## Laws, Regulations, and Guidelines Pertaining to Food Allergies and Indoor Air Quality in Schools

This memorandum was prepared by the Law Offices of **Constant of Sectors** for **Constant of Sectors**. The purpose is to provide a review of the laws, regulations, and best practices relating to food allergies and indoor air quality in California schools.

## **Food Allergies**

Food allergies affect an estimated 4%–6% of children in the United States. According to the Centers for Disease Control, "Studies show that 16%–18% of children with food allergies have had a reaction from accidentally eating food allergens while at school. In addition, 25% of the severe and potentially lifethreatening reactions (anaphylaxis) reported at schools happened in children with no previous diagnosis of food allergy."<sup>1</sup> Symptoms of anaphylaxis may include shortness of breath, wheezing, difficulty breathing, difficulty talking or swallowing, hives, itching, swelling, shock, or asthma.<sup>2</sup>

According to the U.S. Food and Drug Administration (FDA), the eight most common food allergies are milk (dairy), eggs, fish (e.g., bass, flounder, cod), crustacean shellfish (e.g. crab, lobster, shrimp), tree nuts (e.g., almonds, walnuts, pecans), peanuts, wheat, and soybeans.<sup>3</sup> These foods account for 90 percent of all food allergic reactions. Under the Food Allergen Labeling and

<sup>&</sup>lt;sup>1</sup> Centers for Disease Control and Prevention, *Voluntary Guidelines for Managing Food Allergies in Schools and Early Care and Education Programs* (hereafter "CDC *Voluntary Guidelines*"), p. 9. <sup>2</sup> Cal. Ed. Code § 49414(b)(1)(A).

<sup>&</sup>lt;sup>3</sup> FDA, "Food Allergies: What You Need to Know,"

http://www.fda.gov/Food/ResourcesForYou/Consumers/ucm079311.htm

Consumer Protection Act (FALCPA)<sup>4</sup>, food labels containing any of the top eight food allergens must identify the allergen in plain language, even if it is present only in trace amounts.

Recently, the potential lethality of food allergies was illustrated by the tragic case of 13-year-old Natalie Giorgi, who suffered from a peanut allergy.<sup>5</sup> While at Camp Sacramento, a city-owned facility, Natalie bit into a Rice Crispies treat that she did not realize contained peanuts. Although she immediately spit it out, twenty minutes later she went into anaphylactic shock, vomiting and having trouble breathing. Natalie's father, a physician, administered three EpiPen<sup>6</sup> doses, but was unable to save her life. In April 2014, Natalie's parents sued the City of Sacramento for wrongful death, alleging that camp operators had been warned "numerous times" about Natalie's food allergy.<sup>7</sup>

#### Food Allergies and the Americans with Disabilities Act (ADA)<sup>8</sup>

"Title II of the ADA prohibits discrimination on the basis of disability by public entities, including public elementary, secondary, and postsecondary educational institutions, whether or not they receive federal financial assistance."<sup>9</sup> The definition of a disability has been broadened significantly in recent years. The United States Code of Federal Regulations (CFR) defines a disability as follows:

An impairment is a disability within the meaning of this section if it substantially limits the ability of an individual to perform a major life activity as compared to most people in the general population. An impairment need not prevent, or significantly or severely restrict, the individual from performing a major life activity in order to be considered substantially

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http://www.fda.gov/Food/GuidanceRegulation/GuidanceDocumentsRegulatoryInformation/Allergens/ucm106187.htm

<sup>&</sup>lt;sup>5</sup> Stanton, Sam, et al., "Years of Caution About Peanut Allergy Fails to Save Teen Who Died at Camp Sacramento," SacBee.com, July 30, 2013. http://www.sacbee.com/news/local/health-and-medicine/article2578293.html

 <sup>&</sup>lt;sup>6</sup> For in-depth discussion of EpiPens, which schools will be legally required to provide starting Jan. 1, 2015, see the discussion below of Cal. Ed. Code § 49414.
 <sup>7</sup> Furillo, Andy, "Family Sues City After Girl's Peanut-Allergy Death at Camp Sacramento,"

<sup>&</sup>lt;sup>7</sup> Furillo, Andy, "Family Sues City After Girl's Peanut-Allergy Death at Camp Sacramento, SacBee.com, April 18, 2014, http://www.sacbee.com/news/local/health-andmedicine/article2596198.html

<sup>&</sup>lt;sup>8</sup> In addition, Section 504 of the Rehabilitation Act of 1973 prohibits discrimination on the basis of a disability for all entities receiving federal financial assistance. However, the CDC notes in its CDC *Voluntary Guidelines* (p. 86), "As a general rule, because Title II does not provide less protection than Section 504, violations of Section 504 also constitute violations of Title II. To the extent that Title II provides greater protections, schools must also comply with Title II and provide those additional protections." For this reason, and for simplicity, this memorandum will only discuss the ADA.

<sup>&</sup>lt;sup>9</sup> CDC Voluntary Guidelines, p. 86.

limiting. Nonetheless, not every impairment will constitute a disability within the meaning of this section.  $^{10}\,$ 

In 2008, Congress passed the ADA Amendments Act of 2008 ("ADAAA"),<sup>11</sup> which states in relevant part that "[t]he definition of disability in this Act shall be construed in favor of broad coverage of individuals under this Act, to the maximum extent permitted by the terms of this Act."<sup>12</sup>

Although we found no decisions in which a court has held that food allergy constitutes a "disability" under the Americans with Disabilities Act (ADA), nearly all legal authorities who have considered the question agree that if an allergy is severe enough, it fits the ADA's broad definition of a disability. For example, the Asthma and Allergy Foundation of America, in response to the FAQ "Does the ADA Apply to People with Asthma and Allergies?", gives the following answer:

Yes. In both the ADA and Section 504, a person with a disability is described as someone who has a physical or mental impairment that substantially limits one or more major life activities, or is regarded as having such impairments. Breathing, eating, working and going to school are "major life activities." Asthma and allergies are still considered disabilities under the ADA, even if symptoms are controlled by medication."<sup>13</sup>

The Centers for Disease Control and Prevention (CDC) concurs, noting, "Children with food allergies may be substantially limited in major life activities such as eating, breathing, or the operation of major bodily functions such as the respiratory or gastrointestinal system. The U.S. Congress has made clear that the definition of disability under Section 504 and the ADA is to be construed broadly."<sup>14</sup> As a result, "[u]nder Section 504 and the ADA, children with food allergy disabilities in schools and ECE programs *must* be provided with the services and modifications they need in order to attend. Examples of these services and modifications might include implementing allergen-safe food plans, administering epinephrine according to a doctor's orders (even if the school or ECE program has a no-medication policy), allowing students to carry their own

https://www.law.uh.edu/healthlaw/perspectives/Disabilities/981015Peanut.html

<sup>&</sup>lt;sup>10</sup> 29 CFR 1630.2(j)(1)(ii).

<sup>&</sup>lt;sup>11</sup> 110 P.L. 325, 122 Stat. 3553.

<sup>&</sup>lt;sup>12</sup> 110 P.L. 325 § 4(a)(4)(A).

<sup>&</sup>lt;sup>13</sup> Asthma and Allergy Foundation of America, "Americans with Disabilities Act: How It Affects You." http://www.aafa.org/display.cfm?id=9&sub=19&cont=255

<sup>&</sup>lt;sup>14</sup> *Id.* at p. 87. See also, Linnell, Choate & Webber, LLP, "Is a Food Allergy a Disability?" http://lcwlaw.com/2013/01/is-a-food-allergy-a-disability/, and Laura F. Rothstein, "Peanut Butter Bans and the ADA,"

medication, and providing an allergen-safe environment in which the student can eat meals"<sup>15</sup> (emphasis added).

# The CDC's Voluntary Guidelines for Managing Food Allergies in Schools

On Jan. 4, 2011, President Obama signed into law the Food Allergy & Anaphylaxis Management Act (FAAMA). Among other things, the bill required the U.S. Secretary of Health and Human Services to develop and make available to schools a voluntary policy to manage the risk of food allergy and anaphylaxis in schools. This resulted in the CDC's publication of *Voluntary Guidelines for Managing Food Allergies in Schools and Early Care and Education Programs*. These guidelines have now been incorporated into California Education Code § 49414, the statute that mandates requirements for EpiPen injectors at schools. See Cal. Ed. Code § 49414(e)(2)(F) ("Training established pursuant to this subdivision shall be consistent with the most recent Voluntary Guidelines for Managing Food Allergies In Schools and Early Care and Education Programs published by the federal Centers for Disease Control and Prevention and the most recent guidelines for medication administration issued by the department.") CDC offers the following guidelines for preventing and treating food allergy reactions:

- Parental obligation to provide the school or early childhood education program, prior to the start of every school year, with documentation from their child's physician or nurse supporting a diagnosis of food allergy, and any risk of anaphylaxis, if applicable; identifying any food to which the child is allergic; describing, if appropriate, any history of anaphylaxis; listing any medication prescribed for the child for the treatment of anaphylaxis; detailing emergency treatment procedures in the event of a reaction; listing the signs and symptoms of a reaction; assessing the child's readiness for self-administration of prescription medication; and a list of substitute meals that may be offered to the child by school or early childhood education program food service personnel.
- The creation and maintenance of an individual plan for food allergy management, in consultation with the parent, tailored to the needs of each child with a documented risk for anaphylaxis, including any procedures for the self-administration of medication by such children in instances where

<sup>&</sup>lt;sup>15</sup> CDC Voluntary Guidelines, p. 87.

the children are capable of self-administering medication and such administration is not prohibited by state law.

- Communication strategies between schools or early childhood education programs and providers of emergency medical services, including appropriate instructions for emergency medical response.
- Strategies to reduce the risk of exposure to anaphylactic causative agents in classrooms and common school or early childhood education program areas such as cafeterias.
- Parental obligation to provide the school or early childhood education program, prior to the start of every school year, with documentation from their child's physician or nurse supporting a diagnosis of food allergy, and any risk of anaphylaxis, if applicable; identifying any food to which the child is allergic; describing, if appropriate, any history of anaphylaxis; listing any medication prescribed for the child for the treatment of anaphylaxis; detailing emergency treatment procedures in the event of a reaction; listing the signs and symptoms of a reaction; assessing the child's readiness for self-administration of prescription medication; and a list of substitute meals that may be offered to the child by school or early childhood education program food service personnel.
- The creation and maintenance of an individual plan for food allergy management, in consultation with the parent, tailored to the needs of each child with a documented risk for anaphylaxis, including any procedures for the self-administration of medication by such children in instances where the children are capable of self-administering medication; and such administration is not prohibited by state law.
- Communication strategies between individual schools or early childhood education programs and providers of emergency medical services, including appropriate instructions for emergency medical response.
- Strategies to reduce the risk of exposure to anaphylactic causative agents in classrooms and common school or early childhood education program areas such as cafeterias.<sup>16</sup>

<sup>&</sup>lt;sup>16</sup> *Id.* at p. 10–11.

We highly recommend that school administrators read CDC's *Voluntary Guidelines* carefully and follow the guidelines to the extent possible.

In addition, FARE (Food Allergy Research & Education) provides a *Food Allergy* & *Anaphylaxis Emergency Care Plan*,<sup>17</sup> which "outlines treatment recommended treatment in case of an allergic reaction, includes emergency contact numbers and is signed by the student's physician." FARE recommends that this form be on file for every student with food allergies.

#### California Education Code § 49414 and EpiPens

The EpiPen is an "auto-injector" that allows for the quick injection of epinephrine, also known as adrenaline. Epinephrine is a hormone secreted by the medulla of the adrenal glands.<sup>18</sup> "The EpiPen Auto-Injector is used for the emergency treatment of the signs and symptoms of anaphylaxis... Anaphylaxis can be caused by triggers such as food, biting or stinging insects, medicines, latex or even radiocontrast media and exercise."<sup>19</sup> In November 2013, President Obama signed into law the School Access to Emergency Epinephrine Act, which "authorizes the Department of Health and Human Services to give funding preferences to states for asthma-treatment grants if they: maintain an emergency supply of epinephrine, and if they develop a plan for ensuring trained personnel are available to administer epinephrine during all hours of the school day."

#### **EpiPens Mandatory in California Schools**

Cal. Ed. Code § 49414 establishes the requirements for making EpiPens available in schools. Initially, following Cal. Ed. Code § 49414 was voluntary;<sup>20</sup> that is, *if* a school elected to provide EpiPens, then the school would have to follow the statute's requirements for training school personnel to use EpiPens, collecting information, and so on. However, with the recent passage of SB-1266, school districts, COEs, and charter schools, starting January 1, 2015, will be *required* to provide emergency epinephrine auto-injectors to school nurses or trained personnel.<sup>21</sup>

<sup>&</sup>lt;sup>17</sup> http://www.foodallergy.org/document.doc?id=234

<sup>&</sup>lt;sup>18</sup> "Adrenaline (Epinephrine)," http://www.rxlist.com/adrenalin-drug.htm

<sup>&</sup>lt;sup>19</sup> "About EpiPen® (epinephrine) Auto-Injectors," https://www.epipen.com/en/hcp/about-epipen

<sup>&</sup>lt;sup>20</sup> Cal. Ed. Code § 49414(a) and (c).

<sup>&</sup>lt;sup>21</sup> The text of the amended Cal. Ed. Code § 49414 is reprinted in the Appendix of this memo.

Schools should be aware, however, that even though Cal. Ed. Code § 49414 states that currently (until January 1, 2015) having EpiPens in schools is optional, many legal authorities maintain that making epinephrine available in schools is *already* mandatory under title II of the ADA, since food allergies fit the definition of a disability. As noted above, in its *Voluntary Guidelines* the CDC states that under the ADA, "children with food allergy disabilities in schools and ECE programs *must* be provided with the services and modifications they need in order to attend. Examples...might include...*administering epinephrine according to a doctor's orders*....<sup>\*22</sup> (Emphasis added.) To err on the side of caution, we recommend that schools start complying with Cal. Ed. Code § 49414 as soon as possible, rather than waiting until SB-1266 takes effect on January 1, 2015.

The complete text of amended Cal. Ed. Code § 49414 is reprinted in the Appendix of this memorandum. School administrators should read it carefully and be sure to follow its requirements by January 1, 2015. As for the current version of Cal. Ed. Code Cal. Ed. Code § 49414, a prior memorandum from this law office summarized the requirements of that statute.<sup>23</sup> However, below we discuss two additional issues that schools should consider in complying with both the current and amended versions of the statute.

<u>Availability of EpiPens Off School Grounds; Self-Carry</u>. Both the current and amended versions of Cal. Ed. Code § 49414 do not prohibit the use of EpiPens off school grounds. However, the amended Cal. Bus. and Prof. Code § 4119.2— the statute that empowers pharmacies to prescribe EpiPens for the uses specified in Cal. Ed. Code § 49414—states that such prescriptions shall be made only if, among other things, "[t]he epinephrine auto-injectors are furnished *exclusively for use at a school district site* or county office of education"<sup>24</sup> (emphasis added).

This wording is unfortunate, because it seems to preclude the use of EpiPens provided pursuant to amended Cal. Bus. and Prof. Code § 4119.2 during school activities that occur off school grounds, such as field trips and science camp. This is almost certainly an oversight by the legislature because, if anything, a food allergy reaction is probably *more* likely during off-campus activities. Food preparation at such events may be handled by non-school employees who may not be as well-versed in food-allergy precautions. As FARE (Food Allergy

<sup>&</sup>lt;sup>22</sup> Centers for Disease Control and Prevention, *Voluntary Guidelines for Managing Food Allergies* in Schools and Early Care and Education Programs, p. 87.

<sup>&</sup>lt;sup>23</sup> The prior memorandum on SB-1266 was emailed to 2010 and 2010

<sup>2014.</sup> <sup>24</sup> Cal. Ed. Code § 4119.2(a)(1).

Research & Education) notes, "In any camp setting: day camps, residential camps, sports camps, or travel camps the risk of accidental exposure to a food allergen is present."<sup>25</sup>

The best solution is for food-allergic students who are capable of selfadministering to self-carry ephedrine during off-site school activities, as recommended in the CDC Voluntary Guidelines. California law permits students to carry epinephrine, even if the school has a "zero tolerance" policy for students bringing medications to school. Under Cal. Ed. Code § 49423, students may "carry and self-administer prescription auto-injectable epinephrine if the school district receives the appropriate written statements identified in subdivision (b)."26 Under subdivision (b), schools must obtain the following statements:

- a written statement from the physician and surgeon or physician assistant detailing the name of the medication, method, amount, and time schedules by which the medication is to be taken, and confirming that the pupil is able to self-administer auto-injectable epinephrine
- a written statement from the parent, foster parent, or guardian of the pupil releasing the school nurse or other designated school personnel to consult with the health care provider of the pupil regarding any questions that may arise with regard to the medication
- a written statement from the parent, foster parent, or guardian of the pupil releasing the school district and school personnel from civil liability if the self-administering pupil suffers an adverse reaction as a result of selfadministering medication pursuant to this paragraph.<sup>27</sup>

Finally, FARE (Food Allergy Research & Education) offers the following "Field Trip Tips" for educators:

- Update the food-allergic student's Food Allergy & Anaphylaxis Emergency Care Plan. Ask the parents to review the plan you have on file and note any updated information. Also ask parents to check the expiration dates on any medications.
- Review the Food Allergy & Anaphylaxis Emergency Care Plan with regard to the upcoming event. Find out where the nearest hospital is and discuss how a

<sup>&</sup>lt;sup>25</sup> http://www.foodallergy.org/managing-food-allergies/at-camp

 <sup>&</sup>lt;sup>26</sup> Cal. Ed. Code § 49423(a).
 <sup>27</sup> Cal. Ed. Code § 49423(b).

student would be transported there in case of an emergency.

- Brief the staff and chaperones that will be supervising students during the event or trip. Identify the food-allergic student, discuss what foods must be avoided, explain the symptoms of an allergic reaction, and review the Food Allergy & Anaphylaxis Emergency Care Plan. Designate a staff member to check the safety of any food served to that student.
- The day of the event or trip, carry the food-allergic student's medications wherever the student goes. In the case of anaphylaxis, speedy access to medications can be the difference between life and death. Keep all staff and chaperones informed about who will be carrying the student's medications.
- Carry a cell phone to place emergency calls, if necessary. Make certain all staff and chaperones know where the phone will be kept.
- Take all complaints seriously. If a food-allergic student notifies the staff that he or she is not feeling well, compare the symptoms with those listed on that student's Food Allergy & Anaphylaxis Emergency Care Plan. If the student is having an allergic reaction, activate emergency procedures immediately. Remember, if epinephrine is administered, but not needed, the student may experience increased heart rate and nervousness. If epinephrine is needed, but not administered, the student may experience or fatal allergic reaction.<sup>28</sup>

<u>Keeping Adequate Documentation.</u> The current Cal. Ed. Code § 49414(h) requires schools to keep certain documentation, specifically:

(3) Documentation as to which individual, the school nurse or other trained person pursuant to subdivision (f), in the school district or county office of education will obtain the prescription from the physician and the medication from a pharmacist.

(4) Documentation as to where the medication is stored and how the medication will be made readily available in case of an emergency.

We recommend that this documentation, along with the EpiPens, be kept in the nurse's station. Moreover, it would be helpful to include fliers or posters throughout the school that identify where the medication is stored, how to get it in

<sup>&</sup>lt;sup>28</sup> http://www.foodallergy.org/managing-food-allergies/at-school/field-trips

case of an anaphylactic emergency, and the names and phone numbers of all school employees (including the school nurse) who are qualified to administer EpiPen injections. It is especially important that this information be displayed in classrooms, lunch rooms, and other areas where children are known to eat. This information could also be furnished to all school personnel on a wallet-sized card.

In addition, Mylan, the company that makes the EpiPen, recommends that schools keep records on each student with a food allergy, and that these records should include (1) a list of known allergens, (2) emergency contact info, (3) medications currently being taken, and (4) contact info for the student's health care professional.<sup>29</sup> This information will help any health professional (such as a paramedic) who provides follow-up care after administration of the EpiPen.

Finally, Bus. & Prof. Code § 4119.2(b) provides, "Records regarding the acquisition and disposition of epinephrine auto-injectors furnished pursuant to subdivision (a) shall be maintained by the school district, county office of education, or charter school for a period of three years from the date the records were created. The school district, county office of education, or charter school shall be responsible for monitoring the supply of epinephrine auto-injectors and ensuring the destruction of expired epinephrine auto-injectors."

As in the case of the Cal. Ed. Code § 49414(h) documentation, we recommend keeping all of this documentation at the nurse's station. Keeping all EpiPens and EpiPen-related documentation in one logical place makes it easy to find during an emergency.

## **Indoor Air Quality**

In addition to food allergies, schools must also be aware of issues affecting indoor air quality. As this memorandum will show, air-quality issues arise not just in school buildings, but also in school buses. While there are surprisingly few legal standards for maintaining indoor air quality, government, private organizations, and researchers have put out a good deal of helpful guidelines. In addition to following the guidelines discussed in this memorandum, schools should obtain a copy of *School Indoor Air Quality: State Policy Strategies for* 

<sup>&</sup>lt;sup>29</sup> EpiPen.com, "Anaphylaxis Action Plan," https://www.epipen.com/en/what-is-anaphylaxis/anaphylaxis-action-plan

*Maintaining Healthy Learning Environments* (August 2009) by the Environmental Law Institute.<sup>30</sup>

#### **OSHA** Guidelines

According to its Indoor Air Quality FAQ page,<sup>31</sup> the Occupational Safety and Health Administration (OSHA) "[c]urrently...has no indoor air quality (IAQ) standards but it does provide guidelines about the most common IAQ workplace complaints." OSHA identifies the following most common causes of poor IAQ in the workplace:

- Not enough ventilation, lack of fresh outdoor air or contaminated air being brought into the building
- Poor upkeep of ventilation, heating and air-conditioning systems
- Dampness and moisture damage due to leaks, flooding or high humidity
- Occupant activities, such as construction or remodeling
- Indoor and outdoor contaminated air

OSHA notes that "[t]here is no single test to find an IAQ problem." OSHA recommends the following measures to determine IAQ problems:

[Employers] should check measurements of temperature, humidity and air flow. In addition, inspection and testing of the ventilation, heating and air conditioning systems (to make sure it is working according to specifications for building use and occupancy) should be performed. A building walk-through to check for odors and look for water damage, leaks, dirt or pest droppings may be helpful. Leaks need to be eliminated. Standing water in humidifiers, air conditioning units, on roofs and in boiler pans can become contaminated with bacteria or fungi and need to be eliminated, also. In some circumstances, specific testing for radon or for asbestos may be required as part of building occupancy. For instance, in schools asbestos needs to be checked every three years and re-inspected every 6 months (under the Asbestos Hazard Emergency Response Act-AHERA).

<sup>&</sup>lt;sup>30</sup> file:///C:/Users/David/Downloads/ELI\_School%20Indoor%20Air%20Quality%20-%20State%20Policy%20Strategies%20for%20Maintaining%20Healthy%20Learning%20Environ ments.pdf

<sup>&</sup>lt;sup>31</sup> https://www.osha.gov/SLTC/indoorairquality/faqs.html

OSHA cautions that even though it currently does not have specific indoor air quality standards, "[e]mployers are required to follow the General Duty Clause of the OSHAct,<sup>32</sup> which requires them to provide workers with a safe workplace that does not have any known hazards that cause or are likely to cause death or serious injury....Employers should be reasonably aware of the possible sources of poor air quality, and they should have the resources necessary to recognize and control workplace hazards. It is also their responsibility to inform employees of the immediate dangers that are present." In addition, OSHA notes, "Although OSHA does not have IAQ standards, it does have standards about ventilation and standards on some of the air contaminants that can be involved in IAQ problems."<sup>33</sup>

OSHA's website provides a wealth of IAQ guidelines, including links to other government resources (such as the CDC and EPA), specifically for schools.<sup>34</sup> One useful tool is the CDC's *Indoor Air Quality Self-Inspection Checklist* for schools, which "covers general recommendations for addressing indoor air quality issues in school districts."<sup>35</sup> OSHA also recommends using the EPA's free, downloadable HealthySEAT program<sup>36</sup>, which the EPA describes as "a unique software tool to help school districts evaluate and manage their school facilities for key environmental, safety and health issues."<sup>37</sup>

#### Asbestos

"Asbestos is a group of minerals with thin microscopic fibers. Because these fibers are resistant to heat, fire, and chemicals and do not conduct electricity, asbestos has been mined and used widely in the construction, automotive, and other industries....If products containing asbestos are disturbed, the tiny fibers are released into the air. When they are breathed in, they can become trapped in the lungs and stay there for many years. Over time these fibers can accumulate and lead to serious health problems, including....[a]sbestosis, an inflammatory condition of lungs that can cause shortness of breath, coughing, and eventually scarring of the lungs that makes it hard to breath"; "[m]esothelioma, a rare cancer that affects the lining of the lungs, chest cavity, or abdomen"; and lung cancer.<sup>38</sup>

<sup>37</sup> Id.

<sup>&</sup>lt;sup>32</sup> https://www.osha.gov/pls/oshaweb/owadisp.show\_document?p\_id=3359&p\_table=oshact

<sup>33</sup> OSHA, "Indoor Air Quality" (for schools), https://www.osha.gov/SLTC/indoorairquality

<sup>&</sup>lt;sup>34</sup> https://www.osha.gov/SLTC/indoorairquality/schools.html

<sup>&</sup>lt;sup>35</sup> http://www.cdc.gov/niosh/docs/2004-101/chklists/6indoo~1.htm

<sup>&</sup>lt;sup>36</sup> http://www.epa.gov/schools/guidelinestools/healthySEAT/basic.html

<sup>&</sup>lt;sup>38</sup> WebMD, "Asbestos Exposure," http://www.webmd.com/lung/asbestos-exposure

The Asbestos Hazard Emergency Response Act (AHERA)<sup>39</sup> regulations require public school districts and non-profit schools to do the following:

- · Perform an original inspection to determine whether asbestos-containing materials are present and then re-inspect asbestos-containing material in each school every three years
- Develop, maintain, and update an asbestos management plan and keep a copy at the school
- Provide yearly notification to parent, teacher, and employee organizations on the availability of the school's asbestos management plan and any asbestos-related actions taken or planned in the school
- Designate a contact person to ensure the responsibilities of the public school district or the non-profit school are properly implemented
- Perform periodic surveillance of known or suspected asbestos-containing • building material
- Ensure that trained and licensed professionals perform inspections and take response actions
- Provide custodial staff with asbestos-awareness training<sup>40</sup>

You can find more information about AHERA compliance for schools at the EPA website: http://www2.epa.gov/asbestos/school-buildings

#### The Environmental Exposures in Early Childhood Education Environments Study

In October 2012, the California Environmental Protection Agency (EPA) Air Resources Board published a Fact Sheet<sup>41</sup> summarizing the results of the Environmental Exposures in Early Childhood Education Environments Study.

<sup>&</sup>lt;sup>39</sup> http://www.gpo.gov/fdsys/pkg/USCODE-2011-title15/pdf/USCODE-2011-title15-chap53subchapII.pdf

 <sup>&</sup>lt;sup>40</sup> http://www2.epa.gov/asbestos/school-buildings#comply
 <sup>41</sup> California EPA Air Resources Board, "Air Pollution and Contaminants at Child-care and Preschool Facilities in California,"

http://www.arb.ca.gov/html/fact\_sheets/preschool\_exposure.pdf.

This study "examined air pollution and contaminant levels in dust in family-based child care and preschool facilities in California." The results "showed that most contaminant levels in child care and preschool facilities were similar to those measured in other studies of California schools and residences. For chemicals with health-based dose or exposure benchmarks, levels for most were usually below levels of concern. However, a few chemicals exceeded health guideline levels and mitigation strategies may be warranted to reduce exposures to those chemicals, *especially formaldehyde*" (emphasis added).

Among other things, the study concluded, "Formaldehyde levels in 87% of the facilities exceeded the California acute and chronic reference exposure guideline levels for non-cancer health effects such as respiratory and sensory irritation (e.g. eyes, nose, throat, and lungs). In 2007, ARB implemented an Air Toxics Control Measure that limits formaldehyde emissions from building materials, furnishings and other products made from pressed wood material such as plywood and particleboard. This should significantly reduce exposures in new homes in the future, but more actions are under consideration to further reduce formaldehyde exposures."<sup>42</sup>

The Fact Sheet recommends that childcare and preschool facilities adopt the following guidelines to reduce potential exposures to contaminants:

- Buy wood products and furniture that comply with California's formaldehyde regulations: Purchase pressed wood furnishings and building materials labeled as California 93120 Compliant for Formaldehyde-Phase 2, or products certified as California ULEF (ultralow-emitting formaldehyde) or NAF (no added formaldehyde) products.
- **Request and purchase low formaldehyde products**. Also, wash permanent press clothing before wearing.
- **Turn on the range hood when using a gas stove**. Increasing ventilation with outdoor air will also help reduce indoor formaldehyde levels.
- Clean frequently to minimize dust, especially with a High Efficiency Particle Arrestance (HEPA) vacuum cleaner. This can reduce exposure

<sup>&</sup>lt;sup>42</sup> For more details on limiting exposure to formaldehyde, see the Air Resources Board's Fact Sheet "Reducing Your Exposure to Formaldehyde" (August 2004), http://www.arb.ca.gov/research/indoor/formaldfs08-04.pdf

to compounds such as PBDEs, lead and other metals, and some phthalates that are largely found in dust.

- Use "green" cleaning products. Use household cleaning products that are low in levels of volatile organic compounds (VOCs) and are certified as "green" products to reduce exposures to potentially harmful VOCs.
- Clean out old pesticides, solvents, cleaning products. To help reduce indoor levels of pesticides and VOCs, remove older containers from cabinets and garages containing pesticides, solvents, and cleaning products that may leak.
- **Reduce use of pesticides**. Following Integrated Pest Management practices will avoid or reduce the need for pesticides.

#### Children's School Bus Exposure Study

In 2004, researchers at University of California Riverside and Los Angeles published the results of a study<sup>43</sup> whose aim was "to characterize the range of children's exposures to diesel vehicle-related pollutants and other vehicle pollutants during their commutes to school by diesel school buses." "The study found that typical diesel school buses had higher levels of diesel exhaust inside the bus compared to passenger cars on the road. This difference came from 'self pollution,' where some of the bus exhaust got back into the bus after leaving the tailpipe."<sup>44</sup> The authors of the study recommend the following steps to reduce exposure:

- Replace conventional buses with alternate fueled or particulate trap equipped buses to reduce exposures.
- Use cleaner buses on longer routes.
- Minimize idling time at schools.
- If the school bus is not full, encourage children to sit in the front of the bus.
- School districts should maintain their diesel school buses to eliminate visible exhaust.
- Keep windows of older buses open, when comfort allows.

<sup>&</sup>lt;sup>43</sup> Sabin, et al., Characterizing the Range of Children's Air Pollutant Exposure During School Bus Commutes," *Journal of Exposure Analysis and Environmental Epidemiology* (2004), 1–11. http://web.environment.ucla.edu/perch/resources/arthurschoolchildren.pdf

<sup>&</sup>lt;sup>44</sup> California EPA Air Resources Board, "Children's School Bus Exposure Study – Summary," http://www.arb.ca.gov/research/health/school/sb-summ.htm

- Avoid congested roads, where possible.
- Avoid directly following other diesel vehicles, where possible.
- Minimize bus caravanning, or put the newest buses in front.<sup>45</sup>

#### Asthma

"Asthma is a long-term, inflammatory disease that causes the airways of the lungs to tighten and constrict, leading to wheezing, breathlessness, chest tightness and coughing. The inflammation also causes the airways of the lungs to become especially sensitive to a variety of asthma triggers. The particular trigger or triggers and the severity of symptoms can differ for each person with asthma."<sup>46</sup> According to the Environmental Protection Agency (EPA), asthma "has reached epidemic proportions in the United States, affecting millions of people of all ages and races."<sup>47</sup> One in ten school-age children have asthma, and it accounts for nearly 13 million missed school days per year.

In August 2010, the EPA produced *Managing Asthma in the School Environment: Indoor Air Quality Tools for Schools*,<sup>48</sup> which identifies a wide range of potential triggers for asthma:

Environmental asthma triggers commonly found in school buildings include respiratory viruses; cockroaches and other pests; mold resulting from excess moisture in the building; dander from animals in the classroom; and dander brought in on clothing from animals at home. Secondhand smoke and dust mites are other known environmental asthma triggers found in schools. Children with asthma may be affected by other pollutants from sources found inside schools, such as unvented stoves or heaters and common products including chemicals, cleaning agents, perfumes, pesticides and sprays. In addition, outdoor environmental asthma triggers, like ozone and particle pollution, or bus exhaust, can affect children with asthma while at school.<sup>49</sup>

http://www.epa.gov/iaq/schools/pdfs/publications/managing\_asthma.pdf

<sup>47</sup> Id.

<sup>48</sup> *Id.* 

<sup>49</sup> *Id.* at p. 4.

<sup>&</sup>lt;sup>45</sup> *Id.*, and Fact Sheet (October 2003) on the study, http://www.arb.ca.gov/research/schoolbus/sbfact.pdf

<sup>&</sup>lt;sup>46</sup> Managing Asthma in the School Environment: Indoor Air Quality Tools for Schools, EPA 402-K-10-004, August 2010, p. 1,

The EPA offers the following guidelines to minimize the occurrence of asthma in schools:

1. Establish and Continuously Evaluate an Indoor Air Quality (IAQ) Management Program in Your School or District.

- Use the IAQ Tools for Schools Action Kit and "Framework for Effective School IAQ Management,"50 and implement the IAQ practices outlined in this booklet to improve the school environment, support children's health and reduce exposure to environmental asthma triggers.
- 2. Develop an Asthma Management Plan in Your School or District.
  - Adopt school policies to support Asthma Action Plans, student access to inhalers and other asthma medications, and emergency procedures for school staff to use when a student has an asthma attack.
  - Use the Centers for Disease Control and Prevention's (CDC) "Strategies for Addressing Asthma within a Coordinated School Health Program"51 to guide the development of your Asthma Management Plan. Follow national guidelines to administer high-quality asthma care in schools.
  - Evaluate and monitor program effectiveness by using CDC's evaluation guidance designed specifically for asthma programs.
  - Identify all students with asthma. Focus resources, in particular, on students whose asthma is not well controlled.
- 3. Reduce Environmental Asthma Triggers.
  - Recommended actions to reduce these triggers include:
    - Visit http://www.epa.gov/asthma for information on common asthma triggers and how to manage them; asthma education programs available in your community; and no-cost resources that schools can use to educate students and staff about asthma.

<sup>&</sup>lt;sup>50</sup> http://www.epa.gov/iaq/schools/pdfs/tfs\_framework\_success\_3\_pager.pdf
<sup>51</sup> http://www.cdc.gov/healthyyouth/asthma/pdf/strategies.pdf

- Control animal allergens.
- Control cockroach and pest allergens.
- Clean up mold and control moisture.
- Control sources of indoor air pollutants.
- Reduce exposure to dust mites.<sup>52</sup>

We recommend that school administrators read *Managing Asthma in the School Environment: Indoor Air Quality Tools for Schools* and follow its guidelines to the extent possible.

In addition, the American Lung Association has an "Open Airways for Schools" program to educate school children suffering from asthma.<sup>53</sup> "The…Open Airways For Schools program educates and empowers children through a fun and interactive approach to asthma self-management. It teaches children with asthma ages 8–11 how to detect the warning signs of asthma, avoid their triggers and make decisions about their health."<sup>54</sup> The CDC provides a case study of a health department in Maryland that implemented the program.<sup>55</sup>

Finally, under Cal. Ed. Code § 49423, students who have asthma and must take prescribed medication for it "may be assisted by the school nurse or other designated school personnel or may carry and self-administer inhaled asthma medication if the school district receives the appropriate written statements specified in subdivision (b)."<sup>56</sup> Under subdivision (b), schools must obtain the following statements:

• a written statement from the physician and surgeon or physician assistant detailing the name of the medication, method, amount, and time schedules by which the medication is to be taken, and confirming that the pupil is able to self-administer inhaled asthma medication

<sup>&</sup>lt;sup>52</sup> *Id.* at title page.

<sup>&</sup>lt;sup>53</sup> http://www.lung.org/lung-disease/asthma/in-schools/open-airways/open-airways-for-schools-1.html

<sup>&</sup>lt;sup>54</sup> Id.

<sup>&</sup>lt;sup>55</sup> http://www.cdc.gov/asthma/interventions/openairway.htm

<sup>&</sup>lt;sup>56</sup> Cal. Ed. Code § 49423.1(a).

- a written statement from the parent, foster parent, or guardian of the pupil consenting to the self-administration
- a written statement from the parent, foster parent, or guardian of the pupil releasing the school nurse or other designated school personnel to consult with the health care provider of the pupil regarding any questions that may arise with regard to the medication

#### **Fragrance Sensitivity**

A condition that has recently spawned litigation with respect to indoor air quality in the workplace is Multiple Chemical Sensitivity, also known as "fragrance sensitivity." People with this condition are especially sensitive to heavy fragrances such as those used in some grooming products, including perfumes, colognes, deodorant, and body lotions. Fragrance sensitivity can cause allergy-like symptoms, including headaches, difficulty breathing, wheezing, a tight feeling in the chest, worsening asthma symptoms, runny and stuffy nose, sneezing, and a skin allergy like contact dermatitis (an itchy, red rash that appears on the skin).<sup>57</sup>

As in the case of food allergies, a key issue for compliance is whether fragrance sensitivity constitutes a disability under the ADA. And, as with food allergies, the answer is that if the condition is serious enough, then it almost certainly does. "The ADA does not contain a list of medical conditions that constitute disabilities. Instead, the ADA has a general definition of disability that each person must meet....Therefore, some people with fragrance sensitivity will have a disability under the ADA and some will not."<sup>58</sup> As with food allergies, the safest policy, of course, is to err on the side of caution: Schools should assume that fragrance sensitivity is a disability under the ADA and act accordingly.

Moreover, schools should be aware that litigants have successfully brought actions under the ADA based on the premise that fragrance sensitivity is a disability. Two examples of such cases are discussed below.

#### McBride v. City of Detroit

<sup>&</sup>lt;sup>57</sup> Rodriguez, Diana, EveryDayHealth.com, "Fragrance Sensitivity: When Scents Cause Symptoms,"

http://www.everydayhealth.com/allergies/fragrance-sensitivity.aspx

<sup>&</sup>lt;sup>58</sup> Job Accommodation Network, Accommodation and Compliance Series: "Employees with Fragrance Sensitivity," p. 4; http://askjan.org/media/downloads/FragranceA&CSeries.doc

One widely reported case involving fragrance sensitivity was *McBride v. City of Detroit*, No. 07-12794 (U.S. District Court for the Eastern District of Michigan, Nov. 28, 2007).<sup>59</sup> Susan McBride was the senior city planner for the City of Detroit. McBride's coworker who sat nearby wore heavy perfume and used a plug-in air freshener. McBride, who suffered from fragrance sensitivity, was so irritated by these scents that she sometimes had to leave work. Her symptoms, as summarized by the court, included "migraine headaches, nausea, chest tightness, coughing, loss of voice, a scratchy throat, and rhinitis." At McBride's request, the coworker stopped using the deodorizer, but she continued wearing perfume. McBride asked the City to implement a "no-scent policy" to accommodate her disability. The City refused. Although there were discussions about relocating either McBride's or the coworker's workstation, this was never done.

McBride sued the City under Title II of the ADA, alleging that she suffered from a disability—which the court described as "a life-long sensitivity to perfumes, chemicals, and other scented objects"—and that the City had failed to provide her with a reasonable accommodation. Defendant moved for summary judgment on a number of grounds. In its Order and Opinion denying the motion, the court concluded that McBride could proceed with her ADA claim because it was possible that she had a disability that substantially limited a "major life activity"— breathing. The court noted, "Breathing is one of the major life activities specifically listed in the Regulations. Id. § 1630.2(i). Several courts have held that a plaintiff's allergies and/or chemical sensitivities substantially limit the major life activity of breathing or at least raise a genuine issue of material fact as to that issue." The court also rejected the City's argument that implementing McBride's requested "no scent" policy would constitute an undue hardship, noting that the policy still allowed "mild scents…worn in moderation."

The City settled the claim.<sup>60</sup> In addition to paying McBride \$100,000, the City agreed to add a section to the employee handbook that read in part, "In order to accommodate employees who are medically sensitive to the chemicals in scented products, the city of Detroit requests that you refrain from wearing scented products, including but not limited to colognes, after-shave lotions, perfumes, deodorants, body/face lotions, hair sprays or similar products. The city of Detroit also asks you to refrain the use of scented candles, perfume samples from magazines, spray or solid air fresheners, room deodorizers, plug-in wall air

<sup>&</sup>lt;sup>59</sup> http://www.shrm.org/legalissues/federalresources/pages/scentpolicy.aspx

<sup>&</sup>lt;sup>60</sup> Society for Human Resources Management, "Detroit Adopts Scent Policy to Settle ADA Claim," March 17, 2010, http://www.shrm.org/legalissues/federalresources/pages/scentpolicy.aspx

fresheners, cleaning compounds or similar products. Our employees with medical chemical sensitivities thank you for your cooperation."<sup>61</sup>

#### Bouard v. Ramton International Corp. United States District Court

In *Bouard v. Ramton International Corp. United States District Court, D. Colorado,* Civil Action No. 12-cv-00494-WYD-MJW (2013),<sup>62</sup> Plaintiff Kathy Bouard was an employee of Ramton International Corporation. Bouard suffered from fragrance sensitivity, which caused "rhinitis and sinusitis" and a resulting "loss of focus and concentration." Bouard ask Ramtron to provide her with an air purifier and to instruct employees to refrain from using grooming products with strong fragrances or odors. The company approved her requests. However, Rouard alleges that employees refused to comply with the new policy, and some ridiculed her for having fragrance sensitivity.

In February 2012, Bouard sued Ramton on a number of grounds. Her lawsuit included an ADA claim that Ramton had discriminated against her on the basis of her disability. Ramton moved for summary judgment, arguing in part that Ramton's ADA claim could not proceed because she did not have a disability. As in *McBride v. City of Detroit,* the court denied the motion. Noting Congress's expanded definition of a disability under the ADA, the court found that "genuine issues of material fact exist as to whether Bouard's sensitivity qualifies as a disability under one of three definitions of disability under the ADA."

Although *McBride* and *Bouard* did not establish that fragrance sensitivity is definitely a disability under the ADA, these cases, and others like them, show that courts are highly receptive to the notion. Given these cases and Congress's clear intention to expand the definition of a disability, a court faced with having to decide the issue would almost certainly find that a person who suffered from severe fragrance sensitivity qualified as "disabled" under the ADA. For this reason, schools have no choice but to take seriously any employee or student's complaints stemming from fragrance sensitivity. If the problem cannot be solved by relocating employees or limiting the use of offending fragrances in the immediate area, a school district would have to consider implementing a school-wide policy restricting the use of heavily scented grooming products.

61 *Id.* 

http://scholar.google.com/scholar\_case?case=15925837899115409784&q=Bouard+v.+Ramtron& hl=en&as\_sdt=2006&as\_vis=1

# Report on Environmental Health Conditions in California's Portable Classrooms

In 2004, pursuant to Health and Safety Code § 39619.6, the California EPA Air Resources Board and Department of Health Services submitted a joint report to the legislature on the environmental health conditions (including air quality) in portable classrooms in California.<sup>63</sup> The study uncovered the following air-quality problems in portable classrooms:

- <u>Inadequate ventilation with outdoor air</u>. Substandard amounts of outdoor air were measured in classrooms during 40 percent of class hours, and seriously deficient ventilation was found 10 percent of the time. The causes included teachers turning off HVAC (heating, ventilating, and airconditioning systems) because of excessive noise; closed or blocked outdoor air dampers; off cycling of the HVAC; inadequate HVAC capacity; and other factors.
- <u>Indoor formaldehyde levels</u>.<sup>64</sup> In 4 percent of the classrooms, air concentrations of formaldehyde exceeded the guideline level for preventing acute eye, nose and throat irritation. Nearly all classrooms exceeded formaldehyde guidelines for preventing long-term health effects, including cancer. These findings are largely due to the widespread use of formaldehyde-containing building materials and furnishings, and inadequate ventilation.
- <u>Moisture problems</u>. Water stains, excess wall moisture, and other indicators of potential mold were found in about one-third of classrooms. Investigators found visible mold in about 3% of classrooms; and musty odors were reported by 69% of teachers. These conditions are often attributable to inadequate maintenance.
- <u>Toxic residues in floor dust</u>. Lead, arsenic, and numerous pesticide residues were measured in classroom floor dust. These residues are a concern because they can be inhaled, ingested, or absorbed through the skin by children, especially very young children who sit on the floor and

<sup>&</sup>lt;sup>63</sup> Report to the California Legislature: Environmental Health Conditions in California's Portable Classrooms, November 2004,

http://www.arb.ca.gov/research/indoor/pcs/leg\_rpt/pcs\_r2l\_main.pdf

<sup>&</sup>lt;sup>64</sup> For more on formaldehyde, see the discussion, above, of the Environmental Exposures in Early Childhood Education Environments Study.

put their hands in their mouths. The source is generally tracked in dirt from outside, and pesticides applied indoors or near the building.

The study divided its guidelines into "Group 1" recommendations ("high priority, high benefit" actions "that can be achieved in the near term at relatively low cost") and "Group 2" recommendations ("also priority issues, but requiring a longer timeframe and/or more substantial resources"). Group 1 recommendations for maintaining indoor air quality include the following:

- Schools, districts, and the state should ensure that all school buildings meet all relevant state regulations, especially the Cal/OSHA workplace regulations regarding ventilation, sanitation and water intrusion, and illness and injury prevention.
- Schools and school districts should conduct "self-assessments' of basic health and safety conditions. This approach has been successfully piloted by the Los Angeles Unified School District in their Facility Self-inspection Program (included in the report and available on the web).
- The State should require schools to develop indoor environmental quality management plans. The EPA's IAQ Tools for Schools Program<sup>65</sup> provides guidance and free kits to accomplish this.
- The State should establish a policy to incorporate "Best Practices" into the design, construction, operations, and maintenance of new California schools, especially the measures developed by the Collaborative for High Performance Schools (CHPS). The CHPS Best Practices Manuals<sup>66</sup> provide broad guidance for measures that will improve schools while also saving energy and reducing long-term costs.
- State-level review, by the Division of the State Architect, of the designs for new schools should be expanded to include elements such as ventilation systems and building materials, in addition to current elements such as fire and life-safety provisions.
- Classrooms, especially portables, should be sited correctly, away from busy roadways, and with proper drainage.

<sup>65</sup> http://www.epa.gov/iaq/schools/

<sup>&</sup>lt;sup>66</sup> Available for free in PDF format at the CHPS website, http://www.chps.net

Group 2 recommendations for indoor air quality include the following:

- The State and school districts should assure stable, long-term funding mechanisms and sources for both construction and preventive maintenance; currently funding fluctuates from year to year, especially for the Deferred Maintenance Program.
- The State should develop and offer focused training programs for school facility managers, custodial staff, and teachers, in cooperation with interested organizations; those closest to the classrooms often are not aware of current "best practices" for operation and maintenance of classrooms. A concerted, ongoing training program could go far to improve conditions in classrooms.
- Integrated Pest Management Programs should be implemented at all schools.
- Older portable classrooms should be retired when they become unserviceable or do not provide an adequate learning environment for children.
- The State and school districts should develop and require full new building commissioning procedures.
- The State should improve its school facilities database, as there are currently no complete databases on the condition, location, or even number, of school buildings.
- The State should convene a task force of experts to develop a California indoor noise guideline or standard for K-12 schools.
- The State should develop chemical exposure guidelines or standards for classrooms that are protective of children and teachers.
- Portable classrooms should be re-designed from the ground up. Several groups are producing new prototypes that use an integrated "whole building" approach; these should be supported through the demonstration phase to evaluate design changes that provide substantive improvements over older portables.

#### "Toxic" Mold<sup>67</sup>

"Molds are various types of fungi that grow in filaments and reproduce by forming spores. The term 'mildew' is sometimes used to refer to some kinds of mold, particularly mold in the household with a white or gravish color or mold growing in shower stalls and bathrooms. Mold may grow indoors or outdoors and thrives in damp, warm, and humid environments. Mold can be found in essentially any environment or season."68 "Molds produce irritating substances that may act as allergy-causing substances (allergens) in sensitive individuals. Furthermore, some molds produce toxic substances known as mycotoxins, but mold itself is not poisonous or toxic."69

The most common health effect of mold exposure is allergic reaction. "Symptoms of mold allergy may include sneezing, runny nose, coughing, wheezing, tearing and redness of the eyes, and skin irritation or rash. Asthma attacks may be caused by mold or mold spores in people who have asthma and are allergic to mold. Even in some nonallergic individuals, mold can irritate the eyes, skin, and airways. For example, the 'black mold' Stachybotrys, along with some other types of mold, produces toxins known as mycotoxins that can cause irritation of the skin and airways in susceptible individuals." In severe cases, which are rare, a person may experience fever and difficulty breathing. People with compromised immune systems or chronic lung disease can develop serious infections of the lungs due to molds.<sup>70</sup>

In 2001, the Toxic Mold Protection Act mandated that the California Department of Public Health (CDPH)-now known as the California Department of Health Services—determine the feasibility of setting "permissible exposure limits" (PELs) for mold in indoor environments. In its 2005 report to the Legislature, the Department concluded that "sound, science-based PELs for indoor molds cannot be established at this time." Nevertheless, in its subsequent Statement on Building Dampness, Mold, and Health, the Department offered the following guidelines for preventing mold growth indoors:

<sup>&</sup>lt;sup>67</sup> Although "toxic mold" is a commonly used phrase, the CDC notes, "The term 'toxic mold' is not accurate. While certain molds are toxigenic, meaning they can produce toxins (specifically mycotoxins), the molds themselves are not toxic, or poisonous. Hazards presented by molds that may produce mycotoxins should be considered the same as other common molds which can grow in your house." CDC website, "Facts about Stachybotrys chartarum and Other Molds," http://www.cdc.gov/mold/stachy.htm

MedicinNet.com, "Mold Exposure,"

http://www.medicinenet.com/mold\_exposure/article.htm#what\_is\_mold

<sup>&</sup>lt;sup>69</sup> Id. <sup>70</sup> Id.

CDPH has concluded that the presence of water damage, dampness, visible mold, or mold odor in schools, workplaces, residences, and other indoor environments is unhealthy. We recommend against measuring indoor microorganisms or using the presence of specific microorganisms to determine the level of health hazard or the need for urgent remediation. Rather, we strongly recommend addressing water damage, dampness, visible mold, and mold odor by (a) identification and correction of the source of water that may allow microbial growth or contribute to other problems, (b) the rapid drying or removal of damp materials, and (c) the cleaning or removal of mold and moldy materials, as rapidly and safely as possible, to protect the health and well-being of building occupants, especially children."<sup>71</sup>

In addition, school administrators can consult the EPA publication *Mold Remediation in Schools and Commercial Buildings,* EPA 402-K-01-001, September 2008.<sup>72</sup>

Finally, Cal. Educ. Code §§ 17070.75 and 17002(d)(1) require school districts to ensure that schools are maintained in "good repair," which includes keeping surfaces free from water damage, showing no evidence of mold or mildew, and providing functional and unobstructed HVAC systems as a condition of receiving state school facility funds. The Facility Inspection Tool<sup>73</sup> developed by the state for use in school inspections includes several IAQ-related items that address ventilation and mold/water damage.

#### Radon

According to the EPA publication *Radon Measurement in Schools* (Revised Edition), "Radon is a naturally occurring radioactive gas. It comes from the natural breakdown (decay) of uranium which is found in soil and rock all over the United States. Radon travels through soil and enters buildings through cracks and other holes in the foundation. Eventually, it decays into radioactive particles (decay products) that can become trapped in your lungs when you breathe. As

<sup>&</sup>lt;sup>71</sup> California Department of Public Health, *Statement on Building Dampness, Mold, and Health,* September 2011, p. 1.

http://www.cdph.ca.gov/programs/IAQ/Documents/statement\_on\_building\_dampness\_mold\_and %20health2011.pdf

<sup>&</sup>lt;sup>72</sup> http://www.epa.gov/mold/pdfs/moldremediation.pdf

<sup>73</sup> http://www.documents.dgs.ca.gov/opsc/Forms/Worksheets/FIT\_rev.pdf

these particles in turn decay, they release small bursts of radiation."<sup>74</sup> EPA studies show that radon and its decay products can accumulate to much higher concentrations inside a building as opposed to outside.

Radon is known to be a human carcinogen. "Prolonged exposure to elevated radon concentrations causes an increased risk of lung cancer....<sup>75</sup> EPA estimates that radon may cause about 14,000 lung cancer deaths in the U.S. each year. However, this number could range from 7,000 to 30,000 deaths per year. The U.S. Surgeon General has warned that radon is the second-leading cause of lung cancer deaths"<sup>76</sup> (after smoking).

Because Radon has no color, odor, or taste, the only way to know whether an elevated level of radon is present in any room of a school is to test for it. "For most school children and staff, the second largest contributor to their radon exposure is likely to be their school. As a result, EPA recommends that school buildings as well as homes be tested for radon." <sup>77</sup> Specifically, "[e]ach frequently occupied room that is in contact with the ground should be measured because adjacent rooms can have significantly different levels of radon." "If a room is found to have a level of 4 pCi/L [picocuries per liter] or greater, this measurement result should be confirmed with another test. If the second test is also at or above 4 pCi/L, schools should take action to reduce the radon level to below 4 pCi/L."<sup>78</sup>

Steps to reduce radon exposure are somewhat technical and are described in detail in the guide. They include "HVAC Pressurization/Ventilation" and "Active Sub-slab Depressurization," which "creates a lower air pressure beneath the slab to reverse the flow of air through the building foundation thus preventing radon entry."79

Radon Measurement in Schools (Revised Edition) provides detailed information to help schools test for radon-which rooms to test and how often, which equipment to use, proper qualifications of radon testers, and so on. We highly recommend that school administrators get a copy of the guide and test their schools for radon to the extent feasible.

<sup>&</sup>lt;sup>74</sup> EPA, Radon Measurement in Schools (Revised Edition), EPA 402-R-92-014, July 1993, p. 2, http://www.epa.gov/radon/pdfs/radon\_measurement\_in\_schools.pdf

<sup>&</sup>lt;sup>75</sup> *Id.* at p. 2. <sup>76</sup> *Id.* at p. 3.

<sup>&</sup>lt;sup>77</sup> *Id.* at p. 4. <sup>78</sup> *Id.* at p. 1.

<sup>&</sup>lt;sup>79</sup> *Id.* at p. 19.

In addition, EPA provides *Reducing Radon in Schools: A Team Approach*,<sup>80</sup> which is "designed to guide you through the process of confirming a radon problem, selecting the best mitigation strategy, and directing the efforts of a multidisciplinary team assembled to address elevated radon levels in a way that will contribute to the improvement of the overall indoor air quality of the school."<sup>81</sup> Finally, the EPA offers *Managing Radon in Schools the Indoor Air Quality Tools for Schools Approach: Key Drivers and Strategies for Success* (June 2010).<sup>82</sup>

#### Ventilation

Recently, researchers at Lawrence Berkeley National Laboratory did a study of the ventilation in California classrooms. Researchers tracked the outdoor ventilation rate in 162 classrooms in the Central Valley. The results were published in the journal *Indoor Air.* As the *Sacramento Bee* reported, "Researchers found that more than 95 percent of the all-air-conditioned Central Valley schoolrooms failed to meet the state of California's *minimum* ventilation rate" (emphasis added), which the *Bee* notes is seven liters of fresh air per person to replace indoor air every second.<sup>83</sup> The average ventilation rate of the classrooms in the study was only four liters per second. Several studies have found that adequate ventilation correlates with improved school performance and fewer absences.<sup>84</sup>

State ventilation standards are found in the California Mechanical Code, Chapter 4,<sup>85</sup> and are based largely on national standards established by the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE).<sup>86</sup> These standards are highly technical and beyond the scope of this memorandum. We recommend that school districts hire a qualified ventilation engineer who is familiar with the standards to inspect classrooms to ensure proper ventilation. In addition, a helpful tool is the EPA's *Ventilation Checklist*.<sup>87</sup>

 <sup>&</sup>lt;sup>80</sup> EPA, *Reducing Radon in Schools: A Team Approach*, EPA 402-R-94-008, April 1994, http://nepis.epa.gov/Exe/ZyPDF.cgi/00000AOV.PDF?Dockey=00000AOV.PDF
 <sup>81</sup> *Id.* at p. 0-1.

<sup>&</sup>lt;sup>82</sup> http://www.epa.gov/iaq/schools/pdfs/kit/managing\_radon.pdf

<sup>&</sup>lt;sup>83</sup> Craft, Cynthia H., Sacbee.com, "Poor Ventilation in California Classrooms May Make Kids III, Researchers Say," June 6, 2013, http://www.sacbee.com/news/local/health-andmedicine/article2577752.html

<sup>&</sup>lt;sup>84</sup> Indoor Air Quality Scientific Findings Resource Bank, "Impacts of Indoor Environments on Human Performance and Productivity," http://www.iaqscience.lbl.gov/performance-ratesschool.html

<sup>&</sup>lt;sup>85</sup> https://law.resource.org/pub/us/code/bsc.ca.gov/gov.ca.bsc.2013.04.pdf

<sup>&</sup>lt;sup>6</sup> https://www.ashrae.org/standards-research--technology/standards--guidelines

<sup>&</sup>lt;sup>87</sup> http://epa.gov/iaq/schools/pdfs/kit/checklists/ventchklst.pdf

#### Other State Laws Pertaining to Indoor Air Quality

The following statutes and regulations pertain, either directly or indirectly, to school indoor air quality in California schools.<sup>88</sup> Some of these laws require specific actions by schools, while others merely empower state agencies to set standards.

#### Cal. Educ. Code § 32081

Requires state fire marshal to propose for adoption in the state building code a standard for installation of carbon monoxide (CO) devices in school buildings. Provides that the standard must require CO devices in public and private K-12 schools built pursuant to the 2016 state Building Code (and later versions) if a fossil-fuel burning furnace is located inside the school. Encourages existing schools with fossil-fuel burning furnaces to install CO devices.

#### Cal. Health & Safety Code § 39930

Requires the Air Resources Board, in consultation with other agencies, to provide a report to the state legislature summarizing the following: the most recent empirical data on indoor air pollution; the potential adverse effects of indoor air pollution exposure on public health; information about the effects of existing regulations and current industry practices in mitigating exposures; and a listing of work performed by other state or federal entities regarding biological and radiological substances. Requires that the report include a priority ranking of indoor air pollutants; an analysis of the potential health effects of indoor air pollutants; and options for mitigating those health effects in schools, nonindustrial workplaces, homes, and other indoor locations.

#### Cal. Labor Code § 142.3

Authorizes the Occupational Safety and Health Standards Board to adopt occupational safety and health standards that are at least as effective as federal standards. Regulations promulgated under the law (8 Cal. Code Regs. 5142, 5143) apply to both private and public workplaces, such as schools. The regulations require HVAC systems to be operated continuously and inspected annually, and HVAC inspection and maintenance records to be made in writing and provided to the state and to employees upon request. Additional regulations

<sup>&</sup>lt;sup>88</sup> These statues and the descriptions of them were compiled by the Environmental Law Institute in its *Database of State Indoor Air Quality Laws: IAQ in Schools Excerpt,* http://www.eli.org/sites/default/files/eli-pubs/2014-schools-database.pdf

governing general sanitation (8 Cal. Code Regs. 3362) provide that when exterior water intrusion, leakage from interior water sources, or other uncontrolled accumulation of water occurs, those conditions must be corrected because of their potential to cause the growth of mold.<sup>89</sup>

#### Cal. Code Regs. 01350

California Code of Regulations 01350 is a Special Environmental Requirements standard specification that has been developed in California to cover key environmental performance issues in State owned or leased buildings related to the selection and handling of building materials in construction along with a range of other sustainable design issues, such as energy water and other efficiency. The Collaborative for High Performance Schools (CHPS), a consortium of public agencies and California utilities, incorporates California Code of Regulations 01350 provisions into their Best Practices Manual, which provides options schools can select for designing and constructing healthy, energy-efficient buildings. The manual and additional information are available online at http://www.ciwmb.ca.gov/GreenBuilding/Schools/.<sup>90</sup>

### Conclusion

As this memorandum shows, schools have many concerns when it comes to managing food allergies and maintaining indoor air quality. Probably the most important concern—and one that should be addressed immediately—is compliance with Cal. Ed. Code § 49414, which requires the provision of EpiPens to treat anaphylaxis. Although there are few legal requirements concerning indoor air quality, schools are legally required to provide proper ventilation and test regularly for asbestos. Schools are also advised to take advantage of state and federal guidelines to reduce asthma triggers and minimize exposure to air contaminants, and to take seriously complaints stemming from fragrance sensitivity.

<sup>&</sup>lt;sup>89</sup> See above for further discussion of indoor mold exposure.

<sup>&</sup>lt;sup>90</sup> National Association of State Boards of Education, "State School Health Policy Database," http://www.nasbe.org/healthy\_schools/hs/bytopics.php?topicid=3160&catExpand=

# Appendix: Full Text of Amended Cal. Ed. Code § 49414<sup>91</sup>

(a) School districts, county offices of education, and charter schools shall provide emergency epinephrine auto-injectors to school nurses or trained personnel who have volunteered pursuant to subdivision (d), and school nurses or trained personnel may use epinephrine auto-injectors to provide emergency medical aid to persons suffering, or reasonably believed to be suffering, from an anaphylactic reaction.

(b) For purposes of this section, the following terms have the following meanings:

(1) "Anaphylaxis" means a potentially life-threatening hypersensitivity to a substance.

(A) Symptoms of anaphylaxis may include shortness of breath, wheezing, difficulty breathing, difficulty talking or swallowing, hives, itching, swelling, shock, or asthma.

(B) Causes of anaphylaxis may include, but are not limited to, an insect sting, food allergy, drug reaction, and exercise.

(2) "Authorizing physician and surgeon" may include, but is not limited to, a physician and surgeon employed by, or contracting with, a local educational agency, a medical director of the local health department, or a local emergency medical services director.

(3) "Epinephrine auto-injector" means a disposable drug delivery system with a spring-activated needle that is designed for emergency administration of epinephrine to provide rapid, convenient first aid for persons suffering a potentially fatal reaction to anaphylaxis.

(4) "Qualified supervisor of health" may include, but is not limited to, a school nurse.

(5) "Volunteer" or "trained personnel" means an employee who has volunteered to administer epinephrine auto-injectors to a person if the person is suffering, or reasonably believed to be suffering, from anaphylaxis, has been designated by a school, and has received training pursuant to subdivision (d).

<sup>&</sup>lt;sup>91</sup> http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\_id=201320140SB1266

(c) Each private elementary and secondary school in the state may voluntarily determine whether or not to make emergency epinephrine auto-injectors and trained personnel available at its school. In making this determination, a school shall evaluate the emergency medical response time to the school and determine whether initiating emergency medical services is an acceptable alternative to epinephrine auto-injectors and trained personnel. A private elementary or secondary school choosing to exercise the authority provided under this subdivision shall not receive state funds specifically for purposes of this subdivision.

(d) Each public and private elementary and secondary school in the state may designate one or more volunteers to receive initial and annual refresher training, based on the standards developed pursuant to subdivision (e), regarding the storage and emergency use of an epinephrine auto-injector from the school nurse or other qualified person designated by an authorizing physician and surgeon.

(e) (1) Every five years, or sooner as deemed necessary by the Superintendent, the Superintendent shall review minimum standards of training for the administration of epinephrine auto-injectors that satisfy the requirements of paragraph (2). For purposes of this subdivision, the Superintendent shall consult with organizations and providers with expertise in administering epinephrine auto-injectors and administering medication in a school environment, including, but not limited to, the State Department of Public Health, the Emergency Medical Services Authority, the American Academy of Allergy, Asthma and Immunology, the California School Nurses Organization, the California Medical Association, the California Society of Allergy, Asthma and Immunology, the American College of Allergy, Asthma and Immunology, the Stanford Allergy Center, and others.

(2) Training established pursuant to this subdivision shall include all of the following:

(A) Techniques for recognizing symptoms of anaphylaxis.

(B) Standards and procedures for the storage, restocking, and emergency use of epinephrine auto-injectors.

(C) Emergency followup procedures, including calling the emergency 911 telephone number and contacting, if possible, the pupil's parent and physician.

(D) Recommendations on the necessity of instruction and certification in cardiopulmonary resuscitation.

(E) Instruction on how to determine whether to use an adult epinephrine auto-injector or a junior epinephrine auto-injector, which shall include consideration of a pupil's grade level or age as a guideline of equivalency for the appropriate pupil weight determination.

(F) Written materials covering the information required under this subdivision.

(3) Training established pursuant to this subdivision shall be consistent with the most recent *Voluntary Guidelines for Managing Food Allergies In Schools and Early Care and Education Programs* published by the federal Centers for Disease Control and Prevention and the most recent guidelines for medication administration issued by the department.

(4) A school shall retain for reference the written materials prepared under subparagraph (F) of paragraph (2).

(f) A school district, county office of education, or charter school shall distribute a notice at least once per school year to all staff that contains the following information:

(1) A description of the volunteer request stating that the request is for volunteers to be trained to administer an epinephrine auto-injector to a person if the person is suffering, or reasonably believed to be suffering, from anaphylaxis, as specified in subdivision (b).

(2) A description of the training that the volunteer will receive pursuant to subdivision (d).

(g) (1) A qualified supervisor of health at a school district, county office of education, or charter school shall obtain from an authorizing physician and surgeon a prescription for each school for epinephrine auto-injectors that, at a minimum, includes, for elementary schools, one regular epinephrine auto-injector and one junior epinephrine auto-injector, and for junior high schools, middle schools, and high schools, if there are no pupils who require a junior epinephrine auto-injector. A qualified supervisor of health at a school district, county office of education, or charter school shall be responsible for stocking the epinephrine auto-injector and restocking it if it is used.

(2) If a school district, county office of education, or charter school does not have a qualified supervisor of health, an administrator at the school district, county office of education, or charter school shall carry out the duties specified in paragraph (1).

(3) A prescription pursuant to this subdivision may be filled by local or mail order pharmacies or epinephrine auto-injector manufacturers.

(h) A school nurse or, if the school does not have a school nurse or the school nurse is not onsite or available, a volunteer may administer an epinephrine autoinjector to a person exhibiting potentially life-threatening symptoms of anaphylaxis at school or a school activity when a physician is not immediately available. If the epinephrine auto-injector is used it shall be restocked as soon as reasonably possible, but no later than two weeks after it is used. Epinephrine auto-injectors shall be restocked before their expiration date.

(i) A volunteer shall initiate emergency medical services or other appropriate medical followup in accordance with the training materials retained pursuant to paragraph (4) of subdivision (e).

(j) A school district, county office of education, or charter school shall ensure that each employee who volunteers under this section will be provided defense and indemnification by the school district, county office of education, or charter school for any and all civil liability, in accordance with, but not limited to, that provided in Division 3.6 (commencing with Section 810) of Title 1 of the Government Code. This information shall be reduced to writing, provided to the volunteer, and retained in the volunteer's personnel file.

(k) A state agency, the department, or a public school may accept gifts, grants, and donations from any source for the support of the public school carrying out the provisions of this section, including, but not limited to, the acceptance of epinephrine auto-injectors from a manufacturer or wholesaler.

#### SEC. 3.

If the Commission on State Mandates determines that this act contains costs mandated by the state, reimbursement to local agencies and school districts for those costs shall be made pursuant to Part 7 (commencing with Section 17500) of Division 4 of Title 2 of the Government Code.