



Eric J. Holcomb  
Governor

Lindsay M. Weaver, MD, FACEP  
State Health Commissioner

May 22, 2024

MB3\_99\_RLP #582

Jennifer Rogers, Principal  
SELF School  
750 Ransom Road  
Valparaiso, IN 46385

Dear Principal Rogers:

The purpose of this letter is to report the result of our indoor air quality evaluation at SELF School on May 13<sup>th</sup>. This evaluation was conducted at the request of a concerned citizen to address the health concerns of the occupants that may be related to indoor air quality at the school.

The Indiana State Department of Health's Microbiological Laboratory incubated and counted the fungal and bacterial units. The total colony forming units per cubic meter of air (CFU/M<sup>3</sup>) were computed by adding the fungal and bacterial counts and dividing the sum by the total volume of the sampled air. Please refer to Table 1 for further details. The fungal concentration outdoors was higher than any areas inside the building. There are no limits established as an acceptable concentration of fungal counts indoors. There are guidelines that recommend fewer counts indoors than outdoors.

The Carbon dioxide (CO<sub>2</sub>) levels inside were measured with the highest reading 827 parts CO<sub>2</sub> per million parts of air (ppm). 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 over the outdoor concentration', in this case giving a limit of 1118 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.

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The outdoor relative humidity was determined at 47 percent (%), and the indoor relative humidity had a range of 47% to 58%. The American Society of Heating, Refrigeration and Air-Conditioning Engineers (ASHRAE) recommend the relative humidity in habitable spaces preferably should be maintained between 30% and 60% to minimize growth of allergenic and pathogenic organisms. Humidity levels above 50% have been found to increase the population size of molds, fungi and mites that may cause allergies. The evidence suggests that humidity levels should be maintained between 40% and 50% to reduce the incidence of upper respiratory infections and to minimize the adverse effect on people suffering from asthma or allergies. Such a range would be hard to maintain, however, exposure to higher or lower levels are unlikely to affect the health of most people.

Based on our measurements and our visual inspection we note the following:

- 1) **410 IAC 33 also requires schools to have written policies for Vehicle Idling, Animals in Classrooms, and Chemical Management.** The rule requires all schools to have these written policies in place and located on the school's website and in the student handbook.
- 2) **410 IAC 33 requires schools to designate an individual as their Indoor Air Coordinator and states "The IAQ Coordinator's contact information shall also be published: 1) on the school website and 2) in the school handbook".** The school needs to designate an Indoor Air Coordinator and ensure they are meeting the requirements specified in the rule.
- 3) **410 IAC 33-5 a) states "Schools shall establish and maintain a written procedure for routine maintenance of HVAC systems".** This procedure shall include but is not limited to the following items: 1) A schedule for inspecting the HVAC system including an annual inspection. 2) Ensuring that all supply and return air pathways in the ventilation system are unobstructed and perform as required. 3) A schedule for cleaning the HVAC coils annually at a minimum. 4) A schedule for inspecting and changing filters. 410 IAC 33-5 b) states "Schools shall establish and maintain written maintenance logs covering cleaning and filter changes of the HVAC systems for a minimum of three (3) years. These logs shall be available for the state inspector's review. These written procedures and logs



do not have to be maintained on site, but there needs to be a means of making them available for our inspector's review.

- 4) There was a stained ceiling tile in the Gym Closet. We suggest you conduct a thorough inspection of the plenum space for any active water leaks and/or hidden mold. Please replace water-stained ceiling tile as they are discovered.

The School Indoor Air Quality rule 410 IAC 33-6-2 requires this report and any response to this report be posted within (5) days of receipt. The report(s) shall remain posted for (14) consecutive 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. 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 is available at <https://www.in.gov/health/eph/files/A00330.pdf>. We have prepared Best Practices documents to aid schools in developing the policies required under this rule at <https://www.in.gov/health/eph/files/Indoor-Air-Quality-in-Schools-Best-Practices-Manual.pdf>

Individuals experiencing any health problems should seek medical advice from a physician.

If you have questions, I can be reached at 317.682.9030.

Sincerely,

RICK PLEW  
Industrial Hygienist  
Indoor Air Section, Environmental Public Health Division  
Enclosure



## TABLE 1

SELF School  
750 Ransom Rd.  
Valparaiso, IN 46385

Computed Microbiological Air Sample Results  
Taken May 13, 2024

SAMPLE ID	LOCATION	NO. OF OCCUPANTS	RELATIVE HUMIDITY (%)	CARBON DIOXIDE (ppm)	AIR SAMPLED (liters)	FUNGAL COUNT (CFU/M <sup>3</sup> )	BACTERIAL COUNT (CFU/M <sup>3</sup> )
1	Library	3	49	521	100	30	0
2	Cafeteria	3	47	529	100	10	0
3	Gym Closet	-	51	571	100	20	0
4	Autism Room	11	58	703	100	10	10
5	Timeout Room	1	55	827	100	0	0
6	HS Success Room	6	50	704	100	40	0
7	Behavior Room	3	52	768	100	20	0
8	Outdoor	-	47	418	100	350	0

### Notes:

% -----percent

ppm-----parts per million