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Checklist Forms

401 Cabinet Checklist - Spring

401 Cabinet Checklist – Fall

Power Supply Cabinet Checklist

TV2400 Communication Pedestal Checklist

1.0 Maintenance of 401 Type Cabinets

1.1 Scope

This work consists of the scheduled preventative maintenance, inspection and seasonal adjustment of controller cabinets, including the performance of minor repairs and component replacements on an as-needed basis.

1.2 Schedule

All work described herein shall be performed on all CTMS controller cabinets twice annually, once between April 1 and April 30 and again between October 1 and October 31. All of the work shall be completed on all of the cabinets within the specified time limits.

1.3 Method

The Contractor shall complete each of the steps listed in the following subsections, if applicable for the specific time and location at which the maintenance is being carried out. The Contractor shall also complete and submit to the General Manager the appropriate checklist form attached to this section. All deficiencies noted during inspection and any recommendations for repairs or component replacements shall be reported to the General Manager. All repairs shall use materials previously approved by the General Manager. Component replacements may require the Contractor to schedule a return to the site. Scheduling of the work shall be done by the Contractor in consultation with the General Manager as soon as the authorization to proceed has been given.

1.4 Cabinet Mounting

1. Inspect for gasket in place around bottom of pedestal and between pedestal and cabinet. Seal any holes where rodents or insects may enter except those openings intended for drainage.
2. Inspect for loose or missing nuts or washers. Tighten or replace as required.
3. Clean exterior surfaces of the cabinet. Remove any graffiti or posters.
4. Visually inspect for cabinet I.D. plate, corrosion, damage caused by vehicles or damage to paint. Replace I.D. plate if damaged or missing. Repair any damage to the cabinet's finish or structure. Schedule replacement if damage is not repairable.
5. Visually inspect concrete pad for corrosion, spalling, chips and cracks. Make repairs if necessary; schedule replacement if damage is severe.

1.5 Cabinet Enclosure

1. Check for water or heat damage to metalwork. Seal door and filter holders if required.
2. Check that foam cabinet insulation is in place. Patch or replace if necessary.
3. Inspect and lubricate door hinges, door stays and locks.
4. Inspect door gaskets and apply silicone spray. Repair or replace gaskets if necessary.
5. Change filters.
6. Check for rodents, insects or other animal life. Remove any animals from the cabinet, dispose of in accordance with all applicable laws and regulations and apply approved pesticide if required.
7. Carry out visual inspection and clean out all debris.
8. Inspect duct entries and add additional duct-seal or foam where required.
9. If excess humidity is evident, add loose foam chips and rubber mat in bottom of cabinet.

1.6 Cabinet Equipment

1. Check that the cabinet ground bus is securely connected to the #6 AWG system ground wire and that the wires and connection are completely coated to keep moisture out and prevent corrosion.
2. Check power bar and replace if there is any evidence of burning or shorts.
3. Check 24 VDC Power Supply Output Voltage. Schedule replacement if not within 24V + or - 0.3 VDC (at ½ load and 40⁰C) or below +22.8 VDC at extreme operating condition.
4. Check Power Distribution Assembly (PDA) and schedule replacement if there is any evidence of burning, shorts or damage by lightning.
5. Check M.O.V's on incoming line visually. Replace and apply anti-oxidizing compound to service panel surface if required to maintain good electrical contact for grounding and M.O.Vs.
6. Check Gas Discharge Tube surge arrestor on incoming feeders visually. Replace if required.

7. Check main disconnects for any evidence of lightning damage. Schedule for replacement if damaged. Note that the main disconnect breaker for 600 V systems is normally in the 120 V power supply cabinet adjacent to the controller cabinet. An additional main disconnect switch is located within the cabinet enclosure, in the PDA.
8. Test fan for operation from the thermostat panel (manual). Ensure to leave thermostat panel in “Auto” position. Note that the object of the thermostat panel is to turn off the communications equipment duplex receptacle if the temperature falls below -5°C (receptacle is turned on again when the temperature rises to -3.5°C) or exceeds $+45^{\circ}\text{C}$ (receptacle is turned on again when the temperature falls to $+38.5^{\circ}\text{C}$) as well as controlling the fan and heater (which in turn attempt to control the temperature in the cabinet). Do not attempt to bypass the control of the communications equipment outlet as the equipment will be damaged. Schedule any required repairs to fans, heaters and thermostat panels as soon as possible. Setting defective thermostats to “manual” is not acceptable; schedule replacement as soon as practical.
9. Check operation of cabinet service light and door switch. Replace light bulb and/or repair switch if necessary.

1.7 Seasonal Adjustments

1. Summarize in Spring by removing and storing filter and fan baffle plates and installing new filters. Verify proper operation of thermostats and fans; reset thermostats if necessary. Schedule repair or replacement of defective thermostats and fans as soon as practical. All thermostats and fans shall be made operational by May 30.
2. Winterize in Fall by installing fan and filter baffle plates. Verify proper operation of thermostats and heaters; reset thermostats if necessary. Schedule repair or replacement of defective thermostats and heaters as soon as practical. All thermostats and heaters shall be made operational by November 30.

2.0 Maintenance of Power Supply Cabinets

2.1 Scope

This work consists of the scheduled preventative maintenance and inspection of power supply cabinets (typical: 600 V primary/120 V secondary) and their internal components, including the performance of minor repairs on an as-needed basis.

2.2 Schedule

All work described herein shall be performed on all RESCU power supply cabinets twice annually, once between March 15 and May 30 and again between September 15 and November 30. All of the work shall be completed on all of the power supply cabinets within the specified

time limits. If the power supply cabinet is located next to a controller cabinet, the work shall be carried out at the same time as the preventative maintenance for the 401 type controller cabinet.

2.3 Method

The Contractor shall complete each of the steps listed in the following subsections, if applicable for the specific time and location at which the maintenance is being carried out. The Contractor shall also complete and submit to the General Manager the appropriate checklist form attached to this section. All deficiencies noted during inspection and any recommendations for repairs or component replacements shall be reported to the General Manager. All repairs shall use materials previously approved by the General Manager. Component replacements may require the Contractor to schedule a return to the site. Scheduling of the work shall be done by the Contractor in consultation with the General Manager as soon as the authorization to proceed has been given.

2.4 Cabinet Mounting

1. Inspect for gasket in place around bottom of pedestal and between pedestal and cabinet. Seal any holes where rodents or insects may enter except those openings intended for drainage.
2. Inspect for loose or missing nuts or washers. Tighten or replace as required.
3. Clean exterior surfaces of the cabinet.
4. Visually inspect for cabinet I.D. plate, corrosion, damage caused by vehicles or damage to paint. Replace I.D. plate if damaged or missing. Repair any damage to the cabinet's finish or structure. Schedule replacement if damage is not repairable.
5. Visually inspect concrete pad for corrosion, spalling, chips and cracks. Make repairs if necessary; schedule replacement if damage is severe.

2.5 Cabinet Enclosure

1. Check for water or heat damage to metalwork. Seal door and filter holders if required.
2. Inspect and lubricate door hinges, door stays and locks.
3. Inspect door gaskets and apply silicone spray. Repair or replace gaskets if necessary.
4. Check for rodents, insects or other animal life. Remove any animals from the cabinet, dispose of in accordance with all applicable laws and regulations and apply approved pesticide if required.

5. Carry out visual inspection and clean out all debris.
6. Inspect duct entries and add additional duct-seal or foam where required.
7. If excess humidity is evident, add loose foam chips and rubber mat in bottom of cabinet.

2.6 Cabinet Equipment

1. Check that the cabinet ground bus is securely connected to the #6 AWG system ground wire and that the wires and connection are completely coated to keep moisture out and prevent corrosion.
2. Check power bar and replace if there is any evidence of burning or shorts.

3.0 Maintenance of Communications Pedestals

3.1 Scope

This work consists of the scheduled preventative maintenance and inspection of base mounted communication pedestals, including the performance of minor repairs on an as-needed basis.

3.2 Schedule

All work described herein shall be performed on all RESCU communication pedestals twice annually, between March 15 and May 30 and again between September 15 and November 30. All of the work shall be completed on all of the pedestals within the specified time limits. The work shall be carried out at the same time as the preventative maintenance for nearby 401 type controller cabinet(s).

3.3 Method

The Contractor shall complete each of the steps listed in the following subsections, if applicable for the specific time and location at which the maintenance is being carried out. The Contractor shall also complete and submit to the General Manager the appropriate checklist form attached to this section. All deficiencies noted during inspection and any recommendations for repairs or component replacements shall be reported to the General Manager. All repairs shall use materials previously approved by the General Manager. Component replacements may require the Contractor to schedule a return to the site. Scheduling of the work shall be done by the Contractor in consultation with the General Manager as soon as the authorization to proceed has been given.

3.4 Cabinet Mounting

1. Inspect for gasket in place around bottom of pedestal and between pedestal and cabinet. Seal any holes where rodents or insects may enter except those openings intended for drainage.
2. Inspect for loose or missing nuts or washers. Tighten or replace as required.
3. Clean exterior surfaces of the cabinet.
4. Visually inspect for cabinet I.D. plate, corrosion, damage caused by vehicles or damage to paint. Replace I.D. plate if damaged or missing. Repair any damage to the cabinet's finish or structure. Schedule replacement if damage is not repairable.
5. Visually inspect concrete pad for corrosion, spalling, chips and cracks. Make repairs if necessary; schedule replacement if damage is severe.

3.5 Cabinet Enclosure

1. Check for water or heat damage to metalwork.
2. Inspect and lubricate door hinges, door stays and locks.
3. Inspect door gaskets and apply silicone spray. Repair or replace gaskets if necessary.
4. Check for rodents, insects or other animal life. Remove any animals from the cabinet, dispose of in accordance with all applicable laws and regulations and apply approved pesticide if required.
5. Carry out visual inspection and clean out all debris.
6. Inspect duct entries and add additional duct-seal or foam where required.
7. If excess humidity is evident, add loose foam chips and rubber mat in bottom of cabinet.

3.6 Cabinet Equipment

1. Check that the cabinet ground bus is securely connected to the #6 AWG system ground wire and that the wires and connection are completely coated to keep moisture out and prevent corrosion.
2. Check power bar and replace if there is any evidence of burning or shorts.

3. Visually inspect wiring and components. Report any apparent damage to the General Manager for action.

401 CABINET CHECKLIST – SPRING
CABINET # _____
CHECK THE FOLLOWING ITEMS

Initial

- _____ 1. Correct ventilation covers for summerization:
- _____ i) Clean snow shields of grime and store in the cabinet on back of the cabinet rear door. (Shields are presently installed in the ventilation slots for winterisation).
- _____ ii) Clean the exhaust vent plate of grime and store in the cabinet on back of the cabinet rear door. (Plates are presently installed in exhaust vent for winterisation).
- _____ iii) Replace filter. Filter shall be a tack synthetic fibre, graduated density, 16" x 12" x 0.875" supplied by RESCU. The filter shall be installed inside the metallic frames of the cabinet front door.
- _____ 2. Clean up (vacuum) excessive dirt, moisture or other foreign substances.
_____ (Caution: Do not bend fibre optic cables or disturb cabinet equipment).
- _____ 3. Confirm operation of cabinet light, fan heater, service outlet
_____ (test GFI and reset).
- _____ 4. Check that cabinet is securely mounted, and properly sealed
_____ (cabinet gasket & caulking).
- _____ 5. Clean and oil all door locks, hinges and latch mechanisms
_____ (ensure enclosure keyholes covers are closed).
- _____ 6. Spray 10W40 on corrosion spots.
- _____ 7. Check cabinet grounds are securely connected.

401 CABINET CHECKLIST – SPRING Cont'd

8. Thermostat Panel

Manufacturer: _____

Model No.: _____

Alarm Status: _____

Settings: a) Heater (Ht): _____

b) Fan (Fn): _____

c) High Cutoff (HI.Ct 45⁰ C): _____

d) Low Cutoff (LO.Ct -5⁰ C): _____

Record existing values and then adjust Cutoffs to new settings.

e) High Cutoff Count (HI.Fl): _____

f) Low Cutoff Point (LO.Fl): _____

g) Highest Temp (HI.t): _____

h) Lowest Temp (LO.t): _____

Report Heater Type (old style or new style): _____

Settings e) to h) apply to digital thermostat models and are not applicable to analog thermostat models.

Note: Notify RESCU immediately of any thermostat panel malfunctions.

9. Report any visible damage.

Service Date: _____

Completed by: _____

Note: Report all further repairs that may be required.
Record NA for items that or not applicable to this unit, or this time period.

401 CABINET CHECKLIST – FALL
CABINET # _____
CHECK THE FOLLOWING ITEMS

Initial

- _____ 1. Correct ventilation covers for winterization:
- _____ i) Clean snow shields of grime and place in front of the ventilation slots for winter cover (Shields are presently stored in the cabinet on back of the cabinet door),
- _____ ii) Clean the exhaust vent plate of grime and place over the exhaust vent. Apply grease to the screws holding this plate. (Plates are presently stored in the cabinet on back of the cabinet door).
- _____ 2. Clean up (vacuum) excessive dirt, moisture or other foreign substances.
(Caution: Do not bend fibre optic cables or disturb cabinet equipment).
- _____ 3. Confirm operation of cabinet light, fan heater, service outlet (test GFI and reset).
- _____ 4. Check that cabinet is securely mounted, and properly sealed (cabinet gasket & caulking).
- _____ 5. Clean and oil all door locks, hinges and latch mechanisms (ensure enclosure keyholes covers are closed).
- _____ 6. Spray 10W40 on corrosion spots.
- _____ 7. Check cabinet grounds are securely connected.

401 CABINET CHECKLIST – FALL cont'd

8. Thermostat Panel

Manufacturer: _____

Model No.: _____

Alarm Status: _____

Settings: a) Heater (Ht): _____

b) Fan (Fn): _____

c) High Cutoff (HI.Ct 45°C): _____

d) Low Cutoff (LO.Ct -5°C): _____

Record existing values and then adjust Cutoffs to new settings. _____

e) High Cutoff Count (HI.FI): _____

f) Low Cutoff Point (LO.FI): _____

g) Highest Temp (HI.t): _____

h) Lowest Temp (LO.t): _____

Report Heater Type (old style or new style): _____

Settings e) to h) apply to digital thermostat models and are not applicable to analog thermostat models.

Note: Notify RESCU immediately of any thermostat panel malfunctions.

9. Report any visible damage.

Service Date: _____

Completed by: _____

Note: Report all further repairs that may be required.
Record NA for items that are not applicable to this unit, or this time period.

POWER SUPPLY CABINET CHECKLIST
CABINET # _____
CHECK THE FOLLOWING ITEMS

Initial

- _____ 1. Re-glue seals if needed, caulking, clean dirt (vacuum).
- _____ 2. Oil all door locks, hinges and latch mechanisms
(ensure enclosure keyholes covers are closed).
- _____ 3. Spray 10W40 on corrosion spots.
- _____ 4. Cabinet grounds are securely connected.
- _____ 5. Report any visible damage.

Service Date: _____

Completed by: _____

Note: Report all further repairs that may be required.
Record NA for items that or not applicable to this unit, or this time period.

TV2400 COMMUNICATION PEDESTAL CHECKLIST
CABINET # _____
CHECK THE FOLLOWING ITEMS

Initial

- _____ 1. Clean ventilation slots.

 - _____ 2. Oil all door locks, hinges and latch mechanisms (ensure enclosure keyholes covers are closed).

 - _____ 3. Spray 10W40 on corrosion spots.

 - _____ 4. Check cabinet grounds are securely connected.

 - _____ 5. Check cabinet caulking are continuous at base.

 - _____ 6. Report any visible damage.
- _____

Service Date: _____

Completed by: _____

Note: Report all further repairs that may be required.
Record NA for items that or not applicable to this unit, or this time period.