



Refrigeration Preventative Maintenance

Validation Form

Store T# _____

Instructions

Please complete each step and attach a copy of this form to the work order. If the PM includes pull-through work, please attach to work order 2. If there is no pull-through work, please attach to work order 1.

Any repairs found during the completion of this form should be proposed on refrigeration PM work order 2.

Racks and Condensing Units

- Complete acid test on each rack**
 - If acid is indicated during test, please list rack(s) _____
 - If acid is indicated, propose on work order 2 to install acid core dryers and oil change
- Preform non-condensable check on all RTCR/Racks per attached best practice**
 - If failed, please list rack(s) _____
- Check conditions of oil, oil separator filter, oil filter, liquid line filter dryer, and ensure suction filters are pulled for all RTCR/Racks**
 - List rack(s) that require oil change _____
- Set DDR valve, condenser holdback, and receiver pressurization valve per attached best practice and Target ROG for all RTCR/Racks**
 - * If RPV needs replacement, replace with A9 5/8 port 5/8 connection
 - Rack_____ DDR_____ CHB_____ RPV_____
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- Verify proper sequence of operation for all condensers (fans, valves, etc.)**
- Check condition of the condenser coil (damaged, deteriorated, etc.)**
 - Note condenser findings on WO2 and attach pictures
- Measure and record the temperature split across all condenser coils according to refrigeration industry standards (air in and out)**
 - List rack(s) _____
- Ensure racks are running at 25-35% full condenser 30-40% split condenser refrigerant in the receiver**
 - List rack(s) not within guidelines _____ and propose on WO2
 - Super Target's may not fall under these parameters. Have service manager to reach out to technical lead.
- Verify proper sequence of operations and set-up for subcooler (temp/pressure sensors, EPR, settings in subcooler controller, and vapor injection valves). Set according to Target ROG settings.**
 - Rack(s) _____
- Check condition of the compressor contactors and repair or replace as necessary for proper operation**
 - Propose any necessary work on WO2
- Tighten all high/low voltage electrical connections in all RTCRs/DCRs/racks and condensers**
- Ensure proper sequence of operation for all compressor safeties**
 - Low pressure setting below REMS setting / high pressure setting above REMS setting
 - Verify oil controls and demand cooling functions
- Silicone all rub points in all RTCRs/racks**
- Check full operations of all CUs and set per Target ROG (safeties, pressure controls, and pump down)**

- Salesfloor HVAC conditions (take field reading at sensor location with sling using standard HVAC/R practices)**
 - Dry bulb _____ Wet bulb _____ R/H% _____ Dew point _____
 - If less than 5%, enter off-set into E2 controller / If greater than 5%, contact EMC for new sensor
- For systems with adiabatic air cooled condensers, inspect filter media for deterioration and/or material buildup**

Walk-ins

- Check to ensure all walk-in doors close and all door switches are operational**
- Inspect all walk-in door gaskets for tears or rips, ensure gasket is completely attached to door, making a complete seal around entire perimeter**
- Check for heavy ice buildup in walk-in freezer**
- Ensure all evaporator fans are operational**
- Ensure all walk-ins terminate defrost correctly, ensure fans cycle during defrost**
- Check walk-in freezers for strip curtains; inform PML of any missing or damaged curtains (strip curtain is PML responsibility)**
- Check that evaporators in all walk-ins are clean**
 - Propose cleaning on WO2
- Check and balance superheat on all walk-in evaporators**
 - All coils on a circuit should be within one degree of set-point

Salesfloor Cases

- Check that all cases are free of ice buildup**
- Ensure all systems are properly terminating during defrost**
- Check conditions of wires and contactors in the anti-sweat control panel (lighting, door heat panel)**
- Check and balance superheat on all cases**
 - All coils on a circuit should be within one degree of set-point
 - EEPRs should average 20-40% closed

Leak Check

*Replacement parts for leak detection system should be ordered through EMC

- Leak check racks, condensers, walk-ins, and salesfloor cases using electronic leak detection system and soap bubbles**
- Ensure leak detection system is fully operational in all walk-ins, at the DCR, and in the PUC**
- Use test gas to validate PPM alarm threshold level for each leak detection sensor**
- Validate WI horns and strobe lights are functioning during the leak detection sensor test**
- Validate alarm is registering on Einstein controller**
- Validate front office remote alarm horn, light and silence switch are functional**

Refrigerant Type	System Type	Alarm Set Point (PPM)	Alarm Delay
R-404A	Leak Transducer	*65	No Delay
R-134A/R-513A	Leak Transducer	*250	No Delay
R-407A	Leak Transducer	*100	No Delay
R-448A / R-449A	Leak Transducer/IRLDS	100	No Delay/10 min if IRLDS
R-744 EMC Leak Detection	Leak Transducer	*2000	No Delay
IRLDS Leak Detection (All refrigerants)	Infrared Leak Detection System	*750	10 min.

*Industry standard is 100 ppms for Leak Transducers, but high alarm limits may reflect different values in Ultrasite depending on Refrigerant type.

Technician's Signature _____ Date _____

EPA # _____