APPENDIX A

Phase II Questionnaires and Other Data Collection Forms

Appendix A contains the following:

1. Facilities Questionnaire II
2. Teacher Questionnaire II
3. Classroom Form
4. HVAC Assessment Checklist and School Characteristics
5. Consultation with Facilities and HVAC Managers (Part 1)
6. Consultation with Facilities and HVAC Managers (Part 2)
7. Introductory Letter to Superintendent
8. Superintendent Endorsement Form Letter
9. Introductory Letter to Principals
10. Study Brochure
11. Delaine Eastin Letter of Endorsement
12. A List of Monitoring Activities
13. Cover Letter to Teachers
14. Cover Letter to Facility Managers
15. Confirmation Letter
16. Thank You Letter

California Portable Classroom Study: Facilities Questionnaire II

46154

Dear Facility Manager,

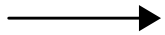
Thank you for participating in the California Portable Classrooms Study. Your support is critical to the success of obtaining useful statewide results. Results from this study will be used to identify potential environmental problems, determine if and to what extent they occur, and make recommendations to resolve current and future problems.

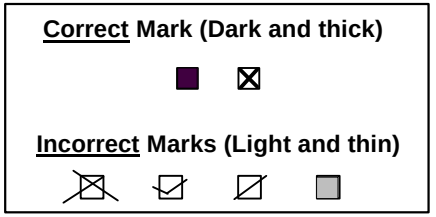
The following questionnaire is designed to be completed by the school's facility manager, who may be in the district office. The district facility manager has been notified that he/she may need to assist the schools in completing the questionnaire. Section B of the questionnaire asks about the school site as a whole. Before completing this questionnaire, please review the instructions below. To fill in boxes, use a black ink pen or a #2 pencil to apply dark marks to the questionnaire boxes. Please do not fold this questionnaire.

After you have finished the questionnaire, please return it to the RTI technician visiting the school. If you have any questions about the questionnaire, please call Ms. Rebecca Premock, the RTI Project Coordinator, at 1-800-334-8571, Ext. 7468. Call before 2:00 pm Pacific time or leave a voice mail message.

FILLING IN BOXES:

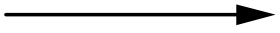
It is important that you completely fill in (or make a dark X in) the boxes next to your answers and print clearly. Listed to the right are examples of correct and incorrect ways to mark your answers.

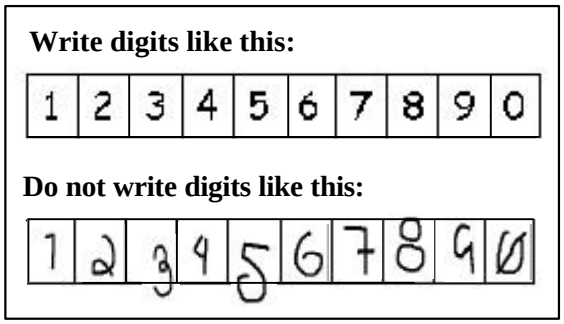




PRINTING NUMBERS IN BOXES:

Print one number per box. Listed to the right are examples of correct and incorrect ways to print text into the boxes. The numbers should be printed with solid connected lines and should not touch or cross any of the box lines. Do not cross zeroes or sevens.





California Portable Classroom Study: Facilities Questionnaire II

46154

Section A. Respondent Information

Please fill in today's date (mm-dd-yy) Month ☐☐ Day ☐☐ Year ☐☐

1. Your job category: ☐ facilities manager ☐ assistant manager ☐ maintenance staff ☐ custodial staff ☐ administrative staff ☐ other
2. Your work location is: ☐ district-wide ☐ at this school only ☐ at several sites
3. Years you have worked at this school (in years): ☐ 1 ☐ 2-5 ☐ 6+
4. May we contact you later to verify or clarify your responses, if necessary? ☐ Yes ☐ No
5. If Yes, please enter the following: Phone number ☐☐☐ - ☐☐☐ - ☐☐☐☐

   E-mail address: _____

B. School Site Characteristics and Maintenance Practices *(Fill in all that apply for the entire site)*

School Site

6. Year of the school's original construction: ☐☐☐☐
7. Total number of classrooms at this site: Portable- relocatable ☐☐☐ Permanent- traditional ☐☐☐
8. Building density near the school: ☐ Urban ☐ Suburban ☐ Rural
9. Nearby areas or typical activities (within 1/4 mile) : ***(Mark <u>all</u> that apply)***

Roadways:	☐ busy intersection(s)	☐ congested streets	☐ freeways	☐ dirt or gravel roads	☐ serpentine road cover	☐ none
Commercial:	☐ service stations	☐ heavy industrial	☐ light industrial	☐ truck route or depot	☐ rail route or depot	☐ none
Agriculture:	☐ livestock	☐ row crops	☐ orchards	☐ open fields with exposed soil	☐ none	
Diesel engines:	☐ school buses	☐ transit buses	☐ trucks	☐ trains	☐ farm equipment	☐ generators	☐ none
Waste facilities:	☐ sewage treatment	☐ municipal waste	☐ composting	☐ recycling	☐ none	

☐☐☐☐

California Portable Classroom Study: Facilities Questionnaire II

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HVAC Maintenance:

10. HVAC maintenance done by: ***(Mark all that apply)***
☐ school staff ☐ district staff ☐ contractor ☐ none ☐ don't know ☐ not applicable

11. Where are maintenance logs for HVAC kept? ***(Mark all that apply)***
☐ not kept ☐ on equipment ☐ paper files ☐ computer ☐ contractor ☐ other ☐ don't know

12. Typical thermostat setting during classes (degrees F): Heating ☐☐ Cooling ☐☐

13. Are thermostats usually set back or shut down? ***(Mark all that apply)***
☐ never ☐ nights ☐ weekends ☐ holidays ☐ summer vacation ☐ don't know ☐ not applicable

14. Daily start time of system on school days: ☐ when first class starts ☐ when teacher arrives ☐ 1-2 hours before classes start ☐ don't know ☐ not applicable

15. Regular inspection and maintenance: ☐ Yes ☐ No ☐ not applicable

→ If Yes, how frequently are the following items inspected and maintained (check one in each row)?

Outdoor air damper setting:	☐ monthly	☐ quarterly	☐ annually	☐ longer than annually	☐ never	☐ don't know	☐ not applicable
Coils cleaned:	☐ monthly	☐ quarterly	☐ annually	☐ longer than annually	☐ never	☐ don't know	☐ not applicable
Condensate pan and drain:	☐ monthly	☐ quarterly	☐ annually	☐ longer than annually	☐ never	☐ don't know	☐ not applicable
HVAC filter replaced:	☐ monthly	☐ quarterly	☐ annually	☐ longer than annually	☐ never	☐ don't know	☐ not applicable
Heat exchanger checked:	☐ monthly	☐ quarterly	☐ annually	☐ longer than annually	☐ never	☐ don't know	☐ not applicable

Other Maintenance Practices:

16. Frequency of usual custodial services for classrooms:

Trash removed:	☐ 5 days per week	☐ 3-4 days per week	☐ 1-2 days per week	☐ 1-2 per month	☐ <1 per month
Vacuumed, swept, and dusted:	☐ 5 days per week	☐ 3-4 days per week	☐ 1-2 days per week	☐ 1-2 per month	☐ <1 per month
Carpets steam- or dry-cleaned:	☐ quarterly	☐ annually	☐ >annually	☐ don't know	☐ not applicable

17. General building maintenance and repairs are done by: ***(Mark all that apply)***
☐ school staff ☐ district staff ☐ contractor ☐ none ☐ don't know

18. Number of building maintenance staff assigned to the school (full-time school or contract personnel):
☐ <1 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5+

19. Are you aware of the U.S. EPA's IAQ Tools for Schools Program?
☐ Yes ☐ No → If Yes, does your school use their kit? ☐ Yes ☐ No ☐ don't know

☐☐☐☐

California Portable Classroom Study: Facilities Questionnaire II

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Pesticides Practices:

(For Questions 20 -23, mark all that apply)

20. Types of pesticides used at the school: ☐ lawn care ☐ crack & crevice ☐ spray can ☐ other ☐ none ☐ don't know

21. Regularly scheduled applications: ☐ lawn care ☐ crack & crevice ☐ spray can ☐ other ☐ none ☐ don't know

22. Routine applications done by: ☐ School staff ☐ District staff ☐ Pest control contractor ☐ none ☐ don't know

23. Usual frequency of classroom applications: ☐ weekly ☐ monthly ☐ quarterly ☐ annually ☐ every 2 years or more ☐ don't know ☐ not applicable

24. Have you implemented an Integrated Pest Management (IPM) program at this site?: ☐ Yes ☐ No ☐ don't know

Environmental Complaints

25. In the last year, have major complaints of environmental conditions been made for any classroom at this site? ☐ Yes ☐ No ☐ don't know

→ If Yes, please check the number categories below for each type of complaint for both portable and permanent classrooms.
If No, Go to Question 26.

Type of Complaint	Number of Portable - Relocatable Classrooms	Number of Permanent -Traditional Classrooms
Roof leak	☐ none ☐ 1 ☐ 2-4 ☐ 5-9 ☐ 10+	☐ none ☐ 1 ☐ 2-4 ☐ 5-9 ☐ 10+
Plumbing leak or flood	☐ none ☐ 1 ☐ 2-4 ☐ 5-9 ☐ 10+	☐ none ☐ 1 ☐ 2-4 ☐ 5-9 ☐ 10+
Air quality/odor	☐ none ☐ 1 ☐ 2-4 ☐ 5-9 ☐ 10+	☐ none ☐ 1 ☐ 2-4 ☐ 5-9 ☐ 10+
Mold	☐ none ☐ 1 ☐ 2-4 ☐ 5-9 ☐ 10+	☐ none ☐ 1 ☐ 2-4 ☐ 5-9 ☐ 10+
Temperature	☐ none ☐ 1 ☐ 2-4 ☐ 5-9 ☐ 10+	☐ none ☐ 1 ☐ 2-4 ☐ 5-9 ☐ 10+
Noise	☐ none ☐ 1 ☐ 2-4 ☐ 5-9 ☐ 10+	☐ none ☐ 1 ☐ 2-4 ☐ 5-9 ☐ 10+

26. Who responds to environmental complaints or concerns in the school's buildings?: ***(Mark all that apply)***

☐ district maintenance staff ☐ district health & safety staff ☐ district risk management staff
☐ school nurse ☐ outside consultant (industrial hygienist) ☐ other ☐ none ☐ don't know

46154

Comments and/or Observations:

TEACHER QUESTIONNAIRE II

Dear Teacher,

Thank you for participating in the California Portable Classrooms Study. Your support is critical to the success of obtaining useful statewide results. Results from this study will be used to identify potential environmental problems, determine if and to what extent they occur, and make recommendations to resolve current and future problems. Be assured that your responses will remain confidential and will only be reported in summary reports to goverment researchers.

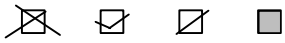
Please complete the following two pages of this questionnaire. This questionnaire refers to your classroom, which has been randomly selected to be sampled for environmental measurements. Please review the instructions below describing the correct and incorrect way to fill in boxes. Use a black ink pen or a #2 pencil to apply dark marks to the questionnaire boxes. Please do not fold this questionnaire. After you have finished the questionnaire please return it to the RTI technician visiting the school.

If you have any questions about the questionnaire, please call Ms. Rebecca Premock, the RTI Project Coordinator, at 1-800-334-8571, ext. 7468. Call before 2:00 pm Pacific time or leave a voice mail message.

FILLING IN BOXES:

Correct Mark (Dark and thick)

Incorrect Marks (Light and thin)

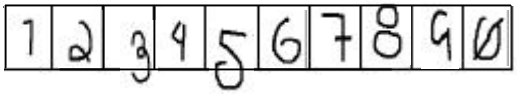


PRINTING NUMBERS IN BOXES:

Write digits like this:

1	2	3	4	5	6	7	8	9	0

Do not write digits like this:



TEACHER QUESTIONNAIRE II

Please fill in today's date (mm-dd-yy) Month ☐☐ Day ☐☐ Year ☐☐

Please fill in room number/name: ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

1. Your gender and current age: ☐ male ☐ female ☐☐ years

2. Please characterize each of the following as it applies to your room. ***Mark <u>all</u> that apply***:

- Temperature: ☐ generally acceptable ☐ often too cold ☐ often too hot
- Humidity: ☐ generally acceptable ☐ often too humid ☐ often too dry
- Air: ☐ generally acceptable ☐ often too drafty ☐ often too stale or stuffy
- Light: ☐ generally acceptable ☐ too dim ☐ too bright
  ☐ glare from lights ☐ too much direct sun

3. Are there noises that generally disrupt teaching activities in this room? ***Mark <u>all</u> that apply***:

- Inside: ☐ none ☐ lighting (buzz) ☐ other
  ☐ ventilation (fan) ☐ next-room voices
- Outside: ☐ none ☐ mower/blower ☐ aircraft
  ☐ playground ☐ traffic ☐ other

4. Do you ever turn off the heater or air conditioner in this room because of excessive noise?

☐ never ☐ rarely ☐ occasionally ☐ frequently ☐ most of the time

5. Indicate if you have experienced any of the following odors in this room. ***Mark <u>one</u> for each***:

	<u>never</u>	<u>sometimes</u>	<u>often</u>
• Musty odor	☐	☐	☐
• Cleaning products	☐	☐	☐
• Bus/auto exhaust	☐	☐	☐
• New carpet or furniture	☐	☐	☐
• Fresh paint	☐	☐	☐
• Cooking odor	☐	☐	☐
• Pesticides	☐	☐	☐
• Asphalt/tar	☐	☐	☐
• Tobacco smoke	☐	☐	☐
• Trash or dumpster odor	☐	☐	☐
• Sewer/compost	☐	☐	☐
• Fire/smoke odor	☐	☐	☐

TEACHER QUESTIONNAIRE II

6. Have you observed water leaks, flooding, water stains or visible mold in this room? ***Mark <u>all</u> that apply***:

- Leak or flood: ☐ never ☐ in the past ☐ currently ☐ don't know
  - Type: ☐ roof ☐ window ☐ sink/toilet overflow ☐ sprinkler ☐ plumbing ☐ other
- Water stains: ☐ never ☐ in the past ☐ currently ☐ don't know
  - Where: ☐ walls ☐ ceiling ☐ window sills ☐ carpet/rug/floor ☐ furniture ☐ other
- Visible mold: ☐ never ☐ in the past ☐ currently ☐ don't know
  - Where: ☐ walls ☐ ceiling ☐ window sills ☐ carpet/rug/floor ☐ furniture ☐ other

7. Are you aware of past or current pest problems in this room? ***Mark <u>all</u> that apply***:

- Bugs (ants, etc.): ☐ never ☐ in the past ☐ currently
- Rodents (mice, etc.): ☐ never ☐ in the past ☐ currently

8. Have <u>you</u> applied any of the following pesticides in this room this year? ***Mark <u>all</u> that apply***:

- Sprays: ☐ never ☐ in the past ☐ currently
- Powders: ☐ never ☐ in the past ☐ currently
- Traps: ☐ never ☐ in the past ☐ currently

9. Do you feel the room receives adequate custodial services? ☐ yes ☐ no

- If not, what do you feel is needed? ☐ more frequent ☐ more effective ☐ both

10. How would you generally characterize the overall environmental quality in this classroom?

☐ excellent ☐ good ☐ adequate ☐ poor ☐ very poor

Comments: If you have any comments on classroom or school environmental conditions, or on this study, please indicate below. Thank you for your time.

_____

_____

_____

Classroom Form
CA PCS Phase II

SECTION A. GENERAL CHARACTERISTICS OF CLASSROOM

A-1. Technician Initials:_____ PERSON THAT COMPLETED FORM.

A-2. Today's Date: _ _/_ _ /_ _

A-3. Start Time: _ _:_ _ am/pm CLASSROOM OBSERVATION BEGINS.

A-4. Classroom Number __ __ __ __ __

A-5. Is Classroom Portable or Traditional?

Portable 1
Traditional 2

A-6. Classroom dimensions __ __ X __ __ X __ __ ft. (L x W x H)

A-7. A. Classroom is on the __ __ floor of the building.

B. There are __ __ floors in the entire building.

UPON FIRST ENTERING THE ROOM, PROVIDE ANSWERS TO THE FOLLOWING:

(BOTH TECHNICIANS SHOULD MAKE THE FOLLOWING OBSERVATION.)
TECHNICIAN, PLEASE "SNIFF" AS YOU ENTER THE ROOM. RECORD IF ANY ODOR NOTICED AT ANY TIME DURING THE MORNING OR AT LUNCH TIME.

A-8. Are there any noticeable smells?

Yes . . . . . 1 → CONTINUE
No . . . . . 2 → GO TO Q. A-10 .

A-9. Can you identify any of the following smells in the room? (Circle all that apply)

Musty odor 1
Air fresheners 2
Cleaning products 3
Bus/auto exhaust 4
New carpet or furniture 5
Fresh paint 6
Cooking odor 7
Pesticides 11
Asphalt/tar 12
Tobacco smoke 13
Trash or dumpster odor 14
Sewer/compost 15
Fire/smoke odor 16
Other . . . . . 8 → Specify:_____

A-10. List any major source of noise noticed at any time during the day. Specify time, source, duration and/or frequency.

A. Time __ __ : __ __ am/pm

B. Source ___ ___ __ ___ ___ ___ ___

C. Duration ___ ___ ___ ___ ___

D. Frequency___ ____ ___ ___

A-11. How many chairs are in the classroom? __ __ __ chairs. COUNT TEACHER'S CHAIR TOO.

A-12. From what grade(s) are the students that occupy the classroom? (Circle all that apply)

K 1 2 3 4 5 6 7 8 9 10 11 12 DK

A-13. Which term best describes this classroom? (Circle <u>one</u>)

General instruction classroom 1
Art 2
Science lab 3
Ceramic studio 4
Library 5
Computer lab 6
Wood shop 7
Auto/metal shop 11
Music 12
Office 13
Other . . . . . 8 → Specify:_____

SECTION B. THE CLASSROOM'S CEILING

B-1. Suspended ceiling?

Yes 1
No 2

B-2. Condition of ceiling: (Circle one)

Good (clean) 1
Fair (somewhat dirty) 2
Poor (dirty) 3

B-3. With holes or missing panels?

Yes 1
No 2

B-4. Material(s) Ceiling made of: (Circle all that apply):

Acoustic tile 1
Wood 2
Sheet rock 3
Other . . . . . 8 → Specify:_____

B-5. Number of Water Stains on ceiling ___ ___

B-6. Number of Mold Areas on ceiling ___ ___

B-7. Skylights

Yes . . . . . 1 → CONTINUE
No . . . . . 2 → GO TO Q. C-1.

B-8. Number of Skylights _____

B-9. Total size of Skylights ___ ___ft x __ ___ft

SECTION C. THE CLASSROOM'S FLOOR

C-1. Condition of classroom floor (Circle one)

Good (clean, maintained) 1
Fair (clean, worn) 2
Poor (dirty, worn) 3

C-2. Material(s) floor is composed of: (Circle all that apply)

Wood 1
Carpet 2
Linoleum 3
Vinyl 4
Rubber 5
Cement/concrete 6
Area rugs 7
Other . . . . . 8 → Specify:_____

C-3. Is there a walk-off mat inside the entrance to the classroom?

Yes 1
No 2

C-4. Type of carpet padding. (Circle one)

Foam 1
Other . . . . . 8 → Specify:_____
None 2
DK 9

C-5. Carpet (ft) ____ x ____

C-6. A. Number of area rugs ____ B. Total area _____ft^2

C-7. Number of water stains on floor ____

C-8. Number of mold areas on floor ____

SECTION D. THE CLASSROOM'S INTERIOR WALLS

D-1. Wall Material(s) (Circle all that apply)

Plastic/ vinyl-coated tackable wallboard 1
Pressed fiberboard 2
Sheet rock or plaster 3
Cork board 4
Wood 5
Painted cinder block 6
Plywood or particle board 7
Other . . . . . 8 → Specify:_____

D-2. Condition of walls: (Circle one)

Good (clean, maintained) 1
Fair (dirty, maintained) 2
Poor (dirty, needs painting/renovation) 3

D-3. Are partitions used in the classroom?

Yes 1
No . . . . . 2 →SKIP TO Q. D-6.

D-4. Area of partition walls __ __ __sq. ft

D-5. Sliding partition used to separate classrooms?

Yes 1
No 2

D-6. Circle items below that are currently on wall(s): (Circle all that apply)

Dry erase board/white board . . 1
Bulletin board 2
Dry mark board 3
Chalk board 4
Vinyl 5
Wall-paper 6
Paint 7
Wood paneling 11
Cabinets 12
Other . . . . . 8 → Specify:_____

D-7. Number of water stains on walls ____

D-8. Number of mold areas on walls ____

D-9. How many sides of this room have windows? (Circle one)

One 1
Two 2
Three 3
Four 4
Other . . . . . 8 → Specify:_____
None 5

D-10. What kinds of windows are in this room? (Circle all that apply)

Windows up to door height (7 ft) 1
Windows up to 9 ft. 2
Windows > 9 ft. 3
NA 10

D-11. Do windows have blinds or curtains? (Circle one)

Yes 1
No 2
NA 10

D-12. Do books or other items obstruct sunlight coming through the windows? (Circle one)

Yes 1
No 2
NA 10

D-13. Sun glare problems? (Circle one)

Yes 1
No 2
NA 10

SECTION E. CLASSROOM CONTENTS

Do you currently see any of the following items in this room?

E-1. Office equipment: (Circle all that apply)

Personal computers 1
Photocopy machine 2
Mimeograph machine 3
Laser printers 4
Carbonless copy paper 5
Laminator 6
Other . . . . . 8 → Specify:_____
None 7

E-2. Appliances: (Circle all that apply)

Stove or oven 1
Lab burners 2
Refrigerator 3
Washing machine 4
Microwave oven 5
Other . . . . . 8 → Specify:_____
None 6

E-3. Chemicals: (Circle all that apply)

Cleaning products 1
Lab chemicals 2
Biological specimens stored
in chemicals 3
Other . . . . . 8 → Specify:_____
None 4

E-4. Paints/pens: (Circle all that apply)

Permanent markers or art pens 1
Oil/acrylic paints 2
Whiteboard markers 3
Chalk 4
Other . . . . . 8 → Specify:_____
None 5

E-5. Glues/fluids: (Circle all that apply)

Correction fluid 1
Rubber cement 2
Epoxy 3
Other . . . . . 8 → Specify:_____
None 4

E-6. Air freshener: (Circle all that apply)
TECHNICIAN, IF AIR FRESHENER PRESENT, ASK TEACHER WHY IT IS USED AND ADD TO COMMENTS SECTION.

Plug-in deodorizer 1
Hanging freshener 2
Spray can 3
Potpourri 4
Other . . . . . 8 → Specify:_____
None 5

E-7. Candles: (Circle all that apply)

Scented candles 1
Unscented candles 2
Incense 3
Other . . . . . 8 → Specify:_____
None 4

E-8. A. Air Cleaner: (Circle all that apply)

Ozone or ion-generating air purifier . . . 1 → CONTINUE
Portable air (filter) purifier . . . . . 2 → CONTINUE
Other . . . . . 8 → Specify:_____
None . . . . . 3 → GO TO Q. E-9.

B. Brand Name of Purifier _____

E-9. Are any of the following living items kept in this room? (Circle all that are present)

Potted plants/terrarium 1
Birds 2
Rodents/mammals 3
Reptiles/amphibians 4
Fish 5
Bugs 6
Other . . . . . 8 → Specify:_____
None 7

Please indicate the composition of furnishings in the classroom below. (Circle all that apply) NOTE THAT PRESSED WOOD = PARTICLE BOARD OR PLYWOOD TYPE MATERIAL. NONE = NO ITEMS OF THAT TYPE.

E-10. Table and Desks: (Circle all that apply)

Solid wood 1
Plastic 2
Pressed wood 3
Metal 4
Other . . . . . 8 → Specify:_____
DK 9
None 5

E-11. Bookcases: (Circle all that apply)

Solid wood 1
Plastic 2
Pressed wood 3
Metal 4
Other . . . . . 8 → Specify:_____
_____DK 9
None 5

E-12. Cabinets: (Circle all that apply)

Solid wood 1
Plastic 2
Pressed wood 3
Metal 4
Other . . . . . 8 → Specify:_____
_____DK 9
None 5

E-13. Chairs: (Circle all that apply)

Solid wood 1
Plastic 2
Pressed wood 3
Metal 4
Other . . . . . 8 → Specify:_____
_____DK 9
None 5

E-14. Do any of the furnishings above appear new?

Yes . . . . . 1 → CONTINUE
No . . . . . 2 → GO TO Q. E-16.

E-15. Specify which furnishings appear new. (Circle all that apply)

Table and Desks 1
Bookcases 2
Cabinets 3
Chairs 4
Other . . . . . 8 → Specify:_____

E-16. Pests and pesticide type items present: (Circle all that apply)

Insects or insect parts 1
Rodents or droppings 2
Mouse traps or poison 3
Insect baits 4
Pesticide sprays 5
Pesticide powders 6
Other . . . . . 8 → Specify:_____
None 7

E-17. Other chemical products in classroom or in cabinets/closets: (Circle all that apply):

All purpose cleaner 1
Glass cleaner 2
Floor cleaner 3
Polish 4
Cleaning cloths 5
Cabinets locked 6
Access denied 7
Other . . . . . 8 → Specify:_____
None 11

SECTION F. OTHER INDOOR FACTORS/OBSERVATIONS

F-1. Lighting: (Circle one)

Generally acceptable 1
Too dim 2
Too bright 3
Glare from lights 4
Too much direct sun 5

F-2. Is there a Janitor's closet in room or adjoining classroom?

Yes . . . . . 1 → CONTINUE
No . . . . . 2 → GO TO Q. F-4.

F-3. Is there an air return in the Janitor's closet?
TECHNICIAN, PLEASE CHECK RETURN AND CONSULT WITH HVAC TECH AS NEEDED.

Yes 1
No 2
Access denied 3
DK 9

F-4. Bathroom in room or in connecting room?

Yes . . . . . 1 → CONTINUE
No . . . . . 2 → GO TO Q. F-6.
Access denied 3

F-5. Is there an exhaust fan or operable window in the bathroom? (Circle all that apply)

Exhaust fan 1
Window 2
Neither of these 3

F-6. Are there any floor drains in the classroom, janitor closet, or bathroom?

Yes 1
No 2
Access denied 3

F-7. Circle any items seen in the classroom, janitor closet, or bathroom that require plumbing. (Circle all that apply)

Sink 1
Drinking fountain 2
Toilet/urinal 3
Access denied 4
Other . . . . . 8 → Specify:_____
None 5

F-8. Circle areas with evidence of leakage due to plumbing: (Circle all that apply)

Classroom 1
Janitor's closet 2
Bathroom 3
None 4

F-9. Visible mold on classroom item/furniture?

Yes 1
No 2

F-10. Visible mold in cabinets?

Yes 1
No 2

F-11. What is the approximate size of all mold areas on all surfaces (including walls, floor, ceiling, and cabinets) in the classroom? (circle one)

A few spots 1
< 1 sq. ft. total 2
1-10 sq. ft. total 3
> 10 sq. ft. total 4
None observed 5

F-12. Laboratory, industrial arts shop, or other special purpose room adjacent to the classroom?

Yes 1
No 2

GO OUTSIDE TO COMPLETE THE NEXT SECTION

SECTION G. GROUNDS OUTSIDE THE CLASSROOM/BUILDING

TECHNICIAN, SEVERAL OF THE FOLLOWING ITEMS ARE APPLICABLE TO ALL THREE CLASSROOMS AT SCHOOL. PLEASE COMPLETE ITEMS ACCORDINGLY, AND CONSULT WITH FM IF NECESSARY.

G-1. Current or recent **on-campus** activity that may affect IAQ (including work that may not be in progress that day): (Circle all that apply)

New construction 1
Major repairs 2
Cafeteria 3
Grounds keeping 4
Other . . . . . 8 → Specify:_____
_____DK 9
None 5

G-2. Today's meteorology: (Circle all that apply)

Clear 1
Rain 2
Snow 3
Fog 4
Overcast 5
Windy 6
Dusty 7

G-3. Direction of prevailing wind today: (circle one with longest duration)

North 1
Northwest 2
West 3
Southwest 4
South 5
Southeast 6
East 7
Northeast 11
None 12

G-4. Are any of the following in school's vicinity (1/4 mile or less)? (Circle all that apply)

Dry cleaners 1
Gas station 2
Industrial facility 3
Major Road 4
Bus/Truck Depot 5
Construction 6
Field/agriculture 7
Other . . . . . 8 → Specify:_____

G-5. What type of walkway is immediately outside the classroom's primary entrance? (Circle one)

Indoor 1
Outdoor, covered 2
Outdoor, uncovered 3

G-6. Walk-off mats in outdoor entryway to classroom/building? (Circle one)

Yes 1
No 2
DK 9

G-7. What types of ground cover are found within 50ft. of the classroom/building? (Circle all that apply)

Dirt 1
Gravel 2
Grass 3
Concrete or asphalt . . . 4
Other . . . . . 8 → Specify:_____

G-8. Are these other activities or sources within 50 ft. of the classroom? (Circle all that apply)

Parking lot or roadway 1
Loading dock 2
Flue exhaust 3
Dumpster 4
Custodial room 5
Bathroom 6
Art room 7
Shop 11
Cafeteria 12
Science lab 13
None 14

SECTION H. OUTDOOR CHARACTERISTICS OF THE CLASSROOM/BUILDING

H-1. Is the floor level of sampled classroom...? (Circle one)

Below grade 1
Ground 2
2nd story or more 3
3rd story or more 4

H-2. Type of building foundation. (Circle all that apply)

Below grade . . . . . 1 → SKIP TO Q. H-6.
Slab on grade . . . . . 2 → SKIP TO Q. H-6.
Raised Floor (crawlspace) . . . 3 → CONTINUE
Other . . . . . 8 → Specify:_____

H-3. If raised floor, type of ground cover. (Circle one)

Dirt 1
Gravel 2
Plastic 3
Concrete and asphalt 4
Other . . . . . 8 → Specify:_____

H-4. If raised floor, inches above ground. (Circle one)

<6 1
6-11 2
12-17 3
18 or more 4
NA 10

H-5. If raised floor, number of outside air vents ___ ___

H-6. If Portable, height of foundation skirt from ground (inches): (Circle one)

0 (on ground) 1
<2" 2
2-6" 3
6-12" 4
>12" 5
NA 10

H-7. Type of roof: (Circle one)

Membrane 1
Composite shingle or roll 2
Shake 3
Metal 4
Tar/gravel 5
Other . . . . . 8 → Specify:_____
DK 9

H-8. Roof pitch (Circle one)

Flat 1
Sloped 2
Both 3

H-9. If portable, number of inches roof overhang on **side with greatest overhang**. (Circle one)

0-6" 1
7"-12" 2
13-24" 3
>24" 4
NA 10

H-10. If portable, number of inches roof overhang on **side with least overhang**. (Circle one)

0-6" 1
7"-12" 2
13-24" 3
>24" 4
NA 10

Exterior Walls

H-11. Wall Condition: (Circle one)

Good (clean, maintained) 1
Fair (dirty, maintained) 2
Poor (dirty, needs painting/renovation) 3

H-12. Material(s): (Circle all that apply)

Wood 1
Panel board 2
Stucco 3
Rock 4
Masonry 5
Concrete 6
Siding 7
Metal 11
Other . . . . . 8 → Specify:_____

H-13. Number of water stains on wall(s): _____

H-14. Number of mold areas on wall(s): _____

H-15. What is the approximate size of all mold areas on external walls of classroom/building? (Circle one)

A few spots 1
< 1 sq. ft. total 2
1-10 sq. ft. total 3
> 10 sq. ft. total 4
None observed 5

H-16. Items seen on wall(s): (Circle all that apply)

Graffiti 1
Chipped or peeling paint 2
Algae 3
Moss 4
Plant growth 5
Other . . . . . 8 →Specify:_____
None 6

H-17. Do lawn sprinklers spray the outside wall(s)? (Circle one)

Yes 1
No 2
DK 9

H-18. Signs of leakage or overflow from gutters? (Circle one)

Yes 1
No 2
DK 9
NA 10

H-19. Location of gutter downspouts (average distance from foundation): (Circle one)

< 2 feet 1
2 - 6 feet 2
> 6 feet 3
DK 9
NA 10

SECTION I. OTHER OBSERVATIONS

IF ANSWER IS NOT APPARENT, TECHNICIAN MAY NEED TO ASK CLASSROOM TEACHER.

I-1. Did the same students stay in the classroom, or did they change each class period?

Yes, stayed 1
No, changed 2

I-2. Were there any windows open today?

Yes . . . . . 1 → CONTINUE
No . . . . . 2 → GO TO Q. I-4.

I-3. How many windows were open today? __ __

I-4. Is there an outside door to the room?

Yes . . . . . 1 → CONTINUE
No . . . . . 2 → GO TO Q. I-6.

I-5. How many doors open to outside? _____

I-6. Was **any** classroom door(s) left open today? (During class or change of classes, etc.)

Yes 1
No 2

I-7. Try to find out how often the floors in the room are swept, vacuumed, or wet washed. (Circle one)

Daily 1
2-3/week 2
Weekly 3
1-2/month 4
Less than 1/month 5
DK 9

I-8. What type of vacuum cleaner is used in the room? (Circle one)

Beater brush/powerhead 1
HEPA/special filter 2
Canister only 3
"Dust sensor?" 4
Other . . . . . 8 → Specify:_____
DK 9

I-9. End Time: _ _:_ _ am/pm CLASSROOM OBSERVATION ENDS.

I-10. Provide additional comments or observations in space below.

_____
_____
_____
_____
_____

HVAC Assessment Checklist and School Characteristics
CA PCS Phase II

SECTION A. BACKGROUND INFORMATION

	Classroom #1	Classroom #2	Classroom #3
A-1. Classroom Number	__ __ __ __ __	__ __ __ __ __	__ __ __ __ __
A-2. Portable Classroom?	Yes . . . . . 1 No 2	Yes . . . . . 1 No 2	Yes . . . . . 1 No 2
A-3. Today's Date:	__ __/__ __ /__ __	__ __/__ __ /__ __	__ __/__ __ /__ __
A-4. Start Time: (TIME OBSERVATION BEGINS)	__ __:__ __ am/pm	__ __:__ __ am/pm	__ __:__ __ am/pm
A-5. Technician Initials: (PERSON THAT COMPLETED FORM.)			
A-6. Name(s) of person(s) responsible for HVAC repair and maintenance:	A. _____ B. _____	A. _____ B. _____	A. _____ B. _____
A-7. Title of above Person(s)	A. _____ B. _____	A. _____ B. _____	A. _____ B. _____
A-8. Contractor?	Yes . . . . . 1 No 2	Yes . . . . . 1 No 2	Yes . . . . . 1 No 2
A-9. A. HVAC Maintenance Person's Telephone No.	(_ _ _) _ _ _- _ _ _ _ EXT. _ _ _ _	(_ _ _) _ _ _- _ _ _ _ EXT. _ _ _ _	(_ _ _) _ _ _- _ _ _ _ EXT. _ _ _ _
B. Email address	__ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __	__ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __	__ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __
(Note, if two people are responsible for repair and/or maintenance, obtain names and phone numbers for both)			

SECTION B. CLASSROOM MEASUREMENTS

TECHNICIAN, PLEASE GO INTO CLASSROOM AND TAKE THE FOLLOWING MEASUREMENTS.

	Classroom #1	Classroom #2	Classroom #3
B-1. Monitor Numbers	A. HOBO (motor sensor) __ __ __ __ B. Light __ __ __ __ C. Moisture __ __ __ __ D. Decibel __ __ __ __ E. Qtrak __ __ __ __	A. HOBO (motor sensor) __ __ __ __ B. Light __ __ __ __ C. Moisture __ __ __ __ D. Decibel __ __ __ __ E. Qtrak __ __ __ __	A. HOBO (motor sensor) __ __ __ __ B. Light __ __ __ __ C. Moisture __ __ __ __ D. Decibel __ __ __ __ E. Qtrak __ __ __ __
B-2. HVAC Mode during measurements:	Heating . . . . . 1 Cooling . . . . . 2 Fan only . . . . . 3 DK . . . . . 9 NA 10	Heating . . . . . 1 Cooling . . . . . 2 Fan only . . . . . 3 DK . . . . . 9 NA 10	Heating . . . . . 1 Cooling . . . . . 2 Fan only . . . . . 3 DK . . . . . 9 NA 10
B-3. Temperatures of AHU (Degrees F)	A. Current Time: __ __ : __ __ B. Supply air __ __ __ degrees C. Room air __ __ __ degrees D. Return air __ __ __ degrees E. Outdoor air __ __ __ degrees	A. Current Time: __ __ : __ __ B. Supply air __ __ __ degrees C. Room air __ __ __ degrees D. Return air __ __ __ degrees E. Outdoor air __ __ __ degrees	A. Current Time: __ __ : __ __ B. Supply air __ __ __ degrees C. Room air __ __ __ degrees D. Return air __ __ __ degrees E. Outdoor air __ __ __ degrees

	Classroom #1	Classroom #2	Classroom #3
B-4. Air Flow Measurements (Hood)	A. Current Time: _ _:_ _ am/pm B. Outdoor air _ _ _ cfm C. Return air _ _ _ cfm D. Supply air _ _ _ cfm E. In room air _ _ _ cfm	A. Current Time: _ _:_ _ am/pm B. Outdoor air _ _ _ cfm C. Return air _ _ _ cfm D. Supply air _ _ _ cfm E. In room air _ _ _ cfm	A. Current Time: _ _:_ _ am/pm B. Outdoor air _ _ _ cfm C. Return air _ _ _ cfm D. Supply air _ _ _ cfm E. In room air _ _ _ cfm
B-5. Wall Moisture sensor reading:(%) (Take in location with mold or water stains, otherwise, take in center of wall, and under window, if present. Obtain sensor reading on floor and ceiling if mold/water stains.) Indicate location moisture reading taken by writing mold, water stain, center of wall, under window or other, beside "Location" entry.	A. Wall 1: ________ Location 1: ________ B. Wall 2: ________ Location 2: ________ C. Wall 3: ________ Location 3: ________ D. Wall 4: ________ Location 4: ________ E. Floor 5: ________ Location 5: ________ F. Ceiling 6: ________ Location 6: ________ **Comments** ________________________ ________________________ ________________________	A. Wall 1: ________ Location 1: ________ B. Wall 2: ________ Location 2: ________ C. Wall 3: ________ Location 3: ________ D. Wall 4: ________ Location 4: ________ E. Floor 5: ________ Location 5: ________ F. Ceiling 6: ________ Location 6: ________ **Comments** ________________________ ________________________ ________________________	A. Wall 1: ________ Location 1: ________ B. Wall 2: ________ Location 2: ________ C. Wall 3: ________ Location 3: ________ D. Wall 4: ________ Location 4: ________ E. Floor 5: ________ Location 5: ________ F. Ceiling 6: ________ Location 6: ________ **Comments** ________________________ ________________________ ________________________

	Classroom #1	Classroom #2	Classroom #3
B-6. Light Measurements (Take at least 3 readings, one at desk near window, one in the center of the room, and one on the far side.)	A. Current Time: _ _:_ _ am/pm B. Near Windows Reading _____ C. Middle Reading _____ D. Far Reading _____	A. Current Time: _ _:_ _ am/pm B. Near Windows Reading _____ C. Middle Reading _____ D. Far Reading _____	A. Current Time: _ _:_ _ am/pm B. Near Windows Reading _____ C. Middle Reading _____ D. Far Reading _____
B-7. **Noise Reading (dBA)** Obtain noise readings in an empty classroom at break time or at the end of the day. Obtain 2 readings in the classroom for each table below, one in the center of room, and one 10 ft. away from return register. If there is no return register, take reading in noisiest area of room with HVAC running. Take one reading outside of the classroom on the noisiest side for each table below. Add notes to comment section for noisiest exterior wall, any major outdoor sources of noise (e.g., traffic), and also note whether or not nearby playgrounds were being used at the time of reading.			
A. **HVAC ON** — Measurement 1 **Location:** Indoor-Center → Indoor-Register/noisy area → Out →	Current Time: _ _:_ _ am/pm **Readings:** _____ _____ _____ **Comments** _____ _____ _____	Current Time: _ _:_ _ am/pm **Readings:** _____ _____ _____ **Comments** _____ _____ _____	Current Time: _ _:_ _ am/pm **Readings:** _____ _____ _____ **Comments** _____ _____ _____

	Classroom #1	Classroom #2	Classroom #3
B. **HVAC ON** — Measurement 2 **Location:** Indoor-Center → Indoor-Register/noisy area → Out →	Current Time: _ _:_ _ am/pm **Readings:** _____ _____ _____ **Comments** _____ _____ _____	Current Time: _ _:_ _ am/pm **Readings:** _____ _____ _____ **Comments** _____ _____ _____	Current Time: _ _:_ _ am/pm **Readings:** _____ _____ _____ **Comments** _____ _____ _____
C. **HVAC OFF** — Measurement 1 **Location:** Indoor-Center → Indoor-Register/noisy area → Out →	Current Time: _ _:_ _ am/pm **Readings:** _____ _____ _____ **Comments** _____ _____ _____	Current Time: _ _:_ _ am/pm **Readings:** _____ _____ _____ **Comments** _____ _____ _____	Current Time: _ _:_ _ am/pm **Readings:** _____ _____ _____ **Comments** _____ _____ _____

	Classroom #1	Classroom #2	Classroom #3
D. **HVAC OFF** — Measurement 2 **Location:** Indoor-Center → Indoor-Register/noisy area → Out →	Current Time: _ _:_ _ am/pm **Readings:** _____ _____ _____ **Comments** _____ _____ _____	Current Time: _ _:_ _ am/pm **Readings:** _____ _____ _____ **Comments** _____ _____ _____	Current Time: _ _:_ _ am/pm **Readings:** _____ _____ _____ **Comments** _____ _____ _____

SECTION C. HVAC SYSTEM TYPE

TECHNICIAN, IDENTIFY THE PRIMARY HVAC SYSTEM (MOST FREQUENTLY USED) USED IN THE CLASSROOM AND ANSWER QUESTIONS BELOW. CONSULT THE FM AS NEEDED.

	Classroom #1	Classroom #2	Classroom #3
C-1. Is there a **secondary** HVAC system also being used? TECHNICIAN, FOR THE FOLLOWING QUESTIONS, THE SECONDARY SYSTEM WILL BE USED LESS OFTEN THAN THE PRIMARY SYSTEM AND CAN INCLUDE WINDOW AC UNITS.	Yes . . . . . 1 →CONTINUE No . . . . . 2 →SKIP TO Q. C-4. DK . . . . . 3 →SKIP TO Q. C-4.	Yes . . . . . 1 →CONTINUE No . . . . . 2 →SKIP TO Q. C-4. DK . . . . . 3 →SKIP TO Q. C-4.	Yes . . . . . 1 →CONTINUE No . . . . . 2 →SKIP TO Q. C-4. DK . . . . . 3 →SKIP TO Q. C-4.

	Classroom #1	Classroom #2	Classroom #3
C-2. How often is the secondary HVAC system used? (Circle one):	1-9% of time . . . . . 1 10-29% of the time . . . . . 2 30-50% of the time . . . . . 3 Other . . . . . 8 Specify:_____	1-9% of time . . . . . 1 10-29% of the time . . . . . 2 30-50% of the time . . . . . 3 Other . . . . . 8 Specify:_____	1-9% of time . . . . . 1 10-29% of the time . . . . . 2 30-50% of the time . . . . . 3 Other . . . . . 8 Specify:_____
C-3. Location of AHU for secondary HVAC Unit (Circle one)	Wall . . . . . 1 Window . . . . . 2 Rooftop . . . . . 3 Other . . . . . 8 Specify:_____ NA 10	Wall . . . . . 1 Window . . . . . 2 Rooftop . . . . . 3 Other . . . . . 8 Specify:_____ NA 10	Wall . . . . . 1 Window . . . . . 2 Rooftop . . . . . 3 Other . . . . . 8 Specify:_____ NA 10
END OF QUESTIONS ON SECONDARY HVAC SYSTEM.			
C-4. Location of Air Handling Unit (AHU) for **primary** HVAC Unit (Circle one)	Wall . . . . . 1 Window . . . . . 2 Rooftop . . . . . 3 Other . . . . . 8 Specify:_____ NA 10	Wall . . . . . 1 Window . . . . . 2 Rooftop . . . . . 3 Other . . . . . 8 Specify:_____ NA 10	Wall . . . . . 1 Window . . . . . 2 Rooftop . . . . . 3 Other . . . . . 8 Specify:_____ NA 10
C-5. Type of main heating system for **primary** system: (Circle one)	Forced air . . . . . 1 Radiant . . . . . 2 Heat pump . . . . . 3 Other . . . . . 8 Specify:_____ DK . . . . . 9 NA 10	Forced air . . . . . 1 Radiant . . . . . 2 Heat pump . . . . . 3 Other . . . . . 8 Specify:_____ DK . . . . . 9 NA 10	Forced air . . . . . 1 Radiant . . . . . 2 Heat pump . . . . . 3 Other . . . . . 8 Specify:_____ DK . . . . . 9 NA 10

	Classroom #1	Classroom #2	Classroom #3
C-6. Heating fuel or energy type for primary system: (Circle one)	Electric . . . . 1 Natural gas . . . . 2 Propane . . . . 3 Solid Fuel . . . . 4 Solar . . . . 5 Other . . . . 8 Specify:________________ ______________________ DK . . . . 9 NA 10	Electric . . . . 1 Natural gas . . . . 2 Propane . . . . 3 Solid Fuel . . . . 4 Solar . . . . 5 Other . . . . 8 Specify:________________ ______________________ DK . . . . 9 NA 10	Electric . . . . 1 Natural gas . . . . 2 Propane . . . . 3 Solid Fuel . . . . 4 Solar . . . . 5 Other . . . . 8 Specify:________________ ______________________ DK . . . . 9 NA 10
C-7. Primary system's energy rating (SEER)	______________________ DK . . . . -999	______________________ DK . . . . -999	______________________ DK . . . . -999
C-8. Type of primary cooling system: (Circle one)	Central AC . . . . 1 Window AC . . . . 2 Swamp . . . . 3 Other . . . . 8 Specify:________________ ______________________ DK . . . . 9 NA 10	Central AC . . . . 1 Window AC . . . . 2 Swamp . . . . 3 Other . . . . 8 Specify:________________ ______________________ DK . . . . 9 NA 10	Central AC . . . . 1 Window AC . . . . 2 Swamp . . . . 3 Other . . . . 8 Specify:________________ ______________________ DK . . . . 9 NA 10
C-9. Name of manufacturer (primary HVAC unit)			
C-10. Model Number (primary HVAC unit)			
C-11. Year built (primary HVAC unit):	__ __ __ __	__ __ __ __	__ __ __ __
C-12. If the system is being operated today, what is current temperature setting on the thermostat?	__ __ __ degrees F DK . . . . -99 NA . . . . -10	__ __ __ degrees F DK . . . . -99 NA . . . . -10	__ __ __ degrees F DK . . . . -99 NA . . . . -10

	Classroom #1	Classroom #2	Classroom #3
C-13. Type of **return** air systems: (Circle all that apply) DUCTED REFERS TO SYSTEM WITH REGISTER FAR AWAY FROM AHU BUT ANOTHER RETURN COULD BE FOUND AT THE AHU.	Wall register . . . . 1 Open plenum . . . . . . 2 Ducted . . . . 3 Other . . . . 8 Specify:__________ __________ DK . . . . 9 NA 10	Wall register . . . . 1 Open plenum . . . . . . 2 Ducted . . . . 3 Other . . . . 8 Specify:__________ __________ DK . . . . 9 NA 10	Wall register . . . . 1 Open plenum . . . . . . 2 Ducted . . . . 3 Other . . . . 8 Specify:__________ __________ DK . . . . 9 NA 10
C-14. Number of return vent registers	__ __	__ __	__ __
C-15. Return vent registers clean? (Include nearby surfaces) (Circle one)	Clean . . . . 1 Some dirt or dust . . . 2 Very dirty . . . . 3 DK . . . . 9 NA 10	Clean . . . . 1 Some dirt or dust . . . 2 Very dirty . . . . 3 DK . . . . 9 NA 10	Clean . . . . 1 Some dirt or dust . . . 2 Very dirty . . . . 3 DK . . . . 9 NA 10
C-16. Number of **supply** vent registers	__ __	__ __	__ __
C-17. Supply vent registers clean? (Include nearby surfaces) (Circle one)	Clean . . . . 1 Some dirt or dust . . . 2 Very dirty . . . . 3 DK . . . . 9 NA 10	Clean . . . . 1 Some dirt or dust . . . 2 Very dirty . . . . 3 DK . . . . 9 NA 10	Clean . . . . 1 Some dirt or dust . . . 2 Very dirty . . . . 3 DK . . . . 9 NA 10
C-18. For **all vents**, how many are blocked? (Circle one)	1. . . . . 1 2. . . . . 2 3. . . . . 3 4 or more. 4 DK. . . . . . 9 → SKIP TO Q. D-1. NA. . . . . 10 → SKIP TO Q. D-1. None . . . . 5 → SKIP TO Q. D-1.	1. . . . . 1 2. . . . . 2 3. . . . . 3 4 or more. 4 DK. . . . . . 9 → SKIP TO Q. D-1. NA. . . . . 10 → SKIP TO Q. D-1. None . . . . 5 → SKIP TO Q. D-1.	1. . . . . 1 2. . . . . 2 3. . . . . 3 4 or more. 4 DK. . . . . . 9 → SKIP TO Q. D-1. NA. . . . . 10 → SKIP TO Q. D-1. None . . . . 5 → SKIP TO Q. D-1.

	Classroom #1	Classroom #2	Classroom #3
C-19. Grills or registers are blocked by: (Circle all that apply)	Furniture . . . . 1 Paper . . . . 2 Other . . . . 8 Specify:__________	Furniture . . . . 1 Paper . . . . 2 Other . . . . 8 Specify:__________	Furniture . . . . 1 Paper . . . . 2 Other . . . . 8 Specify:__________

SECTION D. AUXILIARY EQUIPMENT

	Classroom #1	Classroom #2	Classroom #3
D-1. Portable space heaters observed in classroom (Circle all that apply):	Electric . . . . 1 Gas . . . . 2 Propane . . . . 3 Kerosene . . . . 4 Solid fuel . . . . 5 Other . . . . 8 Specify:__________ None 6	Electric . . . . 1 Gas . . . . 2 Propane . . . . 3 Kerosene . . . . 4 Solid fuel . . . . 5 Other . . . . 8 Specify:__________ None 6	Electric . . . . 1 Gas . . . . 2 Propane . . . . 3 Kerosene . . . . 4 Solid fuel . . . . 5 Other . . . . 8 Specify:__________ None 6
D-2. Fans observed in the classroom (Circle all that apply):?	Ceiling . . . . 1 Window . . . . 2 Floor . . . . 3 Desktop . . . . 4 Lab or Range hood . . 5 Other . . . . 8 Specify:__________ None 6	Ceiling . . . . 1 Window . . . . 2 Floor . . . . 3 Desktop . . . . 4 Lab or Range hood . . 5 Other . . . . 8 Specify:__________ None 6	Ceiling . . . . 1 Window . . . . 2 Floor . . . . 3 Desktop . . . . 4 Lab or Range hood . . 5 Other . . . . 8 Specify:__________ None 6
D-3. Do the range hood and/or lab hoods exhaust air? TURN ON THE FAN AND VERIFY DUCTING TO THE OUTSIDE)	Yes . . . . 1 No . . . . 2 NA 10	Yes . . . . 1 No . . . . 2 NA 10	Yes . . . . 1 No . . . . 2 NA 10

	Classroom #1	Classroom #2	Classroom #3
D-4. Is there any humidity control equipment used in the classroom? (Circle one)	Yes . . . . 1 No . . . . 2 DK . . . . 9 NA 10	Yes . . . . 1 No . . . . 2 DK . . . . 9 NA 10	Yes . . . . 1 No . . . . 2 DK . . . . 9 NA 10

SECTION E. SYSTEM CONTROL

	Classroom #1	Classroom #2	Classroom #3
E-1. Outside Air Control (Circle all that apply)	Timer . . . . 1 Night shutdown . . . . 2 CO_2 . . . . 3 Temperature . . . . 4 Occupancy . . . . 5 Other . . . . 8 Specify:____________ __________________ None 6	Timer . . . . 1 Night shutdown . . . . 2 CO_2 . . . . 3 Temperature . . . . 4 Occupancy . . . . 5 Other . . . . 8 Specify:____________ __________________ None 6	Timer . . . . 1 Night shutdown . . . . 2 CO_2 . . . . 3 Temperature . . . . 4 Occupancy . . . . 5 Other . . . . 8 Specify:____________ __________________ None 6
E-2. If system is operated today, what is main mode of supply fan operation today? (Circle one)	Auto (only when heating or cooling) . . . . 1 Always on . . . . 2 Always off . . . . 3 Other . . . . 8 Specify:____________ __________________ DK . . . . 9 NA 10	Auto (only when heating or cooling) . . . . 1 Always on . . . . 2 Always off . . . . 3 Other . . . . 8 Specify:____________ __________________ DK . . . . 9 NA 10	Auto (only when heating or cooling) . . . . 1 Always on . . . . 2 Always off . . . . 3 Other . . . . 8 Specify:____________ __________________ DK . . . . 9 NA 10

	Classroom #1	Classroom #2	Classroom #3
E-3. How many rooms or zones are served by the primary system? (Circle one)	1 . . . . 1 2 . . . . 2 3 . . . . 3 4 . . . . 4 5 . . . . 5 Greater than 5 . . . . . . 6 DK 9	1 . . . . 1 2 . . . . 2 3 . . . . 3 4 . . . . 4 5 . . . . 5 Greater than 5 . . . . . . 6 DK 9	1 . . . . 1 2 . . . . 2 3 . . . . 3 4 . . . . 4 5 . . . . 5 Greater than 5 . . . . . . 6 DK 9
E-4. Is there a thermostat in each zone/room? (Circle one)	Yes . . . . 1 No . . . . 2 DK 9	Yes . . . . 1 No . . . . 2 DK 9	Yes . . . . 1 No . . . . 2 DK 9
E-5. What is the system's method of air flow control? (Circle one)	Constant . . . . 1 Variable . . . . 2 DK 9	Constant . . . . 1 Variable . . . . 2 DK 9	Constant . . . . 1 Variable . . . . 2 DK 9
E-6. Does this system have an economizer? (Circle one)	Yes . . . . . 1 →CONTINUE No . . . . . . 2 →SKIP TO Q E-8. DK . . . . . 9 →SKIP TO Q E-8. NA . . . . . 10 →SKIP TO Q E-8.	Yes . . . . . 1 →CONTINUE No . . . . . . 2 →SKIP TO Q E-8. DK . . . . . 9 →SKIP TO Q E-8. NA . . . . . 10 →SKIP TO Q E-8.	Yes . . . . . 1 →CONTINUE No . . . . . . 2 →SKIP TO Q E-8. DK . . . . . 9 →SKIP TO Q E-8. NA . . . . . 10 →SKIP TO Q E-8.
E-7. What type of economizer controls are there? (Circle one)	Temperature . . . . 1 Other . . . . 8 Specify:________________ ____________________ NA 10	Temperature . . . . 1 Other . . . . 8 Specify:________________ ____________________ NA 10	Temperature . . . . 1 Other . . . . 8 Specify:________________ ____________________ NA 10
E-8. Thermostat controled by: (Circle all that apply)	Maintenance staff (locked) . 1 Teacher (unlocked) . . . . 2 EMS (central control) . . . . . 3 Other . . . . 8 Specify:________________ ____________________ DK . . . . 9 NA 10	Maintenance staff (locked) . 1 Teacher (unlocked) . . . . 2 EMS (central control) . . . . . 3 Other . . . . 8 Specify:________________ ____________________ DK . . . . 9 NA 10	Maintenance staff (locked) . 1 Teacher (unlocked) . . . . 2 EMS (central control) . . . . . 3 Other . . . . 8 Specify:________________ ____________________ DK . . . . 9 NA 10

	Classroom #1	Classroom #2	Classroom #3
E-9. When does thermostat setback? (Circle all that apply)	When teacher leaves ..... 1 Nights .... 2 Weekend .... 3 Holidays .... 4 Never .... 5 Other .... 8 Specify:________________ ________________________ DK .... 9 NA 10	When teacher leaves ..... 1 Nights .... 2 Weekend .... 3 Holidays .... 4 Never .... 5 Other .... 8 Specify:________________ ________________________ DK .... 9 NA 10	When teacher leaves ..... 1 Nights .... 2 Weekend .... 3 Holidays .... 4 Never .... 5 Other .... 8 Specify:________________ ________________________ DK .... 9 NA 10

SECTION F. MACHINE ROOM

COMPLETE THIS SECTION ONLY IF THERE IS A BUILT UP HVAC SYSTEM. **SKIP TO SECTION G IF YOU ARE OBSERVING A CLASSROOM WITH A PACKAGE UNIT.**

	Classroom #1	Classroom #2	Classroom #3
F-1. Air inlet/return to AHU in Machine Room? (Circle one)	Yes .... 1 → GO TO Q. F-2. No .... 2 → GO TO Q. F-3. Not accessible ... 3 → SKIP TO Q. G-1. DK .... 9 → GO TO Q. F-3.	Yes .... 1 → GO TO Q. F-2. No .... 2 → GO TO Q. F-3. Not accessible ... 3 → SKIP TO Q. G-1. DK .... 9 → GO TO Q. F-3.	Yes .... 1 → GO TO Q. F-2. No .... 2 → GO TO Q. F-3. Not accessible ... 3 → SKIP TO Q. G-1. DK .... 9 → GO TO Q. F-3.
F-2. Are the Filters on inlet? (Circle one)	Yes .... 1 No .... 2 DK 9	Yes .... 1 No .... 2 DK 9	Yes .... 1 No .... 2 DK 9
F-3. Chemical storage in Machine Room? (Circle one)	Yes .... 1 No .... 2 Not accessible ..... 3 DK 9	Yes .... 1 No .... 2 Not accessible ..... 3 DK 9	Yes .... 1 No .... 2 Not accessible ..... 3 DK 9

	Classroom #1	Classroom #2	Classroom #3
F-4. Is the Machine Room air-conditioned? (Circle one)	Yes . . . . . 1 No 2	Yes . . . . . 1 No 2	Yes . . . . . 1 No 2
F-5. Water/humidity problems in Machine Room? (Circle one)	Yes . . . . . 1 No 2	Yes . . . . . 1 No 2	Yes . . . . . 1 No 2
F-6. Is Machine Room clean? (Circle one)	Yes . . . . . 1 No 2	Yes . . . . . 1 No 2	Yes . . . . . 1 No 2
F-7. Please add notes regarding chemical storage, water problems, etc. in the machine room.	_____ _____ _____	_____ _____ _____	_____ _____ _____

SECTION G. OUTSIDE ACCESS

	Classroom #1	Classroom #2	Classroom #3
G-1. Ease of access to AHU interior. (Circle one)	Good . . . . . 1 Fair . . . . . 2 Poor . . . . . 3 None . . . . . 4 DK 9	Good . . . . . 1 Fair . . . . . 2 Poor . . . . . 3 None . . . . . 4 DK 9	Good . . . . . 1 Fair . . . . . 2 Poor . . . . . 3 None . . . . . 4 DK 9
G-2. What is the condition of the exhaust flue? (Circle one)	Blocked . . . . . 1 Crimped . . . . . 2 Corroded . . . . . 3 Other . . . . . 8 Specify:_____ _____ DK . . . . . 9 NA 10	Blocked . . . . . 1 Crimped . . . . . 2 Corroded . . . . . 3 Other . . . . . 8 Specify:_____ _____ DK . . . . . 9 NA 10	Blocked . . . . . 1 Crimped . . . . . 2 Corroded . . . . . 3 Other . . . . . 8 Specify:_____ _____ DK . . . . . 9 NA 10

	Classroom #1	Classroom #2	Classroom #3
G-3. Filter Type: (Circle all that apply)	Fiberglass mesh . . . . 1 Pleated . . . . 2 High efficiency . . . . . 3 Other . . . . 8 Specify:____________ ____________ DK . . . . 9 NA 10	Fiberglass mesh . . . . 1 Pleated . . . . 2 High efficiency . . . . . 3 Other . . . . 8 Specify:____________ ____________ DK . . . . 9 NA 10	Fiberglass mesh . . . . 1 Pleated . . . . 2 High efficiency . . . . . 3 Other . . . . 8 Specify:____________ ____________ DK . . . . 9 NA 10
G-4. Placement of Filter: (Circle one)	Coil/AHU . . . . 1 Duct . . . . 2 Both . . . . 3 None . . . . 4 NA 5	Coil/AHU . . . . 1 Duct . . . . 2 Both . . . . 3 None . . . . 4 NA 5	Coil/AHU . . . . 1 Duct . . . . 2 Both . . . . 3 None . . . . 4 NA 5
G-5. Loading of dirt on Filter: (Circle one)	Heavy . . . . 1 Medium . . . . 2 Light . . . . 3 DK . . . . 9 NA 10	Heavy . . . . 1 Medium . . . . 2 Light . . . . 3 DK . . . . 9 NA 10	Heavy . . . . 1 Medium . . . . 2 Light . . . . 3 DK . . . . 9 NA 10
G-6. Gaps around filters: (Circle one)	½ inch or more . . . . . 1 less than ½ inch . . . . 2 None . . . . 3 DK . . . . 9 NA 10	½ inch or more . . . . . 1 less than ½ inch . . . . 2 None . . . . 3 DK . . . . 9 NA 10	½ inch or more . . . . . 1 less than ½ inch . . . . 2 None . . . . 3 DK . . . . 9 NA 10
G-7. Mold/Mildew on Filter? (Circle one)	Yes . . . . 1 No . . . . 2 DK . . . . 9 NA 10	Yes . . . . 1 No . . . . 2 DK . . . . 9 NA 10	Yes . . . . 1 No . . . . 2 DK . . . . 9 NA 10

	Classroom #1	Classroom #2	Classroom #3
G-8. Type of supply ductwork: (Circle all that apply)	Flexible . . . . 1 Sheet metal . . . . 2 Other 8 Specify:______________________ ______________________ DK . . . . 9 NA 10	Flexible . . . . 1 Sheet metal . . . . 2 Other . . . . 8 Specify:______________________ ______________________ DK . . . . 9 NA 10	Flexible . . . . 1 Sheet metal . . . . 2 Other . . . . 8 Specify:______________________ ______________________ DK . . . . 9 NA 10
G-9. Number of Coils in a row: (Circle one)	— — — DK . . . . -99 NA . . . . -10	— — — DK . . . . -99 NA . . . . -10	— — — DK . . . . -99 NA . . . . -10
G-10. Condition of Coils (Circle all that apply)	Clean . . . . 1 Dirty . . . . 2 Mold/Mildew/Algae . 3 Leaks 4	Clean . . . . 1 Dirty . . . . 2 Mold/Mildew/Algae . 3 Leaks 4	Clean . . . . 1 Dirty . . . . 2 Mold/Mildew/Algae . 3 Leaks 4
G-11. Condensate drain pans and lines (Circle all that apply):	Clean . . . . 1 Dirty . . . . 2 Mineral buildup . . . . 3 Biological buildup . . 4 Leaks . . . . 5 Odors . . . . 6 Other . . . . 8 Specify:______________________ ______________________	Clean . . . . 1 Dirty . . . . 2 Mineral buildup . . . . 3 Biological buildup . . 4 Leaks . . . . 5 Odors . . . . 6 Other . . . . 8 Specify:______________________ ______________________	Clean . . . . 1 Dirty . . . . 2 Mineral buildup . . . . 3 Biological buildup . . 4 Leaks . . . . 5 Odors . . . . 6 Other . . . . 8 Specify:______________________ ______________________
G-12. Is there a P-trap for the drain line? (Circle one)	Yes . . . . 1 No . . . . 2 DK . . . . 9 NA 10	Yes . . . . 1 No . . . . 2 DK . . . . 9 NA 10	Yes . . . . 1 No . . . . 2 DK . . . . 9 NA 10

	Classroom #1	Classroom #2	Classroom #3
Note: conduct drainage test: add 6 oz of water into the condensation drain pan and check for plugged outlet if there does not appear to be adequate drainage.			
G-13. Results of drainage tests: (Circle all that apply)	Standing water left . . . . . . 1 Water exits drain line . . . . 2 Other . . . . 8 Specify:______________________ ______________________ NA 10	Standing water left . . . . 1 Water exits drain line . . . . . 2 Other . . . . 8 Specify:______________________ ______________________ NA 10	Standing water left . . . . . . 1 Water exits drain line . . . . 2 Other . . . . 8 Specify:______________________ ______________________ NA 10
G-14. Condensate drain outlet location: (Circle all that apply)	Bottom of AHU . . . . 1 Exterior wall . . . . 2 On ground within 5 ft. of building . . . . 3 Other . . . . 8 Specify:______________________ ______________________ DK 9	Bottom of AHU . . . . 1 Exterior wall . . . . 2 On ground within 5 ft. of building . . . . 3 Other . . . . 8 Specify:______________________ ______________________ DK 9	Bottom of AHU . . . . 1 Exterior wall . . . . 2 On ground within 5 ft. of building . . . . 3 Other . . . . 8 Specify:______________________ ______________________ DK 9
G-15. A. Outdoor air Intake cleanliness (Circle one)	Good . . . . 1 Fair . . . . 2 Poor 3	Good . . . . 1 Fair . . . . 2 Poor 3	Good . . . . 1 Fair . . . . 2 Poor 3
G-15. B. Is there blockage in the Intake? (Circle one)	Yes . . . . 1 No . . . . 2 DK . . . . 9 NA 10	Yes . . . . 1 No . . . . 2 DK . . . . 9 NA 10	Yes . . . . 1 No . . . . 2 DK . . . . 9 NA 10
G-15. C. Possible contamination sources (describe)	______________________ ______________________	______________________ ______________________	______________________ ______________________
G-16. Exhaust outlet within 25 feet? (Circle one)	Yes . . . . 1 No . . . . 2 DK . . . . 9 NA 10	Yes . . . . 1 No . . . . 2 DK . . . . 9 NA 10	Yes . . . . 1 No . . . . 2 DK . . . . 9 NA 10

	Classroom #1	Classroom #2	Classroom #3
G-17. Describe the Bird screen: (Circle all that apply)	In place . . . . 1 Obstructed . . . . 2 None 3	In place . . . . 1 Obstructed . . . . 2 None 3	In place . . . . 1 Obstructed . . . . 2 None 3
G-18. Circle all that appear inside the AHU. (Circle all that apply)	Standing water . . . . 1 Slime . . . . 2 Mineral deposits . . . . 3 Other . . . . 8 Specify:________________ ______________________ None 4	Standing water . . . . 1 Slime . . . . 2 Mineral deposits . . . . 3 Other . . . . 8 Specify:________________ ______________________ None 4	Standing water . . . . 1 Slime . . . . 2 Mineral deposits . . . . 3 Other . . . . 8 Specify:________________ ______________________ None 4
G-19. Condition of AHU fan blades: (Circle one)	Clean . . . . 1 Dirty . . . . 2 Corrosion . . . . 3 DK . . . . 9 NA 10	Clean . . . . 1 Dirty . . . . 2 Corrosion . . . . 3 DK . . . . 9 NA 10	Clean . . . . 1 Dirty . . . . 2 Corrosion . . . . 3 DK . . . . 9 NA 10
G-20. AHU vibration and noise: (Circle one)	Very loud . . . . 1 Loud . . . . 2 Quiet . . . . 3 NA 10	Very loud . . . . 1 Loud . . . . 2 Quiet . . . . 3 NA 10	Very loud . . . . 1 Loud . . . . 2 Quiet . . . . 3 NA 10
G-21. End Time:	__ __ : __ __ am/pm TIME OBSERVATION ENDS	__ __ : __ __ am/pm TIME OBSERVATION ENDS	__ __ : __ __ am/pm TIME OBSERVATION ENDS
Notes and Observations on the HVAC Systems	______________________ ______________________ ______________________ ______________________ ______________________ ______________________ ______________________ ______________________ ______________________ ______________________	______________________ ______________________ ______________________ ______________________ ______________________ ______________________ ______________________ ______________________ ______________________ ______________________	______________________ ______________________ ______________________ ______________________ ______________________ ______________________ ______________________ ______________________ ______________________ ______________________

Consultation with Facilities and HVAC Managers (Part 1)
CA PCS Phase II

Instructions to field staff: Complete this form once per school. First review responses from the Facilities Questionnaire. Pay particular attention to questions that had been left blank. Ask FM if he/she needs clarification on any questions from the questionnaire and try to complete any questions that had been left blank.

Obtain information for all 3 classrooms. Section A is to be completed by the Facility Manager. Consult with HVAC Manager to complete Section B. Ask Facility Manager to also complete Part 2, which is a separate form.

SECTION A. CLASSROOM INFORMATION

A-1. Today's Date: __ __/__ __/__ __

A-2. Facility Manager's Name: _____

Instructions: Complete this section for each classroom below.

	Classroom #1	Classroom #2	Classroom #3
Room Number:	_____	_____	_____
A-3. Date the classroom building was constructed or acquired by district:	__ __ /__ __ __ __ (MM/YYYY)	__ __ /__ __ __ __ (MM/YYYY)	__ __ /__ __ __ __ (MM/YYYY)
PORTABLE CLASSROOMS MAY HAVE A PLATE ON THE OUTSIDE WITH MANUFACTURE DATE. BUILDING MANUFACTURE DATES WILL NEED TO BE OBTAINED FROM THE FACILITY MANAGER (FM). TRADITIONAL CLASSROOM BUILDING CONSTRUCTION DATES WILL HAVE TO BE OBTAINED FROM THE FM.			
A-4. Is classroom a portable or traditional type? (Circle one)	Portable . . . . 1→CONTINUE Traditional . . 2→SKIP TO Q. A-8.	Portable . . . . 1→CONTINUE Traditional . . 2→SKIP TO Q. A-8.	Portable . . . . 1→CONTINUE Traditional . . 2→SKIP TO Q. A-8.

	Classroom #1	Classroom #2	Classroom #3
A-5. A. Was the portable unit acquired new or used? (Circle one)	New . . . . . 1 Used. . . . . 2 → B. Estimate age of unit __ __ yrs. DK. 9	New. . . . . 1 Used. . . . . 2 → B. Estimate age of unit __ __ yrs. DK. 9	New. . . . . 1 Used. . . . . 2 → B. Estimate age of unit __ __ yrs. DK. 9
A-6. What sort of design approval does the portable unit have? (Circle one)	DSA . . . . . 1 DOH . . . . . 2 DK 9	DSA . . . . . 1 DOH . . . . . 2 DK 9	DSA . . . . . 1 DOH . . . . . 2 DK 9
A-7. A. Is the portable in its original location on the school's campus? (Circle one)	Yes . . . . . 1 No . . . . . 2 →B. How many times has it been moved __ __ →C. How many times has it been moved in the last 3 yrs? __ __ DK 9	Yes . . . . . 1 No . . . . . 2 →B. How many times has it been moved __ __ →C. How many times has it been moved in the last 3 yrs? __ __ DK 9	Yes . . . . . 1 No . . . . . 2 →B. How many times has it been moved __ __ →C. How many times has it been moved in the last 3 yrs? __ __ DK 9
A-8. A. For classroom being sampled, please indicate if any of the following items have been replaced **within the last 3 years.** (Circle all that apply):	Addition . . . 1 Lighting . . . 2 HVAC . . . . 3 Roof . . . . . 4 Floor . . . . . 5 Wall . . . . . 6 Plumbing . . 7 Carpet . . . . . 11 Other . . . . . 8 →Specify:_____ _____ _____	Addition . . . 1 Lighting . . . 2 HVAC . . . . 3 Roof . . . . . 4 Floor . . . . . 5 Wall . . . . . 6 Plumbing . . 7 Carpet . . . . . 11 Other . . . . . 8 →Specify:_____ _____ _____	Addition . . . 1 Lighting . . . 2 HVAC . . . . 3 Roof . . . . . 4 Floor . . . . . 5 Wall . . . . . 6 Plumbing . . 7 Carpet . . . . . 11 Other . . . . . 8 →Specify:_____ _____ _ _____ _

	Classroom #1	Classroom #2	Classroom #3
A-9. Major remediations (Circle all that apply):	Asbestos . . . 1 Lead . . . . . . 2 Mold . . . . . . 3 Other . . . . . . 8→Specify:________ ______________________________ ______________________________ DK . . . . 9 None 4	Asbestos . . . 1 Lead . . . . . . 2 Mold . . . . . . 3 Other . . . . . . 8→Specify:________ ______________________________ ______________________________ DK . . . . 9 None 4	Asbestos . . . 1 Lead . . . . . . 2 Mold . . . . . . 3 Other . . . . . . 8→Specify:________ ______________________________ ______________________________ DK . . . . 9 None 4
A-10. Type of insulation in classroom (Circle all that apply):	Rolled fiberglass . . . 1 Blown paper . . . . . . 2 Insulation board . . . 3 Foam . . . . 4 Other . . . . 8→Specify:___ _______________________________ _______________________________ DK 9	Rolled fiberglass . . . 1 Blown paper . . . . . . 2 Insulation board . . . 3 Foam . . . . 4 Other . . . . 8→Specify:___ _______________________________ _______________________________ DK 9	Rolled fiberglass . . . 1 Blown paper . . . . . . 2 Insulation board . . . 3 Foam . . . . 4 Other . . . . 8→Specify:___ ______________________________ _ ______________________________ _ DK 9
A-11. Overhead Lighting Fixture Type. (Circle all that apply)	T8 Fluorescent . . . . 1 T12 Fluorescent . . . . 2 Fluorescent, Full spectrum . . . . . . 3 Fluorescent, DK Type . . . . 4 Incandescent . . . . 5 DK . . . . 9 None 6	T8 Fluorescent . . . . 1 T12 Fluorescent . . . . 2 Fluorescent, Full spectrum . . . . . . 3 Fluorescent, DK Type . . . . 4 Incandescent . . . . 5 DK . . . . 9 None 6	T8 Fluorescent . . . . 1 T12 Fluorescent . . . . 2 Fluorescent, Full spectrum . . . . . . 3 Fluorescent, DK Type . . . . 4 Incandescent . . . . 5 DK . . . . 9 None 6
A-12. Roof last replaced (years) (Circle one)	Original . . . . 1 1-4 . . . . 2 5-9 . . . . 3 10-19 . . . . 4 >19 . . . . 5 DK 9	Original . . . . 1 1-4 . . . . 2 5-9 . . . . 3 10-19 . . . . 4 >19 . . . . 5 DK 9	Original . . . . 1 1-4 . . . . 2 5-9 . . . . 3 10-19 . . . . 4 >19 . . . . 5 DK 9

	Classroom #1	Classroom #2	Classroom #3
Ducts			
A-13. Type of supply ductwork in classroom (Circle all that apply):	Sheet metal . . . . . 1 Fiberboard . . . . . 2 Flexible . . . . . 3 Other . . . . . 8→Specify:___ _____ _____ DK . . . . . 9 None 5	Sheet metal . . . . . 1 Fiberboard . . . . . 2 Flexible . . . . . 3 Other . . . . . 8→Specify:___ _____ _____ DK . . . . . 9 None 5	Sheet metal . . . . . 1 Fiberboard . . . . . 2 Flexible . . . . . 3 Other . . . . . 8→Specify:___ _____ _ _____ _ DK . . . . . 9 None 5
A-14. What kind of ductwork insulation is there in classroom? (Circle all that apply)	Lined (inside duct) 1 Wrapped (outside the duct) . . . . . 2 Other . . . . . 8→Specify:___ _____ _____ DK . . . . . 9 None 3	Lined (inside duct) 1 Wrapped (outside the duct) . . . . . 2 Other . . . . . 8→Specify:___ _____ _____ DK . . . . . 9 None 3	Lined (inside duct) . . . . . 1 Wrapped (outside the duct) 2 Other 8→Specify:___ _____ _____ DK 9 None 3
A-15. Have the ducts in this classroom been professionally cleaned? (Circle one)	Yes . . . . 1→Please provide date __ __ /__ __ __ __ (MM/YYYY) No . . . . . 2 DK 9	Yes . . . . 1→Please provide date __ __ /__ __ __ __ (MM/YYYY) No . . . . . 2 DK 9	Yes . . . . 1→Please provide date __ __ /__ __ __ __ (MM/YYYY) No . . . . . 2 DK 9
A-16. Provide additional comments or observations in space below. (Note anything related to classroom renovations/remediations, ductwork, insulation, etc.)	_____ _____ _____ _____ _____ _____	_____ _____ _____ _____ _____ _____	_____ _ _____ _ _____ _ _____ _ _____ _ _____ _

SECTION B. HVAC SYSTEMS
IN CONSULTATION WITH HVAC MANAGER. PLEASE REFER TO PRIMARY HVAC UNIT.

B-1. HVAC MANAGER'S NAME ____

	Classroom #1	**Classroom #2**	**Classroom #3**
B-2. Design total supply air flow	__ __ __ cfm DK . . . . -99 NA . . . . -10	__ __ __ cfm DK . . . . -99 NA . . . . -10	__ __ __ cfm DK . . . . -99 NA . . . . -10
B-3. Design outside air flow	__ __ __ cfm DK . . . . -99 NA . . . . -10	__ __ __ cfm DK . . . . -99 NA . . . . -10	__ __ __ cfm DK . . . . -99 NA . . . . -10
B-4. Date last tested and balanced	__ __ /__ __ __ __ (MM/YYYY) DK . . . . -9/-999 NA . . . . -1/-100	__ __ /__ __ __ __ (MM/YYYY) DK . . . . -9/-999 NA . . . . -1/-100	__ __ /__ __ __ __ (MM/YYYY) DK . . . . -9/-999 NA . . . . -1/-100
B-5. Minimum setting of outdoor air damper (%):	_____% DK . . . . -9 NA . . . . -1	_____% DK . . . . -9 NA . . . . -1	_____% DK . . . . -9 NA . . . . -1
B-6. What written HVAC records are available? (Circle all that apply)	Adjustments, testing, and balancing . . . . . 1 Up-to-date maintenance log . . . . 2 Standardized protocol or manual . . . . . 3 Protocol/manual for maintenance . . . . . 4 DK . . . . 9 NA . . . . 10 None 5	Adjustments, testing, and balancing . . . . . 1 Up-to-date maintenance log . . . . 2 Standardized protocol or manual . . . . . 3 Protocol/manual for maintenance . . . . . 4 DK . . . . 9 NA . . . . 10 None 5	Adjustments, testing, and balancing . . . . . 1 Up-to-date maintenance log . . . . 2 Standardized protocol or manual . . . . . 3 Protocol/manual for maintenance . . . . . 4 DK . . . . 9 NA . . . . 10 None 5
B-7. How often do inspections occur: (Circle one)	Yearly . . . . 1 Quarterly . . . . 2 Monthly . . . . 3 Other 4	Yearly . . . . 1 Quarterly . . . . 2 Monthly . . . . 3 Other 4	Yearly . . . . 1 Quarterly . . . . 2 Monthly . . . . 3 Other 4

	Classroom #1	Classroom #2	Classroom #3
B-8. Date of last inspection;	__ __ /__ __ __ __ (MM/YYYY)	__ __ /__ __ __ __ (MM/YYYY)	__ __ /__ __ __ __ (MM/YYYY)
B-9. A. Has there been an HVAC system replacement or major repair for this classroom? ENTER YEAR FOR MOST RECENT. (Circle all that apply)	Replacement . . . . 1→B. Year_____ Repair . . . . . 2→C. Year_____ DK . . . . . 9 NA . . . . . 10 None 3	Replacement . . 1→B. Year_____ Repair . . . . . 2→C. Year_____ DK . . . . . 9 NA . . . . . 10 None 3	Replacement . . . . 1→B. Year_____ Repair . . . . . 2→C. Year_____ DK . . . . . 9 NA . . . . . 10 None 3
B-10. Provide additional comments or observations in space below. (Note anything related to classroom renovations/remediations, ductwork, insulation, etc.)	_____ _____ _____ _____ _____ _____	_____ _____ _____ _____ _____ _____	_____ _____ _____ _____ _____ _____

Consultation with Facilities and HVAC Managers (Part 2)
CA PCS Phase II

FACILITY MANAGER, PLEASE COMPLETE THE FOLLOWING QUESTIONS **ONCE** FOR THE ENTIRE SCHOOL SITE. IF YOU CANNOT COMPLETE "PART 2" AT THE PRESENT TIME, PLEASE ASK TECHNICIAN FOR RETURN ENVELOPE TO MAIL IT TO RTI.

TECHNICIAN, PLEASE COMPLETE THE IDENTIFYING INFORMATION BELOW.

SECTION C. OTHER SCHOOL INFORMATION/CHARACTERISTICS

C-1. Today's Date: __ __/__ __/__ __

C-2. Facility Manager's Name: _____

C-3. School Type: (Circle all that apply)

Elementary 1
Middle 2
High 3
Other . . . . . 8 → Specify:_____

C-4. Number of students attending this school: _____

C-5. Grades at this school (Circle all that apply) K 1 2 3 4 5 6 7 8 9 10 11 12

C-6. How many student days are scheduled for this school year? _____

C-7. Are there pre-kindergarten aged children in an on-campus pre-school or day-care facility at any time during the day?

Yes 1
No 2

C-8. Which of the following events have occurred at the school in the past 5 years? (Circle all that apply)

Hazardous waste spills . . . 1
Fires 2
Major water leaks 3
Floods 4

C-9. Have there been any overheated, burning or leaking ballasts or transformers currently or in the past? (Circle all that apply)

Yes 1
No 2
DK 9

C-10. How often is there standing water or wet low spots within 50 feet of the classroom (including underneath the classroom)? (Circle one)

Never 1
Occasionally 2
Frequently 3
DK 9

SECTION D. OTHER

D-1. What is the source of the school's potable water? (Circle one)

On-site well 1
Regulated public water supply . . . . . 2 → D-1a. Is this from surface water or ground water?
DK 9

Surface (e.g. river or reservoir . . 1
Groundwater (public wells) 2
Both 3
DK 9

D-2. Do students shower anywhere on campus? (Circle one)

Yes 1
No 2
DK 9

D-3. Are crops such as fruits or vegetables grown on campus and consumed by students? (Circle one)

Yes 1
No 2

Please go to next page.

D-4. If pesticides are applied at the school, fill in table below (if known):

Notes to technician: If school uses a contractor, request a pesticides application report from the contract service.
Obtain copy of IPM report on Pesticides used, if available.

INDOORS Product Name	EPA #	Schedule for use: (D=daily, W=weekly, M=monthly, Q=quarterly, A=annually, N=as needed, R=rarely)	Who Applies Pesticide? (maintenance staff, teachers, contractor, other)
		D W M Q A N R	
		D W M Q A N R	
		D W M Q A N R	
		D W M Q A N R	
OUTDOORS Product Name	EPA #	Schedule for use:	Who Applies Pesticide?
		D W M Q A N R	
		D W M Q A N R	
		D W M Q A N R	
		D W M Q A N R	

California Portable Classrooms Study

A joint project of the California Air Resources Board and Department of Health Services

California Environmental Protection Agency

Air Resources Board

Gray Davis, Governor

Department of Health Services

June 23, 2003

«district»
Attn: «distcontactname1»
«distaddrline1»
«distcity», «diststate» «distzip»

Dear «distcontactname1»:

We are writing to request your support for participation of some of your district's schools in Phase II of the California Portable Classrooms Study (Phase I was conducted this past spring). The California Air Resources Board (ARB) and the California Department of Health Services (DHS) are conducting this study to learn more about the environmental health conditions in California's portable classrooms.

As you may already know, this study has been mandated by the California Legislature. It also is endorsed by the Superintendent of Public Instruction, Ms. Delaine Eastin (see enclosed letter). The study results will be used to make recommendations to the Legislature to remedy any unhealthful conditions found. These recommendations will help shape future programs and funding decisions at the State level.

The ARB and DHS have contracted with Research Triangle Institute (RTI) to conduct the study. Within the next week, RTI staff will be calling to request your support.

The schools in your district listed on the enclosed form have been randomly selected to participate in Phase II of this study. After obtaining your support, RTI staff will contact the principals of the selected schools to set a mutually convenient date for the study. Each participating school will receive a check for $100 as a "Thank You" for their participation. More importantly, participating schools will have contributed important information needed to assess our portable classrooms and will help identify any state-level changes needed to improve environmental conditions in our classrooms.

Phase II of the study will be conducted by RTI and will require very little time from staff in your office or at the school. RTI will ask the facilities manager to provide current lists of portable and permanent classrooms, from which RTI staff will select the study classrooms. Two portable classrooms and one traditional classroom will be selected for study from each participating school. Two RTI staff members will visit each school for one day and conduct the following activities in each study classroom: air sampling; assessment of the heating, ventilation, and air conditioning (HVAC) systems; floor dust collection, and temperature and humidity monitoring.

To minimize the impact on classroom instruction, the sampling equipment will be set up before classes begin and removed after classes have ended. The monitoring equipment is quiet and unobtrusive. In addition, comparable air monitoring will be conducted outdoors at each school.

We will ask for assistance from the facilities manager for each school to complete a brief questionnaire regarding the school. In addition, on the day that we visit the school, we will request that the facilities manager, or someone knowledgeable about the HVAC system at the school, accompany RTI's technician during assessment activities.

We hope that you will support this study because we can produce the most definitive results only if we obtain data from all of the randomly selected schools. The information collected from the participating schools and staff will remain strictly confidential; the names of individual schools and staff members will not be reported to our agencies or any other government agencies. We ask that you approve your schools' participation in this important research and take time to talk with the RTI staff who will call you in the next week or so. If you would like to receive the results for schools in your district, you can request them from RTI.

We would appreciate a faxed letter indicating your support. A sample letter of support is enclosed. Please copy this letter onto your district's letterhead, then date and sign the letter, and fax it to RTI at (919) 541-6854. We will send a copy of this letter to the principals of the schools on the enclosed list to inform them of your approval.

If you have questions or concerns about this study, please call us at the numbers below or call the RTI Project Director, Dr. Roy Whitmore, at (800) 334-8571, Ext. 5809, between 8 am and 5 pm, Eastern time. We have enclosed a brochure describing the study. Additional information about the project can be found at our website at http://www.arb.ca.gov/research/indoor/pcs/pcs.htm.

Sincerely,

Peggy L. Jenkins
ARB Project Officer
(916) 445-0753

Jed Waldman
DHS Project Officer
(510) 540-2469

cc: Dr. Roy Whitmore, RTI
Enclosures: (1) Letter from Delaine Eastin
(2) Study brochure
(3) Letter of approval to be copied to your letterhead, signed, and faxed to RTI
(4) List of schools in your district that were randomly selected for Phase II

DATE: _____

Dr. Roy W. Whitmore
Project Director, California Portable Classrooms Study
Research Triangle Institute
Research Triangle Park, NC

Dear Dr. Whitmore:

The _____ School District is pleased to support the California Portable Classrooms Study. The study results will be used to help improve the quality of the school environment for California's youth. We encourage schools in our district to cooperate and participate in the upcoming study.

We understand that all information gathered is confidential.

Sincerely yours,

Name: _____

Title: _____

Phone Number: _____

California Portable Classrooms Study

A joint project of the California Air Resources Board and Department of Health Services

California Environmental Protection Agency

Air Resources Board

Gray Davis, Governor

Department of Health Services

«school»
Attn: «principalname1»
«schooladdrline1»
«schoolcity», «schoolstate» «schoolzip»

Dear «principalname1»:

I am writing to request your school's participation in Phase II of the California Portable Classrooms Study (Phase I was conducted this past spring). The California Air Resources Board (ARB) and the California Department of Health Services (DHS) are conducting this study to learn more about the environmental health conditions in California's portable classrooms. **Your superintendent has given us verbal approval for you to participate in this study.**

As you may already know, this study has been mandated by the California Legislature. It also is endorsed by the Superintendent of Public Instruction, Ms. Delaine Eastin (see enclosed letter). The study results will be used to make recommendations to the Legislature to address unhealthful environmental conditions found in portable classrooms. These recommendations will help shape future programs and funding decisions at the state level.

The State has contracted with my organization, Research Triangle Institute (RTI), to assist in conducting the fieldwork of the study. Within the next week, we will be calling to request your school's participation. Your school has been randomly selected from California's public schools to participate in Phase II of this study. If you participate, your school will receive a check for $100 as a token of appreciation. More importantly, you will have contributed important information needed to assess portable classrooms and to help identify any state-level changes needed to improve environmental conditions in California's classrooms.

This study will require very little time from staff at your school. We will ask you or your facilities manager to provide current lists of portable and permanent classrooms, as well as a site map, from which RTI staff will select the study classrooms. Two portable classrooms and one traditional classroom will be selected for study. We also will ask for assistance from your facilities manager to complete a brief questionnaire regarding the school. In addition, on the day that we visit your school, we will request that your facilities manager, or someone knowledgeable about the ventilation systems at your school, accompany RTI's technician during assessment activities.

On the study date, two RTI staff members will conduct the following activities in each study classroom: air sampling; assessment of the heating, ventilation, and air conditioning (HVAC) systems; floor dust collection, and temperature and humidity monitoring. To minimize the impact on classroom instruction, the air sampling equipment will be set up before classes begin and removed after classes have ended. In addition, comparable air monitoring will be conducted at one outdoor location at the school. The monitoring equipment is quiet and unobtrusive.

The information collected from the participating schools and staff will remain strictly confidential; the names of individual schools and staff members will not be reported to the public, State agencies, or any other government agencies. If you would like to receive the results for your school, you can request them from your district superintendent; the specific results for your school will not be provided to anyone else.

We hope that you will participate in this study. We need data from all of the randomly selected schools in order to accurately identify priority areas of need and develop effective recommendations to address them. We ask that you approve your school's participation in this important research when we call you in the next week or so.

If you have questions or concerns regarding this study, please call me at the number below between 8 a.m. and 5 p.m., Eastern time, or call Peggy Jenkins, ARB Project Officer, at 916-445-0753, or Jed Waldman, DHS Project Officer, at 510-540-2469. Additional information about the project can be found in the enclosed brochure and at the study website at http://www.arb.ca.gov/research/indoor/pcs/pcs.htm.

Sincerely,

Rebecca G. Premock

Rebecca G. Premock
RTI Project Coordinator
(800) 334-8571, Ext. 7468

Enclosures: (1) Letter from Delaine Eastin
(2) Study brochure

Cc: Peggy L. Jenkins, ARB
Jed Waldman, Ph.D., DHS

California Portable Classrooms Study

A joint project of the California Air Resources Board and Department of Health Services

California Environmental Protection Agency

Air Resources Board

Gray Davis, Governor

Department of Health Services

«schoolname»
Attn: «prinname»
«prinaddress»
«princity», «prinstate» «prinzip»

Dear «prinname»:

I am writing to request your school's participation in Phase II of the California Portable Classrooms Study (Phase I was conducted this past spring). The California Air Resources Board (ARB) and the California Department of Health Services (DHS) are conducting this study to learn more about the environmental health conditions in California's portable classrooms. **Your superintendent has given us verbal approval for you to participate in this study.**

As you may already know, this study has been mandated by the California Legislature. It also is endorsed by the Superintendent of Public Instruction, Ms. Delaine Eastin (see enclosed letter). The study results will be used to make recommendations to the Legislature to address unhealthful environmental conditions found in portable classrooms. These recommendations will help shape future programs and funding decisions at the state level.

The State has contracted with my organization, Research Triangle Institute (RTI), to assist in conducting the fieldwork of the study. Within the next week, we will be calling to request your school's participation. Your school has been randomly selected from California's public schools to participate in Phase II of this study. If you participate, your school will receive a check for $100 as a token of appreciation. More importantly, you will have contributed important information needed to assess portable classrooms and to help identify any state-level changes needed to improve environmental conditions in California's classrooms.

This study will require very little time from staff at your school. Two portable classrooms and one traditional classroom will be selected for study. If possible, we would like to re-visit the same classrooms selected for Phase I of the study this past Spring. We also will ask for assistance from your facilities manager to complete a brief questionnaire regarding the school. In addition, on the day that we visit your school, we will request that your facilities manager, or someone knowledgeable about the ventilation systems at your school, accompany RTI's technician during assessment activities.

On the study date, two RTI staff members will conduct the following activities in each study classroom: air sampling; assessment of the heating, ventilation, and air conditioning (HVAC) systems; floor dust collection, and temperature and humidity monitoring. To minimize the impact on classroom instruction, the air sampling equipment will be set up before classes begin and removed after classes have ended. In addition, comparable air monitoring will be conducted at one outdoor location at the school. The monitoring equipment is quiet and unobtrusive.

The information collected from the participating schools and staff will remain strictly confidential; the names of individual schools and staff members will not be reported to the public, State agencies, or any other government agencies. If you would like to receive the results for your school, you can request them from your district superintendent; the specific results for your school will not be provided to anyone else.

We hope that you will participate in this study. We need data from all of the randomly selected schools in order to accurately identify priority areas of need and develop effective recommendations to address them. We ask that you approve your school's participation in this important research when we call you in the next week or so.

If you have questions or concerns regarding this study, please call me at the number below between 8 a.m. and 5 p.m., Eastern time, or call Peggy Jenkins, ARB Project Officer, at 916-445-0753, or Jed Waldman, DHS Project Officer, at 510-540-2469. Additional information about the project can be found in the enclosed brochure and at the study website at http://www.arb.ca.gov/research/indoor/pcs/pcs.htm.

Sincerely,

Rebecca G. Premock

Rebecca G. Premock
RTI Project Coordinator
(800) 334-8571, Ext. 7468

Enclosures: (1) Letter from Delaine Eastin
(2) Study brochure

Cc: Peggy L. Jenkins, ARB
Jed Waldman, Ph.D., DHS

What Will Happen to These Data Once They Are Collected?

At RTI, the questionnaire and environmental data will be entered into a computer database and analyzed. Before State agencies receive the results from RTI, individual names and all other school and classroom identifiers will be removed. The study results will then be used by State researchers to develop a report on the system-wide status of environmental conditions in California public schools. With input from interested stakeholders, the State researchers will also recommend actions that can be taken to remedy and/or prevent unhealthful environmental conditions in portable classrooms.

When Will the Study Results Be Available?

The Legislature has required that ARB and DHS finish the study and submit their report by June 30, 2002. You can sign up on our LISTSERV at:
www.arb.ca.gov/research/indoor/pcs/pcs.htm
for regular updates on study progress.

You can find study updates at the California Portable Classrooms Study Web site:
www.arb.ca.gov/research/indoor/pcs/pcs.htm

Whom May I Call If I Have Further Questions?

If you have any questions or comments regarding any aspect of this study, please call:

Mr. Michael Phillips, RTI Survey Manager, at 800-334-8571, ext. 6276

Ms. Peggy Jenkins, California Air Resources Board, at 916-445-0753

Dr. Jed Waldman, California Department of Health Services, at 510-540-2469

E-mail should be sent to
CAPCS@arb.ca.gov

Additional resources on Healthy Schools can be found at:

U.S. EPA IAQ Tools for Schools:
www.epa.gov/iaq/schools/tools4s2.html

Collaborative for High Performance Schools:
www.chps.net

Please feel free to copy this brochure and distribute it to others at your school.

Questions & Answers about the California Portable Classrooms Study

Sponsored by
California Air Resources Board (ARB)
and
California Department of Health Services (DHS)

Conducted by
Research Triangle Institute
Research Triangle Park, NC 27709

What Is the California Portable Classrooms Study?

This is a statewide study to learn more about environmental health conditions in California's portable classrooms. The State Air Resources Board (ARB) and the Department of Health Services (DHS) are jointly conducting the study. Study scientists will identify how widespread any potential problems may be, and make recommendations, in consultation with stakeholders, for actions that can be taken to solve any problems identified and prevent future problems.

Why Is This Study Being Conducted?

The California Portable Classrooms Study was proposed by Governor Gray Davis and is supported by the California State Legislature. Delaine Eastin, State Superintendent of Public Instruction, has endorsed the study.

How Was Our School Selected?

Your school is one of 1000 schools randomly chosen from all public schools in the State.

Why Is It So Important That Our School Participates?

Because the study uses a representative, statewide sample of schools, every school selected in the sample is important. Because your school was one of those randomly selected, we cannot replace it with another. If your school does not participate, study results will be less representative of statewide conditions.

How Will Portable Classrooms Be Studied?

There are two main components to the California Portable Classrooms Study. The first is a mail survey of 1000 schools, which will collect information from facility managers and teachers. In addition, air sampling for formaldehyde will be conducted in some schools. Several months after the mail survey, 60 schools will be recruited for more extensive environmental monitoring of their classrooms. In addition to portable classrooms, the study will include some traditional classrooms.

Will Much Effort Be Required by School Staff?

At each school, a "study coordinator" will receive a packet with instructions for selecting three classrooms, giving out questionnaires, placing formaldehyde monitoring tubes, and mailing these items back. The questionnaires for facility managers and teachers typically take about 20 minutes to complete. In the second part of the study in the fall, air samples and other environmental measurements will be taken by study scientists in several classrooms in each of the 60 schools selected for further environmental monitoring.

Are There Other Reasons Our School Should Participate?

Participating in this study offers you the opportunity to contribute to knowledge needed to promote healthier environmental conditions for school children in California. The results of this study will help shape future programs and funding decisions at the State level.

How Will Information I Provide Be Kept Confidential?

Research Triangle Institute (RTI) has been hired by the State to conduct the study, and they are required to keep all study information they receive ***confidential***. Researchers will use the information you provide for statistical purposes only. Individual participant and school names will not be shared with any government agencies. Specific formaldehyde monitoring results for your school will only be provided to your school district superintendent.

CALIFORNIA DEPARTMENT OF EDUCATION
721 Capitol Mall
Sacramento
CA 95814
Phone: (916) 657-4766
Fax: (916) 657-4975

DELAINE EASTIN
State Superintendent of Public Instruction

August 7, 2001

Dear District and County Superintendents and Charter School Administrators:

Study of Environmental Conditions in California's Portable Classrooms

This past spring, the State Air Resources Board (ARB) and the Department of Health Services (DHS) asked schools in your district to complete surveys for the California Portable Classrooms Study. We appreciate the efforts of those who participated. I am writing now to request your support for, and participation in, Phase II of the study. In Phase II, ARB and DHS, with assistance from the Research Triangle Institute (RTI), will conduct a field study at a subset of the schools previously surveyed. Phase II activities will be conducted this fall and winter, and will require minimal effort on the part of district and school staff. Because schools in your district are among those selected for Phase II, I ask that you actively participate in the study as requested in the enclosed materials.

The findings from the California Portable Classrooms Study will form the primary basis for recommendations that ARB and DHS must make to the Governor and the Legislature in June 2002 regarding ways to remedy and prevent unhealthful conditions found in portable classrooms. As you may know, the State is facing rising concerns about environmental health conditions in California portable classrooms. The information that ARB and DHS gather in this study will help determine whether publicized problems are isolated occurrences or system-wide concerns, and whether state-level assistance is needed to address them.

If you have any questions regarding the sampling schedule or study plans, please contact the ARB, DHS, or RTI contacts indicated in the enclosed materials. You can also find further information about the study at the following web site: http://www.arb.ca.gov/research/indoor/pcs/pcs.htm.

I appreciate your assistance in supporting the California Portable Classrooms Study. The success of this study is important to the health of California school children.

Sincerely,

Delaine Eastin

DELAINE EASTIN
State Superintendent of Public Instruction

DE:db/ss

Enclosures

cc: Jed Waldman, Chief Indoor Air Quality Program, DHS
Peggy Jenkins, Manager, Indoor Exposure Assessment Section, ARB

California Portable Classrooms Study

A joint project of the California Air Resources Board and Department of Health Services

California Environmental Protection Agency

Air Resources Board

Gray Davis, Governor

Department of Health Services

MONITORING FOR THE CA PORTABLE CLASSROOMS STUDY

GENERAL DATA-GATHERING CRITERIA

- **Noise**: minimal noise (a quiet purring) will be made by air monitoring equipment, which will be located away from students and teachers
- **Space**: a small box (1.5 x 3 x 1 ft) will contain all of the indoor monitoring equipment
- **Security**: the monitoring equipment will be secured with ties to prevent tampering; only a small tube will protrude from the box.
- **Randomly selected classrooms**: to ensure statistical validity, 2 portable classrooms and 1 traditional classroom will be selected randomly from each school
- **Confidentiality**: the names of the schools, districts, or persons will not be released to government agencies or the public; participating schools can request the results for their school through their district superintendent

COMFORT

- **Measurements**: temperature and relative humidity
- **Where collected**: 3 selected classrooms and outside
- **When collected**: equipment is set up in the morning before class starts and taken down at the end of the day after class ends

CHEMICALS

- **Measurements**: airborne particle counts and gaseous chemicals such as formaldehyde; soil and dust samples
- **Where collected**: 3 selected classrooms and outside
- **When collected**: for particle counts and gaseous chemicals, samplers will be set up in the morning before class and taken down after class ends; dust (indoors) and soil samples (outdoors) will be collected at the end of the school day when no students are present

MOLDS

- **Measurements**: swabs of areas, slides and biological cultures
- **Where collected**: in a limited number of classrooms
- **When collected**: 5 to 15 minute samples when students not present**,** during the lunch break if possible

LIGHT

- **Measurement**: light meter
- **Where collected**: 3 selected classrooms
- **When collected**: 5 minutes in each classroom when no students are present; mid-day or at the end of the school day

NOISE

- **Measurement**: decibel levels
- **Where collected**: 3 selected classrooms
- **When collected**: when no students are present; mid-day or at the end of the school day

MOISTURE

- **Measurement**: moisture reading on inside walls
- **Where collected**: 3 selected classrooms
- **When collected**: 5 minutes in each classroom when no students are present; mid-day or at the end of the school day

VENTILATION

- **Measurements**: air flow and carbon dioxide levels
- **Where collected**: 3 selected classrooms and outside
- **When collected**: air flow is a 5 minute measurement taken when no students are present; carbon dioxide instruments are set up in the morning before class starts and taken down at the end of the day after class ends

VIDEO

- **Measurements**: inside to capture the layout of equipment and areas where potential indoor sources are visible; outside to capture possible nearby sources, e.g., service stations. **Absolutely no students, teachers, or any school identifiers will be on video.** Videos will be used only to help investigators understand the monitoring results.
- **Where collected**: 3 selected classrooms and outside as described above
- **When collected**: at convenient times throughout the day during periods when students are not present in the selected classrooms

California Portable Classrooms Study

A joint project of the California Air Resources Board and Department of Health Services

California Environmental Protection Agency

Air Resources Board

Gray Davis, Governor

Department of Health Services

Dear Teacher:

Your school has agreed to participate in the California Portable Classrooms Study. Research Triangle Institute (RTI) is conducting this study on behalf of the California Air Resources Board (ARB) and the California Department of Health Services (DHS) to learn more about the environmental health conditions in California's portable classrooms.

Three teachers in your school were randomly chosen to participate in this study based on classroom assignment. The results from the study will be used by the ARB, DHS, and other state agencies to assess the potential for adverse health conditions and to recommend effective actions that can be taken to remedy or prevent any unhealthful conditions that may be found.

Please complete the "Teacher Questionnaire" enclosed. It should take about 10 minutes. Return the questionnaire to the RTI field technician at your school.

Your participation and the participation of your school are voluntary. However, your participation is critical to the success of the study. RTI will keep all school information strictly confidential. Neither individual questionnaire responses nor specific results for any individual schools will be reported to any government agencies. Government agencies will receive data and summary results that exclude identifiers for individual participants, classrooms, and schools.

If you have any questions about this study, please call me at the number listed below. If you have any questions about your rights as a study participant, you can call RTI's Office of Research Protection at 1-866-214-2043 (a toll-free number).

It is only with the help of individual schools, such as yours, that this research can be successful and provide results that are accurate and useful. Thank you for your assistance and participation.

Sincerely,

Rebecca G. Premock

Rebecca G. Premock
RTI Project Coordinator
(800) 334-8571, Ext. 7468

California Portable Classrooms Study

A joint project of the California Air Resources Board and Department of Health Services

California Environmental Protection Agency
Air Resources Board

Gray Davis, Governor

Department of Health Services

October 11, 2001

Contact
School
Street
City, CA ZIP

Dear Contact:

<School> has agreed to participate in the California Portable Classrooms Study. Research Triangle Institute (RTI) is conducting this study on behalf of the California Air Resources Board (ARB) and the California Department of Health Services (DHS) to learn more about the environmental health conditions in California's portable classrooms.

> **Please complete the "Facility Manager Questionnaire" enclosed. It should take about 20 minutes. You may be asked to accompany the RTI field technician when the monitoring at the school is being performed. Please return the questionnaire to the RTI field technician when you meet him at Adams Elementary School. If you do not meet with the RTI technician, please return the questionnaire in the envelope provided. The site visit to <school name> has been scheduled for <date>.**

Your participation in this study is voluntary. However, your participation is critical to the success of the study. RTI will keep all school information strictly confidential. Neither individual questionnaire responses nor specific results for any individual schools will be reported to any government agencies. Government agencies will receive data and summary results that exclude identifiers for individual participants, classrooms, and schools.

If you have any questions about this study, please call me at the number listed below. If you have any questions about your rights as a study participant, you can call RTI's Office of Research Protection at 1-866-214-2043 (a toll-free number).

It is only with the help of individual schools, such as yours, that this research can be successful and provide results that are accurate and useful. Thank you for your assistance and participation.

Sincerely,

Rebecca G. Premock

Rebecca G. Premock
RTI Project Coordinator
(800) 334-8571, Ext. 7468

California Portable Classrooms Study

A joint project of the California Air Resources Board and Department of Health Services

California Environmental Protection Agency

Air Resources Board

Gray Davis, Governor

Department of Health Services

DATE

SCHOOL NAME
ATTN: SCHOOL CONTACT
ADDRESS
CITY, CA ZIP

Dear CONTACT NAME:

I am writing to thank you for your school's upcoming participation in Phase II of the California Portable Classrooms Study. You have already received a phone call from a RTI staff member to schedule the date for this study at your school. The site visit to <school> has been scheduled for <date>. Please notify your staff of the date of the site visit.

The enclosed chart describes the monitoring portion of the study. In addition to monitoring, the facilities manager and the teachers of three selected classrooms will complete short questionnaires. Our RTI field staff also will use checklists to collect information by observation.

Please remember that the information collected will remain strictly confidential; the names of individual schools and staff members will not be reported to the public, State agencies, or any other government agencies. If you would like to receive the results for your school, you can request them from your district superintendent; the specific results for your school will not be provided to anyone else.

If you have questions or concerns regarding this study, please call me at the number below between 8 a.m. and 5 p.m., Eastern time. If you have any questions about your rights as a study participant, you can call RTI's Office of Research Protection at 1-866-214-2043 (a toll-free number). Additional information about the project can be found at the study website at http://www.arb.ca.gov/research/indoor/pcs/pcs.htm or RTI's website for this study at http://www.rti.org/units/shsp/projects/cpcs.cfm.

Sincerely,

Rebecca G. Premock

Rebecca G. Premock
RTI Project Coordinator
(800) 334-8571, Ext. 7468

California Portable Classrooms Study

A joint project of the California Air Resources Board and Department of Health Services

California Environmental Protection Agency

Air Resources Board

Gray Davis, Governor

Department of Health Services

December 27, 2001

School name
Attn: Our Contact
Address
City, CA Zip

Dear Our Contact:

Thank you for your school's participation in Phase II of the California Portable Classrooms Study. We appreciate you allowing our field staff to visit your school this fall. Please accept the enclosed check as thanks for your time and help.

The California Air Resources Board (ARB) and the California Department of Health Services (DHS) are conducting this study to learn more about the environmental health conditions in California's portable classrooms. The information we collected at your school is invaluable to the success of this study.

A copy of the final report will be sent to your district next year. The study results will be used to make recommendations to the Legislature to address unhealthful environmental conditions found in portable classrooms. These recommendations will help shape future programs and funding decisions at the state level.

If you have any questions regarding this study, please call me at the number below between 8 a.m. and 5 p.m., Eastern time, or call Peggy Jenkins, ARB Project Officer, at 916-445-0753, or Jed Waldman, DHS Project Officer, at 510-540-2469. Additional information about the project can be found at the study website at http://www.arb.ca.gov/research/indoor/pcs/pcs.htm.

Sincerely,

Roy W. Whitmore
RTI Project Director

Enclosures: check

Cc: Peggy L. Jenkins, ARB
Jed Waldman, Ph.D., DHS