

# RISK MANAGEMENT...

managing risk with responsibility

Aston A. Henry, Supervisor  
Risk Management Department

Telephone: 754 321-1900  
Fax: 754 321-1917

March 12, 2010

**Signature on File**

TO: Ms. Debra Patterson, Principal  
**Gulfstream Middle School**

FROM: Edward See, Project Manager  
Risk Management Department

SUBJECT: Indoor Air Quality (IAQ) Assessment  
**Portable 1037PK**

<u>For Custodial Supervisor Use Only</u>	
<input type="checkbox"/>	Custodial Issues Addressed
<input type="checkbox"/>	Custodial Issues Not Addressed
_____	
_____	

On February 19, 2010, I conducted an assessment of Portable 1037PK at **Gulfstream Middle School**. This evaluation included observations of the flooring system, ceiling tiles, false ceiling plenum, environmental surfaces, interior and exterior walls, and the accessible ventilation equipment. Additionally, environmental parameter measurements were taken to include temperature, relative humidity, and carbon dioxide. The detailed findings, along with the recommended corrective action can be found on the attached IAQ Assessment Worksheets.

The IAQ assessment did identify one or more existing conditions impacting IAQ and has generated appropriate work orders to correct deficiencies in systems and maintenance that could contribute to decreased indoor air quality. At the time of the assessment, these concerns were not an immediate health or safety concern to building occupants. However, due to individual sensitivities and predisposing health factors, it is possible that some building occupants may elicit a health response to agents and / or conditions identified during the evaluation. Therefore, to further improve IAQ, prevent development of future IAQ-related problems, and to reduce the potential for IAQ-related complaints by building occupants, the IAQ Assessment Team recommends appropriate follow up of each item identified and listed in the attached evaluation.

*Please ensure that your Head Facilities Serviceperson receives a copy of this correspondence so that the recommendations requiring their attention can be addressed. In an attempt to separate IAQ issues from general maintenance items, the attached assessment may contain direction for site based staff to generate a work order through COMPASS. Within two weeks a representative from the Custodial/Grounds Department will conduct a follow-up visit to ensure that all issues have been appropriately addressed.*

Should any questions arise, or if the current concerns continue after the attached recommendations have been addressed, please feel free to contact me at 754-321-1900.

cc: Dr. Joel Herbst, Area Superintendent  
Dr. Gina Eyerman, Area Director  
Jeffrey S. Moquin, Executive Director, Support Operations  
Aston Henry, Supervisor, Risk Management  
Steve Dowling, Project Manager, Facilities and Construction Management  
Jamie Daniels, Broward Teachers Union  
Roy Jarrett, Federation of Public Employees  
Mark Dorsett, Manager 1, Physical Plant Operations Division, Zone 1  
Roy Norton, Manager Custodial/Grounds, Physical Plant Operations Division  
Robert Krickovich, Coordinator, LEA, Facilities and Construction Management

ES/tc  
Enc.

# IAQ Assessment

Location Number 3931  
 Evaluation Requested February 16, 2010  
 Evaluation Date February 19, 2010

Gulfstream Middle School

Time of Day 3:20 pm

Outdoor Conditions      Temperature 71.1      Relative Humidity 19.8      Ambient CO2 443

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
<span style="border: 1px solid black; padding: 2px;">P-1037PK</span>	<span style="border: 1px solid black; padding: 2px;">72.5</span>	<span style="border: 1px solid black; padding: 2px;">72 - 78</span>	<span style="border: 1px solid black; padding: 2px;">43.5</span>	<span style="border: 1px solid black; padding: 2px;">30% - 60%</span>	<span style="border: 1px solid black; padding: 2px;">1096</span>	<span style="border: 1px solid black; padding: 2px;">Max 700 &gt; Ambient</span>	<span style="border: 1px solid black; padding: 2px;">2</span>
<b>Noticeable Odor</b>	<span style="border: 1px solid black; padding: 2px;">Yes</span>		<b>Visible water damage / staining?</b>	<b>Visible microbial growth?</b>	<b>Amount of material affected</b>		
<b>Ceiling Type</b>	<span style="border: 1px solid black; padding: 2px;">2 x 4 Lay In</span>		<span style="border: 1px solid black; padding: 2px;">Yes</span>	<span style="border: 1px solid black; padding: 2px;">No</span>	<span style="border: 1px solid black; padding: 2px;">1 ceiling tile</span>		
<b>Wall Type</b>	<span style="border: 1px solid black; padding: 2px;">Wood Panels</span>		<span style="border: 1px solid black; padding: 2px;">No</span>	<span style="border: 1px solid black; padding: 2px;">No</span>	<span style="border: 1px solid black; padding: 2px;">None</span>		
<b>Flooring</b>	<span style="border: 1px solid black; padding: 2px;">12 x 12 Vinyl</span>		<span style="border: 1px solid black; padding: 2px;">No</span>	<span style="border: 1px solid black; padding: 2px;">No</span>	<span style="border: 1px solid black; padding: 2px;">None</span>		

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
<b>Ceiling</b>	<span style="border: 1px solid black; padding: 2px;">No</span>	<span style="border: 1px solid black; padding: 2px;">Yes</span>	<span style="border: 1px solid black; padding: 2px;">Yes</span>	<span style="border: 1px solid black; padding: 2px;">Remove and replace ceiling tile</span>
<b>Walls</b>	<span style="border: 1px solid black; padding: 2px;">Yes</span>	<span style="border: 1px solid black; padding: 2px;">No</span>	<span style="border: 1px solid black; padding: 2px;">No</span>	<span style="border: 1px solid black; padding: 2px;"></span>
<b>Flooring</b>	<span style="border: 1px solid black; padding: 2px;">Yes</span>	<span style="border: 1px solid black; padding: 2px;">No</span>	<span style="border: 1px solid black; padding: 2px;">No</span>	<span style="border: 1px solid black; padding: 2px;"></span>
<b>HVAC Supply Grills</b>	<span style="border: 1px solid black; padding: 2px;">Yes</span>	<span style="border: 1px solid black; padding: 2px;">No</span>	<span style="border: 1px solid black; padding: 2px;">No</span>	<span style="border: 1px solid black; padding: 2px;"></span>
<b>HVAC Return Grills</b>	<span style="border: 1px solid black; padding: 2px;">Yes</span>	<span style="border: 1px solid black; padding: 2px;">No</span>	<span style="border: 1px solid black; padding: 2px;">No</span>	<span style="border: 1px solid black; padding: 2px;"></span>
<b>Ceiling at Supply Grills</b>	<span style="border: 1px solid black; padding: 2px;">Yes</span>	<span style="border: 1px solid black; padding: 2px;">No</span>	<span style="border: 1px solid black; padding: 2px;">No</span>	<span style="border: 1px solid black; padding: 2px;"></span>
<b>Surfaces in Room</b>	<span style="border: 1px solid black; padding: 2px;">Yes</span>	<span style="border: 1px solid black; padding: 2px;">No</span>	<span style="border: 1px solid black; padding: 2px;">No</span>	<span style="border: 1px solid black; padding: 2px;"></span>

## Observations

**Findings**

- Non-approved chemicals in room - air freshener (causing odor in room). Could not locate.
- 1 stained ceiling tile
- South A/C return filter not fitted properly
- Exhaust fan on West wall not operating properly with openings to outside air
- Classroom is not occupied. Occupant utilized a mold home kit.
- Apparent leak at restroom toilet valve

**Site Based Maintenance:**

- Remove non-approved chemicals from room (air freshener). Avoid use of air fresheners as they contain chemicals that are a source of allergies.
- Remove and replace stained ceiling tile. If stain returns contact COMPASS to generate a work order for Physical Plant Operations to evaluate for cause.
- Remove and replace South A/C filter and ensure that it is cut properly to avoid air bypass
- Advise staff that mold home kits only show the obvious -- mold spores are ubiquitous. For mold to grow or amplify it requires water, a food source, temperature and oxygen. EPA advises to control mold, control moisture.
- Contact COMPASS to generate a work order to repair restroom toilet
- Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate

**Physical Plant Operations:**

- Evaluate exhaust fan on West wall for proper operation and repair as appropriate. Seal around exhaust fan to prevent outside air from entering classroom.