Dear Members,

As we all know, World Safety day is celebrated on 28th April every year. ILO started celebrating “World Day for Safety and Health at Work” since April 28, 2003 to promote the prevention of occupational accidents and diseases globally. It is an awareness-raising campaign intended to focus international attention on emerging trends in the field of occupational safety and health and on the magnitude of work-related injuries, diseases and fatalities worldwide.

For us in India, National Safety Week is celebrated from 4th March to 10th March every year to commemorate the foundation day of National Safety Council on 4th March, 1966. This is to give thrust for Public Safety and Awareness of all for ensuring safety for one and all.

ASSE shall be organizing various activities during the forthcoming National Safety Week. These are primarily aimed at increasing the awareness of the People regarding various aspects of safety at work place, home and roads. Some of the activities are:

- Fire Safety Class and demo in Industries, Theatre, Safety Quiz for children in schools, First Aid and basics of fire class and LPG safety for residents.

Rashtriya Life Saving Society RLSS(I), a non profit organisation helping people to learn life saving techniques has given its consent to collaborate with ASSE AP Chapter and move forward with the activities or programs performed.

Our members through their institutions can avail the activities like CPR, Trauma Management, First Aid etc. with both theory and practical based audio and video presentations during training. A written examination will be taken for the trainees and a certificate will be allotted on the completion of the course. The cost of training will be based on the industry requirement. Your enquiries may refered to us for organizing training programs.

Let’s take a pledge to make People, Property and Environment Safe to live.

I request you all to spread the message of Safety in your sphere of work and Life.

With warm regards,

S.N. Soman
EVENTS CONDUCTED
FOR NATIONAL SAFETY WEEK

ASSE ANDHRA PRADESH CHAPTER
SINCERELY THANK

- QUEEN MARY’S HIGH SCHOOL
- SACRED HEART GIRLS HIGH SCHOOL
- ALBA ASIA LTD
- HERITAGE FOODS PVT LTD
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- JYOTI THEATRE
- ALL RESIDENTS
- HPCL COCO OUTLET FOR GIVING FREE HOARDING FOR DISPLAY
- HPCL LPG MANAGER FOR CONDUCTING THE LPG SAFETY CLINIC

FOR ALL THE COOPERATION EXTENDED TO CONDUCT THE EVENTS
UNDERSTANDING OCCUPATIONAL DISEASE IN WOMEN WORKERS

The distribution of working women by industry, occupation and status in employment is dependent upon the level of the country’s economic development, and also on cultural perceptions of women’s roles and status in the society. While the male labour force is distributed across the agriculture, industry and service sectors of the economy, women tend to be highly concentrated in a single sector. In the more developed regions, nearly three quarters of the female labour force is to be found in service industries.

A notable exception is Russia, which not only has a majority of women in the labour force, at 52 per cent in 1991, but has proportions of women in the industrial sector (37 per cent) almost as high as in services (41.8 per cent). Women are found in the informal sector more often than men because of lack of opportunities or other obstacles in the society.

A specific difference in occupation vary among regions and over time, but a characteristic common to all regions is that women are under-represented in administrative and managerial posts and in production and transport. By contrast, they are widely found in clerical and service as well as professional and technical jobs. Household production is often combined with some income-generating employment, whether full-time, seasonal, part-time or occasional. Over the past two decades, women’s share in the labour force has increased significantly in all regions.

Women face different workplace health challenges than men. This is partly because men and women tend to have different kinds of jobs. Women generally have more work-related cases of carpal tunnel syndrome, tendonitis, respiratory diseases, infectious and parasitic diseases, and anxiety and stress disorders. Social, economic, and cultural factors also put women at risk for injury and illness.

Appropriate indicators must be examined for the hazards in women’s jobs. When examining compensated work accidents and injuries the indicators of occupational health problems / diseases are often ignored. Men have from three to ten times more compensated industrial accidents and illnesses per worker than women. Some of this excess is a result of the fact that women and men do not have the same job distributions; when comparisons are made within the same industry, sometimes women have more accidents than men, sometimes fewer. Women average more industrial disease than men and their problems may be underestimated since many industrial diseases go unrecognised. It is easy to recognise that a leg broken in the workplace is an occupational problem but an allergy or inflammation that develops more slowly is not readily associated with the job.

Because women tend to work fewer hours than men at paid jobs, accident rates of women appear lower when, as is usual, the rates are calculated per worker rather than per hour worked. So all studies comparing women and men, it is appropriate to gather information based on per person-hours worked.

Paradoxical as it may appear, health professionals are often exposed to many different hazards in their workplace. These hazards include anaesthetic gases, cytostatic medicines, disinfectants, radiation, shift and night work, lifting of weights etc. Operating room personnel were amongst the first groups to be studied from the point of view of reproductive health. Although not all the studies which indicated negative reproductive effects among operating room personnel are now considered reliable, some negative effects (in particular the reductions in fertility, the incidence of spontaneous abortion and birth defects) were consistently demonstrated in connection with anaesthetic gas exposure. The results of the various studies - even if not always valid - certainly contributed to improvements in making operating rooms a safer place for both workers and patients.

Antineoplastic drugs too have been shown to increase the risk of birth defects and spontaneous abortion. Again, not all findings are consistent, and not all nurses are exposed, even if they handle such drugs. But women employed in pharmaceutical industry have definite exposure to such hazardous drugs. However what is known is sufficient to dictate maximum protection for the staff involved.

Physical agents and work with VDTs (Visual display terminals) Among physical agents, ionising radiation is the health hazard best known and controlled from the point of view of reproductive health. Exposure in pregnancy is regulated by internationally accepted strict rules. In its latest recommendations the International Commission on Radiological Protection (ICRP) set the maximum allowable dose during pregnancy below 1
mSv. In general, exposures in the workplace are far below those expected to harm the ovaries or the foetus. Even the Infra-red scanners that are handled by the Sales girls in the malls are not free from risk on exposure to their eyes.

Job Area                        Health Concerns
Transportation                   Respiratory illness, Musculo-skeletal-injuries
Manufacturing                   Systemic disease depending on the chemical usage
Stone crushers, slate making     Pneumoconioses like Silicosis
Toys making                     Exposure to Lead paints (Banned)
Electronic Industry             Pb Exposure by Soldering.
Battery / UPS making             Pb Exposure.
Pesticide handling              Exposure to Heavy metal, organic solvents and hazardous chemicals
Working with cotton dust         Bronchitis and Baggasosis in Ginning & textile industry.

Gender discrimination in the workplace can affect a woman's physical and mental health leading to anxiety, depression, lower self-esteem, alienation, insomnia, nausea, headaches.

There are many physical and ergonomic factors in the health care setting which have been associated with an increased risk of spontaneous abortion, including electromagnetic field waves, physical and mental stress and shift work, but here too the results are not clear cut. Nonetheless, preventive measures are indicated even when the research results are uncertain.

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Post graduate course in Medical Rehabilitation from All India Institute of Physical Medicine & Rehabilitation (Mumbai)

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**ANNOUNCEMENTS:**

- Members please re-confirm your ASSE membership member, DOB, Address, contact no. and mail I.D.'s to assevisakhapatnam@gmail.com to update record.
- Advertisements for e-news letter are accepted and you may contact for details.
- Your articles on HSE may be sent to us for publication in the e-news letter. These will be after scrutinised by editorial board and then published.

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INTRODUCTION
The information contained in this guide is up-to-date and is based on the sources which are considered to be authentic.

PURPOSE
The purpose of this publication is to explain 1) The technical terms commonly used in EHS documentation, 2) Better understanding of MSDS and 3) Info on Statutory permissions / approvals related to EHS that are to be taken by industry. This guide contains 453 technical terms which are listed alphabetically to find the meaning of particular term easily.

The book has been compiled and edited from the latest authentic documents, which are listed under reference.

GLOSSARY OF TECHNICAL TERMS

ABATEMENT: Reducing the degree or intensity of, or eliminating, air, water, or land pollution through waste reuse, process modification, or pollution control.

ABRASION: The removal of surface material from any solid through the frictional action of another solid, a liquid, or a gas or combination thereof.

ABSOLUTE PRESSURE: Absolute pressure is usually expressed in “pounds per square inch, absolute”, the abbreviation of which should always be “psia” not “psi”. Absolute pressure measurement is relative to the complete absence of pressure, as in perfect vacuum. In other words, absolute pressure is the amount by which the measured pressure exceeds a perfect vacuum. Absolute pressure = atmospheric pressure + gauge pressure.

ABSORPTION: Passing of a substance from outside to inside the body. Absorption pathways are the routes by which a substance enters the body without injury. The usual routes in the workplace are the respiratory tract (by inhalation) and skin (cutaneous penetration). The digestive tract (ingestion) is the least common.

ABSORBED DOSE: The amount of substance that actually enters into the body, usually expressed as milligrams of substance per kilogram of body weight (mg/kg).

ACCEPTABLE RISK: The residual risk that remains after all possible control measures have been implemented that is deemed acceptable by the party or parties that are exposed to the risk (e.g., management, employees, the public, the government).

ACCIDENT: An unwanted event resulting from the occurrence of one or more fault incidents that have a negative impact on a system, product, equipment, or personnel.

ACCUMULATION: A build up of un-reacted materials.

ACGIH: ACGIH stands for American Conference of Governmental Industrial Hygienists. The ACGIH is an association of occupational health professionals employed by government and educational institutions and founded in 1938. The association has contributed substantially to the development and improvement of official health services to industry and labour. ACGIH develops and publishes recommended occupational exposure limits for chemical substances and physical agents.

ACID: A chemical substance that can release a hydrogen ion (H+). Acidity is measured in pH units from 0 to 7, where “7” is neutral and “0” is strong acid. According to WHMIS (Workplace Hazardous Materials Information System), a substance is a corrosive material if its pH is equal to or less than 2, when precise data are lacking.

ACUTE: Acute means sudden or brief or short. Acute can be used to describe either an exposure or a health effect. An acute exposure is a short-term exposure. Short term exposure means lasting for minutes, hours or days. An acute health effect is an effect that develops either immediately or short time after an exposure. Acute health effects may appear minutes, hours or even days after an exposure.

ACUTE DOSE: An amount of a substance administered or received over a very short period of time (Minutes or hours), usually within 24 hours.

ACUTE EFFECT: Adverse effect on a human or animal body that takes place soon after exposure.

ACUTE HAZARDS: Acute hazards are those that cause a specific problem within a short period of time (seconds to days). Examples are irritations to the body or toxicity that will cause sickness or death.

ACUTE LETHALITY: Death of animals immediately or within 14 days after single dose of exposure to a toxic substance.

ACUTE TOXICITY: Adverse effects resulting from a single dose or exposure to a substance.

ADDITIONAL EFFECT (OR ADDITIVITY): The combined effects of two or more chemicals equal to the sum of their individual effects.

(to be continued...next issue)
Safety Quiz
Hearing Conservation

Can you answer these questions? All answers are given at the end of this issue.

Question No 1
How many Indians are exposed to hazardous noise levels at work each year?
• (A) 10 million
• (B) 30 million
• (C) 50 million
• (D) None of the above

Question No 2
Which of the following is a long-term, negative result of exposure to loud noise?
• (A) Decreased productivity
• (B) Psychological and physical stress
• (C) Interrupted concentration and communication
• (D) Accidents and injuries at work due to one's inability to hear warning signals
• (E) All of the above

Question No 3
Which of the following is a warning sign that your workplace may be too noisy?
• (A) You hear a humming or ringing in your ears when you leave your workplace
• (B) You constantly pull your ears
• (C) You have to shout to a person who's an arm's length away in order to be heard.
• (D) Both a and c

Question No 4
What does the acronym NIHL stand for, with respect to hearing conservation?
• (A) Northern India Hockey League
• (B) Noise Induced Humming Level
• (C) Noise Induced Hearing Loss
• (D) None of the above

Question No 5
Noise-induced hearing loss can be temporary.
• (A) True
• (B) False

Question No 6
To what does the acronym SLM refer?
• (A) St. Leonard's Motors
• (B) Sound Level Meter
• (C) Service Lifecycle Management
• (D) Silent Language Management

Question No 7
Continuous exposure to noise levels at ____ decibels (dB) or above can cause hearing loss.
• (A) 85
• (B) 80
• (C) 75
• (D) 70

Question No 8
Noise Induced Hearing Loss can be mitigated and even fully repaired with medical aid.
• (A) True
• (B) False

Question No 9
The most effective way to avoid hearing loss at work is to….
• (A) Stay away from loud noises and refuse to work
• (B) Listen to music that is louder than the noise level at work
• (C) Use hearing protection, such as earplugs, regardless of whether or not communication is essential at the office
• (D) Monitor noise levels through engineering and administrative controls

Question No 10
Which of the following is NOT a type of hearing protection?
• (A) Ear Muffs
• (B) Pre-molded plugs
• (C) Foam plugs
• (D) Canal caps
• (E) Cotton balls

(To be continued next issue...)
EARLY WARNING SYSTEMS

At a time of global changes, the world is striving to face and adapt to inevitable, possibly profound alteration. Increasing number of natural disasters severe and more frequent flooding that could imperil low-lying islands and the crowded river deltas of southern Asia, are already taking place and climate change will cause additional environmental stresses and societal crises in regions already vulnerable to natural hazards, poverty and conflicts.

A state-of-art assessment of existing monitoring / early warning systems (EWS) organized according to type of environmental threats focusing on: air quality, wild land fires, nuclear and chemical accidents, geological hazards (earthquakes, tsunamis, landslides, hydro-meteorological hazards (desertification, droughts, floods, impact of climate variability, severe weather, storms, and tropical cyclones), epidemics and food insecurity.

Public alert system is used for providing alarm sound to cities and municipalities, for plants and locations with potentially dangerous materials, open spaces, sport arenas and halls and for build up of large warning systems for informing public in the case of emergency situations and minimize human loss and save property through disaster management.

Functions:

- Acoustics unit with circular or asymmetrical characteristic for complex solutions.
  Unit available for 120 watts can be stacked. To provide outputs of 240/ 360/ 480/ 600/ 720/ 840 etc.
- A Power pack with power supply and Battery Charger with.
- 3 distinct warning signals Selected by Operation of Push Button panel.
  Also provided with Auto Alarm Input terminals for remote mounted Alarm contacts or Push Buttons.

OPTIONAL

- Voice output with multiple source inputs from.
  Local mic.
  Digitally stored voice messages (120 seconds)
  External sources - CD, FM receiver
  Via Tel line with DTMF tone selection or P.A.
- Flexible interfacings to communication channels -
- Operation centers control panels
- Battery back up

Construction:

It consist of 2 units - an electronic modular unit Mounted indoors and the acoustical unit constructed for outdoor installation. The Electronic unit contains power supply with back up, control circuitry and power output modules. It is modular in construction for easy service of the system.

The Acoustical unit contains acoustical drivers attached on supporting construction. Complex solutions according to specific situation of the customer is possible.

Configuration MODEL"s

<table>
<thead>
<tr>
<th>Model</th>
<th>Power</th>
<th>Direction</th>
<th>Distance</th>
<th>Drivers</th>
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<tbody>
<tr>
<td>ESI - 120- U</td>
<td>120 watts Uni Direction</td>
<td>250 m</td>
<td>90 d</td>
<td>2 x 60 w</td>
</tr>
<tr>
<td>ESI - 120- B</td>
<td>120 watts Bi direction</td>
<td>125 m</td>
<td>180 d</td>
<td>2 x 60 w</td>
</tr>
<tr>
<td>ESI - 120- G</td>
<td>240 watts Uni Direction</td>
<td>500 m</td>
<td>90 d</td>
<td>2 x 60 w</td>
</tr>
<tr>
<td>ESI - 240- U</td>
<td>240 watts Uni Direction</td>
<td>250 m</td>
<td>180 d</td>
<td>4 x 60 w</td>
</tr>
<tr>
<td>ESI - 240- B</td>
<td>240 watts Bi direction</td>
<td>250 m</td>
<td>180 d</td>
<td>4 x 60 w</td>
</tr>
<tr>
<td>ESI - 240- G</td>
<td>240 watts Omni direction</td>
<td>125 m</td>
<td>360 d</td>
<td>4 x 60 w</td>
</tr>
<tr>
<td>ESI - 480- U</td>
<td>480 watts Uni Direction</td>
<td>1000 m</td>
<td>90 d</td>
<td>8 x 60 w</td>
</tr>
<tr>
<td>ESI - 480- B</td>
<td>480 watts Bi direction</td>
<td>500 m</td>
<td>180 d</td>
<td>8 x 60 w</td>
</tr>
<tr>
<td>ESI - 480- G</td>
<td>480 watts Omni direction</td>
<td>250 m</td>
<td>360 d</td>
<td>8 x 60 w</td>
</tr>
<tr>
<td>ESI - 960- U</td>
<td>960 watts Uni Direction</td>
<td>2000 m</td>
<td>90 d</td>
<td>16 x 60 w</td>
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<td>ESI - 960- B</td>
<td>960 watts Bi direction</td>
<td>1000 m</td>
<td>180 d</td>
<td>16 x 60 w</td>
</tr>
<tr>
<td>ESI - 960- G</td>
<td>960 watts Omni direction</td>
<td>500 m</td>
<td>360 d</td>
<td>16 x 60 w</td>
</tr>
</tbody>
</table>

Range Specified may change depending on Ambient Noise, Obstacles etc.

Courtesy: PCD Fire, Mumbai