

Aston A. Henry, Director

managing risk with responsibility

754 321-1900

Telephone:

| Risk Management Department | | Fax: | 754 321-1917 |
|----------------------------|---|--------------|---------------------------------------|
| October 8, 20 | 013 Signature on File | For Custodia | al Supervisor Use Only |
| TO: | Janice Crosby, Principal Flamingo Elementary School | | Issues Addressed Issues Not Addressed |
| FROM: | Richard Rosa, Project Manager Risk Management Department | | |
| SUBJECT: | Indoor Air Quality (IAQ) Assessment | - | |

On September 18, 2013, I conducted an assessment at **Flamingo 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, Task Assigned Chief Facilities & Construction Officer, 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.

| Flamingo Elementary Eva | raluation Date September 18, 2013 Time of Day 12:45 | | | | |
|---|--|--|--|--|--|
| Outdoor Conditions Temperature 88.1 | Relative Humidity 71.3 Ambient CO2 456 | | | | |
| Fish Temperature Range Relative Hu 135 74.4 72 - 78 39.4 | | | | | |
| Noticeable Odor No Visible water d | | | | | |
| Ceiling 2' x 4' Yes | No 3 tiles < 1 sq ft | | | | |
| Walls Drywall No | No | | | | |
| Floor Carpet No | No | | | | |
| Ceiling Clean No HVAC S Grills C | | | | | |
| | of Supply Yes Inside of Return Yes | | | | |
| Room Surfaces Yes Ceiling Clean Grills C | at Supply Clean Yes | | | | |
| Trash Removed Yes Exhaust Fans | S Working N/A Unapproved Chemicals / Cleaners in Room No | | | | |
| Signs of Pests No Drain Train | Traps Wet N/A Air Fresheners No in Room is in Room | | | | |
| in Sealed Conta | | | | | |
| Mechanical Equipment Location FISH 109 | Mechanical Room Clean Yes | | | | |
| | ters Clean No Inside of HVAC Unit Clean Yes | | | | |
| Condensate Pan Clean Yes Cooling C | Coil Clean Yes | | | | |
| Fresh Air Intake Location Roof top | ▼ Fresh Air Intake Free of Obstruction Yes | | | | |
| Pollutant Sources Near Air Intake | ▼ | | | | |
| Observations | | | | | |
| The roofers have a work order, follow up with roofing department due to the leaks are active. | | | | | |
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| | | | | | |
| Corrective Actions to be Completed by Site Based Staff Corrective Actions to be Completed by PPO | | | | | |
| Install new A/C filters, tape and date. ▼ Evaluate and repair cause of stained ceiling tiles Follow up with roofers ▼ | | | | | |
| Follow up with roofers | ▼ | | | | |
| | ▼ ▼ | | | | |
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Flamingo Elementary

Evaluation Date September 18, 2013

Time of Day

2:15

| Outdoor Conditions Temperature 88.1 | Relative Humidity 71.3 Ambient CO2 456 |
|---|---|
| Fish Temperature Range Relative Heating 145 72.6 72 - 78 40.2 | |
| Noticeable Odor No Visible water of staining | |
| Ceiling 2' x 4' No | No No |
| Walls Drywall No | No L |
| Floor 12" x 12" Vinyl No | No L |
| Ceiling Clean Yes HVAC | Supply Clean Yes HVAC Return Grills Clean Yes |
| Walls Clean Yes | of Supply Inside of Return |
| Flooring Clean Yes Duct C | |
| Room Surfaces Yes Ceiling Clean Grills C | g at Supply Clean |
| Trash Removed Yes Exhaust Fan | ns Working N/A Unapproved Chemicals / Cleaners in Room No |
| Signs of Pests No Drain | n Traps Wet N/A |
| Room Cluttered No Food if Stored in Sealed Cont | |
| Mechanical Equipment Location FISH 153 | Mechanical Room Clean Yes |
| Filters Installed Properly Yes Filt | Iters Clean No Inside of HVAC Unit Clean Yes |
| Condensate Pan Clean Yes Cooling | Coil Clean Yes |
| Fresh Air Intake Location Roof top | Fresh Air Intake Free |
| Pollutant Sources Near Air Intake | of Obstruction Tes |
| Observations | |
| | |
| | |
| | |
| Corrective Actions to be Completed by Site Based | Staff Corrective Actions to be Completed by PPO |
| Install new A/C filters, tape and date. | ▼ |
| Clean ceilings around HVAC supply grills | <u> </u> |
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| | ▼ ▼ |
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| Flamin | go Elementary Evaluation | September 18, 2013 | Time of Day 2:00 | | | |
|---|---|---|---|----------|--|--|
| Outdoor Conditions Temp | erature 88.1 Relat | ive Humidity 71.3 | Ambient CO2 456 |] | | |
| | Range Relative Humidity 72 - 78 58.4 | Range <u>CO²</u> 30% - 60% 715 | Range # Occupa MAX 700 > Ambient | ints | | |
| Noticeable Odor No | Visible water damage / staining? | Visible microbial growth? | Amount of material affected | | | |
| Ceiling 2' x 4' | Yes | No | 3 stains < 1 sq ft | \Box | | |
| Walls Drywall | No | No | | \Box | | |
| Floor 12" x 12" Vinyl | No | No | | | | |
| Ceiling Clean No | HVAC Supply Grills Clean | No | HVAC Return Grills Clean | s | | |
| Walls Clean Yes Flooring Clean Yes | Inside of Supply Duct Clean | Yes | Inside of Return Duct Clean | 5 | | |
| Room Surfaces Yes Clean | Ceiling at Suppl Grills Clean | y No | | | | |
| Trash Removed Yes | Exhaust Fans Workin | g N/A | Unapproved Chemicals / Cleaners in Room | <u> </u> | | |
| Signs of Pests No | Drain Traps We | et N/A | Air Fresheners No | ٦l | | |
| Room Cluttered Yes | Food if Stored in Room in Sealed Containers | is N/A | in Room | <u>-</u> | | |
| Mechanical Equipment Locatio | n FISH 170 | | Mechanical Room Clean Ye | s | | |
| Filters Installed Properly | 'es Filters Clear | Yes I | nside of HVAC Unit Clean Ye | s | | |
| Condensate Pan Clean Y | Cooling Coil Clear | n Yes | | | | |
| Fresh Air Intake Location | Roof top | ▼ | Fresh Air Intake Free Ye | s | | |
| Pollutant Sources Near Air Intake | No | ▼ | of Obstruction | | | |
| Observations | | | | | | |
| The roofers have a work order, follow up with roofing department due to the leaks are active. | | | | | | |
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| Corrective Actions to be Completed by Site Based Staff Corrective Actions to be Completed by PPO | | | | | | |
| Follow up with roofers ▼ Evaluate and repair cause of stained ceiling tiles ▼ | | | | | | |
| Clean ceilings around HVAC supply grills | | | | | | |

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Clean HVAC supply grills with Wexcide

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| Flamii | ngo Elementary | Evaluation Dat | e September 18, 201 | 3 Time of Day 2 | :00 |
|---|----------------|--------------------------------|---------------------------------|--|---------|
| Outdoor Conditions Temp | perature 88.1 | Relative | Humidity 71.3 | Ambient CO2 45 | 56 |
| Fish Temperature 173 70.3 | | i | Range CC % - 60 % 698 | | cupants |
| Noticeable Odor No | | ater damage / | Visible microbial growth? | Amount of material affected | |
| Ceiling 2' x 4' | | /es | No | 1 stain < 1 sq ft | |
| Walls Drywall | | No | No | | |
| Floor 12" x 12" Vinyl | | No | No | | |
| Ceiling Clean No | | /AC Supply ills Clean | Yes | HVAC Return Grills Clean | Yes |
| Walls Clean Yes Flooring Clean Yes | | side of Supply uct Clean | Yes | Inside of Return Duct Clean | Yes |
| Room Surfaces Yes Clean | | eiling at Supply ills Clean | No | | |
| Trash Removed Yes | Exhaus | t Fans Working | Yes | Unapproved Chemicals / Cleaners in Room | No |
| Signs of Pests No | Γ | Prain Traps Wet | N/A | | |
| Room Cluttered Yes | | ored in Room is Containers | N/A | Air Fresheners in Room | Yes |
| Mechanical Equipment Locati | ion FISH 170 | | | Mechanical Room Clean | Yes |
| Filters Installed Properly | Yes | Filters Clean | Yes | Inside of HVAC Unit Clean | Yes |
| Condensate Pan Clean | Yes Coo | ling Coil Clean | Yes | | |
| Fresh Air Intake Location | Roof top | | ▼ | Fresh Air Intake Free of Obstruction | Yes |
| Pollutant Sources Near Air Intake | No | | ▼ | 0. 050 | |
| Observations | | | | | |
| The roofers have a work order, follow up with roofing department due to the leaks are active. | | | | | |
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| Corrective Actions to be Completed by Site Based Staff Follow up with roofers ▼ Corrective Actions to be Completed by PPO Evaluate and repair cause of stained ceiling tiles ▼ | | | | | |
| Clean ceilings around HVAC supply grills | | | | | |