



# EPA Refrigerant Conservation Services Report



Customer: DuPont Experimental Station

Date: 01/25/2018

Location: E315 Powerhouse

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

Equipment ID: CHILLER #7 (S/N: MRP626904)

## Refrigerant Leak Verification Test - 12/22/2017

[1] Source of Leak: Liq. Injection Angle Valve Packing (Before Interstage)

[1] Corrective Action: Loosened Packing, Cleaned Stem, Throttled Valve Back & Forth, Tightened Packing

[2] Source of Leak: H.P. & L.P. Float Adjustment Stem Packings

[2] Corrective Action: Installed New Packing. Tightened.

[3] Source of Leak: 3/4" NPT Refrig. Valve Stem on 3" Liquid Drain Line

[3] Corrective Action: Removed, Installed New Valve w/ Appropriate Thread Sealant.

[4] Source of Leak: Oil Separator Vapor Return Angle Valve Packing (Top of Evap)

[4] Corrective Action: Cleaned Stem, Throttled Back & Forth, Tightened Packing, Installed New Cap O-Ring

[5] Source of Leak: Oil Return Eductor Flare Joint on Solenoid

[5] Corrective Action: Removed Fittings, Cleaned Threads, & Reassembled Tightened

[6] Source of Leak: 1" Thread on Ball Valve (Access Drop Leg on Intercooler)

[6] Corrective Action: Removed, Installed New Valve w/ Appropriate Thread Sealant.

[7] Source of Leak: Oil Separator Vapor Return 1-1/4" Flange Threads

[7] Corrective Action: Isolated Oil Sep. System, Installed New Flanges w/ 1/8" GARLOCK 3504 Gasket & Torqued

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 - 01/12/2018

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

Refrigerant Lbs. Used: 330 lbs Factory Charge or Approximate Charge: 8,970 lbs

Refrigerant Supplied By:  Customer  JCI  Other, Explain \_\_\_\_\_

## Refrigerant Recovery 11/17/2017 (Technician Certification Cards on File at JCI Local Office)

Recovery Unit Model# YORK RTU-10 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 Refrigerant Lbs. Recovered: 8,640 lbs

Refrigerant Not Re-Charged, Explanation: \_\_\_\_\_

## Refrigerant Leak Rate Formula for Units Greater Than 50 Lbs

( 330 lbs. Refrig. Added / 8,970 lbs. in Full Charge ) x ( 365 / 220 # of Days Since Refrig. Added ) x 100

Refrigerant Leak Rate Percent: 6.1%  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: 01/25/2018  Pass  Failed

Comments: Verified w/ Electronic Detector & Soap Bubbles (Chiller Pressure @ 60psig). After charge installed.

Additional Comments: \_\_\_\_\_

Technician Signature: [Signature]

Customer Signature: \_\_\_\_\_