



Environmental Hygiene Report

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Director of Facilities
Beacon City School District
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Location(s)	Glenham, Stage
Project No.	083-2526
Site Visit(s)	October 28, 2025
Report Date	October 29, 2025
Investigator(s)	Brian Colandrea CMA# 24-6ZTFH-SHMO

Dutchess County BOCES Health, Safety & Risk Management does not assert that all potential health or safety hazards at this site were evaluated during this survey. This survey is strictly limited to that which is identified in the Project Scope of the report.

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Author's Note: Parenthetical numerals at the end of a sentence reference the work with the corresponding notation in the **References** section. *Please read this report in its entirety, including any attached appendices, to fully understand this investigation.*

Executive Summary

On October 23, 2025 the Facilities Department for the Beacon City School District (BCSD) requested that our office inspect the stage located in the Glenham Elementary School. On October 28, 2025 we conducted the requested inspection. Background indoor air quality (IAQ) parameters were collected (see **Results Summary**). Recommendations were made concerning our investigation (see **Comments & Recommendations**).

Project Scope

Perform visual inspections and collect Background IAQ parameters on the Stage of the Glenham Elementary School, which is part of the BCSD. Review the data and prepare a written report for the BCSD.

Materials & Methods

Background IAQ parameters were collected using a GrayWolf Sensing Solutions, Indoor Air Quality Probe (IQ-604). Results were then transferred to a computer in our office located at the Dutchess BOCES Salt Point Center. Visual inspection was performed by a NYS Certified Mold Assessor, Certification # 24-6ZTFH-SHMO.

Results Summary

All sample results and other data were reported to the administration of the local educational agency (LEA) via phone, fax, or e-mail as they became available to our department.

Background IAQ Data

Stage

<u>Date/Time</u>	<u>TVOC ppb</u>	<u>CO₂ ppm</u>	<u>H₂S ppm</u>	<u>CO ppm</u>	<u>Temp °F</u>	<u>%RH</u>	<u>Dew Pt. °F</u>
28-Oct-25 09:52:18 AM	309	686	0.11	1.9	69.5	33.2	39.4
28-Oct-25 09:54:18 AM	302	693	0.10	1.9	70.1	32.9	39.6
28-Oct-25 09:56:18 AM	294	706	0.10	1.9	70.5	32.5	39.7
28-Oct-25 09:58:18 AM	286	718	0.10	1.9	70.9	32.2	39.8
28-Oct-25 10:00:18 AM	284	727	0.10	1.9	71.2	31.9	39.8
28-Oct-25 10:02:18 AM	285	729	0.09	1.9	71.4	31.6	39.8
28-Oct-25 10:04:18 AM	279	736	0.09	1.9	71.6	31.5	39.8
28-Oct-25 10:06:18 AM	279	739	0.09	1.8	71.8	31.3	39.8
28-Oct-25 10:08:18 AM	276	745	0.09	1.8	72.0	31.1	39.8
28-Oct-25 10:10:18 AM	276	754	0.09	1.8	72.1	31.0	39.9
28-Oct-25 10:12:18 AM	272	757	0.09	1.8	72.1	30.9	39.8
28-Oct-25 10:14:18 AM	266	766	0.09	1.8	72.2	30.8	39.8
28-Oct-25 10:16:18 AM	256	772	0.10	1.8	72.4	30.8	39.9
28-Oct-25 10:18:18 AM	262	779	0.10	1.7	72.5	30.8	40.0
28-Oct-25 10:20:18 AM	255	780	0.10	1.7	72.6	30.7	40.0
28-Oct-25 10:22:18 AM	254	787	0.10	1.7	72.7	30.7	40.1
28-Oct-25 10:24:18 AM	256	787	0.10	1.7	72.8	30.6	40.1
28-Oct-25 10:26:18 AM	250	789	0.10	1.7	72.8	30.5	40.1
Averages:	275	747	0.10	1.8	71.7	31.4	39.8

Outdoor Comparison Sample

<u>Date/Time</u>	<u>TVOC ppb</u>	<u>CO₂ ppm</u>	<u>H₂S ppm</u>	<u>CO ppm</u>	<u>Temp °F</u>	<u>%RH</u>	<u>Dew Pt. °F</u>
28-Oct-25 10:46:35 AM	10	456	0.24	0.4	57.6	33.7	29.3

Discussion

The National Institute for Occupational Safety & Health (NIOSH), a division of the Center for Disease Control, uses the term Indoor Environmental Quality (IEQ) to describe the perception of the indoor environment by occupants of non-industrial facilities like offices and schools. Occupants of these facilities frequently report a variety of physical symptoms (e.g. headache, fatigue, eye & skin irritation) that they attribute to poor indoor air. If air is the culprit, there may be a number of causes, including chemical, physical, and biological contamination. These contaminants can create odors, cause occupant discomfort, and, occasionally, create a health hazard. Frequently the cause of poor indoor air quality is inadequate or poorly modulated ventilation. This can result in uneven heating and cooling (which can affect the comfort of building occupants) and the provision of inadequate outside air.

Bioaerosols, airborne particles that are living or originate from living organisms, are ubiquitous in nature and may be modified by human activities. *(1)* They become an occupational hygiene concern when, as a result of indoor sources, the kinds and levels of microorganisms inside a building or facility are different than those in the surrounding outdoor environment. Microbiological growth inside building is normally the result of water intrusion (e.g. from roof leaks), standing water, or high humidity and dew point. Bioaerosols of concern include fungi, bacteria, viruses, allergens, and other metabolic by-products. Locating sources of bioaerosols inside buildings is heavily dependent upon good investigative techniques. Such techniques include, but are not wholly dependent upon, sampling. Sampling for bioaerosols includes air sampling and source (e.g. bulk, swab, tape-lift) sampling.

Comments & Recommendations

On October 23, 2025 the Facilities Department for the Beacon City School District (BCSD) requested that our office inspect the stage located in the Glenham Elementary School. On October 28, 2025 we conducted the requested inspection. Background indoor air quality

(IAQ) parameters were collected (see **Results Summary**). Several area requiring cleaning were noted. No other obvious issues were identified during our inspection.

Relative Humidity (RH) averaged 31.4% during our inspection. RH levels under 60% inhibit fungal growth. RH levels between 40-55% are considered optimum for human comfort. All other parameters measured show nothing of concern.

The following recommendations are made:

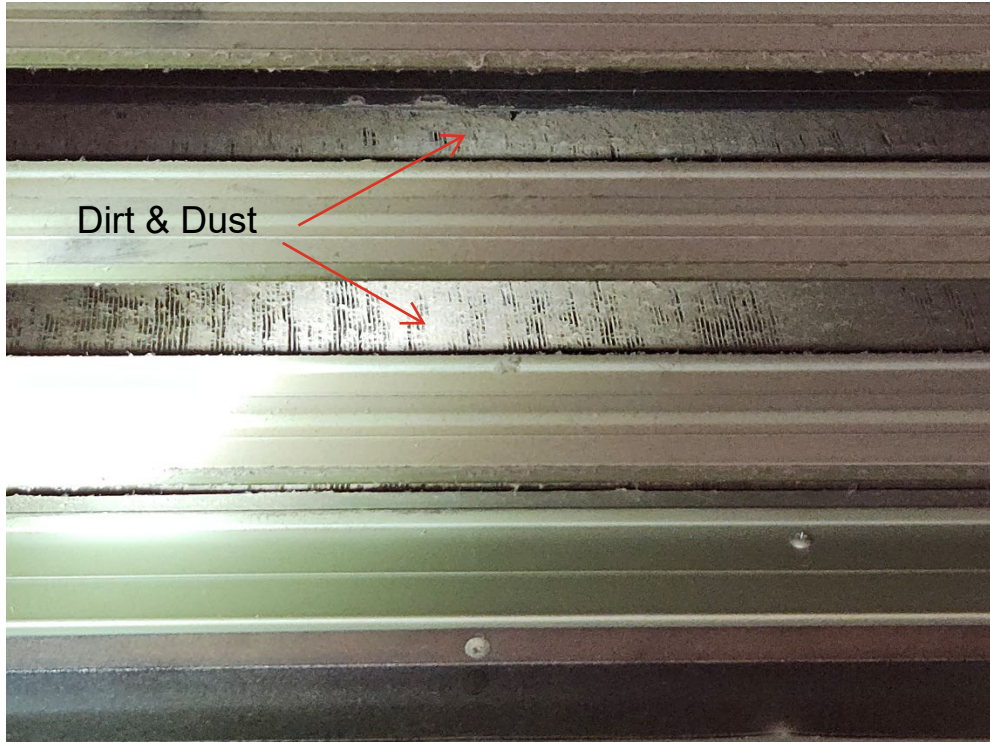
- Clean the interior of the air handler (see **Appendix**, Photograph 1)
- Clean are under the stage stair (see **Appendix**, Photograph 3)
- Clean the top of the second air handler (see **Appendix**, Photograph 4)

References

1. **University of Minnesota:** *Fungal Glossary*. Minneapolis, MN: University of Minnesota, Department of Environmental health & Safety, 2004

Appendix

Photographs



Photograph 1, Stage Air Handler



Photograph 2, Stage Air Handler



Photograph 3, Under Stage Stair



Photograph 4, Top of Second Air Handler