

McMaster University
Faculty of Engineering
Joint Health and Safety Committee Minutes

Wednesday, February 9, 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	Present
Stephen Tullis	Mechanical Engineering	Present
Qiyin Fang	Engineering Physics	Regrets
Robert Fleisig	Engineering 1	Present
Vladimir Mahalec	SEP	Absent

Worker Member	Department	Attendance
John Nakamura (Co-Chair)	Computing and Software	Present
Anna Robertson	Civil	Present
Doris Stevanovic	CEDT	Regrets
Dulcie Amaral	SEP	Present
Elizabeth Takacs	MMRI	Present
Jeanne Norris	Engineering 1	Regrets
Jim McLaren (Certified Member)	Mechanical	Regrets
Ed McCaffery	Materials Science	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

<p>Minutes Approval:</p> <p>Dr. Ian Bruce, Management Co-Chair: _____</p> <p>John Nakamura, Worker Co-Chair: _____</p> <p>No changes were needed to the January 2011 minutes. The minutes were then approved by E. McCaffery and seconded by R. Fleisig.</p>	<p>Approved January 2011 minutes were submitted to EOHSS on February 16, 2011</p>
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2. Business Arising

<p>Inspection Summary Sheets – Please hand in Engineering Physics is still working on theirs. J. Nakamura made sure everyone else has handed their summary sheets in, and has posted checklists for inspection lists on the member's area.</p> <p>H&S Representative – General Engineering J. Nakamura received an email from EOHSS stating that there was a CUPE representative who is a TA in Engineering that is interested in joining the committee. It was unclear as to whether or not this person would be able to do inspections, so F. Lasowski will check with CUPE. It was suggested this individual could inspect classrooms, hallways, and washrooms.</p>	<p>J. Nakamura to forward contact information of possible new member to F. Lasowski.</p>
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3. New Business

<p>D. DeMan informed the committee that an email was sent out regarding a change for emergency procedures for individuals using HF starting April 1, 2011. L. Martin will forward this email to all staff and faculty following the meeting.</p> <p>K. Wheeler informed the committee that Hamilton Public Health Services have sent out emails to approximately 200 people regarding being tested for Active Pulmonary Tuberculosis. It seems that an undergraduate caught this while the person was out of the Country, and it is believed to have happened between September and December.</p>	
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4. Incident Reports

<p>An individual in Mechanical Engineering was changing a scalpel blade when it pierced the foil wrapper and cut their finger. The individual was informed of the proper technique for changing a scalpel blade on a scalpel.</p> <p>There was a slip/fall incident outside of the JHE building resulting in a broken arm. EOHSS notified the Ministry of Labour, and D. DeMan along with J. Derkach further investigated the root cause of the fall. It was stated that the cause was poor salting, and poor grade of the sidewalk. Grounds have been informed to keep close watch to ensure they are salting the hazardous areas to prevent further slips and falls. D. DeMan stated that the area outside of JHE is in queue for a sidewalk resurface.</p>	
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5. Safety Reports

Area	Report Submitted
B Tech	No
CAS	No
Chemical Engineering	Yes
Civil Engineering	Yes
ECE	No
Engineering Physics and CEDT	No
General Engineering	No
Materials Science and Engineering	Yes
Mechanical Engineering	No
MMRI	Yes
SEP	No
<p>Chemical Engineering, Mechanical, Materials Science, BTech and MMRI inspected various labs and rooms, and there were no major issues to report.</p>	

6. Central Committee Minutes/Incidents

No items needed to be discussed.	
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7. Other Business

<p>J. Derkach informed the committee about the Healthy Workplace group and encouraged individuals to participate in MacActive.</p>	
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Motion to adjourn made by D, Keller and seconded by E. McCaffery finishing at 9:54 a.m.

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

PLEASE NOTE: If you cannot attend this meeting please send regrets to Lindsay Martin at lmartin@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