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Chad Daugherty, Superintendent | Scott Bumgardner, Business Manager | Jay Peters, Director of Curriculum

For Immediate Release

Huntington North High School Air Quality Report

Huntington, IN, October 9, 2019 - The health and safety of HCCSC students and staff is always our number one priority. On Tuesday, October 1, 2019, the Indiana State Department of Health conducted an indoor air quality evaluation at Huntington North High School. This press release will address the findings of that report.

A concern was expressed to the Huntington County Department of Health by local physicians Dr. Matt Pflieger and Dr. Janelle Maxwell Pflieger due to concerns of respiratory-related health issues experienced by some of their patients who are students at Huntington North High School. An air quality test was done on October 1, 2019 by Ron Clark, an Industrial Hygienist with the Indiana Department of Health. The results were made available to us on the afternoon of Monday, October 7, 2019.

The results of the air quality test indicated concentrations of carbon dioxide and humidity above state recommended levels in certain areas of the building. Upon receipt of the findings, multiple corrective actions have been initiated such as relocating students, addressing a mechanical issue with our dampers, and as an added precaution bringing in professional cleaning crews, in the areas deemed affected.

Superintendent Chad Daugherty has been in contact with the Indiana State Department of Health and has scheduled a follow-up evaluation for Tuesday, October 22, 2019. We will communicate the results of that evaluation as soon as they are made available to us. We will continue to work with the Huntington County Health Department and Indiana Department of Health to ensure that the needs of our students and staff are met in keeping with the high standards of HCCSC.

A copy of the Air Quality Report from the Indiana State Department of Health is attached.

About Huntington County Community School Corporation:

HCCSC includes six elementary schools (K-5), two middle schools, one high school, one alternative high school and preschool services. HCCSC is in partnership with the Huntington County Community Learning Center and offers many Career and Technical Education options for our students.

The corporation serves all of Huntington County, including the communities of Andrews, Bippus, Huntington, Majenica, Markle, Mt. Etna, Roanoke and Warren. The students who attend HCCSC receive countless opportunities for academic, social and physical growth.



Huntington County Community School Corporation



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One team...One goal...Student success for all!



Eric J. Holcomb
Governor

Kristina Box, MD, FACOG
State Health Commissioner

October 7, 2019

MB3-99-RDC-#457

Mr. Charles Daugherty, Superintendent
Huntington County Community School Corp.
1063 E, 900 S
Warren, IN 46792

Dear Superintendent Daugherty:

The purpose of this letter is to report the result of our indoor air quality evaluation of the Huntington North High School on October 1st. This evaluation was conducted at the request of Huntington County Health Department to address the health concerns that were brought to their attention that may be related to indoor air quality of the school. The rooms checked during our visit were locations that had been provided to the Huntington County Health Dept. as areas with possible issues.

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/M³) were computed taking the fungal or bacterial counts, and dividing by the total volume of the sampled air. The indoor fungal and bacteria counts were lower than the outdoor sample. 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 fewer counts indoors than outdoors.

The Carbon dioxide (CO₂) levels inside were measured with the highest reading 1984 parts CO₂ per million parts of air (ppm) in room 1063. 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 1063 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 48 percent (%), and the indoor relative humidity had a range of 67 to 77%. The American Society of Heating, Refrigeration and Air-conditioning Engineers (ASHRAE) recommends 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 sample results and our visual inspection we note the following:

- 1) **410 IAC 33-3-1(b) states “The IAQ coordinator’s contact information shall also be published: (1) on the school or state agency’s website; and (2) in the school or state agency’s handbook”**
We were unable to locate the IAQ coordinator’s information on the corporation’s website.
- 2) **410 IAC 33-4-2 states “carbon dioxide concentrations in the breathing zone shall never exceed 700 ppm over the outdoor concentration”**, The carbon dioxide concentration in room 134 was 1984 ppm, well over the allowed limit of 1063 ppm. Studies have found that students score lower on exams while exposed to elevated levels of carbon dioxide. We recommend checking the dampers to ensure sufficient outside air is being supplied to classrooms.
- 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 in all the rooms visited was higher than 65%. Elevated relative humidity can promote mold growth.
- 4) **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.”** There are water stained ceiling tile throughout the building. Some of the ceiling tile in room 314 had been removed with a plastic tarp hung below the area to direct water to tubs on the floor. This may be considered corrective action but should not be a long term approach. We recommend any current roof leaks repaired then the stained ceiling tile replaced so new leaks are quickly identified and addressed.
Water stained ceiling tile were noted in our inspection report for Huntington North High School dated march 23, 2016. From this it appears that this in an ongoing issue that has not been addressed.

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, and your response to this report, to be posted for 14 days at the location of the school building stated in the report so they are accessible to all students, parents, and employees.

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

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
Huntington North High School

Computed Microbiological Air Sample Results
Taken October 1, 2019

SAMPLE ID	LOCATION	NO. OF OCCUPANTS	RELATIVE HUMIDITY (%)	CARBON DIOXIDE (ppm)	AIR SAMPLED (liters)	FUNGAL COUNT (CFU/M ³)	BACTERIAL COUNT (CFU/M ³)
1	Rm. 411	1	67	1085	50	180	20
2	Rm. 314	15	72	1106	50	340	0
3	Rm 223 – choir	19	70	1293	50	20	20
4	Rm. 701 – Weight rm.	1	73	726	50	200	0
5	Rm 500 Auditorium	0	77	810	50	60	0
6	Rm 140 Custodial break area	0	76	983	50	180	0
7	Rm. 134	6	68	1984	50	20	0
8	Kitchen	3	71	927	50	60	0
9	Rm 125	1	72	1235	50	180	0
10	Outside	---	48	363	50	3140	40

Notes: Kitchen floor was being mopped. This would contribute to the relative humidity level in the kitchen.

% -----percent

Ppm-----parts per million

CFU/M³—colony forming units per cubic meter of air