



ASSE India – Newsletter Committee
Sandip Mukherjee & Madhava Kumar

Message from the President's Desk:

Greetings!

You may be aware about the "XXth World Congress on Safety and Health at Work" which took place recently in Frankfurt Germany on August 24-27, 2014, in which several colleagues from ASSE participated. Here's a link for more details about the congress:

<https://www.safety2014germany.com>

You may be able to download some interesting technical presentations from this website.

Our country is poised for fast growth and this is the time when we need to augment our efforts for capacity development in safety. Providing awareness and creating safety mindset is necessary not only at the organized sector but also for other areas, including small and medium scale businesses as well as unorganized sectors. In view of increasing number of road accidents it is also timely to take up road safety initiatives and reach to all sectors of road users, including children and school bus drivers.

Voluntary efforts from established and experienced safety leaders to promote the concepts of prevention and safety can play significant role.

ASSE India Chapter through its Executive Committee and Member network should be able to make some humble yet very meaningful contribution in this regard.

I urge my fellow ASSE Members, Safety Professionals and others for their valuable volunteering efforts in protecting people, property and the environment.

Warm Regards,

Krishna Nirmalya Sen.,
President, ASSE India Chapter



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Editor's Corner:

Dear Reader,

We are presenting the 7th Issue of ASSE India Chapter Newsletter.

Behind every successful business there is a contribution of robust safety culture. In this issue we have tried to capture various elements of safety culture those are essential to regulate an organization's safety culture. Again these elements are the basis of Behavioral Based Safety Program.

Also we have identified two recent incidents those had a high potential of severe loss to common lives and property. Several similar incidents had happened before in industries and public. As a HSE Professional once again we should review these incidents and guide our organization and society to avoid reoccurrence as well as strengthen the emergency response process.

Also to make this publication attractive, we have usual OH&S Quiz and information on recent Chapter activity. Trust you will find this issue attractive and useful.

Again we are inviting interesting articles on OH&S for publication.

Warm Regards,
Sandip Mukherjee,
Chair – Newsletter (ASSE India Chapter)

SAFETY CULTURE – WHAT IS IT?

Compiled by – Sandip Mukherjee

When we get into discussions about safety programs, safety processes, behaviour based safety initiatives something happens. People will lean back in their chair, fold their hands across their stomachs and begin to recite—“Well, as I see it, our problems in safety come from a lack of an appropriate safety culture. What needs to happen is that the organization needs to instil an appropriate safety culture in our employees. This of course must begin with top management with the setting of goals establishment of” and the filibuster continues. This type of prattling about a word—culture—comes from hearing just enough in a meeting to sound smart. In other words just enough information to be dangerous. It is a sad thing when fools speak on things of which they know not. It is just such actions that have turned culture into an industry “buzzword” of the day.

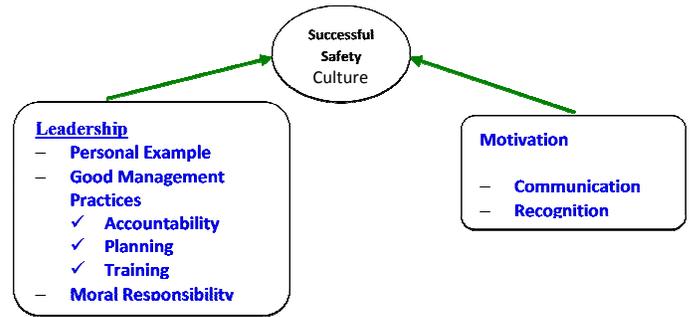
Culture is a combination of several things within an organization's and more importantly within an individual. Safety culture is reflected in people

- **Attitudes** — How do you personally respond to health and safety issues and requirements? Do complain about them? Are they a burden?
- **Behaviours** — Do you abide by safety requirements? What type of example do you set?
- **Expectations** – What are your health and safety standards? What level of performance do you expect from yourself and others? Do you hold yourself and others accountable to those expectations?
- **Beliefs** – What do you believe? Do you believe health safety efforts are worthwhile? Where is the health and safety of yourself and others on your list of priorities?
- **Values** – How important is health and safety to you? How much is your life and the lives of those working around you (even that jerk down the hall) worth to you?
- **Actions** – Do your actions reflect your attitudes, behaviours, expectations, beliefs and values? Is it a picture you are proud of? Out of a man's mouth will spring forth the attitude, behaviours, expectations, beliefs, and values of his heart, his core, and his defining values. Do your actions show you care?

What it all really comes down to is—do you care? Do you within your core care if what you do hurts someone? A good exercise for a design team (this include the contractor) to do in determining what value they place on safety is to think of a project you are working on. Determine what the cut-off (in terms of Money) is where incorporating health and safety into the design becomes too expensive. Take that number look in the mirror and tell yourself you have succeeded, you have finally been able to determine what your own life is worth.

HOW DO WE GET THERE?

WE CARE!!!



*There is one right I would not grant anyone.
And that is the right to be indifferent.*

—Elie Wiesel

Recent Incident

Another high-rise building is on fire in consecutive months.

Kolkata: Fire breaks out in city high-rise, no casualty

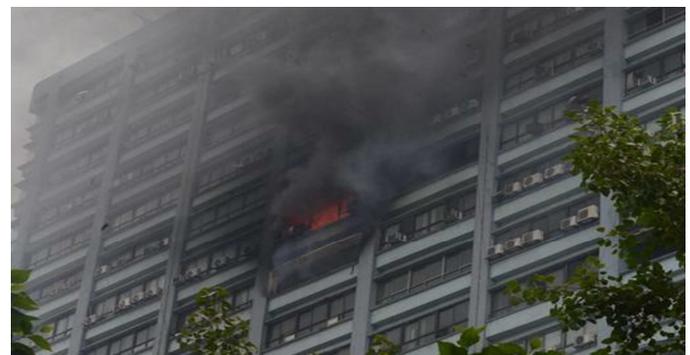
Updated: Tuesday, September 2, 2014, 19:21 [IST]

Kolkata, Sep 2: A fire broke out this morning in the 24-floor Chatterjee International Centre, one of the oldest highrises of the city, which houses many commercial establishments but there was no casualty.

The fire which was detected between the 12th and 15th floors of the building situated in the heart of the city at about 8.30 AM was doused at around 1 PM after over 20 fire tenders fought for over four hours, fire services control room said. "Four persons trapped inside have been rescued using hydraulic ladders. They were sent to hospital for treatment of smoke-related complaints," West Bengal Fire Services Minister Javed Khan said.

Two of them were released after initial treatment. Some people who were in the second and third floors of the building were also evacuated, said Khan who was himself present at the spot.

As the fire broke out ahead of the office hours, several major thoroughfares had to be closed in the vicinity of the Park Street and Jawaharlal Nehru Road crossing leading to huge traffic snarls.



West Bengal Chief Minister Mamata Banerjee, who is presently on an administrative tour of North Bengal, monitored the situation.

"I had kept the track of the whole incident. It is good that the fire of a big magnitude could be averted because of the good work by the disaster management (department), the police and fire officials," Banerjee said at Kalimpong in Darjeeling district.

Khan too said fire services and disaster management group personnel reacted very quickly and was thus able to contain the spread of the blaze.

"Tomorrow a team of forensic officials will inspect the building in order to ascertain the cause of fire. Fire officials will also inspect all the floors to check whether firefighting amenities are in place or not," Khan said.

PTI

NFPA's Safety Tip sheet for high rise building

ESCAPE PLANNING IN TALL BUILDINGS

Fire drills are important for all homes, including apartment buildings and other high-rise structures. You need to know the basics of escape planning, from identifying two ways out of every room to getting low and going under smoke, and the importance of practicing how you would respond in an emergency. Be aware that sometimes the safest thing you can do in a tall building fire is to stay put and wait for the firefighters.

Safety tips

To increase fire safety for apartment dwellers, NFPA offers the following guidelines:

Know the plan

Make sure that you're familiar with your building's evacuation plan, which should illustrate what residents are supposed to do in the event of an emergency. The evacuation plan should be posted in places where all residents can see and review it, and the building management should hold a fire drill with occupants at least once a year. Most states also require that buildings periodically test their fire safety systems as well. Be sure to participate when your building drills take place. When looking for an apartment or high-rise home, look for one with an automatic sprinkler system. Sprinklers can extinguish a home fire in less time that it takes for the fire department to arrive.

Practice is key

Whether your building has one floor or 50, it's essential that you and your family are prepared to respond to a fire alarm. Identify all of the exits in your building and if you are using an escape planning grid, mark them on your escape plan. Make sure to mark the various stairways too, in case one is blocked by fire.

Never use the elevator

In case of fire, always use the stairs to get out, never the

elevator. Make sure to practice using the stairs as part of your escape plan. If someone in your family has difficulty climbing down steps, make sure to incorporate a contingency for this into your plan.

Stay low

Smoke from a fire is toxic and deadly no matter what kind of structure you live in. When you hold your fire drill, everyone in the family should practice getting low and going under the smoke to the exit. In the event of a fire, if both stairwells are filled with smoke, stay in your apartment and wait for the firefighters.

Seal yourself in for safety

If you can't exit an apartment building due to smoke or fire in the hallway, call the fire department to report your exact location and gather in a room with a window to await their arrival. Close all doors between you and the fire. Use duct tape or towels to create a seal around the door and over air vents in order to keep smoke from coming in.

Stay by the window

If possible, you should open your windows at the top and the bottom so fresh air can get in. Don't break the window - if smoke enters the room from outside the building, you won't be able to protect yourself.

Signal to firefighters

Wave a flashlight or light colored cloth at the window to let the fire department know where you are located.

Another Recent Incident

2 women killed, 50 others affected as poisonous gas leaks in West Bengal

IndiaToday.in Burdwan (WB), August 27, 2014 | UPDATED 01:06 IST

Two women were killed and 50 others affected, 12 of them seriously, when gas leaked from a cylinder in a welding workshop in in Asansol's Gopalpur area on Tuesday. The incident happened in Asansol under Gopalpur police station when Ammonium Sulphate gas leaked from the cylinder, Asansol-Durgapur Police Commissioner Vineet Goel said.

4 fire engines tried to control the leakage of poisonous gas. The deceased were identified as Satya Bala Das (80) and Ujjala Das (78).

Among those affected by the gas leak is a child.

The poisonous gas spread to an area stretching to more than two kms, Goel said.

The district administration has ordered a probe into the incident.

Compressed Gas – How do I work safely with –

Why should I use substitution as a method of controlling exposure to compressed gases?

Substitution can be the best way to avoid or reduce a hazard. But it is not always easy or even possible to find a less hazardous substitute for a particular compressed gas used for

a certain job. Speak to the chemical supplier to find out if safer substitutes are available. For example, in some cases, methylacetylene-propadiene (MAPP) gas, propylene, propane or mixtures of liquefied petroleum gas can be substituted for acetylene as fuel gases for cutting, welding and brazing. These gases are more stable and can be stored in normal cylinders. Their flammable limits are much narrower than those of acetylene (e.g., 3.4 to 10.8 percent for MAPP versus 2.5 to 82 percent for acetylene), so they represent a reduced fire hazard.

Obtain MSDSs for all possible substitutes. Find out about all of the hazards (health, fire, corrosivity, chemical reactivity) of these materials before making any changes.

Sometimes, process changes or modifications can reduce a material's hazards. For example, many cylinders of the same gas may be used in different areas of a workplace. Installing fixed pipelines connected to a central gas supply in a safe area can often reduce the hazard. It can also reduce the need for many sets of portable equipment supplied through flexible hoses. Similarly, ordering cylinders equipped with flow limiting restrictors can minimize the hazards of a sudden failure of a process gas line.

Choose the least hazardous material and process that can do the job effectively and safely. Then learn how to work safely with them.

How do I store compressed gas cylinders?

Store compressed gas cylinders in compliance with the occupational health and safety regulations and fire and building codes applying to your workplace. These laws may specify the permissible kinds of storage areas and the construction of these storage areas. They may also specify the kinds and amounts of different gases that can be stored in each safe storage area.

What should I do when I receive cylinders?

Inspect all incoming cylinders before storing to ensure they are undamaged and properly labeled. Do not accept delivery of defective cylinders. Be sure they are not giving off odors, visible fumes or hissing sounds. Check that the cylinder was last tested within the required time (usually 5 or 10 years, but some containers may be as low as 3 years or as long as 12 years).

Also check that the cylinder labels are intact and that they match other identifying markings on the cylinder. Do not rely on cylinder color to identify the gas. Different suppliers may use different colors for cylinders of the same gas. In addition, colors appear different under artificial lights and some people are color blind. Gases that cannot be clearly identified should not be used.

Call compressed gases by the name on the supplier label. This reduces confusion, promotes recognition of the hazards involved and precautions to take, and can prevent accidental use of the wrong gas. If oxygen is called "air," someone who wants air to run a tool may use oxygen with possible serious results. Leave the valve cap securely in place until the cylinder is to be used. Inspect the cylinder valve by looking through the ports in the valve cap. Do not accept dirty, rusted or otherwise damaged valves and fixtures.

How do I transport or move cylinders?

Always transport cylinders with valve caps or other valve protection in place. Pulling cylinders by their valve caps, rolling them on their sides or dragging or sliding them can cause damage. Rolling cylinders on their bottom edge ("milk churning") may be acceptable for short distances. Never lift cylinders with magnets or chain or wire rope slings. Transport cylinders on specially built hand carts or trolleys or other devices designed for this. All transport devices should have some way of securing cylinders to prevent them from falling.

What should I know about the compressed gas storage area?

Store compressed gas cylinders separately, away from processing and handling areas, and from incompatible materials. Separate storage can minimize personal injury and damage in case of fires, spills or leaks. Many compressed gases can undergo dangerous reactions if they come in contact with incompatible materials (gases, liquids or solids), so store them apart from each other. For example, store oxidizing gases at least 6 metres (20 feet) away from fuel gases or other combustible materials, or separate them with an approved fire wall. Check the reactivity information and storage requirements sections of the MSDS for details about which materials are incompatible with a particular compressed gas. The National Fire Code addresses requirements for segregation of different gases in storage.

If compressed gas cylinders are stored outside, use a well-drained, securely fenced area. Keep them on a raised concrete pad or non-combustible rack. Protect cylinders from the weather and do not allow them to stand directly on wet soil as this can cause corrosion.

Indoor storage areas must have walls, floors and fittings made of suitable materials. For example, use non-combustible building materials in storage areas for oxidizing gas and corrosion-resistant materials in storage areas for corrosive gas. Make sure floors are level and protect cylinders from dampness. Avoid overcrowding in storage areas or storing cylinders in out-of-the-way locations.

Always chain or securely restrain cylinders in an upright position to a wall, rack or other solid structure wherever they are stored, handled or used. Securing each cylinder individually is best. Stacking of groups of cylinders together offers some protection, but if this is done improperly, the entire group or individual cylinders could fall.

Store compressed gas cylinders in areas which are:

- Well-ventilated and dry.
- Fire-resistant and supplied with suitable firefighting equipment including sprinklers, where appropriate.
- Away from electrical circuits and ignition sources such as sparks, flames or hot surfaces.
- Accessible at all times, but away from elevators, staircases or main traffic routes where cylinders may be dangerous obstacles.
- Labeled with suitable warning signs.

Always store full cylinders separately from empty cylinders.

What are basic safe practices when working with compressed gases?

Following these basic general safe practices will help protect you from the hazards of compressed gases:

- Read the MSDSs and labels for all of the materials you work with.
- Know all of the hazards (fire/explosion, health, chemical reactivity, corrosivity, pressure) of the materials you work with.
- Know which of the materials you work with are compressed gases and check the label, not the cylinder color, to identify the gas.
- Store compressed gas cylinders in cool, dry, well-ventilated areas, away from incompatible materials and ignition sources. Ensure that the storage temperature does not exceed 52°C (125°F).
- Store, handle and use compressed gas cylinders securely fastened in place in the upright position. Never roll, drag, or drop cylinders or permit them to strike each other.
- Move cylinders in handcarts or other devices designed for moving cylinders.
- Leave the cylinder valve protection cap in place until the cylinder is secured and ready for use.
- Discharge compressed gases safely using devices, such as pressure regulators, approved for the particular gas.
- Never force connections or use homemade adaptors.
- Ensure that equipment is compatible with cylinder pressure and contents.
- Carefully check all cylinder-to-equipment connections before use and periodically during use, to be sure they are tight, clean, in good condition and not leaking.
- Carefully open all valves, slowly, pointed away from you and others, using the proper tools.
- Close all valves when cylinders are not in use.
- Never tamper with safety devices in cylinders, valves or equipment.
- Do not allow flames to contact cylinders and do not strike an electric arc on cylinders.
- Always use cylinders in cool well-ventilated areas.
- Handle "empty" cylinders safely: leave a slight positive pressure in them, close cylinder valves, disassemble equipment properly, replace cylinder valve protection caps, mark cylinders "empty" or "MT," and store them separately from full cylinders.
- Wear the proper personal protective equipment for each of the jobs you do.
- Know how to handle emergencies such as fires, leaks or personal injury.
- Follow the health and safety rules that apply to your job.

What should I do in an emergency?

Act fast in emergencies such as chemical fires or gas cylinder leaks.

- Evacuate the area at once if you are not trained to handle the problem or if it is clearly beyond your control.
- Alert other people in the area to the emergency.
- Call the fire department immediately.

- Report the problem to the people responsible for handling emergencies where you work.
- Obtain first aid and remove all contaminated clothes if you have been exposed to harmful chemicals.

Note: All major compressed gas suppliers have emergency response teams. These teams can be activated by calling the telephone number that is usually printed on the shipping documents and MSDSs.

Locate emergency eyewash stations and safety showers wherever accidental exposure to gases that can damage skin or eyes is possible.

Only specially trained and properly equipped people should handle emergencies. Nobody else should go near the area until it is safe.

Planning, training and practicing for emergencies help people to know what they must do.

The MSDSs for the gases used are a starting point for drawing up an emergency plan. MSDSs have specific sections on spill and leak procedures, first aid instructions, and fire and explosion hazards. If the directions in each MSDS section are not clear or seem incomplete, contact the gas supplier or manufacturer for help. Many other sources can also help develop emergency plans. Local fire departments can assist with fire emergency plans and training. Occupational health and safety and environmental enforcement agencies, provincial safety associations, Compressed Gas Association Inc., St. John Ambulance, insurance carriers, professional societies in occupational health and safety, labour unions, some colleges and universities, and CCOHS can supply useful information. Specialized private consultants are also available.

- [Compiled from Canadian Center for Occupational Health and Safety](#)
- [Also refer: Gas Cylinder Rule 2004](#)

[Recent / Forthcoming Events on Occupational Safety and Health](#)

[WEBINAR – ASSE India Chapter](#)

Recent webinar by ASSE India Chapter held on 8th August 2014 on "Benefits of a Cloud-based Integrated Learning and Safety Management Systems" was aptly handled by Ms Mccarn Jill from Underwriters' Laboratories (UL). This was supported by Mr JC Sekar Managing Director Asia Pacific & Middle East UL Workplace Health and Safety.

Professional Conference:

- <http://www.icoh2015.org/> *31st International Congress on Occupational health*
- <http://www.icoh2015.org/eng/sub/parallel/parallel01.php> *30th Annual Conference of Asia Pacific Occupational Safety & Health Organization*

HSE Quiz

1. In which of the following media do sound waves travel slowest?

- A Air
B Water
C Wood
D Steel

2. Determine the velocity at the face of a 10ft x 10ft tank if the total flow through the opening is 2,000cfm.

- A 10ft/min
B 20ft/min
C 40ft/min
D 200ft/min

3. Under site conditions, the numerical value of the wet bulb globe temperature (WBGT) is calculated using which of the following formulas:

- A $0.7 WB + 0.3 GT$
B $0.7 WB + 0.2 GT + 0.1 DB$
C $0.7 WB + 0.1 GT + 0.1 DB$
D $0.7 WB + 0.2 GT + \text{Air Velocity}$

4. To assess your company's loss control performance, several statistics are captured and analyzed. One of these is "Percent of project personnel that have completed all phases of HSE training". This statistics is a(n):

- A Leading Indicator
B Lagging Indicator
C Optional Indicator
D Occupational Indicator

5. Define ionizing radiation:

- A X – Rays and Gamma Rays only
B X Rays, Gamma Rays, Cosmic Rays
C Any particle or photon with enough energy to ionize
D Alpha, beta, gamma, x-rays

Watch out the next issue for correct answer

Answers from last issue's (August / 2014) Quiz: 1 (B); 2 (C); 3 (C); 4 (D); 5 (C)

You are welcome to send your inputs to: Sandip Mukherjee; e-mail:

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Selected articles shall be published in next publication

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ASSE offers its members many opportunities for networking, professional development, global media outreach, government affairs programs, standards development, publications and other resources. For further details, please contact:

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