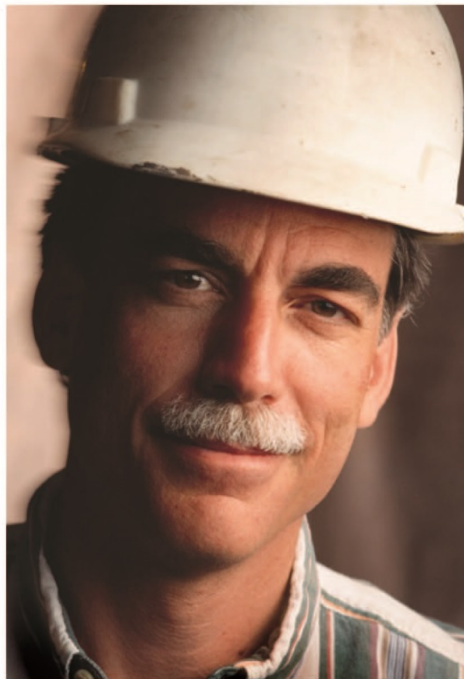


■ Customer Name :
USMC Reserve
Training Center
Johnstown, PA

ASCO® Power
Services *Mission Critical Care*



Activity : ASCO Scheduled Maintenance

Dates : 9/18/19



September 26, 2019

USMC Reserve Training Center

We are pleased to provide you with this report of recent service work performed at your facility.

We understand you have a choice when it comes to Service. Thank you for choosing ASCO products & services for your critical application. We are constantly striving to make our organization the best.

Please feel free to contact us directly with comments & suggestions. Thank you for using ASCO Power Services.

Best Regards,

Your ASCO Power Services Team

Matt Miller
Account Representative
Office: (412) 431-9648

Dave Cowan
North Central District Service Manager
Office: (937) 642-1833
Mobile: (614) 477-8132



Power Services

Equipment List

[illegible]



Summary

General Comments

ASCO Power Services dispatched a field service technician to perform a scheduled maintenance service. Inspected, cleaned, and recalibrated the equipment and found:

Specific Comments / Recommendations

- Test ATS periodically.
- Continue annual SM's to increase the life of the ATS.

Equipment ID	ATS Heating Bldg 288
Serial Number	F080191450

Scheduled Maintenance Data Sheet

Service Date	09/18/2019	Catalog Number	OTECA-7211826		
BOM	SPEC A	Voltage	480	Amperes	125
Site Name	Bldg 288	Phase	3	CP Model	Other
Street Address		Frequency	60 Hz		
City, State, & Zip	Johnstown PA 15905	Arc Flash Rating - Cal	cal/cm^2 Not Labeled		
Service Order #	278083	Service Technician	Keith Eckert		
Mod Service Order #		Accessories			

Comments	CONTINUE SERVICE ON ATS. SERVICE DONE AS LIVE INSPECTION.
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Recommendations	
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Equipment ID	ATS Heating Bldg 288
Serial Number	F080191450

Disable Engine Start	Yes
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Bypass ATS	N/A
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Isolate ATS	No
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Settings			
Normal Source			
Voltage PU %	90	432	VAC
Voltage DO %	85	408	VAC
Freq PU %	95	57	Hz
Freq DO %	90	54	Hz
Overvoltage %		Disabled/Off	
Rotation	Disabled/No		ABC
Emergency Source			
Voltage PU %	90	432	VAC
Voltage DO %	75	360	VAC
Freq PU %	95	57	Hz
Freq DO %	90	54	Hz
Overvoltage %		Disabled/Off	
Rotation	Disabled/No		ABC
In-Phase Monitor	Enabled/Yes		

Timing				
Normal to Emergency				
Acc 1 override mom. outages	1	SEC		
Acc 2B xfer to emergency	0	SEC		
In sync		SEC	N/A	
Fail to sync		SEC	N/A	
Load Disconnect (DTTS)		SEC	N/A	
Commit to Transfer	Disabled/No			
Emergency to Normal				
Acc 1F override mom. outages	0		SEC	
Acc 3A xfer to normal - test	30		MIN	
Acc 3A xfer to normal - fail	30		MIN	
Acc 2E Engine Cooldown	0		SEC	
Phase Voltage	A-B	B-C	C-A	Phase Current
Normal Voltage	487	488	488	Normal Current
Emergency Voltage	76	475	476	Emergency Current
Record Generator Start Voltage	13.01	VDC		Generator Frequency
Connected	A-L	B-L	C-L	Bypassed
Record Normal mV Drop	9	9	8	Record Normal mV Drop
Emergency mV Drop	7	7	5	Emergency mV Drop
Temperature Readings				
Connected To Normal	A	76	B	76
Connected To Emergency	A	76	B	76
Ambient	75	All Readings In F		

Control Panel Data	
Software Vers.	N/A
Total Transfers	N/A
FailTransfers	N/A
Days Energized	N/A
Baud Rate	N/A
Address	
Accessory Timing	
Acc 31F N>E Pre	0 SEC
Acc 31M N>E Post	0 SEC
Acc 31G E>N Pre	0 SEC
Acc 31N E>N Post	0 SEC
Acc 2C	SEC

Equipment ID	ATS Heating Bldg 288
Serial Number	F080191450

	Stationary Contacts			Moveable Contacts		
Contact Inspection	A	B	C	A	B	C
Emergency Main Contact	N/A	N/A	N/A	N/A	N/A	N/A
Emergency Arcing Contact	N/A	N/A	N/A	N/A	N/A	N/A
Normal Main Contact	N/A	N/A	N/A	N/A	N/A	N/A
Normal Arcing Contact	N/A	N/A	N/A	N/A	N/A	N/A

E-Excellent; S-Satisfactory; P-Poor

Contact Resistance	A-L	B-L	C-L	N-L
ATS Normal	LIVE	LIVE	LIVE	LIVE
ATS Emergency	LIVE	LIVE	LIVE	LIVE
Bypass Normal	LIVE	LIVE	LIVE	LIVE
Bypass Emergency	LIVE	LIVE	LIVE	LIVE

All contact resistance readings listed in micro-ohms

Coil Resistance in Ω	TS Coil	Dual Operator N	Dual Operator E
Primary	AC COIL Ω	N/A Ω	N/A Ω
Secondary	N/A Ω	N/A Ω	N/A Ω

Coil Resistor in Ω
N/A Ω

Serviceable Items Checklist			
Live	All relay contacts under 1 ohm	Live	Switch operates manually without binding
Live	TS Control and Aux Contacts under 1 ohm	N/A	9-Volt battery replaced (Group 1 CP only)
Live	Check TS Control and Contact linkage adjust	Live	Cubicle/cabinet vacuumed and wiped clean
Live	Clean main contacts on emergency side	Live	Rectifier in good condition
Live	Clean arcing contacts on emergency side	No	Bypass power supplies function properly
Live	Clean main contacts on normal side	Live	Evidence of thermal damage
Live	Clean arcing contacts on normal side	Live	Temp Variance >25F on current carrying parts
Live	Check wiring & cable connections for tightness	Live	Evidence of therm damage to insulating parts
Live	Lubricate coil, cam, & linkage	Live	Evidence of moisture on insulating parts

Verify ATS Not Isolated	Yes
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Verify ATS Bypass In Auto	Yes
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Verify Engine Start Connected	Yes
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Record Normal mV Drop	A-L	8	B-L	7	C-L	7	Record Generator Start Voltage	12.9	VDC
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Equipment ID	ATS Lighting Bldg 288
Serial Number	F080191449

Scheduled Maintenance Data Sheet

Service Date	09/18/2019	Catalog Number	OTECA-7211827		
BOM	SPEC A	Voltage	480	Amperes	40
Site Name	258 Air Traffic	Phase	3	CP Model	Other
Street Address		Frequency	60 Hz		
City, State, & Zip	Johnstown PA 15905	Arc Flash Rating - Cal	cal/cm^2 Not Labeled		
Service Order #	278083	Service Technician	Keith Eckert		
Mod Service Order #		Accessories			

Comments	CONTINUE SERVICE ON ATS. SERVICE DONE AS LIVE INSPECTION.
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Recommendations	
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Equipment ID	ATS Lighting Bldg 288
Serial Number	F080191449

Disable Engine Start	Yes
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Bypass ATS	N/A
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Isolate ATS	No
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Settings			
Normal Source			
Voltage PU %	90	432	VAC
Voltage DO %	85	408	VAC
Freq PU %	95	57	Hz
Freq DO %	90	54	Hz
Overvoltage %		Disabled/Off	
Rotation	Disabled/No		ABC
Emergency Source			
Voltage PU %	90	432	VAC
Voltage DO %	75	360	VAC
Freq PU %	95	57	Hz
Freq DO %	90	54	Hz
Overvoltage %		Disabled/Off	
Rotation	Disabled/No		ABC
In-Phase Monitor	Enabled/Yes		

Timing				
Normal to Emergency				
Acc 1 override mom. outages	1	SEC		
Acc 2B xfer to emergency	0	SEC		
In sync		SEC	N/A	
Fail to sync		SEC	N/A	
Load Disconnect (DTTS)		SEC	N/A	
Commit to Transfer	Disabled/No			
Emergency to Normal				
Acc 1F override mom. outages	0		SEC	
Acc 3A xfer to normal - test	30		MIN	
Acc 3A xfer to normal - fail	30		MIN	
Acc 2E Engine Cooldown	0		SEC	
Phase Voltage	A-B	B-C	C-A	Phase Current
Normal Voltage	486	488	488	Normal Current
Emergency Voltage	476	474	473	Emergency Current
Record Generator Start Voltage	13.01	VDC		Generator Frequency
Connected	A-L	B-L	C-L	Bypassed
Record Normal mV Drop	5	3	3	Record Normal mV Drop
Emergency mV Drop	12	5	5	Emergency mV Drop
Temperature Readings				
Connected To Normal	A	76	B	76
Connected To Emergency	A	75	B	75
Ambient	75	All Readings In F		

Control Panel Data	
Software Vers.	N/A
Total Transfers	N/A
FailTransfers	N/A
Days Energized	N/A
Baud Rate	N/A
Address	
Accessory Timing	
Acc 31F N>E Pre	0 SEC
Acc 31M N>E Post	0 SEC
Acc 31G E>N Pre	0 SEC
Acc 31N E>N Post	0 SEC
Acc 2C	SEC

Equipment ID	ATS Lighting Bldg 288
Serial Number	F080191449

	Stationary Contacts			Moveable Contacts		
Contact Inspection	A	B	C	A	B	C
Emergency Main Contact	N/A	N/A	N/A	N/A	N/A	N/A
Emergency Arcing Contact	N/A	N/A	N/A	N/A	N/A	N/A
Normal Main Contact	N/A	N/A	N/A	N/A	N/A	N/A
Normal Arcing Contact	N/A	N/A	N/A	N/A	N/A	N/A

E-Excellent; S-Satisfactory; P-Poor

Contact Resistance	A-L	B-L	C-L	N-L
ATS Normal	LIVE	LIVE	LIVE	LIVE
ATS Emergency	LIVE	LIVE	LIVE	LIVE
Bypass Normal	LIVE	LIVE	LIVE	LIVE
Bypass Emergency	LIVE	LIVE	LIVE	LIVE

All contact resistance readings listed in micro-ohms

Coil Resistance in Ω	TS Coil	Dual Operator N	Dual Operator E
Primary	AC COIL Ω	N/A Ω	N/A Ω
Secondary	N/A Ω	N/A Ω	N/A Ω

Coil Resistor in Ω
N/A Ω

Serviceable Items Checklist			
Live	All relay contacts under 1 ohm	Live	Switch operates manually without binding
Live	TS Control and Aux Contacts under 1 ohm	N/A	9-Volt battery replaced (Group 1 CP only)
Live	Check TS Control and Contact linkage adjust	Live	Cubicle/cabinet vacuumed and wiped clean
Live	Clean main contacts on emergency side	Live	Rectifier in good condition
Live	Clean arcing contacts on emergency side	No	Bypass power supplies function properly
Live	Clean main contacts on normal side	Live	Evidence of thermal damage
Live	Clean arcing contacts on normal side	Live	Temp Variance >25F on current carrying parts
Live	Check wiring & cable connections for tightness	Live	Evidence of therm damage to insulating parts
Live	Lubricate coil, cam, & linkage	Live	Evidence of moisture on insulating parts

Verify ATS Not Isolated	Yes
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Verify ATS Bypass In Auto	Yes
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Verify Engine Start Connected	Yes
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Record Normal mV Drop	A-L	4	B-L	3	C-L	3	Record Generator Start Voltage	12.9	VDC
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