



# EPA Refrigerant Conservation Services Report



Customer: DuPont Experimental Station

Date: 06/06/2017

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 #7 (S/N: MRP626904)

### Refrigerant Leak Verification Test

- [1] Source of Leak: Refrig. Sample Valve, Bottom of Evaporator  
[1] Corrective Action: Removed & Replaced w/ New Valve & Appropriate Sealant 04/24/2017
- [2] Source of Leak: 1/2" Pipe Thread in Compressor Discharge Line for Transducer  
[2] Corrective Action: Removed & Replaced w/ New Piping & Appropriate Sealant 04/24/2017
- [3] Source of Leak: Threaded Well in Compressor Discharge Line for RTD  
[3] Corrective Action: Removed Well, Cleaned Threads, Applied Appropriate Sealant, & Reassembled 05/12/2017
- [4] Source of Leak: Drain Valves on Bottom of Comp. Volutes  
[4] Corrective Action: Removed, Installed New Piping, Valves, & Plugs w/ Appropriate Thread Sealant. 05/12/2017
- [5] Source of Leak: 1/4" Threaded 45L for Balance Piston Transducer  
[5] Corrective Action: Removed Fittings, Cleaned Threads, Applied Appropriate Sealant, & Reassembled 04/24/2017
- [6] Source of Leak: Intercooler High Side Float Adjustment Stem Packing  
[6] Corrective Action: Stroked Adjustment IN & OUT, Cleaned Stem, & Tightened Packing 05/03/2017
- [7] Source of Leak: Interstage FISHER Actuated Valve Steam (only while Rotating)  
[7] Corrective Action: Loosened Packing, Cleaned Stem, Throttled Valve Back & Forth, Evenly 05/03/2017
- [8] Source of Leak: Bottom Oil Sump Sight Glass on Compressor  
[8] Corrective Action: Evenly Tightened Gasket Bolts 05/03/2017

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 New Refrigerant Added to Chiller - 06/06/2017

Refrigerant Type: (Circle One) R-11 R-12 R-22 R-123 R-134a R-407c R-410a Other:  
 Refrigerant Lbs. Used: 270 lbs Factory Charge or Approximate Charge: 8,970 lbs  
 Refrigerant Supplied By:  Customer  JCI  Other, Explain \_\_\_\_\_

### Refrigerant Recovery (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 05/15/2017 Refrigerant Lbs. Recovered: 8,700 lbs  
 Refrigerant Not Re-Charged, Explanation: \_\_\_\_\_

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

( 270 lbs. Refrig. Added / 8,970 lbs. in Full Charge ) x ( 365 / Lesser of 365 Days or # of Days Since Refrig. Added ) x 100  
 Refrigerant Leak Rate Percent: 3%  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: 06/06/2017  Pass  Failed  
 Comments: Verified w/ Electronic Detector & Soap Bubbles (Chiller Pressure @ 60psig). After charge installed.

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

Technician Signature: [Signature] Customer Signature: \_\_\_\_\_