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March 2, 2007

Signature on File

TO: Tom Lindner, Director
Physical Plant Operations

FROM: Robert J. Krickovich, Coordinator, LEA
Facilities and Construction Management, Environmental Division

SUBJECT: Indoor Air Quality (IAQ) Assessment
Call Center - FISH 010, 262, 263, 264, 270 and 272

On February 16, 2007 I conducted an assessment of FISH 010, 262, 263, 264, 270 and 272 at **Physical Plant Operations Call Center**. 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.

Should any questions arise, or if the current concerns continue after the attached recommendations have been addressed, please feel free to contact me at 754-321-1638.

cc: Jeffrey S. Moquin, Director, Risk Management
Mark Dorsett, Manager 1, Physical Plant Operations Division, Zone 1
Roy Norton, Manager Custodial/Grounds, Physical Plant Operations Division

RK/tc
Enc.

IAQ Assessment

Physical Plant Operations - Call Center

Location Number
 Evaluation Requested
 Evaluation Date

Time of Day

Outdoor Conditions Temperature Relative Humidity Ambient CO2

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
<input type="text" value="010"/>	<input type="text" value="70.1"/>	<input type="text" value="72 - 78"/>	<input type="text" value="47.2"/>	<input type="text" value="30% - 60%"/>	<input type="text" value="667"/>	<input type="text" value="Max 700 > Ambient"/>	<input type="text" value="1"/>
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
<input type="text" value="No"/>		<input type="text" value="Yes"/>		<input type="text" value="No"/>		<input type="text" value="2 ceiling tiles"/>	
Ceiling Type	<input type="text" value="2 x 2 Lay In"/>		<input type="text" value="Yes"/>	<input type="text" value="No"/>		<input type="text" value="2 ceiling tiles"/>	
Wall Type	<input type="text" value="Drywall"/>		<input type="text" value="No"/>	<input type="text" value="No"/>		<input type="text" value="None"/>	
Flooring	<input type="text" value="Carpet"/>		<input type="text" value="No"/>	<input type="text" value="No"/>		<input type="text" value="None"/>	

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Remove and replace stained ceiling tiles"/>
Walls	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
Flooring	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
HVAC Supply Grills	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Clean with Wexcide disinfectant"/>
HVAC Return Grills	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Clean with Wexcide disinfectant"/>
Ceiling at Supply Grills	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
Surfaces in Room	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>

Observations

Findings: Corridor

- Occupants advised that there is an odor first thing in the morning
- 2 stained ceiling tiles over fire alarm panel
- Heavy dust and debris on HVAC supply and return grills and on ceiling at HVAC supply grills
- A/C filters were packed solid with dust and dirt and were being pulled into the return box allowing bypass of filtration
- Dust build up on HVAC coils

-Recommendations:

Site Based Maintenance:

- Clean HVAC supply and return grills with Wexcide disinfectant solution
- Remove and replace A/C filters and ensure that they are changed regularly
- 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 cause of stained ceiling tiles over fire alarm panel and replace ceiling tiles as appropriate
- Clean HVAC coils

IAQ Assessment

Physical Plant Operations - Call Center

Location Number
 Evaluation Requested
 Evaluation Date

Time of Day

Outdoor Conditions Temperature Relative Humidity Ambient CO2

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
<input type="text" value="262"/>	<input type="text" value="74.6"/>	<input type="text" value="72 - 78"/>	<input type="text" value="55.9"/>	<input type="text" value="30% - 60%"/>	<input type="text" value="841"/>	<input type="text" value="Max 700 > Ambient"/>	<input type="text" value="2"/>
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
<input type="text" value="No"/>		<input type="text" value="Yes"/>		<input type="text" value="No"/>		<input type="text" value="1 ceiling tile"/>	
Ceiling Type		<input type="text" value="2 x 4 Lay In"/>		<input type="text" value="Yes"/>		<input type="text" value="No"/>	
Wall Type		<input type="text" value="Drywall"/>		<input type="text" value="Yes"/>		<input type="text" value="No"/>	
Flooring		<input type="text" value="Carpet"/>		<input type="text" value="Yes"/>		<input type="text" value="No"/>	

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Remove and replace stained ceiling tile"/>
Walls	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Remove and replace as appropriate"/>
Flooring	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Remove and replace as appropriate"/>
HVAC Supply Grills	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value=""/>
HVAC Return Grills	<input type="text" value=""/>	<input type="text" value=""/>	<input type="text" value=""/>	<input type="text" value="N/A - through door"/>
Ceiling at Supply Grills	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value=""/>
Surfaces in Room	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Clean as appropriate"/>

Observations

Findings:

- One stained ceiling tile in the corner of the room
- Wall (32 square feet) and carpet (16 square feet) stained from water intrusion under stained ceiling tile. Water intrusion possibly from where the stairs are attached to the exterior of the building - bad patch around attachment.
- Heavy dust build up on environmental surfaces throughout the room

-Recommendations:

Site Based Maintenance:

- Thoroughly clean all surfaces throughout the room to remove dust and debris
- 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 cause of water intrusion and repair as appropriate. Possibly from where the stairs are attached to the exterior of the building - bad patch around attachment.
- Remove and replace ceiling tile, wall material and carpet as appropriate.

IAQ Assessment

Physical Plant Operations - Call Center

Location Number
 Evaluation Requested
 Evaluation Date

Time of Day

Outdoor Conditions Temperature Relative Humidity Ambient CO2

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
<input type="text" value="263"/>	<input type="text" value="74.2"/>	<input type="text" value="72 - 78"/>	<input type="text" value="57.2"/>	<input type="text" value="30% - 60%"/>	<input type="text" value="941"/>	<input type="text" value="Max 700 > Ambient"/>	<input type="text" value="2"/>
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
<input type="text" value="No"/>		<input type="text" value="No"/>		<input type="text" value="No"/>		<input type="text" value="None"/>	
Ceiling Type	<input type="text" value="2 x 4 Lay In"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value="None"/>			
Wall Type	<input type="text" value="Drywall"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value="None"/>			
Flooring	<input type="text" value="Carpet"/>	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="Left of door"/>			

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
Walls	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
Flooring	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
HVAC Supply Grills	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
HVAC Return Grills	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text" value="N/A - through door"/>
Ceiling at Supply Grills	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
Surfaces in Room	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Clean as appropriate"/>

Observations

Findings:

- Occupants advised that there is an odor first thing in the morning
- Stains on carpet to the left of the door when you walk in the room. Appears to be coming up from the floor from time to time - possibly old floor drain under the carpet is backing up.
- 1 live plant in the room
- Food scraps on floor under desk
- Heavy dust build up on environmental surfaces throughout the room

-Recommendations:

Site Based Maintenance:

- Initiate a work order through PPO next time the carpet is wet to investigate cause of moisture
- Remove live plant from the room
- Thoroughly clean floor and all surfaces throughout the room to remove dust and debris
- Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate

IAQ Assessment

Physical Plant Operations - Call Center

Location Number
 Evaluation Requested
 Evaluation Date

Time of Day

Outdoor Conditions Temperature Relative Humidity Ambient CO2

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
<input type="text" value="264"/>	<input type="text" value="75.6"/>	<input type="text" value="72 - 78"/>	<input type="text" value="53.3"/>	<input type="text" value="30% - 60%"/>	<input type="text" value="967"/>	<input type="text" value="Max 700 > Ambient"/>	<input type="text" value="12"/>
Noticeable Odor		<input type="text" value="No"/>	Visible water damage / staining?		Visible microbial growth?		Amount of material affected
Ceiling Type	<input type="text" value="2 x 4 Lay In"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value="No"/>		<input type="text" value="None"/>	
Wall Type	<input type="text" value="Drywall"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value="No"/>		<input type="text" value="None"/>	
Flooring	<input type="text" value="Carpet"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value="No"/>		<input type="text" value="None"/>	

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Clean as appropriate"/>
Walls	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Clean as appropriate"/>
Flooring	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Clean and sanitize"/>
HVAC Supply Grills	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Clean with Wexcide disinfectant"/>
HVAC Return Grills	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Clean with Wexcide disinfectant"/>
Ceiling at Supply Grills	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Clean as appropriate"/>
Surfaces in Room	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Clean as appropriate"/>

Observations

Findings:

- Occupants advised that there is an odor first thing in the morning
- Dust and debris on ceiling and walls
- Stains on carpet
- Heavy dust and debris on HVAC supply and return grills and on ceiling at HVAC supply grills
- A/C filters were packed solid with dust and dirt and were being pulled into the return box allowing bypass of filtration
- Heavy dust build up on environmental surfaces throughout the room
- Dust build up on HVAC coils

-Recommendations:

Site Based Maintenance:

- Thoroughly clean ceiling, walls and all surfaces throughout the room to remove dust and debris
- Thoroughly clean and sanitize carpet
- Clean HVAC supply and return grills with Wexcide disinfectant solution
- Remove and replace A/C filters and ensure that they are changed regularly
- 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:

- Clean HVAC coils

IAQ Assessment

Physical Plant Operations - Call Center

Location Number
 Evaluation Requested
 Evaluation Date

Time of Day

Outdoor Conditions Temperature Relative Humidity Ambient CO2

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
<input type="text" value="270"/>	<input type="text" value="76.5"/>	<input type="text" value="72 - 78"/>	<input type="text" value="49.2"/>	<input type="text" value="30% - 60%"/>	<input type="text" value="716"/>	<input type="text" value="Max 700 > Ambient"/>	<input type="text" value="3"/>
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
<input type="text" value="No"/>		<input type="text" value="Yes"/>		<input type="text" value="No"/>		<input type="text" value="2 ceiling tiles"/>	
Ceiling Type		Wall Type		Flooring			
<input type="text" value="2 x 4 Lay In"/>		<input type="text" value="Drywall"/>		<input type="text" value="12 x 12 Vinyl"/>			
		<input type="text" value="No"/>		<input type="text" value="No"/>		<input type="text" value="None"/>	
		<input type="text" value="No"/>		<input type="text" value="No"/>		<input type="text" value="None"/>	

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
Walls	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
Flooring	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
HVAC Supply Grills	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Clean with Wexcide disinfectant"/>
HVAC Return Grills	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Clean with Wexcide disinfectant"/>
Ceiling at Supply Grills	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Remove and replace stained ceiling tiles"/>
Surfaces in Room	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Clean as appropriate"/>

Observations

Findings:

- Occupants advised that there is an odor first thing in the morning
- 2 stained ceiling tiles at HVAC supply grills
- Heavy dust and debris on HVAC supply and return grills and on ceiling at HVAC supply grills
- A/C filters were packed solid with dust and dirt and were being pulled into the return box allowing bypass of filtration
- Heavy dust build up on environmental surfaces throughout the room
- Dust build up on HVAC coils

-Recommendations:

Site Based Maintenance:

- Clean HVAC supply and return grills with Wexcide disinfectant solution
- Remove and replace A/C filters and ensure that they are changed regularly
- 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 cause of stained ceiling tiles at HVAC supply grills and replace ceiling tiles as appropriate
- Clean HVAC coils

IAQ Assessment

Physical Plant Operations - Call Center

Location Number
 Evaluation Requested
 Evaluation Date

Time of Day

Outdoor Conditions Temperature Relative Humidity Ambient CO2

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
<input type="text" value="272"/>	<input type="text" value="76.8"/>	<input type="text" value="72 - 78"/>	<input type="text" value="42.7"/>	<input type="text" value="30% - 60%"/>	<input type="text" value="709"/>	<input type="text" value="Max 700 > Ambient"/>	<input type="text" value="2"/>
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
<input type="text" value="No"/>		<input type="text" value="No"/>		<input type="text" value="No"/>		<input type="text" value="None"/>	
Ceiling Type	<input type="text" value="2 x 4 Lay In"/>		<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value="None"/>		
Wall Type	<input type="text" value="Drywall"/>		<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value="None"/>		
Flooring	<input type="text" value="Carpet"/>		<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value="None"/>		

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Clean as appropriate"/>
Walls	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Clean as appropriate"/>
Flooring	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value=""/>
HVAC Supply Grills	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value=""/>
HVAC Return Grills	<input type="text" value=""/>	<input type="text" value=""/>	<input type="text" value=""/>	<input type="text" value="N/A - through door"/>
Ceiling at Supply Grills	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value=""/>
Surfaces in Room	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Clean as appropriate"/>

Observations

Findings:

- Dust and debris on ceiling and walls
- Ceiling tile in closet is missing and open to the space above
- Heavy dust build up on environmental surfaces throughout the room
- 1 live plant with visible microbial growth on the soil

-Recommendations:

Site Based Maintenance:

- Thoroughly clean ceiling, walls and all surfaces throughout the room to remove dust and debris
- Replace missing ceiling tile in closet
- Remove live plant from the room
- Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate