

managing risk with responsibility

Jeffrey S. Moquin, Director Risk Management Department

September 6, 2006

Facsimile: 754-321-3290

Telephone: 754-321-3200

Signature on File

TO: Mr. William Mowery, Manager I

Physical Plant Operations, Zone 2

FROM: Kenneth I. Partee, Project Manager Occupational Health and Environmental Control

Risk Management Department

SUBJECT: Indoor Air Quality (IAQ) Assessment

FISH 401, 401J, 401K, 401M, 401N, 401P, 401Q and 401R

On August 31, 2006 I conducted a follow up assessment of FISH 401, 401J, 401K, 401M, 401N, 401P, 401Q and 401R at **Central Textbook Warehouse**. The assessment consisted of a reevaluation walkthrough of the previously identified areas to assess the current condition of the location with regard to indoor air quality. This assessment included reviewing previously generated work orders as well as observations of the areas of concern as stated in the IAQ Assessments performed on April 11, 2006. Attached are the findings of this assessment along with recommendations for further assessment, remediation, or corrective actions, if needed.

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.

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
Brian Little, Manager, Materials Logistics
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

KP/tc Enc.

	Cer	ntral Textbook	Warehouse		Evaluat	tion Requested	August	21, 2006
Time of Day	11:29 am				1	Evaluation Date	August	31, 2006
Outdoor Condi	tions Te	emperature [93.7	Relative Humidi	ity 61.2	2 Ambie	ent CO2	544
Fish 7	Temperature	Range R	Relative Humidity	Range	CO2	Ran	ige #	Occupants
401		72 - 78		30% - 60%		Max 700	> Ambient	4
Noticeable Od	lor No],	Visible water damage / staining	Visible mid g? growth		Amount of mat affected	terial	
Ceiling Type	2 x 4 La	ıy In	No	No	J		None	
Wall Type	Paneli	ng	No	No]		None	
Flooring	Tile		No	No	7		None	
Ceiling	Clean	Minor Dus / Debris Yes				ctive Action Re	•	
Cennig						штис ирр р		
Walls	Yes	No	No					
Flooring	No	Yes	Yes		CI	lean and sanitiz	<u>'e</u>	
HVAC Supply	Grills No	Yes	Yes		Clean wit	h Wexcide disi	nfectant	
HVAC Return (Grills No	Yes	Yes		Clean wit	h Wexcide disi	nfectant	
Ceiling at Supp Grills	ply No	Yes	Yes		Cle	an as appropria	ate	
Surfaces in Ro	oom No	Yes	Yes		Cle	an as appropria	ate	
bservations								
Findings: - Dust and debri - Dust and debri - Dust and debri	is on HVAČ sur		n grills and on ce	eiling at supply grill	s			

9669

Location Number

- Dust build up on environmental surfaces

Recommendations:

Site Based Maintenance:

- Clean ceiling as appropriate
- Clean HVAC supply and return grills with Wexcide disinfectant solution and clean ceiling at supply grills as appropriate
- Clean and sanitize floor
- Clean environmental surfaces throughout the room
- Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate

Time of Day 1	1:29 am					Eval	luation Date August 31, 2006
Outdoor Condition	s Tempo	erature 9	3.7	Relative Hur	nidity [61.2	Ambient CO2 544
		nge Rela - 78	tive Humidity 41.9	Range 30% - 60%		O2 000	Range # Occupants Max 700 > Ambient 4
Noticeable Odor	No		/isible water age / staining		microbiowth?	al Aı	mount of material affected
Ceiling Type	2 x 4 Lay In		No	_	No		None
Wall Type	Paneling Tile		No		No		None
Flooring	Tile		No		No		None
	Clean	Minor Dust / Debris	Needs Cleaning		(Correctiv	e Action Required
Ceiling	Yes	No	No				
Walls	Yes	No	No				
Flooring	Yes	No	No				
HVAC Supply Grill	s Yes	No	No				
HVAC Return Grill	s No	Yes	Yes		Clea	an with W	/excide disinfectant
Ceiling at Supply Grills	Yes	No	No				
Surfaces in Room	No	Yes	Yes			Clean a	as appropriate
Findings: - Dust and debris on - Dust build up on er Recommendations Site Based Mainter - Clean HVAC returr - Clean environment - Continue to monito appropriate	nvironmental so : nance: n grill with Wex al surfaces throal	urfaces cide disinfect cughout the r	oom	rowth as well	as dust a	and debris	s accumulation and clean as

Central Textbook Warehouse

9669

August 21, 2006

Time of Day	11:29	am						E	Evalua	ation Date Au	igust	31, 200	6
Outdoor Condi	tions	Tei	mperature	93.7		Relative	Humidity	61.2	!	Ambient CO	2	544	
Fish 401K	Temperat		Range 72 - 78	Relative H		Rang 30% - 60		CO2 1006		Range Max 700 > Am		Occupa 4	
Noticeable Od	lor	No]	Visible damage /			sible micr growth		Amo	ount of material affected			
Ceiling Type		x 4 Lay		No			No			None			$\supseteq $
Wall Type		Panelir	ng	No	_		No			None			그
Flooring		Tile		No	<u> </u>		No			None			ᆜ
	Cle	ean	Minor I / Deb		leeds eaning			Correc	ctive	Action Require	d		
Ceiling		Yes	No		No								
Walls		Yes	No] [No								\square
Flooring		Yes	No] [No								
HVAC Supply	Grills [Yes	No] [No								$\square \mid$
HVAC Return	Grills [Yes	No		No								$\square \mid$
Ceiling at Sup Grills	ply [res	No] [No								
Surfaces in Ro	oom [No	Yes] [Yes			Clea	an as	appropriate			
Findings: Cor - Dust build up of Recommendati Site Based Mai - Clean environr - Continue to mo	on enviro ions: intenanc mental su	nmenta e: urfaces	al surfaces throughou	t the room	robial gr	owth as v	vell as du	st and de	ebris a	accumulation and	l clea	n as	

Central Textbook Warehouse

9669

August 21, 2006

		Cen	tral Textbo	ok Wareho	use			Evaluat	ion Req	uested [August	21, 200	6
Time of Day	11:	29 am						E	Evaluati	on Date	August	31, 200	6
Outdoor Cond	itions	Te	mperature	93.7]	Relative H	umidity	61.2	!	Ambie	nt CO2	544]
Fish	Tempe	rature	Range	Relative H	umidity	Range		CO2		Ran	ge #	Occupa	ants
401M	7	5.4	72 - 78	40.7	7	30% - 60%	.	1018	N	Max 700	> Ambien	t 4	
Noticeable Oc	dor	No		Visible damage /			ole micr growth?			int of mat affected	erial		
Ceiling Type		2 x 4 La	/ In	No)		No				None		┚╽
Wall Type		Panelir	ng	No)		No				None		┚┃
Flooring		Tile		No)		No				None		$\supset $
	(Clean	Minor / Deb		Needs eaning			Correc	ctive A	ction Re	quired		
Ceiling		Yes	No		No								$\exists $
Walls		Yes	No		No								$\exists $
Flooring		Yes	No		No								$\exists $
HVAC Supply	Grills	Yes	No		No								$\exists $
HVAC Return	Grills	Yes	No		No								$\Box $
Ceiling at Sup Grills	pply	Yes	No		No								$\exists $
Surfaces in Ro	oom	No	Yes		Yes			Clea	an as a	ppropria	ate		$\exists $
Findings: Bre - Dust build up - Heavy staining Recommendat Site Based Ma - Thoroughly cle - Clean environ - Continue to m appropriate	on envig on clostions: intena ean clostimental	ironmenta oth couch nce: th couch surfaces	If couch of throughou	cannot be cl					bris acc	cumulatic	on and clea	an as	

9669

Location Number

	Centr	al Textbook War	ehouse		Evaluation R	Requested August 21, 2006
Time of Day	11:29 am				Evalu	August 31, 2006
Outdoor Condi	tions Tem	perature 93	7 F	Relative Humidity	61.2	Ambient CO2 544
Fish 401N			ve Humidity		CO2 1056	Range # Occupants Max 700 > Ambient 4
Noticeable Od	or No		sible water ge / staining?	Visible microl growth?	bial Am	nount of material affected
Ceiling Type	2 x 4 Lay	In	No	No		None
Wall Type	Paneling	<u> </u>	No	No		None
Flooring	Tile		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 Support Grills	ply Yes	No	No			
Surfaces in Ro	oom No	Yes	Yes		Clean as	s appropriate
bservations						
Findings: - Dust build up c	on environmental	surfaces				
Recommendati	ons:					
Site Based Mai	ntenance:					
 Clean environr 	nental surfaces t			owth as well as dust	and debris	accumulation and clean as
appropriate		Troi dily digito di	miorobiai gre	wiii do woii do ddol	and dobino	accumulation and clean ac

9669

Location Number

Time of Day	11:29 a	m					E	valuation Da	ate Augus	t 31, 2006
Outdoor Condi	tions	Temperature	93.7	F	Relative Hu	umidity	61.2	Am	bient CO2	544
Fish	Temperatur	e Range	Relative Hu	ımidity	Range		CO2	F	Range #	# Occupants
401P	73.1	72 - 78	44.7	;	30% - 60%		1030	Max 7	'00 > Ambien	nt 4
Noticeable Od			Visible damage / s			le microgrowth?		Amount of affect	ed	
Ceiling Type		4 Lay In	Yes		Ĺ	No			3 Ceiling Tiles	
Wall Type		neling	No			No			None	
Flooring	,	Tile	No		[No			None	
	Clea	n Minor / Dek		eeds eaning			Correc	tive Action	Required	
Ceiling	No	Ye	s	Yes		R	emove a	nd replace	ceiling tiles	
Walls	Ye	s No		No						
Flooring	Ye	s No		No						
HVAC Supply	Grills Ye	s No		No						
HVAC Return	Grills Ye	s No		No						
Ceiling at Sup Grills	ply Ye	s No	2	No						
Surfaces in Ro	oom No	Yes	s	Yes			Clea	an as appro	priate	
Dbservations										
Findings: - 3 stained ceilir - Dust build up o	on environn		5							
Site Based Mai - Clean environr - Continue to mo appropriate	mental surfa	aces througho		obial gro	owth as we	ll as du	st and de	bris accumu	lation and cle	an as
Physical Plant - Remove and re			es requiring (cut						

Central Textbook Warehouse

9669

August 21, 2006

		Central Textbo	ook Warehouse			Evaluati	on Requested	August 21, 2006
Time of Day	11:29 aı	m				E	valuation Date	August 31, 2006
Outdoor Condit	tions	Temperature	93.7	Relative H	umidity	61.2	Ambie	ent CO2 544
Fish T 401Q	Temperatur	e Range 72 - 78	Relative Humid	ity Range 30% - 60%	, [CO2 1018	Ran Max 700	nge # Occupan > Ambient 4
Noticeable Od	or N	0	Visible wate damage / stain	— er Visib	ole micro growth?	bial	Amount of mar	terial
Ceiling Type	2 x 4	Lay In	No		No	[None
Wall Type	Pa	neling	No		No	[None
Flooring	-	Гile	No		No	[None
	Clea	n Minor / Deb				Correc	tive Action Re	equired
Ceiling	Yes	s No	No					
Walls	Yes	S No	No					
Flooring	Yes	s No	No					
HVAC Supply (Grills Yes	S No	No					
HVAC Return (Grills Yes	No.	No					
Ceiling at Supp Grills	oly Yes	S No	No					
Surfaces in Ro	om No	Yes	Yes			Clea	ın as appropri	ate
Observations								
Findings: Stor - Dust build up o	rage Room on environm	nental surfaces						
Recommendation	ons:							
Site Based Mair - Clean environn - Continue to mo	nental surfa	aces throughou ocation for any	ut the room signs of microbia	ıl growth as we	ll as dus	t and del	oris accumulatio	on and clean as

9669

Location Number

Time of Day	11:29 am				E	Evaluation Date August 31, 2006
Outdoor Condi	tions Te	mperature S	93.7 F	Relative Humi	dity 61.2	Ambient CO2 544
Fish 1 401R	Temperature 74.1	Range Rela	tive Humidity	Range 30% - 60%	CO2 1002	Range # Occupants Max 700 > Ambient 4
Noticeable Od	or No		/isible water nage / staining?		nicrobial wth?	Amount of material affected
Ceiling Type	2 x 4 La		No	N	0	None
Wall Type	Panelir	ng	No	N	0	None
Flooring	Tile		No	N	0	None
	Clean	Minor Dust / Debris	Needs Cleaning		Correc	ctive 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 Supp Grills	oly Yes	No	No			
Surfaces in Ro	om No	Yes	Yes		Clea	an as appropriate
Observations						
Findings: Con - Dust build up o						
Recommendati	ons:					
Site Based Mair - Clean environn - Continue to mo	nental surfaces	throughout the ron for any signs	oom of microbial gro	owth as well as	s dust and de	bris accumulation and clean as

Central Textbook Warehouse

9669

August 21, 2006