

# RISK MANAGEMENT...

managing risk with responsibility

Jeffrey S. Moquin, Director  
Risk Management Department

Telephone: 754-321-3200  
Facsimile: 754-321-3290

May 14, 2008

**Signature on File**

TO: Ms. Deborah Peeples, Principal  
**Oriole Elementary School**

FROM: Edward See, Project Manager  
Risk Management Department

SUBJECT: Indoor Air Quality (IAQ) Assessment  
**FISH 759 and 760**

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

On May 8, 2008 I conducted an assessment of FISH 759 and 760 at **Oriole 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. Leontine Butler, Area Superintendent  
Dr. Desmond Blackburn, Area Director  
Jeffrey S. Moquin, Director, Risk Management  
Henry Verdugo, Project Manager, Facilities and Construction Management  
Dane Ramson, 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 1831  
 Evaluation Requested May 7, 2008  
 Evaluation Date May 8, 2008

Oriole Elementary School

Time of Day 8:30 am

Outdoor Conditions      Temperature 85.8      Relative Humidity 56.6      Ambient CO2 457

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
759	76.3	72 - 78	68.9	30% - 60%	1054	Max 700 > Ambient	26
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
Ceiling Type		Yes		No		2 ceiling tiles	
Wall Type		No		No		None	
Flooring		No		No		None	

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	No	Yes	Yes	Remove and replace ceiling tiles
Walls	Yes	No	No	
Flooring	No	Yes	Yes	Clean and sanitize
HVAC Supply Grills	Yes	No	No	
HVAC Return Grills	Yes	No	No	
Ceiling at Supply Grills	Yes	No	No	
Surfaces in Room	No	Yes	Yes	Clean as appropriate

**Observations**

**Findings:**

- No signs of visible microbial growth or water intrusion
- No gaps in windows or doors identified
- Pests identified in room (ants, roaches)
- Dust accumulation on environmental surfaces and in corners of room along North wall
- 2 stained ceiling tiles
- Dust and debris on floor
- Humidity was elevated

**Recommendations:**

**Site Based Maintenance:**

- Thoroughly clean environmental surfaces and corners throughout the room
- Remove and replace stained ceiling tiles
- Clean and sanitize floor
- 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:**

- Initiate a work order for pest control
- Evaluate HVAC for proper operation and repair as appropriate to lower humidity

# IAQ Assessment

Oriole Elementary School

Location Number   
 Evaluation Requested   
 Evaluation Date

Time of Day

Outdoor Conditions      Temperature       Relative Humidity       Ambient CO2

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
<input type="text" value="760"/>	<input type="text" value="75.4"/>	<input type="text" value="72 - 78"/>	<input type="text" value="60.9"/>	<input type="text" value="30% - 60%"/>	<input type="text" value="759"/>	<input type="text" value="Max 700 &gt; Ambient"/>	<input type="text"/>
Noticeable Odor	<input type="text" value="No"/>		Visible water damage / staining?	Visible microbial growth?	Amount of material affected		
Ceiling Type	<input type="text" value="2 x 4 Lay In"/>		<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value="None"/>		
Wall Type	<input type="text" value="Drywall/Plaster"/>		<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value="None"/>		
Flooring	<input type="text" value="12 x 12 Vinyl"/>		<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value="None"/>		

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
Walls	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
Flooring	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
HVAC Supply Grills	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
HVAC Return Grills	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
Ceiling at Supply Grills	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
Surfaces in Room	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>

**Observations**

**Findings:**  
 - No signs of visible microbial growth or water intrusion  
 - Humidity was slightly elevated

**Recommendations:**

**Site Based Maintenance:**  
 - 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 HVAC for proper operation and repair as appropriate to lower humidity