

## Portable Classroom Investigation

### **Synopsis**

Portable classrooms have been used by schools for as long as 50 years. Most portable classrooms in Santa Cruz County are from 10 to 15 years old. Teachers, parents and the public have raised concern regarding potential health risks in portable classrooms. Concerns focus on immediate health complaints such as eye irritation, allergies, asthma, headache and fatigue as well as more serious risks of chronic exposures to formaldehyde, lead, pesticides, and other air toxins. A recent study by the state Department of Health Services (DHS) and the Air Resources Board (ARB) provides important information for state and local decision makers working to assure a safe, healthful, and productive learning environment for California children. This study summarizes conditions that need to be addressed at the state and local levels, and discusses options for assuring healthful conditions in both portable and traditional classrooms.

### **Definitions**

**Formaldehyde:** A colorless gas, which is used for disinfectant, preservation and in chemical synthesis. This chemical is used to preserve carpets. The effect of excess exposure includes headaches, dizziness, breathing difficulty, and upper respiratory infection.

**HVAC:** Heating Ventilation and Air Conditioning unit.

**Particle Matter:** A small substance of a large body, such as dust, metals, pollens and spores.

**Radon:** A radioactive gas produced by the natural decay of organic material in particle matter. The natural forming gas radon has been linked to lung cancer. Exposure to this gas is a result of poor ventilation.

**Toxic Material:** Items that contain toxins, such as furniture, carpeting, or pesticides.

**Toxins:** Poisonous substances.

### **Background**

Portable classrooms were introduced to schools as an inexpensive, temporary solution to classroom overcrowding. However, portable classrooms have become a permanent fixture on school campuses.

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A “portable classroom” is defined as “a classroom building of one or more stories that is designed and constructed to be relocated and transportable over public streets...”<sup>1</sup> Based on a DHS survey of California school districts, just under one-third of the state’s kindergarten to twelfth grade (K-12) public school classrooms in the 2000-2001 school year were portable classrooms. It is estimated that about 80,000 to 85,000 were in use as California public schools classrooms in 2003.<sup>2</sup>

Portable classrooms serve an important need in public schools. They are more quickly constructed and deployed to school sites, they can be moved from school to school and they often have a lower first cost than traditional, site-built buildings. These features allow schools greater flexibility in meeting fluctuating enrollment levels.<sup>3</sup>

Throughout their school careers, it is likely that all students will have a class in a portable classroom.<sup>4</sup>

A variety of studies was done before the November 2003 comprehensive study on portable classroom environmental health conditions was done by the California Air Resource Board (CARB) and Department of Health Services (DHS).

In a nationwide survey of school facilities conducted in 1995, California was ranked last, having more unsatisfactory environmental conditions in schools than any other state. Seventy-one percent of California schools reported at least one inadequate building feature (HVAC, plumbing, roof, framing, floor, foundation, wall, window, door, interior and exterior finish), 41% of schools reported inadequate HVAC systems and 40% reported roof problems.

Another study in 1997 of California schools, investigated by the National Institute for Occupational Safety and Health (NIOSH), found the most common building-related problem was inadequate ventilation with outside air. The second most common problem was water damage to building elements, leading to mold contamination and growth.

The California Energy Commission investigated ventilation in California schools. They found that schools consistently had lower ventilation rates than required and that one-third of the classrooms tested had an air exchange rate less than 50% of the level required by state regulations.

A DHS survey of lead hazards from paint, soil and water in a representative sample of 200 California elementary schools and child care facilities found that nearly all schools had some lead-containing paint. Almost 40% had some paint that is deteriorated, 6% had lead levels exceeding the U.S. Environmental Protection Agency reference value for soil

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<sup>1</sup> California Education Code, 17070.15 (k).

<sup>2</sup> Environmental Health Conditions in California’s Portable Classrooms Report.

<sup>3</sup> Environmental Health Conditions in California’s Portable Classrooms Report.

<sup>4</sup> Santa Cruz County Grand Jury Portable Classroom survey.

contamination and 18% had lead in drinking water at or above the U.S. Environmental Protection Agency action level (15 ppb).

One survey documented the widespread use of pesticides in public schools. It found 87% of the districts reported using one or more of 27 particularly hazardous pesticides.

A small study of portables conducted by the University of California, Los Angeles in 1999-2000 found low concentrations of toxic and odorous VOCs (volatile organic chemicals or compounds). The main sources of toxic materials were interior finish materials and furnishings made of particleboard without lamination. Outdoor sources such as vehicles influenced high values in specific portables.<sup>5</sup>

Pursuant to Health and Safety Code 39619.6 (Assembly Bill 2872, Shelley, 2000), the Environmental Health Conditions in California's Portable Classrooms study was prompted by concerns that California's schools, especially portable classrooms, might not provide healthy environments for students or teachers. These concerns were based on the potential for mold contamination, inadequate ventilation, poor temperature control, elevated levels of volatile chemicals and excessive use of some pesticides. The study was funded to help understand the extent of these problems and to determine whether those problems warranted response by the state and/or schools or school districts.

The results of this study provide important information for state and local decision-makers regarding the degree to which our classrooms provide a safe, healthful and productive learning environment for children. The Environmental Health Conditions in California's Portable Classrooms report provides an overview of the study, summarizes conditions identified in the study that need to be addressed at the state and local levels and discusses options for improving conditions in both portable and traditional classrooms.

In November 2003, the California Air Resource Board (CARB) and Department of Health Services (DHS) conducted a comprehensive study on portable classroom environmental health conditions. Prior to this study there had been no comprehensive study of environmental conditions in California public schools. Various investigations had been conducted over the past decade that addressed specific components or looked at a limited subset of school facilities. A sample of the studies follows:

Over half of American schools have problems with air quality.<sup>6</sup> This can result in the following problems:

- Asthma.
- Loss of productivity.
- Classroom equipment breakdown.

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<sup>5</sup> Environmental Health Conditions in California's Portable Classrooms Report.

<sup>6</sup> U.S. Environmental Protection Agency Web site.

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- Legal liability.
- Student and staff absentee rate.

The following problems associated with portable classrooms have been identified by the U.S. Environmental Protection Agency (EPA):

- Poorly functioning HVAC systems.<sup>7</sup>
- Loud HVAC systems.
- Lack of ventilation which allows natural forming gases such as radon to accumulate.
- Chemical breakdown releasing gases from pressboard and other materials.
- Toxins and exhaust from vehicles.

Portable classrooms contain a higher level of particle matter.<sup>8</sup>

The recommended safe levels of formaldehyde exposure are:

- Twenty-seven parts per billion (ppb) (eight hours indoors).
- Seventy-six ppb (one hour indoor).

Fifty percent of portable classrooms have been measured at levels of over 27 ppb and four percent of portables have been measured for over 76 ppb.<sup>9</sup>

### **Scope**

This investigation examines the use of portable classrooms and how school districts ensure that health hazards are minimized. The Grand Jury gathered statistics from all of the Santa Cruz County school districts on information such as the number of portables in use, whether use is rotated, non-classroom use and workmen's compensation cases in standard classrooms vs. portables.

### **Sources**

2003-2004 Grand Jury survey of all Santa Cruz County School districts.  
California Air Resources Board and California Department of Health Services Study.  
California Educational Code.  
"Environmental Health Conditions in California Portable Classrooms" report.  
Environmental Protection Agency Web site.  
Samet and Spengler, Indoor Air Pollution: A Health Perspective.  
Santa Cruz Sentinel newspaper articles.

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<sup>7</sup> U.S. Environmental Protection Agency Web site.

<sup>8</sup> U.S. Environmental Protection Agency Web site.

<sup>9</sup> U.S. Environmental Protection Agency Web site.

## **Findings**

**Live Oak School District:** Ocean Alternative Education Center response is included in that of the Live Oak School District.

**Pajaro Valley Unified School District:** Alianza Charter School, Linscott Charter School, New School, Pacific Coast Charter School and Renaissance High School responses are included in that of the Pajaro Valley Unified School District.

**San Lorenzo Valley Unified School District:** SLVUSD operates both a traditional and dependent Charter program. Charter Titles share facilities and classroom space at San Lorenzo Valley High School, San Lorenzo Valley Junior High School, Boulder Creek Elementary School, and the Quail Hollow District Office facility. San Lorenzo Valley Unified School District (SLVUSD) Responses are applicable to both programs.

1. There are an estimated 80,000 portable classrooms in use in California.<sup>10</sup> Santa Cruz County has over 600 portable classrooms in use.

**Response: Santa Cruz County Office of Education PARTIALLY DISAGREES.**

*Portable and classroom are not necessarily synonymous as many portables are not used as classrooms and some may not be in use at all or not in use during the entire school year. The Grand Jury supports this statement in finding #2.*

2. Locally, portable classrooms are not used exclusively for classrooms. Some are used for district offices, music, art, computer labs and a library. At least one school is entirely made up of portables and one school has no portables.

**Response: Bonny Doon Union Elementary School District PARTIALLY AGREES.**

*The Bonny Doon Union Elementary School District (BDUESD) does not know about the other portables, but each of the two on the BDUESD campuses are used fewer than seven hours per week for instrumental music lessons. One portable is also used for approximately two weeks each year during a computer robotics project.*

**Response: Live Oak School District AGREES.**

**Response: Mountain Elementary School District PARTIALLY AGREES.**

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<sup>10</sup> California Air Resources Board and California Department of Health Services study.

*MESD is not aware of what other districts do. We use portables for classrooms, music, Independent Study Program, Resource Specialist, Speech, School Psychologist and day care.*

**Response: Pacific School District AGREES.**

*Currently, Pacific Elementary School uses three portable buildings. The buildings are used for the following reasons: Preschool classroom, Independent Study classroom, After School Care and Recreation, Title I Intervention tutorials, music lessons.*

**Response: Pajaro Valley Unified School District AGREES.**

*The District has 90 portables used as offices, library, child care, MHS child care, Healthy Start, restrooms and storage areas.*

**Response: Santa Cruz City Schools District AGREES.**

**Response: Santa Cruz County Office of Education AGREES.**

**Response: San Lorenzo Valley Unified School District AGREES.**

*It should be noted that fifteen of the oldest portable classrooms in SLVUSD were demolished in July 2004.*

**Response: Scotts Valley Unified School District PARTIALLY AGREES.**

*The Scotts Valley Unified School District does not use portables for district office space. Portables are used on each school campus.*

**Response: Soquel Union Elementary School District AGREES.**

3. The age of portables in Santa Cruz County ranges from one month old to 50 years old. Several school districts replace portables when they have been in use for 15 years.

**Response: Bonny Doon Union Elementary School District PARTIALLY AGREES.**

*The BDUESD is not familiar with the other portables, but the two on its campus were leased in January of 1992 then purchased by the district in September of 1998. They currently remain in place.*

**Response: Live Oak School District AGREES.**

**Response: Mountain Elementary School District PARTIALLY AGREES.**

*MESD is not aware of what other districts do. Our oldest portable has been in use since 1988—16 years. It has been updated with modernization.*

**Response: Pacific School District AGREES.**

*Two of the portable buildings in the district are 29 years old and have undergone considerable remodeling, however, the district is researching funding for replacement. The third building is four years old.*

**Response: Pajaro Valley Unified School District AGREES.**

*The ages of the District's portables range from being a few months old to 39 years old.*

**Response: Santa Cruz City Schools District AGREES.**

**Response: Santa Cruz County Office of Education AGREES.**

**Response: San Lorenzo Valley Unified School District PARTIALLY AGREES.**

*1) The oldest portables in SLVUSD were demolished in 2004, and 2) We have no information on other districts' portable classrooms.*

**Response: Scotts Valley Unified School District PARTIALLY AGREES.**

*The range in age of the district's portables is from one year old to 24 years old.*

**Response: Soquel Union Elementary School District AGREES.**

4. The EPA has not set guidelines for portable classroom air quality. However, several school districts have had their portable air quality tested. The results have shown that air quality in the portables is within the same ranges as regular classrooms.

**Response: Bonny Doon Union Elementary School District PARTIALLY AGREES.**

*The BDUESD does not know about the portables in other school districts. There have been no complaints or concerns expressed regarding the air quality in the two portables on the campus. If any arise in the future, the company that monitors District premises for environmental concerns will be contacted.*

**Response: Live Oak School District AGREES.**

**Response: Mountain Elementary School District AGREES.**

**Response: Pacific School District AGREES.**

*Pacific School District has not had air quality in the portables tested.*

**Response: Pajaro Valley Unified School District AGREES.**

*We agree that the air quality in portable classrooms is typical of what is in regular classrooms.*

**Response: Santa Cruz City Schools District AGREES.**

**Response: Santa Cruz County Office of Education AGREES.**

**Response: San Lorenzo Valley Unified School District AGREES.**

*San Lorenzo Valley Unified School District agrees with finding only as it pertains to SLVUSD portable classrooms.*

**Response: Scotts Valley Unified School District AGREES.**

**Response: Soquel Union Elementary School District AGREES.**

5. The best way to ensure good air quality is to use the HVAC system (a machine which pumps heated or cooled air into the classroom). The HVAC system must be maintained for greatest effectiveness.<sup>11</sup> In Santa Cruz County, schools clean their HVAC systems from once every four months to once a year.

**Response: Bonny Doon Union Elementary School District PARTIALLY AGREES.**

*The BDUESD does not know about the portables in other school districts. The HVAC systems are cleaned annually in the district.*

**Response: Live Oak School District AGREES.**

**Response: Mountain Elementary School District AGREES.**

**Response: Pacific School District AGREES.**

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<sup>11</sup> California Air Resources Board and California Department of Health Services study.



*The HVAC systems are cleaned annually in the district.*

**Response: Pajaro Valley Unified School District AGREES.**

*Our standards include the following action plan:*

- *We establish a 20% fresh air supply.*
- *We have one person dedicated to change air filters twice a year. Therefore, filters, damper and condensation drains are inspected bi-annually.*
- *Added benefit is any mechanical failures are caught and reported directly to department, therefore, more rapid repair, less downtime and better environment condition.*
- *New filters are designed to run for nine months.*
- *All portables connected to EM system are turned on one hour before occupancy and off ½ hour before departure.*
- *Ongoing effort toward standardization of equipment throughout the district.*
- *Procedure for keeping inventory for repairs on hand.*
- *Majority of 349 portables have individual programmable thermostats.*
- *We manually check all portables four times a year and check thermostats.*
- *Adjust temperature to class schedule.*
- *Program is 15 minutes before occupancy and turned off at the end of class.*

**Response: Santa Cruz City Schools District AGREES.**

**Response: Santa Cruz County Office of Education AGREES.**

**Response: San Lorenzo Valley Unified School District AGREES.**

*San Lorenzo Valley Unified School District agrees with this finding only as it pertains to SLVUSD portable classrooms. It should be noted that different HVAC systems have different maintenance requirements.*

**Response: Scotts Valley Unified School District AGREES.**

**Response: Soquel Union Elementary School District AGREES.**

6. New portable classrooms contain outgasing pollutants such as formaldehyde and chloroform, used in carpets.<sup>12</sup> Most local schools said that portables are not occupied for several weeks, allowing outgasing to take place. In addition, portables are not used until the HVAC system has been operating for up to 98 consecutive hours at a moderate temperature. One school does not occupy a portable building

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<sup>12</sup> Environmental Health Conditions in California's Portable Classrooms Report.

until it is released by the Inspector of Record as habitable. Districts have the option to request portables that contain lower toxic chemical levels for classroom purposes.

**Response: Bonny Doon Union Elementary School District PARTIALLY AGREES.**

*The BDUESD is unfamiliar with portables in other districts. Its two portables have been in place for multiple years. There are no current plans to replace them.*

**Response: Live Oak School District AGREES.**

**Response: Mountain Elementary School District AGREES.**

**Response: Pacific School District AGREES.**

*The newest portable building had carpets installed that did not contain formaldehyde, however, the room was not occupied for several weeks after installation. The older buildings are scheduled for carpet replacement.*

**Response: Pajaro Valley Unified School District AGREES.**

*The District will not occupy any portable turned over by the contractor/manufacturer until the punch list is completed and the HVAC unit has run for seven days/168 hours at a moderate temperature, and then the construction filter is replaced and the room, walls, floors, casework have been cleaned as well.*

**Response: Santa Cruz City Schools District AGREES.**

**Response: Santa Cruz County Office of Education AGREES.**

**Response: San Lorenzo Valley Unified School District AGREES.**

*San Lorenzo Valley Unified School District agrees with this finding only as it pertains to SLVUSD portable classrooms.*

**Response: Scotts Valley Unified School District AGREES.**

**Response: Soquel Union Elementary School District AGREES.**

7. Portable classrooms are exempt from having sprinkler systems for a three-year period. This exemption can be renewed every three years.<sup>13</sup> Some Santa Cruz

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<sup>13</sup> California Educational Code 17074.54.

County portable classrooms have no sprinkler system. All portables must have a working fire alarm.

**Response: Bonny Doon Union Elementary School District PARTIALLY AGREES.**

*Both of the BDUESD portables have working fire alarm systems. One portable is equipped with a sprinkler system. The District will investigate the installation of a sprinkler system in the other.*

**Response: Live Oak School District AGREES.**

*Although the report does not identify the portable classrooms that have no sprinkler system, it should be noted that Education Code 17074.52 exempts portables that are used as single classrooms and sited more than 25 feet from any other building, including any other portable building, from being equipped with a sprinkler system. Education Code requires that the system in such a building consist of an automatic fire detection and alarm system.*

**Response: Mountain Elementary School District AGREES.**

*Although the report does not identify the portable classrooms that have no sprinkler system, it should be noted that Education Code 17074.52 exempts portables that are used as single classrooms and sited more than 25 feet from any other building, including any other portable building from being equipped with a sprinkler system. Education Code requires that the system in such a building consist of an automatic fire detection and alarm system.*

**Response: Pacific School District AGREES.**

*Due to the average response time for fire & rescue within the district (even though the school site is actually located within a block of the local fire station) the newest portable building was built with two-hour fire walls, as required by the State Architect.*

**Response: Pajaro Valley Unified School District AGREES.**

*All of the District's portables have a fire alarm system unless they are in storage or being used for storage. The District has only a few portables with sprinkler systems.*

**Response: Santa Cruz City Schools District AGREES.**

**Response: Santa Cruz County Office of Education AGREES.**

*Although the report does not identify the portable classrooms that have no sprinkler system, it should be noted that Education Code 17074.52 exempts portables that are used as single classrooms and sited more than 25 feet from any other building, including any other portable building from being equipped with a sprinkler system. Education Code requires that the system in such a building consist of an automatic fire detection and alarm system.*

**Response: San Lorenzo Valley Unified School District AGREES.**

*San Lorenzo Valley Unified School District agrees with this finding only as it pertains to SLVUSD portable classrooms.*

**Response: Scotts Valley Unified School District AGREES.**

*Although the report does not identify the portable classrooms that have no sprinkler system, it should be noted that Education Code 17074.52 exempts portables that are used as single classrooms and sited more than 25 feet from any other building, including any other portable building from being equipped with a sprinkler system. Education Code requires that the system in such a building consist of an automatic fire detection and alarm system. As required by the Division of State Architecture (DSA), modular classrooms (10) at Scotts Valley High School do have sprinklers.*

**Response: Soquel Union Elementary School District AGREES.**

*Although the report does not identify the portable classrooms that have no sprinkler system, it should be noted that Education Code 17074.52 exempts portables that are used as single classrooms and sited more than 25 feet from any other building, including any other portable building, from being equipped with a sprinkler system. Education Code requires that the system in such a building consist of an automatic fire detection and alarm system.*

8. The California Education Code 17077.10 requires all classrooms to have a telephone. Eighty-three percent of local portable classrooms do not have a telephone, although some do have an intercom. One district reported that at one school site, the permanent portables have phones but the temporary portables have no phones.

**Response: Bonny Doon Union Elementary School District AGREES.**

*Both of the District's portables have working telephones.*

**Response: Live Oak School District PARTIALLY AGREES.**

*All classrooms in the Live Oak School District have telephones including portable classrooms.*

*Although the Live Oak School District agrees that telephone connection to a public switched network is a worthy goal and an added element to ensuring student safety, Education Code 17077.10 does not require all classrooms to have a telephone. E.C. 17077.10 states: (a) it is a goal of the Legislature to eventually enhance pupil safety by equipping all elementary and secondary school classrooms with a telephone hook connected to a public switched network and (d) commencing with applications submitted on or after January 1, 2000, any school district applying for funding pursuant to this chapter shall include in its plans and specifications for construction of a new or modernized school building...a hard-wired connection to a public switched telephone network in each new or modernized classroom.*

**Response: Mountain Elementary School District PARTIALLY AGREES.**

*MESD is not aware of what other districts provide. All portables on our campus have both telephones and intercom access. However, Education Code 17077.10 does not require all classrooms to have a telephone. E.C. 17077.10 states: (a) it is a goal of the Legislature to eventually enhance pupil safety by equipping all elementary and secondary school classrooms with a telephone hook connected to a public switched network and (d) commencing with applications submitted on or after January 1, 2000, any school district applying for funding pursuant to this chapter shall include in its plans and specifications for construction of a new or modernized school building...a hard-wired connection to a public switched telephone network in each new or modernized classroom.*

**Response: Pacific School District PARTIALLY AGREES.**

*Education Code 17077.10 does not require all classrooms to have a telephone. E.C. 17077.10 states: (a) it is a goal of the Legislature to eventually enhance pupil safety by equipping all elementary and secondary school classrooms with a telephone hook connected to a public switched network and (d) commencing with applications submitted on or after January 1, 2000, any school district applying for funding pursuant to this chapter shall include in its plans and specifications for construction of a new or modernized school building a hard-wired connection to a public telephone network in each new or modernized classroom. All portable classrooms in Pacific School District are equipped with telephones.*

**Response: Pajaro Valley Unified School District PARTIALLY AGREES.**

*The District installs a phone or an intercom system or both in every portable temporary or not.*

**Response: Santa Cruz City Schools District PARTIALLY AGREES.**

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*CA Ed Code seems to imply that telephones in portable classrooms is a desirable goal, however, CA Ed Code does not seem to require telephones in portable classrooms at this time.*

**Response: Santa Cruz County Office of Education PARTIALLY AGREES.**

*Although the County Office of Education agrees that telephone connection to a public switched network is a worthy goal and an added element to ensuring student safety, Education Code 17077.10 does not require all classrooms to have a telephone. E.C. 17077.10 states: (a) it is a goal of the Legislature to eventually enhance pupil safety by equipping all elementary and secondary school classrooms with a telephone hook connected to a public switched network and (d) commencing with applications submitted on or after January 1, 2000, any school district applying for funding pursuant to this chapter shall include in its plans and specifications for construction of a new or modernized school building...a hard-wired connection to a public switched telephone network in each new or modernized classroom.*

**Response: San Lorenzo Valley Unified School District DISAGREES.**

*California Education Code 17077.10 does not require all classrooms to have telephones.*

**Response: Scotts Valley Unified School District PARTIALLY AGREES.**

*Although the Scotts Valley Unified School District agrees that telephone connection to a public switched network is a worthy goal and an added element to ensuring student safety, Education Code 17077.10 does not require all classrooms to have a telephone. E.C. 17077.10 states: (a) it is a goal of the Legislature to eventually enhance pupil safety by equipping all elementary and secondary school classrooms with a telephone hook connected to a public switched network and (d) commencing with applications submitted on or after January 1, 2000, any school district applying for funding pursuant to this chapter shall include in its plans and specifications for construction of a new or modernized school building...a hard-wired connection to a public switched telephone network in each new or modernized classroom.*

*All portable classrooms have both phone and intercom.*

**Response: Soquel Union Elementary School District partially AGREES.**

*Although the Soquel Union Elementary School District agrees that telephone connection to a public switched network is a worthy goal and an added element to ensuring student safety, Education Code 17077.10 does not require all classrooms to have a telephone. E.C. 17077.10 states: (a) it is a goal of the Legislature to*

*eventually enhance pupil safety by equipping all elementary and secondary school classrooms with a telephone hook connected to a public switched network and (d) commencing with applications submitted on or after January 1, 2000, any school district applying for funding pursuant to this chapter shall include in its plans and specifications for construction of a new or modernized school building...a hard-wired connection to a public switched telephone network in each new or modernized classroom.*

9. All portables have natural lighting.

**Response: Bonny Doon Union Elementary School District AGREES.**

*Both of the portables in the BDUESD have natural lighting. The status of other districts is not known.*

**Response: Live Oak School District AGREES.**

**Response: Mountain Elementary School District AGREES.**

**Response: Pacific School District AGREES.**

*All portable classrooms in Pacific School District have natural lighting provided by sufficient windows.*

**Response: Pajaro Valley Unified School District AGREES.**

*All of the District's portables have natural lighting and windows that open as well.*

**Response: Santa Cruz City Schools District AGREES.**

**Response: Santa Cruz County Office of Education AGREES.**

**Response: San Lorenzo Valley Unified School District AGREES.**

**Response: Scotts Valley Unified School District AGREES.**

**Response: Soquel Union Elementary School District AGREES.**

10. Two-thirds of the county's portable classrooms have a sink, but all students have access to drinking water.

**Response: Bonny Doon Union Elementary School District PARTIALLY DISAGREES.**

*The two BDUESD portables do not have sinks, but all students have access to drinking water.*

**Response: Live Oak School District AGREES.**

**Response: Mountain Elementary School District AGREES.**

**Response: Pacific School District AGREES.**

*All portable classrooms in Pacific School District have sinks and drinking water.*

**Response: Pajaro Valley Unified School District AGREES.**

*All portable rooms have access to drinking water. Elementary school portables that don't have a drinking water source are supplied with bottled water.*

**Response: Santa Cruz City Schools District AGREES.**

**Response: Santa Cruz County Office of Education AGREES.**

**Response: San Lorenzo Valley Unified School District AGREES.**

*San Lorenzo Valley Unified School District agrees with this finding only as it pertains to SLVUSD portable classrooms.*

**Response: Scotts Valley Unified School District AGREES.**

11. The same janitorial cleaning standards are used for both portable and regular classrooms.

**Response: Bonny Doon Union Elementary School District AGREES.**

**Response: Live Oak School District AGREES.**

**Response: Mountain Elementary School District AGREES.**

**Response: Pacific School District AGREES.**

**Response: Pajaro Valley Unified School District AGREES.**

*We agree that the same custodial standards are used in both portables and regular classrooms.*

**Response: Santa Cruz City Schools District AGREES.**



**Response: Santa Cruz County Office of Education AGREES.**

**Response: San Lorenzo Valley Unified School District AGREES**

*San Lorenzo Valley Unified School District agrees with this finding only as it pertains to SLVUSD portable classrooms.*

**Response: Scotts Valley Unified School District AGREES.**

**Response: Soquel Union Elementary School District AGREES.**

12. The HVAC system is operated by maintenance staff at most sites. Maintenance personnel keep records of all HVAC work performed. In one district an HVAC Specialist is responsible for ensuring effective ventilation. The Director of Maintenance and Operations supervises the work. Another district employs an HVAC Maintenance Technician whose primary job responsibility is to repair and service all district HVAC equipment. Teachers can also request training for HVAC systems, according to some districts. One district said that its custodians have no training in HVAC systems.

**Response: Bonny Doon Union Elementary School District PARTIALLY AGREES.**

*The BDUESD HVAC system is operated by maintenance and custodial personnel. Outside services are contracted with as needed.*

**Response: Live Oak School District AGREES.**

*Custodians in the Live Oak School District have training in HVAC systems.*

**Response: Mountain Elementary School District AGREES.**

*At Mountain, the maintenance staff is responsible for operating and maintaining the HVAC system. We also employ local service companies to repair and service our systems.*

**Response: Pacific School District AGREES.**

*Pacific School District hires a local HVAC Maintenance Service to monitor needs and service equipment.*

**Response: Pajaro Valley Unified School District AGREES.**

*We agree that our maintenance staff keep records of HVAC work performed. All of the worked performed on portables is supervised by the M&O supervisory staff. In*

*most of our portables, teachers have full access to the thermostats, and we show them how to operate them to set the temperature. Portables that are connected to our EMS have HVAC programming as outlined in 5 above.*

**Response: Santa Cruz City Schools District AGREES.**

**Response: Santa Cruz County Office of Education AGREES.**

**Response: San Lorenzo Valley Unified School District AGREES.**

*San Lorenzo Valley Unified School District agrees with this finding only as it pertains to SLVUSD portable classrooms.*

**Response: Scotts Valley Unified School District PARTIALLY AGREES.**

*Some routine maintenance is done by district wide staff. Other maintenance is performed by outside HVAC contractors.*

**Response: Soquel Union Elementary School District AGREES.**

13. No local agency tracks student or staff illness in either portable or regular classrooms. Some schools track illness upon complaint about a particular portable. One district said it doesn't track illness because medical privacy laws restrict the ability to track student or teacher health issues.

**Response: Bonny Doon Union Elementary School District PARTIALLY AGREES.**

*The BDUESD monitors student and staff illnesses and responds when patterns of illnesses indicate a need. No complaints have been made regarding portable buildings.*

**Response: Live Oak School District AGREES.**

*As noted in the finding, most districts track reported illness originating from a particular building or classroom. In many instances, however, the student and teacher population may be migratory in that they may utilize multiple classrooms/buildings during any given day. Although privacy restrictions do apply to an individual record, illnesses can be tracked in terms of numbers without identifying particular individuals.*

**Response: Mountain Elementary School District AGREES.**

*As noted in the finding, most districts track reported illness originating from a particular building or classroom. In many instances, however, the student and*

*teacher population may be migratory in that they may utilize multiple classrooms/buildings during any given day. Although privacy restrictions do apply to an individual record, illnesses can be tracked in terms of numbers without identifying particular individuals.*

**Response: Pacific School District AGREES.**

*Pacific School District monitors student and staff illnesses and responds when patterns of illnesses indicate a need. No complaints have been made regarding portable buildings.*

**Response: Pajaro Valley Unified School District AGREES.**

*We agree with the findings that we don't have the ability to track illness related to portable buildings.*

**Response: Santa Cruz City Schools District AGREES.**

**Response: Santa Cruz County Office of Education AGREES.**

*As noted in the finding, most districts track reported illness originating from a particular building or classroom. In many instances, however, the student and teacher population may be migratory in that they may utilize multiple classrooms/buildings during any given day. Although privacy restrictions do apply to an individual record, illnesses can be tracked in terms of numbers without identifying particular individuals.*

**Response: San Lorenzo Valley Unified School District AGREES.**

*San Lorenzo Valley Unified School District agrees with this finding only as it pertains to SLVUSD portable classrooms. If alerted by staff or parents, SLVUSD will track reported illness originating from a particular classroom.*

**Response: Scotts Valley Unified School District AGREES.**

*As noted in the finding, most districts track reported illness originating from a particular building or classroom. In many instances, however, the student and teacher population may be migratory in that they may utilize multiple classrooms/buildings during any given day. Although privacy restrictions do apply to an individual record, illnesses can be tracked in terms of numbers without identifying particular individuals.*

**Response: Soquel Union Elementary School District AGREES.**

*As noted in the finding, most districts track reported illness originating from a particular building or classroom. In many instances, however, the student and teacher population may be migratory in that they may utilize multiple classrooms/buildings during any given day. Although privacy restrictions do apply to an individual record, illnesses can be tracked in terms of numbers without identifying particular individuals.*

14. Many teachers use the same portable classroom for several years. Some schools rotate their teachers out of portables.

**Response: Bonny Doon Union Elementary School District PARTIALLY AGREES.**

*The BDUESD's portables have not been utilized as regular classrooms for many years and are only used intermittently for instrumental music lessons and computer robotics. (See response to statement #2)*

**Response: Live Oak School District AGREES.**

**Response: Mountain Elementary School District AGREES.**

**Response: Pacific School District AGREES.**

*Pacific School District has not rotated teachers out of the portable buildings because of the district's small size and number of classrooms. Teachers prefer to remain in the same location and have classroom setups that do not need to be reorganized. Each classroom is selected to best meet the needs of the teachers and students occupying them, for example, the preschool has an age-appropriate play yard and the After School Rec. building is near the playing field and playground.*

**Response: Pajaro Valley Unified School District AGREES.**

*We have found that there is almost an ownership of the classroom. Often we have found as strong a feeling from a teacher to keep "their" portable class room as we have found teachers who don't want to teach in regular class rooms.*

**Response: Santa Cruz City Schools District AGREES.**

**Response: Santa Cruz County Office of Education AGREES.**

**Response: San Lorenzo Valley Unified School District AGREES.**

*San Lorenzo Valley Unified School District agrees with this finding only as it pertains to SLVUSD portable classrooms.*

**Response: Scotts Valley Unified School District PARTIALLY AGREES.**

*Teachers are rotated based on the program, enrollment and staffing needs at each school.*

**Response: Soquel Union Elementary School District AGREES.**

15. The areas beneath portables are closed or skirted to deter animals from going under the portable classroom. Sometimes this skirt can wick moisture from the soil beneath the portable and cause problems. Areas beneath portables are checked for damage annually or upon the request of a teacher. If there is damage or anything unusual is noted, such as an odor or mildew, the teacher fills out a “request for maintenance” form at which time maintenance is performed.

**Response: Bonny Doon Union Elementary School District PARTIALLY AGREES.**

*The BDUESD is unfamiliar with the portables in other districts, but inspections of portables are a part of routine maintenance. The teacher, other staff, or visitors to the campus may also report a suspected problem.*

**Response: Live Oak School District AGREES.**

**Response: Mountain Elementary School District AGREES.**

*Inspection of portables and other buildings are a part of routine maintenance. Reporting a suspected problem is not limited to teachers but may be filed by the teacher, other staff, parent or community member.*

**Response: Pacific School District AGREES.**

*Inspection of portables and other buildings are a part of routine maintenance. Teachers or other staff report suspected problems to the Administrator, who monitors all maintenance needs.*

**Response: Pajaro Valley Unified School District AGREES.**

*We agree with this finding except that reporting a suspected problem is not only limited to teachers but may be filed by other staff (and parents) as well. The reporting of a suspected problem is always investigated and often leads to inspections of other portable buildings.*

**Response: Santa Cruz City Schools District AGREES.**

**Response: Santa Cruz County Office of Education AGREES.**

*Inspection of portables and other buildings are a part of routine maintenance. Reporting a suspected problem is not limited to teachers but may be filed by the teacher or other staff.*

**Response: San Lorenzo Valley Unified School District AGREES.**

*San Lorenzo Valley Unified School District agrees with this finding only as it pertains to SLVUSD portable classrooms.*

**Response: Scotts Valley Unified School District AGREES.**

*Inspection of portables and other buildings are a part of routine maintenance. Reporting a suspected problem is not limited to teachers but may be filed by the teacher or other staff.*

**Response: Soquel Union Elementary School District AGREES.**

*Inspection of portables and other buildings are a part of routine maintenance. Reporting a suspected problem is not limited to teachers but may be filed by the teacher or other staff.*

16. Water damage promotes mold and bacteria growth, which have been linked to possible illnesses. Type I allergy to mold reportedly affects between two and 30 percent of those with allergies. Culture studies have been performed to examine the prevalence and identity of mold contamination in the indoor environment. In one study, cladosporium, penicillium, and alternaria were found to be the predominating airborne fungi present, each being detectable in more than 75% of the structures studied. The study suggested that when a level of 700 colony-forming units per cubic meter of indoor air was exceeded, higher incidences of allergic reactions and eye, nose and throat irritation are encountered.<sup>14</sup>

Portables are checked for water damage at least once a year or upon the request of a staff member. Most schools said maintenance problems in portable classrooms are tracked through district work orders. Some schools or districts said there have been mold, ventilation or poor air quality problems in the past.

**Response: Bonny Doon Union Elementary School District PARTIALLY AGREES.**

*The BDUESD portables are inspected on a yearly basis. There have been no reports of complaints or suspected problems in the two portables. If some arise, the*

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<sup>14</sup> Samet and Spengler, Indoor Air Pollution: A Health Perspective.

*company that monitors the premises for environmental concerns will be contacted for an inspection.*

**Response: Live Oak School District AGREES.**

*Finding 17 supports that districts address air quality monitoring and testing.*

**Response: Mountain Elementary School District AGREES.**

*When there have been comments about water leaks or odor issues in the portables, we have immediately repaired damage and have had the portable checked for mold and other dangerous substances, replacing carpets, repainting, etc.*

**Response: Pacific School District AGREES.**

*Although there have been no complaints or suspected problems, Pacific School District will research services to test air quality this school year in response to this finding.*

**Response: Pajaro Valley Unified School District AGREES.**

*We agree with this finding that there is evidence that high levels of mold can result in higher incidence of allergic reactions.*

**Response: Santa Cruz City Schools District AGREES.**

**Response: Santa Cruz County Office of Education AGREES.**

*Finding 17 supports that districts address air quality monitoring and testing.*

**Response: San Lorenzo Valley Unified School District AGREES.**

*San Lorenzo Valley Unified School District agrees with this finding only as it pertains to SLVUSD portable classrooms.*

**Response: Scotts Valley Unified School District AGREES.**

*Finding 17 supports that districts address air quality monitoring and testing.*

**Response: Soquel Union Elementary School District AGREES.**

17. One school took the incentive to have its portable classrooms' air quality tested for \$1500 per test. The results concluded that its portable classrooms' air quality was the same as that in regular classrooms.

**Response: Santa Cruz County Office of Education AGREES.**

18. All school districts must provide a written report annually of the pesticides in use on school sites.<sup>15</sup>

One district reported that any toxic cleaning products, pesticides or fertilizers used are listed in the Material Safety Data Sheets, kept at each site. Parents and staff are notified in writing and the site is posted if any pesticides or fertilizers are used during the school calendar days. No highly toxic cleaners are used in this district's classrooms.

Another district said it abides by the state regulations regarding pesticide use in schools. The list of toxic products that may and may not be used as well as the posting requirements are covered in these regulations. This district uses pesticides only to abate a known and specific problem, not for general upkeep. In addition, the grounds are fertilized in the summer and spring during school breaks.

A third school district uses environment-friendly products such as EcoExempt HC (active ingredient: clove oil, purpose: weed control), EcoExempt (active ingredient: rosemary oil, purpose: insect control) and ZP Rodent Bait AG (active ingredient: zinc phosphide, purpose: gopher control).

**Response: Bonny Doon Union Elementary School District PARTIALLY DISAGREES.**

*The Healthy Schools Act of 2000 does not require that all schools annually report pesticide use on campus. Education Code Section 17611 requires that each school site maintain records of all pesticide use at the school site for a period of four years and shall make the information available to the public upon request. Education Code 17612 requires that the school district designee shall annually provide to all staff and parents or guardians of pupils enrolled at a school site, a written notification of the name of all pesticide products expected to be applied at the school facility during the upcoming year. Section 17612(a)(2) requires that if a pesticide product not included in the annual notification is subsequently intended for use at the school site, the school district designee shall, at least 72 hours prior to application, provide written notification of the intended use.*

*The BDUESD avoids the use of pesticides when school is in session. Records of any pesticide use are maintained. These are available to the public upon request. If any pesticides are to be used (to abate specific problems) during the school year, written notification of the substance and its intended use will be given to the parents. An annual written report of pesticides in use at the school is published.*

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<sup>15</sup> Healthy Schools Act of 2000.



**Response: Live Oak School District PARTIALLY AGREES.**

*The Healthy Schools Act of 2000 does not require that all schools annually report pesticide use on campus. The act requires that those school districts that voluntarily adopt an Integrated Pest Management (IPM) program to include record keeping and program review in their program (E.C. 17608 and Food and Agricultural Code Section 13183). Education Code Section 17611 does require that each school site maintain records of all pesticide use at the school site for a period of four years and shall make the information available to the public upon request. Education Code 17612 requires that the school district designee shall annually provide to all staff and parents or guardians of pupils enrolled at a school site, a written notification of the names of all pesticide products expected to be applied at the school facility during the upcoming year. Section 17612(a)(2) requires that if a pesticide product not included in the annual notification is subsequently intended for use at the school site, the school district designee shall, at least 72 hours prior to application, provide written notification of the intended use.*

**Response: Mountain Elementary School District PARTIALLY AGREES.**

*The Healthy Schools Act of 2000 does not require that all schools annually report pesticide use on campus. The act requires that those school districts that voluntarily adopt an Integrated Pest Management (IPM) program to include record keeping and program review in their program (E.C. 17608 and Food and Agricultural Code Section 13183). Education Code Section 17611 does require that each school site maintain records of all pesticide use at the school site for a period of four years and shall make the information available to the public upon request. Education Code 17612 requires that the school district designee shall annually provide to all staff and parents or guardians of pupils enrolled at a school site, a written notification of the names of all pesticide products expected to be applied at the school facility during the upcoming year. Section 17612(a)(2) requires that if a pesticide product not included in the annual notification is subsequently intended for use at the school site, the school district designee shall, at least 72 hours prior to application, provide written notification of the intended use. Mountain ESD almost exclusively uses non-toxic substances as pesticides on campus.*

**Response: Pacific School District PARTIALLY AGREES.**

*The Healthy Schools Act of 2000 does not require that all schools annually report pesticide use on campus. Pacific School District has adopted an Integrated Pest Management (IPM) program that includes record keeping and program review of the program (E.C. 17608 and Food and Agricultural Code Section 13183). Education Code Section 17611 does require that each school site maintain records of all pesticide use at the school site for a period of four years and shall make the*

*information available to the public upon request. Education Code 17612 requires that the school district designee shall annually provide to all staff and parents or guardians of pupils enrolled at a school site, a written notification of the names of all pesticide products expected to be applied at the school facility during the upcoming year. Section 17612(a)(2) requires that if a pesticide product not included in the annual notification is subsequently intended for use at the school site, the school district designee shall, at least 72 hours prior to application, provide written notification of the intended use. Pesticides are limited to abating specific problems (gophers) and parents are notified with each application.*

**Response: Pajaro Valley Unified School District PARTIALLY AGREES.**

*The Healthy Schools Act of 2000 does not require that all schools annually report pesticide use on campus. The act requires that those school districts that voluntarily adopt an Integrated Pest Management (IPM) program to include record keeping and program review in their program (E.C. 17608 and Food and Agricultural Code Section 13183). Education Code Section 17611 does require that each school site maintain records of all pesticide use at the school site for a period of four years and shall make the information available to the public upon request. Education Code 17612 requires that the school district designee shall annually provide to all staff and parents or guardians of pupils enrolled at a school site, a written notification of the names of all pesticide products expected to be applied at the school facility during the upcoming year. Section 17612(a)(2) requires that if a pesticide product not included in the annual notification is subsequently intended for use at the school site, the school district designee shall, at least 72 hours prior to application, provide written notification of the intended use.*

*We are a District that uses environmentally friendly products like the EcoExempt products. In cases where a stronger chemical application is needed (termite, flea, gopher treatments and the like), we provide written notification through the administrative staff of the school site to the parents, at least 72 hours prior to application and, install postings at the site stating when, what and why a product is being used.*

**Response: Santa Cruz City Schools District PARTIALLY AGREES.**

*(Please refer to Health Schools Act of 2000. CA Ed Code as follows: 17608, 17611, 17612, 17612(a)(2).*

**Response: Santa Cruz County Office of Education PARTIALLY AGREES.**

*The Healthy Schools Act of 2000 does not require that all schools annually report pesticide use on campus. The act requires that those school districts that voluntarily adopt an Integrated Pest Management (IPM) program to include record keeping and program review in their program (E.C. 17608 and Food and*

*Agricultural Code Section 13183). Education Code Section 17611 does require that each school site maintain records of all pesticide use at the school site for a period of four years and shall make the information available to the public upon request. Education Code 17612 requires that the school district designee shall annually provide to all staff and parents or guardians of pupils enrolled at a school site, a written notification of the names of all pesticide products expected to be applied at the school facility during the upcoming year. Section 17612(a)(2) requires that if a pesticide product not included in the annual notification is subsequently intended for use at the school site, the school district designee shall, at least 72 hours prior to application, provide written notification of the intended use.*

**Response: San Lorenzo Valley Unified School District AGREES.**

*We rarely apply pesticides and only in emergency situations. We adhere to Education Code 17612.*

**Response: Scotts Valley Unified School District PARTIALLY AGREES.**

*The Healthy Schools Act of 2000 does not require that all schools annually report pesticide use on campus. The act requires that those school districts that voluntarily adopt an Integrated Pest Management (IPM) program to include record keeping and program review in their program (E.C. 17608 and Food and Agricultural Code Section 13183). Education Code Section 17611 does require that each school site maintain records of all pesticide use at the school site for a period of four years and shall make the information available to the public upon request. Education Code 17612 requires that the school district designee shall annually provide to all staff and parents or guardians of pupils enrolled at a school site, a written notification of the names of all pesticide products expected to be applied at the school facility during the upcoming year. Section 17612(a)(2) requires that if a pesticide product not included in the annual notification is subsequently intended for use at the school site, the school district designee shall, at least 72 hours prior to application, provide written notification of the intended use.*

**Response: Soquel Union Elementary School District PARTIALLY AGREES.**

*The Healthy Schools Act of 2000 does not require that all schools annually report pesticide use on campus. The act requires that those school districts that voluntarily adopt an Integrated Pest Management (IPM) program to include record keeping and program review in their program (E.C. 17608 and Food and Agricultural Code Section 13183). Education Code Section 17611 does require that each school site maintain records of all pesticide use at the school site for a period of four years and shall make the information available to the public upon request. Education Code 17612 requires that the school district designee shall*

*annually provide to all staff and parents or guardians of pupils enrolled at a school site, a written notification of the names of all pesticide products expected to be applied at the school facility during the upcoming year. Section 17612(a)(2) requires that if a pesticide product not included in the annual notification is subsequently intended for use at the school site, the school district designee shall, at least 72 hours prior to application, provide written notification of the intended use.*

19. Placement of portable classrooms near parking lots increases the air toxins, due to vehicle exhaust.<sup>16</sup> Local schools and districts said that the location of portable classrooms varies even within a district. Traffic is one of many factors in considering a portable's placement; relatively few are near cars or buses.

**Response: Bonny Doon Union Elementary School District AGREES.**

*The BDUESD portables are not located near parking lots, cars or buses. The BDUESD is not familiar with portables in other school districts.*

**Response: Live Oak School District AGREES.**

**Response: Mountain Elementary School District AGREES.**

**Response: Pacific School District AGREES.**

*Because of the very limited space on Pacific School's campus, there is no flexibility in portable placement. The preschool building, which was the first installed, has been placed away from parking and traffic. The more recent buildings, however, are adjacent to a road, but there is very little traffic.*

**Response: Pajaro Valley Unified School District AGREES.**

*The District places most of these portables away from roads and parking lot areas for safety, noise and air issues.*

**Response: Santa Cruz City Schools District AGREES.**

*Placement of portable classrooms near parking lots increases the air toxins, due to vehicle exhaust. Local schools and districts said that the location of portable classrooms varies even within a district. Traffic is one of many factors in considering a portable's placement; relatively few are near cars or buses.*

**Response: Santa Cruz County Office of Education AGREES.**

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<sup>16</sup> [Santa Cruz Sentinel](#), 17 October 2003.

**Response: San Lorenzo Valley Unified School District AGREES.**

*San Lorenzo Valley Unified School District agrees with this finding only as it pertains to SLVUSD portable classrooms.*

**Response: Scotts Valley Unified School District AGREES.**

*At one site (SVMS) four (4) portables are located 24 feet from parking stalls for a small staff parking lot (14 stalls). All other portables are from 35 feet to 50 feet from parking areas.*

**Response: Soquel Union Elementary School District AGREES.**

## **Conclusions**

1. Portable classrooms may sound temporary, but are a permanent feature on most school campuses.
2. A wide range of serious health and safety conditions exists in portable classrooms.
3. Schools do not know whether portable classrooms are linked to illness because it is not tracked. In addition, no data can be compiled for Workers Compensation claims because illness is not tracked among staff using portable classroom.
4. Portable classrooms that do not have telephones violate state educational codes.
5. Air quality can be improved by placing portables away from sources of vehicle exhaust.

## **Recommendations**

1. Schools or districts should try to determine whether portable classrooms are causing an increase in illness or absenteeism.

**Response: Bonny Doon Union Elementary School District AGREES.**

*This recommendation is being implemented. Illness and absenteeism are carefully monitored, and no link between portable classrooms and illnesses has been found. This monitoring will continue.*

**Response: Live Oak School District AGREES.**

*Responding for Santa Cruz Live Oak School District programs located in portable classrooms, the recommendation is implemented. Class illnesses are monitored,*

*and administrators report any indications that the environment may be a contributing factor.*

**Response: Mountain Elementary School District AGREES.**

*This recommendation is implemented. Class illnesses are monitored, and the administrator reports any indications that the environment may be a contributing factor.*

**Response: Pacific School District AGREES.**

*This recommendation is being implemented. Illness and absenteeism is carefully monitored at Pacific School, and no link between portable classrooms and illnesses has been found. We will continue this monitoring.*

**Response: Pajaro Valley Unified School District PARTIALLY AGREES.**

*To determine if portable classrooms are causing an increase in illness or absenteeism as suggested in our 400 portable facilities would require us to have a comprehensive listing of the contact time each student and or staff member had/has in instructional facilities of the District. To perform this large recordkeeping task districtwide would be a major undertaking for both the instructional and support staff of the District. It would be far more practical to perform a pilot study at one or two of our elementary school sites where students have a relatively fixed room assignment. Standards regarding the type of illness and/or absence to be included would have to be developed as a person with a broken bone related to a skiing accident would have no relationship to a portable classroom assignment. Legal considerations involving the reason for the illness and/or absences would have to be discussed with counsel as the right to privacy and confidential information could be compromised. We believe that the complexity and costs associated with doing such a study could likely outweigh any benefits gained by same.*

**Response: Santa Cruz City Schools District AGREES.**

*This recommendation is implemented. Illnesses are monitored and teachers, administrators and/or parents contribute indicators that the environment may be a contributing factor.*

**Response: Santa Cruz County Office of Education AGREES.**

*Responding for Santa Cruz County Office of Education programs located in portable classrooms, the recommendation is implemented. Class illnesses are monitored and administrators report any indications that the environment may be a contributing factor.*

*The recommendation will be addressed in responses by each district as to their individual district procedures in monitoring illness in portable classrooms.*

**Response: San Lorenzo Valley Unified School District AGREES.**

*San Lorenzo Valley Unified School District will continue to monitor absenteeism whether students are housed in permanent or portable classrooms.*

**Response: Scotts Valley Unified School District AGREES.**

*The recommendation is being implemented. Class illnesses are monitored and administrators report any indications that the environment may be a contributing factor.*

**Response: Soquel Union Elementary School District AGREES.**

*Responding for Soquel Union Elementary School District programs located in portable classrooms, the recommendation is implemented. Administrators report any indications that the environment may be a contributing factor.*

2. Schools should use the U.S. Environmental Protection Agency's Tools for Schools programs for controlling air quality. This is available through the EPA Web site.

**Response: Bonny Doon Union Elementary School District PARTIALLY AGREES.**

*The Santa Cruz County Office of Education has determined that this recommendation requires further analysis, saying that there are alternatives to the Tools for Schools Kit provided by the EPA. The BDUESD will work with the SCCOE to compare the various products available before committing to the Tools for Schools program.*

**Response: Live Oak School District PARTIALLY AGREES.**

*This recommendation requires further analysis. There are many alternatives to the Tools for Schools Kit provided by the EPA and responsible comparisons of the various products available should be made by the districts prior to committing to the Tools for Schools program.*

**Response: Mountain Elementary School District PARTIALLY AGREES.**

*This recommendation requires further analysis. There are many alternatives to the Tools for Schools Kit provided by the EPA, and responsible comparisons of the various products available should be made by the districts prior to committing to the Tools for Schools program.*

**Response: Pacific School District PARTIALLY AGREES.**

*The Santa Cruz County Office of Education has determined that this recommendation requires further analysis, saying that there are alternatives to the Tools for Schools Kit provided by the EPA. Pacific School District will work with the SCCOE to compare the various products available before committing to the Tools for Schools program.*

**Response: Pajaro Valley Unified School District PARTIALLY AGREES.**

*We use parts of the States EPA's recommended programs to perform our school site inspections and repairs presently. There are many alternatives to the Tools for Schools Kit provided by the EPA and responsible comparisons of the various products available so further analysis is needed before totally adopting the "Tools for Schools Kit".*

**Response: Santa Cruz City Schools District PARTIALLY AGREES.**

*This recommendation requires further analysis. There is an array of programs for controlling air quality. Ongoing investigation and research will inform SCCSD as to the most effective and efficient programs available.*

**Response: Santa Cruz Office of Education PARTIALLY AGREES.**

*This recommendation requires further analysis. There are many alternatives to the Tools for Schools Kit provided by the EPA, and responsible comparisons of the various products available should be made by the districts prior to committing to the Tools for Schools program.*

**Response: San Lorenzo Valley Unified School District PARTIALLY DISAGREES.**

*San Lorenzo Valley Unified School District is not able to commit to such a recommendation without further study of other available tools created specifically for school district use.*

**Response: Scotts Valley Unified School District PARTIALLY AGREES.**

*This recommendation requires further analysis. There are many alternatives to the Tools for Schools Kit provided by the EPA and responsible comparisons of the various products available will be made prior to committing to the Tools for Schools program.*

**Response: Soquel Union Elementary School District PARTIALLY AGREES.**



*This recommendation requires further analysis. There are many alternatives to the Tools for Schools Kit provided by the EPA and responsible comparisons of the various products available should be made prior to committing to the Tools for Schools program.*

3. Schools and districts should inform teachers, staff, parents and the public about the recent study by the state DHS and ARB (“Environmental Health Conditions in California’s Portable Classrooms”).

**Response: Bonny Doon Union Elementary School District PARTIALLY AGREES.**

*The County Office of Education has determined that this recommendation requires further analysis. The County Office of Education staff will examine the DHS and ARB study and, if determined appropriate, will place instructions on how to access the study or provide a link on the County Office of Education web site. The BDUESD will follow the instructions of the County Office when this study is complete.*

**Response: Live Oak School District PARTIALLY AGREES.**

*This recommendation requires further analysis. The County Office of Education staff will examine the DHS and ARB study and, if determined appropriate, will place instructions on how to access the study or provide a link on the County Office of Education web site. Timeframe: six months or sooner.*

**Response: Mountain Elementary School District PARTIALLY AGREES.**

*This recommendation requires further analysis. The MESD staff will examine the DHS and ARB study and, if determined appropriate, will place instructions on how to access the study or provide a link on our web site. Timeframe: six months or sooner.*

**Response: Pacific School District PARTIALLY AGREES.**

*The Santa Cruz County Office of Education has determined that this recommendation requires further analysis. The County Office of Education staff will examine the DHS and ARB study and, if determined appropriate, will place instructions on how to access the study or provide a link on the County Office of Education web site. Pacific School District will follow the instructions of the County Office when this study is complete.*

**Response: Pajaro Valley Unified School District AGREES.**

*We already recommend the DHS and ARB report to all inquires regarding portable buildings and/or environmental quality.*

<http://www.arb.ca.gov/research/indoor/pcs/pcs.htm>.

**Response: Santa Cruz City Schools District PARTIALLY AGREES.**

*This recommendation requires further analysis. Both the State DGS and ARB are presently accessible by teachers, staff, parents and the public. Perhaps the COE could identify and provide access countywide.*

**Response: Santa Cruz Office of Education PARTIALLY AGREES.**

*This recommendation requires further analysis. The County Office of Education staff will examine the DHS and ARB study and, if determined appropriate, will place instructions on how to access the study or provide a link on the County Office of Education web site. Timeframe: six months or sooner.*

**Response: San Lorenzo Valley Unified School District PARTIALLY DISAGREES.**

*San Lorenzo Valley Unified School District is not able to commit to such a recommendation without examining the DHS and ARB studies.*

**Response: Scotts Valley Unified School District PARTIALLY AGREES.**

*This recommendation requires further analysis. The County Office of Education staff and District staff will examine the DHS and ARB study and, if determined appropriate, will place instructions on how to access the study or provide a link on the District web site. Timeframe: March 1, 2005.*

**Response: Soquel Union Elementary School District PARTIALLY AGREES.**

*This recommendation requires further analysis. The Soquel Union Elementary School District staff will examine the DHS and ARB study and, if determined appropriate, will place instructions on how to access the study or provide a link on the Soquel Union Elementary School District web site.*

4. Schools should ventilate portable classrooms regularly to increase air quality. “Indoor Air Pollution, A Health Perspective” recommends controlling indoor mold contamination by creating an indoor environment unfavorable to mold growth. Potential substrates for mold growth should be removed or kept scrupulously clean. Indoor humidity and accumulation of indoor aeroallergens should be combated with good indoor ventilation. Air conditioning may act to decrease indoor exposure to mold spores from the outside. In addition, local schools should clean HVAC systems according to manufacturer’s recommendations.

**Response: Bonny Doon Union Elementary School District AGREES.**

*This recommendation is implemented in the BDUESD portable classrooms.*

**Response: Live Oak School District AGREES.**

*This recommendation is implemented at portable classrooms operated by Live Oak School District programs.*

**Response: Mountain Elementary School District AGREES.**

*This recommendation is implemented at portable classrooms operated by MESD programs.*

**Response: Pacific School District AGREES.**

*This recommendation is implemented in portable classrooms in Pacific School District.*

**Response: Pajaro Valley Unified School District AGREES.**

*We agree in part with this recommendation, we whole heartedly support and have implemented a program to assure increased air circulation in portables, see item 5 above.*

**Response: Santa Cruz City Schools District PARTIALLY AGREES.**

*This recommendation is partially implemented. HVAC systems not always cleaned as frequently as manufacturers recommend.*

**Response: Santa Cruz County Office of Education AGREES.**

*This recommendation is implemented at portable classrooms operated by COE programs. While the COE agrees with the recommendations made, each individual district will respond according to their particular situation.*

**Response: San Lorenzo Valley Unified School District AGREES.**

*This recommendation is already being implemented in San Lorenzo Valley Unified School District.*

**Response: Scotts Valley Unified School District AGREES.**

*This recommendation is implemented at portable classrooms operated by Scotts Valley Unified School District programs.*

**Response: Soquel Union Elementary School District AGREES.**

*This recommendation is generally implemented in portable classrooms operated by the district, although some of the older portables do not have air conditioning.*

5. When replacing portable classrooms, schools should request environmentally cleaner portable classrooms.

**Response: Bonny Doon Union Elementary School District AGREES.**

*There are no plans to replace or request additional portable classrooms in the BDUESD. Should such a decision arise, environmentally cleaner portable classrooms would be requested.*

**Response: Live Oak School District AGREES.**

*This recommendation has been implemented in Live Oak School District programs portable class sites.*

**Response: Mountain Elementary School District AGREES.**

*MESD agrees with this recommendation and will endeavor to implement with acquisition of future portables.*

**Response: Pacific School District AGREES.**

*This recommendation will be implemented in Pacific School District.*

**Response: Pajaro Valley Unified School District AGREES.**

*We agree with this recommendation, and it has been implemented.*

**Response: Santa Cruz City Schools District AGREES.**

*This recommendation is implemented to all degrees possible.*

**Response: Santa Cruz County Office of Education AGREES.**

*This recommendation has been implemented in COE programs portable class sites. While in agreement with the concept of the recommendation, each individual district will respond to their particular situation.*

**Response: San Lorenzo Valley Unified School District AGREES.**

*This recommendation is already being implemented in San Lorenzo Valley Unified School District.*

**Response: Scotts Valley Unified School District AGREES.**

*This recommendation has been implemented in Scotts Valley Unified School District.*

**Response: Soquel Union Elementary School District PARTIALLY AGREES.**

*While the District is in agreement with the concept of the recommendation, each situation in which portables are introduced to a school site is unique. The need and availability of portables, especially those that will truly be used for short-term purposes, is a factor in selection of specific portable buildings.*

6. All portable classrooms should have telephones.

**Response: The Bonny Doon Union Elementary School District AGREES.**

*Both portables in the district have working telephones.*

**Response: Live Oak School District AGREES.**

*This recommendation is implemented in Live Oak School District portable classrooms.*

**Response: Mountain Elementary School District AGREES.**

*This recommendation is implemented at portable classrooms operated by MESD programs.*

**Response: Pacific School District AGREES.**

*This recommendation is implemented in portable classrooms in Pacific School District.*

**Response: Pajaro Valley Unified School District AGREES.**

*All of our assigned instructional classroom facilities, be they portable or a regular facility, are equipped with emergency communications to the site's main office. The majority of our classrooms (and our standard regarding replacements and upgrades) have telephones being installed.*

**Response: Santa Cruz City Schools District AGREES.**

*Implemented or in process.*

**Response: Santa Cruz Office of Education AGREES.**

*This recommendation is implemented in COE programs portable classrooms. As evidenced in the Grand Jury's Finding #8, not all district portables are equipped with a phone. Each district will address the recommendation in their individual district responses.*

**Response: San Lorenzo Valley Unified School District AGREES.**

*It is the goal of the San Lorenzo Valley Unified School District to install telephones in all classrooms by 2006. Half of our schools have already met this goal.*

**Response: Scotts Valley Unified School District AGREES.**

*This recommendation is implemented in Scotts Valley Unified School District portable classrooms.*

**Response: Soquel Union Elementary School District AGREES.**

*With our modernization and bond projects currently underway, Soquel can say that this recommendation is implemented in its portable classrooms that are in regular use as classrooms or workstations. Upon occasion we bring in temporary portables, such as during construction, that may not be fully equipped with telephone service.*

7. Schools should place portable classrooms away from streets, parking lots and other traffic areas.

**Response: Bonny Doon Union School Elementary School District AGREES.**

*The BDUESD portables are placed away from direct traffic areas and parking lots. They have been located in a fenced area above a local road for at least ten years.*

**Response: Live Oak School District AGREES.**

*The recommendation is implemented at Live Oak School District portable classroom sites. Whenever possible, portables, where feasible, are placed away from high traffic areas.*

**Response: Mountain Elementary School District AGREES.**

*The recommendation is implemented at MESD. Portables, where feasible, are placed away from high traffic areas.*

**Response: Pacific School District PARTIALLY AGREES.**

*Pacific School District agrees with this recommendation, but must repeat the response to Finding # 19. Due to very limited space on Pacific School's campus, there is no flexibility in portable placement. The preschool building, which was the first installed, has been placed away from parking and traffic. The more recent buildings, however, are adjacent to a road, but there is very little traffic.*

**Response: Pajaro Valley Unified School District AGREES.**

*The District tries to place most of the portables away from roads and parking lot areas for safety, noise, traffic issues and air issues.*

**Response: Santa Cruz City Schools District AGREES.**

*This recommendation is implemented to all degrees possible.*

**Response: Santa Cruz County Office of Education AGREES/**

*The recommendation is implemented at COE programs portable classroom sites. Portables, where feasible, are placed away from high traffic areas. Each school district will respond to the recommendation in their individual district responses.*

**Response: San Lorenzo Valley Unified School District AGREES.**

*Portables are currently placed away from high traffic areas. The District's Measure S construction began in 2003, and by 2006, thirty-eight of the District's portable classrooms will be removed from its school sites.*

**Response: Scotts Valley Unified School District AGREES.**

*The recommendation is implemented by Scotts Valley Unified School District. Portables, where feasible, are placed away from high traffic areas.*

**Response: Soquel Union Elementary School District PARTIALLY AGREES.**

*To the extent possible, this recommendation is implemented for district portable classroom sites. Portables, where feasible, are placed away from high traffic areas. However, many factors play a role in the selection of sites for portables, including the configuration of the site and placement of other buildings, the availability of utility hook-ups and appropriate ground conditions. It is necessary to take all of these considerations into account when selecting sites for portables.*

***Responses Required***

<b>Entity</b>	<b>Findings</b>	<b>Recommendations</b>	<b>Respond Within</b>
Alianza Charter School	2 – 16, 18, 19	1 - 7	90 days (September 30, 2004)
Alternative Family Education-Home School	2 – 16, 18, 19	1 - 7	90 days (September 30, 2004)
Bonny Doon Union School District	2 – 16, 18, 19	1 - 7	90 days (September 30, 2004)
Happy Valley School District	2 – 16, 18, 19	1 - 7	90 days (September 30, 2004)
Linscott Charter School	2 – 16, 18, 19	1 - 7	90 days (September 30, 2004)
Live Oak School District	2 – 16, 18, 19	1 - 7	90 days (September 30, 2004)
Mountain Elementary School District	2 – 16, 18, 19	1 - 7	90 days (September 30, 2004)
New School	2 – 16, 18, 19	1 - 7	90 days (September 30, 2004)
Ocean Alternative Education Center	2 – 16, 18, 19	1 - 7	90 days (September 30, 2004)
Pacific Coast Charter School	2 – 16, 18, 19	1 - 7	90 days (September 30, 2004)
Pacific School	2 – 16, 18, 19	1 - 7	90 days (September 30, 2004)
Pajaro Valley School District	2 – 16, 18, 19	1 - 7	90 days (September 30, 2004)



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Renaissance High School	2 – 16, 18, 19	1 - 7	90 days (September 30, 2004)
San Lorenzo Valley Unified School District	2 – 16, 18, 19	1 - 7	90 days (September 30, 2004)
San Lorenzo Valley Unified School District Charter School	2 – 16, 18, 19	1 - 7	90 days (September 30, 2004)
Santa Cruz City School District	2 – 16, 18, 19	1 - 7	90 days (September 30, 2004)
Santa Cruz County Office of Education	All	1 - 7	60 days (August 30, 2004)
Scotts Valley Unified School District	2 – 16, 18, 19	1 - 7	90 days (September 30, 2004)
Soquel Union Elementary School District	2 – 16, 18, 19	1 - 7	90 days (September 30, 2004)
Watsonville Charter School of the Arts	2 – 16, 18, 19	1 - 7	90 days (September 30, 2004)

## **Appendix**

This survey is typical of those sent out for the Grand Jury's survey.

### **Survey**

Questions for maintenance and/or cleaning personnel/staff, teachers, administration and staff:

1. How often are the portable classrooms cleaned? [Dust, pollen, and mildew concerns]?
2. How old are the heating, ventilation, and air conditioning systems in these units?  
  
How often are the portables inspected insuring that EPA indoor air quality is met?
3. Do they meet the ventilation standards in local building codes? What are the standards?
4. Who oversees the system operations and maintenance of the HVAC systems to ensure design ventilation rates are attained?
5. How often are these systems [HVAC] cleaned and maintained? Is routine maintenance of HVAC systems done on an annual basis, or more often?
6. Are the portables routinely checked for water-stained ceiling tiles, water damaged carpets, etc. or does maintenance staff respond only when a teacher/school staff member complains about a problem?
7. How much time is allowed for building materials in a new or remodeled portable to off-gas pollutants before it is occupied?
8. Are the portables cleaned/maintained as frequently as any other school classroom?
9. Are the ventilation ducts cleaned/maintained regularly?
10. What toxic cleaning products/pesticides/fertilizers are used in school environments?
11. Regarding the placement/location of the portables:
  - What is the unit's proximity to the area where car or school bus exhaust might enter the ventilation intake?
  - Is the portable raised above ground-level? If so, are the areas of access to the underside of the portable properly screened to discourage pests? Drainage problems?

---Proximity to sprinkler system [water damage/rot/mold/mildew, etc.] ?

12. Is there a concern for teacher safety if the portable[s] are isolated from the main buildings? [There is some documentation of women teachers at risk.]

If the portable is some distance from the main structure, does the unit have a telephone?

Alarm/emergency system?

Does each portable have running water?

A sink?

Natural light?

13. How many portables at each site? Number of years each portable at that school?

History of problems with specific portable. Means of tracking portable's maintenance problems?

Tracking students or teachers with health problems from these portables?

14. Teachers rotated year to year from the portables?

15. What are portables used for other than as classrooms?

16. Communication and education--Training for staff/faculty on how to properly ventilate [run a/c whenever class is in session as well as one hour prior to class with outside vents open]. Everyone associated with these portable buildings --from the occupants to maintenance should be aware of problems and communicate with each other to work together to prevent and solve problems.

17. We would like to make sure we get statistics that include the number of children in portables and what percentage this represents of total enrollment. Also the number of teachers and staff and what percentage that represents of total staffing as well.

18. Do you track illnesses?

Number of days lost to illness in portables compared to numbers of days lost in conventional classrooms?

19. Are there any cases of workers' comp for staff in portables? Again, what percentage is this compared to workers' comp cases in conventional rooms?