Green Cleaning & Infection Control

The Salt Lake City School District Experience

July 30th 2015

Custodial Services
About Us

- There are 36 schools in our district. In May 1999, a 10-year construction program began to build schools that were safer, brighter, and can be used as community centers after school hours.

- Our students hail from around the world. Ethnic minorities make up 53% of our students, and the district serves a significant refugee population from Eastern European or African countries. Approximately 60% of our students come from low-income families, and just over 33% of them are learning English as a second language.

- The School District employs approximately 2,840 people, including 1,250 teachers. The district serves approximately 24,000 students, and over 80 languages are spoken in the halls of Salt Lake City schools.
Our Green cleaning initiatives are to create a teaching environment that is conducive to learning yet provides a level of protection for the occupants health, while reducing impacts on the environment.

We believe in pursuing an effective approach to cleaning for health that relies on the use of easy to follow cleaning practices united with the use of current green technologies and employee training that will allow us to also be environmentally sensitive.
Some interesting bits about schools related to health and cleaning:

- 25% of the Nation spends their entire day in a school,
- Bleach while being good for disinfection, is often misused by cleaning personnel. It is frequently improperly diluted, improperly labeled or mixed with other chemicals that can cause dangerous gasses.
- Salt Lake City 1901: there was a Diphtheria/Small pox outbreak in our schools. Medical officers responded by spraying classrooms and books with Formaldehyde gas.
The Practice of Infection Control

Registered Disinfectants

Heightened visibility
“Panic” Control

Cultural Proactive Cleaning Practices

Education & Communication
Custodial Training

Our Custodians receive quarterly training in the latest cleaning methods, chemical changes, IPM measures and indoor air quality updates.
Out Break Protocol Training

What is “heightened awareness”

Public perception and “High visibility”

When to use “registered disinfectants”.

How to deal with the press, PRO
Cultural- Back In The Day

Pre- Green

We thought we were doing well but……..

We used bleach 4 times a week and a quaternary disinfectant once a week. Applied by sponge, rag or toilet swab.
Cultural-Back In The Day

We would use part time poorly trained part-time Custodians (youth with their first job) to clean the restrooms.

Classroom doors were cleaned annually!

Latex gloves used by cleaning staff.
Cultural-Back In The Day

Carpets were cleaned once a year with the bonnet-buffer method.

Biological events were cleaned up using dry powder/sweep method.
Cultural-Back In The Day

- Toxic chemicals
- Poorly applied
- Cross contamination
- Unvested, poorly trained employees
- Latex allergies
- Sticky floors
- Unpleasant odors- Not Healthy!
Cultural-Where Are We Today?

- Since September 2008
  - Well trained career employees cleaning the rest rooms/locker rooms.
    - Hydrogen-peroxide based cleaner used.
    - Color coded micro-fiber rags and compartmentalized buckets used to reduce cross contamination.
  - Foaming hand soap.
  - Monthly District level Inspection program.
Cultural-Where Are We Today?

Since September 2008

- High traffic doors/ walls are wiped daily
  - Hard surface cleaners are Hydrogen-peroxide based.
  - Spray bottles of peroxide based cleaners are provided to all classroom teachers for daily desk cleaning.
  - Foaming sprayer heads are used to reduce inhalation of chemicals.
  - Micro fiber rags are used.
  - All cleaning operations done with the use of Nitrile gloves.
  - Non-alcohol foaming hand sanitizer provided at all cafeterias, daycare areas, severely handicap units.
Cultural- Carpet Cleaning

Our carpets are cleaned by the use of a truck mount carpet extractor using mostly peroxide cleaners.

Kindergartens, daycare, and special needs class rooms are cleaned quarterly.

Biological events are extracted immediately. Bacteria eating enzymes are used in this process.
A stock of "instant kill claim "disinfectant is kept on hand and is ready to be deployed to any outbreak hot spot at a moments notice to meet Risk-Management concerns.
High Risk Times

- Media driven concern

- High visibility P.R. and immediate response is critical at this time.
District-Wide Communications

E-mailed reminders to Custodial personnel during heightened awareness times.

Information for parents on infectious diseases is readily available on the district web site.

Custodian’s equipped with 2-way communication ensures instant response.

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**CDC Answers Your Questions About Norovirus:**

**Norovirus Q&A**

**What are noroviruses?**

Noroviruses are a group of viruses that cause the “stomach flu,” or gastroenteritis (GI & enteritis), in people. The term norovirus was recently approved as the official name for this group of viruses. Several other names have been used for noroviruses, including:

- Norwalk-like viruses (NLVs)
- caliciviruses (because they belong to the virus family Caliciviridae)
- small round structured viruses

Viruses are very different from bacteria and parasites, some of which can cause illnesses similar to norovirus infections. Viruses are much smaller, are not affected by treatment with antibiotics, and cannot grow outside of a person’s body.

**What are the symptoms of illness caused by noroviruses?**

The symptoms of norovirus illness usually include nausea, vomiting, diarrhea, and some stomach cramping. Sometimes people additionally have a low-grade fever, chills, headache, muscle aches, and a general sense of tenderness. The illness often begins suddenly, and the infected person may feel very sick. The illness is usually brief, with symptoms lasting only about 1 to 2 days. In general, children experience more vomiting than adults.

**What is the name of the illness caused by noroviruses?**

Illness caused by norovirus infection has several names, including:

- stomach flu
- “stomach flu” is most similar to the flu (or influenza), which is a respiratory illness caused by influenza virus.
- viral gastroenteritis — the most common name for illness caused by norovirus.
- Gastroenteritis refer to an inflammation of the stomach and intestines.
- acute gastroenteritis
- non-bacterial gastroenteritis
- food poisoning (although there are other causes of food poisoning)
- rotavirus infection

**How serious is norovirus illness?**

Norovirus disease is usually not serious, although people may feel very sick and vomit many times a day. Most people get better within 1 or 2 days, and they have no long-term health effects related to their illness. However, sometimes people are unable to drink enough liquids to replace the fluids they lost because of vomiting and diarrhea. These persons can become dehydrated and may need special medical attention. This problem with dehydration is usually only seen among the very young, the elderly, and persons with weakened immune systems. There is no evidence to support that an infected person can become a long-term carrier of norovirus.
Pest Borne Disease Prevention

Integrated Pest Management (IPM) is an effective and environmentally sensitive approach to pest management that relies on a combination of common-sense practices. IPM programs use current, comprehensive information on the life cycles of pests and their interaction with the environment. This information, in combination with available pest control methods, is used to manage pest damage by the most economical means, and with the least possible hazard to people, property, and the environment.

Simply put:

Keep them out.

Don’t feed them.

If you do get them, eliminate them in the least toxic way.
What Have We Done?!

Today, in our school district:

- Risk of exposure to pathogens carried by “pests” are greatly reduced,
  - Preventive measures are taken in classrooms daily.

- A reduction of pesticides used in our schools by over 98%. A great added benefit!
What Have We Done?!  

- Today, in our school district:
  - Constant re-evaluation of new products and cleaning methods to keep the most cost effective, environmentally sensitive, healthiest program we possibly can.
- Our response to outbreaks
  - Clear, Concise, Rapid
  - As “Green” as possible.
  - Employees Educators and students are no longer exposed to latex or chlorine or other High toxicity products.
Going Green Can Save $$$$$$

- Some Green chemicals are less expensive (glass cleaner, graffiti remover)
- Change of process/ equipment combined with a change of chemicals can save labor costs.
The end