Indiana Department of Health

Mike Braun
*Governor*

Lindsay M. Weaver, MD, FACEP
*State Health Commissioner*

April 8, 2026

RDC 651
Eric Bowlen, Superintendent
Central Education Center
389 E. Jackson Street
Martinsville, IN 46151

Dear Superintendent Bowlen:

The purpose of this letter is to report on the results of our indoor air quality evaluation of Green Township Elementary School on March 30th. 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 of the school. Upon arrival at the school we met with Kyle Stout, Director of Operations, who answered our questions regarding the operation and maintenance of the HVAC system and escorted us throughout the building.

The Indiana State Department of Health's Microbiological Laboratory incubated and counted the fungal and bacterial units. The colony forming units per cubic meter of air ($CFU/M^3$) were computed taking the fungal or bacterial counts and dividing by the total volume of the sampled air. The airborne fungal (mold) concentration in room 105 was slightly higher than the outdoor concentration. Please refer to Table 1 for further details. There are no limits established as an acceptable concentration of fungal counts indoors. There are guidelines that recommend lower concentrations indoors than outdoors.

The Carbon dioxide ($CO_2$) levels inside were measured with the highest reading at 1452 parts $CO_2$ per million parts of air (ppm) in Art room 115. 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 1158 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 53 percent (%) and the indoor relative humidity had a range of 46 to 54%. 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.

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

1) The fungal (mold) concentration in room 105 was slightly higher than the outdoor concentration, but over twice the concentration of any other area of the building. We did not see any signs of mold growth or water damage in that room. We recommend checking the HVAC unit for that room along with outdoors at the air intake for the room. There were 23 students and staff in the room with a lot of foot traffic when we entered the classroom. It is possible that the activity in the room caused reentrainment of settled dust particles and mold spores from the carpet. If no issues are found in the room HVAC unit, we suggest cleaning the carpet. Note that 410 IAC 33-4-6 (d) states "When mold or mold contaminated material is discovered, corrective action shall be taken within forty eight (48) hours. Mold is not be growing in the school".

2) **410 IAC 33-4-2(b) states "carbon dioxide concentrations in the breathing zone shall never exceed 700 ppm over the outdoor concentration",** The carbon dioxide level in the Art room, 115 was above the allowed limit. The damper settings should be checked and adjusted to ensure sufficient outside air is being supplied to the classroom.

3) There were water-stained ceiling tiles in room 110. Although it is not required to replace these tiles, we do encourage schools to replace water-stained tiles after identifying and repairing the water leak causing the staining. In that way new leaks are quickly identified and addressed. After explaining this to Mr. Stout he gave instructions to have these tiles replaced. Note that 410 IAC 33-4-6 (c) states "When a water leak or intrusion is discovered, corrective action shall be taken within forty-eight (48) hours."

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, and on the school's or corporation'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

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

Enclosure

**TABLE 1**
**Green Township Elementary School**
**Computed Microbiological Air Sample Results**
**Taken March 30, 2026**

| Sample | Location | Occupants | Temp °F | RH % | CO2 ppm | Fungal cfu/m3 | Bacterial cfu/m3 |
|---|---|---|---|---|---|---|---|
| 1 | Cafeteria | 2 | 70 | 52 | 707 | 7 | 0 |
| 2 | Room 105 | 23 | 72 | 54 | 1184 | 460 | 27 |
| 3 | Room 104 | 0 | 71 | 52 | 489 | 153 | 13 |
| 4 | Room 111 | 1 | 70 | 53 | 1160 | 27 | 0 |
| 5 | Room 110 | 0 | 70 | 50 | 502 | 133 | 7 |
| 6 | Rm. 114 - music | 0 | 70 | 51 | 497 | 27 | 0 |
| 7 | Rm. 115 - Art | 14 | 72 | 54 | 1452 | 113 | 13 |
| 8 | Teacher's work room | 0 | 72 | 46 | 553 | 73 | 7 |
| 9 | Outdoor | 0 | 70 | 53 | 458 | 407 | 20 |

**Notes:**
**% ---------percent**
**ppm-------parts per million**
**CFU/$M^3$—colony forming units per cubic meter of air**