

Report By:

National TAB
1329 E. KEMPER ROAD
SUITE 4210
CINCINNATI, OH 45246



Report: TAB REPORT
Function: Test, Adjust, & Balance
Date: 10/31/2023

PROJECT
MISSION HILLS COUNTRY CLUB

5400 MISSION DRIVE

MISSION HILLS, KS 66208

Client

Lankford-Fendler & Associates
1730 Walnut Street
Kansas City, MO 64108

CheckList List

- AHU-1



MISSION HILLS COUNTRY CLUB

CheckList Information

Name : AHU-1 **Status :** Not Completed
Assigned Organization : National TAB **Asset :**
Requesting Organization : National TAB
Created Date : 11/01/2023 - Dan Hertenstein - National TAB

CheckList Item Details

VFD balance point

Comment:

60hz (100%)



VFDBALSTPT
11/01/2023

OA Damper balance Setpoint

Comment:

1.5" gap between blades



OADMPSTPT
11/01/2023

Unit Tag

Comment:



AHU1TAG
11/01/2023

Space Return / Exhaust Grille

Comment:

Exhaust has card board 100% blocking airflow, creating noise.



Exhaust
11/01/2023



Return
11/01/2023



Room
11/01/2023

AHU Room Duct Configuration

Comment:



Return
11/01/2023



Supply
11/01/2023



Allduct
11/01/2023

AHU Room Duct Configuration

Comment:



OArea
11/01/2023



OAside
11/01/2023

Water Lines

Comment:



Manualvalves
11/01/2023



Coil(1)
11/01/2023

Traverse Locations

Comment:



ReturnTRAV
11/01/2023



OaTRAV
11/01/2023

National TAB

Project: MISSION HILLS COUNTRY CLUB

System/Unit: AHU/RTU



Asset: AHU1

AREA:WORKOUT ROOM 102

Unit Data		
	Design	Actual
MFG	TRANE	TRANE
Serial Num	-	K17A06234
Model Num	UCCAD10	UCCAD10A0A0RJB12
Type	CHW/HW AHU	CHW/HW AHU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	NA
OA Filter Size 1	-	NA
Num Final Filter 1	-	2
Final Filter Size 1	-	16x20x2
Num Final Filter 2	-	8
Final Filter Size 2	-	20x20x1

Test Data		
	Design	Actual
SF CFM (Initial)	-	2300
SF CFM	5000	5282
RA CFM	4000	4069
OA CFM	1000	1213
RL Amperage	-	14.4
SF System SetPt	-	60HZ
RA Damper Position	-	1.5"
Min OA Damper Position	-	10%
Min OA Damper Type	-	ACTUATED BLADE

Motor Data		
	Design	Actual
Motor MFG	-	BALDOR RELIANCE
Frame	-	184T
Horsepower	-	5
Motor Rpm	-	1750
Phase	3	3
Rated Voltage	208	200
Rated Amperage	-	15.3
Service Factor	-	1.15

Performance Data		
	Design	Actual
Return Duct SP	-	
Supply Duct SP	-	0.30" AVG
Total ESP	1.3"	1.08"
CHW Coil P.D.	-	
HW Coil P.D.	-	
OA Temp (db/wb)	-	
RA Temp (db/wb)	-	
MA Temp (db/wb)	-	
SA Temp (db/wb)	-	

Completed By: Will Turnbough on 11/06/2023

Notes:
INITIALLY OPERATING 30.0 HZ, 6.4 AMPS
RETURN TRAVERSE POINT=17"x45" (2019 CFM INITIAL)
OA TRAVERSE POINT=16"x39" (300 CFM)

Written By: Will Turnbough on 10/31/2023

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Project: MISSION HILLS COUNTRY CLUB

AHU/RTU



Circuit Setter

AHU1/WORKOUT ROOM 102

Asset											
Asset Name	MFG	Model Num	Size	Type	Design GPM	Setting	Low Pres	High Pres	Delta P	Final GPM	% to Design
CHILLED WATER CS 1	RWV	9517AB	1-1/2"	MANUAL	33	4.0 (FULL OPEN)	NR	NR	NR		-
HOT WATER CS 2	RWV	9517AB	1-1/4"	MANUAL	21.5	4.0 (FULL OPEN)	27.7'	27.5'	0.2	0	0.0
Total					54.5					0	0%

Asset	Notes	Date	Written By
CHILLED WATER CS 1	Not measured. Chilled water not running.	11/06/2023	Will Turnbough
HOT WATER CS 2	Low pressure measured higher than the high pressure indicating issue with valve or no flow. Temperature measurements however indicate some flow.	11/06/2023	Will Turnbough

National TAB

Project: MISSION HILLS COUNTRY CLUB

System/Unit: COIL - Chilled Water



Asset: CHWC1

AREA:

Unit Data		
	Design	Actual
MFG	NA	NA
Model Num	NA	NA
Service	AHU-1	AHU-1
Type	CHILLED WATER	CHILLED WATER

Performance Data		
	Design	Actual
EAT (db/wb)	80 / 67	
LAT (db/wb)	57.3 / 56.6	
Delta T (db/wb)	-	

Test Data		
	Design	Actual
GPM CIRCUIT 1	33	
Inlet Pres	-	
Discharge Pres	-	
Coil Delta P	4.7'	
EWT (F)	44	
LWT (F)	54	
Coil Delta T (F)	-	
Circuit 1 BTUH	-	

Notes:

Not tested. Chilled water not running.

Written By: Will Turnbough on 11/06/2023

National TAB

Project: MISSION HILLS COUNTRY CLUB
System/Unit: COIL - Hot Water



Asset: HWC1

AREA:

Unit Data		
	Design	Actual
Service	-	AHU-1
Type	-	HOT WATER

Performance Data		
	Design	Actual
EAT (db/wb)	60	56.1 DB
LAT (db/wb)	99.6	75.1 DB
Delta T (db/wb)	-	19 DB

Test Data		
	Design	Actual
GPM CIRCUIT 1	21.5	10.9
EWT (F)	180	NR
LWT (F)	160	111
Coil Delta T (F)	-	~20

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Notes:

Readings at the balance valve measured as no flow. However temperature on air side indicates some flow. No port installed on the entering side to take temperatures. A rough pipe surface temperature was measured as roughly 20 degree drop between entering and leaving. Based on a BTUH calculation, the flow is approximately 10.9 GPM

Written By: Will Turnbough on 11/06/2023