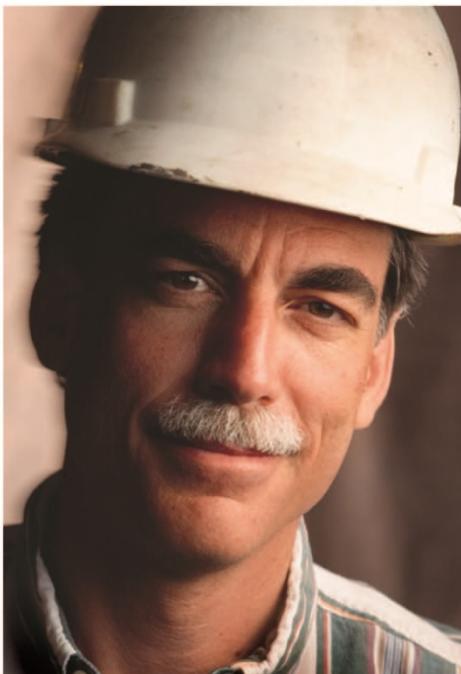


■ Customer Name :  
USMC Reserve  
Training Center  
Johnstown, PA

# 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



## Equipment List



## 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
Site Name	Bldg 288	Amperes	125
Street Address		Phase	3
City, State, & Zip	Johnstown PA 15905	CP Model	Other
Service Order #	278083	Frequency	60 Hz
Mod Service Order #		Arc Flash Rating - Cal	cal/cm^2 Not Labeled
		Service Technician	Keith Eckert
		Accessories	

Comments	<p>CONTINUE SERVICE ON ATS.</p> <p>SERVICE DONE AS LIVE INSPECTION.</p>
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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	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
Normal Voltage	487	488
Emergency Voltage	76	475
Record Generator Start Vdc	13.01	VDC
Generator Frequency	60.04	
Connected	A-L	B-L
Record Normal mV Drop	9	8
Emergency mV Drop	7	5
Temperature Readings		
Connected To Normal	A	76
Connected To Emergency	A	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

Phase Voltage	A-B	B-C	C-A	Phase Current	A	B	C
Normal Voltage	487	488	488	Normal Current	5	3	4
Emergency Voltage	76	475	476	Emergency Current	4	2	7
Record Generator Start Vdc	13.01	VDC	Generator Frequency	60.04		Hz	
Connected	A-L	B-L	C-L	Bypassed	A-L	B-L	C-L
Record Normal mV Drop	9	8	Record Normal mV Drop	N/A	N/A	N/A	
Emergency mV Drop	7	5	Emergency mV Drop	N/A	N/A	N/A	

Equipment ID	ATS Heating Bldg 288
Serial Number	F080191450

Contact Inspection	Stationary Contacts			Moveable Contacts		
	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

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

E-Excellent; S-Satisfactory; P-Poor

Coil Resistance in $\Omega$	TS Coil	Dual Operator N		Dual Operator E	
Primary	AC COIL $\Omega$	N/A	$\Omega$	N/A	$\Omega$
Secondary	N/A $\Omega$	N/A	$\Omega$	N/A	$\Omega$

Coil Resistor in $\Omega$
N/A $\Omega$

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	Verify ATS Bypass In Auto	Yes	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
Site Name	258 Air Traffic	Phase	3
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	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
Normal Voltage	486	488
Emergency Voltage	476	474
Record Generator Start Vdc	13.01	VDC
Generator Frequency	59.99	
Connected	A-L	B-L
Record Normal mV Drop	5	3
Emergency mV Drop	12	5
Temperature Readings		
Connected To Normal	A	76
Connected To Emergency	A	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

Phase Voltage	A-B	B-C	C-A	Phase Current	A	B	C
Normal Voltage	486	488	488	Normal Current	7	2	0
Emergency Voltage	476	474	473	Emergency Current	8	0	0
Record Generator Start Vdc	13.01	VDC	Generator Frequency	59.99		Hz	
Connected	A-L	B-L	C-L	Bypassed	A-L	B-L	C-L
Record Normal mV Drop	5	3	3	Record Normal mV Drop	N/A	N/A	N/A
Emergency mV Drop	12	5	5	Emergency mV Drop	N/A	N/A	N/A

Equipment ID	ATS Lighting Bldg 288
Serial Number	F080191449

Contact Inspection	Stationary Contacts			Moveable Contacts		
	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

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

E-Excellent; S-Satisfactory; P-Poor

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	Verify ATS Bypass In Auto	Yes	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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