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**Portage Northern High School  
Air Quality Task Force Report**

March 22, 2010



### ***Position Statement***

The air quality, building materials, ventilation procedures and construction practices at Portage Northern High School meet or exceed safety standards. Therefore, the Portage Northern Air Quality Task Force is confident that the building is safe for our community.

### ***Overview***

The Portage Northern Air Quality Task Force was formed in early March to address air quality concerns at the high school stemming from construction at the site. The 10 task force members, serving in a review and advisory capacity, diligently examined the concerns raised about the potential health effects of construction in the building. The task force spent some 15 hours meeting in the lower level science wing, conducting an extensive review of the data and information and meeting with numerous experts. Task force members include parents, a student, teachers, and administrators who work and learn at Portage Northern High School. These individuals have a vested interest in making sure that Portage Northern High School is safe.

### ***Review of Testing***

Potential factors affecting air quality at Portage Northern High School have been extensively tested. In addition to tests commissioned by the school district, testing also was commissioned by the Michigan Occupational Safety and Health Administration (MIOSHA) and the Michigan Education Association (MEA) Three separate labs were involved over a three month period. All test results were within normal ranges. Those tests included:

- **Volatile Organic Compounds (VOCs):** Testing for some 350 VOCs was performed and showed no presence of compounds outside normal ranges.
- **Carbon Monoxide:** Carbon monoxide detectors initially were installed near construction areas, and in February were installed in all classrooms in the main building, media center, and athletic facilities. Results have been logged twice daily. Continuous monitoring has shown no levels of carbon monoxide outside normal ranges.
- **Carbon Dioxide:** Testing showed no presence of carbon dioxide outside normal ranges.
- **Radon:** Testing showed no presence of radon outside normal ranges.
- **Hydrogen Sulfide:** Testing showed no presence of hydrogen sulfide outside normal ranges.
- **Mold/Fungus:** Fungal spore testing showed no presence of mold or fungus outside normal ranges.
- **Particulate:** Testing showed no presence of particulates outside normal ranges.
- **Formaldehyde:** Testing showed no presence of formaldehyde outside normal ranges. Off-gassing of cabinetry and fixtures selected contain little or no formaldehyde, and meet or exceed industry standards. Time for off-gassing following installation was found to be appropriate.



- **Relative Humidity:** Humidity tests in the lower level science wing indicated a low level of humidity – below “comfort level.” Levels in the upper level science wing – in both renovated and un-renovated sections –were similarly low and within a few percentage points of the 3-story academic wing.
- **Air Circulation:** Air intake, air movement, air flow systems and operations, air filter changes, heating and ventilation were checked, tested and found to be appropriate.

### ***Other Investigation and Follow-Up***

In addition to testing, the task force reviewed possible alternative causes of discomfort and health complaints. This work involved meetings and discussions with subject-matter experts and included reviewing:

- **Construction History:** Timeline of construction work.
- **Construction Safety Practices:** These included air quality practices for inside and outside construction, as well as materials handling and equipment staging. Measures taken by construction crews to ensure air quality were found to be appropriate. The task force did not find anything out of the ordinary in construction processes, practices or procedures.
- **Product Building Materials:** Flooring, ceiling tiles, paint, casework and other materials used all meet or exceed industry standards for safety.
- **Flush-Out, Cleaning Procedures:** Initial construction air flush-out and post-construction janitorial cleaning met or exceeded industry standards.
- **MIOSHA On-Site Visit:** State officials determined MIOSHA standards for safety were exceeded.
- **Lighting:** Low flicker, anti-seizure lighting used and found to be appropriate.
- **Projection Equipment:** The need for burn-in time of projectors was investigated and determined to be unnecessary. Out-gassing of screens following installation met industry standards for safety.
- **Drywall:** Reviewed and determined that drywall manufactured in China was not installed in any portion of the project or any PPS projects.
- **Student Schedules:** Review of individual schedules of students with health complaints -- and their classrooms and use of common areas such as the multipurpose building, auxiliary gym and locker rooms -- did not show any definite patterns.



***Additional Communication and Discussion***

The task force also sought input and information from numerous sources including:

- **Occupational health physician:** Discussed potential building and non-building related conditions, including chemical sensitivity, asthma, allergies, smoking, electro-magnetic fields, and pre-existing conditions.
- **Teachers:** Followed up with science teachers to discuss any ongoing concerns about air quality safety.
- **Parents:** Met with parents of students with health complaints to better understand their concerns.
- **Community Members:** The community was invited to submit by mail or email opinions, facts, questions, concerns and comments. The task force followed up on all nine email submissions.
- **Regulatory and Government Officials:** Initiated contact with Kalamazoo County Health Department and MIOSHA to ensure additional outside review and keep them apprised of air quality concerns at Portage Northern High School.

The task force also reviewed staff and student complaints and was unable to identify any pattern of illness. Furthermore, the task force was unable to identify any potential cause of health complaints. While the task force cannot fully evaluate any exposures that may have occurred prior to testing, it strongly believes the building is safe.

***Respectfully submitted,***

**The Portage Northern Air Quality Task Force**

**Co-Chairs**

Tom Noverr, Assistant Superintendent, Portage Public Schools  
Jim French, Principal, Portage Northern High School Principal

**Members**

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Joel Shaffer, Teacher, Portage Northern High School  
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