

# RISK MANAGEMENT...

managing risk with responsibility

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June 19, 2007

**Signature on File**

TO: Ms. Linda Chuckman, Principal  
**Fox Trail Elementary School**

FROM: Edward See, Project Manager  
Risk Management Department

SUBJECT: Indoor Air Quality (IAQ) Assessment  
**Portable 439P**

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

On June 8, 2007 I conducted an assessment of Portable 439P at **Fox Trail Elementary 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. 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 754-321-3200.

cc: Dr. Verda Farrow, Area Superintendent  
Joel Herbst, Area Director  
Jeffrey S. Moquin, Director, Risk Management  
James Carballo, Project Manager, Facilities and Construction Management  
Ralph Eckhardt, Broward Teachers Union  
Roy Jarrett, National Federation of Public and Private 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

Fox Trail Elementary School

Location Number 1221  
 Evaluation Requested May 30, 2007  
 Evaluation Date June 8, 2007

Time of Day 10:15 am

Outdoor Conditions      Temperature 84.7      Relative Humidity 67.4      Ambient CO2 544

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
<span style="border: 1px solid black; padding: 2px;">P-439P</span>	<span style="border: 1px solid black; padding: 2px;">67</span>	<span style="border: 1px solid black; padding: 2px;">72 - 78</span>	<span style="border: 1px solid black; padding: 2px;">50.3</span>	<span style="border: 1px solid black; padding: 2px;">30% - 60%</span>	<span style="border: 1px solid black; padding: 2px;">562</span>	<span style="border: 1px solid black; padding: 2px;">Max 700 &gt; Ambient</span>	<span style="border: 1px solid black; padding: 2px;">2</span>
Noticeable Odor	<span style="border: 1px solid black; padding: 2px;">No</span>		Visible water damage / staining?	Visible microbial growth?	Amount of material affected		
Ceiling Type	<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;">3 ceiling tiles</span>		
Wall Type	<span style="border: 1px solid black; padding: 2px;">Tackable</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;">1 square foot</span>		
Flooring	<span style="border: 1px solid black; padding: 2px;">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
Ceiling	<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 stained ceiling tiles</span>
Walls	<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;">Repair/replace wall material as necessary</span>
Flooring	<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;">Clean and sanitize</span>
HVAC Supply Grills	<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;">Clean with Wexcide disinfectant</span>
HVAC Return Grills	<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;">Clean with Wexcide disinfectant</span>
Ceiling at Supply Grills	<span style="border: 1px solid black; padding: 2px;"></span>			
Surfaces in Room	<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;">Clean as appropriate</span>

## Observations

### Findings:

- Dust build up on floor
- Dust build up on surfaces throughout the room
- Dust and debris on HVAC supply and return grills (shaker units)
- Heavy dust build up on A/C filters
- Elevated moisture (18% WME) in North wall under A/C shaker unit and visible microbial growth on wall. Wall has been wiped down several times and microbial growth returns.
- Temperature was low at the time of the assessment. Adjusted thermostat at the time of the assessment.
- Visible microbial growth on wall in AHU room (FISH 147). Wall has been wiped down and microbial growth returns.
- Minor rusting on 2 light grids
- 3 stained ceiling tiles

### -Recommendations:

#### Site Based Maintenance:

- Clean and sanitize floor
- Clean surfaces throughout the room
- Clean HVAC supply and return grills (shaker units) with Wexcide disinfectant solution
- Remove and replace A/C filters and change regularly
- Thermostat was adjusted at the time of the assessment. Continue to monitor condition and initiate a work order for Physical Plant Operations to evaluate the HVAC system if temperature does not improve.
- 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 cause of elevated moisture in North wall under A/C unit and repair as appropriate. Repair/replace wall material as appropriate.
- Evaluate cause of microbial growth on wall in AHU room (FISH 147) and repair as appropriate. Repair/replace wall material as appropriate.
- Evaluate cause of rust on light grids and repair as appropriate. Repair/replace light grids as appropriate.
- Evaluate cause of stained ceiling tiles and repair as appropriate. Remove and replace stained ceiling tiles.