

Aston A. Henry, Director
Risk Management Department

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

March 19, 2014

Signature on File

TO: Roy Norton, Manager
Physical Plant Operations

FROM: Robert Krickovich, Coordinator I, LEA
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/> | |
| <hr/> | |

On February 19, 2014, I conducted an assessment at **Twin Lakes Administration - PPO**. 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
Aston Henry, Director, Risk Management
Sonja Coley, Senior Project Manager, Facilities & Construction
Broward Teachers Union
Federation of Public Employees

RK/tc
Enc.

IAQ Assessment

Twin Lakes Administration

Evaluation Date February 19, 2014

Time of Day 1:00

Outdoor Conditions Temperature 88.3

Relative Humidity 43.8

Ambient CO2 443

| | | | | | | | |
|---|--|---|--|---|---|--|---|
| Fish | Temperature | Range | Relative Humidity | Range | CO ² | Range | # Occupants |
| 193 | 69.6 | 72 - 78 | 52.3 | 30% - 60% | 732 | MAX 700 > Ambient | 1 |
| Noticeable Odor | | Visible water damage / staining? | | Visible microbial growth? | | Amount of material affected | |
| No | | No | | No | | | |
| Ceiling | 2' X 4' Lay in | | No | No | | | |
| Walls | Wood Paneling | | No | No | | | |
| Floor | Carpet | | 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 | No |
| Flooring Clean | Yes | Ceiling at Supply Grills Clean | Yes | | |
| Room Surfaces Clean | Yes | | | | |

| | | | | | |
|----------------|---|--|---|---|--|
| Trash Removed | Yes | Exhaust Fans Working | N/A | Unapproved Chemicals / Cleaners in Room | No |
| Signs of Pests | No | Drain Traps Wet | N/A | Air Fresheners in Room | No |
| Room Cluttered | No | Food if Stored in Room is in Sealed Containers | N/A | | |

| | | | | | |
|-------------------------------|---|--------------------|---|---|---|
| Mechanical Equipment Location | FISH 185A | | Mechanical Room Clean | Yes | |
| 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 | None ▼ | | |

Observations

| |
|--|
| |
| |
| |
| |
| |
| |
| |
| |

Corrective Actions to be Completed by Site Based Staff

| | |
|----------------------------------|---|
| Keep thermostat in AUTO position | ▼ |
| | ▼ |
| | ▼ |
| | ▼ |
| | ▼ |
| | ▼ |
| | ▼ |
| | ▼ |
| | ▼ |

Corrective Actions to be Completed by PPO

| | |
|---|---|
| Clean HVAC coil and pan | ▼ |
| Clean inside of return drop in room 193 | ▼ |
| Set temperature to 72 - 78 degrees | ▼ |
| Keep thermostat in AUTO position | ▼ |
| | ▼ |
| | ▼ |
| | ▼ |
| | ▼ |
| | ▼ |

IAQ Assessment

Twin Lakes Administration

Evaluation Date

Time of Day

Outdoor Conditions Temperature

Relative Humidity

Ambient CO2

| | | | | | | | |
|----------------------------------|---|--------------------------------------|-----------------------------------|--|----------------------------------|---|--|
| Fish | Temperature | Range | Relative Humidity | Range | CO ² | Range | # Occupants |
| <input type="text" value="194"/> | <input type="text" value="70.7"/> | <input type="text" value="72 - 78"/> | <input type="text" value="51.4"/> | <input type="text" value="30% - 60%"/> | <input type="text" value="784"/> | <input type="text" value="MAX 700 > Ambient"/> | <input type="text" value="2"/> |
| Noticeable Odor | | <input type="text" value="Yes"/> | Visible water damage / staining? | | Visible microbial growth? | | Amount of material affected |
| Ceiling | <input type="text" value="2' X 4' Lay in"/> | | <input type="text" value="No"/> | | <input type="text" value="No"/> | | <input type="text"/> |
| Walls | <input type="text" value="Wood Paneling"/> | | <input type="text" value="No"/> | | <input type="text" value="No"/> | | <input type="text"/> |
| Floor | <input type="text" value="Carpet"/> | | <input type="text" value="Yes"/> | | <input type="text" value="No"/> | | <input type="text" value="2 sq ft (spill)"/> |

| | | | | | |
|---------------------|----------------------------------|--------------------------------|----------------------------------|-----------------------------|----------------------------------|
| Ceiling Clean | <input type="text" value="Yes"/> | HVAC Supply Grills Clean | <input type="text" value="Yes"/> | HVAC Return Grills Clean | <input type="text" value="Yes"/> |
| Walls Clean | <input type="text" value="Yes"/> | Inside of Supply Duct Clean | <input type="text" value="Yes"/> | Inside of Return Duct Clean | <input type="text" value="No"/> |
| Flooring Clean | <input type="text" value="No"/> | Ceiling at Supply Grills Clean | <input type="text" value="Yes"/> | | |
| Room Surfaces Clean | <input type="text" value="Yes"/> | | | | |

| | | | | | |
|----------------|----------------------------------|--|----------------------------------|---|---------------------------------|
| Trash Removed | <input type="text" value="Yes"/> | Exhaust Fans Working | <input type="text" value="N/A"/> | Unapproved Chemicals / Cleaners in Room | <input type="text" value="No"/> |
| Signs of Pests | <input type="text" value="No"/> | Drain Traps Wet | <input type="text" value="N/A"/> | Air Fresheners in Room | <input type="text" value="No"/> |
| Room Cluttered | <input type="text" value="No"/> | Food if Stored in Room is in Sealed Containers | <input type="text" value="N/A"/> | | |

| | | | | | |
|-------------------------------|--|--------------------|----------------------------------|----------------------------------|----------------------------------|
| Mechanical Equipment Location | <input type="text" value="FISH 185A"/> | | Mechanical Room Clean | <input type="text" value="Yes"/> | |
| Filters Installed Properly | <input type="text" value="Yes"/> | Filters Clean | <input type="text" value="Yes"/> | Inside of HVAC Unit Clean | <input type="text" value="Yes"/> |
| Condensate Pan Clean | <input type="text" value="Yes"/> | Cooling Coil Clean | <input type="text" value="No"/> | | |

| | | | |
|-----------------------------------|---------------------------------------|--------------------------------------|----------------------------------|
| Fresh Air Intake Location | <input type="text" value="Roof top"/> | Fresh Air Intake Free of Obstruction | <input type="text" value="Yes"/> |
| Pollutant Sources Near Air Intake | <input type="text" value="None"/> | | |

Observations

Musty odor appears to be coming from wood cabinets on wall - carpet worn / dirty / stained

Corrective Actions to be Completed by Site Based Staff

| | |
|----------------------------------|--------------------------------|
| Remove wood cabinets from room | <input type="text" value="▼"/> |
| Thoroughly clean stained carpet | <input type="text" value="▼"/> |
| Clean dust from wall surfaces | <input type="text" value="▼"/> |
| Keep thermostat in AUTO position | <input type="text" value="▼"/> |
| | <input type="text" value="▼"/> |
| | <input type="text" value="▼"/> |
| | <input type="text" value="▼"/> |
| | <input type="text" value="▼"/> |

Corrective Actions to be Completed by PPO

| | |
|---|--------------------------------|
| Clean HVAC coil and pan | <input type="text" value="▼"/> |
| Remove wood wall cabinets | <input type="text" value="▼"/> |
| Clean inside of return drop in room 194 | <input type="text" value="▼"/> |
| Set temperature to 72 - 78 degrees | <input type="text" value="▼"/> |
| Keep thermostat in AUTO position | <input type="text" value="▼"/> |
| | <input type="text" value="▼"/> |
| | <input type="text" value="▼"/> |
| | <input type="text" value="▼"/> |