

Report By:

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



Report: BELTERRA SMOKING TERRACE

Function: Test, Adjust, & Balance

Date: 01/09/2025

Completed By: National TAB

PROJECT

Belterra Cincy- Boyd Gaming

6301 Kellogg Rd

Cincinnati, OH 45230

Client

Boyd Gaming

National TAB

Project: Belterra Cincy- Boyd Gaming

Table Of Contents

| Section | Page # |
|---------------|--------|
| Issue Data | 3 |
| AHU/RTU | 7 |
| FAN - Exhaust | 9 |
| FAN - Supply | 11 |

Issue List

- Exhaust/return grilles
- RTU 7 diffuser
- Rtu outdoor air filters



Belterra Cincy- Boyd Gaming

Project Issue Information

Issue Name : Exhaust/return grilles
Description : The exhaust and return grilles will need to be cleaned to allow for better flow.
Created By : National TAB **Assigned To :** National TAB - Dan Hertenstein
Status : Open
Priority : Medium **Asset Tag :**
Originated Date : 01/09/2025 - Gabe Merk - National TAB

Project Issue File Details



01/09/2025



Belterra Cincy- Boyd Gaming

Project Issue Information

Issue Name : RTU 7 diffuser
Description : Flex for diffuser by fire access room has fallen off the main. This will need to be repaired.
Created By : National TAB **Assigned To :** National TAB - Dan Hertenstein
Status : Open
Priority : Urgent **Asset Tag :**
Originated Date : 01/09/2025 - Gabe Merk - National TAB

Project Issue File Details



01/09/2025



Belterra Cincy- Boyd Gaming

Project Issue Information

Issue Name : Rtu outdoor air filters
Description : Outdoor air filters are not installed on RTUs 7 and 8. These should be installed in order to accurately measure the outdoor air intake.
Created By : National TAB **Assigned To :** National TAB - Dan Hertenstein
Status : Open
Priority : High **Asset Tag :**
Originated Date : 01/09/2025 - Gabe Merk - National TAB

Project Issue File Details



01/09/2025

National TAB

Project: Belterra Cincy- Boyd Gaming
System/Unit: AHU/RTU



Asset: RTU-7

AREA:SMOKING A

| Unit Data | | |
|------------------|--------|---------------|
| | Design | Actual |
| MFG | NA | TRANE |
| Serial Num | - | C13H05062 |
| Model Num | NA | YCD480B4 |
| Configuration | - | VERTICAL |
| Num OA Filters 1 | - | NOT INSTALLED |
| OA Filter Size 1 | - | NOT INSTALLED |
| Num PreFilter 1 | - | 17 |
| PreFilter Size 1 | - | 16"x20"x4" |

| Test Data | | |
|--------------------|--------|-----------|
| | Design | Actual |
| SF CFM | 15000 | 11698 |
| RA CFM | 10500 | 4344 |
| OA CFM | 4500 | 7354 |
| RL Voltage | - | 410VFD |
| RL Amperage | - | 14.3VFD |
| OA Damper Position | - | Approx30% |
| Brake Horse Power | 12.56 | 11VFD |

| Motor Data | | |
|----------------|--------|--------|
| | Design | Actual |
| Motor MFG | - | BALDOR |
| Frame | - | 254T |
| Horsepower | - | 15 |
| Motor Rpm | - | 1765 |
| Phase | 3 | 3 |
| Rated Voltage | 460 | 460 |
| Rated Amperage | - | 17.7 |
| Service Factor | - | 1.15 |

| Performance Data | | |
|-------------------|--------|--------|
| | Design | Actual |
| MA Plenum SP | - | -0.41" |
| Fan Suction SP | - | -1.12" |
| Fan Discharge SP | - | 1.08" |
| Total ESP | 1.5 | 1.49" |
| Fan Total SP | - | 2.20" |
| Cooling Coil P.D. | - | |

Completed By: Gabe Merk on 01/09/2025

Notes:
Unit running at 55Hz
diffuser by fire room flex has fallen off main.

Written By: Gabe Merk on 01/09/2025

National TAB

Project: Belterra Cincy- Boyd Gaming
System/Unit: AHU/RTU



Asset: RTU-8

AREA:SMOKING B

| Unit Data | | |
|------------------|--------|---------------|
| | Design | Actual |
| MFG | NA | TRANE |
| Serial Num | - | C13H05061 |
| Model Num | NA | YCD480B4 |
| Configuration | - | VERTICAL |
| Num OA Filters 1 | - | NOT INSTALLED |
| OA Filter Size 1 | - | NOT INSTALLED |
| Num PreFilter 1 | - | 17 |
| PreFilter Size 1 | - | 16"x20"x4" |

| Test Data | | |
|--------------------|--------|------------|
| | Design | Actual |
| SF CFM | 15000 | 11369 |
| RA CFM | 10500 | 4009 |
| OA CFM | 4500 | 7360 |
| RL Voltage | - | 410VFD |
| RL Amperage | - | 10.9VFD |
| OA Damper Position | - | Approx 30% |
| Brake Horse Power | 12.56 | 7.02VFD |

| Performance Data | | |
|-------------------|--------|--------|
| | Design | Actual |
| MA Plenum SP | - | -0.85" |
| Fan Suction SP | - | -1.25" |
| Fan Discharge SP | - | 0.58" |
| Total ESP | 1.5 | 1.43" |
| Fan Total SP | - | 1.83" |
| Cooling Coil P.D. | - | |

| Motor Data | | |
|----------------|--------|--------|
| | Design | Actual |
| Motor MFG | - | BALDOR |
| Frame | - | 254T |
| Horsepower | - | 15 |
| Motor Rpm | - | 1765 |
| Phase | 3 | 3 |
| Rated Voltage | 460 | 460 |
| Rated Amperage | - | 17.7 |
| Service Factor | - | 1.15 |

Completed By: Gabe Merk on 01/09/2025

Notes:
Unit running at 55Hz.

Written By: Gabe Merk on 01/09/2025

National TAB

Project: Belterra Cincy- Boyd Gaming
System/Unit: FAN - Exhaust



Asset: EF1

AREA:

| Unit Data | | |
|------------|--------|---------------|
| | Design | Actual |
| MFG | NA | GREENHECK |
| Model Num | NA | CUBE-141-10-X |
| Serial Num | - | 14506435 |
| Type | - | UPBLAST |

| Test Data | | |
|---------------|--------|--------------|
| | Design | Actual |
| CFM | - | 852 |
| RL Voltage | - | Inaccessible |
| RL Amperage | - | Inaccessible |
| Discharge ESP | - | -1.28" |
| Total ESP | - | 1.28" |

| Motor Data | | |
|------------------|--------|---------|
| | Design | Actual |
| Motor MFG | - | BALDOR |
| Frame | - | 143T |
| Horsepower | - | 1 |
| Motor Rpm | - | 1765 |
| Phase | - | 3 |
| Voltage (rated) | - | 230/460 |
| Amperage (rated) | - | 3/1.5 |
| Service Factor | - | 1.15 |

Completed By: Gabe Merk on 01/09/2025

Notes:
GRILLES COVERED WITH DUST RESTRICTING AIRFLOW
1508 fan rpm

Written By: Gabe Merk on 01/09/2025

National TAB

Project: Belterra Cincy- Boyd Gaming

FAN - Exhaust



Diffuser Ret/Exh (GRD)

EF1/

| Asset | | | | | | | | |
|------------|------|------|------------|----|--------|--------|-----------|-------------|
| Asset Name | Type | Size | DESIGN CFM | AK | CFM(1) | CFM(2) | FINAL CFM | % to design |
| EF1-EGRD1 | | | | | | | 821 | - |
| EF1-EGRD2 | | | | | | | 31 | - |
| Total | | | 0 | | 0 | 0 | 852 | 0% |

National TAB

Project: Belterra Cincy- Boyd Gaming
System/Unit: FAN - Supply



Asset: HVU-1

AREA:SMOKING TERRACE A

| Unit Data | | |
|--------------------|--------------|--------|
| | Design | Actual |
| MFG | NA | NA |
| Model Num | NA | NA |
| Serial Num | - | |
| Type | DIRECT DRIVE | |
| Configuration | CENTRIF | |
| Num Filters Size 1 | - | |
| Filter Size 1 | - | |

| Test Data | | |
|-------------------|--------|--------|
| | Design | Actual |
| CFM | 10000 | |
| SF RPM | - | |
| RL Voltage | - | |
| RL Amperage | - | |
| Suction ESP | - | |
| Discharge ESP | - | |
| Total ESP | 2.816 | |
| Brake Horse Power | - | |

| Motor Data | | |
|------------------|--------|--------|
| | Design | Actual |
| Motor MFG | - | |
| Frame | - | |
| Horsepower | 10 | |
| Motor Rpm | 1200 | |
| Phase | 3 | |
| Voltage (rated) | 460 | |
| Amperage (rated) | - | |
| Service Factor | - | |

| Drive Data | |
|--------------------|--------|
| | Actual |
| Motor Sheave Size | |
| Motor Bore Size | |
| Motor Sheave SetPt | |
| Fan Sheave Size | |
| Fan Sheave Bore | |
| Belt CL Distance | |
| Num of Belts | |
| Belt Size | |

National TAB

Project: Belterra Cincy- Boyd Gaming

FAN - Supply



Diffuser Supply (GRD)

HVU-1/SMOKING TERRACE A

| Asset | | | | | | | |
|--------------|----------|------|-------|------------|--------|-----------|-------------|
| Asset Name | Location | Type | Size | DESIGN CFM | CFM(1) | FINAL CFM | % to design |
| HVU-1-SGRD1 | A | SG | 36X12 | 600 | | | - |
| HVU-1-SGRD2 | A | SG | 36X12 | 450 | | | - |
| HVU-1-SGRD3 | A | SG | 36X12 | 600 | | | - |
| HVU-1-SGRD4 | A | SG | 24X12 | 600 | | | - |
| HVU-1-SGRD5 | A | SG | 24X12 | 450 | | | - |
| HVU-1-SGRD6 | A | SG | 24X12 | 600 | | | - |
| HVU-1-SGRD7 | A | SG | 16X12 | 600 | | | - |
| HVU-1-SGRD8 | A | SG | 16X12 | 450 | | | - |
| HVU-1-SGRD9 | A | SG | 16X12 | 600 | | | - |
| HVU-1-SGRD10 | A | SG | 36X12 | 600 | | | - |
| HVU-1-SGRD11 | A | SG | 36X12 | 450 | | | - |
| HVU-1-SGRD12 | A | SG | 36X12 | 600 | | | - |
| HVU-1-SGRD13 | A | SG | 24X12 | 600 | | | - |
| HVU-1-SGRD14 | A | SG | 24X12 | 450 | | | - |
| HVU-1-SGRD15 | A | SG | 24X12 | 600 | | | - |
| HVU-1-SGRD16 | A | SG | 16X12 | 600 | | | - |
| HVU-1-SGRD17 | A | SG | 16X12 | 450 | | | - |
| HVU-1-SGRD18 | A | SG | 16X12 | 600 | | | - |
| Total | | | | 9900 | 0 | 0 | 0% |

National TAB

Project: Belterra Cincy- Boyd Gaming
System/Unit: FAN - Supply



Asset: HVU-2

AREA:SMOKING TERRACE B

| Unit Data | | |
|--------------------|--------------|--------|
| | Design | Actual |
| MFG | NA | NA |
| Model Num | NA | NA |
| Serial Num | - | |
| Type | DIRECT DRIVE | |
| Configuration | CENTRIF | |
| Num Filters Size 1 | - | |
| Filter Size 1 | - | |

| Test Data | | |
|-------------------|--------|--------|
| | Design | Actual |
| CFM | 10000 | |
| SF RPM | - | |
| RL Voltage | - | |
| RL Amperage | - | |
| Suction ESP | - | |
| Discharge ESP | - | |
| Total ESP | 2.816 | |
| Brake Horse Power | - | |

| Motor Data | | |
|------------------|--------|--------|
| | Design | Actual |
| Motor MFG | - | |
| Frame | - | |
| Horsepower | 10 | |
| Motor Rpm | 1200 | |
| Phase | 3 | |
| Voltage (rated) | 460 | |
| Amperage (rated) | - | |
| Service Factor | - | |

| Drive Data | |
|--------------------|--------|
| | Actual |
| Motor Sheave Size | |
| Motor Bore Size | |
| Motor Sheave SetPt | |
| Fan Sheave Size | |
| Fan Sheave Bore | |
| Belt CL Distance | |
| Num of Belts | |
| Belt Size | |

National TAB

Project: Belterra Cincy- Boyd Gaming

FAN - Supply



Diffuser Supply (GRD)

HVU-2/SMOKING TERRACE B

| Asset | | | | | | | |
|--------------|----------|------|-------|------------|--------|-----------|-------------|
| Asset Name | Location | Type | Size | DESIGN CFM | CFM(1) | FINAL CFM | % to design |
| HVU-2-SGRD1 | B | SG | 36X12 | 520 | | | - |
| HVU-2-SGRD2 | B | SG | 36X12 | 520 | | | - |
| HVU-2-SGRD3 | B | SG | 36X12 | 520 | | | - |
| HVU-2-SGRD4 | B | SG | 36X12 | 450 | | | - |
| HVU-2-SGRD5 | B | SG | 24X12 | 520 | | | - |
| HVU-2-SGRD6 | B | SG | 24X12 | 520 | | | - |
| HVU-2-SGRD7 | B | SG | 24X12 | 450 | | | - |
| HVU-2-SGRD8 | B | SG | 24X12 | 520 | | | - |
| HVU-2-SGRD9 | B | SG | 16X12 | 520 | | | - |
| HVU-2-SGRD10 | B | SG | 16X12 | 450 | | | - |
| HVU-2-SGRD11 | B | SG | 16X12 | 520 | | | - |
| HVU-2-SGRD12 | B | SG | 36X12 | 520 | | | - |
| HVU-2-SGRD13 | B | SG | 36X12 | 450 | | | - |
| HVU-2-SGRD14 | B | SG | 36X12 | 520 | | | - |
| HVU-2-SGRD15 | B | SG | 24X12 | 450 | | | - |
| HVU-2-SGRD16 | B | SG | 24X12 | 520 | | | - |
| HVU-2-SGRD17 | B | SG | 24X12 | 520 | | | - |
| HVU-2-SGRD18 | B | SG | 16X12 | 450 | | | - |
| HVU-2-SGRD19 | B | SG | 16X12 | 520 | | | - |
| HVU-2-SGRD20 | B | SG | 16X12 | 520 | | | - |
| Total | | | | 9980 | 0 | 0 | 0% |