



**CROWN POINT COMMUNITY
SCHOOL CORPORATION**

Department of Buildings & Grounds

September 9, 2024

Mr. Ron Clark,
Industrial Hygienist
Indoor Air Section, Environmental Public Health

In response to School Indoor Air Quality rule 410 IAC 33-6-2, the Crown Point Community School Corporation Buildings and Grounds Department has checked and adjusted any and all occupied spaces to ensure that all spaces maintain a temperature not to exceed seventy-eight (78) degrees Fahrenheit and sixty-five percent humidity (65%). We have also checked the unit settings and damper and made the appropriate adjustments in the one room in question (Room 23) from the indoor air quality evaluation of Solon Robinson Elementary on September 5, 2024.

Sincerely,

Mike Malaski
Director of Buildings and Grounds
Indoor Air Quality Specialist
Crown Point Community School Corporation



Eric J. Holcomb
Governor

Lindsay M. Weaver, MD, FACEP
State Health Commissioner

September 6, 2024

MB3 99 RDC 595
Todd Terrill, Superintendent
Crown Point Community School Corp.
200 E. North Street
Crown Point, IN 46307

Dear Superintendent Terrill:

The purpose of this letter is to report the result of our indoor air quality evaluation of the Solon Robinson Elementary School on September 5th. This evaluation was conducted at the request of a concerned citizen to address their concerns regarding dust and asbestos from construction activities impacting students. Measurements were taken in hallways and classrooms that are accessible to students.

Asbestos in schools and its removal is regulated by the Indiana Department of Environmental Management (IDEM). We obtained a copy of an asbestos inspection report for Solon Robinson Elementary School dated August 30, 2024 signed by Jessica Linscott, Compliance Officer with IDEM. The report states that "No violations were observed".

In addition to taking measurements for dust particles we took routine measurements for carbon dioxide, temperature, and relative humidity. The results of those measurements are listed in Tables 1 and 2.

The Carbon dioxide (CO₂) levels inside were measured with the highest reading 931 parts CO₂ per million parts of air (ppm) in room 80. The School Indoor Air Quality rule, 410 IAC 33-4-2 states "(a) Outdoor Air shall be supplied to classrooms when occupied. (b) Carbon dioxide concentrations in the breathing zone shall never exceed 700 ppm

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over the outdoor concentration”, in this case giving a limit of 1145 ppm. ASHRAE (American Society of Heating, Refrigeration, and Air Conditioning Engineers) recommends 15 cfm (cubic feet per minute) of outdoor air per person for classrooms.

The outdoor relative humidity was measured at 78 percent (%) and the indoor relative humidity had a range of 60 to 73%. 410 IAC 33-4-4 sets the maximum relative humidity level in air-conditioned schools at 65% during periods of student occupancy. In the US EPA’s publication “Mold Remediation in Schools and Commercial Buildings” they recommend maintaining a relative humidity level below 60% but ideally 30 – 50% if possible. Studies have shown that low relative humidity can cause dryness and irritation of the respiratory tract making individuals more susceptible to infections while high relative humidity levels can promote the growth of allergens such as dust mites or mold.

The particulate (dust) measurements were taken using a Lighthouse 3016-IAQ particulate counter. A 1-minute sample was taken for each measurement. The instrument groups the particles into 6 size ranges from 0.3 microns up to 10.0 microns. The size listed for each range is the minimum size for that range. For example, the 0.3-micron range includes particles from 0.3 micron up to 0.5 micron. The 10.0-micron range is the largest range and includes all particles 10.0 micron and larger. See Table 2 for more details. There are no standards for indoor particle counts.

Based on sample results and our visual inspection we note the following:

- 1) All surfaces were visibly clean with no accumulation of dust. Total particulate concentrations indoors were all well below the outdoor levels. We would note that for the particulate measurement taken in the hallway by room 47 the particulates from 2.5 micron up were higher than other areas measured. There were no construction activities in that area that would have contributed to those counts. We reviewed the test results for dust samples collected by Ameresco on August 26th and 27th 2024 and concur with their findings that the dust levels are acceptable within the building.
- 2) During our discussion with Mr. Malaski he explained that additional staff had been added to the housekeeping crew and that nightly mopping of non-carpeted hallway floors and vacuuming of carpeted hallway floors was occurring. We encourage you to continue this practice until the construction activities are completed.



- 3) **410 IAC 33-4-4 (b) states “Where provided air-conditioning systems shall be capable of providing and shall be operated to maintain a temperature not to exceed seventy-eight (78) degrees Fahrenheit and sixty-five percent (65%) relative humidity during periods of student occupancy.”** The relative humidity level in room 23 was above the allowed limit. In addition, the total particulate concentration was higher, and the carbon dioxide concentration was lower than other classrooms. It appears that the air handler for that room is bringing in more outside air than other classrooms and more moisture than the unit can dehumidify. The unit settings and damper should be checked and adjusted as needed to bring the settings in compliance. We recommend that the relative humidity level be checked in all the classrooms to ensure that all are in compliance.

410 IAC 33 requires you to respond within 60 days of any actions you take based upon this report.

The School Indoor Air Quality rule 410 IAC 33-6-2 requires this report, within 5 working days of receipt, to be posted for 14 days both at the school building stated in the report, and on the school’s website, where it is accessible to students, parents, and employees. The rule also requires your response to this report to be posted within 5 working days of sending the response to us. That too is to be posted for 14 days. Please respond back providing the links where these are posted on the website.

If you have questions I can be reached at 317.682.9033.

Sincerely,

RON CLARK,
Industrial Hygienist
Indoor Air Section, Environmental Public Health

Enclosure



TABLE 1
Solon Robinson Elementary School
Taken September 5, 2024

Sample	Location	Occupants	Temp °F	RH %	CO2 ppm
1	Outside in parking lot 9:30am	0	76	76	435
2	Hallway by room 50	0	71	60	724
3	Music room	1	71	62	577
4	Hallway by room 47	2	72	63	927
5	Room 80	19	72	63	931
6	Room 72	4	71	65	807
7	Room 23	26	72	73	670
8	Room 52	1	72	63	766
9	Outside, NW corner of parking lot 10:45am	0	78	78	445

Notes:

% -----percent

ppm-----parts per million



TABLE 2
Particulate Measurements
Solon Robinson Elementary School
Taken September 5, 2024

Location	Total counts	0.3-0.5 micron (counts)	0.5-1.0 micron (counts)	1.0-2.5 micron (counts)	2.5-5.0 micron (counts)	5.0-10 micron (counts)	10.0 Micron and larger (counts)	Floor covering
Outside in parking lot 9:30am	353742	337582	14441	1028	552	115	24	NA
Hallway by room 50	102299	91285	6533	2577	1436	396	72	carpet
Music room	140290	130158	7579	1709	655	145	44	carpet
Hallway by room 47	153056	137557	8252	3611	2433	966	237	carpet
Room 80	130039	117526	8665	2571	938	239	100	carpet
Room 72	141005	134330	5603	787	221	48	16	carpet
Room 23	226691	218953	7383	204	86	33	32	tile
Room 52	82017	74592	5590	1346	410	67	12	carpet
Outside, NW corner of parking lot 10:45am	320002	302655	13352	2254	1327	348	66	NA