

SOM FACILITIES START-UP AND COMMISSIONING CHECK LIST FOR ELECTRICAL EQUIPMENT

Building:	Project Name:	
Date:	Name:	

MOTOR CONTRL CENTER

ITEM	DESCRIPTION	STATUS	COMMENTS
1	Visual and Mechanical Inspection		
a	Document equipment nameplate data on test report	P F	_____
b	Inspect physical, electrical, and mechanical condition	P F	_____
c	Confirm correct application of lubricants at manufacturer's recommended locations	P F	_____
d	Verify appropriate anchorage, required area clearances, physical damage, and correct alignment and cleanliness	P F	_____
e	Verify that fuse and/or circuit breaker sizes and types correspond to drawings and coordination study.	P F	_____
f	Verify that current and potential transformer ratios correspond to drawints	P F	_____
g	Verify tightness of accessible bolted electrical connections by calibrated torque-wrench method	P F	_____
h	Confirm correct operation and sequencing of electrical and mechanical interlock system.	P F	_____
i	Attempt closure on locked-open devices. Attempt to open locked-closed devices.	P F	_____
j	Make key exchange with devices operated in off-normal positions	P F	_____

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ITEM	DESCRIPTION	STATUS	COMMENTS
1	Visual and Mechanical Inspection (continued)		
k	Inspect insulators for evidence of physical damage or contaminated	P F	_____

	surfaces			
I	Verify correct barrier and shutter installation and operation.	P	F	
m	Exercise all active componets			
n	Verify filters are in place and/or vents are clear	P	F	
o	Test operation, alignment, and penetration of instrument transformer withdrawal disconnects, current carrying and grounding	P	F	
p	Inspect control power transformers	P	F	
q	Inspect physical damage, cracked insulation, broken leads, tightness of connections, defective wiring & overal general condition	P	F	
r	Verify that primary and secondary fuse ratings or circuit breakers match drawings	P	F	
s	Verify labeling consistent with drawings Emergency panel labels red (Division 16)	P	F	
t	Verify panels are marked with Voltage & Amperage	P	F	
u	Verify "Arc Flash Labels" are applied	P	F	
w	Damaged paint repaired with correct color	P	F	
x	Verify adequate lighting, Emergency lighting if available	P	F	
y	Verify that there are no piping or ducts above panels	P	F	

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ITEM	DESCRIPTION	STATUS		COMMENTS
2	Electrical Tests			
a	Perform insulation-resistance test on each bus section, phase-to-phase & phase-to-ground at the minimum dc Test voltage for equip	P	F	
b	Perform control wiring performance test	P	F	
c	Verify operation of motor control center heaters	P	F	
d	Determine accuracy of all meters	P	F	

e Test individual circuit breakers larger than 400A

P F

3 Optional Tests

a Perform insulation-resistance test at 500 Vdc on all control wiring except on wiring connected to solid-state components

P F

b Perform tests on all instrument transformers

P F

c Perform the following tests on control power transformers:

P F

- Perform insulation-resistance test
- Perform secondary wiring integrity test
- Verify correct secondary voltage by energizing primary winding with system voltage.

d Perform the following tests on potential transformers:

P F

- Perform secondary wiring integrity test
- Verify secondary voltage by energizing primary winding with system voltage.

e Perform a power frequency test (High Pot) on each bus section, each phase-to-ground with phases not under test grounded.

P F

P F

f Perform ground-resistance tests

P F