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March 27, 2009

Signature on File

TO: Ms. Carol Roland, Principal
McArthur High School

FROM: Richard Rosa, Project Manager II
Facilities and Construction Management

SUBJECT: Indoor Air Quality (IAQ) Assessment
FISH 1201, 1201A, 1301 and 1301A

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

On March 11, 2009 during a routine asbestos inspection, it was necessary for me to conduct an indoor air quality assessment of FISH 1201, 1201A, 1301 and 1301A at **McArthur 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. 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. 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 754-321-1637.

cc: Dr. Joel Herbst, Area Superintendent
Dr. Gina Eyeran, Area Director
Jeffrey S. Moquin, Executive Director, Support Operations
Julio Gonzalez, Assistant Principal
Frank Girardi, Project Manager, Facilities and Construction Management
Diane Watts, Broward Teachers Union
Roy Jarrett, Federation of Public 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

RR/tc
Enc.

IAQ Assessment

Location Number

McArthur High School

Evaluation Requested

Time of Day

Evaluation Date

Outdoor Conditions Temperature Relative Humidity Ambient CO2

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
<input type="text" value="1201A"/>	<input type="text"/>	<input type="text" value="72 - 78"/>	<input type="text"/>	<input type="text" value="30% - 60%"/>	<input type="text"/>	<input type="text" value="Max 700 > Ambient"/>	<input type="text"/>
Noticeable Odor		<input type="text" value="Yes"/>	Visible water damage / staining?		Visible microbial growth?		Amount of material affected
Ceiling Type	<input type="text"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value="None"/>			
Wall Type	<input type="text"/>	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="None"/>			
Flooring	<input type="text"/>	<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="See below"/>
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="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:

- During a 6-month routine asbestos inspection it was found that the AHU room and FISH 1201 had an overwhelming odor. Coil cleaning was requested from Physical Plant Operations and completed. The odor was still prevalent and duct cleaning was requested from Physical Plant Operations and completed. After the coil and duct cleaning the odor in the room did not improve.
- Indoor and outdoor parameters were not taken at the time of the visit
- Wall material showed signs of deterioration and moisture
- During an inspection by Physical Plant Operations it was determined that the installation of dampers is required

Recommendations:

Site Based Maintenance:

- Assistant principal advised to remove occupants from room on 3/26/09 so work as outlined could be facilitated

Physical Plant Operations:

- Remove air handler unit from FISH 1201A and advise Facilities Environmental Division when completed
- Facilities Environmental Division will secure a contractor to remove wall material as necessary to determine cause of odor
- Coordinate with Facilities Environmental Division to perform put back of wall material as necessary
- Evaluate room for installation of dampers

IAQ Assessment

Location Number

McArthur High School

Evaluation Requested

Time of Day

Evaluation Date

Outdoor Conditions Temperature Relative Humidity Ambient CO2

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
<input type="text" value="1301A"/>	<input type="text"/>	<input type="text" value="72 - 78"/>	<input type="text"/>	<input type="text" value="30% - 60%"/>	<input type="text"/>	<input type="text" value="Max 700 > Ambient"/>	<input type="text"/>
Noticeable Odor		<input type="text" value="Yes"/>	Visible water damage / staining?		Visible microbial growth?		Amount of material affected
Ceiling Type	<input type="text"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value="None"/>			
Wall Type	<input type="text"/>	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="None"/>			
Flooring	<input type="text"/>	<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="See below"/>
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="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:

- During a 6-month routine asbestos inspection it was found that the AHU room and FISH 1301 had a slight odor. Coil cleaning was requested from Physical Plant Operations and completed. The odor was still prevalent and duct cleaning was requested from Physical Plant Operations and completed.
- Indoor and outdoor parameters were not taken at the time of the visit
- Wall material showed signs of deterioration and moisture
- During an inspection by Physical Plant Operations it was determined that the installation of dampers is required
- Work in FISH 1301 and 1301 can be scheduled to be done over the summer

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:

- Remove air handler unit from FISH 1301A over the summer and advise Facilities Environmental Division when completed
- Facilities Environmental Division will secure a contractor to remove wall material as necessary to determine cause of odor
- Coordinate with Facilities Environmental Division to perform put back of wall material as necessary
- Evaluate room for installation of dampers