

SENATE STAFF ANALYSIS AND ECONOMIC IMPACT STATEMENT

(This document is based on the provisions contained in the legislation as of the latest date listed below.)

BILL: SB 470

SPONSOR: Senator Campbell

SUBJECT: Indoor Air Quality of Educational Facilities

DATE: March 6, 2004 REVISED: _____

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	Woodruff	O'Farrell	ED	Favorable
2.	_____	_____	NR	_____
3.	_____	_____	AED	_____
4.	_____	_____	AP	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____

I. Summary:

The bill requires each school district to adopt and implement an indoor air quality program based upon the U.S. Environmental Protection Agency's Indoor Air Quality Tools for Schools Program. The program is to include the inspection and evaluation of each educational facility for indoor air quality. Inspection reports, with corrective actions, are to be provided to the Department of Education by school boards on air quality conditions of educational facilities. An environmental assessment relating to air quality shall be performed for each site prior to construction. Heating, ventilation and air conditioning systems of each educational facility are to be maintained and operated in accordance with nationally recognized standards, and operated continuously during hours the facility is occupied. Maintenance records of heating, ventilation and air conditioning systems are to be maintained for at least five (5) years. Districts are to establish an indoor air quality committee to increase awareness of staff and students of facets of the environment that may affect the health of facility occupants. An indoor air quality training program is to be established for facilities, maintenance, and custodial staff.

This bill creates section 1013.135 of the Florida Statutes.

II. Present Situation:

Educational facilities in Florida are to be constructed in compliance with the Florida Statutes, the Florida Building Code, including chapter 4, section 423 of the Code, and with rules of the Department of Education in Chapter 6-2, relating to educational facilities construction. A search of the statutes, Florida Building Code and state board rules does not identify any specific current language addressing indoor air quality testing requirements for school facilities except for relocatables. However, certain aspects of the bill are addressed in statute. These include:

Training for Environmental, Maintenance, and Custodial Issues:

Among the functions listed for the Department of Education, section 1013.03(9), Florida Statutes, requires the Department to make available to boards technical assistance, awareness training, and research and technical publications relating to life safety, casualty, sanitation, *environmental, maintenance, and custodial issues*.

Radon Testing:

Section 404.056 (4) Florida Statutes, requires *mandatory radon testing of all public and private school buildings or school sites housing students in kindergarten through grade 12*; all state-owned, state-operated, state-regulated, or state-licensed 24-hour care facilities; and all state-licensed day care centers for children or minors which are located in counties designated within the Department of Community Affairs' Florida Radon Protection Map Categories as "Intermediate" or "Elevated Radon Potential." Such facilities shall be measured to determine the level of indoor radon, using measurement procedures established by the department. Testing shall be completed within the first year of construction in 20 percent of the habitable first floor spaces within any of the regulated buildings. Initial measurements shall be completed and reported to the department by July 1 of the year the building is opened for occupancy. Follow-up testing must be completed in 5 percent of the habitable first floor spaces within any of the regulated buildings after the building has been occupied for 5 years, and results must be reported to the department by July 1 of the 5th year of occupancy. After radon measurements have been made twice, regulated buildings need not undergo further testing unless significant structural changes occur.

Section 1013.72 (2), Florida Statutes, establishes the School Infrastructure Thrift (SIT) Program within the Department of Education and gives the State Board of Education the authority to adopt rules as necessary to operate the program. The statute directs the department to: “aggressively seek the elimination or revision of obsolete, excessively restrictive, or unnecessary laws, rules, and regulations for the purpose of reducing the cost of constructing educational facilities and related costs without sacrificing safety or quality of construction. Such efforts must include, but are not limited to, the elimination of duplicate or overlapping inspections; *the relaxation of requirements relating to* the life cycle of buildings, landscaping, operable glazing, operable windows, *radon testing*, and firesafety *when lawful, safe, and cost-beneficial*; and other cost savings identified as lawful, safe, and cost-beneficial.”

Air Quality in Relocatables:

The statutes address air quality for relocatable facilities used by school districts for classroom space in section 1013.20 (1), Florida Statutes, by requiring the State Board of Education to adopt rules establishing standards for relocatables intended for long-term use as classroom space at a public elementary school, middle school, or high school. "Long-term use" means the use of relocatables at the same educational plant for a period of 4 years or more. Relocatables that fail to meet the standards ...may not be used as classrooms. “The standards shall protect the health, safety, and welfare of occupants by requiring compliance with the Florida Building Code or the State Requirements for Educational Facilities for existing relocatables, as applicable, to ensure the safety and stability of construction and onsite installation; fire and moisture protection; *air*

quality and ventilation; appropriate wind resistance; and compliance with the requirements of the Americans with Disabilities Act of 1990.” Similar language appears in the Florida Building Code.

Construction Standards:

In terms of construction standards, school buildings are required to meet the American Society of Heating, Refrigeration and Air Conditioning (ASHRAE) Standards for ventilation, comfort and indoor environmental quality related problems. School buildings are also required to operate in accordance with American Society of Heating, Refrigeration and Air Conditioning design standards.

Ventilation Operation Standards:

The Department of Health's school sanitation standards require that ventilation systems be in operation during occupied periods.

At the beginning of the 2003-2004 school year, a number of schools were reported to have problems with indoor air quality, particularly with the growth of mold on ceilings, walls and in ventilation ducts. Some schools were delayed in opening until environmental and air quality issues could be addressed. Other schools closed certain sections of the school facility or restricted access until the problems were corrected. In some cases, the schools had to undergo extensive cleaning and repairs to mitigate the problem. Apparently as a response to the growing awareness of such problems many districts have voluntarily created indoor environmental quality management plans. In addition, the Department of Education has indicated it has plans to draft a model indoor environmental quality management plan for Florida's public schools in the second quarter of 2004.

The Indoor Air Quality Tools for Schools Program:

The Indoor Air Quality Tools for Schools Program referenced in the bill is designed around use in a single school and not for a whole school district. Most districts have centralized maintenance and environmental functions which may not be conducive to implementing the entire Tools for Schools Program. School districts have used several of the forms included in the kit.

School Facility Inspections:

School districts currently are mandated to conduct safety, casualty and sanitation inspections which should identify obvious problems. Identifying hidden indoor environmental quality problems is more complex and often cannot be achieved by visual inspection. As an example, moisture problems in wall cavities can require the use of specialized tools to detect the problem.

Training of Facilities, Maintenance, and Custodial Staff:

School districts and individual schools experience frequent turnover in the facilities, maintenance and custodial staff. To some degree this staff turnover contributes to the problem of identifying

environmental and air quality problems and in conducting staff training. The Department of Education indicates that it recognizes quality training is essential to preventing indoor environmental quality problems and has taken some steps toward such training. The Department and the Florida Solar Energy Center are currently training architects, engineers and school district staff in a series of courses titled "Designing the Failure-Proof Building." Certain training for custodians, maintenance employees, and principals is currently available at no cost to the school districts by the Department although it may not specifically include the requirements of this bill.

Certification of Master Custodians:

The certification of a master custodian is no longer a Department of Education program. Custodial training and certification is now a voluntary program being administered by the Florida School Plant Management Association which is a volunteer driven association.

III. Effect of Proposed Changes:

The bill creates Section 1013.135, Florida Statutes, requiring each school district to:

Adopt and implement an indoor air quality program based upon U.S. Environmental Protection Agency's Indoor Air Quality Tools for Schools Program.

Provide annual reports to the Department of Education on air quality conditions of its educational facilities including actions taken to implement the indoor air quality program and long-range building program.

Uniform indoor air quality inspections and evaluations of educational facilities are required as follows:

Inspections and evaluations are required to be completed before January 1, 2009.

Buildings built or renovated after January 1, 2004 are subject to inspection and evaluation every five (5) years.

Buildings built before January 1, 2004 which are not scheduled for renovation are subject to inspection and evaluation every two (2) years.

Results of inspections shall be made available for public inspection during a regularly scheduled board meeting.

The bill provides that school sites shall have an environmental assessment relating to air quality prior to approving construction on the site. Districts shall not approve an educational facility site or project if the site is in the area of moderate or high radon potential (with an exception for incorporation of construction techniques that mitigate radon levels in the air of the facility) or if the standards of the State Uniform Building Code for Educational Facilities Construction standards for heating, ventilation and air-conditioning systems are not met.

Districts are to ensure that heating, ventilation and air conditioning systems of each educational facility are maintained and operated in accordance with nationally recognized standards and that they are operated continuously during hours the facility is occupied.

The bill requires the school district to maintain maintenance records of heating, ventilation and air conditioning systems for at least five (5) years.

Districts are to establish an indoor air quality committee for the entire school district or for each facility to increase awareness of staff and students of facets of the environment that may affect the health of facilities occupants. The awareness program is to at least include content relating to air quality and the presence of radon.

An indoor air quality training program for facilities, maintenance and custodial staff is required. New employees are to complete training within the first 60 days of employment and existing employees are to complete training within one (1) year of program implementation.

In the case of new construction, extension, renovation, or replacement of an educational facility, building maintenance staff for the facility must be trained in the appropriate areas of plant operations. Such training is to be incorporated in the training manual for certification of master custodians.

The bill will take effect on July 1, 2004.

IV. Constitutional Issues:

A. Municipality/County Mandates Restrictions:

None.

B. Public Records/Open Meetings Issues:

None.

C. Trust Funds Restrictions:

None.

V. Economic Impact and Fiscal Note:

A. Tax/Fee Issues:

None.

B. Private Sector Impact:

None.

C. Government Sector Impact:

According to the Department of Education the cost estimate for this bill is based on using \$500 per school for an assessment of existing environmental problems. An environmental study of new school sites prior to construction costs about \$5,000 per site. An average of 40 new schools have been constructed each year for the past five years. The Department estimates that currently one-half of all public schools have an environmental concern that requires some type of correction.

The Department also estimates an average cost of \$50,000 per school to correct indoor environmental concerns. Historically, identified Indoor Environmental Quality problems have led to lawsuits. Award amounts in lawsuits are unpredictable and cannot be determined.

Environmental assessment of each school \$500 x 2,800 schools = \$1,400,000 annually
 Site assessment of each new school site \$5,000 x 40 sites/year = \$200,000 annually
 Correction of environmental problems \$50,000 x 1,400 schools = \$70,000,000 non-recurring

Total = \$71,600,000

Litigation cost cannot be determined at this time but could be quite substantial.

The Department also indicates that training within 60 days of employment may create a logistical concern for a school district. Training for an entire district on a periodic basis may be more feasible and meaningful.

VI. Technical Deficiencies:

None.

VII. Related Issues:

None.

VIII. Amendments:

None.