

Aston A. Henry, Supervisor Risk Management Department

managing risk with responsibility

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

| August 27, 2010 | Signature on File |
|-----------------|---|
| TO: | Mr. Matthew Whaley, Principal Meadowbrook Elementary School |
| FROM: | Aston A. Henry, Supervisor Risk Management Department |
| SUBJECT: | Indoor Air Quality (IAQ) Assessment FISH 1212, 1213 and 1217 |

|] | Custodial Issues Addressed |
|---|-------------------------------------|
| 1 | Custodial Issues Not Addressed |
| _ | Custourin issues i vot i iduitessed |

On August 19, 2010 I conducted an assessment of FISH 1212, 1213 and 1217 at **Meadowbrook 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: | Dr. Leontine Butler, Area Superintendent | | | | |
|--|---|--|--|--|--|
| | Carle Shaw, Area Director | | | | |
| Jeffrey S. Moquin, Executive Director, Support Operations | | | | | |
| Mark Dorsett, Acting Director, Physical Plant Operations Division, Mai | | | | | |
| | Charles Ricks, Project Manager, Facilities and Construction Management | | | | |
| | Diane Watts, Broward Teachers Union | | | | |
| | Roy Jarrett, Federation of Public Employees | | | | |
| | Roy Norton, Manager Custodial/Grounds, Physical Plant Operations Division | | | | |
| | Robert Krickovich, Coordinator, LEA, Facilities and Construction Management | | | | |
| l/tc | | | | | |

AH/to Enc.

| | | | IAQ Ass | essment | Location Number | 0761 |
|--------------------------|------------|------------------------|----------------------------------|---------------------------|---------------------------------|-----------------|
| | Meadowb | rook Elementary | / School | | Evaluation Requested | August 17, 2010 |
| Time of Day | 1:00 pm | | | | Evaluation Date | August 19, 2010 |
| Outdoor Condi | tions Ten | perature 9 | 4.1 F | Relative Humidity | 60.1 Ambie | nt CO2 377 |
| Fish T | | Range Relat | ive Humidity | Range | CO2 Ran | ge # Occupants |
| 1212 | 70.7 7 | 2 - 78 | 65.1 3 | 30% - 60% | 450 Max 700 | > Ambient |
| Noticeable Od | or No | | 'isible water age / staining? | Visible microl growth? | bial Amount o material affec | |
| Ceiling Type | 2 x 4 Lay | In | No | No | | None |
| Wall Type | Drywal | | No | No | | None |
| Flooring | Tile | | No | No | | None |
| | Clean | Minor Dust / Debris | Needs Cleaning | | Corrective Action Re | equired |
| Ceiling | Yes | No | No | | | |
| Walls | No | Yes | Yes | CI | ean with Wexcide dis | infectant |
| Flooring | Yes | No | No | | | |
| HVAC Supply | Grills Yes | No | No | | | |
| HVAC Return | Grills Yes | No | No | | | |
| Ceiling at Sup Grills | ply Yes | No | No | | | |
| Surfaces in Ro | oom Yes | No | No | | | |

Observations

Findings

- Humidity level was elevated at the time of the assessment

- Microbial growth on walls, behind tackboard and on doors.

Site Based Maintenance:

- Wipe down walls and doors with Wexcide disinfectant solution. Remove tackboard from walls and clean area as appropriate - 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 level
- Evaluate for cause of water intrusion and repair as appropriate. Repair/replace wall material as necessary.

NOTE: Work order EQ01427 and EQ01429 generated

| | | | IAQ Ass | essment | Location Number | 0761 |
|--------------------------|-------------|------------------------|----------------------------------|---------------------------|---------------------------------|-----------------|
| | Meadowb | rook Elementary | / School | | Evaluation Requested | August 17, 2010 |
| Time of Day | 1:00 pm | | | | Evaluation Date | August 19, 2010 |
| Outdoor Condi | tions Ten | nperature 9 | 4.1 | Relative Humidity | 60.1 Ambie | nt CO2 377 |
| Fish | Temperature | Range Relat | ive Humidity | Range | CO2 Ran | ge # Occupants |
| 1213 | 72.1 7 | 2 - 78 | 64.4 | 30% - 60% | 455 Max 700 | > Ambient |
| Noticeable Od | lor No | - | 'isible water age / staining? | Visible microl growth? | bial Amount o material affec | |
| Ceiling Type | 2 x 4 Lay | In | No | No | | None |
| Wall Type | Drywal | | No | No | | None |
| Flooring | Tile | | No | No | | None |
| | Clean | Minor Dust / Debris | Needs Cleaning | | Corrective Action Re | equired |
| Ceiling | Yes | No | No | | | |
| Walls | No | Yes | Yes | CI | ean with Wexcide dis | infectant |
| Flooring | Yes | No | No | | | |
| HVAC Supply | Grills Yes | No | No | | | |
| HVAC Return | Grills Yes | No | No | | | |
| Ceiling at Sup Grills | ply Yes | No | No | | | |
| Surfaces in Ro | oom Yes | No | No | | | |

Observations

Findings

- Humidity level was elevated at the time of the assessment

- Microbial growth on walls and tackboard

Site Based Maintenance:

- Wipe down walls with Wexcide disinfectant solution. Remove tackboard from walls and clean area as appropriate

- 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 level
- Evaluate for cause of water intrusion and repair as appropriate. Repair/replace wall material as necessary.

NOTE: Work order EQ01427 and EQ01429 generated

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| | Meadowb | rook Elementary | / School | | Evaluation Requested | August 17, 2010 |
| Time of Day | 1:00 pm | | | | Evaluation Date | August 19, 2010 |
| Outdoor Condi | tions Ten | nperature 9 | 4.1 | Relative Humidity | 60.1 Ambie | nt CO2 377 |
| Fish T | [emperature | Range Relat | ive Humidity | Range | CO2 Ran | ge # Occupants |
| 1217 | 71 7 | 2 - 78 | 64.3 | 30% - 60% | 433 Max 700 | > Ambient |
| Noticeable Od | or No | - | /isible water age / staining? | Visible microl growth? | bial Amount o material affec | |
| Ceiling Type | 2 x 4 Lay | In | No | No | | None |
| Wall Type | Drywal | | No | No | | None |
| Flooring | Tile | | No | No | | None |
| | Clean | Minor Dust / Debris | Needs Cleaning | | Corrective Action Re | equired |
| Ceiling | Yes | No | No | | | |
| Walls | No | Yes | Yes | CI | ean with Wexcide dis | infectant |
| Flooring | Yes | No | No | | | |
| HVAC Supply | Grills Yes | No | No | | | |
| HVAC Return | Grills Yes | No | No | | | |
| Ceiling at Sup Grills | ply Yes | No | No | | | |
| Surfaces in Ro | oom Yes | No | No | | | |

Observations

Findings

- Humidity level was elevated at the time of the assessment
- Microbial growth on walls, behind tackboard and on doors.
- AHU FISH 1215 Damper control wires do not appear to be connected

Site Based Maintenance:

Wipe down walls and doors with Wexcide disinfectant solution. Remove tackboard from walls and clean area as appropriate
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 level
- Evaluate for cause of water intrusion and repair as appropriate. Repair/replace wall material as necessary.
- Evaluate damper controls for AHU in FISH 1215 for proper operation.

NOTE: Work order EQ01427 and EQ01429 generated