

# RISK MANAGEMENT...

managing risk with responsibility

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November 12, 2009

**Signature on File**

TO: Ms. Donna Morrison, Principal  
**Country Hills Elementary School**

FROM: Edward See, Project Manager  
Risk Management Department

SUBJECT: Indoor Air Quality (IAQ) Assessment  
**FISH 503**

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

On November 10, 2009, I conducted an assessment of FISH 503 at **Country Hills 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. 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: Sharon Airaghi, Area Superintendent  
David Hall, Area Director  
Jeffrey S. Moquin, Executive Director, Support Operations  
Aston Henry, Supervisor, Risk Management  
Phil Kaufold, Project Manager, Facilities and Construction Management  
Gary Itzkowitz, 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 3111  
 Evaluation Requested November 6, 2009  
 Evaluation Date November 10, 2009

Country Hills Elementary School

Time of Day 12:30 pm

Outdoor Conditions      Temperature 85.8      Relative Humidity 49.8      Ambient CO2 391

|                 |             |                                  |                   |                           |      |                             |             |
|-----------------|-------------|----------------------------------|-------------------|---------------------------|------|-----------------------------|-------------|
| Fish            | Temperature | Range                            | Relative Humidity | Range                     | CO2  | Range                       | # Occupants |
| 503             | 72.2        | 72 - 78                          | 57.8              | 30% - 60%                 | 1444 | Max 700 > Ambient           | 2           |
| Noticeable Odor |             | Visible water damage / staining? |                   | Visible microbial growth? |      | Amount of material affected |             |
| Ceiling Type    |             | No                               |                   | No                        |      | None                        |             |
| Wall Type       |             | No                               |                   | No                        |      | None                        |             |
| Flooring        |             | No                               |                   | No                        |      | None                        |             |

|                          | Clean | Minor Dust / Debris | Needs Cleaning | Corrective Action Required |
|--------------------------|-------|---------------------|----------------|----------------------------|
| Ceiling                  | Yes   | No                  | No             |                            |
| Walls                    | Yes   | No                  | No             |                            |
| Flooring                 | Yes   | No                  | No             |                            |
| 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:

- Occupant complaint of allergies - requested air purifier and dehumidifier
- Humidity level was more than 10% higher than outdoor reading and CO2 level was slightly elevated at the time of the assessment
- Non-approved chemicals in room (Glad air fresheners)
- 1" thick throw rug in room - heavy dust and debris build up. Rug not supplied by SBBC.
- Pillow cases in room have odor - potential allergen source
- Dust build up on environmental surfaces and excessive clutter in room

### Site Based Maintenance:

- Remove non-approved chemicals from room
- Occupant to thoroughly clean rug to remove dust and debris. If unable to clean properly rug needs to be removed.
- Occupant to launder pillow cases frequently
- Encourage occupant to reduce clutter to assist site based staff with cleaning efforts. Thoroughly clean surfaces throughout the room once clutter has been reduced.
- 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 system for proper operation and repair as appropriate to lower humidity and CO2 level