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# SUSTAINABLE LABS WORKING GROUP (SLWG)

Notes from meeting September 3, 2015 2:00-3:30 pm, 3610 McTavish, Room 430

**Present:** Ali Akbari, Christian Bouchard, Jerome Conraud, Jessica Giles, Stephanie Leclerc, Teodor Mocanu, Kathleen Ng, Wayne Wood (Chair)

**Guest:** Nathalie Robitaille, Synergie Santé Environnement (SSE)

## ITEM 1. REVIEW AGENDA AND NOTES FROM PAST MEETING

No changes were proposed.

## ITEM 2. BUSINESS ARISING

### BIOMEDICAL WASTE UPDATE

It had been a busy summer for biomedical waste.

- Re. proposed autoclave: The project was back on track.
  - A potential issue with steam pressure was resolved, namely a proposal from Utilities and Energy Management to reduce summertime steam pressure to campus steam-powered equipment (including autoclaves). The manufacturer confirmed that machine could be operated at 100 psi by running a longer cycle to compensate for the reduction in pressure (30 minutes at normal 120 psi with additional 10 minutes' compensation). This would not impact McGill operations, where a standard cycle was already at 45 minutes.
  - Awaiting details from the engineering and architectural firms to determine whether/how the machine could be located/operated in their facility and whether any retrofits would be required
  - Whatever system considered for processing should be able to kill the most resistant organic matter, namely prions. For example, ultraviolet-based equipment only sterilizes surfaces, and screw conveyors cannot be tested easily for spores.

Christian had met with the Sustainability Projects Fund (SPF) team and is working on the numbers for the application. This should be ready by the end of September; further information could be shared with additional stakeholders who could be interested.

- Re. biomedical waste (BMW):
  - Further to the July SLWG meeting, a visit was made by McGill to the facilities of [Daniels International](#), an Australian-based company that had recently entered the local medical waste services market. The 'official' McGill report was being prepared, but findings were generally positive in that this could be a viable alternative option in the short term from both an operational and legal standpoint (Procurement); it would also be more sustainable from an environmental (autoclaving in Canada) and financial perspective (lower cost).
  - This may impact the business plan for the abovementioned autoclave, increasing the payback period. That being said, McGill could better control waste (ensuring everything is sterilized) while mitigating the need for shipping.

## VISION FOR SUSTAINABLE LABS AT MCGILL

Engage the University community; promote and recognize efforts to reduce material, water, and energy consumption while maximizing cost savings; improve safety and accessibility through optimizing operations, training and awareness.

Approved by the SLWG 30 January 2015

## SLWG WEBSITE

Work was underway on the website for this group.

### ACTION:

- ALL MEMBERS should advise KATHLEEN if they did not wish their names/documents to be publicly posted on the SLWG website.

## ULSC SEPTEMBER MEETING

Because of much change in membership and a packed agenda, it was likely that the update by SLWG to the University Lab Safety Committee (ULSC) would be for the October meeting instead of September's.

## ITEM 3. NEW BUSINESS

### POTENTIAL FOR COLLABORATION WITH [SYNERGIE SANTÉ ENVIRONNEMENT](#) FOR LAB WASTE RECYCLING/TREATMENT

Nathalie Robitaille, senior advisor and interim director of Synergie Santé Environnement (SSE) gave a presentation on their initiatives.

- They are a nonprofit organization created in 2006 by health professionals.
- Their mission was to accompany health institutions to reduce their impact on the environment and health using the principles of environmental health and sustainability.
- Areas of their work include
  - materials management (in collaboration with Recyc-Quebec)
  - chemical substances
  - procurement
  - transportation
  - food
  - water
  - construction, renovation and energy efficiency

Examples of pilot projects:

- **Procurement**
  - Working with procurement networks to remove phthalates from medical products like intravenous tubing (where they add suppleness to the material but could be absorbed into the body and negatively impact fertility)
  - Using reusable cotton diapers instead of disposables demonstrated better environmental and social life cycle, reducing waste/infections while augmenting patient comfort
- **Waste**
  - **Reduction:** Reusable containers for biomedical waste at Pierre Boucher Hospital
  - **Diversion:**
    - **Organic material** (pre-consumer) processing using a thermal dehydrator to create a pathogen-free powder that could potentially aid plant growth (151 tonnes of kitchen waste produced annually)

- Determining how to treat the 19 types of material generated by a health institution. Ex. much material found in biomedical waste containers were not biomedical waste, but this was because staff used these whenever unsure of proper disposal method and not realizing that resultant increase in disposal costs. One assessment (financed by Environment Canada) involved conducting a waste audit of plastic waste generated and working with recyclers to determine how these could be collected/recycled.
- Mental health **social integration project** to rinse off cans that are shredded (4.5 tonnes saved annually)
- Treatment of **used water** emitted from health institutions with Sebastien Sauvé (Associate Professor, Environmental Analytical Chemistry) at University of Montréal

[See PowerPoint presentation for complete details]

In discussion with the group, it seemed that there were opportunities for collaboration in these areas. The fact that the McGill waste recycling contract was up for renewal could be also an opportunity for improving our diversion rates; a company that charges for waste/recycling collection that owns its own landfill could be disinclined to find alternatives.

**ACTION:**

- NATHALIE would extend the invitation with the health centers to discuss their findings

## ITEM 4. NEXT STEPS

The group had discussed ideas for items to be included in the sustainable labs checklist at the March meeting but there had been no follow-up since. The October meeting would therefore be a working meeting to work these through. It was also proposed that the group begin thinking about long-term planning for dealing with lab waste.

**ACTION:**

- ALL MEMBERS should come to the October meeting with any additional items for the checklist.

## ITEM 6. OTHER BUSINESS

For those who missed the visit to the Hazardous Waste Management transfer center earlier in the year, Christian invited the group to attend their Open House on September 14<sup>th</sup>. As a reminder, the facility served only McGill hospitals and department, as it was not a treatment center.