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May 7, 2007

Signature on File

TO: Israel Canales, Manager
Administrative Sites

FROM: Edward See, Project Manager Occupational Health and Environmental Control
Risk Management Department

SUBJECT: Indoor Air Quality (IAQ) Assessment
FISH 850, 851 and 852

On May 3, 2007 I conducted an assessment of FISH 850, 851 and 852 at **HRD Administration**. 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 754-321-3200.

cc: Jeffrey S. Moquin, Director, Risk Management
Henry Verdugo, Project Manager, Facilities and Construction Management
Mark Dorsett, Manager 1, Physical Plant Operations Division, Zone 1
Roy Norton, Manager Custodial/Grounds, Physical Plant Operations Division
Robert Krickovich, Coordinator, LEA, Facilities and Construction Management

ES/tc
Enc.

IAQ Assessment

HRD Administration

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="850"/>	<input type="text" value="74.8"/>	<input type="text" value="72 - 78"/>	<input type="text" value="68.6"/>	<input type="text" value="30% - 60%"/>	<input type="text" value="540"/>	<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 Type	<input type="text" value="2 x 4 Lay In"/>		<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="1 Tile - North Side"/>		
Wall Type	<input type="text" value="Drywall"/>		<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="@50 SF Behind Dry Erase Board"/>		
Flooring	<input type="text" value="Vinyl"/>		<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 tile"/>
Walls	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Remove and replace wall material"/>
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="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" value=""/>
Surfaces in Room	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value=""/>

Observations

Findings:

- Odor in room from Wexcide
- Visible microbial growth on South wall (shared wall between modulares). HFSP indicated that wall has been wiped and painted but growth returns.
- Elevated moisture content (18-25) in South, East and North walls. South wall has visible microbial growth and staining of @50 square feet behind dry erase board.
- Signs of leaks in false ceiling plenum
- One stained ceiling tile on North side of room
- Dust and debris on HVAC return grill
- Humidity level was elevated at the time of the assessment
- Dust and debris on restroom exhaust fan. Visible water stains on North wall and ceiling in restroom.
- 1/4 inch gap at exterior East wall between foundation and sod. Possible water ponding at foundation.

-Recommendations:

Site Based Maintenance:

- Clean HVAC return grill with Wexcide disinfectant solution
- Remove and replace stained ceiling tile
- Clean restroom exhaust fan with Wexcide disinfectant solution
- 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 South, East and North walls for cause of elevated moisture content and staining and repair as appropriate. Remove and replace wall material as appropriate.
- Evaluate North wall and ceiling in restroom for cause of staining and repair as appropriate. Clean wall and ceiling material as appropriate.
- Evaluate HVAC for proper operation and repair as appropriate to lower humidity level
- Evaluate 1/4 inch gap at exterior East wall between foundation and sod and repair as appropriate

PREVIOUS WORK ORDER EQ00771

IAQ Assessment

HRD Administration

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Outdoor Conditions Temperature Relative Humidity Ambient CO2

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
<input type="text" value="851"/>	<input type="text" value="72.3"/>	<input type="text" value="72 - 78"/>	<input type="text" value="60.4"/>	<input type="text" value="30% - 60%"/>	<input type="text" value="519"/>	<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="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="Yes"/>	<input type="text" value="No"/>	<input type="text" value="@ 2 SF South Wall"/>		
Flooring	<input type="text" value="Vinyl"/>		<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="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="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
HVAC Return Grills	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
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:

- Visible water staining on South wall - @ 2 square feet
- Dust and debris on floor
- Non-approved chemicals in room (Pledge)
- Dust and debris on restroom exhaust fan
- Gap between base and ground at East door - slope water away from the building
- Paint is peeling on East wall (exterior) 3 inches wide from roof to base and on West wall

-Recommendations:

Site Based Maintenance:

- Clean and sanitize floor
- Remove non-approved chemicals from room
- Clean restroom exhaust fan with Wexcide disinfectant solution
- 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 East wall for cause of staining and repair as appropriate
- Evaluate gap at East door and repair as appropriate to slope water away from the building
- Evaluate cause of paint peeling on East and West wall (exterior) and repair as appropriate

IAQ Assessment

HRD Administration

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Outdoor Conditions Temperature Relative Humidity Ambient CO2

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
<input type="text" value="852"/>	<input type="text" value="75.1"/>	<input type="text" value="72 - 78"/>	<input type="text" value="57.9"/>	<input type="text" value="30% - 60%"/>	<input type="text" value="604"/>	<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="Yes"/>	<input type="text" value="No"/>	<input type="text" value="South wall - various"/>		
Flooring	<input type="text" value="Vinyl"/>		<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="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"/>
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" 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:

- Visible water staining on South wall - various areas - and West door
- Dust and debris on HVAC return grill
- Dust and debris on restroom exhaust fan
- Cockroach carcasses on floor
- 6 inch gap at East door (exterior) between base and foundation
- Paint is peeling on West and South exterior wall and on East wall 3 inches wide from roof to base

-Recommendations:

Site Based Maintenance:

- Clean HVAC return grill with Wexcide disinfectant solution
- Clean restroom exhaust fan with Wexcide disinfectant solution
- 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 East wall for cause of staining and repair as appropriate
- Initiate a work order for pest control to visit site
- Evaluate 6 inch gap at East door (exterior) and repair as appropriate
- Evaluate cause of paint peeling on East, West and South wall (exterior) and repair as appropriate