

	Functional Test	Interval							
		Weekly	Monthly	Quarterly	Semi Annual	Annual	Every 2 Year	Every 3 Year	Other
Engineering Studies									
Coordination Study									Every 5 years and in conjunction with electrical system modifications. NETA MTS 6.2
Short Circuit Study									Every 5 years and in conjunction with electrical system modifications. NETA MTS 6.1
Arc Flash Analysis									Every 5 years and in conjunction with electrical system modifications. Consideration should also be given to recapitalization and NFPA-70E. NETA MTS 6.3
Utility (Medium Voltage) Systems									
Service entrance load measurements				X					
Medium voltage conductors and									NETA MTS 7.3.3

connections									
	Visual Inspection					X			
	Infrared Scan					X			
	Very Low frequency or Hi-pot test (DC) ¹							X	

¹ It is important to understand that a Hi-pot test generates voltages and currents that can cause harm to testers or equipment. When considering a Hi-pot test, the tester should understand the risks, such as the potential to cause harm and/or potential damage to cables with extended service lives.

	Functional Test	Interval							
		Weekly	Monthly	Quarterly	Semi Annual	Annual	Every 2 Year	Every 3 Year	Other
Utility (Medium Voltage) Systems									
	Oil test (dielectric, acidity, color, pf interfacial tension)					X			After transformer fuse or OCPD activation due to fault
	Oil test (dissolved gas)						X		After transformer fuse or OCPD activation due to fault
	Insulation resistance (power factor)							X	
	De-energized cleaning and testing							X	
Low Voltage(<600V) Systems									
	Mechanical electrical distribution load measurements				X				
	Low voltage conductors and connections					X			NETA MTS 7.3.2
	Splices in conductors that support mission critical equipment					X			

	Functional Test	Interval							
		Weekly	Monthly	Quarterly	Semi Annual	Annual	Every 2 Year	Every 3 Year	Other
Low Voltage(<600V) Systems									
Dry type transformers									NETA MTS 7.2.1.1, cleaning/de-energizing is recommended every 1-2 years
	Infrared scan					X			
Switchgear									NETA MTS 7.5.1.1, consideration should be given to both switchgear and switchboards.
	Infrared scan					X			
	De-energized cleaning and testing							X	
	Test alarms and remote monitoring					X			
	Backup PLC and system programs/software					X			After all changes in program and PLC reboot verifies program has been downloaded
Control batteries and battery charger									

	Visual inspection	X							
	Test batteries				X				
Instruments and metering	Inspect and calibrate							X	
Fuses and fuse holders	Inspect and test					X			

	Functional Test	Interval							
		Weekly	Monthly	Quarterly	Semi Annual	Annual	Every 2 Year	Every 3 Year	Other
Low Voltage(<600V) Systems									
Draw-out type breakers									
	Operate breaker					X			
	Internal inspection of the breaker							X	Consideration also to NETA MTS when conducting
	Test and lubricate breaker							X	
	Insulation resistance test							X	
	Test trip unit (primary or secondary injection)							X	
	Trip unit settings							X	

	Contact conductivity test							X	
Molded case circuit breakers									NETA MTS 7.6.1.1
	Operate breaker					X			

	Functional Test	Interval							
		Weekly	Monthly	Quarterly	Semi Annual	Annual	Every 2 Year	Every 3 Year	Other
Low Voltage(<600V) Systems									
	Test trip unit (primary or secondary injection)							X	Refer to NETA MTS for primary versus secondary testing recommendations
Panel boards									
	Infrared scan					X			
Protective relays ²						X			NETA MTS 7.9.1, 7.9.2
	Test (timing, pickup, time delay)							X	

² Protective relays should be tested with its associated MV breaker to ensure control power/wiring, trip coil, and batteries work properly.

	Check settings							X	
UPS System									
UPS Output Load Measurements		X							
	Visual inspection	X							
	Preventive maintenance per manufacturers recommendations				X	X			

	Functional Test	Interval							
		Weekly	Monthly	Quarterly	Semi Annual	Annual	Every 2 Year	Every 3 Year	Other
UPS System									
	Transfer of UPS system to bypass					X			
	Test alarms and remote monitoring				X	X			
VRLA batteries	Per IEEE 1188			X					
Wet cell batteries	Per IEEE 450			X					
Power Systems Directly Supporting DODIN Equipment									
Rectifiers and Battery Chargers		X							NETA MTS 7.18.2, 7.18.3
	Visual inspection	X							
	Preventive maintenance per manufacturers recommendations				X	X			
	Load test of batteries using DODIN equipment as load					X			
	Test alarms and remote monitoring				X	X			

	Functional Test	Interval							
		Weekly	Monthly	Quarterly	Semi Annual	Annual	Every 2 Year	Every 3 Year	Other
Power Systems Directly Supporting DODIN Equipment									
VRLA batteries	Per IEEE 1188			X					
Wet cell batteries	Per IEEE 450			X					
Generator Plant									
UPS output load measurements				X					
	Visual inspection (temp > 32°F)	X							
	Visual inspection (temp < 32 °F)								Twice Per Week
	Test alarms and remote monitoring					X			
Engine	Preventive maintenance per manufacturer recommendations			X	X	X			
Generator									
	Vibration analysis (standby systems)					X			

	Functional Test	Interval							
		Weekly	Monthly	Quarterly	Semi Annual	Annual	Every 2 Year	Every 3 Year	Other
Generator Plant									
	Vibration analysis (continuous systems)				X				
Batteries and battery charger									
	Test batteries				X				
Fuel System									
	Visual inspection	X							Bi-weekly are also acceptable based on mission constraints
	Fuel System Filter Change					X			Or manufacturer's recommendation if sooner
	Test					X			
Operational Tests									
Generator									
	Operational run utilizing control test functions (with building load)		X			X			Full load test with load banks should be performed annually
	Utility fail test			X					After repair or modification to the controls of the generator plant