Monomoy Regional School District

MRMS Building Update

Jan 9 2025

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- History of building air quality tests.
- Moisture control is mold control:
  - Work to reduce the risk of mold.
- Ongoing projects:
  - 1. Air quality monitoring.
  - 2. Siding construction project.
  - 3. Review of alternatives to building repair.
  - 4. Roof replacement project.

History of Monomoy Regional Middle School Air Quality

- There has been evidence of water infiltration in a number of places, including related to siding disrepair, the roof, and the HVAC system.
- Staff have also raised concerns about odors, allergic reactions, and in some cases visible mold.
- State and federal agencies do not recommend testing but instead recommend primarily visual investigation and, where mold is detected, remediation.
- Nevertheless, the district has conducted multiple surface and air quality tests since 2020.
- Test results have been posted online:
  - https://www.monomoy.edu/our-district/facilities/monomoy-regional-middle-school-roof-and-siding-projects/indoor-air-quality-reports

Summary of all volumetric air quality sample results taken since 2020 (also posted to the website).

Indoor air quality tests are an imperfect measure of mold as there is no approved, state or federal, objective standard for comparison.

However, the historic data when compared to outdoor control samples does not suggest that the indoor mold levels are significantly higher than outdoor levels.

Note: Mold spore counts are listed in mold spores per cubic meter of air sampled.

Outdoor Control Samples		
Date of Sample	Mold Spore Count	Outside of Building
1/11/20	20	Controls
11/4/24	2466	Controls
11/4/24	1493	Controls
11/4/24	1440	Controls
11/13/2024	786	Controls
11/13/2024	426	Controls
11/13/2024	626	Controls
12/27/24	253	Controls
12/27/24	333	Controls
12/27/24	413	Controls
Average all samples	**825.6**	

Indoor Samples		
Date of Sample	Mold Spore Count	Location Iin Building
1/11/20	20	E114
1/11/20	100	E114
1/11/20	0	E114
1/11/20	0	E114
8/5/24	4173	SRO Office
8/27/24	1200	SRO Office
11/4/24	133	E119 Before interior window sill removal
11/4/24	2733	E119 during interior window sill removal
11/4/24	1920	E119 during interior window sill removal
11/13/2024	173	E119 after remediation
11/13/2024	226	E119 after remediation
11/13/2024	253	E119 after remediation
12/27/24	600	Guidance Entry
12/27/24	466	Guidance Conference
12/27/24	666	Guidance Office
12/27/24	640	E114
12/27/24	600	E114
12/27/24	733	E114
12/27/24	1053	B125 Storeroom
12/27/24	840	B125
12/27/24	573	B125 undersink
Average all samples	814.4	Includes summer SRO Office samples
Average of school year samples	**617.3**	Excludes summer SRO Office samples

Additional analysis of volumetric air quality sample results taken since 2020, summarized by date.

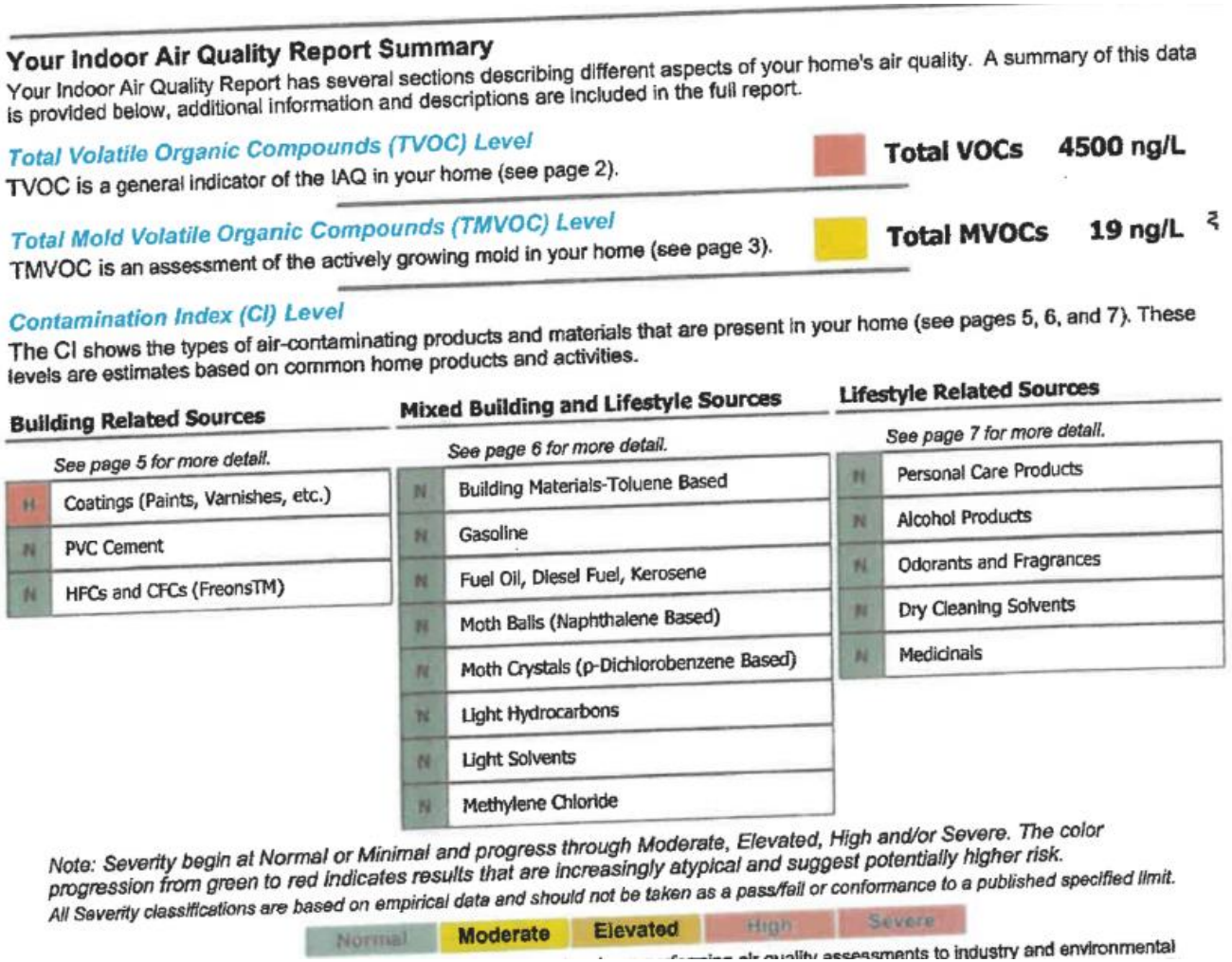
Comparing the results by date show a mixed picture. On two dates the internal samples were higher and in two samples the external samples were higher.

Outdoor Control Averages by Date of Samples	
1/11/20	20.0
11/4/24	1799.7
11/13/24	612.7
12/27/24	333.0
Average over dates	691.3

Indoor Averages by Date of Samples	
1/11/20	30.0
11/4/24	1595.3
11/13/24	217.3
12/27/24	685.7
Average over dates	632.1

There has been one test with readings that were assessed as ‘severe’. This was in July 2024 and related to ‘Coatings (Paints, Varnishes etc)’. The same sample showed ‘moderate’ levels of mold.

Initial testing – 7/30/2024



Your Indoor Air Quality Report Summary

Your Indoor Air Quality Report has several sections describing different aspects of your home's air quality. A summary of this data is provided below, additional information and descriptions are included in the full report.

Total Volatile Organic Compounds (TVOC) Level

TVOC is a general indicator of the IAQ in your home (see page 2).

Total VOCs **4500 ng/L**

Total Mold Volatile Organic Compounds (TMVOC) Level

TMVOC is an assessment of the actively growing mold in your home (see page 3).

Total MVOCs **19 ng/L**

Contamination Index (CI) Level

The CI shows the types of air-contaminating products and materials that are present in your home (see pages 5, 6, and 7). These levels are estimates based on common home products and activities.

Building Related Sources	Mixed Building and Lifestyle Sources	Lifestyle Related Sources
See page 5 for more detail.	*See page 6 for more detail.*	*See page 7 for more detail.*
H Coatings (Paints, Varnishes, etc.)	N Building Materials-Toluene Based	N Personal Care Products
N PVC Cement	N Gasoline	N Alcohol Products
N HFCs and CFCs (FreonsTM)	N Fuel Oil, Diesel Fuel, Kerosene	N Odorants and Fragrances
	N Moth Balls (Naphthalene Based)	N Dry Cleaning Solvents
	N Moth Crystals (p-Dichlorobenzene Based)	N Medicinals
	N Light Hydrocarbons	
	N Light Solvents	
	N Methylene Chloride	

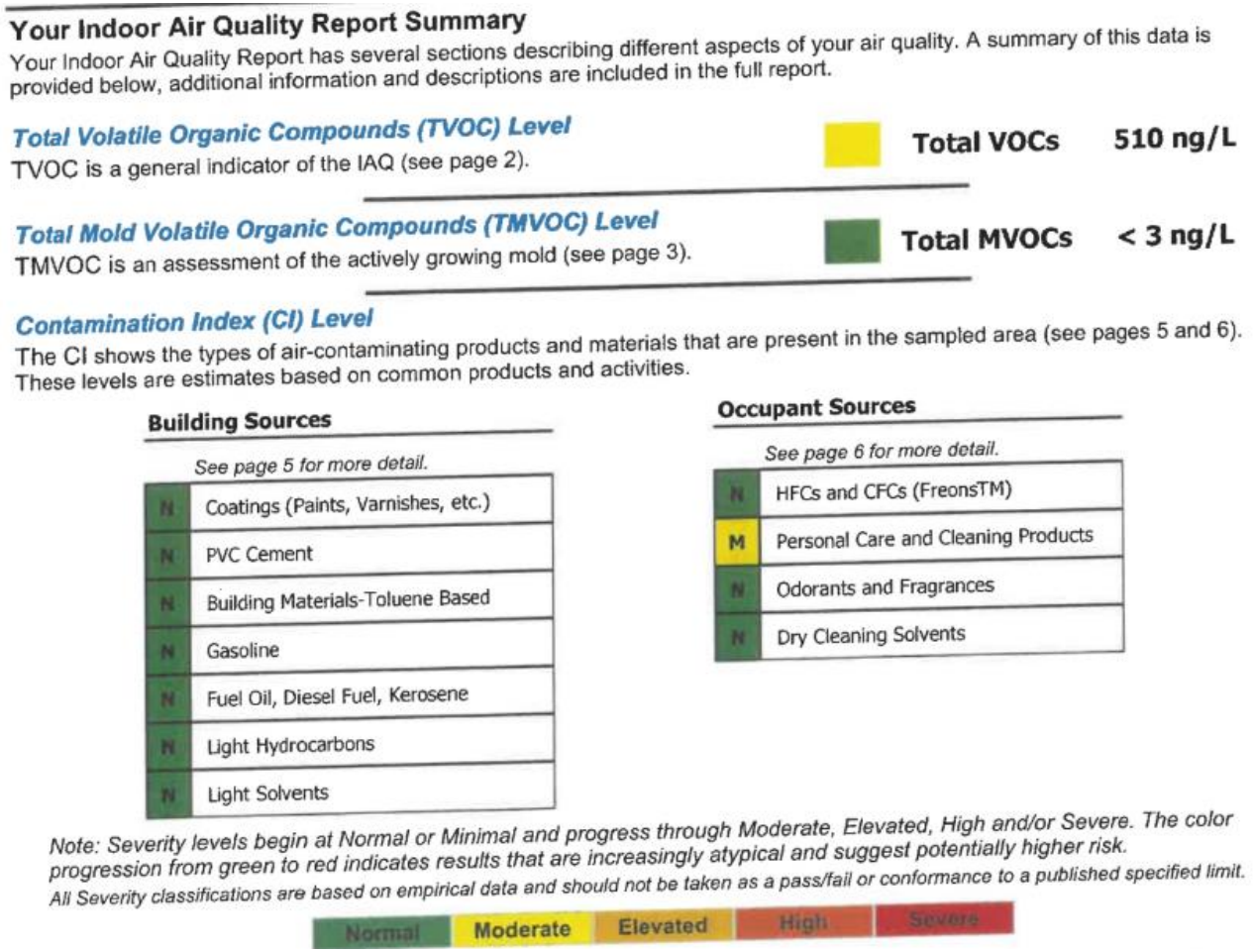
Note: Severity begin at Normal or Minimal and progress through Moderate, Elevated, High and/or Severe. The color progression from green to red indicates results that are increasingly atypical and suggest potentially higher risk. All Severity classifications are based on empirical data and should not be taken as a pass/fail or conformance to a published specified limit.

Normal | Moderate | Elevated | High | Severe

...air quality assessments to industry and environmental

In follow up testing in the same area of the building, both types of readings were lower, either at ‘normal’ or ‘moderate’.

Follow up testing – 9/11/2024



Your Indoor Air Quality Report Summary

Your Indoor Air Quality Report has several sections describing different aspects of your air quality. A summary of this data is provided below, additional information and descriptions are included in the full report.

Total Volatile Organic Compounds (TVOC) Level

TVOC is a general indicator of the IAQ (see page 2).

Total VOCs **510 ng/L**

Total Mold Volatile Organic Compounds (TMVOC) Level

TMVOC is an assessment of the actively growing mold (see page 3).

Total MVOCs **< 3 ng/L**

Contamination Index (CI) Level

The CI shows the types of air-contaminating products and materials that are present in the sampled area (see pages 5 and 6). These levels are estimates based on common products and activities.

Building Sources

See page 5 for more detail.

N	Coatings (Paints, Varnishes, etc.)
N	PVC Cement
N	Building Materials-Toluene Based
N	Gasoline
N	Fuel Oil, Diesel Fuel, Kerosene
N	Light Hydrocarbons
N	Light Solvents

Occupant Sources

See page 6 for more detail.

N	HFCs and CFCs (FreonsTM)
M	Personal Care and Cleaning Products
N	Odorants and Fragrances
N	Dry Cleaning Solvents

Note: Severity levels begin at Normal or Minimal and progress through Moderate, Elevated, High and/or Severe. The color progression from green to red indicates results that are increasingly atypical and suggest potentially higher risk.

All Severity classifications are based on empirical data and should not be taken as a pass/fail or conformance to a published specified limit.

Normal | Moderate | Elevated | High | Severe

The district takes the risk of mold seriously and has carried out extensive investigation and remediation projects throughout the building.

From the EPA's Mold Remediation in Schools and Commercial Buildings Guide:

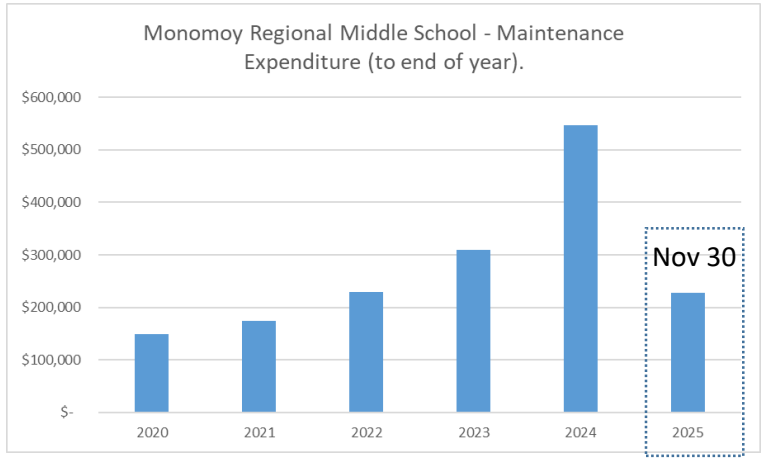
Questions to Consider Before Remediating

1. Are there existing moisture problems in the building?
2. Have building materials been wet more than 48 hours? (See Table 2 and text)
3. Are there hidden sources of water or is the humidity too high (high enough to cause condensation)?
4. Are building occupants reporting musty or moldy odors?
5. Are building occupants reporting health problems?
6. Are building materials or furnishings visibly damaged?
7. Has maintenance been delayed or the maintenance plan been altered?
8. Has the building been recently remodeled or has building use changed?
9. Is consultation with medical or health professionals indicated?

Previous and Ongoing Projects:

- **Remediation of surface mold when detected.**
- **Increased, targeted cleaning.**
- **Installation of air purifiers and dehumidifiers.**
- **Repair and maintenance of HVAC systems.**
- **Roof repairs.**
- **Siding Repairs.**
- **Flooring repairs.**
- **Replacement of carpet with tile.**
- **Window sill replacement.**
- **Removal of dry wall.**
- **Replacement of damaged ceiling tiles.**
- **Consultation with health expert.**
- **Replacement of damaged furniture.**
- **Improved external drainage.**
- **Removal of trees and vegetation around the building to improve air flow.**
- **Siding replacement project.**
- **MSBA application to replace roof.**

Increased expenditure on building maintenance:



Moisture control is mold control: Ongoing work to ensure the integrity of the building and minimize the risk of mold.

1. Mold monitoring and remediation.

- Air quality tests: throughout the building and in other buildings as control samples.
- Ongoing remediation where necessary.
- Ongoing facility improvement & repair projects: flooring, HVAC, etc.

2. Siding replacement project.

- Upcoming tasks: selection of Owner's Project Manager, finalization of design, procurement.
- Possible expansion of project specification to include replacement of windows.
- Additional testing of dry wall to be conducted.

3. Review of alternatives to building repair.

- Review of all building projects in next 10 years.
- Estimate the cost of building a new middle school.

4. Roof replacement project.

- MSBA project: feasibility study to begin in early Spring.

Monomoy Regional Middle School Building Committee

- The first School Building Committee took place on 1/7/2025.
- This committee will oversee the work to repair the siding, the investigation of mold, and projects to remediate mold (if found).
- Includes community construction professionals, many of whom are Monomoy parents, school committee members, and staff, including two teacher who have recently agreed to join.
- Next meeting is January 21, 2025.