



# FIRE WATCH

ONTARIO INDUSTRIAL FIRE PROTECTION ASSOCIATION

Winter Issue 2008

## Addendum to the Confined Spaces Guideline

**On a multiple employer entry, can there be only one entry permit/attendant if identified that way in the coordination document?**

Yes, on a multiple employer entry there can be one entry permit/attendant if identified that way in the coordination document.

**An employer has made a decision to treat certain spaces that do not meet the confined space definition in the same way as required for confined spaces. Will the MOL enforce the on-site rescue requirements in this situation?**

Ministry inspectors enforce the provisions of the *OHSA* and its regulations, not company policies. If a space does not meet the definition of a confined space as per the regulations, it would not be subject to the confined space requirements in the regulations, including the on-site rescue provisions.

**What does “immediate implementation” of on-site rescue procedures mean?**

The employer or constructor is responsible for developing a plan before a worker enters a confined space. The plan, including the on-site rescue procedures, is based on the nature of the hazards identified during the assessment of that confined space and must adequately protect the health and safety of all workers who work in confined spaces or perform related work. The plan will indicate whether the on-site team should be assembled at the point of entry of the confined space or whether team members may be located elsewhere on the premise or project. In either case the team must be immediately available, meaning that it is ready and available to respond to an emergency situation at a confined space.

If there are multiple confined space entries in progress and the on-site rescue team is called into one of the confined spaces, all workers in all of the other confined spaces must be pulled out unless another on-site rescue team is available. This is because if the team were in the process of a rescue, it would no longer be “immediately available” to effect a rescue from the other confined spaces.

**What is an “adequate warning system” to signal failure of mechanical ventilation?**

The warning system must be *adequate*, which is defined in the regulations as “sufficient for both its intended and its actual use, and sufficient to protect a worker from occupational illness or occupational injury”. The warning system may signal ventilation failure through audible or visual means. The type of warning system employed must be outlined in the plan and could be as simple as constant visual observation of flow by the attendant.

Electronic or electrical warning systems for ventilation failure, if employed, should be activated by the loss of airflow and be located in the air stream. This is so that the alarm would be activated both when there is ventilation failure due to motor failure, and when there is ventilation failure without motor failure (for example, if the fan belt fails or if the airflow is somehow blocked).



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## For Safety's Sake .....Take FIVE for safety

Many industrial businesses have in recent times started to make use of a very efficient safety tool. This tool is called many different things from site to site and business to business (i.e.) job safety analysis, last minute risk assessment, and task card. The basic principal is the same, a breakdown of the job at hand by tasks with prompts to the potential hazards so they can be mitigated prior to starting work. Often it is accompanied by a check list that prompts the worker before starting work to familiarize themselves with the area they are to work in and the task they are about to do. This highlights the hazards that are present or inherent in the task to be completed. Once the hazards are identified, mitigations to avoid or remove the hazards can be taken.

At our site during 2007 we started to use these cards at training sessions for emergency response such as fire field exercises, confined space, high angle rescue training, and even during the preplan walk through. The hazards noted eliminated tripping hazards, head bangers, ice, potential back strains and other ergonomic issues.

I highly recommend the use of this safety tool during training and advocate its use during normal work planning. If you are not already using this tool on your site, I urge you to consider it. Please feel free to call me if you need examples of this tool to aid you in setting your work site up for safety success.

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Imperial Oil, Nanticoke Refinery  
Board member OIFPA  
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## A Note from the President:

Dear Members,

Wishing you all a very happy new year!

It has been a very busy 2007 and it doesn't look like it is going slow down any time soon! As I completed my first term as President and I am please to see the results the OIFPA has accomplished. I would like to thank the Board of Directors for their support, hard work and as always their willingness to take on new challenges. Their support at last years OAFC conference was greatly appreciated and I can't wait to do it all again this year at the conference.

With all the new members on the board this year it is going to a very busy time at OIFPA. There are going to be many new changes and challenges in the work place this year, and the board is already working hard to put seminars together to interest our members. I urge you to attend our upcoming seminars and support all of the hard work that goes into creating this experience for you all.

Lastly, as tradition of the Association on Sept 18, 2007, the 12th annual Wm. Beatty Golf Tournament took place at Fire Rock in London. This is always a great event to meet old friends and make new ones; I would like to thank all those friends of the Association for there participation, sponsorship and support for this event and I am looking forward to seeing you all again at the 13<sup>th</sup> annual Golf Tournament.

Again, thank you for your support, keep safe and hope to see you all throughout the year!

Roy Graham

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## Alternative Fuels Fire Protection

I recently had the opportunity to attend a seminar at the Ansul Fire Technology Center in Marinette Wisconsin on Alternative Fuels Fire Protection. There were fire safety professionals from across the United States, Europe and Asia as well as design and risk control engineers, insurance underwriters and plant managers representing the ethanol and bio-diesel fuel manufacturers participating in the workshop.

Presentations varied from Environmental scientists discussing climate change to transportation emergency response specialists to ethanol producers relaying the volumes of ethanol in production in the United States today. This year there will be approximately 6.4 **Billion** gallons of ethanol manufactured. Projections are that by 2009 these numbers will double! Most of this ethanol is "denatured" with gasoline to make it non-drinkable and thus not subject to consumption taxes. It is travelling in very large volumes through most communities in North America and most municipal fire departments do not have the capacity to handle relatively small ethanol emergencies. Surprisingly there are now more ethanol rail cars travelling the tracks then there are LPG cars.



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There are several different blends of ethanol containing fuels that present severe challenges to fire fighters. From the producer the most common blend is known as E-95 which has 5% denaturant and 95% ethanol. This blend will carry placards displaying the number UN 1987.

At present E-85 (85% ethanol and 15 % gasoline) also carries UN 1987 but will have a new number in 2008 of UN 3475. E85 is a fuel used in many areas of the United States. The "gasohol" we use in our vehicles of 5% to 10% ethanol carries placard # 1203, the same as straight unblended gasoline. Here is where the problem comes in. Regular AFFF foam cannot handle E-10 fuels. The only agents successful in handling fires of this blend are Alcohol Resistant AFFF (AR-AFFF). Most departments do not carry AR-AFFF and may not be aware of the **increased application rates and different tactics** required when fighting ethanol fires. They may not even know they have a blended gasoline fire on their hands because the placard number is the same for E-10 as it is for gasoline!

AR-AFFF must be applied gently to the fuel surface and needs to be more air aspirated to allow the polymeric membrane formation to separate the water soluble fuel from the foam bubbles. Air aspiration can be handled on spill fires using low and medium expansion nozzles however a fire involving a storage tank should have a foam system in place. If fire fighters are going "Over the Top" with portable nozzles the tank must be drained enough that foam application bounces and runs down the tank wall, not directly onto the fuel surface. Plunging AR-AFFF into an ethanol in depth fire results in the destruction of the foam bubbles and no membrane formation.

While in Marinette we were able to witness several NFPA tests on various agents on both ethanol blends and other hydrocarbon fuels. AR-AFFF foam water sprinkler systems were marginally successful on ethanol using standard sprinkler heads but greatly demonstrated the value of using the B-1 foam sprinkler head. The test with the standard head did not extinguish the test fire until the very last few seconds of discharge time allowed.

We are contacting the local suppliers of ethanol and the Canadian Renewable Fuels Association (CRFA) to provide education for their members and also for the fire service that may encounter these hazards. You do not need to have an ethanol plant in your area to have the potential for fires involving ethanol. Rails cars and transports travelling through our municipalities carry lots of blended gasoline and have the potential to create fires that our fire service may not be able to handle. If your local fire department calls you for assistance to provide foam, not only must it be the right type of foam but you must stress the increased application rate and different techniques required to successfully extinguish alcohol and gasohol fires.

Lambton College along with a number of other organizations will be working to provide curriculum for fire departments to not only make them aware of this hazard but also to train them in the proper techniques of applying Alcohol Resistant foams on this new danger within our communities.

Stay tuned for further updates.

Doug Scale  
Professor, Lambton College  
Fire and Emergency Response Training Centre



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**Sale of T-shirts (as seen below or Golf Shirts (Black or Blue with OIFPA logo on the left front side)).... \$30.00 each for L & XL , \$35.00 for XXL and XXXL**  
Your purchase of these shirts assists the association. Thank you.





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## ULC / UL Harmonization of Standard for Fire Extinguishers

ULC and UL have merged into one company. Part of this merger is the harmonization of testing standards used at both facilities. For fire extinguishers, ULC traditionally had tougher standards and testing procedures even though the international rating scale was the same. In other words, a ULC rated 3A-40B:C fire extinguisher put out a larger crib fire during testing, than a UL rated 3A-40B:C fire extinguisher tested in the USA.

As a result of the harmonization project, all fire extinguisher manufacturers are required to re-test to the new, tougher harmonized ULC standard. Please note, this does not mean a UL listing is accepted in Canada as ULC or visa versa. The product will continue to be labeled ULC in Canada and UL in the USA.

As a result of re-testing, some models lost performance and ratings were reduced. Many manufactures decided to increase cylinder sizes (by adding height or width) to the cylinders to add more agent thus increasing the rating. This can severely impact the ability of the extinguisher to fit into standard available cabinets.

## NFPA10 – 2007 Edition – Positive Changes

The 2007 edition of NFPA 10 has been released and contains many important updates, additions and changes that affect those who own and/or service fire extinguishers. It is strongly recommended that you purchase a copy of this new standard.

Below is a summary of the major changes that should be reviewed and followed carefully.

### **Obsolete Fire Extinguishers requiring immediate removal.**

1. Pressurized Water manufactured prior to 1971.
2. Any extinguisher that needs to be inverted to operate.
3. Any Stored Pressure manufactured prior to 1955.
4. Any extinguisher with a 4B, 6B, 8B, 12B, 16B fire rating
5. Any extinguisher that can no longer be serviced by the manufacturer's manual or parts. (This includes manufacturers that are no longer in business. Servicing in this case, places liability of performance on your company.)

### **Fire Extinguishers requiring removal at next service interval.**

1. Any Dry Chemical "Stored Pressure" extinguisher manufactured prior to 1984 shall be removed from service at the next six-year maintenance interval or hydro-test interval, whichever comes first.
2. Why 1984? UL underwent major changes that came into effect in 1984. Some of the changes were any extinguisher over 2A-20B:C required a discharge hose versus a fixed nozzle. Extinguisher labeling was standardized to include pictograms and universal class markings for A, B and C designations.
3. "Stored Pressure" extinguishers do not include Carbon Dioxide fire extinguishers or Clean Agent fire extinguishers. These are designated as "self-expelling" type extinguishers by NFPA.



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## Temperatures that effect maintenance intervals.

1. When subjected to temperature at or about its listed rating, stored pressure fire extinguishers (any that require a twelve-year hydro-test) shall be emptied and subjected to the applicable maintenance and recharge procedures on an **annual basis**. (section 7.3.1.2.3)
2. This new change will affect any fire extinguisher that is exposed to the elements in either high heat or extreme cold.

## Certified Person requirement

A definition of "certified person" was added to the 2007 edition to state that "A person that has been certified by a recognized organization through a formal certification program or by the equipment manufacturer."

(Kidde Canada is planning a training schedule for 2008 on Certification for Fire Extinguishers (Kidde, Pyrene and Badger brands).

A common question that will come out of all of this change is "NFPA10 – 2007 Edition is not in force with my local authority having jurisdiction". This may be true, as fire departments and local regulators do not always adopt a standard as soon as it is released, however you may still own some of the liability. If an obsolete fire extinguisher is not replaced and malfunctions when needed, this may be your fault. If an end-user or customer refuses to follow your documented information, ask for their request in writing.

These are some of the changes in the revised 2007 Edition of the NFPA10. The standard should be reviewed. Visit [www.nfpa.org](http://www.nfpa.org) for more information.

## Congratulations to our recent recipient of the Wm. Beatty Memorial Scholarship 2007

My name is Andrew Hay. I was born and raised in Dundas, Ontario. Growing up in Dundas, I participated in competitive hockey for fourteen years until I moved to Sarnia, after being accepted to the Pre-Service Firefighting Education and Training Program at Lambton College. This past fall I successfully graduated from this program with a 3.98 GPA. I also earned a position on the Dean's Honour List and received the 'Dean's Award'.

I am currently working in Mississauga where I am saving up money in order to return to Lambton College for Fire Science Technology. My future plans include graduating from the second and third years of Fire Science Technology, and then pursuing a career as a full-time firefighter in either a municipal or industrial department.

I would like to thank the Ontario Industrial Fire Protection Association for their contribution to my education. I am very appreciative and feel honoured to have received this award.

Thank you, Andrew Hay



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## Training for Emergency Responders

Simulation planning :

Annually industrial organizations use simulations that are as close to real incidents as possible to train their response teams. At Imperial Oil our standards have us put on five simulations annually to ensure each part of our system is tested. The five we perform are; Toxic vapour release, major fire, spill to the river, medical response with a man down, & a security incident.

When planning a simulation first identify what part of your response you want tested. Then you gear the simulated incident to ensure that the expected response will occur.

- ▶ Ask yourself these three questions, Who ? What ? Where ?
- ▶ Identify the behaviors that you expect to observe.
- ▶ Identify the internal assistance / resources required.

If using external resources ensure they are notified in advance, particularly if you expect them to respond. I have found that the municipal fire service, police, and EMS are willing to join in our simulations. This provides them with a great opportunity to get to know our systems, people and response protocols. It also takes off the pressure that this is an exercise, and not a real event. When the real events occur the response teams both internal and external know what to expect.

When planning a simulation that involves external assistance it's always a good idea to notify the local media of the event.

Jim Belrose, Site Fire Marshall Imperial Oil Sarnia

*We need to hear from you....*

As a member and/or recipient of our **FireWatch** newsletter we welcome your comments and ideas.

We would like to hear from you with regards to seminar topics that would interest you and your company or problems or concerns that a member of the association could help you with.

Our Board of Directors has a wealth of knowledge that could assist you.

This is your association and networking is the key to success for everyone.

Don't hesitate in any way to contact our office either by phone 905-527-0700, or email [oifpa@interlynx.net](mailto:oifpa@interlynx.net) We would be glad to hear your comments and/or help you get in contact with others that could assist.



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## **New Board of Directors 2008....**

Roy Graham, Petro Canada, Mississauga  
Jim Belrose, Imperial Oil, Sarnia  
Todd Wilson, PepsiCo Foods, Peterborough  
Cyril Hare, Cyril Hare & Associates, Mississauga  
George Fawcett, Leber / Rubes Inc., Ottawa  
Doug Scale, Lambton College, Sarnia  
Gene Thompson, Procter and Gamble, Belleville  
Mark Harrop, Randal Brown & Associates, Toronto  
Derek Roy, Kidde Canada, Vaughan  
Craig Anderson, Imperial Oil, Nanticoke  
Mario Mocerri, Chrysler, Windsor  
George Hatfield, Suncor, Sarnia

Thank you to these members for their commitment  
to the OIFPA and the Industrial Fire Sector.

*Board Members can be contacted through the Association's office and are a great resource for those issues that you may have or are questioning. Your Board Members are a wealth of knowledge and experience in the Industrial Fire Sector. Don't hesitate to consider speaking with any of them if you have any issues relating to your specific fire and safety issues in the industrial areas.*