

School Facilities Training Program Phone Survey Results

I. Introduction

The Environmental and Occupational Assessment Program at CT DPH has developed an ongoing multi-agency collaborative program (manifested through a 24 member statewide consortium of agencies and organizations – the CT School Indoor Environment Resource Team [CSIERT]) to address school environmental health issues. Through this collaborative program and an extensive system of contacts within CT school districts, we have the ability to conduct outreach and training services to assist these districts to address indoor environmental quality problems in conjunction with the districts' Tools for Schools programs.

One important component is the development and implementation of a School Facilities Training program that provides training for custodians and maintenance staff to address indoor environmental quality issues. With the newly enacted school green cleaning law and the need to assist school districts regarding flu-related infection control issues, our facilities-based training program has become more important. There were two parts to this program: 1) a three hour workshop for all district custodial and maintenance staff covering IEQ source identification, green cleaning, and infection control issues, and 2) a green cleaning program consultation service for facilities directors and head custodians to assist districts to implement the CT school green cleaning program law. Schools have become a focal point of concern regarding flu, with several schools closing and the unnecessary overuse of disinfectants. There is a great need to assist school districts to address this problem. In the last two years, we conducted the facilities workshop for thirty-three CT school districts that included staff from 383 schools.

Recently, we conducted a follow-up phone survey of facilities directors from these districts to attempt to assess green cleaning product program and infection control protocol implementation, and to evaluate the effectiveness of the training workshop and consultation service. The main objectives of the survey were to:

- Determine the extent of green cleaning program implementation by participating school districts, including the introduction of specific types of cleaners and equipment, and the development and communication of a green clean policy
- Determine district infection control protocol regarding disinfectant and sanitizer use
- Evaluate the effectiveness of the 3-hour custodian workshop and the consultation service

Below are a description of the methods, findings and conclusions from the survey results.

II. Methods

A phone survey instrument (Appendix A) was developed consisting of questions about green cleaning program implementation; introduction of green cleaning products and related equipment; development of district green cleaning policy; training and communication; infection control procedures; and participant assessment of the training workshop. The survey provided for open-ended comments, which are incorporated into the results. Appendix B provides a compilation of their comments. Facilities directors (or their assigned participating staff) were contacted in 30

districts where we provided the workshop. Of these, surveys were completed for 20 school districts.

III. Results:

A. Implementation Of Green Cleaning Products Program

Survey participants were asked the implementation status of their green cleaning products program, specifically in relation to district participation in the DPH/CSIERT workshop and/or consultation service. Of the 20 respondents, 15 (75%) had implemented a green cleaning products program before the training, 3 districts (15%) had just begun the implementation process. Two districts were planning to implement a green cleaning program after the custodian workshop and/or consultation service. One respondent stated that their district had implemented a green cleaning program 3 years before; another district had implemented a program 2 years before.

B. Introduction Of 3rd Party Certified Environmentally Preferable Cleaning Products

Table 1 presents the results of the questions regarding the introduction of third party certified cleaning products, as mandated by state law. The vast majority of respondents (80%) stated that overall the district had introduced these products. Eighty per cent of respondents had introduced all-purpose green cleaners. A slightly lower percentage (70%) had introduced green glass cleaners. Respondents were asked to comment on their product introduction experiences. Several mentioned specific products and company lines that they were using. One respondent reported their district had contracted out the implementation of their entire green products program. Regarding bathroom cleaners, the majority who responded to this question (63%) reported that they had not yet implemented green bathroom cleaners, and were using traditional disinfectants (the law does not cover disinfectants and there are no official “green” disinfectants).

Table 1: Introduction of 3rd Party Certified Environmentally Preferable Cleaning Products

	Before Workshop	Partial Introduction	After Workshop	Not Yet, Pending	Not Planned
introduce 3rd-party certified green cleaning products (overall)	16	2	2	0	0
all purpose cleaners	16	2	2	0	0
glass and window cleaners	14	3	3	0	0
carpet spot/extraction cleaners	5	2	3	8	1
bathroom cleaners	5	2	2	10	0
floor finishers	5	5	2	8	0
floor strippers	7	4	2	6	0

Respondents were also asked about the use of environmentally preferable cleaning products not covered by law, specifically graffiti and white board cleaners (Table 2). Almost half (47%) had introduced the use of graffiti removers. Two respondents related continuing to use general-purpose cleaners. The majority of respondents (60%) reported using environmentally preferable white board cleaners.

Table 2: Environmentally Preferable Cleaning Products

Use Of Environmentally Preferable Cleaning Products?	Before Workshop	Partial Introduction	After Workshop	Not Yet, Pending	Not Planned
graffiti removers	6	3	0	8	2
white board cleaners	8	4	2	5	1

C. Introduction Of New Equipment

Table 3 summarizes the results regarding the introduction of new cleaning equipment. It is noted that equipment is not covered by the law, but is useful for a more successful green cleaning program. All responding districts are utilizing walk-off mats as part of their cleaning program. Walk-off mats – particularly larger ones up to 15 feet - are important to preventing the incursion of dirt. Up to 80% of soil in buildings is tracked in by feet. Dilution stations are a key part of a green cleaning product program; 85% of those responding said their district had introduced them. The majority (78% of those responding to this question) is using or has begun to introduce microfiber cloths. A majority of respondents had introduced 2 section buckets; however some respondents had complaints about their use. Regarding auto scrubbers, several respondents mentioned specific systems they were using or were under consideration. A large majority of respondents (79%) have introduced HEPA vacuum cleaners. One district reported using HEPA filters with existing vacuum cleaners.

Table 3: New Equipment

Introduce New Equipment?	Before Workshop	Partial Introduction	After Workshop	Not Yet, Pending	Not Planned
walk-off mats	19	1	0	0	0
dilution stations	17	1	2	0	0
microfiber cloths	12	2	6	0	0
microfiber mops	9	2	5	4	0
2-section buckets	10	3	1	6	0
small washing machines	14	0	0	4	1
auto scrubbers w/ stripping pads	7	2	2	5	0
HEPA vacuum cleaners	15	2	0	2	0

D. Development And Communication Of A Green Cleaning Policy

A key component of the CT School Green Cleaning Products law requires the development and dissemination of a district green cleaning policy. This includes the providing a written statement outlining the types and names of products being used, locations of application of these products, cleaning schedules, and the name of the supervisor in charge of green cleaning. At the time of this survey (Summer 2010), the majority of those responding (53%) had not yet developed a policy but were planning to (Table 4); however, this requirement was not due October 2010. Another key component of the law is to communicate to parents and staff the prohibition of bringing to school facilities “any consumer product which is intended to clean, deodorize, sanitize or disinfect.” The majority of respondents stated this was pending, and most commented that a letter from the district superintendent was to be distributed in October 2010.

Table 4: Green Cleaning Policy

	Before Workshop	Partial Introduction	After Workshop	Not Yet, Pending	Not Planned
develop a written green cleaning policy	4	4	1	8	0
communicate a policy that prohibits staff and parents from bringing in cleaners, etc.	5	3	2	7	0

E. Provide Training And Review New Products

Survey participants were asked about staff training and reviewing and piloting new green cleaning products and equipment (Table 5). A large majority (74%) of those responding had provided training before the workshop, and most stated that staff training was an ongoing effort. The majority of respondents related that the district had a program of reviewing and piloting products and equipment before the workshop, and hold regular meetings with staff regarding green cleaning. Several respondents commented that they were working with vendors in this process.

Table 5: Training and New Product Review

	Before Workshop	Partial Introduction	After Workshop	Not Yet, Pending	Not Planned
train your staff re: use of new products/ equipment	14	4	0	1	0
review new green cleaning products	12	5	1	1	0
review new cleaning equipment options	11	5	2	0	0
pilot new cleaning products/equipment	12	7	0	0	0
hold regular staff meetings to discuss green cleaning topics	15	2	0	2	0

F. Infection Control: Using Disinfectants and Sanitizers

Table 6 presents the results of questions regarding infection control. Of the 18 responding to these questions, 44% stated their district restricted the use of disinfectants and sanitizers before the workshop. Six respondents linked disinfectant use with the H1N1 outbreak, including use in bathrooms and high touch point areas. A large majority reported having written protocols for targeted use of disinfectants and sanitizers (63%) and trying to identify environmentally preferable disinfectants and sanitizers (68%) before the workshop. A smaller number (42%) had developed a written protocol; however a number of respondents commented that this was covered by hands-on staff training.

Table 6: Infection Control: Disinfectant and Sanitizer Use

	Before Workshop	Partial Introduction	After Workshop	Not Yet, Pending	Not Planned
clearly restrict the use of disinfectants and sanitizers....	8	1	1	7	1
develop a written disinfection and sanitizing protocol	8	2	1	6	2
develop a written protocol for targeted use of disinfectants & sanitizers	12	1	1	4	1
make effort to identify & use environ. preferable disinfectants sanitizers	13	6	0	0	0

Respondents were also asked about whether staff were properly using disinfectants and sanitizers (Table 6a). An important procedure is to allow adequate time for disinfectants to work (dwell time). Almost all respondents reported allowing for appropriate dwell time, dilution, surface pre-cleaning and protective equipment.

Table 6a: Proper Use of Disinfectants & Sanitizers

	Before Workshop	Partial Introduction	After Workshop	Not Yet, Pending	Not Planned
appropriate dwell time	18	1	0	0	0
appropriate dilution	18	1	0	0	0
surface pre-cleaning, if necessary	17	1	0	0	0
appropriate protective equipment	17	1	0	0	0

G. Evaluation of Training

Respondents were asked to rate the usefulness of the training on a scale of “1” to “10”, ten being the highest. All respondents answering this question (16) gave it a “7” or higher, with four “10” ratings. A large number of those commenting stated the training was very helpful or useful. Only four (4) responses were recorded for the question “Did the training program help you implement a green cleaning program in your district.” Comments regarding this question were generally that the workshop helped confirm that the districts were on the right track.

Respondents were asked for suggestions for improving the workshop. Providing follow-up including updates on equipment and techniques was the principal recommendation.

IV. Conclusions and Recommendations

1. The large majority of the participating school districts in this phone survey had made substantial progress in implementing a green cleaning program before the workshop was provided. This includes the use of 3rd party certified products like all purpose cleaners and glass cleaners. This finding reflects the fact that more proactive districts are more likely to participate in the workshops and this survey. The participants report that they are still evaluating products like carpet cleaners, floor finishers and strippers, and bathroom cleaners. Other environmentally preferable products such as graffiti and white board cleaners are also being investigated.

2. Although green cleaning equipment is not required as part of the green cleaning products law, the majority of districts report introducing new equipment, including walk-off mats, microfiber cloths, 2 section buckets and HEPA vacuum cleaners. Virtually all districts reported using dilution stations which are generally standard procedure in dispensing green cleaners.

3. At the time the survey was administered (summer 2010), most districts had not yet developed a green cleaning policy and communicated it to the school community. The majority of respondents stated that plans were being formulated by the administration. This requirement of the CT law was due by October 2010 and includes a provision that district green cleaning policies should be posted on district web sites. Since that time, a template was developed by the CT School Building and Grounds Association to assist districts. It recommended that there be a follow-up effort to ensure all districts have fulfilled this requirement.

4. The majority of respondents stated that their district had a written protocol regarding the targeted use of disinfectants and sanitizers, and were seeking out environmentally preferable disinfectants. The vast majority stated the district used disinfectants properly.

5. The workshop received high ratings from the survey respondents, with several respondents relating how helpful the workshop had been. Although most of the responding districts had moved to implement a green cleaning program before taking the training, several stated that the workshop experience indicated they were “on the right track.”

Tools for Schools Custodial Training Evaluation Instrument

Name: _____

Position: _____

School District: _____

Date of Interview: _____

Hello, this is Carmella Kuzara from the State of Connecticut Department of Public Health. I work with Kenny Foscue and Joan Simpson on the Tools for Schools program. We are trying to evaluate our recent green cleaning training work with your district. We provided either or both a custodian's training workshop with all your custodial staff and/or a green cleaning consultation with the head custodians and you.

I would like to learn more about your school's cleaning activities before and after the training program was offered. Would you be willing to take 10- 15 minutes of your time to respond to my questions?

On _____ you and your staff were trained by _____, an industrial hygienist member of the CSIERT team. The training session(s) your school sponsored was (were):

- Advanced Tools for Schools for Custodial and Facilities Staff
- "Cleaning for Health": Green Cleaning Consultation
- Both programs

For each question, please tell me if the program/policy was introduced a) before the training program b) after the training program c) has not been implemented yet or d) will not be implemented. If you plan to implement a program, but haven't done so yet, please tell me the date when you expect to have started the program. I know that some of the programs/policies I mention may not have been implemented at your school. I would appreciate a candid update on where you are at with the process.... This will help me identify needs for future training programs. Your responses will be kept completely confidential. Only a summary of the data will be presented.

	When did your school district.....	Before Training	After Training	Not done yet (date expected)	Not planned	Comments
1	... implement a green cleaning products program?					
1a	... introduce the use of third-party certified green cleaning products? Specifically:					
	all purpose cleaners					
	glass and window cleaners					
	carpet spot/extraction cleaners					
	bathroom cleaners					
	floor finishers					
	floor strippers					
1b	... introduce the use of environmentally preferable cleaning products? Specifically:					
	graffiti removers					
	white board cleaners					
1c	... introduce new equipment? Specifically:					
	walk-off mats (span the entryway and are 10'-15' long)					
	dilution stations					
	microfiber cloths					
	microfiber mops					
	2-section buckets					

	small washing machines					
	auto scrubbers with stripping pads					
	HEPA vacuum cleaners					
	other _____					
2	... develop a written green cleaning policy (names of products, where/when they are to be used)					
3	... communicate a policy that prohibits staff and parents from bringing in their own cleaning products					
	When did your school district.....	Before Training	After Training	Not done yet (date expected)	Will not be done	Comments
4	... insure that there is adequate ventilation in the building when cleaning products are used					
5	... work with your vendor to....					
	train your staff on the use of new products/ equipment					
	review new green cleaning product options					
	review new cleaning equipment options					
	pilot new cleaning products or equipment					
6	... hold regular meetings with custodial staff to discuss green cleaning topics					
The following questions specifically address the use of disinfectants and sanitizers						
	When did your school district.....	Before Training	After Training	Not done yet (date expected)	Will not be done	Comments
7clearly restrict the use of disinfectants and sanitizers to pre-determined high risk areas					

8	... develop a written disinfection and sanitizing protocol for routine cleaning					
9	... develop a written protocol for the targeted use of disinfectants or sanitizers on high touch points during infectious outbreaks (e.g.: MRSA, H1N1)					
10 make an effort to identify and use environmentally preferable disinfectants or sanitizers					
11	... insure that disinfectants and sanitizers are used according to the product's label. Specifically:					
	appropriate dwell time					
	appropriate dilution					
	surface pre-cleaning, if necessary					
	appropriate protective equipment					
The following questions specifically address the training program itself.						
12	Was the training program useful?	1 (not at all)				10 (very)
13	Did the training program help you implement a green cleaning program in your district?	1 (not at all)				10 (a lot)
14	How could the training program be improved?					