

RISK MANAGEMENT...

managing risk with responsibility

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May 22, 2009

Signature on File

TO: Mr. Karlton Johnson, Principal
Blanche Ely High School

FROM: Edward See, Project Manager
Risk Management Department

SUBJECT: Indoor Air Quality (IAQ) Assessment
FISH 662, 663, 665 and 667

For Custodial Supervisor Use Only	
<input type="checkbox"/>	Custodial Issues Addressed
<input type="checkbox"/>	Custodial Issues Not Addressed

On March 31, 2009 I conducted an assessment of FISH 662, 663, 665 and 667 at **Blanche Ely High School**. 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.

Please ensure that your Head Facilities Serviceperson receives a copy of this correspondence so that the recommendations requiring their attention can be addressed. Within two weeks a representative from the Custodial/Grounds Department will conduct a follow-up visit to ensure that all 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 me at 754-321-1900.

cc: Sharon Airaghi, Area Superintendent
Jackie Haywood, Area Director
Jeffrey S. Moquin, Executive Director, Support Operations
Robert Bellot, Project Manager, Facilities and Construction Management
Lynn Cavall, Broward Teachers Union
Roy Jarrett, National Federation of Public and Private Employees
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

Location Number 0361

Blanche Ely High School

Evaluation Requested March 30, 2009

Time of Day 8:30 am

Evaluation Date March 31, 2009

Outdoor Conditions Temperature 83.1 Relative Humidity 69.5 Ambient CO2 370

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
662	70.5	72 - 78	64.2	30% - 60%	1004	Max 700 > Ambient	20
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
Ceiling Type		No		No		None	
Wall Type		No		No		None	
Flooring		No		No		None	

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	Yes	No	No	
Walls	Yes	No	No	
Flooring	Yes	No	No	
HVAC Supply Grills	Yes	No	No	
HVAC Return Grills	Yes	No	No	
Ceiling at Supply Grills	Yes	No	No	
Surfaces in Room	Yes	No	No	

Observations

Findings:

- Humidity level was slightly elevated at the time of the assessment

Recommendations:

Site Based Maintenance:

- 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 HVAC system for proper operation and repair as appropriate to lower humidity level

Note: Work Orders EQ01252 and EQ01253 generated 3/25/09

IAQ Assessment

Location Number 0361

Blanche Ely High School

Evaluation Requested March 30, 2009

Time of Day 8:30 am

Evaluation Date March 31, 2009

Outdoor Conditions Temperature 83.1 Relative Humidity 69.5 Ambient CO2 370

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
663	71.7	72 - 78	63.8	30% - 60%	1087	Max 700 > Ambient	20
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
No		Yes		No		1 ceiling tile	
Ceiling Type	2 x 4		No		None		
Wall Type	Drywall/Plaster		No		None		
Flooring	12 x 12 Vinyl		No		None		

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	No	Yes	Yes	Remove and replace ceiling tile
Walls	Yes	No	No	
Flooring	Yes	No	No	
HVAC Supply Grills	Yes	No	No	
HVAC Return Grills	Yes	No	No	
Ceiling at Supply Grills	Yes	No	No	
Surfaces in Room	Yes	No	No	

Observations

Findings:

- One stained ceiling tile at exhaust hood
- Humidity level was slightly elevated at the time of the assessment

Recommendations:

Site Based Maintenance:

- Remove and replace stained ceiling tile at exhaust hood
- 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 HVAC system for proper operation and repair as appropriate to lower humidity level

Note: Work Orders EQ01252 and EQ01253 generated 3/25/09

IAQ Assessment

Location Number 0361

Blanche Ely High School

Evaluation Requested March 30, 2009

Time of Day 8:30 am

Evaluation Date March 31, 2009

Outdoor Conditions Temperature 83.1 Relative Humidity 69.5 Ambient CO2 370

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
665	72	72 - 78	60.1	30% - 60%	968	Max 700 > Ambient	22
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
Ceiling Type		No		No		None	
Wall Type		No		No		None	
Flooring		No		No		None	

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	Yes	No	No	
Walls	Yes	No	No	
Flooring	Yes	No	No	
HVAC Supply Grills	Yes	No	No	
HVAC Return Grills	Yes	No	No	
Ceiling at Supply Grills	Yes	No	No	
Surfaces in Room	Yes	No	No	

Observations

Findings:

- Humidity level was slightly elevated at the time of the assessment
- FISH 006 (corridor) - paint effervescing on South wall at baseboard and around window sills

Recommendations:

Site Based Maintenance:

- 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 HVAC system for proper operation and repair as appropriate to lower humidity level
- Evaluate and repair cause of effervescing paint on South wall at baseboards and around window sills

Note: Work Orders EQ01252 and EQ01253 generated 3/25/09

IAQ Assessment

Location Number 0361

Blanche Ely High School

Evaluation Requested March 30, 2009

Time of Day 8:30 am

Evaluation Date March 31, 2009

Outdoor Conditions Temperature 83.1 Relative Humidity 69.5 Ambient CO2 370

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
667	67.9	72 - 78	69.4	30% - 60%	814	Max 700 > Ambient	5
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
No		No		No		None	
Ceiling Type	2 x 4		No	No	None		
Wall Type	Drywall/Plaster		No	Yes	@ 3 square feet - cabinet		
Flooring	12 x 12 Vinyl		No	No	None		

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	Yes	No	No	
Walls	No	Yes	Yes	Wipe down cabinet with approved disinfectant
Flooring	No	Yes	Yes	Clean and sanitize
HVAC Supply Grills	Yes	No	No	
HVAC Return Grills	Yes	No	No	
Ceiling at Supply Grills	Yes	No	No	
Surfaces in Room	No	Yes	Yes	Clean as appropriate

Observations

Findings: (Chemical Prep Room)

- @ 3 square feet of visible microbial growth in organic and inorganic chemical storage cabinets
- Dust and dirt build up on floor
- East side fume hood generating heat and humidity
- Humid outside air coming from stove exhaust
- Temperature was low and humidity level elevated at the time of the assessment
- Dust and debris build up around sink area (teachers)
- FISH 637 - AHU Room - A/C filters not taped together

Recommendations:

Site Based Maintenance:

- Wipe down chemical storage cabinets with approved disinfectant solution and monitor for return of growth.
- Clean and sanitize floor
- Clean around sink area (teachers)
- Tape A/C filters together - FISH 637 (AHU room)
- 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 HVAC system for proper operation and repair as appropriate to increase temperature and lower humidity level
- Evaluate and repair stove exhaust and fume hood as appropriate