APPENDIX K

TEMPERATURE AND HUMIDITY CONTROL PANEL MODIFICATIONS
**TEMPERATURE & HUMIDITY CONTROL PANEL MODIFICATION**  
**FIGURE K1**

**Control Panel Sequence of Operation**

Total Control Drawing #Q3740 (attached)

**Note:** All temperatures and ranges are being submitted for owner review and approval.

Owner may request other temperatures and set points than those submitted.

**EMCOR shall use the temperatures and set points approved or as revised by the owner.**

**OWNER may request other temperatures and set points than those submitted.**

**PROVIDED BY OTHERS**

**FOR MANUFACTURING OR ANY OTHER PURPOSE WITHOUT PRIOR WRITTEN PERMISSION FROM RSD/TOTAL CONTROL.**

**PROVIDED BY FULLER MECH**

**COPPER CONDUCTORS ONLY RATED 60°C MIN.**

**PLASTIC CONDUCTORS ONLY RATED 60°C MIN. USE COPPER CONDUCTORS.**

**CONTROL PANEL MODIFICATION INSTRUCTIONS:**

**Furnish and install four (4) delay timers in the existing Temperature and Humidity Control Panel, as shown schematically in RED hereon. Existing components are shown in BLACK. Delay timers shall be installed as follows:**

1. **Remove the existing conductors from S350 Module NC terminals to the fan relay coil terminals.**

2. **Furnish and install new 120VAC, SPST delay timers. Delay timers shall be Model 700-6EA-2U3 (On-Delay), as manufactured by Allen Bradley (Rockwell), or equal. Mount delay timer on existing DIN Rail in location shown on Figure K2.**

3. **Provide new #14 conductors and terminate conductors as shown on Figure K3. New conductors shall be routed in existing open-slot wire duct (panduit).**

4. **Delay timers shall initially set as follows: DT2-10sec, DT3-20sec, DT4-30sec, and DT5-40sec.**

**Control Panel Sequence of Operation**

**Unit 1, A350 close R1 contact @ 76 degrees F and will continue to run until A350 senses area temperature of 78 degrees F.**

- **Pump will run, by closing R10 Contact, if humidity in area is 55% or below and stop went area humidity is 57%.**

- **W351 Humidistat shall control Pumps for Cooling. Pump shall be locked out if Fan interlock Relay is open.**

**Unit 2, A350 close R2 contact @ 78 degrees F and will continue to run until A350 senses area temperature of 73 degrees F.**

- **Pump will run, by closing R2 Contact, if humidity in area is 49% or below and stop went area humidity is 56%.**

- **W351 Humidistat becomes operational when Fan is running.**

**Unit 3, A350 close R3 contact @ 75 degrees F and will continue to run until A350 senses area temperature of 76 degrees F.**

- **Pump will run, by closing R3 Contact, if humidity in area is 47% or below and stop went area humidity is 55%.**

**Unit 4, A350 close R4 contact @ 76 degrees F and will continue to run until A350 senses area temperature of 77 degrees F.**

- **Pump will run, by closing R4 Contact, if humidity in area is 46% or below and stop went area humidity is 55%.**

**Unit 5, A350 close R5 contact @ 77 degrees F and will continue to run until A350 senses area temperature of 77 degrees F.**

- **Pump will run, by closing R5 Contact, if humidity in area is 45% or below and stop went area humidity is 55%.**

Both the A350 temperature sensor and W351 Humidistat (with remote bulb) shall be located in the facility and the controls do not allow for outdoor temperatures or humidity.

**Provide new #14 conductors and terminate conductors as shown on Figure K3.**

**New conductors shall be routed in existing open-slot wire duct (panduit).**

**Delay timers shall initially set as follows: DT2-10sec, DT3-20sec, DT4-30sec, and DT5-40sec.**

**PROVIDED BY OWNER**

**ELECTRICAL WIRING**

**120V SINGLE PHASE**

**ELECTRICAL SERVICE**

**5 4 3 2 1**

**CONTRJ**

**C  NC  NO**

**LS**

**SYSTEMS DISTRIBUTOR**

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TEMPERATURE & HUMIDITY CONTROL PANEL MODIFICATION

FIGURE K2

MOUNT TIMERS ON EXISTING DIN RAIL
TEMPERATURE & HUMIDITY CONTROL PANEL MODIFICATION

FIGURE K3

TO EXISTING 5350 MODULE NC TERMINAL

TO EXISTING FAN RELAY TERMINAL COIL

TO COMMON NEUTRAL

DELAY TIMER SCHEMATIC

TYPICAL OF DT2, DT3, DT4, AND DT5