Welcome Note  (By Farouk Merhebi – EHSRM Director)

Dear Readers,

As part of improving the mandatory fire safety training, EHSRM prepared a training video on fire safety at AUBMC whereby all aspects of the training were filmed and presented in a visual and comprehensive manner. The video is expected to be finalized by mid-November 2014.

Two of EHSRM staff contributed as main authors to the solid waste, water and wastewater chapters of the MOE/EU/UNDP national report entitled “Lebanon Environmental Assessment of the Syrian Conflict and Priority Interventions” that was launched on 26 September 2014 at the Grand Serail under the patronage of the Minister of Environment (Click here to download the executive summary).

EHSRM is developing, in coordination with the Continuing Education Center at AUB, a 25 hours Health and Safety training course addressed to Healthcare Centers. The first training course will be delivered in January 2015 after which it will be added to CEC annual training curriculum.

EHSRM prepared a proposal for the replacement of CHSC metal halide lamps to LED lights as a step towards greening the campus, reducing our carbon footprint and saving on energy costs. In addition, EHSRM started a cooperation with an international consulting firm, Eco-solutions for conducting a study for Greening the AUB Dodge Cafeteria.

Starting this issue of Stay Safe, two ERT members will be presented in the Spotlight section to introduce them to the AUB community.

Article of the Month

Noise, defined as unwanted sound, is one of the most common occupational health and safety hazards and is found in many different environments. Exposure to high levels of noise can cause permanent hearing loss. Short term exposure to loud noise can also cause a temporary change in hearing or a ringing in the ears (tinnitus). These short-term problems may go away within a few minutes or hours after leaving the noisy area. However, repeated exposures to loud noise can lead to permanent tinnitus and/or hearing loss.

Loud noise can also create physical and psychological stress, reduce productivity, interfere with communication and concentration, and contribute to workplace accidents by hindering the warning signals.

Noise may be a problem in your workplace if:

- you hear ringing or humming in your ears when you leave work,
- you have to shout to be heard by a coworker an arm’s length away,
- you experience temporary hearing loss when leaving work.

Noise is measured in units of sound pressure levels called decibels using A-weighted sound levels (dBA). The A-weighted sound levels closely match the perception of loudness by the human ear.

OSHA sets legal limits on noise exposure in the workplace. OSHA’s permissible exposure limit (PEL) is 90 dBA for a worker’s time weighted average over 8 hours/day. The table to the right presents a comparison of the duration of exposure per working day in hours to allowable sound levels in dBA.

Noise controls are the first line of defense against excessive noise exposure. Their use aims at reducing hazardous exposure to the point where the risk to hearing is eliminated or minimized. There are several ways to control and reduce worker exposure to noise in a workplace:

- **Engineering controls**
  - Choose low-noise tools and machinery.
  - Maintain and lubricate machinery and equipment.
  - Place a barrier between the noise source and employee.
  - Enclose or isolate the noise source.

- **Administrative controls**
  - Limit the amount of time a person spends at a noise source.
  - Provide quiet areas where workers can gain relief from hazardous noise sources.
  - Restrict worker presence to a suitable distance away from noisy equipment.

- **Personal Protective Equipment**
  - Use ear muffs.
  - Use ear plugs.

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<thead>
<tr>
<th>Duration per day (hrs)</th>
<th>Sound level (dBA)</th>
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<tbody>
<tr>
<td>8</td>
<td>90</td>
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<td>6</td>
<td>92</td>
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<td>4</td>
<td>95</td>
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<td>110</td>
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<td>0.25</td>
<td>115</td>
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Think Safe

1. Cotton balls in the ears provide the same protection as disposable earplugs.
   - a) True  b) False

2. You shouldn’t use earmuffs or canal caps that are:
   - a) Uncomfortable
   - b) Don’t seal well
   - c) Both a & b

3. In extremely noisy environments, you may be required to wear both ear plugs and ear muffs.
   - a) True  b) False

Answers are on page 2

Safety Tips

- Some chemicals can have a compounding potential for hearing loss. These are called ototoxicants (e.g., solvents, carbon monoxide, hydrogen cyanide, nitriles, lead, mercury, tin, germanium dioxide, etc.).
- Some medications including some antibiotics and certain cancer-fighting drugs are potentially ototoxic, or damaging to hearing.
- Exposure to tobacco smoke has been linked to increased risk of hearing loss.
- Hearing protection devices are rated and labeled with a Noise Reduction Rating (NRR) indicating their noise attenuation level.
How to select hearing protection devices?

- Choose a suitable NRR, sufficient to eliminate risks without isolating the wearer. A realistic estimate of protection can be obtained by reducing the labeled NRR by 50%, e.g. (Environmental noise level = 92dB, NRR = 26dB, which reduced by 50%, becomes 13dB, Level of noise entering the ear is 92dB – 13dB = 79dB).
- Consider the work and working environment, e.g. physical activity, comfort and hygiene;
- Consider compatibility with other PPEs e.g. hard hats, masks and eye protection.

Answers to “Think Safe”

1. b. Cotton balls do not protect your ears from noise. Use earplugs that are rated and labeled with a Noise Reduction Rating (NRR) indicating their noise attenuation level. They should be inserted in the ear canal to protect the user’s ears from loud noises.
2. c. Comfort and proper fit are essential for the efficient use of all personal protective equipment.
3. a. In environments with high levels of noise, ear plugs and ear muffs can be worn together for better noise attenuation.

In the spotlight

Fadi joined AUB in 1999, and currently fills the post of Benefits Assistant 1 at the Human Resources department (Benefit Coordinator’s Office). Since he joined the ERT in 2004, Fadi responded to many emergencies. However, he specifically recalls two; the fire in the athletic department, on April 26, 2005, at 2:30 am, during which the team controlled the fire that was caught by the surrounding trees, and the fire that took place at AUBMC on July 17, 2006 during which he participated in rescuing employees sleeping in the ENT rooms.

Ali Youssef Hjeij
Ali joined AUB in 1997 as a member of the Physical Plant department, and then joined ERT in 2008. Among his major experiences with the team was the fire incident in the Nicely building in 2014. Ali was working in OSB when he saw thick black smoke rising from the building. He immediately moved there, removed the items that were around to reduce the spread of the fire, and started extinguishing the fire until the Beirut fire brigade arrived. Ali believes in the ERT and its importance to AUB, and invites AUB community to never underestimate the importance of the drills or alarms.

Meet members of the Emergency Response Team (ERT)