McMaster University
Faculty of Engineering
Joint Health and Safety Committee Minutes

Wednesday, January 12, 2011
9:30 a.m. - 12:00 p.m.
JHE A114

Management Member	Department	Attendance
Ian Bruce (Co-Chair)	ECE	Present
Kostas Apostolou	BTech	Regrets
Carm Vespi	Alumni	Absent
Doug Keller (Certified Member)	Management Cert. Member	Present
Ridha Khedri	Computing and Software	Present
Ghani Razaqpur	Civil Engineering	Present
Marek Niewczas	Materials Science	Present
Prashant Mhaskar	Chemical Engineering	Regrets
Stephen Tullis	Mechanical Engineering	Present
Qiyin Fang	Engineering Physics	Absent
Robert Fleisig	Engineering1	Absent
Vladimir Mahalec	SEP	Absent

Worker Member	Department	Attendance
John Nakamura (Co-Chair)	Computing and Software	Present
Anna Robertson	Civil	Present
Doris Stevanovic	CEDT	Present
Dulcie Amaral	SEP	Present
Elizabeth Takacs	MMRI	Present
Jeanne Norris	Engineering 1	Regrets
Jim McLaren (Certified Member)	Mechanical	Present
Justyna Derkach (Certified Member)	Chemical	Present
Kent Wheeler	Civil	Regrets
Maneesh Khanna	MMRI	Absent
Michelle LePalud	CUPE	Absent
Frances Lasowski	CUPE	Present
Omar Danta	BTech	Present
Peter Jonasson	Engineering Physics	Present
Tyler Ackland	Electrical & Computing Engineering	Present

Consultants	Department	Attendance
Dane DeMan	EOHSS	Present

1. Minutes & Announcements

Minutes Approval: Dr. Ian Bruce, Management Co-Chair: _____ John Nakamura, Worker Co-Chair: _____ No changes were needed to the December 2010 minutes. The minutes then approved by J. McLaren and seconded by R. Khedri.	Approved December 2010 minutes were submitted to EOHSS on January 19, 2010

2. Business Arising

Inspections Lists – Please hand in J. Nakamura informed the committee that the only outstanding lists are from Engineering 1. J. Nakamura will go over and finalize their listing. **Inspection Summary Sheets – Please hand in** Engineering Physics is still working on theirs. J. Nakamura will check to make sure everyone else has handed theirs summary sheets in. **H&S Representative – General Engineering** There are still no updates on the status of the new General Engineering Representative. If anyone knows of someone who would like to volunteer, please let J. Nakamura know. D. Stevanovic mentioned that Central Committee inquired about who was doing the General Engineering Inspections, as it is up to the committee to ensure that the rooms are being inspected. J. Nakamura will take a look at the listing that General Engineering inspects, as some of the inspections were over in CRL, but those rooms no longer belong to Engineering. Other locations would be classrooms and hallways in JHE, but he will look into this and confirm. D. Stevanovic asked who should be inspecting rooms if their grad students are over in ETB and ITB. She is unclear as to whose jurisdiction those fall into. J. Nakamura said for them to just follow the inspection lists that are posted currently, and if those rooms happen to fall under someone else's jurisdiction, then they will inspect them.	Co-chairs to follow up with status of General Engineering Representative.

Fire Alarms Recommendation - Results D. DeMan informed the committee that testing was conducted on December 10th, and 10 locations were inspected. The tests concluded that all 10 fire alarms were above the Risk Management Manual maximum level which is 103 decibels. EOHSS have sent recommendation to Facility Services to have them adjusted accordingly. The report was sent to J. Nakamura and he has posted it on the Notices area on the faculty webpage if anyone is interested in reading the full report. I. Bruce asked that after the adjustments are made if there are going to be further testing to ensure that all the alarms can be heard in different areas. D. Deman said that there would in fact be follow up testing.	

3. New Business

There was no new business to report	

4. Incident Reports

There are no incidents to report for the month of December. D. Deman reminded the committee to use the broken glass containers around campus instead of putting broken glass in the regular garbage, as there was an incident with Facility Services this past month.	

5. Safety Reports

Area	Report Submitted
B Tech	No
CAS	Yes
Chemical Engineering	Yes
Civil Engineering	Yes
ECE	No
Engineering Physics and CEDT	Yes
General Engineering	No
Materials Science and Engineering	No
Mechanical Engineering	Yes
MMRI	No
SEP	No

Civil Engineering had some minor housekeeping issues, and some burnt out light bulbs were reported. Work orders have been submitted to have the lights replaced.

Physics inspected a couple of labs. Nothing major to report except that some labs were missing Dial 88 stickers.

CAS did general inspection of halls, washrooms and classrooms, and there were no issues to report.

Mechanical Engineering inspected some offices, and there was nothing major to report on.

Chemical Engineering inspected 2 labs. Some labels were missing, msds sheets needed updating and some minor housekeeping issues were reported.

6. Central Committee Minutes/Incidents

No items needed to be discussed.	

7. Other Business

D. Stevanovic had a couple of issues that were brought up at her departmental health and safety meeting. One was being the issue with Facility Services new system for submitting work orders. They now require an account number, and she wanted to know what other people are doing when there are general repairs that shouldn't require an account number. Civil Engineering said that they tend to call them. Chemical Engineering says they put in "dummy" account number, and then they talk to Facility Services about what is being charged to them or who should be charged. A brief discussion took place regarding the new online system. It was determined that the best way to put in a work order for general repairs or safety issues that shouldn't be charged to the department is by phoning Facility Services and notifying them verbally. D. Stevanovic also asked each member how often their departments have health and safety meetings. The consensus was that each department meets once a month and minutes are taken. SEP, and CAS do not meet monthly. J. Nakamura received an email from EOHSS about Level 1 Certification. If anyone is interested in becoming certified, it is 3 days of training, and you have to attend all 3 days which are January 21st, 25th, 26th. It runs from 8:30-5:00pm. If anyone is interested, please contact with EOHSS.	

Motion to adjourn made by J. McLaren and seconded by J. Derkach finishing at 9:51 a.m.

NEXT MEETING: Wednesday, February 9, 2011 at 9:30 a.m. in JHE A114.

PLEASE NOTE: If you cannot attend this meeting please send regrets to Lindsay DeVuyst at devuyst@mcmaster.ca

Sound Pressure Level Testing Report

Date of Report: December 10, 2010
Building: John Hodgins Engineering
Employee Reporting Concern: Engineering Joint Health and Safety Committee

Introduction

The McMaster University Engineering Joint Health and Safety Committee made a formal request to have the sound pressure levels tested within 1 meter of the fire alarm bells in the John Hodgins Engineering Building. Initial testing, required upon installation and conducted at a 3 meter distance, was performed by Tyco Fire and Security on May 5, 2010. The Fire Alarm System Verification Report outlining the signaling device sound level measurement showed that all values measured in compliance and between 65 dBA and 100 dBA when tested from 3 meters as per the Ontario Building Code s.3.2.4.19 (4)(a) ,(6);
s.3.2.4.19 (4)(a)
In all normally occupied spaces, the fire alarm signal sound pressure level,
Shall be not more than 100 dBA when measured at a distance of 3m from the device
s.3.2.4.119 (6)
the sound pressure level from a fire alarm audible signal device in a floor area shall not be less than 10 dBA above the ambient noise level, but with a minimum value of not less than 65 dBA

However, concerns were raised by the Committee about the sound pressure levels at a distance of 1 meter from the fire alarm signal devices.

On December 10, 2010 at 7:30 a.m. a noise survey was conducted in the John Hodgins Engineering Building (Building #16). The following individuals were present for the survey:
Chris Hurley – EOHSS
Dane DeMan – EOHSS
Anna Roberston – Committee worker member
Jim McLaren – Certified committee worker member
Justyna Derkach – Certified committee worker member

Method

A Quest Sound Meter Model 2400 and a Bruel & Kjaer Sound Meter Type 2236 were used on a slow response A-weighting scale to measure noise levels generated by the fire alarm signaling devices in several areas of the John Hodgins Engineering Building. The sound level meters used are in compliance with the requirement of CSA Standard Z107. Both devices have been calibrated within the past year. The fire alarm signaling devices were sounded for approximately 2 minutes. During this time period, tests were conducted at either end of the building and up multiple floors. Peak sound pressure level readings were recorded within a distance of 1 meter from each device tested (see Sound Pressure Level Measurements, Table 1).

Results

The McMaster University Risk Management Manual #403 – Noise Control and Hearing Protection Program recommends a ceiling exposure value of 103 dBA. This value has been recommended as per the ACGIH recommended TLV's for sound pressure levels.
The peak sound pressure level measurements taken while the fire alarm signaling devices were operating ranged from 103.0 dBA to 112.3 dBA.

Table 1 – Sound Pressure Level Measurements

Device Location	Sound Pressure Level (dBA)
JHE 124 Hallway	108.0
JHE A323 Hallway	103.0
JHE 141 D Hallway	108.4
JHE A103 Hallway	105.0
JHE 257 A Hallway	108.1
JHE A315 Hallway	103.0
JHE 248 Hallway	111.1
JHE A106 Inside	104.0
JHE 259 Hallway	109.1
JHE 220 A Hallway	112.3

Conclusions/Recommendations

The McMaster University Risk Management Manual for Noise Control and Hearing Protection recommends that no exposure occur over a value of 103.0 dBA. The measurements taken show that all values were at or above 103.0 dBA.

It is recommended that the fire alarm signaling devices be adjusted accordingly so that the sound pressure level readings fall within the McMaster University Risk Management Manual recommendation while still meeting the applicable codes for these devices referenced in the introduction of this report.

Feel free to contact me with any further questions or concerns.

Regards,

Dane DeMan
Health and Safety Specialist
Environmental & Occupational Health Support Services