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May 18, 2006

**Signature on File**

TO: Ms. Mary Lou Ridge, Principal  
**Bethune Elementary School**

FROM: Robert J. Krickovich, Coordinator, LEA  
Facilities and Construction Management, Environmental Division

SUBJECT: Indoor Air Quality (IAQ) Assessment  
**FISH 925**

On February 10, 2006 I conducted an assessment of FISH 925 at **Bethune 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.

Should any questions arise, or if the current concerns continue after the attached recommendations have been addressed, please feel free to contact me at 754-321-1638.

cc: Sam Gregg, Area Superintendent  
Margaret Underhill, Area Director  
Jeffrey S. Moquin, Director, Risk Management  
Bob Sharps, Project Manager, Facilities and Construction Management  
Jerrod Neal, Broward Teachers Union  
Mark Dorsett, Manager 1, Physical Plant Operations Division, Zone 1  
Roy Norton, Manager Custodial/Grounds, Physical Plant Operations Division

RK/tc  
Enc.

# IAQ Assessment

Location Number 0341  
 Evaluation Requested February 9, 2006  
 Evaluation Date February 10, 2006

Bethune Elementary School

Time of Day 9:15 am

Outdoor Conditions      Temperature 64.8      Relative Humidity 43.1      Ambient CO2 448

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
925	71	72 - 78	45.1	30% - 60%	1023	Max 700 > Ambient	20
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
Ceiling Type		No		No		None	
Wall Type		Yes		No		At windows	
Flooring		No		No		None	

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> No	
Walls	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> No	
Flooring	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> No	
HVAC Supply Grills	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	Clean with Wexcide disinfectant
HVAC Return Grills	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	Clean with Wexcide disinfectant
Ceiling at Supply Grills	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	Clean as appropriate
Surfaces in Room	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> No	

## Observations

**Findings:**

- Dust and debris on HVAC supply and return grills and on ceiling at supply grills
- Cobwebs in corners of windows
- Walls at windows are water damaged and tackboard is stained on both sides of windows. Plaster at bottom of windows is flaking.
- Occupant advised that when the temperature in the room is satisfied the air flow into the room stops
- Caulking around sink backsplash is deteriorated
- Caulking around exterior of windows is deteriorated

**Recommendations:**

**Site Based Maintenance:**

- Clean HVAC supply and return grills with Wexcide disinfectant solution and clean ceiling at HVAC supply grills as appropriate
- Clean cobwebs from corners of windows
- 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 water damaged walls, stained tackboard and flaking plaster around and under windows and repair as appropriate. Repair/replace effected wall material as necessary. Remove bookcase from window wall and replace damaged wall as necessary.
- Evaluate HVAC for proper operation (air flow to room stops when temperature is satisfied)
- Caulk sink backsplash as appropriate
- Caulk/seal exterior windows to prevent water intrusion