



EPA Refrigerant Conservation Services Report



Customer: DuPont Experimental Station

Date: 12/20/2017

Location: E315 Powerhouse

| Equipment Type: | |
|---|-------------------------------------|
| Industrial Process / Com. Refrigeration | |
| Commercial - Over 50 lbs Refrigerant | <input checked="" type="checkbox"/> |
| Commercial-Under 50 lbs Refrigerant | |

Equipment ID: CHILLER #8 (GACM117864)

Refrigerant Leak Verification Test - 11/27/2017

Source of Leak: COMPRESSOR OIL RESERVOIR ACCESS COVER PLATE (SMALL)

Corrective Action: Replaced Gasket & Torqued Bolts. Leak Ceased (12/08/2017)

Source of Leak: COMPRESSOR PRV SHAFT SEAL (MEDIUM)

Corrective Action: Removed / Replaced PRV Shaft Seal with NEW Parts (12/11/2017)

Source of Leak: 12" FREE-COOLING BUTTERFLY O-RING FLANGE SEALS (LARGE)

Corrective Action: Removed / Replaced Leaking O-Ring Seals with NEW Parts (12/12/2017)

Source of Leak: _____

Corrective Action: _____

Initial Leak Verification Test : Pass Failed

Was Leak Repaired? Yes No Owner Declined Repair

Verification Test Method: Electronic Detector & Soap Bubbles (100psig Nitrogen Pressure w/R-134a Trace)

Refrigerant Usage Recovered Refrigerant Re-Charged to Chiller - 12/19/2017

Refrigerant Type: (Circle One) R-11 R-12 R-22 R-123 R-134a R-407c R-410a Other: _____

Refrigerant Lbs. Used: 0 lbs Factory Charge or Approximate Charge: 3,250 lbs

Refrigerant Supplied By: Customer JCI Other, Explain _____

Refrigerant Recovery 12/04/2017 (Technician Certification Cards on File at JCI Local Office)

Recovery Unit Model# YORK RTU-10 / 8416 Serial # 61795205-91012424 Mfg. Date Before 11/15/93 Yes / No

Refrigerant Type: (Circle One) R-11 R-12 R-22 R-123 R-134a R-407c R-410a Other: _____

Refrigerant Re-Charged to Sys.? Yes No - 12/19/2017 Refrigerant Lbs. Recovered: 2,540 lbs

Refrigerant Not Re-Charged, Explanation: _____

Refrigerant Leak Rate Formula for Units Greater Than 50 Lbs

(530 lbs. Refrig. Loss / 3070* lbs. ^{Last Recorded Charge}) x (365 / 315 * # of Days Since Refrig. Added) x 100

Refrigerant Leak Rate Percent: 20% Minimal refrigerant leaks were found.

Leak Rate found in excess of 15% 35% annual charge which exceeds legal EPA leak rates.

30-Day Refrigerant Follow-up Verification Test

Date Test Performed: 12/20/2017 Pass Failed

Comments: Verified w/ Electronic Detector & Soap Bubbles (Chiller Pressure @ 70psig). After charge installed.

Additional Comments: New Refrigerant was not added. The last addition was performed 315 days ago on Feb. 8th, 2017. The Total Charge in the Chiller at that time was 3,070lbs. Current Charge in Chiller (as of Dec. 20th, 2017) is 2,540lbs. This is 710lbs below design or a 21.8% deficit.

Technician Signature: [Signature]

Customer Signature: _____