

Aston A. Henry, Director
Risk Management Department

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December 16, 2014

Signature on File

TO: Robert Becker, Principal
Embassy Creek Elementary School

FROM: Richard Rosa, Project Manager
Risk Management Department

SUBJECT: Indoor Air Quality (IAQ) Assessment

| <u>For Custodial Supervisor Use Only</u> | |
|--|--------------------------------|
| <input type="checkbox"/> | Custodial Issues Addressed |
| <input type="checkbox"/> | Custodial Issues Not Addressed |
| <hr/> | |
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On November 24, 2014, I conducted an assessment at **Embassy Creek Elementary School**. Attached are findings and recommendations for further assessment, remediation, or corrective actions needed.

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 site based custodial 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 us at 754-321-1907.

cc: Shelley Meloni, Executive Director, Facilities & Construction
Mark Dorsett, Manager, Zone 1, Physical Plant Operations Division
Roy Norton, Manager, Custodial/Grounds, Physical Plant Operations Division
Aston Henry, Director, Risk Management
Sonja Coley, Senior Project Manager, Facilities & Construction
Broward Teachers Union
Federation of Public Employees

RR/tc
Enc.

IAQ Assessment

Embassy Creek Elementary

 Evaluation Date November 24, 2014

 Time of Day 1:15

 Outdoor Conditions Temperature 89.2

 Relative Humidity 63.7

 Ambient CO2 440

| | | | | | | | |
|---|---|---|--|---|--|--|---|
| Fish | Temperature | Range | Relative Humidity | Range | CO ² | Range | # Occupants |
| 201 | 74.8 | 72 - 78 | 47.8 | 30% - 60% | 1266 | MAX 700 > Ambient | 20 |
| Noticeable Odor | | No | Visible water damage / staining? | | Visible microbial growth? | | Amount of material affected |
| Ceiling | 2' X 4' Lay in | | Yes | | No | | 4 stained ceiling tiles |
| Walls | Drywall/Tackboard | | No | | No | | |
| Floor | 12" x 12" Vinyl | | No | | No | | |
| Ceiling Clean | | No | HVAC Supply Grills Clean | | Yes | HVAC Return Grills Clean | |
| Walls Clean | | Yes | Inside of Supply Duct Clean | | Yes | Inside of Return Duct Clean | |
| Flooring Clean | | Yes | Ceiling at Supply Grills Clean | | Yes | | |
| Room Surfaces Clean | | No | | | | | |
| Trash Removed | | Yes | Exhaust Fans Working | | No | Unapproved Chemicals / Cleaners in Room | |
| Signs of Pests | | No | Drain Traps Wet | | N/A | Air Fresheners in Room | |
| Room Cluttered | | Yes | Food if Stored in Room is in Sealed Containers | | N/A | | |
| Mechanical Equipment Location | | | FISH 206 | | | Mechanical Room Clean | |
| Filters Installed Properly | | Yes | Filters Clean | | Yes | Inside of HVAC Unit Clean | |
| Condensate Pan Clean | | Yes | Cooling Coil Clean | | No | | |
| Fresh Air Intake Location | | | Roof top ▼ | | | Fresh Air Intake Free of Obstruction | |
| Pollutant Sources Near Air Intake | | | No ▼ | | | Yes | |

Observations

slightly elevated CO2

Instructor complains of classroom being stuffy and warmer than other classrooms in the area. Dust and debris on walls in the air handler room due to the room being used as a return air plenum, needs to be cleaned.

Corrective Actions to be Completed by Site Based Staff

| | |
|--|---|
| Replace stained ceiling tiles after repairs | ▼ |
| Coordinate a schedule between HFSP and classroom instructor to clean properly due to clutter | ▼ |
| Clean surfaces in mechanical room | ▼ |
| | ▼ |
| | ▼ |
| | ▼ |
| | ▼ |

Corrective Actions to be Completed by PPO

| | |
|--|---|
| Repair HVAC to reduce humidity level | ▼ |
| Evaluate and repair cause of stained ceiling tiles | ▼ |
| Evaluate & repair for normal function of exhaust fan | ▼ |
| Evaluate the cleaning of the HVAC coil in 206 | ▼ |
| Evaluate supply damper is in normal position | ▼ |
| | ▼ |
| | ▼ |
| | ▼ |

IAQ Assessment

Embassy Creek Elementary

 Evaluation Date November 24, 2014

 Time of Day 2:00

 Outdoor Conditions Temperature 89.2

 Relative Humidity 63.7

 Ambient CO2 440

| | | | | | | | |
|---|---|---|--|---|--|--|---|
| Fish | Temperature | Range | Relative Humidity | Range | CO ² | Range | # Occupants |
| 202 | 75.2 | 72 - 78 | 54.5 | 30% - 60% | 1327 | MAX 700 > Ambient | 21 |
| Noticeable Odor | | No | Visible water damage / staining? | | Visible microbial growth? | | Amount of material affected |
| Ceiling | 2' X 4' Lay in | | No | | No | | |
| Walls | Drywall/Tackboard | | No | | No | | |
| Floor | 12" x 12" Vinyl | | No | | No | | |
| Ceiling Clean | Yes | HVAC Supply Grills Clean | | Yes | HVAC Return Grills Clean | | Yes |
| Walls Clean | Yes | Inside of Supply Duct Clean | | Yes | Inside of Return Duct Clean | | Yes |
| Flooring Clean | Yes | Ceiling at Supply Grills Clean | | Yes | | | |
| Room Surfaces Clean | No | | | | | | |
| Trash Removed | Yes | Exhaust Fans Working | | Yes | Unapproved Chemicals / Cleaners in Room | | No |
| Signs of Pests | No | Drain Traps Wet | | N/A | Air Fresheners in Room | | No |
| Room Cluttered | Yes | Food if Stored in Room is in Sealed Containers | | N/A | | | |
| Mechanical Equipment Location | FISH 206 | | | | | Mechanical Room Clean | No |
| Filters Installed Properly | Yes | Filters Clean | | Yes | Inside of HVAC Unit Clean | | Yes |
| Condensate Pan Clean | Yes | Cooling Coil Clean | | No | | | |
| Fresh Air Intake Location | Roof top ▼ | | | | | Fresh Air Intake Free of Obstruction | Yes |
| Pollutant Sources Near Air Intake | No ▼ | | | | | | |

Observations

slightly elevated CO2
 Instructor complains of classroom being stuffy and warmer than other classrooms in the area. Dust and debris on walls in the air handler room due to the room being used as a return air plenum, needs to be cleaned. Stuffed animals need to be thoroughly cleaned to remove dust, or remove from classroom.

Corrective Actions to be Completed by Site Based Staff

| | |
|---|---|
| Coordinate a schedule between HFSP and classroom | ▼ |
| classroom Instructor to clean properly due to clutter | ▼ |
| Clean stuffed animals or remove from classroom | ▼ |
| Clean surfaces in mechanical room | ▼ |
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Corrective Actions to be Completed by PPO

| | |
|---|---|
| Repair HVAC to reduce CO2 levels | ▼ |
| Evaluate the cleaning of the HVAC coil in 206 | ▼ |
| Evaluate supply damper is in normal position | ▼ |
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