

Report By:

**National TAB
1329 E Kemper Rd, Ste 4210
Cincinnati, OH 45246**

NATIONAL 

**Report: Renew
Date: 2/23/2022**

**PROJECT
FREDDY'S - CREVE COEUR MO - RENEW 4B (4)**

10453 Olive Blvd.
Creve Coeur, MO 63141

Client

**Freddy's Frozen Custard & Steakburgers (CORPORATE)
260 N Rock Rd
Suite 200
Wichita, KS 67206**

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Project: FREDDY'S - CREVE COEUR MO - RENEW 4B (4)

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RECOMMENDATION LIST

Assigned Organization: National TAB

Status: Not Submitted

Asset:

RECOMMENDATION (CLEAN/REPAIR/REPLACE/INFO)	
INFO	No issues to report.

Notes/Comments:



Freddy's Creve Coeur, MO



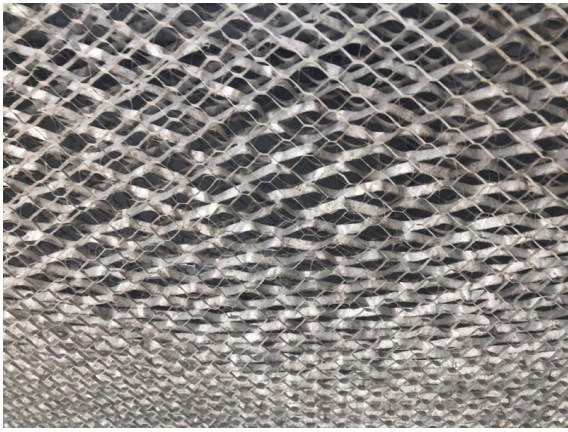
MAU
HD-1 & HD-2



MAU
Dirty outside air filters



RTU-1
Dining



RTU-1
Dirty outside air filters



RTU-1
Dirty evaporator filters



RTU-1
Clean evaporator filters



RTU-1
Dirty evaporator coil



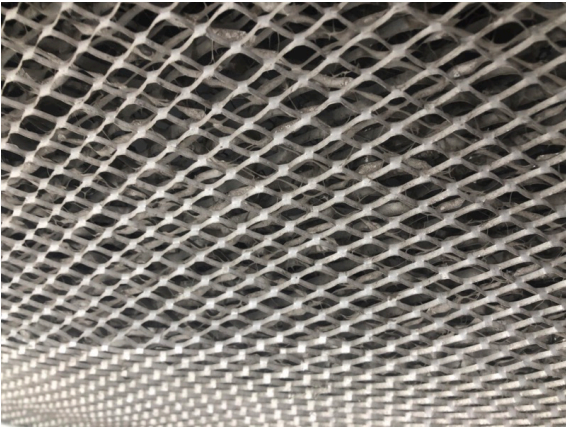
RTU-1
Condensate drain



RTU-1
Drain pan



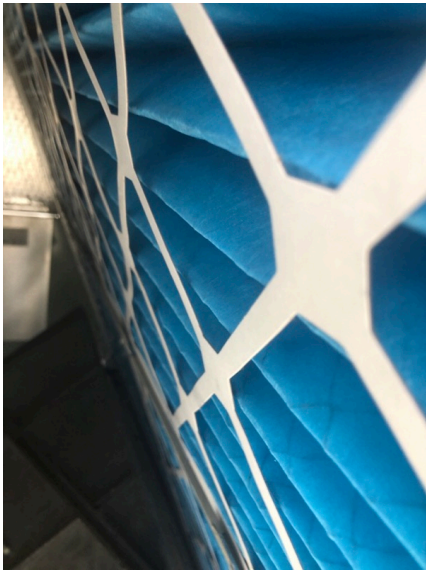
RTU-2
Dining



RTU-2
Dirty outside air filters



RTU-2
Dirty evaporator filters



RTU-2
Clean evaporator filters



RTU-2
Dirty evaporator coil



RTU-2
Condensate drain



RTU-2
Drain pan



RTU-3
Kitchen



RTU-3
Dirty outside air filters



RTU-3
Dirty evaporator filters



RTU-3
Clean evaporator filters



RTU-3
Dirty evaporator coil



RTU-3
Condensate drain



RTU-3
Drain pan



Walk-in Cooler
Dirty condenser



Walk-in Freezer
Dirty condenser

BUILDING PRESSURE SET POINTS

Assigned Organization: National TAB

Status: Not Submitted

Asset:

INITIAL AIRFLOWS:	
OA RTU-1 (DINING)	616
OA RTU-2 (DINING)	597
OA RTU-3 (KITCHEN)	779
KEF-1 (GRIDDLE)	1396
KEF-2 (FRYER)	650
KEF-3 (DISH)	714
EF-1 (RESTROOM)	135
EF-2 (RESTROOM)	113
MAU-1	1792
TOTAL EXHUAUST	3008
TOTAL SUPPLY	3784
NET AIRFLOW	776
BUILDING PRESSURE (in W.C.)	
INITIAL BUILDING PRESSURE	0.011"
FINAL BUILDING PRESSURE	0.013"

Notes/Comments:

PM CHECKLIST HVAC

Assigned Organization: National TAB

Status: Not Submitted

Asset:

HOOD CHECKLIST	
Smoke test capture - Perimeter of hood	100%
Smoke test capture - Top of cooking surface	100%
Hoods turn on by switch or HMI?	HMI
Are the hoods "FAN ON BY BUTTON" upon arrival?	Yes
RTU PM CHECKLIST	
Outside air filter clean?	Not cleaned due to freezing temperatures.
Evaporator Filters Replaced?	Yes
Evaporator Coil cleaned?	Not cleaned due to freezing temperatures.
Condenser cleaned? (Seasonal)	No
Belt replaced in last 6 months?	Yes, on this visit (only RTU-3 is belt driven).
Motor ventilation cleared of dust and debris?	Yes
Is there a return filter on the Dining Room RTU return duct? If so what type?	No
Is the return filter clean on the Dining Rooms RTU Dining duct?	NA
MAU PM CHECKLIST	
Outside air filter clean?	Not cleaned due to freezing temperatures.
Belt replaced in last 6 months?	Replaced on this visit.
EXHUAST FAN PM CHECKLIST	
Motor ventilation cleared of dust and debris?	Yes
Belt replaced in last 6 months?	All KEFs are DD.
Motor ventilation cleared of dust and debris?	Yes
Are the screws installed to secure the exhaust fan to the curb?	Yes
THERMOSTAT CHECKLIST	
Are the thermostats in fan "ON" position upon arrival?	Yes
Are the thermostats programed?	Yes
ADDITIONAL	
Manager on Duty at time of completion.	Dillon

Is the roof free of debris? if not what was left on the roof?	Store hose is on the roof.
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Notes/Comments:

TECH REVIEW CHECKLIST

Assigned Organization: National TAB

Status: Not Submitted

Asset:

Prelim RPT	
Building has positive pressure?	Yes
All motors underamping?	Yes
RPMs close to design number?	Yes
Static Pressure Profile make sense on RTUs?	Yes
Total ESP and Total FAN static pressures match design?	Yes
All data complete? if not is there an explanation?	Yes
All assets marked data captured complete?	Yes
All units are turned on?	Yes
Pictures	
Before and After Pictures taken?	Yes
Pictures of issue taken?	Yes
Additional	
Pictures uploaded?	Yes
All issues in the issues tab?	Yes
Message sent in Teams that job completed?	Yes

Notes/Comments:

Project Summary

The purpose of the visit is to perform preventative maintenance for the store. We change belts and filters, clean evaporators and condenser, and check refrigeration and heating cycle where possible. We also, check and set exhaust, outside air, and make up air coming in out of the build to the engineer's design and/or to make the space as comfortable and healthy as possible. All of this ensures a healthy and comfortable space, extends service life of units, and reduces the number of future repairs by prevention.

Freddy's locations for preventative maintenance are done in a pair. This allows two stores preventative maintenance to be completed in one day. To accomplish this the food equipment will be cleaned every 6 months. So, every other visit to a store the food equipment will be evaluated and cleaned.

RTUs: There evaporator coil was rinsed off and cleaned. During warmer months a self-cleaning chemical is sprayed on the evaporator. The outside air filters were rinsed off to remove any dirty, so the unit stays at the designated outside air set point. Based on static pressures, amps, and fan rpm it shows that the total supply has not changed since the last test and balance.

MAU: The intake filters had slight dirt accumulation. They were washed.

All exhaust fans were cleaned out on the roof. The vents to the motor were cleaned so they can vent properly.

All issues found are reported in the Recommendation list at the start of the report.

System/Unit: AHU/RTU

Asset: RTU1

AREA: DINING

Unit Data		
	Design	Actual
MFG	LENNOX	TRANE
Model Num	KGB092S4B	YHC092F3RMA
Serial Num	-	182112333L
Num OA Filters 1	-	1
OA Filter Size 1	-	37X15
Num Final Filter 1	-	4
Final Filter Size 1	-	20X25X2
Num Final Filter 2	-	NA
Final Filter Size 2	-	NA

Motor Data		
	Design	Actual
Motor MFG	-	NA
Frame	-	NA
Horsepower	-	2.75
Motor Rpm	-	NA
Phase	-	3
Rated Voltage	-	208
Rated Amperage	-	7.3

Drive Data		
	Design	Actual
Num of Belts	-	DD
Belt Size	-	DD
Belt Alignment	-	DD

Test Data		
	Design	Actual
SF RPM	1044 (4.78V)	1044 (4.82V)
OA CFM	558	616
RL Voltage	-	206/208/209
RL Amperage	-	2.0/2.1/2.1

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.27"
Fan Suction SP	-	-0.45"
Fan Discharge SP	-	0.39"
Total ESP	0.87"	0.66"
Fan Total SP	-	0.84"

General		
	Design	Actual
Unit free of Damage	-	YES
Unit Completely Assembled	-	YES
Unit Leveled	-	YES
Curb & Unit Installed Air Tight	-	YES
Controls Complete	-	YES
Unit Filters Clean	-	YES
Evap Coil Clean	-	YES
Evap Coil Free of Frost	-	YES
Condensor Coil Clean	-	YES
Condensor Fins Straight	-	YES
Refr Sight Glass Dry	-	NA
Condensate Drain Installed	-	YES
Crankcase Heaters Operate	-	YES

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Notes: [1] OA FILTERS AND COIL NOT CLEANED DUE TO BELOW FREEZING TEMPERATURES.

System/Unit: AHU/RTU

Asset: RTU2

AREA: DINING

Unit Data		
	Design	Actual
MFG	LENNOX	TRANE
Model Num	KGB092S4B	YHC092F3RMA
Serial Num	-	182112329L
Num OA Filters 1	-	1
OA Filter Size 1	-	35.5X16
Num Final Filter 1	-	4
Final Filter Size 1	-	20X25X2
Num Final Filter 2	-	NA
Final Filter Size 2	-	NA

Motor Data		
	Design	Actual
Motor MFG	-	NA
Frame	-	NA
Horsepower	-	2.75
Motor Rpm	-	NA
Phase	-	3
Rated Voltage	-	208
Rated Amperage	-	7.3

Drive Data		
	Design	Actual
Num of Belts	-	DD
Belt Size	-	DD
Belt Alignment	-	DD

Test Data		
	Design	Actual
SF RPM	933 (4.29V)	933 (4.30V)
OA CFM	561	597
RL Voltage	-	206/209/208
RL Amperage	-	1.5/1.5/1.6

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.18"
Fan Suction SP	-	-0.35"
Fan Discharge SP	-	0.24"
Total ESP	0.33"	0.42"
Fan Total SP	-	0.59"

General		
	Design	Actual
Unit free of Damage	-	YES
Unit Completely Assembled	-	YES
Unit Leveled	-	YES
Curb & Unit Installed Air Tight	-	YES
Controls Complete	-	YES
Unit Filters Clean	-	YES
Evap Coil Clean	-	YES
Evap Coil Free of Frost	-	YES
Condensor Coil Clean	-	YES
Condensor Fins Straight	-	YES
Refr Sight Glass Dry	-	NA
Condensate Drain Installed	-	YES
Crankcase Heaters Operate	-	YES

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Notes: [1] OA FILTERS AND COIL NOT CLEANED DUE TO BELOW FREEZING TEMPERATURES.

System/Unit: AHU/RTU

Asset: RTU3

AREA: KITCHEN

Unit Data		
	Design	Actual
MFG	LENNOX	TRANE
Model Num	KGB150S4B	YHD150G3RHB
Serial Num	-	182111035D
Num OA Filters 1	-	1
OA Filter Size 1	-	60X17
Num Final Filter 1	-	4
Final Filter Size 1	-	20X20X2
Num Final Filter 2	-	4
Final Filter Size 2	-	20X25X2

Motor Data		
	Design	Actual
Motor MFG	-	MARATHON
Frame	-	56HZ
Horsepower	-	3
Motor Rpm	-	1725
Phase	-	3
Rated Voltage	-	208-230/460
Rated Amperage	-	9.4-9.2/4.6

Drive Data		
	Design	Actual
Num of Belts	-	1
Belt Size	-	BX68
Belt Alignment	-	VERIFIED

Test Data		
	Design	Actual
SF RPM	524	534
OA CFM	745	779
RL Voltage	-	209/205/209
RL Amperage	-	5.5/5.5/5.2

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.30"
Fan Suction SP	-	-0.42"
Fan Discharge SP	-	0.14"
Total ESP	0.43"	0.44"
Fan Total SP	-	0.56"

General		
	Design	Actual
Unit free of Damage	-	YES
Unit Completely Assembled	-	YES
Unit Leveled	-	YES
Curb & Unit Installed Air Tight	-	YES
Controls Complete	-	YES
Unit Filters Clean	-	YES
Evap Coil Clean	-	YES
Evap Coil Free of Frost	-	YES
Condensor Coil Clean	-	YES
Condensor Fins Straight	-	YES
Refr Sight Glass Dry	-	NA
Condensate Drain Installed	-	YES
Crankcase Heaters Operate	-	YES

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Notes: [1] OA FILTERS AND COIL NOT CLEANED DUE TO BELOW FREEZING TEMPERATURES.
 [2] OA FILTER BROKEN AND SET ON ROOF NEXT TO UNIT, CANNOT INSTALL.

System/Unit: FAN - Supply

Asset: MAU1

AREA: HD1&2

Unit Data		
	Design	Actual
MFG	CAPTIVE-AIRE	CAPTIVE- AIRE
Model Num	A1-D.250-G10	A1-D.250-G10
Serial Num	-	3237482
Num Filters Size 1	-	3
Filter Size 1	-	16X20X2
Num Filters Size 2	-	NA
Filter Size 2	-	NA

Motor Data		
	Design	Actual
Motor MFG	-	WEG
Frame	-	56HZ
Horsepower	-	1.5
Motor Rpm	-	1760
Phase	-	3
Voltage (rated)	-	208-230/460
Amperage (rated)	-	4.62-4.83/4.21
Service Factor	-	1.15

Drive Data		
	Design	Actual
Num of Belts	-	1
Belt Size	-	AX39
Belt Alignment Verified	-	VERIFIED

Gas Heat		
	Design	Actual
Gas Type	-	NATURAL GAS
Burner Type	-	DIRECT FIRE
Heater Operates (y/n)	-	YES
Flame Status (pass/fail)	-	PASS
Inlet Air Temp SetPt	-	55
Discharge Air Temp SetPt	-	60
Air Flow Switch SP Actual	-	0.44"

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Notes: [1] FILTERS NOT CLEANED DUE TO BELOW FREEZING TEMPERATURES.

Test Data		
	Design	Actual
CFM	1865	1792
SF RPM	1026	1008
Motor RPM	-	1782
RL Voltage	-	205/208/209
RL Amperage	-	2.8/2.5/2.5

General		
	Design	Actual
Unit free of Damage	-	YES
Curb & Unit Installed Air Tight	-	YES
Fan Rotation Correct	-	YES
Fan Belt Condition	-	NEW
Unit Filters Clean	-	NO [1]

System/Unit: FAN - Exhaust

Asset: EF1

AREA: WOMENS RR

Unit Data		
	Design	Actual
MFG	COOK	DAYTON
Model Num	GC164	5AE69A
Serial Num	-	14116030

Test Data		
	Design	Actual
CFM	145	135

Motor Data		
	Design	Actual
Motor MFG	-	FASCO
Horsepower	-	NL
Motor Rpm	-	NL
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	1.8

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Notes:

System/Unit: FAN - Exhaust

Asset: EF2

AREA: MENS RR

Unit Data		
	Design	Actual
MFG	COOK	DAYTON
Model Num	GC164	5AE69A
Serial Num	-	14116029

Test Data		
	Design	Actual
CFM	137	113

Motor Data		
	Design	Actual
Motor MFG	-	FASCO
Horsepower	-	NL
Motor Rpm	-	NL
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	1.8

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Notes:

System/Unit: FAN - Exhaust

Asset: KEF1

AREA: HD1

Unit Data		
	Design	Actual
MFG	CAPTIVE- AIRE	CAPTIVE- AIRE
Model Num	DU85HFA	DU85HFA
Serial Num	-	3237482
Type	-	UPBLAST
Configuration	-	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	HSSA
Frame	-	48Y
Horsepower	-	0.75
Motor Rpm	-	1625
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	7.2
Service Factor	-	1

Test Data		
	Design	Actual
CFM	1320	1396
Fan RPM	DD	DD
Fan Rotation	-	CCW
Motor RPM	-	DD
System SetPt	-	97.3
RL Voltage	-	97
RL Amperage	-	5.9
Total ESP	0.94"	0.92"
Fan Inlet SP	-	-0.92"
Fan Discharge SP	-	ATM

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Notes:

System/Unit: FAN - Exhaust

Asset: KEF2

AREA: HD2

Unit Data		
	Design	Actual
MFG	CAPTIVE- AIRE	CAPTIVE- AIRE
Model Num	DU50HFA	DU50HFA
Serial Num	-	3237482
Type	-	UPBLAST
Configuration	-	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	HSSA
Frame	-	48Y
Horsepower	-	0.5
Motor Rpm	-	1624
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	5.8
Service Factor	-	1

Test Data		
	Design	Actual
CFM	719	650
Fan RPM	DD	DD
Fan Rotation	-	CCW
Motor RPM	-	DD
System SetPt	-	115.4
RL Voltage	-	115
RL Amperage	-	3.3
Total ESP	1.69"	1.36"
Fan Inlet SP	-	-1.36"
Fan Discharge SP	-	ATM

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Notes:

System/Unit: FAN - Exhaust

Asset: KEF3

AREA: DISH

Unit Data		
	Design	Actual
MFG	CAPTIVE- AIRE	CAPTIVE- AIRE
Model Num	DU30HFA	DU30HFA
Serial Num	-	3237482
Type	-	UPBLAST
Configuration	-	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	HSSA
Frame	-	48Y
Horsepower	-	0.25
Motor Rpm	-	1625
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	3
Service Factor	-	1

Test Data		
	Design	Actual
CFM	514	714
Fan RPM	DD	DD
Fan Rotation	-	CCW
Motor RPM	-	DD
System SetPt	-	84.9
RL Voltage	-	84
RL Amperage	-	2.2
Total ESP	0.54"	0.51"
Fan Inlet SP	-	-0.51"
Fan Discharge SP	-	ATM

Completed By: Michael McDonnell on 02/23/2022

Notes: