nov. 22, 2002, two workers were manufacturing a resin product in two "reactors" when a white particulate began spewing out of the top of one of the reactors. The first worker, an experienced reactor operator, shouted to the second worker, a trainee reactor operator, to run. The experienced operator ran out of the building but didn't realize the trainee didn't follow. The trainee was found lying near the base of one of the reactors. The trainee was pulled unconscious from the building with chemical burns to most of the body. The trainee had inhaled toxic fumes given off by the chemical eruption and died later that day in hospital.

A Ministry of Labour investigation found an incorrect ingredient had been added to the reactor. It was also determined that the trainee was given two different contradictory instructions on the type of water to add to the reactor. Neither instruction was consistent with the requirements of the production batch sheet. In addition, no steps were taken to check the type of water that was added to the reactor.

Mancuso Chemicals Limited pleaded guilty, as an employer, to failing to provide information, instruction and supervision to the worker on loading the Reactor, contrary to Section 25(2)(a) of the Act.

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**Bingo Press & Specialty Limited fined \$85,000** for a violation of the Occupational Health and Safety Act that resulted in serious arm injuries to a worker.

On May 23, 2003, a worker was operating a printing press and was attempting to brush away a piece of foreign matter on one of the rollers when the worker's hand was pulled into a pinch point between two rollers. The worker's lower arm was drawn into the rollers before the worker was able to shut off the machine using an emergency stop button. The worker's the arm had to be surgically amputated up to the elbow.

Bingo Press & Specialty Limited pleaded guilty, as an employer, to failing to ensure there was a guarding device on the press, as required by Section 25 of the Industrial Regulations, contrary to Section 25(1)(c) of the Act.

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**Lumsden Brothers Limited fined \$55,000** for a violation of the Occupational Health and Safety Act that resulted in injuries to the foot of a 17-year-old worker.

On July 24, 2001, a worker, on the first day on the job, was practising using a power jack in an aisle in the warehouse. The worker was being trained in the use of the machine. The worker turned the handle of the power jack, causing it to swing around quickly. The

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worker's leg went outside of the power jack's platform area and was pinned between the machine and a steel support beam. The worker received lacerations, abrasions and bruising to the left heel.

The worker had not been shown the owner/operator manual and had not been given any classroom training in the operation of the power jack. The worker was practising with the machine in an aisle, contrary to the recommendations of the manual.

Lumsden Brothers Limited pleaded guilty, as an employer, to failing to take the reasonable precaution of ensuring that workers only operated power jacks in an open area until they were familiar with its operation, contrary to Section 25(2)(h) of the Occupational Health and Safety Act.

**Costco Wholesale Corporation fined \$75,000** for a violation of the Occupational Health and Safety Act that resulted in serious injuries to a worker.

On April 7, 2003, a forklift service technician was performing work on a forklift owned by Costco in a designated repair area in an alley. Another forklift entered the repair area and struck the technician, who was pinned between the two forklifts. The technician suffered a broken pelvis, crushed left knee, cuts and bruises.

Costco Wholesale Corporation pleaded guilty, as an employer, to failing to provide a barrier, warning signs or other safeguards for the protection of workers from vehicular traffic, contrary to Section 20 of Regulation 851, and Section 25(1)(A) of the Act.

***"The artist is nothing without the gift, but the gift is nothing without work."***

**Emile Zola**

# Health & Safety Development Program

## DON'T MISS OUT!

**Personalize our Health & Safety Development Program and create the effective learning experience you need.**

- Step 1:** *Review all course information. Decide if you would like to attend one session only, or Day One, or Day Two, or sessions from both days, or both full days.*
- Step 2:** *Review EACH session. Choose one course per session.*
- Step 3:** *Review the luncheon sessions for each day. Decide if you would like to attend one lunch session, or both.*
- Step 4:** *Complete and send in the registration form with all your choices.*

**See BROCHURE INSERT for more details!**

## DAY ONE: (Tuesday, JUNE 14)

- Session 1: 8:30 am to 10:20 am  
Course A: CSA B335 Lift Truck Standards  
Course B: CSA Z142 Power Press Code
- Session 2: 10:30 am to 12:20 pm  
Course A: Pedestrian Safety  
Course B: CSA Z434 Industrial Robot code
- Lunch: 12:30 pm to 1:20 pm  
Video & Workshop: Achieving Compliance
- Session 3: 1:30 pm to 3:30 pm  
Course A: Material Handling for Supervisory Staff  
Course B: Control Reliability

## DAY TWO: (Wednesday, JUNE 15)

- Session 1: 8:30 am to 10:20 am  
Course A: CSA Z432 Safeguarding Machinery  
Course B: WHMIS for Management
- Session 2: 10:30 am to 12:20 pm  
Course A: Safe Distance Calculations  
Course B: Transportation of Dangerous Goods
- Lunch: 12:30 pm to 1:20 pm  
Video & Workshop: Emergency Procedures
- Session 3: 1:30 pm to 3:30 pm  
Course A: **NEW!** Intro to Z460 Lock Out code  
Course B: **NEW!** Confined Space Update

**June 14 & 15, Cambridge, ON**

Call Barbara Ford (905) 873-3031, or email [bford@cybertrain.on.ca](mailto:bford@cybertrain.on.ca)

# Lockout Placards: What are your options?



By Frank Keegan

The new C.S.A. lockout code has been published. The new code will require employers to have specific procedures for each type of machine. Placards posted at the machine are one way to document these procedures .

There are a basically two different types of placards we can use in order to meet this requirement.

One type of placard is a floor plan drawing of the machine. This is a detailed and fairly technical approach. The floor plan drawing uses symbols to indicate the different points to isolate energy sources and apply locks. While this type of placard meets the requirements and is suitable for some applications, it does have some drawbacks. For instance, if the staff has limited technical training, it can difficult for them to understand the drawing and symbols. This can make training more complicated and compliance to the procedure

harder to achieve.

Another option is using a pictorial approach to preparing the placards. The pictorial method can have a number of benefits. First, with today's digital photography, good quality pictures of each lockout point are easily produced. Pictures of each lockout point are put on the placard. When the placard is posted at the machine, it is very easy for the operator to see what to do. Training staff with limited technical expertise or language barriers is much easier with pictures. A pictorial placard can also make it easier for Joint Health and Safety Committee members, who may not have machine-specific training, to audit lockout procedures during their inspections. Since using pictures simplifies the placards and makes them less cluttered, we suggest putting Lockout Procedures, Emergency Procedures, and Minimum Safe Distance calculations on the same placard. It makes a lot of sense to have all this information in an easy to understand

Machine No.: 1234  
Description: Stanko 40 Ton Press  
Validated By: John Ford  
Date: January 6, 2005

## Lock it Out!

YOUR LOGO HERE

### Emergency Procedures

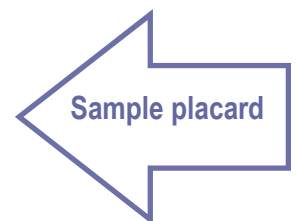
1. Push red E-stop.
2. Push red handle to turn off air.
3. Stay with the injured person until help arrives.

1. Push red E-stop.
2. Turn off, lock and tag main electrical disconnect. 600V
3. Verify - Green power light goes off / restore E-stop. Verify motor will not start by pushing green "start" / re-push E-stop.
4. Push red handle to turn off air. Lock and tag. 95 PSI
5. Verify air pressure gauge reads "0".
6. After flywheel stopped, place ram block bar in place.

**Safe Distance**

Warning  
Compressed air may be trapped between valves and actuators.

Minimum distance from light beam to nearest pinch point = 19.7"  
Maximum number blankouts = 0  
M.O.S. = .5" Dpf = .8"  
TBM = .05 TR + TC + TS = 0.186 K= 80



Sample placard

## Ask The Expert...

**Q.** What is this about a “knowledgeable person,” as required by the new C.S.A. Hazardous Energy Control – Lockout and Other Methods Code?

**A.** There are numerous new requirements in this standard that will likely require changes to your existing lockout procedures. The most significant one is for your organization to designate someone as your “knowledgeable person.” In the standard, a “knowledgeable person” is defined as *“an individual who possesses special expert or professional knowledge or qualifications appropriate to assess the adequacy of the lockout procedure(s) to ensure they are in accordance with this Standard.”*

In addition, a periodic review of the lockout procedures shall be conducted by a “knowledgeable person” to ensure they are current. The date of creation, revision, and update of each lockout procedure shall be maintained. Obviously, the name of the “knowledgeable person” who has reviewed the procedure should be part of the documentation. If placards are created for lockout, the name of the “knowledgeable person” who has approved the placard could be on the placard along with the date it was created.

Each lockout procedure shall be verified for its accuracy, completeness and energy control effectiveness by a “knowledgeable person” before being approved for use.

If the user obtains non-compliant equipment, the user shall, under the guidance of a “knowledgeable person,” upgrade the equipment to be compliant with Clause 5 of this Standard.

There are numerous other duties your “knowledgeable person” could be involved in. The most complex of these is sorting out when “Other Methods” are used instead of lockout. This would include such things as controlled entry, teaching procedures and deciding if an activity is normal production or not. Either way, a risk assessment may need to be performed, probably by your “knowledgeable person”, in order to determine if the methods employed to control hazardous energy are adequate. For more information, attend our 2-hour introductory session on June 15, or our full-day C.S.A. Z460-05 training sessions on May 31 (Milton), June 16 (Cambridge), or June 21 (Windsor). Or call John Ford at (905) 873-3031, or email [info@cybertrain.on.ca](mailto:info@cybertrain.on.ca) .&



**John Ford**

President, Training Consultant

After 14 years with the I.A.P.A. as a Senior Consultant, Staff Consultant and District Manager, John became Founder and President of Training Services and CyberTrain in 1989. He has developed extensive training programs and has published numerous magazine articles on Health and Safety. John has investigated major injuries for legal counsel and has been qualified as an expert witness under the Occupational Health and Safety Act. He has provided expert testimony in court proceedings on several occasions. John Ford has been recognized by the Ministry of Labour as a competent person in C.S.A. Z142-02 Power Press Code and C.S.A. Z432-94 Safeguarding of Machinery Code. He is a member of the technical committee and a C.S.A. Learning Centre instructor.

**In Honour of  
Father's Day**



**DE-EVOLUTION**

At the rate law schools are turning them out, by 2050 there will be more lawyers than humans!

"Happiness is good health and a bad memory."

Ingrid Bergman

**Top Ten Things You'll Never Hear A Dad Say.**



"Well, how 'bout that? I'm lost! Looks like we'll have to stop and ask for directions."

" You know Pumpkin, now that you're thirteen, you'll be ready for unchaperoned car dates. Won't that be fun?"

" I noticed that all your friends have a certain hostile attitude. I like that."



" Here's a credit card and the keys to my new car...  
GO CRAZY!!"



"Your Mother and I are going away for the weekend. You might want to consider throwing a party."

" Well, I don't know what's wrong with your car. Probably one of those doo-hickey thingies--ya know--that makes it run or something. Just have it towed to a mechanic and pay whatever he asks."

"Whaddya wanna go and get a job for? I make plenty of money for you to spend."



A friend of mine was visiting a college which had those security call boxes every few hundred feet. If you were wandering around the campus at night and felt uneasy about somebody following you, for instance, you could hit the button and have a security officer come investigate immediately. On one of these phones hung a sign that said, "Out of Order." Underneath it someone had scrawled, "Keep Running!"

**Inventions that Never  
Took Off...**

Inflatable Dart Board

Glow-in-the-dark Sunglasses

Solar Powered Flashlight

Screen Door on a  
Submarine

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