

Aston A. Henry, Supervisor Risk Management Department

managing risk with responsibility

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| September 21, 2009 | | Signature on File | For Custodial Supervisor Use Onl | | | |
|--------------------|--|---|---|--|--|--|
| TO: | | do Garcia, Principal ddle School | Custodial Issues Addressed Custodial Issues Not Addressed | | | |
| FROM: | | See, Project Manager agement Department | | | | |
| SUBJECT: | | ir Quality (IAQ) Assessment 3, 3910, 3914, 3924 and 3935 | | | | |

On August 21, 2009 Theresa Coleman and I conducted an assessment of FISH 3903, 3910, 3914, 3924 and 3935 at **Nova Middle 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.

Generally, the IAQ Assessment did not identify any existing conditions significantly impacting IAQ and thereby presenting immediate health and safety concerns 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 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: Dr. Joel Herbst, Area Superintendent Steven Friedman, Area Director Jeffrey S. Moquin, Executive Director, Support Operations Aston Henry, Supervisor, Risk Management Scott Gillen, 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

RK/tc Enc.

| | | | IAQ As | sessment | Location Nu | mber | 1311 | |
|--------------------------|-------------|------------------------|----------------------------------|--------------------------|---------------|-------------------------|----------|-------------|
| | | Nova Middl | e School | | Evaluation Re | equested | Septemb | er 21, 2009 |
| Time of Day | 9:00 am |] | | | Evalua | tion Date | Septemb | er 21, 2009 |
| Outdoor Condi | tions Ter | nperature | 83.7 | Relative Humidity | 74.6 | Ambie | nt CO2 | 405 |
| Fish T | Temperature | Range Rela | tive Humidity | Range | CO2 | Ran | ge # | Occupants |
| 3903 | 74.9 | 72 - 78 | 54.2 | 30% - 60% | 473 | Max 700 | > Ambien | t 6 |
| Noticeable Od | or No | | Visible water nage / staining | Visible micro growth? | | Amount of terial affect | | |
| Ceiling Type | 2 x 4 Lay | in | No | No | | | None | |
| Wall Type | Drywal | | No | No | | | None | |
| Flooring | 12 x 12 Vi | nyl | No | No | | | None | |
| | Clean | Minor Dust / Debris | Needs Cleaning | | Corrective | Action Re | equired | |
| Ceiling | Yes | No | No | | | | | |
| Walls | Yes | Νο | No | | | | | |
| Flooring | Yes | No | No | | | | | |
| HVAC Supply | Grills Yes | Νο | No | | | | | |
| HVAC Return | Grills Yes | No | No | | | | | |
| Ceiling at Sup Grills | ply Yes | No | No | | | | | |
| Surfaces in Ro | oom Yes | No | No | | | | | |

Findings:

- Room is heavily pressurized - door will not close on its own

- Minor odor in exterior walkway of building due to off gassing from new building materials

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

Facilities and Construction Management - Contractor:

| | | | IAQ As | sessment | Location Nu | ımber | 1311 | |
|-----------------------------|---------------|------------------------|---------------------------------|--------------------------|--------------|---------------------------|-----------|-------------|
| | | Nova Middle | e School | | Evaluation R | equested | Septemb | er 21, 2009 |
| Time of Day | 9:00 am | | | | Evalu | ation Date | Septemb | er 21, 2009 |
| Outdoor Condition | is Terr | perature 8 | 3.7 | Relative Humidity | 74.6 | Ambie | nt CO2 | 405 |
| Fish Tem | perature F | Range Relat | ive Humidity | Range | CO2 | Ran | nge # | Occupants |
| 3910 | 75.5 7 | 2 - 78 | 56.8 | 30% - 60% | 588 | Max 700 | > Ambient | t 15 |
| Noticeable Odor | No | | /isible water age / staining | Visible micro growth? | | Amount o aterial affec | | |
| Ceiling Type | 2 x 4 Lay | in | No | No | | | None | |
| Wall Type | Drywall | | No | No | | | None | |
| Flooring | 12 x 12 Vir | nyl | No | No | | | None | |
| | Clean | Minor Dust / Debris | Needs Cleaning | | Corrective | Action Re | equired | |
| Ceiling | Yes | No | No | | | | | |
| Walls | Yes | No | No | | | | | |
| Flooring | Yes | No | No | | | | | |
| HVAC Supply Gril | lls Yes | No | No | | | | | |
| HVAC Return Gril | Is Yes | No | No | | | | | |
| Ceiling at Supply Grills | Yes | No | No | | | | | |
| Surfaces in Room | Yes | No | No | | | | | |

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|---------------------------|------------|------------------------|----------------------------------|--------------------------|---------------|-----------------------------|-----------|-------------|
| | | Nova Middl | e School | | Evaluation Re | equested | Septemb | er 21, 2009 |
| Time of Day | 9:00 am |] | | | Evalua | ation Date | Septemb | er 21, 2009 |
| Outdoor Condit | ions Ter | nperature | 33.7 | Relative Humidity | 74.6 | Ambie | nt CO2 | 405 |
| Fish T | emperature | Range Rela | tive Humidity | Range | CO2 | Ran | ige # | Occupants |
| 3914 | 73.4 | 72 - 78 | 59 | 30% - 60% | 774 | Max 700 | > Ambient | t 33 |
| Noticeable Odd | or No | | /isible water nage / staining | Visible micro growth? | | Amount or iterial affect | | |
| Ceiling Type | 2 x 4 Lay | ' in | No | No | | | None | |
| Wall Type | Drywal | l | No | No | | | None | |
| Flooring | 12 x 12 V | inyl | No | No | | | None | |
| | Clean | Minor Dust / Debris | Needs Cleaning | | Corrective | Action Re | equired | |
| Ceiling | Yes | Νο | No | | | | | |
| Walls | Yes | Νο | No | | | | | |
| Flooring | Yes | No | No | | | | | |
| HVAC Supply (| Grills Yes | Νο | No | | | | | |
| HVAC Return C | Grills Yes | No | No | | | | | |
| Ceiling at Supp Grills | oly Yes | No | No | | | | | |
| Surfaces in Ro | om Yes | No | No | | | | | |

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|---------------------------|------------|------------------------|---------------------------------|--------------------------|------------------|-------------------|-----------|-------------|
| | | Nova Middl | e School | | Evaluation Reque | ested | Septemb | er 21, 2009 |
| Time of Day | 9:00 am |] | | | Evaluation | n Date | Septemb | er 21, 2009 |
| Outdoor Condit | ions Ter | nperature | 33.7 | Relative Humidity | 74.6 | Ambien | t CO2 | 405 |
| Fish T | emperature | Range Rela | tive Humidity | Range | CO2 | Rang | je # | Occupants |
| 3924 | 74 | 72 - 78 | 55 | 30% - 60% | 568 Ma | ax 700 > | - Ambient | 24 |
| Noticeable Odd | or No | | /isible water age / staining | Visible micro growth? | 7411 | ount of al affect | ed | |
| Ceiling Type | 2 x 4 Lay | in | No | No | | | None | |
| Wall Type | Drywal | l | No | No | | Ν | lone | |
| Flooring | 12 x 12 Vi | nyl | No | No | | | None | |
| | Clean | Minor Dust / Debris | Needs Cleaning | | Corrective Act | ion Red | quired | |
| Ceiling | Yes | No | No | | | | | |
| Walls | Yes | Νο | No | | | | | |
| Flooring | Yes | Νο | No | | | | | |
| HVAC Supply (| Grills Yes | Νο | No | | | | | |
| HVAC Return C | Grills Yes | Νο | No | | | | | |
| Ceiling at Supp Grills | oly Yes | No | No | | | | | |
| Surfaces in Ro | om Yes | No | No | | | | | |

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| | | Nova Middle | e School | | Evaluation Requested | September 21, 2009 |
| Time of Day | 9:00 am |] | | | Evaluation Date | September 21, 2009 |
| Outdoor Condi | tions Ter | nperature 8 | 3.7 | Relative Humidity | 74.6 Amb | ient CO2 405 |
| Fish T | emperature | Range Relat | ive Humidity | Range | CO2 Ra | ange # Occupants |
| 3935 | 75.6 | 72 - 78 | 51 | 30% - 60% | 499 Max 70 | 0 > Ambient 30 |
| Noticeable Od | or No | - | 'isible water age / staining | Visible micro ? growth? | bial Amount material aff | |
| Ceiling Type | 2 x 4 Lay | in | No | No | | None |
| Wall Type | Drywal | l | No | No | | None |
| Flooring | 12 x 12 Vi | nyl | No | No | | None |
| | Clean | Minor Dust / Debris | Needs Cleaning | | Corrective Action F | 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 Sup Grills | ply Yes | No | No | | | |
| Surfaces in Ro | oom Yes | No | No | | | |

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