Testimony to support H.B. 6496 An Act Concerning Green Cleaning Products in Schools.
February 23, 2009

Senator Gaffey, Representative Fleischmann and other members of the Education Committee my name is Joellen Lawson and I am here to testify in strong support of H.B. 6496 An Act Concerning Green Cleaning Products in Schools. I am speaking to you today as the founder and Honorary President of the Connecticut Foundation for Environmentally Safe Schools (ConnFESS) as well as a board member for the Healthy Schools Network, Inc., a national 501c3 research, information, education and advocacy organization located in Albany, New York.

ConnFESS is a state based nonprofit grassroots organization dedicated to promoting policies, practices and resources that protect school occupants from preventable health hazards such as the fumes and residues from toxic cleaning chemicals. The Healthy Schools Network, Inc. coordinates the National Work Group for Green Cleaning and Chemical Policy Reform in Schools. This national work group includes the following other organizations:

- American Federation of Teachers
- American Federation of State, County and Municipal Employees
- International Green Purchasing Institute
- Green Schools Initiative
- New York United Teachers
- INFORM
- National Association of School Nurses
- American Lung Association of Maine
- Massachusetts Committee on Occupational Safety and Health
- Massachusetts Healthy Schools

ConnFESS is also an active member of the Coalition for a Safe and Healthy Connecticut. The coalition has made the passage of effective and responsible school green clean legislation one of its top three priorities for the 2009 legislative session.

The consensus among the national and state advocacy groups we collaborate with is that successful green clean programs begin with two basic steps:

1.) The phase in of safer, affordable and effective cleaning products certified by an independent third-party.
2.) The implementation of best cleaning management practices.

Both of these steps can be achieved without additional spending and in some cases while saving money. However, implementing best practices has the greatest potential for saving money because 90% of most cleaning budgets is spent on labor costs and only 2-5% pays for the purchase of cleaning chemicals. Products that are not used effectively and efficiently waste time, chemicals and other resources like water and electricity.

Attached to my testimony are a series of fact sheets. One is titled: *Green Cleaning: Best Practices Protect Human Health, the Environment and the Taxpayers' Pocketbooks* which divides best practices into four key categories: those that 1) save money, 2) are cost neutral 3) have minimal costs or 4) pay for themselves overtime. This fact sheet is based primarily on the guidelines and specifications for the procurement and use of environmentally preferable cleaning products written for New York schools in 2006. These New York guidelines include a best management practices section (pgs 12-19) that could easily be adopted for Connecticut schools.

Another fact sheet called *Green Cleaning In Schools Is Cost Effective* provides examples of how school districts across the country have used environmentally preferable cleaning products combined with these best practices that resulted in cost savings and improved attendance.

Other fact sheets attached to my testimony include:

1) *Green Cleaning: Safer, Affordable and Effective*
2) *Cost and Consequences of Using Traditional Cleaning Chemicals*

Thankfully, this bill promotes both the use of safer alternative cleaning products and best practices. Overall, it is a very good bill that with a few minor changes has the potential to serve as a model bill for other states. (Please see last page of attachments for suggestions)

H.B. 6496 An Act Concerning Green Cleaning Products in Schools builds on the best parts of current green clean policy in Connecticut that was established in 2006 by Executive Order #14 and in 2007 by PA07-100. H.B. 6496 An Act Concerning Green Cleaning Products in Schools duplicates that policy's fundamental language that requires the procurement and use of environmentally preferable products (as defined by federal Executive Order 13101) and states that these products must be certified by an independent third-party. Such precisely defined language is critical because "green cleaning" has no legal definition and no limits on how manufacturers use or abuse it. Independent third-party certification ensures product claims about health, safety, cleaning effectiveness and environmental sustainability have been thoroughly verified and will continue to be verified on an ongoing basis.

H.B. 6496 An Act Concerning Green Cleaning Products in Schools also addresses the most obvious and significant limitation of current green clean policy – that it only applies to state owned buildings. Right now, all state workers employed in state buildings and the students and personnel who occupy the seventeen vocational-technical high schools in Connecticut are protected by a law designed to reduce and prevent exposure to toxic cleaning chemicals. Passage of H.B. 6496 An Act Concerning Green Cleaning Products in Schools would extend these safeguards to the students, staff, custodians and educators in all of Connecticut's other secondary and elementary schools. Some of our most vulnerable populations (young children and women who are of child bearing age, breastfeeding or pregnant) spend considerable amounts of time in our public schools. They deserve the strongest green clean policy possible.

Within Connecticut, important child advocates including the State Office of Child Advocate, Connecticut Parent Teacher Association (PTA) and the Connecticut Commission on Children

support passage of H.B. 6496. Jeanne Milstein will be submitting written testimony. Representatives from Connecticut PTA and the Connecticut Commission on Children asked that I include statements of their support in my testimony.

- Marne Usher of Connecticut PTA has stated, "Connecticut PTA supports H.B. 6496 as a common sense and cost-effective way to safeguard the health of students and their teachers."
- Liz Brown of the Connecticut Commission on Children wrote, "Phasing in safer alternatives to hazardous cleaning chemicals will help keep students healthy and ready to learn. There are a growing number of children with asthma and allergies who especially need this protection against toxic cleaning chemicals."

As we advocate for Connecticut's school children, it is essential to acknowledge that in some cases unsafe and unhealthy environmental health conditions in schools have actually denied children their basic right to a free and appropriate education and left them to cope with serious building-related illnesses for the rest of their lives. Such situations were documented for the public record when students testified in favor of An Act Concerning Indoor Air Quality in Schools. Since passage of that act in 2003, all Connecticut schools have been required to adopt and implement an indoor air quality program.

Passage of H.B. 6496 would require green cleaning to be incorporated into these school indoor air quality programs. This process would encourage a sense of shared responsibility throughout the school community for making sure a school is a greener, cleaner and healthier place to learn and work.

We thank the co-chairs and members of the Education Committee for their leadership and vision with regard to this important school environmental health issue. The language of this bill demonstrates a clear understanding of the health risks posed by toxic cleaning chemicals as well as the solutions needed to minimize those risks that are summarized in our fact sheet: *Why Are We So Keen on Green Legislation for Schools?* (see attached)

We applaud your awareness of the green clean movement as the emerging standard for cleaning in the 21st century rather than as a passing fad. By raising this bill you have provided us all with a rare and unique opportunity to establish policy that is simultaneously:
1.) Fiscally responsible
2.) Preserves the environment
3.) Protects human health
4.) Defends the basic right of all Connecticut students to learn in a school free of preventable health hazards.

Thank you for this opportunity to testify.

Joellen Lawson
46 The Blvd.
Newtown, CT 06470

Why Are We So Keen On Green Clean Legislation for Schools?

Green cleaning uses effective cleaning practices that have minimal impacts on human health and the environment. In Connecticut, environmentally preferable products certified by an independent third-party organization (such as Green Seal or EcoLogo) must be procured and used in state owned buildings. CT State Vocational Technical Schools must comply with this law, but all other elementary and secondary schools are not included.

WHY IS THIS A PROBLEM?

- The US EPA has consistently ranked indoor pollution among the top five environmental risks to public health.
- Toxic cleaning products can significantly contribute to indoor air pollution in schools.
- Children's size, increased metabolic rates and developing organ systems make them much more vulnerable to exposures to toxic cleaning chemicals.
- Recent studies link cleaning chemicals to elevated asthma rates among teachers, teachers' aides and school custodians.
- NIOSH attributes 12% of occupational asthma cases to exposure to cleaning chemicals.
- Some Connecticut schools continue to use toxic cleaning chemicals even as safer, effective and affordable alternatives are readily available.
- Other CT school districts who claim to be using "green cleaning" are not using products certified by an independent third-party and have not been using best cleaning practices advocated by experts and scientific research.

WHAT IS THE SOLUTION?

All CT public schools have been required to adopt and implement an indoor air quality program since 2003. Legislation that would require incorporating a green clean program into an indoor air quality committee's management plan will make schools greener, cleaner and healthier places to learn and work. To be effective, this Green Cleaning program must require that:

- Schools procure and use environmentally preferable products certified by an independent third-party organization (such as Green Seal or EcoLogo). These are the products currently required for state owned buildings.
- School facilities managers and cleaning personnel be trained or retrained in proper product application, mixing, dilution and disposal. Free training is currently available.
- Schools report on actions taken to adopt and implement their Green Clean program when they report on the status of their indoor air quality program
- Schools annually notify parents, guardians and staff with a written Green Cleaning Policy at the same time that they notify in writing about the pesticide usage policy.

Help us to make CT the next state after New York and Illinois to pass legislation that requires elementary and secondary schools to use safer, more effective cleaning products and procedures in place of harmful, toxic chemicals and inefficient, costly methods.

The CT Foundation for Environmentally Safe Schools 888-420-5536 www.pollutionfreeschools.org
Endorsed by the Coalition for a Safe and Healthy Connecticut www.safehealthyct.org

Green Clean Best Practices
Protect Human Health, the Environment and Taxpayers' Pocketbooks

Dollar for dollar the single best investment a school can make with their maintenance budget is to adopt and implement a <u>well-run</u> green cleaning program.
(Collaborative for High Performance Schools' Maintenance and Operations Manual)

A well-run green cleaning for schools program makes the cleaning process more effective, efficient, safer and more financially and environmentally responsible.

<u>Best practices that save money include:</u>

1. Consolidating the overall number of cleaning products to a few effective, third-party independently certified environmentally preferable products.

2. Using one concentrated cleaner that is diluted for the following tasks:
   - bathroom/restroom cleaner
   - all purpose cleaner
   - carpet spotter/extraction cleaner
   - glass/window cleaner
   - neutral floor cleaner

3. Ordering concentrated environmentally safe products that are sold with reduced packaging for products and shipping containers frees up custodial closet space, saves on overall shipping charges and creates less waste for landfills.

4. Eliminating the use of aerosol cleaning products. Ounce for ounce aerosol cleaning products are more expensive than other equally effective cleaning solutions. Aerosols emit harmful fumes.

5. Using Green Seal certified products because they are specially designed to work with cold rather than hot water which saves on energy costs.

<u>Best practices that are cost-neutral include:</u>

1. Switching to environmentally preferable cleaning products certified by a third, independent party.

2. Using third-party certified handsoaps, not antibacterial foaming handsoaps.

3. Following instructions and precautions provided by the manufacturer. For example:
   A) Using more product than recommended can result in damage to the surface being cleaned and produce residue. Cleaning products should not leave

residue that would require a fresh water rinse because that wastes time and water resources. Even more critical is that residues of cleaning chemicals on surfaces with which young children come into contact can result in a harmful exposure.

B) Do not mix products.

4. Restrict use of disinfectants to pre-determined high risk areas. Disinfectants are registered pesticides and should never be used for sanitizing or general cleaning purposes. They should only be used as directed by the Department of Public Health and Centers for Disease Control.

5. It is important to clean first and then use a disinfectant or germicide only if needed. Surfaces must be thoroughly cleaned first.

6. Disinfectants should be allowed to remain on a surface for the required dwell time, which is usually about 10 minutes.

7. Scheduling floor stripping and finishing and heavy duty carpet cleaning when school facilities are vacant. Custodial staff should wear recommended protective gear and proceed with caution. The school building should be well ventilated and aired out during summer vacations or extended holidays when these highly toxic chemicals are used.

8. Vacuuming carpets regularly and thoroughly (5-7 passes of a carpet brush over each section) helps to maintain the life of the carpet and indoor environmental quality. It can reduce the need to use chemicals or water-based shampoo extraction products because regularly vacuumed carpets contain significantly less dirt, dust or food residue.

9. Maintaining vacuum cleaners and filters. A vacuum will not clean well if the filter is clogged or the bag is full. If the filter or bag are not seated properly, particulates will bypass the filter and bag, spewing dust and debris into the air.

10. Eliminating products that leave a scent in the room. Cleaning should leave no odor. Most fragrances added to a cleaning product do not enhance its effectiveness, but do irritate eyes and airways.

Best practices that have minimal costs include:

1. Providing faculty and administrative staff with a spray bottle of an approved green cleaning product for use when necessary, along with instructions for its use.

2. Establishing a written policy that is distributed to all members of the school community that states "No parent, teacher or staff member may bring into the school any consumer product which is intended to clean, deodorize or disinfect.

3. Installing multi-level scraper walk-off mats with nitrile rubber backing inside entranceways and outside where possible. They should be 15 – 20 feet long, span the entire entryway and be rotated on an appropriate schedule for weather conditions. Up to 90% of the dirt brought into schools comes from the soles of shoes. This essential green cleaning practice protects floors by stopping dirt at the door, makes floors easier to clean, and safer by reducing slipping. Walk-off mats can reduce the amount of tracked in dirt by about 70% and is a highly effective way of preventing contaminants from entering the building.

Best practices that pay for themselves over time:

1. Replacing traditional mops and cleaning rags with microfiber mops and cleaning cloths. Microfiber mops and cloths clean using just water or reduced amounts of chemicals. They are made of polyester and nylon fibers that trap everything from large dirt and dust particles to bacteria and can be cleaned in a washing machine and reused hundreds of times. Color-coded microfiber cleaning systems prevent cross-contamination. One study showed a 60% cost savings for mops, a 95% reduction in chemical costs and a 20% labor savings per day after using microfiber mops for a year.

2. Adopting a portion-control system using premeasured or automatic mixing and dispensing units eliminates mistaken measurements. Using a dilution station can reduce product consumption/waste by 30-65%.

3. Using HEPA or Green Label certified high performance vacuums to provide superior soil removal, dust containment and carpet appearance retention.

Best practices to be considered when choosing flooring products during renovation or construction:

1. Factoring in maintenance and disposal costs vs. initial purchase and installation costs. Over the lifespan of a floor, maintenance costs can exceed the initial costs by a factor of 2.5 to 25 times the initial cost of installation.

2. There are many new flooring alternatives to be considered which eliminate the need for toxic cleaning and maintenance products.

3. Carpeting in schools should be avoided because of the high VOC content of most new carpeting and the fact that carpeting retains many allergens and chemicals tracked in by shoes.

4. Environmental Choice (www.environmentalchoice.com) lists a "green" floor care program.

Green Cleaning In Schools Is Cost Effective

"These green changes are making the job easier and safer for custodians as well as saving money. You can go green and not impact the budget."

Dave Fortin, Region 10 Building/Grounds Supervisor
Burlington, Connecticut Public Schools
(Bristol Press, October 2008)

In Connecticut, Fortin has made a few simple yet powerful changes that make the cleaning process more effective, efficient as well as more fiscally and environmentally responsible.

He has done this by using:

1. New microfiber mops and cleaning cloths that pick up more dirt and can be laundered. Microfiber cleaning can reduce and/or eliminate the use of chemicals.

2. Concentrated, environmentally safe cleaners, hand soaps and detergents that reduce the number of plastic containers the school orders and saves money on shipping charges.

Hundreds of school districts across the country have switched from toxic cleaning products to safer alternatives. Here are just a few examples of school green cleaning programs that experienced no increased costs or significant cost savings.

For example:

Georgia

Replacing 20 different cleaning products with a single Green Seal certified cleaner, produced a $280,000.00 annual savings at the Riverside Military Academy in Gainesville, Georgia. Green Seal certified cleaners keep 270 dorm rooms and 100 bathrooms clean.

Florida

After saving $512.86 in one school during a 3 month pilot program, the Palm Beach County District began to phase in green cleaning into all of its 180 schools in June 2008. Projected annual savings for the entire district $360,000.00.

Pennsylvania

The Northern Tioga County School District saved $19,882.00 within one year by eliminating aerosols and other hazardous cleaning products. Ounce for ounce, aerosols often are more expensive than other cleaning solutions and emit harmful fumes that are inhaled by building occupants.

Illinois

From 2003-2004, the Chicago Public Schools tested its green cleaning program and found the price of Green Seal certified cleaning products were cost competitive with traditional products. This study also concluded that the vast array of cleaning products now available performed as well, if not better than traditional products.

Effective green cleaning and indoor air quality programs have been shown to reduce absenteeism which saves school districts money. The US EPA's IAQ Design Tools for Schools cites increases in Average Daily Attendance (ADA) as a primary benefit to schools with superior indoor air quality. "The majority of a school's operating budget is directly dependent on ADA, so even a small increase can significantly boot the operating budget."

For example:

Schools in **Syracuse, New York** documented gains in attendance of 11.7% which yielded added state funding of $2,512,250.00 the first year after using a cleaning for health regime. The school district's use of high efficiency filter back pack vacuuming, systematic disinfecting of desks and surfaces were among the measures used in the program.

Lockport Township High School in **Lockport, Illinois** reported a 3 percent increase in the average daily attendance after the first year of implementing an Indoor Air Quality Management Plan that included switching to Green Seal certified products and changing to vacuums equipped with HEPA filters.

Charles Young Elementary School in **Washington, DC** implemented a green cleaning and indoor air quality program that resulted in an increase in school attendance from 89% to 93%.

School districts can purchase green cleaning products through their state procurement contracts, which can offer major discounts through bulk purchasing agreements. Such procurement contracts as well as buying cooperatives and the bidding process can offer cost savings to schools.

For example:

Massachusetts

Massachusetts was one of the first states to offer safer alternatives to toxic cleaning products through state contracts as a part of its Environmentally Preferable Program.
An evaluation of its safer cleaning products demonstrated that the majority of these environmentally preferable cleaning products were less expensive than their toxic counterparts.

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Green Cleaning: Safer, Affordable and Effective

NO ADDITIONAL COSTS

The official position of the National Work Group for Green Cleaning and Chemical Policy Reform in Schools is that the process of switching from traditional cleaning products to safer alternatives (certified by an independent third party) is cost neutral. This workgroup coordinated by the Healthy Schools Network, Inc. is comprised of the American Federation of Teachers, American Federation of State, County and Municipal Employees International, Green Purchasing Institute, Green Schools Initiative, New York State United Teachers, INFORM, Green Seal, National Association of School Nurses, American Lung Association of Maine, and Massachusetts Committee on Occupational Safety and Health and MA Healthy Schools.

The following government procurement agencies have reported that switching to safer cleaning products (certified by an independent third party) did not cost more (US EPA, 2005):

- The US Dept. of Interior (including several National Parks)
- The states of Illinois, Massachusetts, Minnesota, Pennsylvania, Missouri and Vermont
- The city of Seattle, Washington
- Sarasota County, Florida and Alameda County, California
- Chicago Public Schools

COST SAVINGS and OTHER BENEFITS

Santa Monica, California:
- Documented a five percent savings after switching to safer cleaning products.
- Eliminated the use of 3,200 pounds of hazardous materials by replacing traditional cleaning products with safer alternatives (New American Dream)

PRODUCT and COST EFFECTIVENESS VERIFIED

Green Seal, Inc., an independent, third-party certification organization, conducted highly controlled onsite evaluations in Santa Monica, California, the Chicago Public Schools and the state of Massachusetts These evaluations not only demonstrated that the safer cleaning products were "cost competitive" or "cost neutral" but they worked as well, if not better. (New American Dream)

Costs and Consequences of Using Traditional Cleaning Chemicals

1. Five billion pounds of chemicals are consumed annually in the US to maintain institutions such as schools. The majority of these products are derived from nonrenewable resources.*

2. Exposures of expectant mothers to household chemicals (including cleaners) has been linked to the development of persistent wheezing in their offspring as well as a 41% increased risk of developing asthma by the age of seven. (European Respiratory Journal 2008)

3. One out of three cleaning products contains ingredients known to cause human health problems, as well as environmental contaminants that add to water and air pollution.*

4. Cleaning products are responsible for eight percent of the total nonvehicular emissions of VOCs (volatile organic compounds) which can trigger respiratory problems such as asthma, contribute to smog formation and inhibit plant growth.*

5. Toxic cleaning chemical use damages our health and burdens society with increased health care, lost work and reduced productivity. For example:

- US institutions currently spend more than 75 million dollars annually on medical expenses and lost wages for custodians due to injuries from using chemicals.*

- Studies show 6 out of 100 janitors using traditional cleaning products experience chemical-related injuries (burns to eyes and skin every year).*

- One study estimated that the use of safer cleaners in combination with better ventilation would produce a productivity gain worth between 30 and 150 billion dollars.*

- Twelve percent of work-related asthma can be linked to cleaning product exposures (Journal of Occupational and Environmental Medicine, 2003)

- The annual cost for healthcare and lost productivity associated with asthma is estimated by the National Heart, Lung and Blood Institute to be $16 billion.

6. Some traditional cleaning products are dangerous and present health, safety and security risks because they are highly flammable and can produce deadly gases when mixed.*

As an example, in July 2008, a 17 year old employee of a Fairfield, CT restaurant received chemical burns to 60 percent of his body. The injury occurred when he kicked over bleach and oven cleaner while suffering an epileptic seizure. The CT Departments of Public Health and Environmental Protection were called in to neutralize the chemical spill to nonhazardous levels and ventilate the building with positive pressure fans. Some first responders became contaminated as a result of off gassing and direct contact with the victim. (Fairfield Citizen, July 2008)

* See A Clean Sweep: Purchaser's Are Buying Safer, Effective and Affordable Cleaning Chemicals by Scot Case (Center for a New American Dream) published in Government Procurement Magazine. (Spring 2005)

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Suggestions to Improve Raised HB 6496: An Act Concerning Green Cleaning Products in Schools

1) To eliminate possible fiscal impacts to school districts please
   - Delete vacuum cleaners from line 8
   - Give schools the option of mailing the green cleaning policy or sending it home with students

2) To accommodate where individual schools do not have a website, allow postings of ED050 School Facilities Survey, green cleaning policy (line 75) and five year inspection reports (line 208) to be posted on individual school websites and/or Board of Education websites.

3) Change the phrase "On or after" to "On or before" in lines 12 and 56, otherwise requirements can occur at any time in the future, even 5 or 10 years from the date specified.

4) Update the FIFRA language on lines 8-11 (to match the new language required by PA 08-186 and found in the CT DAS website) by adding after line 11: "or products for which no guidelines or environmental standards have been established."

5) On line 34, please change the word "by" to "and". On line 35, please change "inspecting" to "inspects".

6) In lines 60-63, staff should also be notified. There should also be a requirement to notify new hires and the parents or guardians of transfer students during the school year (to match the language of the pesticide notification law). Also, on line 62 the word "or" should be changed to "of".