**This Prefunctional Checklist should be completed as part of startup and initial checkout of the equipment in preparation for Functional Performance testing.**

|  |  |
| --- | --- |
| PC: | **26 24 19** |
| **ITEM:** | **Motor-Control Centers** |
| **ID:** | *(Use one form for each Equipment)* |
| **AREA SERVED:** | *(Building and Room Number / Name)* |

Form Filled Out By:

|  |  |  |
| --- | --- | --- |
|  | Name & Company | Date |
| GC |  |  |
| MC |  |  |
| EC |  |  |
| BC |  |  |
| CC |  |  |
| OR |  |  |
| A/E |  |  |
| CA |  |  |

GC = General Contractor; MC = Mechanical Contractor; EC = Electrical Contractor; BC = Balancing Contractor; CC = Controls Contractor; OR = Owner Representative; A/E = Architect/Engineer; CA = Commissioning Agent

XX = No Initials Required

# DOCUMENTATION VERIFICATION

Check if OK. Enter note number if deficient.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Item** | **GC** | **MC** | **EC** | **BC** | **CC** | **OR** | **A/E** | **CA** |
| Product information submitted | XX | XX |  | XX | XX |  |  |  |
| Shop drawings submitted | XX | XX |  | XX | XX |  |  |  |
| Manufacturer’s installation instructions submitted | XX | XX |  | XX | XX |  |  |  |
| O & M Manuals submitted | XX | XX |  | XX | XX |  |  |  |

# MODEL VERIFICATION

Fill in requested information.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Installed | **Submitted** | **Specified** |
| Manufacturer |  |  |  |
| Model |  |  |  |
| Volts/Phase Rating |  |  |  |
| Location |  |  |  |
| Service Area |  |  |  |
| Short Circuit Capacity |  |  |  |
| Main Bus Amperage |  |  |  |

# INSTALLATION VERIFICATION

**This checklist does not take the place of the manufacturer’s recommended checkout and startup procedures or report.**

Check if OK. Enter Outstanding Item Note number if deficient.

| **No** | **Item** | **GC** | **MC** | **EC** | **CC** | **OR** | **A/E** | **CA** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | Equipment installed per manufacturer’s instructions and specifications |  |  |  |  |  |  |  |
| 2 | Equipment installed agrees with shop drawings and specifications |  |  |  |  |  |  |  |
| 3 | Verify mounting, location and clearances are per plans and specifications |  |  |  |  |  |  |  |
| 4 | Inspect for physical, electrical and mechanical condition of equipment and cabinet - no damage evident |  |  |  |  |  |  |  |
| 5 | Inspect panels and doors for proper fit and alignment |  |  |  |  |  |  |  |
| 6 | Equipment labels permanently affixed |  |  |  |  |  |  |  |
| 7 | Panel is clean and clear of dust or dirt |  |  |  |  |  |  |  |
| 8 | Verify the application of manufacturer recommended torque values applied to bolted connections |  |  |  |  |  |  |  |
| 9 | Verify correct circuit breaker sizes and types per the specifications and manufacturer’s drawings |  |  |  |  |  |  |  |
| 10 | Seismic anchoring installed and functional where applicable (non-short circuiting) |  |  |  |  |  |  |  |
| 11 | Verify that all manufacturer control wiring between shipping splits is properly connected per manufacturer’s drawings and specifications |  |  |  |  |  |  |  |
| 12 | Inspect insulators, barriers and shields for damage or contamination |  |  |  |  |  |  |  |
| 13 | Verify that ground bus is properly bonded to enclosure, enclosure is grounded and resistance to ground meets grounding specifications |  |  |  |  |  |  |  |
| 14 | Verify three or four wire configuration |  |  |  |  |  |  |  |
| 15 | Neutral bus isolated from cabinet |  |  |  |  |  |  |  |
| 16 | Verify that bottom feed conduits align with appropriate openings in MCC and can accommodate seismic motion |  |  |  |  |  |  |  |
| 17 | Verify that MCC is properly grounded and resistance to ground meets grounding specifications |  |  |  |  |  |  |  |
| 18 | Metering (if provided) matches specified |  |  |  |  |  |  |  |
| 19 | Verify the vents and air inlets are free and unobstructed. Clean air filters installed (if required) |  |  |  |  |  |  |  |
| 20 | Megger test of bus – phase to phase and phase to ground. Test voltage per manufacturer’s recommendations |  |  |  |  |  |  |  |
| 21 | Verify voltage and current rating of circuit breaker are per plans and specifications |  |  |  |  |  |  |  |
| 22 | Confirm correct application of manufacturer’s recommended lubricant |  |  |  |  |  |  |  |
| 23 | Verify that primary and secondary contact wipe dimensions are correct |  |  |  |  |  |  |  |
| 24 | Verify breakers are mounted securely and operates smoothly |  |  |  |  |  |  |  |
| 25 | Verify wire is properly installed and suitable size for breaker |  |  |  |  |  |  |  |
| 26 | Check cell fit and element alignment |  |  |  |  |  |  |  |
| 27 | Check racking mechanism |  |  |  |  |  |  |  |
| 28 | Installed per manufacturer’s instructions, plans and specifications |  |  |  |  |  |  |  |
| 29 | Verify voltage and current rating of Motor Circuit Protectors (MCP’s) are per plans and specifications |  |  |  |  |  |  |  |
| 30 | Verify motor starter sizes (NEMA) are per plans and specifications |  |  |  |  |  |  |  |
| 31 | Verify proper phasing (A, B, C) |  |  |  |  |  |  |  |

# OUTSTANDING ITEMS

Note outstanding items in table below. Use numbers referenced above.

|  |  |  |
| --- | --- | --- |
| Resolved (Initial / Date) | **Note** | Description |
|  | **1.** |  |
|  | **2.** |  |
|  | **3.** |  |
|  | **4.** |  |
|  | **5.** |  |
|  | **6.** |  |
|  | **7.** |  |
|  | **8.** |  |
|  | **9.** |  |
|  | **10.** |  |

# FIELD NOTES

Fill in as appropriate.

|  |
| --- |
|  |
|  |
|  |
|  |
|  |

# SIGN OFF

System / Equipment has been installed in accordance with the Contract Documents and is ready for Functional Testing.

|  |  |  |
| --- | --- | --- |
|  | **Signature** | **Date** |
| **Contractor’s Representative** |  |  |
| **A /E Representative** |  |  |
| **Commissioning Agent** |  |  |
| **Owner’s Representative** |  |  |

##### END OF CHECKLIST