The Florida Senate

BILL ANALYSIS AND FISCAL IMPACT STATEMENT

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

Prepared By: The Professional Staff of the Health Regulation Committee

BILL:	SB 202
INTRODUCER:	Senator Fasano
SUBJECT:	Ice Skating Rinks
DATE:	January 25, 2011
REVISED:	

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	O'Callaghan	Stovall	HR	**Favorable**
2.			BI	
3.			BC	
4.				
5.				
6.				

I. Summary:

This bill requires the Department of Health (DOH) to include in its environmental health program a function related to air quality in enclosed ice skating rinks.

The bill authorizes the DOH to adopt rules that include:

- Definitions;
- Air quality standards and requirements for monitoring, testing, and recordkeeping;
- Maintenance and operation requirements for equipment that affects air quality;
- Requirements for ventilation of the ice skating facility;
- The required response activities if an operator violates air quality standards;
- The assessment of fees, which may not exceed administrative costs; and
- Requirements for enforcement, citations, and administrative penalties.

The bill also authorizes the DOH to enter and inspect an enclosed ice skating rink at reasonable hours and assess an administrative fine up to $500 for each violation of any applicable statutes or rules.

This bill substantially amends the following sections of the Florida Statutes: 381.006 and 381.0061.

II. Present Situation:

Indoor Air Quality in Ice Skating Arenas

Enclosed recreational facilities, such as ice skating arenas, may be affecting the public's health due to poor indoor air quality. Poor indoor air quality of ice skating arenas is usually due to poor ventilation and the use of fuel-burning equipment, such as ice resurfacing equipment. Fuel-powered ice resurfacing equipment emits harmful gases or particles, known as combustion pollutants, into the air. The specific combustion pollutants of concern for ice skating arenas are nitrogen dioxide, carbon monoxide, and particulate matter.[1] In addition, hydrocarbons and carbon dioxide have harmful environmental effects.

Oxides of Nitrogen
Oxides of nitrogen or "nitrogen oxides" (NO_x) is the term used to describe the sum of nitric oxide (NO), nitrogen dioxide (NO_2), and other oxides of nitrogen. Most airborne nitrogen oxides come from combustion-related emissions sources of human origin, primarily fossil fuel combustion in electrical utilities, high-temperature operations at other industrial sources, and the operation of motor vehicles. However, natural sources, like biological decay processes and lightning, also contribute to airborne nitrogen oxide. Fuel-burning appliances, like home heaters and gas stoves, produce substantial amounts of nitrogen oxides in indoor settings.[2]

Nitrogen dioxide is a toxic gas that is a highly reactive oxidant and corrosive. Nitrogen dioxide acts mainly as an irritant affecting the eyes, nose, throat, and respiratory tract. It may also cause shortness of breath. Those with asthma, chronic obstructive pulmonary disease, and young children may in particular feel the harmful effects of nitrogen dioxide. Continued exposure to high nitrogen dioxide levels can contribute to the development of acute or chronic bronchitis, while exposure to extremely high levels can lead to pulmonary edema, which is a potentially life-threatening lung condition.[3]

Carbon Monoxide
Carbon monoxide (CO) is an odorless, colorless, and poisonous gas. Low levels can cause shortness of breath, mild nausea, and mild headaches. Even low levels of carbon monoxide can have long-term effects on a person's health. A person exposed to moderate levels of carbon monoxide may get severe headaches, become dizzy, mentally confused, nauseated, or faint. At high levels, carbon monoxide can cause a loss of consciousness or death. Fetuses, children, elderly people, and people with heart disease are especially susceptible to carbon monoxide poisoning.[4]

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[1] U.S. Environmental Protection Agency, *Indoor Air Quality and Ice Arenas*, available at http://www.epa.gov/iaq/icearenas.html (Last visited on January 19, 2010).
[2] U.S. Environmental Protection Agency, *Nitrogen Oxides Emissions*, available at http://cfpub.epa.gov/eroe/index.cfm?fuseaction=detail.viewInd&lv=list.listByAlpha&r=219685&subtop=341 (Last visited on January 19, 2011).
[3] *Id.*
[4] *Supra* fn. 1.

Particulate Matter
Particulate matter (PM), also known as particle pollution, is a complex mixture of extremely small particles and liquid droplets, including acids, organic chemicals, metals, and soil or dust particles. Because these particles are so small, they can be inhaled and then affect the heart and lungs and can cause serious health effects. The U.S. Environmental Protection Agency (EPA) groups particle pollution into two categories: "inhalable coarse particles," such as those found near roadways and dusty industries, which are larger than 2.5 micrometers and smaller than 10 micrometers in diameter; and "fine particles," such as those found in smoke and haze, which are 2.5 micrometers in diameter and smaller. Fine particles can be directly emitted from sources such as forest fires or they can form when gases emitted from power plants, industries, and automobiles react in the air.[5]

Hydrocarbons
Hydrocarbons (HC) are serious air pollutants that are a key component of smog. Hydrocarbon emissions result from incomplete fuel combustion and from fuel evaporation. Smog, and its hydrocarbon components, can cause health problems such as difficulty breathing, lung damage, and reduced cardiovascular functioning. A number of hydrocarbons are also considered toxic, meaning they can cause cancer or other health problems.[6]

Carbon Dioxide
Carbon dioxide (CO_2) is emitted naturally through the carbon cycle[7] and through human activities like the burning of fossil fuels. Natural sources of carbon dioxide occur within the carbon cycle where billions of tons of atmospheric carbon dioxide are removed from the atmosphere by oceans and growing plants, also known as "sinks," and are emitted back into the atmosphere annually through natural processes, also known as "sources." When in balance, the total carbon dioxide emissions and removals from the entire carbon cycle are roughly equal. However, since the Industrial Revolution in the 1700's, human activities, such as the burning of oil, coal, and gas, and deforestation, have increased carbon dioxide concentrations in the atmosphere, which in turn has exacerbated the greenhouse effect.[8]

U.S. Environmental Protection Agency Guidelines and Emission Standards

The EPA has published guidelines for ice skating arena owners to follow to protect the indoor air quality of their facilities. These guidelines suggest ice skating arena owners:

- Educate workers on their role in protecting occupants, including children, and about indoor air quality.
- Establish procedures for responding to indoor air complaints and emergencies.

[5] U.S. Environmental Protection Agency, *Particulate Matter*, available at http://www.epa.gov/pm/ (Last visited on January 19, 2010).
[6] U.S. Environmental Protection Agency, *Hydrocarbons*, available at http://www.epa.gov/oms/invntory/overview/pollutants/hydrocarbons.htm (Last visited on January 19, 2011).
[7] A depiction of the carbon cycle is available at http://www.windows2universe.org/earth/Life/biogeochem.html (Last visited on January 19, 2011) and provided by the National Earth Science Teachers' Association.
[8] U.S. Environmental Protection Agency, *Carbon Dioxide*, available at http://www.epa.gov/climatechange/emissions/co2.html. *See also* U.S. Environmental Protection Agency, *Global Greenhouse Gas Data*, available at http://www.epa.gov/climatechange/emissions/globalghg.html (Last visited on January 19, 2011).

- Provide continuous ventilation whenever the rink is occupied because the exhaust of contaminants and a supply of fresh outdoor air are necessary to maintain good air quality in ice arenas.
- Provide adequate mechanical ventilation to exhaust contaminated air from combustion sources to the outdoors (and away from occupants), to provide fresh outdoor air to occupied areas, and at a minimum use ventilation requirements for sports arenas as described in the American Society of Heating, Refrigeration and Air-conditioning Engineers' (ASHRAE) Ventilation for Acceptable Indoor Air Quality, Standard 62.1-2007, or the most recent edition.
- Equipping the facility with two ventilation units, one for the rink area and one for public areas, as recommended by the International Ice Hockey Federation.
- Ensure that the fresh air intake is not located near the exhaust from loading areas and outside vehicles, and that the intake is not blocked.
- Consider replacing older equipment that does not meet current EPA emissions standards with newer compliant equipment, or consider an upgrade of current equipment to use the most efficient burning fuel type available and pollution control devices.
- Warm up resurfacing equipment in a well-ventilated room or a room equipped with a local exhaust.
- Use ice edgers only when the ventilation system can adequately exhaust the emissions and keep arena gates open during resurfacing to allow for better air circulation.
- At a minimum, establish a system of monitoring air quality (e.g. taking concentration measurements in the arena and on the ice) especially to detect major combustion pollutants during and shortly after the use of any fuel-fired equipment.
- Have all combustion equipment such as resurfacers, edgers, forklifts, water pumps and auxiliary generators regularly maintained by a qualified technician.[9]

The EPA, however, does not provide any specified standards for the indoor air quality, or provide the maximum amount of levels of certain gases, vapors, or particles that is acceptable, in enclosed ice skating arenas before human health is compromised.[10]

In September 2002, the EPA announced new emission standards[11] for new "nonroad" engines, including ice resurfacing equipment, in order to reduce ambient concentrations of ozone, carbon monoxide, and fine particulate matter; reduce personal exposure for people who operate, work with, or are otherwise close to these engines and vehicles; and improve visibility in national

[9] *Supra* fn 1.
[10] Phone interview with a representative of the U.S. Environmental Protection Agency by professional committee staff on January 21, 2011.
[11] The new emission standards were required under the federal Clean Air Act, 42 U.S.C. ss. 7401 et seq.

parks.[12] However, these emission standards only apply to new engines manufactured after January 1, 2004.[13]

U.S. Department of Labor, Occupational Safety & Health Administration

The Occupational Safety & Health Administration (OSHA) of the U.S. Department of Labor provides some health protections to those who may be employed by the owner of an ice skating arena and working within the facility. OSHA's role and mission under the Occupational Safety and Health Act of 1970 (Act)[14] is to assure safe and healthful working conditions for working men and women; by authorizing enforcement of the standards developed under the Act; by assisting and encouraging the States in their efforts to assure safe and healthful working conditions; and by providing for research, information, education, and training in the field of occupational safety and health.[15]

OSHA and its state partners[16] have approximately 2,100 inspectors, plus complaint discrimination investigators, engineers, physicians, educators, standards writers, and other technical and support personnel spread over more than 200 offices throughout the country. Its staff establishes protective standards, enforces those standards, and reaches out to employers and employees through technical assistance and consultation programs.[17] Nearly every working man and woman in the nation comes under OSHA's jurisdiction, with some exceptions such as miners, transportation workers, many public employees, and the self-employed.[18]

OSHA lists a set of limits for the amount of air contaminants that an employee may be exposed to during an 8 hour period.[19] According to this list, exposure is limited to 50 parts per million (ppm) for carbon monoxide, 5,000 ppm for carbon dioxide, 5 ppm for nitrogen dioxide, and 15 milligram per cubic meter (mg/m^3) for dust particulates.[20]

OSHA may penalize those employers that do not meet OSHA's standards according to the following types of violations:

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[12] U.S. Environmental Protection Agency Office of Transportation and Air Quality, *Regulatory Announcement: Emission Standards for New Nonroad Engines*, September 2002, available at http://www.epa.gov/otaq/regs/nonroad/2002/f02037.pdf (Last visited on January 19, 2011). *See* 40 C.F.R. 1048, available at http://law.justia.com/us/cfr/title40/40cfr1048_main_02.html, for the federal law concerning the Control of Emissions From New, Large Nonroad Spark-Ignition Engines (Last visited on January 19, 2011).

[13] U.S. Environmental Protection Agency Office of Transportation and Air Quality, *Regulatory Announcement: Frequently Asked Questions from Facility Managers and Other Owners of Industrial Spark-ignition Engines*, September 2002, available at http://www.epa.gov/otaq/regs/nonroad/2002/f02041.pdf (Last visited on January 19, 2011).

[14] 29 U.S.C. s. 651 et seq.

[15] U.S. Department of Labor Occupational Safety & Health Administration, *OSHA's Role*, available at http://www.osha.gov/oshinfo/mission.html (Last visited on January 20, 2011).

[16] A list of OSHA's 26 state partners is available at http://www.osha.gov/dcsp/osp/index.html (Last visited on January 20, 2011). Florida is not listed as a state partner, meaning that Florida has not adopted OSHA's State Occupational Safety and Health Plan.

[17] *Supra* fn. 15.

[18] *Id.*

[19] *See* 29 C.F.R. 1910 subpart Z.

[20] *Id.* No exposure limit was listed for hydrocarbons.

- Other Than Serious Violation - A violation that has a direct relationship to job safety and health, but probably would not cause death or serious physical harm may be subject to a penalty of up to $7,000 for each violation.
- Serious Violation - A violation where there is a substantial probability that death or serious physical harm could result and that the employer knew, or should have known, of the hazard must be penalized up to $7,000 for each violation.
- Willful Violation - A violation that the employer knowingly commits or commits with plain indifference to the law, meaning the employer either knows that what he or she is doing constitutes a violation, or is aware that a hazardous condition existed and made no reasonable effort to eliminate it, may be subject to penalties of up to $70,000 for each willful violation, with a minimum penalty of $5,000 for each violation. If an employer is convicted of a willful violation of a standard that has resulted in the death of an employee, the offense is punishable by a court-imposed fine or by imprisonment for up to six months, or both. A fine of up to $250,000 for an individual, or $500,000 for a corporation, may be imposed for a criminal conviction.
- Repeated Violation - A violation of any standard, regulation, rule, or order where, upon reinspection, a substantially similar violation occurs can bring a fine of up to $70,000 for each such violation.
- Failure to Abate Prior Violation - Failure to abate a prior violation may bring a civil penalty of up to $7,000 for each day the violation continues beyond the prescribed abatement date.
- De Minimis Violation - De minimis violations are violations of standards which have no direct or immediate relationship to safety or health and may be documented in the same way as any other violation, but are not included on a citation.[21]

Florida Department of Health Regulation of Indoor Air Quality

Under s. 381.006, F.S., the DOH is required to conduct an environmental health program (Program) as part of fulfilling the state's public health mission. The purpose of the Program is to detect and prevent disease caused by natural and manmade factors in the environment. One of the DOH's functions under the Program is an environmental health surveillance function, which requires the DOH to collect, compile, and correlate information on public health and exposure to hazardous substances through sampling and testing of water, air, or foods. As a part of this function the DOH is to include in its surveillance an indoor air quality testing and monitoring program to assess health risks from exposure to chemical, physical, and biological agents in the indoor environment.[22] Currently, if a health risk is discovered after air testing, there is no authority for the DOH to impose an administrative penalty under s. 381.006 or s. 381.0061, F.S., on the entity or person creating the health risk.

In addition to its environmental health program, the DOH has the duty under s. 381.0011, F.S., to provide for a thorough investigation and study of the incidence, causes, modes of propagation and transmission, and means of prevention, control, and cure of diseases, illnesses, and hazards to human health, including harmful indoor air pollution.

[21] U.S. Department of Labor Occupational Safety & Health Administration, *OSH Act, OSHA Standards, Inspections, Citations and Penalties*, available at http://www.osha.gov/doc/outreachtraining/htmlfiles/introsha.html (Last visited on January 20, 2011).
[22] Section 381.006(2), F.S.

Regulation of Indoor Air Quality of Ice Skating Arenas in Other States

Currently, three states (Massachusetts, Minnesota, and Rhode Island) have laws to regulate the indoor air quality in ice skating arenas.[23] Massachusetts and Rhode Island require ice skating arena owners to obtain certification before operating an arena that uses ice resurfacing equipment. Minnesota gives broad discretion to the state's commissioner of health to adopt rules relating to indoor air quality in the operation and maintenance of enclosed sports arenas. Massachusetts' law focuses strictly on carbon monoxide and nitrogen dioxide levels in indoor ice skating arenas and provides for the following:[24]

- Air levels exceeding 30 ppm for carbon monoxide and 0.5 ppm for nitrogen dioxide require the arena operator to take certain remedial measures to reduce those air concentrations.
- Air levels exceeding 60 ppm in a single air sample or exceeding 30 ppm in six consecutive air samples for carbon monoxide and air levels exceeding 1 ppm in a single air sample or 0.5 ppm for six consecutive samples for nitrogen dioxide require the arena operator to notify state and local officials.
- Air levels exceeding 125 ppm for carbon monoxide and 2 ppm for nitrogen dioxide require the arena operator to immediately evacuate the indoor skating arena.[25]

Some states like Pennsylvania and Connecticut have, through their respective state health departments, published guidelines for maintaining proper indoor air quality in ice skating arenas.[26]

III. Effect of Proposed Changes:

Section 1 amends s. 381.006, F.S., to include in the DOH's program a function related to air quality inside enclosed ice skating rinks. This function serves to protect the health and safety of visitors and employees of the enclosed ice skating rink from dangers associated with oxides of nitrogen (NO_X), hydrocarbons (HC), carbon monoxide (CO), carbon dioxide (CO_2), and other harmful gasses, vapors, or particles as identified by the DOH.

The DOH is authorized, but not required, to adopt rules that include:

- Definitions;
- Air quality standards and requirements for monitoring, testing, and recordkeeping;
- Maintenance and operation requirements for equipment that affects air quality;[27]
- Requirements for ventilation of the ice skating facility;
- The required response activities if an operator violates air quality standards;

[23] 105 CMR 675.000 (Massachusetts), s. 144.1222, Minn. Stat. (Minnesota), and s. 23-23.6, R.I. Code (Rhode Island).
[24] 105 CMR 675.004.
[25] 105 CMR 675.008.
[26] *See* Pennsylvania Department of Health, *Guidelines on Ice Skating Rink Resurfacing Machine and Indoor Air Quality Issues*, available at http://www.portal.state.pa.us/portal/server.pt/community/environmental_health/14143/guidelines_on_ice_skating_rink_resurfacing_machine_and_indoor_air_quality_issues/557074 (Last visited on January 21, 2011) and Connecticut Department of Public Health, *Guidance on Maintaining Indoor Air Quality in Indoor Ice Rinks for Managers, Owners and Coaches*, available at http://www.ct.gov/dph/lib/dph/environmental_health/eoha/pdf/ice_rink_guidance_.pdf (Last visited on January 21, 2011).
[27] Equipment that may affect air quality may include ventilation systems and fuel-powered ice resurfacing equipment, ice edgers, water heaters, and space heaters.

- The assessment of fees, which may not exceed administrative costs; and
- Requirements for enforcement, citations, and administrative penalties.

To carry out its function under the Program and to determine compliance with applicable statutes or rules, the DOH is authorized to enter and inspect an enclosed ice skating rink at reasonable hours.

Section 2 amends s. 381.0061, F.S., to authorize the DOH to impose an administrative fine for any violation of the rules adopted by DOH to carry out its function under the Program related to air quality inside enclosed ice skating rinks. The administrative fine is not to exceed $500 per violation and each day that a violation continues may constitute a separate violation.

Section 3 provides an effective date of July 1, 2011.

IV. Constitutional Issues:

A. Municipality/County Mandates Restrictions:

The provisions of this bill have no impact on municipalities and the counties under the requirements of article VII, section 18, of the Florida Constitution.

B. Public Records/Open Meetings Issues:

The provisions of the bill have no impact on public records or open meetings issues under the requirements of article I, section 24(a) and (b), of the Florida Constitution.

C. Trust Funds Restrictions:

The provisions of this bill have no impact on the trust fund restrictions under the requirements of article III, subsection 19(f), of the Florida Constitution.

D. Other Constitutional Issues:

The bill, should it become law, may be challenged as unconstitutional under the State Constitution's separation of powers clause, because it may be determined that the Legislature gives the DOH excessive discretion, and insufficient parameters, in the rulemaking authority provided for in the bill.[28] The separation of powers clause states,

> The powers of the state government shall be divided into legislative, executive and judicial branches. No person belonging to one branch shall exercise any powers appertaining to either of the other branches unless expressly provided herein.

The Florida Supreme Court has held that the separation of powers clause encompasses two fundamental prohibitions. First, no branch of government may encroach on another

[28] FLA. CONST. art. 2, s. 3.

branch's power. Second, no branch may delegate its constitutionally assigned powers to another branch, which is also known as the nondelegation doctrine.[29] Under the nondelegation doctrine, the Legislature may not delegate the power to enact a law or the right to exercise unrestricted discretion in applying the law.[30] Further, the Legislature is precluded from delegating its powers absent ascertainable minimal standards and guidelines.[31]

More specific parameters in the bill for the DOH to follow in its rulemaking procedures may help prevent such a challenge.

V. Fiscal Impact Statement:

A. Tax/Fee Issues:

None.

B. Private Sector Impact:

There are at least 18 public ice skating facilities and 3 sports arenas in Florida that may be impacted by this bill, should it become law.[32] The owners of these facilities may incur costs associated with administrative fees for inspections; upkeep, maintenance, and potentially the purchase of new equipment to meet the DOH's standards; staffing to meet air testing and recordkeeping requirements; and administrative fines for any violations of the law.

C. Government Sector Impact:

Although the bill does not require an annual inspection, the DOH estimates that the annual average cost per ice skating facility for routine inspections should not exceed $250, and such cost per facility would cover the cost of an Environmental Specialist's salary to perform the inspections, the purchase and maintenance of equipment to perform the inspections, overhead, recordkeeping, and training. The DOH also estimated that they would need 1/12th of an FTE in total personnel time for rule development and promulgation, which would equate to $4,910 and that such cost could be absorbed by the DOH.[33]

VI. Technical Deficiencies:

None.

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[29] *Fla. Dep't of State, Div. of Elections v. Martin*, 916 So. 2d 763, 769 (Fla. 2005).
[30] *Sloban v. Fla. Board of Pharmacy*, 982 So. 2d 26, 30 (Fla. 1st DCA 2008) (citing *Sims v. State*, 754 So. 2d 657, 668 (Fla. 2000))
[31] *Sloban*, 982 So. 2d at 30 (citing *Dep't of Bus. Reg., Div. of Alcoholic Beverages & Tobacco v. Jones*, 474 So. 2d 359, 361 (Fla. 1st DCA 1985)).
[32] A list of the 18 ice skating facilities and 3 sports arenas is on file with the Senate Health Regulation Committee. It is important to note that seasonal ice skating facilities may also be impacted by this legislation.
[33] DOH Bill Analysis, Economic Statement and Fiscal Note for SB 202, dated December 23, 2010. A copy of this analysis is on file with the Senate Health Regulation Committee.

VII. Related Issues:

Because the bill uses the term "may" on line 37, the DOS's rulemaking authority in the bill is discretionary. In addition, the bill does not provide specific parameters, such as the acceptable levels of air contaminants or the types of remedial measures that are expected of arena owners if poor indoor air quality is discovered by the DOH. Instead, the bill provides broad rulemaking authority to the DOH. This grant of broad discretion to the DOH may result in the bill, if enacted, being challenged as unconstitutional under the Florida Constitution's separation of powers clause.[34]

Lines 42 through 43 of the bill give the DOH the authority to adopt rules to assess fees, which may not exceed the actual costs of administration. It is not clear whether the fees collected for the cost of "administration" would include the cost of inspections. If not, the DOH may need additional and specific rulemaking authority to collect inspection fees to cover the cost of inspections.

VIII. Additional Information:

A. Committee Substitute – Statement of Substantial Changes:
(Summarizing differences between the Committee Substitute and the prior version of the bill.)

None.

B. Amendments:

None.

[34] *See supra* fn. 27.