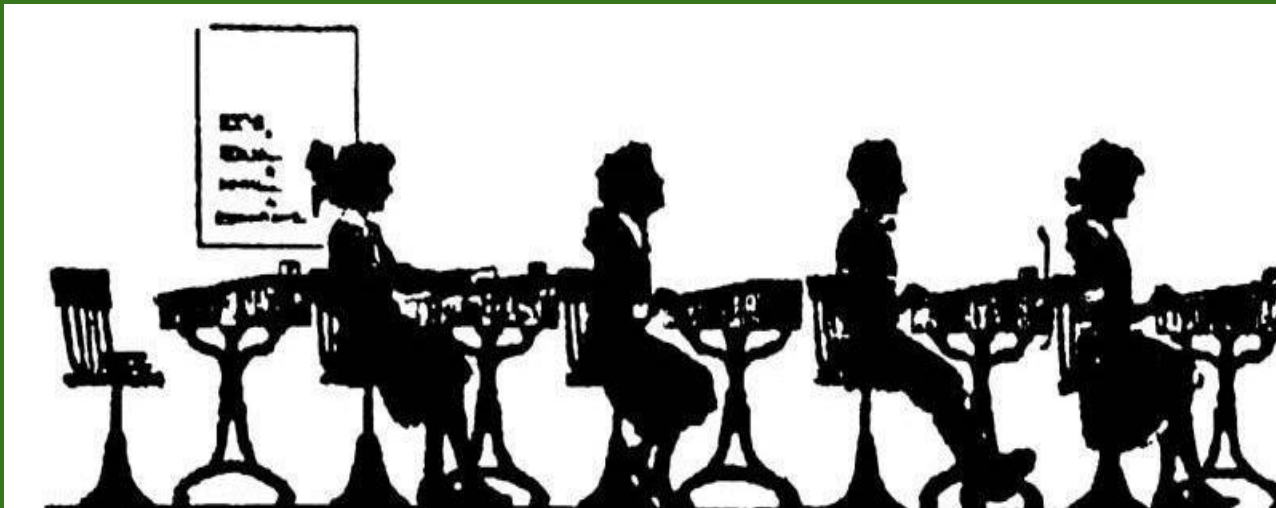


Safety, Security and Secrets

Northern New England Facility Masters Conference February 24-25, 2016



www.healthy-kids.info

Ellie Goldberg, M.Ed.
Advocate for healthy kids, safe schools
and sustainable communities

"No matter what our attempts to inform, it is our ability to inspire that will turn the tides."

Jan Phillips, co-founder Syracuse Cultural Workers www.syrcculturalworkers.org

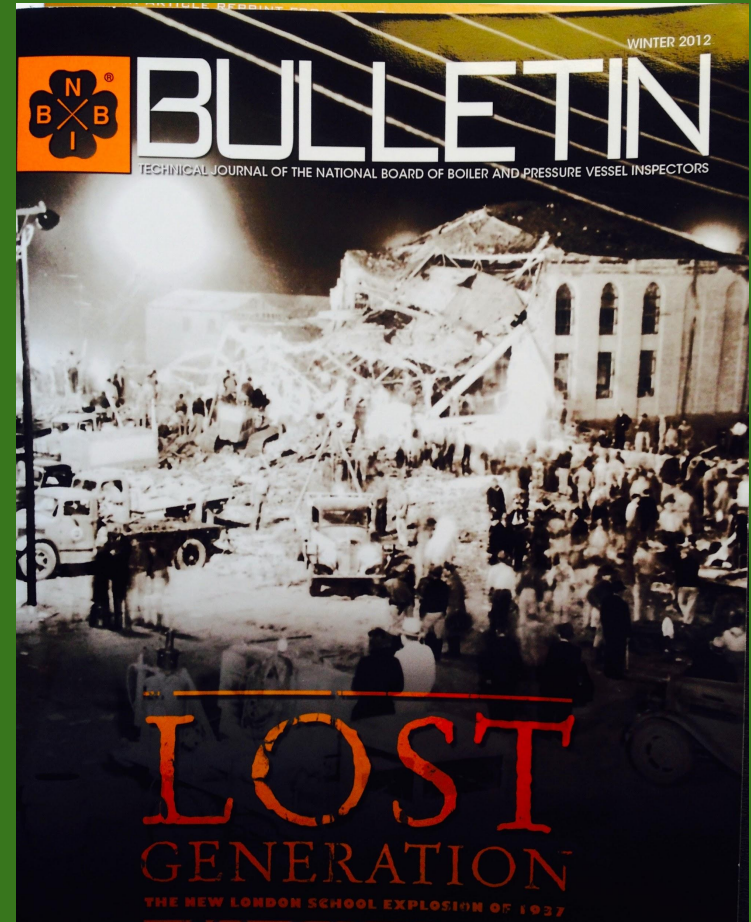


Lost Generation The New London School Explosion of 1937

Technical Journal of the National Board of Boiler
and Pressure Vessel Inspectors
<http://www.nationalboard.org/>

This is a story that must be told.
And retold again and again. For it
is only through the continual
remembrance of these tragic
events we as an industry can
humanize the critical importance
of pressure equipment safety.

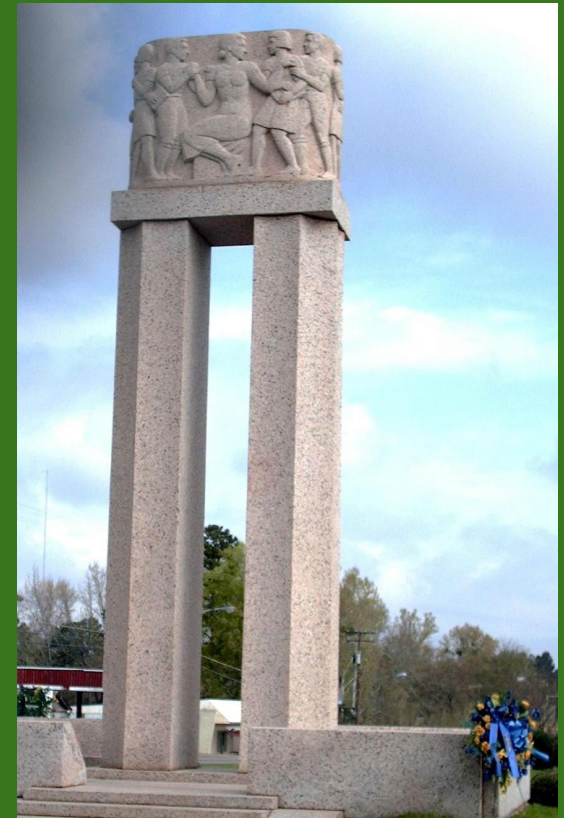
-- David A. Douhn, Executive Director



Lessons Learned. Lives Saved. Lessons Lost. Enormous Cost.

Yes, it is painful to threaten the illusion of safety in a school or community and to talk about death and loss. The New London School Explosion survivors did not talk about their painful experiences for more than forty years.

LESSON: It is even more painful to live with a tragedy when opportunities to prevent loss were unseen or overlooked.



9-year old survivor Carolyn Jones Frei's March 25, 1937 speech to the Texas Legislature.

"...let us suggest the legislature of Texas set aside a special day each year to be observed as a memorial day on which tribute will be paid to the children and teachers who died in this catastrophe ...and to make laws of safety...

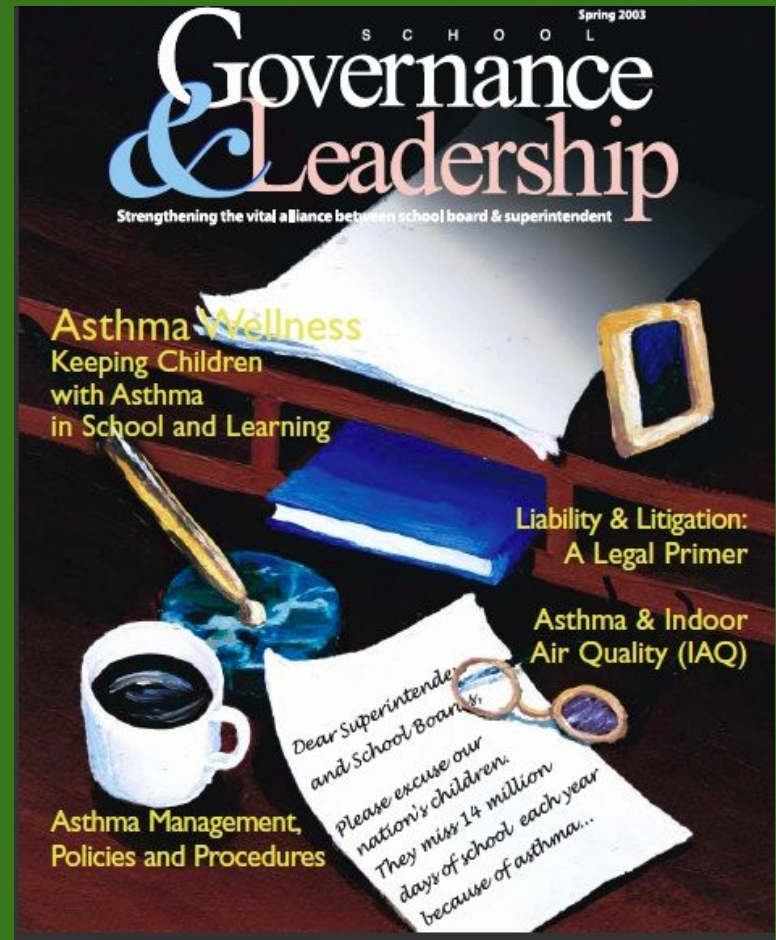
Our daddies and mothers, as well as the teachers, want to know that when we leave our homes in the morning to go to school, that we will come out safe when our lessons are over."



Carolyn Jones Frei lost her sister Helen Jones, an honor student and member of the high school champion debate team ...and her uncle, Paul Grier, a senior who planned to study medicine.
(The London Museum and Tea Room.)



"It was the collective faults of average individuals, ignorant of or indifferent to the need of precautionary measures, where they cannot, in their lack of knowledge, visualize a danger or hazard."

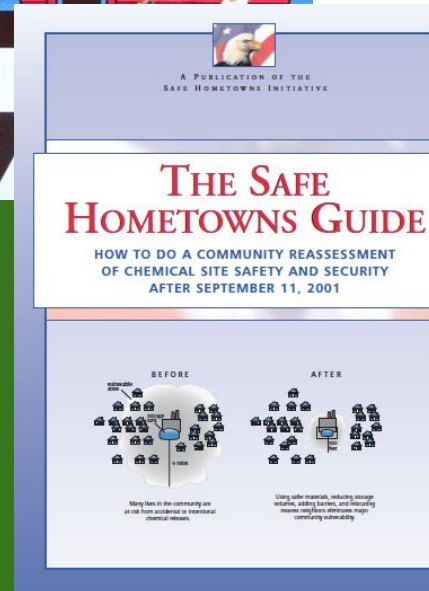
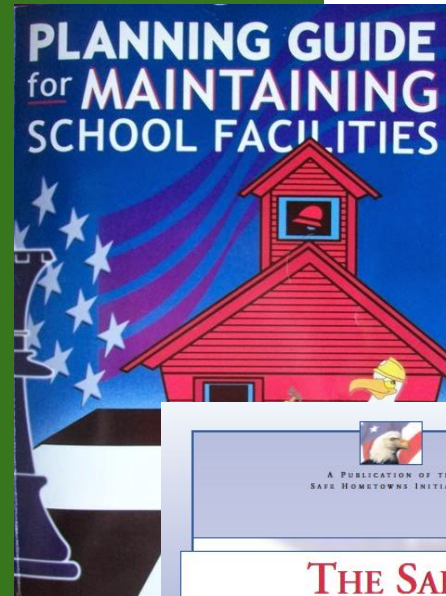


What are the lessons of incidents, accidents, close calls and near misses?

LESSON
Silence is the enemy.

Use the safety case approach to overcoming a culture of silence.

Institutional Memory: Why Remembering is Critical for a Culture of Safety, James R Chiles, Winter 2012, National Board Bulletin

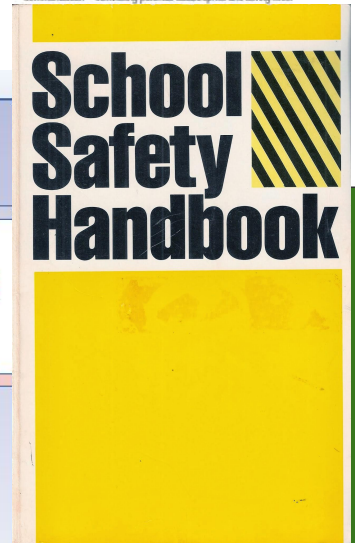


Could the disasters at Enron and WorldCom have been easily avoided? What about the mistakes at the Duke and Baylor hospitals, or the tragic explosion of the space shuttle Columbia?

Sadly, before each disaster, stakeholders saw clear warning signs for catastrophe and yet they said nothing. Trends show that similar cultures of silence proliferate in organizations across the country.

VitalSmarts' research reveals that there are five key issues that if not handled correctly will ultimately lead to failed execution or worse, tragedy. They also found that 90 percent of businesses routinely suffer from one or more of these five key issues.

The good news is that organizations who successfully handle these five issues transform cultures of silence into cultures of honesty and effective communication—eliminating potential catastrophes and saving lives.



Mike Matley, Super Custodian, Hero 2014

LESSON

Just as the false economies and short-sighted decisions that led to the tragedy of the 1937 New London Texas School Explosion, Mike's story is a modern day reminder of how cost-cutting can put the essential elements of a community's culture and quality of life and security at risk.





**Marina Brock, Barnstable Cty.
Impediments to Implementing
P2 in the Public Schools**

Our first on-site interview was with the science supervisor, a 20-year veteran of high school science teaching. While we were in his classroom discussing hazardous material management issues, a janitor worked quietly in the rear of the classroom sweeping the floor. The science supervisor was pleased to tell us that he had been disposing of his “heavy metal acids” for years using the “Flynn Method,” by inerting them and pouring them into the sink, which connected to the “tight tank” outside his classroom.

I remember thinking to myself that the designers of the high school must have been incredible visionaries to have the forethought to install a tight tank in the early 1970s when the facility was constructed. Before I could ask about this, however, the heretofore silent janitor sheepishly mentioned that they didn’t have a “tight tank” at their school. Obviously embarrassed, we all remained silent. The “tight tank” mistake eventually resulted in a \$55,000 environmental cleanup.

A Culture of Safety

- Skilled workers, seen-it-all foremen, and hands-on managers.
- Individual knowledge based on personal experiences, vivid stories from trusted sources, reading, and certification and training courses.
- Group discussions about accidents and close calls complete the circle of safety by building up the motivational memory. ...Even people who were not at the scene of an explosion feel the emotional impact of hearing about burn injuries....

Institutional Memory: Why Remembering is Critical for a Culture of Safety, James R Chiles, Winter 2012, National Board Bulletin

Comparison of Eye Protection Options

Science & Safety
CONSULTING SERVICES
Science IS-INQUIRY...Safety

Safety Glasses With Vented Side Shields (Impact Only)

Safety Glasses With Nonvented Side Shields (Impact Only)

Visorgogs® (Impact Only)

Impact Safety Goggles (Impact Only)

Chemical Splash Safety Goggles (Impact and Splash Protection)

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919-789-4477 fax www.scsafetyconsulting.com

AirClean Systems
www.aircleansystems.com



The Increased Scope of Education Facility Management

Education Facility Managers are so over programmed that a complete program is rarely delivered

70's,80's,90's,00's & Now

40's,50's & 60's

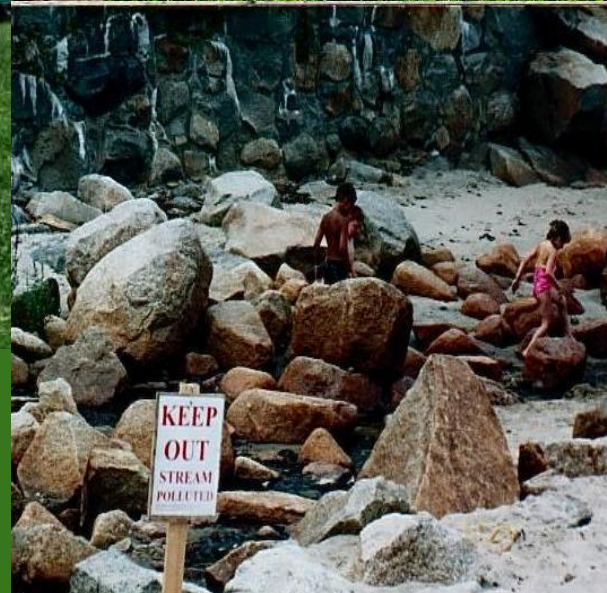
1. Custodial operations
2. Maintenance operations
3. Grounds operations
4. Electrical / gas utility
5. Pest control (in-house)
6. Playground equipment
7. Roofs
8. Safety – general
9. School closings
10. Vandalism

**Facility programs
 have increased
 dramatically but
 many institutions
 have smaller
 leadership teams**

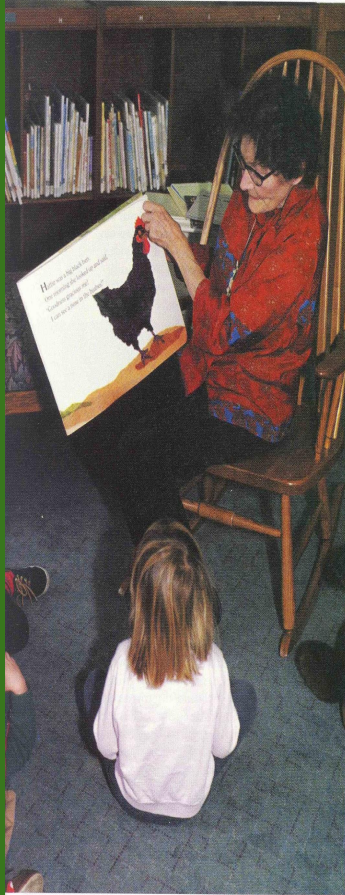
11. Mold management
12. Asbestos (AHERA)
13. Carbon Dioxide testing
14. Lead in water
15. Natural gas volume purchasing
16. Electrical volume purchasing
17. CAD
18. CMMS with preventive maintenance
19. Electromagnetic emissions
20. Emergency / disaster plans
21. Energy management systems
22. Energy education
23. Data based custodial schedules
24. Rentals, community usage
25. ADA
26. Owners Construction Rep.
27. Indoor Air Quality
28. Lead in paint
29. Integrated Pest Management
30. Privatized custodial
31. Purchased services management
32. Protective equipment & clothing
33. Radon Management
34. Recycle waste program
35. Re-locatable classrooms
36. Right to Know Act
37. Underground storage tanks
38. Computerization – technology support
39. Blood borne pathogens
40. Budget planning
41. Labor law issues
42. OSHA Logging & training
43. Custodial equipment management
44. Quality Assurance program
45. Hazardous Waste Removal
46. Emergency Backpacks
47. Building Backpack Supply
48. Defibrillator maintenance
49. Defibrillator training
50. Security systems
51. Green chemical management
52. Carbon footprint issues
53. Sustainability program
54. Life/Safety Planning
55. Playground management
56. Expanded athletic programs
57. Swimming pool maintenance
58. Indoor track & field
59. Fertilization & weed control
60. Artificial athletic fields

According to a recent NEA study, fewer than half of support professionals receive regular health and safety training.... even though many face these issues on a daily basis.

Roundup (glyphosate)



Giving Carpets A Second Thought



When Health Takes Precedence Over Decor (Part I)

By *Ellie Goldberg, MEd*

If you or your child has asthma that is triggered by indoor allergens, your health care provider has probably advised against carpeting. He or she may have even told you to remove carpets from your home, or at least from the allergic person's bedroom—where he or she typically spends the greatest amount of time. But what about the places people spend their waking hours—at school or work? It seems as if carpets are everywhere...in homes, schools, offices, stores and even hospitals!

The problems with carpets are twofold: First, they emit chemical irritants due to the products used to manufacture and install them. Second, they harbor biological allergens, such as dust mites and mold. Most asthma patient education programs teach the importance of managing the environment to avoid asthma flares, and most specifically advise against carpeting.

Chemical Irritants

For the first few weeks or months of a carpet's life, it may emit chemicals into the air by a process called "off-gassing." These chemicals come from the carpet fiber bonding materials, backing glues, anti-static and anti-stain treatments, fire retardants, deodorizers, fragrances, and applied pesticides and fungicides. They can be quite toxic for those who are sensitive to them. But not all people are affected to the same degree. Some may have serious reactions, which may include eye, nose and throat irritation; headaches; skin irritations; fatigue; or asthma. Others spending time in the same environment may experience little to no effect.

Joan and Bill Stokole's bedroom renovations called for efficient windows and carpeting. As is typical renovation projects, budget and took long. Joan and Bill occupy their bedroom contractors were gortion of new carpet f sealed windows sent out of control. After year of frequent doc ey of new medicatio late-night trips to th room, they finally go pet. The result: Her under control. "The immediate," Joan say big fan of hardwood

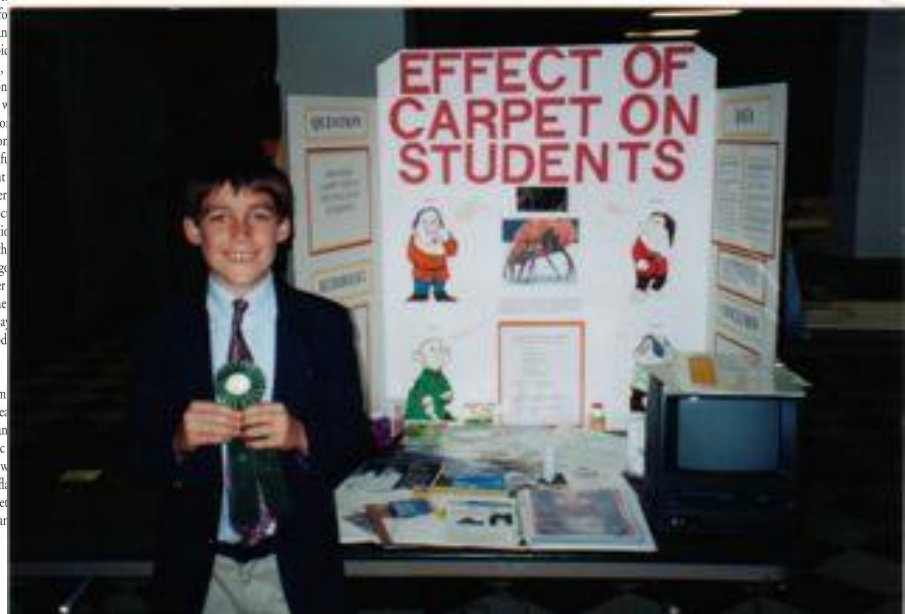
Allergens

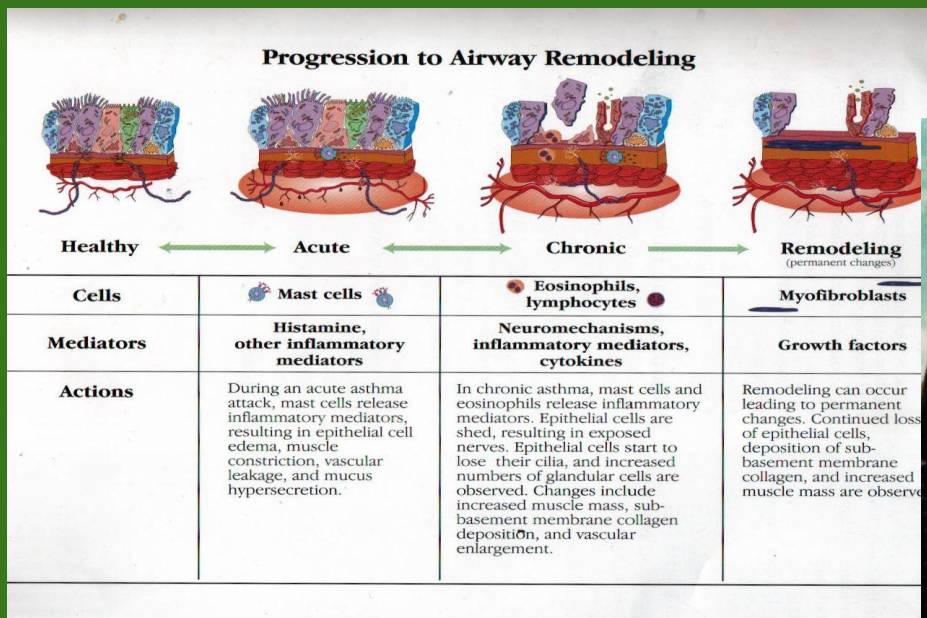
In addition to chem pets provide the ide harbor certain organ mites—microscopic thrive in a humid, w ment and feed on fl skin—inhabit carpet lions. Their waste ar



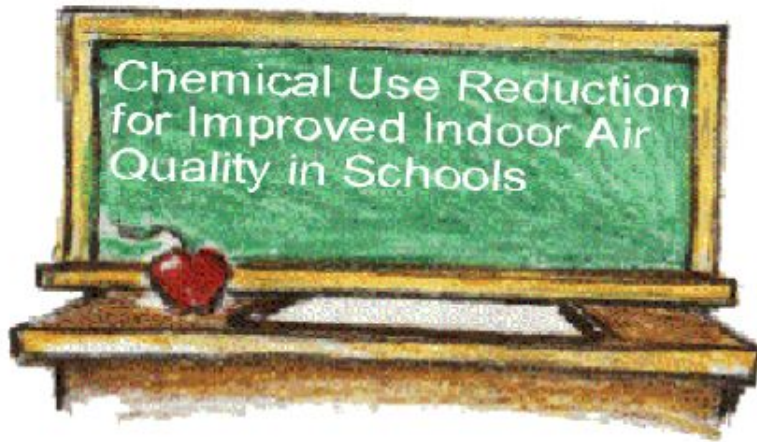
are potent allergens, and no amount of vacuuming effectively removes these. (Dust mites also flourish inside

Environmental Protection Agency (EPA) ranks poor indoor air quality as one of the nation's greatest health





I guarantee you, if you look at your school through the eyes of students and teachers with asthma, you will never set your standards for health and safety too high. You will never betray the trust placed in you by your colleagues and your community, and you will save money at the same time.





LESSONS

- Invite concerns and reports.
- Look for warning signs.
- Respect safety signals.
- Take responsibility.



Burlington High School Case Study

1. Chemical management and usage
2. Asbestos management
3. Indoor air quality
4. Pesticide usage
5. Mercury management and exposure prevention
6. Radioactive materials
7. Fire prevention
8. Pollution prevention
9. Hazardous waste generation and management
10. Formaldehyde
11. Radon
12. Chemical fume hoods
13. Eye washes and deluge showers
14. Safety equipment
15. Hazards/issues by department
16. Spill and emergency response plans
17. Ceramic kilns
18. Underground storage tanks
19. Lasers in the classroom
20. Discharges to the sanitary drains




A significant problem noted was that no one employed by the school system had been assigned the task or made accountable to investigate or resolve environmental, health and safety concerns or complaints. As a result, such complaints were either ignored, disputed or referred to a consultation for resolution without consideration for the original cause. This resulted in the long term persistence of many hazards.

-- Todd Dresser, 2016 Hero



“Every moment is a teaching moment.” (Gregg Smith)



Fresh Paint
Custodial, Maintenance, Grounds, Technical Services

Mar-Apr 2013

INSIDE THIS ISSUE:
8 Big Pages!

Perspectives	1
Nature Calls	2
Maintenance Matters	2
Clean Sweep	3
Windows on TS	3
Safety Matters	4
Bed Bug Protocol	4
Old School	5
The Great Utah Shake Out	5
Spot Light On ...	7
Green Scene	8

Perspectives

There are several articles in this issue of Fresh Paint that discuss disaster preparedness, earthquakes and how as residents of "earthquake country" we should prepare for the inevitable. We all know it's only a matter of when and the clock has been ticking for a very long, long time.

On **April 17th at 10:15 AM**, the entire state of Utah will participate in **The Great Utah Shake Out**. This annual statewide event is designed to test our earthquake knowledge and readiness and to create awareness about the importance of being prepared.

Obviously, natural disasters just happen—they are not scheduled or planned. But, unlike a natural disaster, we now have advanced warning of when this drill will occur so we can be ready in advance. Certainly, the planned date or the time of the drill will be inconvenient for some

pared when the unplanned and unexpected "BIG ONE" happens. Better to be inconvenienced now than unprepared later! Don't forget to mark your calendar for this very important date!

You can learn more about the Great Shake Out on page five of this issue. Even if you don't read another word in Fresh Paint, PLEASE visit the Great Utah Shake Out website by clicking on the following link:

<http://www.shakeout.org/utah/>

It explains the purpose of the drill, lists who is participating and most importantly, has many valuable resources to help you prepare for an earthquake disaster both at work and at home.

You can also read more about related earthquake preparedness and other disaster related articles found on pages 2, 3 and 4 of this issue of Fresh Paint.

“The building is a teacher.” David W. Orr, Oberlin College

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Perspectives	1
Summer Fire Alarm Testing	1
Nature Calls	2
Will Spring Ever Come?	2
Clean Sweep	3
Windows on TS	3
Pesticide License	3
Safety Matters	4
Bug Off!	4
Maintenance Matters	5
Retiring Employees	5
Spotlight On ...	6
15 Simple Steps ...	6
Retiring Employees—Pt II	7
Old School	7
Installing the Seasons	7
Green Scene	8
Did You Know ...	8

Safety Matters

The column **Safety Matters** and frequent references to health and safety are evidence that every member of the facility staff belongs to one big safety team. Many of the articles address conditions or behaviors that are unsafe, unhealthy, or wasteful — contributing to greater knowledge and safety of the entire school community.

“The training builds our collective capacity.”

(Gregg Smith)

Fresh Paint includes frequent staff training updates explaining how their knowledge and technical skills improve proficiency and performance in all areas of responsibility from infection control to water conservation.



A Culture of Continuous Improvement

...How safe is the cleaning product for the people using it? Is it safe for people using the area?



Green Cleaning ... turning kids blue?

“Bio-degradable,” “environmentally friendly” or “natural” doesn’t mean it is safe to breathe.

Aerosols and product vapors can be irritants or sensitizers ... d-limonene, the citrus ingredient in many “natural” cleaners.



LESSONS

There will never be enough experts or inspectors to ensure schools are the healthy places and safe havens they are supposed to be.

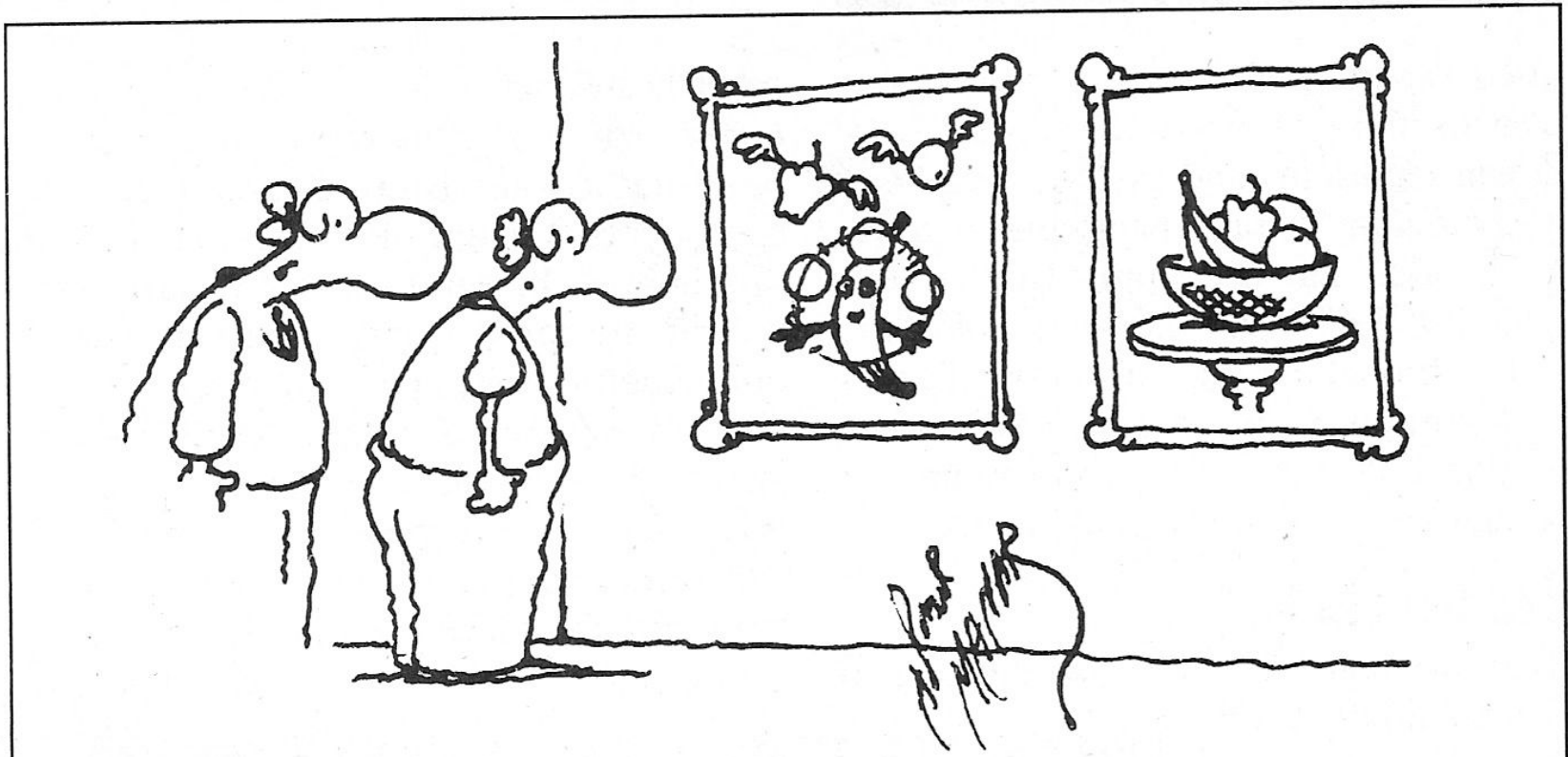
Standards, building codes, and guidelines that are based on the average adult male or workplace regulations are not safe for children because children are not little adults.



Need for precautionary standards, protective measures and emergency plans.

- | | |
|-----------------------------|----------------------|
| ➤ chemical storage | ➤ STEM |
| ➤ synthetic turf | ➤ 3-D printers |
| ➤ pesticides | ➤ asbestos |
| ➤ gas pipelines near school | ➤ PCBs |
| ➤ truck routes near school | ➤ boiler maintenance |
| ➤ train routes near school | ➤ mold |
| | ➤ cleaners |
| | ➤ lead |
| | ➤ kilns |





"Notice how his style changed after the studio was properly ventilated."

Leadership Plus

Gregg Smith and his staff consistently demonstrate the qualities of leadership – initiative, high standards, professional pride and caring – whether they are teaching about controlling germs with proper hand hygiene and cleaning top priority touch points in the classroom or pest management or capital improvements.



Suggestions? Questions? Stories?

ellie.goldberg@healthy-kids.info

www.healthy-kids.info

