Indiana Department of Health

Mike Braun
Governor

Lindsay M. Weaver, MD, FACEP
State Health Commissioner

May 22, 2025

99 RLP #615
Dr. Stephen Bournes, Superintendent
School City of East Chicago
Administration Building,
1401 E 144th Street
East Chicago, IN 46312

Dear Dr. Bournes:

The purpose of this letter is to report on the result of our indoor air quality inspection of East Chicago Central High School on May 15, 2025. This evaluation was conducted based on a complaint received at our office regarding excessive temperatures in the classrooms.

The Carbon dioxide (CO_2) levels inside were measured with the highest reading at 1114 parts CO_2 per million parts of air (ppm) in room ZC-8. 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 1115 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 58 percent (%) and the indoor relative humidity had a range of 56 to 62%. 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 our discussions, measurements and visual inspection we note the following:

1) **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"** Temperatures in the classrooms were between 79-81 degrees. Although portable air conditioning units and box fans were being used to cool the classrooms, our measurements indicate the units are not sufficient to maintain a temperature at or below 78 degrees. We would expect these temperatures to rise throughout the day.

According to Ms. Simmons, 14 air handling units in the building were operating in "fan" mode and were not capable of cooling the air in the building. The air handling units are scheduled to be repaired during the summer. During that time, summer school classes will be held in the middle school.

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.

Individuals experiencing 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

East Chicago Central High School
1100 W. Columbus Drive
East Chicago, IN 46312

Computed Microbiological Air Sample Results
Taken May 15, 2025

Sample	Location	Persons	Temp °F	RH %	CO2 ppm
1	A-109	15	79	62	553
2	A-150	13	81	59	681
3	ZC-8	13	80	59	1114
4	ZC-14	11	80	60	524
5	A-339	10	80	59	529
6	A-318	18	80	58	669
7	A-320	19	80	56	664
8	A-222	7	79	61	737
9	A-262	15	81	56	650
10	Outdoor	0	85	58	415

Notes:

% ---------percent
ppm-------parts per million