

HV Breaker	52-T1			
		CHECK FOR LOOSE HARDWARE AT FLANGE AREAS, GAS PLUMBING SYSTEM, FITTINGS, AND RUPTURE DISK	Mechanical Check	X
		CHECK THE ANTI-PUMPING CIRCUIT.	Functional Check	X
		LEAK TEST ALL FLANGES, FITTINGS, AND GAS SEALING CONNECTIONS.	SF6 Leak Test	X
		LEAK CHECK THE SF6 GAS DENSITY MONITOR	SF6 Leak Test	X
		LEAK CHECK THE PRESSURE GAUGE FITTINGS	SF6 Leak Test	X
		LEAK CHECK THE RUPTURE DISKS	SF6 Leak Test	X
		LEAK CHECK THE BUSHING FLANGES	SF6 Leak Test	X
		LEAK CHECK THE REAR TANK COVER ASSEMBLIES	SF6 Leak Test	X
		LEAK CHECK THE BELLCRANK HOUSINGS	SF6 Leak Test	X
		LEAK CHECK THE INTER PHASE SHAFT SEALS WITH THE BREAKER IN THE OPEN AND CLOSED POSITIONS	SF6 Leak Test	X
		MANUALLY CLOSE BREAKER TO CHECK FOR PROPER WIPE, CONTACT PRESSURE, CONTACT ALIGNMENT, AND TO ENSURE THAT ALL CONTACTS MAKE AT APPROXIMATELY THE SAME TIME.	Functional Check	X
		TOUCH UP ANY CHIPPED PAINT ON THE FRAME.	Mechanical Check	X
		PERFORM INFRARED SURVEY ON BREAKERS	Infrared	X
		CHECK FOR PROPER GROUNDING. CHECK ALL GROUND STRAPS FOR WEAR, CORROSION- ENSURE THAT ALL GROUND STRAP CONNECTIONS ARE TIGHT. REPORT IF CONNECTIONS SHOW SIGNS OF CORROSION OR DAMAGE	Visual Check	X

HV Breaker	52-T2			
		CHECK FOR LOOSE HARDWARE AT FLANGE AREAS, GAS PLUMBING SYSTEM, FITTINGS, AND RUPTURE DISK	Mechanical Check	X
		CHECK THE ANTI-PUMPING CIRCUIT.	Functional Check	X
		LEAK TEST ALL FLANGES, FITTINGS, AND GAS SEALING CONNECTIONS.	SF6 Leak Test	X
		LEAK CHECK THE SF6 GAS DENSITY MONITOR	SF6 Leak Test	X
		LEAK CHECK THE PRESSURE GAUGE FITTINGS	SF6 Leak Test	X
		LEAK CHECK THE RUPTURE DISKS	SF6 Leak Test	X
		LEAK CHECK THE BUSHING FLANGES	SF6 Leak Test	X
		LEAK CHECK THE REAR TANK COVER ASSEMBLIES	SF6 Leak Test	X
		LEAK CHECK THE BELLCRANK HOUSINGS	SF6 Leak Test	X
		LEAK CHECK THE INTER PHASE SHAFT SEALS WITH THE BREAKER IN THE OPEN AND CLOSED POSITIONS	SF6 Leak Test	X
		MANUALLY CLOSE BREAKER TO CHECK FOR PROPER WIPE, CONTACT PRESSURE, CONTACT ALIGNMENT, AND TO ENSURE THAT ALL CONTACTS MAKE AT APPROXIMATELY THE SAME TIME.	Functional Check	X
		TOUCH UP ANY CHIPPED PAINT ON THE FRAME.	Mechanical Check	X
		PERFORM INFRARED SURVEY ON BREAKERS	Infrared	X
		CHECK FOR PROPER GROUNDING. CHECK ALL GROUND STRAPS FOR WEAR, CORROSION- ENSURE THAT ALL GROUND STRAP CONNECTIONS ARE TIGHT. REPORT IF CONNECTIONS SHOW SIGNS OF CORROSION OR DAMAGE	Visual Check	X

High Voltage Switches				
121KV Switch	82T	INSPECT INSULATORS FOR BURNS, CRACKS, BROKEN PORCELAIN AND CEMENT DETERIORATION	MV	Visual Check X
		INSPECT EXPOSED LINKAGES AND OTHER MOVING PARTS FOR WEAR, DAMAGE.	MV	Visual Check X
		OPERATING MECHANISM: 1) CHECK FOR BROKEN, BENT OR LOOSE COMPONENTS.	MV	Visual Check X
		OPERATING MECHANISM: 2) CHECK FOR BENT OR LOOSE OPERATING PIPES.	MV	Visual Check X
		CHECK THE CONDITION OF CORONA SHIELDS (IF EQUIPPED). ENSURE THAT THEY HAVE NOT BEEN DAMAGED OR SCARRED IN ANY MANNER WHICH WOULD REDUCE CORONA PROTECTION	HV	Visual Check X

		CHECK FOR DEBRIS, INSECTS MUD COMBS UNDER CORONA SHIELDS (IF EQUIPPED). CHECK FOR CLOG WATER DRAIN HOLES. REMOVE, CLEAN AS REQUIRED.	HV	Visual Check	X
		CHECK MECHANISM GROUND SHUNT FOR CORROSION AND BROKEN OR FRAYED LEADS. IT SHOULD BE SECURELY ATTACHED TO THE MECHANISM AND TO THE STATION GROUND SYSTEM.	HV	Visual Check	X
121KV Switch	T89-11				
		INSPECT INSULATORS FOR BURNS, CRACKS, BROKEN PORCELAIN AND CEMENT DETERIORATION	MV	Visual Check	X
		INSPECT EXPOSED LINKAGES AND OTHER MOVING PARTS FOR WEAR, DAMAGE.	MV	Visual Check	X
		OPERATING MECHANISM: 1) CHECK FOR BROKEN, BENT OR LOOSE COMPONENTS.	MV	Visual Check	X
		OPERATING MECHANISM: 2) CHECK FOR BENT OR LOOSE OPERATING PIPES. CHECK THE CONDITION OF CORONA SHIELDS (IF EQUIPPED). ENSURE THAT THEY HAVE NOT BEEN DAMAGED OR SCARRED IN ANY MANNER WHICH WOULD REDUCE CORONA PROTECTION	MV	Visual Check	X
			HV	Visual Check	X
		CHECK FOR DEBRIS, INSECTS MUD COMBS UNDER CORONA SHIELDS (IF EQUIPPED). CHECK FOR CLOG WATER DRAIN HOLES. REMOVE, CLEAN AS REQUIRED.	HV	Visual Check	X
		CHECK MECHANISM GROUND SHUNT FOR CORROSION AND BROKEN OR FRAYED LEADS. IT SHOULD BE SECURELY ATTACHED TO THE MECHANISM AND TO THE STATION GROUND SYSTEM.	HV	Visual Check	X
121KV Switch	T89-12				
		INSPECT INSULATORS FOR BURNS, CRACKS, BROKEN PORCELAIN AND CEMENT DETERIORATION	MV	Visual Check	X
		INSPECT EXPOSED LINKAGES AND OTHER MOVING PARTS FOR WEAR, DAMAGE.	MV	Visual Check	X
		OPERATING MECHANISM: 1) CHECK FOR BROKEN, BENT OR LOOSE COMPONENTS.	MV	Visual Check	X
		OPERATING MECHANISM: 2) CHECK FOR BENT OR LOOSE OPERATING PIPES. CHECK THE CONDITION OF CORONA SHIELDS (IF EQUIPPED). ENSURE THAT THEY HAVE NOT BEEN DAMAGED OR SCARRED IN ANY MANNER WHICH WOULD REDUCE CORONA PROTECTION	MV	Visual Check	X
			HV	Visual Check	X
		CHECK FOR DEBRIS, INSECTS MUD COMBS UNDER CORONA SHIELDS (IF EQUIPPED). CHECK FOR CLOG WATER DRAIN HOLES. REMOVE, CLEAN AS REQUIRED.	HV	Visual Check	X
		CHECK MECHANISM GROUND SHUNT FOR CORROSION AND BROKEN OR FRAYED LEADS. IT SHOULD BE SECURELY ATTACHED TO THE MECHANISM AND TO THE STATION GROUND SYSTEM.	HV	Visual Check	X
121KV Switch	T89-21				
		INSPECT INSULATORS FOR BURNS, CRACKS, BROKEN PORCELAIN AND CEMENT DETERIORATION	MV	Visual Check	X
		INSPECT EXPOSED LINKAGES AND OTHER MOVING PARTS FOR WEAR, DAMAGE.	MV	Visual Check	X
		OPERATING MECHANISM: 1) CHECK FOR BROKEN, BENT OR LOOSE COMPONENTS.	MV	Visual Check	X
		OPERATING MECHANISM: 2) CHECK FOR BENT OR LOOSE OPERATING PIPES. CHECK THE CONDITION OF CORONA SHIELDS (IF EQUIPPED). ENSURE THAT THEY HAVE NOT BEEN DAMAGED OR SCARRED IN ANY MANNER WHICH WOULD REDUCE CORONA PROTECTION	MV	Visual Check	X
			HV	Visual Check	X
		CHECK FOR DEBRIS, INSECTS MUD COMBS UNDER CORONA SHIELDS (IF EQUIPPED). CHECK FOR CLOG WATER DRAIN HOLES. REMOVE, CLEAN AS REQUIRED.	HV	Visual Check	X
		CHECK MECHANISM GROUND SHUNT FOR CORROSION AND BROKEN OR FRAYED LEADS. IT SHOULD BE SECURELY ATTACHED TO THE MECHANISM AND TO THE STATION GROUND SYSTEM.	HV	Visual Check	X
121KV Switch	T89-22				
		INSPECT INSULATORS FOR BURNS, CRACKS, BROKEN PORCELAIN AND CEMENT DETERIORATION	MV	Visual Check	X
		INSPECT EXPOSED LINKAGES AND OTHER MOVING PARTS FOR WEAR, DAMAGE.	MV	Visual Check	X
		OPERATING MECHANISM: 1) CHECK FOR BROKEN, BENT OR LOOSE COMPONENTS.	MV	Visual Check	X
		OPERATING MECHANISM: 2) CHECK FOR BENT OR LOOSE OPERATING PIPES. CHECK THE CONDITION OF CORONA SHIELDS (IF EQUIPPED). ENSURE THAT THEY HAVE NOT BEEN DAMAGED OR SCARRED IN ANY MANNER WHICH WOULD REDUCE CORONA PROTECTION	MV	Visual Check	X
			HV	Visual Check	X

CHECK FOR DEBRIS, INSECTS MUD COMBS UNDER CORONA SHIELDS (IF EQUIPPED). CHECK FOR CLOG WATER DRAIN HOLES. REMOVE, CLEAN AS REQUIRED. CHECK MECHANISM GROUND SHUNT FOR CORROSION AND BROKEN OR FRAYED LEADS. IT SHOULD BE SECURELY ATTACHED TO THE MECHANISM AND TO THE STATION GROUND SYSTEM.	HV	Visual Check	X
	HV	Visual Check	X

Pad Mount Switches

Pad Mount Switch 1 (Cactus)

INSPECT ALL DOORS, PANELS AND SECTIONS FOR PAINT, DENTS, SCRATCHES, FIT, AND MISSING HARDWARE	MV	Visual Check	X
INSPECT INSULATORS FOR BURNS, CRACKS, BROKEN PORCELAIN AND CEMENT DETERIORATION	MV	Visual Check	X
CHECK FOR CLEANLINESS GENERALLY, BUT PARTICULARLY ANY ACCUMULATION OF FOREIGN MATERIAL ON INSULATORS AND BARRIERS	MV	Visual Check	X
INSPECT EXPOSED LINKAGES AND OTHER MOVING PARTS FOR WEAR, DAMAGE. INSPECT ALL BUS CONNECTIONS FOR HIGH RESISTANCE. USE LOW RESISTANCE OHMMETER, OR CHECK TIGHTNESS OF BOLTED BUS JOINTS BY CALIBRATED TORQUE WRENCH METHOD. REFER TO MANUFACTURER'S INSTRUCTIONS FOR PROPER TORQUE LEVELS. TEST AS POSSIBLE AS SWITCHING SCHEME ALLOWS.	MV	Visual Check	X
CHECK ALL CONNECTIONS FOR PROPER TIGHTNESS. TIGHTEN ALL CONDUCTOR CONNECTIONS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. CHECK AS SWITCHING SCHEME ALLOWS. SWITCH MUST BE DEENERGIZED AND ISOLATED.	MV	Electrical Test	X
OPERATING MECHANISM: 1) CHECK FOR BROKEN, BENT OR LOOSE COMPONENTS. 2) CHECK FOR BENT OR LOOSE OPERATING PIPES. 3) CHECK OPERATING ARMS FOR PROPER SETTINGS AND ADJUSTMENTS. 4) OPEN AND CLOSE SWITCH TO CHECK FOR PROPER WIPE, CONTACT PRESSURE, CONTACT ALIGNMENT, AND TO ENSURE THAT ALL CONTACTS MAKE AT APPROXIMATELY THE SAME TIME. CHECK AS SWITCHING SCHEME ALLOWS. SWITCH MUST BE DEENERGIZED AND ISOLATED.	MV	Mechanical Check	X
ENSURE THAT ALL CONTACTS ARE CLEAN, SMOOTH, AND IN PROPER ALIGNMENT. ON SILVER CONTACTS, DISCOLORATION IS NOT USUALLY HARMFUL UNLESS CAUSED BY INSULATING DEPOSITS. CLEAN SILVER CONTACTS WITH ALCOHOL OR SILVER CLEANER USING NON-ABRASIVE CLOTHS. CHECK AS SWITCHING SCHEME ALLOWS. SWITCH MUST BE DEENERGIZED AND ISOLATED.	MV	Functional Check	X
TEST ALL ELECTRICAL AND MECHANICAL INTERLOCK SYSTEMS FOR PROPER OPERATION AND SEQUENCING. CHECK AS SWITCHING SCHEME ALLOWS. SWITCH MUST BE DEENERGIZED AND ISOLATED.	MV	Visual Check	X
EXERCISE MANUALLY OPERATED AND POWER-OPERATED SWITCHES.	MV	Functional Check	X
PERFORM INSULATION RESISTANCE TESTS ON EACH BUS SECTION. PHASE TO PHASE AND PHASE TO GROUND FOR 1 MINUTE. NOTE: BEFORE PERFORMING TESTS, MAKE CERTAIN THAT THE HIGH-VOLTAGE CONDUCTORS ARE NOT CONNECTED (I.E., ARE DE-ENERGIZED AND PROPERLY ISOLATED). TEST FOR VOLTAGE AND ISOLATE AND TAG ALL CIRCUITS IN ACCORDANCE WITH ESTABLISHED SYSTEM-OPERATING PROCEDURES. IN ADDITION, IF APPLICABLE, REMOVE THE PRIMARY FUSES AND DISCONNECT ALL SECONDARY CONNECTIONS FROM ALL VOLTAGE TRANSFORMERS AND DISCONNECT ALL SURGE ARRESTORS. CHECK AS SWITCHING SCHEME ALLOWS. SWITCH MUST BE DEENERGIZED AND ISOLATED.	MV	Functional Check	X
	MV	Electrical Test	X

Pad Mount Switch 2 (Lassalle)

INSPECT ALL DOORS, PANELS AND SECTIONS FOR PAINT, DENTS, SCRATCHES, FIT, AND MISSING HARDWARE	MV	Visual Check	X
INSPECT INSULATORS FOR BURNS, CRACKS, BROKEN PORCELAIN AND CEMENT DETERIORATION	MV	Visual Check	X
CHECK FOR CLEANLINESS GENERALLY, BUT PARTICULARLY ANY ACCUMULATION OF FOREIGN MATERIAL ON INSULATORS AND BARRIERS	MV	Visual Check	X
INSPECT EXPOSED LINKAGES AND OTHER MOVING PARTS FOR WEAR, DAMAGE. INSPECT ALL BUS CONNECTIONS FOR HIGH RESISTANCE. USE LOW RESISTANCE OHMMETER, OR CHECK TIGHTNESS OF BOLTED BUS JOINTS BY CALIBRATED TORQUE WRENCH METHOD. REFER TO MANUFACTURER'S INSTRUCTIONS FOR PROPER TORQUE LEVELS. TEST AS POSSIBLE AS SWITCHING SCHEME ALLOWS.	MV	Visual Check	X
CHECK ALL CONNECTIONS FOR PROPER TIGHTNESS. TIGHTEN ALL CONDUCTOR CONNECTIONS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. CHECK AS SWITCHING SCHEME ALLOWS. SWITCH MUST BE DEENERGIZED AND ISOLATED.	MV	Electrical Test	X
	MV	Mechanical Check	X

OPERATING MECHANISM: 1) CHECK FOR BROKEN, BENT OR LOOSE COMPONENTS. 2) CHECK FOR BENT OR LOOSE OPERATING PIPES. 3) CHECK OPERATING ARMS FOR PROPER SETTINGS AND ADJUSTMENTS. 4) OPEN AND CLOSE SWITCH TO CHECK FOR PROPER WIPE, CONTACT PRESSURE, CONTACT ALIGNMENT, AND TO ENSURE THAT ALL CONTACTS MAKE AT APPROXIMATELY THE SAME TIME. CHECK AS SWITCHING SCHEME ALLOWS. SWITCH MUST BE DEENERGIZED AND ISOLATED.	MV	Functional Check	X
ENSURE THAT ALL CONTACTS ARE CLEAN, SMOOTH, AND IN PROPER ALIGNMENT. ON SILVER CONTACTS, DISCOLORATION IS NOT USUALLY HARMFUL UNLESS CAUSED BY INSULATING DEPOSITS. CLEAN SILVER CONTACTS WITH ALCOHOL OR SILVER CLEANER USING NON-ABRASIVE CLOTHS. CHECK AS SWITCHING SCHEME ALLOWS. SWITCH MUST BE DEENERGIZED AND ISOLATED.	MV	Visual Check	X
TEST ALL ELECTRICAL AND MECHANICAL INTERLOCK SYSTEMS FOR PROPER OPERATION AND SEQUENCING. CHECK AS SWITCHING SCHEME ALLOWS. SWITCH MUST BE DEENERGIZED AND ISOLATED.	MV	Functional Check	X
EXERCISE MANUALLY OPERATED AND POWER-OPERATED SWITCHES.	MV	Functional Check	X
PERFORM INSULATION RESISTANCE TESTS ON EACH BUS SECTION. PHASE TO PHASE AND PHASE TO GROUND FOR 1 MINUTE. NOTE: BEFORE PERFORMING TESTS, MAKE CERTAIN THAT THE HIGH-VOLTAGE CONDUCTORS ARE NOT CONNECTED (I.E., ARE DE-ENERGIZED AND PROPERLY ISOLATED). TEST FOR VOLTAGE AND ISOLATE AND TAG ALL CIRCUITS IN ACCORDANCE WITH ESTABLISHED SYSTEM-OPERATING PROCEDURES. IN ADDITION, IF APPLICABLE, REMOVE THE PRIMARY FUSES AND DISCONNECT ALL SECONDARY CONNECTIONS FROM ALL VOLTAGE TRANSFORMERS AND DISCONNECT ALL SURGE ARRESTORS. CHECK AS SWITCHING SCHEME ALLOWS. SWITCH MUST BE DEENERGIZED AND ISOLATED.	MV	Electrical Test	X

Pad Mount Switch 3 (Cottonwood)

INSPECT ALL DOORS, PANELS AND SECTIONS FOR PAINT, DENTS, SCRATCHES, FIT, AND MISSING HARDWARE	MV	Visual Check	X
INSPECT INSULATORS FOR BURNS, CRACKS, BROKEN PORCELAIN AND CEMENT DETERIORATION	MV	Visual Check	X
CHECK FOR CLEANLINESS GENERALLY, BUT PARTICULARLY ANY ACCUMULATION OF FOREIGN MATERIAL ON INSULATORS AND BARRIERS	MV	Visual Check	X
INSPECT EXPOSED LINKAGES AND OTHER MOVING PARTS FOR WEAR, DAMAGE. INSPECT ALL BUS CONNECTIONS FOR HIGH RESISTANCE. USE LOW RESISTANCE OHMMETER, OR CHECK TIGHTNESS OF BOLTED BUS JOINTS BY CALIBRATED TORQUE WRENCH METHOD. REFER TO MANUFACTURER'S INSTRUCTIONS FOR PROPER TORQUE LEVELS. TEST AS POSSIBLE AS SWITCHING SCHEME ALLOWS.	MV	Electrical Test	X
CHECK ALL CONNECTIONS FOR PROPER TIGHTNESS. TIGHTEN ALL CONDUCTOR CONNECTIONS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. CHECK AS SWITCHING SCHEME ALLOWS. SWITCH MUST BE DEENERGIZED AND ISOLATED.	MV	Mechanical Check	X
OPERATING MECHANISM: 1) CHECK FOR BROKEN, BENT OR LOOSE COMPONENTS. 2) CHECK FOR BENT OR LOOSE OPERATING PIPES. 3) CHECK OPERATING ARMS FOR PROPER SETTINGS AND ADJUSTMENTS. 4) OPEN AND CLOSE SWITCH TO CHECK FOR PROPER WIPE, CONTACT PRESSURE, CONTACT ALIGNMENT, AND TO ENSURE THAT ALL CONTACTS MAKE AT APPROXIMATELY THE SAME TIME. CHECK AS SWITCHING SCHEME ALLOWS. SWITCH MUST BE DEENERGIZED AND ISOLATED.	MV	Functional Check	X
ENSURE THAT ALL CONTACTS ARE CLEAN, SMOOTH, AND IN PROPER ALIGNMENT. ON SILVER CONTACTS, DISCOLORATION IS NOT USUALLY HARMFUL UNLESS CAUSED BY INSULATING DEPOSITS. CLEAN SILVER CONTACTS WITH ALCOHOL OR SILVER CLEANER USING NON-ABRASIVE CLOTHS. CHECK AS SWITCHING SCHEME ALLOWS. SWITCH MUST BE DEENERGIZED AND ISOLATED.	MV	Visual Check	X
TEST ALL ELECTRICAL AND MECHANICAL INTERLOCK SYSTEMS FOR PROPER OPERATION AND SEQUENCING. CHECK AS SWITCHING SCHEME ALLOWS. SWITCH MUST BE DEENERGIZED AND ISOLATED.	MV	Functional Check	X
EXERCISE MANUALLY OPERATED AND POWER-OPERATED SWITCHES.	MV	Functional Check	X
PERFORM INSULATION RESISTANCE TESTS ON EACH BUS SECTION. PHASE TO PHASE AND PHASE TO GROUND FOR 1 MINUTE. NOTE: BEFORE PERFORMING TESTS, MAKE CERTAIN THAT THE HIGH-VOLTAGE CONDUCTORS ARE NOT CONNECTED (I.E., ARE DE-ENERGIZED AND PROPERLY ISOLATED). TEST FOR VOLTAGE AND ISOLATE AND TAG ALL CIRCUITS IN ACCORDANCE WITH ESTABLISHED SYSTEM-OPERATING PROCEDURES. IN ADDITION, IF APPLICABLE, REMOVE THE PRIMARY FUSES AND DISCONNECT ALL SECONDARY CONNECTIONS FROM ALL VOLTAGE TRANSFORMERS AND DISCONNECT ALL SURGE ARRESTORS. CHECK AS SWITCHING SCHEME ALLOWS. SWITCH MUST BE DEENERGIZED AND ISOLATED.	MV	Electrical Test	X

Pad Mount Switch 4 (Eucalyptus)				
	INSPECT ALL DOORS, PANELS AND SECTIONS FOR PAINT, DENTS, SCRATCHES, FIT, AND MISSING HARDWARE	MV	Visual Check	X
	INSPECT INSULATORS FOR BURNS, CRACKS, BROKEN PORCELAIN AND CEMENT DETERIORATION	MV	Visual Check	X
	CHECK FOR CLEANLINESS GENERALLY, BUT PARTICULARLY ANY ACCUMULATION OF FOREIGN MATERIAL ON INSULATORS AND BARRIERS	MV	Visual Check	X
	INSPECT EXPOSED LINKAGES AND OTHER MOVING PARTS FOR WEAR, DAMAGE. INSPECT ALL BUS CONNECTIONS FOR HIGH RESISTANCE. USE LOW RESISTANCE OHMMETER, OR CHECK TIGHTNESS OF BOLTED BUS JOINTS BY CALIBRATED TORQUE WRENCH METHOD. REFER TO MANUFACTURER'S INSTRUCTIONS FOR PROPER TORQUE LEVELS. TEST AS POSSIBLE AS SWITCHING SCHEME ALLOWS.	MV	Visual Check	X
	CHECK ALL CONNECTIONS FOR PROPER TIGHTNESS. TIGHTEN ALL CONDUCTOR CONNECTIONS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. CHECK AS SWITCHING SCHEME ALLOWS. SWITCH MUST BE DEENERGIZED AND ISOLATED.	MV	Electrical Test	X
	OPERATING MECHANISM: 1) CHECK FOR BROKEN, BENT OR LOOSE COMPONENTS. 2) CHECK FOR BENT OR LOOSE OPERATING PIPES. 3) CHECK OPERATING ARMS FOR PROPER SETTINGS AND ADJUSTMENTS. 4) OPEN AND CLOSE SWITCH TO CHECK FOR PROPER WIPE, CONTACT PRESSURE, CONTACT ALIGNMENT, AND TO ENSURE THAT ALL CONTACTS MAKE AT APPROXIMATELY THE SAME TIME. CHECK AS SWITCHING SCHEME ALLOWS. SWITCH MUST BE DEENERGIZED AND ISOLATED.	MV	Mechanical Check	X
	ENSURE THAT ALL CONTACTS ARE CLEAN, SMOOTH, AND IN PROPER ALIGNMENT. ON SILVER CONTACTS, DISCOLORATION IS NOT USUALLY HARMFUL UNLESS CAUSED BY INSULATING DEPOSITS. CLEAN SILVER CONTACTS WITH ALCOHOL OR SILVER CLEANER USING NON-ABRASIVE CLOTHS. CHECK AS SWITCHING SCHEME ALLOWS. SWITCH MUST BE DEENERGIZED AND ISOLATED.	MV	Functional Check	X
	TEST ALL ELECTRICAL AND MECHANICAL INTERLOCK SYSTEMS FOR PROPER OPERATION AND SEQUENCING. CHECK AS SWITCHING SCHEME ALLOWS. SWITCH MUST BE DEENERGIZED AND ISOLATED.	MV	Visual Check	X
	EXERCISE MANUALLY OPERATED AND POWER-OPERATED SWITCHES. PERFORM INSULATION RESISTANCE TESTS ON EACH BUS SECTION. PHASE TO PHASE AND PHASE TO GROUND FOR 1 MINUTE. NOTE: BEFORE PERFORMING TESTS, MAKE CERTAIN THAT THE HIGH-VOLTAGE CONDUCTORS ARE NOT CONNECTED (I.E., ARE DE-ENERGIZED AND PROPERLY ISOLATED). TEST FOR VOLTAGE AND ISOLATE AND TAG ALL CIRCUITS IN ACCORDANCE WITH ESTABLISHED SYSTEM-OPERATING PROCEDURES. IN ADDITION, IF APPLICABLE, REMOVE THE PRIMARY FUSES AND DISCONNECT ALL SECONDARY CONNECTIONS FROM ALL VOLTAGE TRANSFORMERS AND DISCONNECT ALL SURGE ARRESTORS. CHECK AS SWITCHING SCHEME ALLOWS. SWITCH MUST BE DEENERGIZED AND ISOLATED.	MV	Functional Check	X
		MV	Functional Check	X
		MV	Electrical Test	X
Capacitor Banks				
Capacitor Bank 1 (unused - 2012)				
	CHECK ALL VOLTAGE, WARNING AND DANGER SIGNAGE FOR LEGIBILITY AND SECURE MOUNTING	MV	Visual Check	X
Capacitor Bank 2 (unused - 2012)				
	CHECK ALL VOLTAGE, WARNING AND DANGER SIGNAGE FOR LEGIBILITY AND SECURE MOUNTING	MV	Visual Check	X
Batteries				
Battery Charger				
	CHECK INPUT AND OUTPUT CABLES FOR SECURE CONNECTIONS AND INSULATION DAMAGE	MV	Mechanical Check	X
	CHECK OVER CURRENT TRIP FOR PROPER OPERATION	MV	Functional Check	X
	CHECK LUGS FOR PITTING, WEAR, DAMAGE AND LOOSE CONNECTIONS	MV	Visual Check	X
	CHECK EQUIPMENT FOR PROPER GROUNDING. CHECK ALL GROUND STRAPS FOR WEAR, CORROSION- ENSURE THAT ALL GROUND STRAP CONNECTIONS ARE TIGHT. REPORT IF CONNECTIONS SHOW SIGNS OF CORROSION OR DAMAGE	MV	Visual Check	X
Battery Bank (qty 20 - 3 cells each)				
	PERFORM DC RESISTANCE CHECKS ON EACH CELL	MV	Electrical Test	X
	PERFORM DC RESISTANCE TEST ON CELL #1. RECORD Result	MV	Electrical Test	X
	PERFORM DC RESISTANCE TEST ON CELL #2. RECORD Result	MV	Electrical Test	X

PERFORM SPECIFIC GRAVITY CHECK ON CELL #57	MV	Electrical Test	X
PERFORM SPECIFIC GRAVITY CHECK ON CELL #58	MV	Electrical Test	X
PERFORM SPECIFIC GRAVITY CHECK ON CELL #59	MV	Electrical Test	X
PERFORM SPECIFIC GRAVITY CHECK ON CELL #60	MV	Electrical Test	X
PERFORM BATTERY DISCHARGE TEST (Year 6) (NEW)		Electrical Test	X
PERFORM DETAILED VISUAL INSPECTION OF EACH CELL.	MV	Visual Check	X
CHECK INTEGRITY OF RACK.	MV	Visual Check	X

Switchgear

Cubicle 1

CHECK THAT ALL ENCLOSURE PANELS, DOORS, AND STRUCTURES ARE IN GOOD CONDITION. ENSURE THAT VENTILATION OPENINGS ARE NOT OBSTRUCTED (ALL VENTS AND FAN GRILLS ARE TO BE CLEANED OF ALL DUST AND/OR DIRT ACCUMULATIONS). WHERE SEALS AND/OR GASKETS ARE INSTALLED, THESE SHOULD BE EXAMINED AND REPAIRED OR REPLACED AS NECESSARY.	MV	Visual Check	X
CLEAN INSIDE OF SPACE CAREFULLY - USE NON METALLIC VACUUM CLEANER TOOL. ANY BUILDUP OF DIRT OR OTHER CONTAMINATES THAT WILL NOT COME OFF WITH VACUUMING SHOULD BE CLEANED WITH LINT FREE RAGS USING CLEANING SOLVENTS RECOMMENDED BY THE MANUFACTURER	MV	Clean	X
EXAMINE FOR EVIDENCE OF MOISTURE THAT MAY LEAD TO TRACKING OR FLASH OVER WHILE IN OPERATION. EXAMINE SURROUNDING AREAS FOR SIGNS OF TRACKING, ARCING, OR OVERHEATING. NOTE PRESENT OF UNUSUAL AMOUNT OF OZONE ODOR.	MV	Visual Check	X
VERIFY ALARMS FOR PROPER OPERATION	MV	Functional Check	X
CHECK FOR UNUSUAL NOISE AND VIBRATION. ENSURE ALL BOLTED CONFECTIONS ARE SECURED.	MV	Visual Check	X
EXAMINE HEATER UNITS FOR DAMAGE AND/OR DETERIORATION. CLEAN, REPAIR OR REPLACE HEATER ELEMENTS AS REQUIRED	MV	Visual Check	X
CLEAN AND INSPECT DRAW-OUT CONTACTS ON THE CIRCUIT BREAKER AND THE STATIONARY CONTACTS IN THE CUBICLE FOR OVERHEATING, ALIGNMENT, AND BROKEN OR WEAK SPRINGS. COAT CONTACT SURFACES WITH CONTACT LUBRICANT TO EASE MATING	MV	Clean	X
INSPECT ALL CABLES FOR TIGHT CONNECTIONS AND AMPLE SUPPORT.	MV	Mechanical Check	X
CHECK ALL VOLTAGE, WARNING AND DANGER SIGNAGE FOR LEGIBILITY AND SECURE MOUNTING	MV	Visual Check	X
PERFORM INFRARED SURVEY ON SWITCHGEAR	MV	Infrared	X
MEDIUM VOLTAGE SWITCHGEAR: INSPECT SWITCHGEAR FRAMES FOR ALIGNMENT, LEVEL, ANCHORAGE, AND GROUNDING	MV	Visual Check	X
MEDIUM VOLTAGE SWITCHGEAR: VISUALLY CHECK AUXILIARY CONTROL DEVICES, INCLUDING MOLDED CASE CIRCUIT BREAKERS, KNIFE SWITCHES, FUSE HOLDERS, FUSES, CONTACTORS, AND INSTRUMENT AND CONTROL SWITCH CONTACTS	MV	Visual Check	X
MEDIUM VOLTAGE SWITCHGEAR: CHECK ALL INDICATING DEVICES AS FOLLOWS - 1) CHECK FOR AND REPLACE BURNED OUT INDICATING LAMPS. 2) CHECK AMMETERS FOR SIGNS OF OVERLOADING. 3) CHECK VOLTMETERS FOR PROPER VOLTAGE. 4) CHECK TARGETS ON RELAYS, REPORT ALL TARGETS BEFORE CLEARING TARGETS.	MV	Visual Check	X
PERFORM ULTRASONIC PARTIAL DISCHARGE TESTING (NEW)		Ultrasonic Test	X

Cubicle 2

CHECK THAT ALL ENCLOSURE PANELS, DOORS, AND STRUCTURES ARE IN GOOD CONDITION. ENSURE THAT VENTILATION OPENINGS ARE NOT OBSTRUCTED (ALL VENTS AND FAN GRILLS ARE TO BE CLEANED OF ALL DUST AND/OR DIRT ACCUMULATIONS). WHERE SEALS AND/OR GASKETS ARE INSTALLED, THESE SHOULD BE EXAMINED AND REPAIRED OR REPLACED AS NECESSARY.	MV	Visual Check	X
CLEAN INSIDE OF SPACE CAREFULLY - USE NON METALLIC VACUUM CLEANER TOOL. ANY BUILDUP OF DIRT OR OTHER CONTAMINATES THAT WILL NOT COME OFF WITH VACUUMING SHOULD BE CLEANED WITH LINT FREE RAGS USING CLEANING SOLVENTS RECOMMENDED BY THE MANUFACTURER	MV	Clean	X
EXAMINE FOR EVIDENCE OF MOISTURE THAT MAY LEAD TO TRACKING OR FLASH OVER WHILE IN OPERATION. EXAMINE SURROUNDING AREAS FOR SIGNS OF TRACKING, ARCING, OR OVERHEATING. NOTE PRESENT OF UNUSUAL AMOUNT OF OZONE ODOR.	MV	Visual Check	X

VERIFY ALARMS FOR PROPER OPERATION	MV	Functional Check	X
CHECK FOR UNUSUAL NOISE AND VIBRATION. ENSURE ALL BOLTED CONFECTIONS ARE SECURED.	MV	Visual Check	X
EXAMINE HEATER UNITS FOR DAMAGE AND/OR DETERIORATION. CLEAN, REPAIR OR REPLACE HEATER ELEMENTS AS REQUIRED	MV	Visual Check	X
CLEAN AND INSPECT DRAW-OUT CONTACTS ON THE CIRCUIT BREAKER AND THE STATIONARY CONTACTS IN THE CUBICLE FOR OVERHEATING, ALIGNMENT, AND BROKEN OR WEAK SPRINGS. COAT CONTACT SURFACES WITH CONTACT LUBRICANT TO EASE MATING	MV	Clean	X
INSPECT ALL CABLES FOR TIGHT CONNECTIONS AND AMPLE SUPPORT.	MV	Mechanical Check	X
CHECK ALL VOLTAGE, WARNING AND DANGER SIGNAGE FOR LEGIBILITY AND SECURE MOUNTING	MV	Visual Check	X
PERFORM INFRARED SURVEY ON SWITCHGEAR	MV	Infrared	X
MEDIUM VOLTAGE SWITCHGEAR: INSPECT SWITCHGEAR FRAMES FOR ALIGNMENT, LEVEL, ANCHORAGE, AND GROUNDING	MV	Visual Check	X
MEDIUM VOLTAGE SWITCHGEAR: VISUALLY CHECK AUXILIARY CONTROL DEVICES, INCLUDING MOLDED CASE CIRCUIT BREAKERS, KNIFE SWITCHES, FUSE HOLDERS, FUSES, CONTACTORS, AND INSTRUMENT AND CONTROL SWITCH CONTACTS	MV	Visual Check	X
MEDIUM VOLTAGE SWITCHGEAR: CHECK ALL INDICATING DEVICES AS FOLLOWS - 1) CHECK FOR AND REPLACE BURNED OUT INDICATING LAMPS. 2) CHECK AMMETERS FOR SIGNS OF OVERLOADING. 3) CHECK VOLTMETERS FOR PROPER VOLTAGE. 4) CHECK TARGETS ON RELAYS, REPORT ALL TARGETS BEFORE CLEARING TARGETS.	MV	Visual Check	X
PERFORM ULTRASONIC PARTIAL DISCHARGE TESTING (NEW)		Ultrasonic Test	X

Cubicle 3

CHECK THAT ALL ENCLOSURE PANELS, DOORS, AND STRUCTURES ARE IN GOOD CONDITION. ENSURE THAT VENTILATION OPENINGS ARE NOT OBSTRUCTED (ALL VENTS AND FAN GRILLS ARE TO BE CLEANED OF ALL DUST AND/OR DIRT ACCUMULATIONS). WHERE SEALS AND/OR GASKETS ARE INSTALLED, THESE SHOULD BE EXAMINED AND REPAIRED OR REPLACED AS NECESSARY.	MV	Visual Check	X
CLEAN INSIDE OF SPACE CAREFULLY - USE NON METALLIC VACUUM CLEANER TOOL. ANY BUILDUP OF DIRT OR OTHER CONTAMINATES THAT WILL NOT COME OFF WITH VACUUMING SHOULD BE CLEANED WITH LINT FREE RAGS USING CLEANING SOLVENTS RECOMMENDED BY THE MANUFACTURER	MV	Clean	X
EXAMINE FOR EVIDENCE OF MOISTURE THAT MAY LEAD TO TRACKING OR FLASH OVER WHILE IN OPERATION. EXAMINE SURROUNDING AREAS FOR SIGNS OF TRACKING, ARCING, OR OVERHEATING. NOTE PRESENT OF UNUSUAL AMOUNT OF OZONE ODOR.	MV	Visual Check	X
VERIFY ALARMS FOR PROPER OPERATION	MV	Functional Check	X
CHECK FOR UNUSUAL NOISE AND VIBRATION. ENSURE ALL BOLTED CONFECTIONS ARE SECURED.	MV	Visual Check	X
EXAMINE HEATER UNITS FOR DAMAGE AND/OR DETERIORATION. CLEAN, REPAIR OR REPLACE HEATER ELEMENTS AS REQUIRED	MV	Visual Check	X
CLEAN AND INSPECT DRAW-OUT CONTACTS ON THE CIRCUIT BREAKER AND THE STATIONARY CONTACTS IN THE CUBICLE FOR OVERHEATING, ALIGNMENT, AND BROKEN OR WEAK SPRINGS. COAT CONTACT SURFACES WITH CONTACT LUBRICANT TO EASE MATING	MV	Clean	X
INSPECT ALL CABLES FOR TIGHT CONNECTIONS AND AMPLE SUPPORT.	MV	Mechanical Check	X
CHECK ALL VOLTAGE, WARNING AND DANGER SIGNAGE FOR LEGIBILITY AND SECURE MOUNTING	MV	Visual Check	X
PERFORM INFRARED SURVEY ON SWITCHGEAR	MV	Infrared	X
MEDIUM VOLTAGE SWITCHGEAR: INSPECT SWITCHGEAR FRAMES FOR ALIGNMENT, LEVEL, ANCHORAGE, AND GROUNDING	MV	Visual Check	X
MEDIUM VOLTAGE SWITCHGEAR: VISUALLY CHECK AUXILIARY CONTROL DEVICES, INCLUDING MOLDED CASE CIRCUIT BREAKERS, KNIFE SWITCHES, FUSE HOLDERS, FUSES, CONTACTORS, AND INSTRUMENT AND CONTROL SWITCH CONTACTS	MV	Visual Check	X
MEDIUM VOLTAGE SWITCHGEAR: CHECK ALL INDICATING DEVICES AS FOLLOWS - 1) CHECK FOR AND REPLACE BURNED OUT INDICATING LAMPS. 2) CHECK AMMETERS FOR SIGNS OF OVERLOADING. 3) CHECK VOLTMETERS FOR PROPER VOLTAGE. 4) CHECK TARGETS ON RELAYS, REPORT ALL TARGETS BEFORE CLEARING TARGETS.	MV	Visual Check	X
PERFORM ULTRASONIC PARTIAL DISCHARGE TESTING (NEW)		Ultrasonic Test	X

Cubicle 4 (NO BREAKER)

CHECK THAT ALL ENCLOSURE PANELS, DOORS, AND STRUCTURES ARE IN GOOD CONDITION. ENSURE THAT VENTILATION OPENINGS ARE NOT OBSTRUCTED (ALL VENTS AND FAN GRILLS ARE TO BE CLEANED OF ALL DUST AND/OR DIRT ACCUMULATIONS). WHERE SEALS AND/OR GASKETS ARE INSTALLED, THESE SHOULD BE EXAMINED AND REPAIRED OR REPLACED AS NECESSARY.	MV	Visual Check	X
CLEAN INSIDE OF SPACE CAREFULLY - USE NON METALLIC VACUUM CLEANER TOOL. ANY BUILDUP OF DIRT OR OTHER CONTAMINATES THAT WILL NOT COME OFF WITH VACUUMING SHOULD BE CLEANED WITH LINT FREE RAGS USING CLEANING SOLVENTS RECOMMENDED BY THE MANUFACTURER	MV	Clean	X
EXAMINE FOR EVIDENCE OF MOISTURE THAT MAY LEAD TO TRACKING OR FLASH OVER WHILE IN OPERATION. EXAMINE SURROUNDING AREAS FOR SIGNS OF TRACKING, ARCING, OR OVERHEATING. NOTE PRESENT OF UNUSUAL AMOUNT OF OZONE ODOR.	MV	Visual Check	X
VERIFY ALARMS FOR PROPER OPERATION	MV	Functional Check	X
CHECK FOR UNUSUAL NOISE AND VIBRATION. ENSURE ALL BOLTED CONFECTIONS ARE SECURED.	MV	Visual Check	X
EXAMINE HEATER UNITS FOR DAMAGE AND/OR DETERIORATION. CLEAN, REPAIR OR REPLACE HEATER ELEMENTS AS REQUIRED	MV	Visual Check	X
CLEAN AND INSPECT DRAW-OUT CONTACTS ON THE CIRCUIT BREAKER AND THE STATIONARY CONTACTS IN THE CUBICLE FOR OVERHEATING, ALIGNMENT, AND BROKEN OR WEAK SPRINGS. COAT CONTACT SURFACES WITH CONTACT LUBRICANT TO EASE MATING	MV	Clean	X
INSPECT ALL CABLES FOR TIGHT CONNECTIONS AND AMPLE SUPPORT.	MV	Mechanical Check	X
CHECK ALL VOLTAGE, WARNING AND DANGER SIGNAGE FOR LEGIBILITY AND SECURE MOUNTING	MV	Visual Check	X
PERFORM INFRARED SURVEY ON SWITCHGEAR	MV	Infrared	X
MEDIUM VOLTAGE SWITCHGEAR: INSPECT SWITCHGEAR FRAMES FOR ALIGNMENT, LEVEL, ANCHORAGE, AND GROUNDING	MV	Visual Check	X
MEDIUM VOLTAGE SWITCHGEAR: VISUALLY CHECK AUXILIARY CONTROL DEVICES, INCLUDING MOLDED CASE CIRCUIT BREAKERS, KNIFE SWITCHES, FUSE HOLDERS, FUSES, CONTACTORS, AND INSTRUMENT AND CONTROL SWITCH CONTACTS	MV	Visual Check	X
MEDIUM VOLTAGE SWITCHGEAR: CHECK ALL INDICATING DEVICES AS FOLLOWS - 1) CHECK FOR AND REPLACE BURNED OUT INDICATING LAMPS. 2) CHECK AMMETERS FOR SIGNS OF OVERLOADING. 3) CHECK VOLTMETERS FOR PROPER VOLTAGE. 4) CHECK TARGETS ON RELAYS, REPORT ALL TARGETS BEFORE CLEARING TARGETS.	MV	Visual Check	X
PERFORM ULTRASONIC PARTIAL DISCHARGE TESTING (NEW)		Ultrasonic Test	X

Cubicle 5

CHECK THAT ALL ENCLOSURE PANELS, DOORS, AND STRUCTURES ARE IN GOOD CONDITION. ENSURE THAT VENTILATION OPENINGS ARE NOT OBSTRUCTED (ALL VENTS AND FAN GRILLS ARE TO BE CLEANED OF ALL DUST AND/OR DIRT ACCUMULATIONS). WHERE SEALS AND/OR GASKETS ARE INSTALLED, THESE SHOULD BE EXAMINED AND REPAIRED OR REPLACED AS NECESSARY.	MV	Visual Check	X
CLEAN INSIDE OF SPACE CAREFULLY - USE NON METALLIC VACUUM CLEANER TOOL. ANY BUILDUP OF DIRT OR OTHER CONTAMINATES THAT WILL NOT COME OFF WITH VACUUMING SHOULD BE CLEANED WITH LINT FREE RAGS USING CLEANING SOLVENTS RECOMMENDED BY THE MANUFACTURER	MV	Clean	X
EXAMINE FOR EVIDENCE OF MOISTURE THAT MAY LEAD TO TRACKING OR FLASH OVER WHILE IN OPERATION. EXAMINE SURROUNDING AREAS FOR SIGNS OF TRACKING, ARCING, OR OVERHEATING. NOTE PRESENT OF UNUSUAL AMOUNT OF OZONE ODOR.	MV	Visual Check	X
VERIFY ALARMS FOR PROPER OPERATION	MV	Functional Check	X
CHECK FOR UNUSUAL NOISE AND VIBRATION. ENSURE ALL BOLTED CONFECTIONS ARE SECURED.	MV	Visual Check	X
EXAMINE HEATER UNITS FOR DAMAGE AND/OR DETERIORATION. CLEAN, REPAIR OR REPLACE HEATER ELEMENTS AS REQUIRED	MV	Visual Check	X
CLEAN AND INSPECT DRAW-OUT CONTACTS ON THE CIRCUIT BREAKER AND THE STATIONARY CONTACTS IN THE CUBICLE FOR OVERHEATING, ALIGNMENT, AND BROKEN OR WEAK SPRINGS. COAT CONTACT SURFACES WITH CONTACT LUBRICANT TO EASE MATING	MV	Clean	X
INSPECT ALL CABLES FOR TIGHT CONNECTIONS AND AMPLE SUPPORT.	MV	Mechanical Check	X

CHECK ALL VOLTAGE, WARNING AND DANGER SIGNAGE FOR LEGIBILITY AND SECURE MOUNTING	MV	Visual Check	X
PERFORM INFRARED SURVEY ON SWITCHGEAR	MV	Infrared	X
MEDIUM VOLTAGE SWITCHGEAR: INSPECT SWITCHGEAR FRAMES FOR ALIGNMENT, LEVEL, ANCHORAGE, AND GROUNDING	MV	Visual Check	X
MEDIUM VOLTAGE SWITCHGEAR: VISUALLY CHECK AUXILIARY CONTROL DEVICES, INCLUDING MOLDED CASE CIRCUIT BREAKERS, KNIFE SWITCHES, FUSE HOLDERS, FUSES, CONTACTORS, AND INSTRUMENT AND CONTROL SWITCH CONTACTS	MV	Visual Check	X
MEDIUM VOLTAGE SWITCHGEAR: CHECK ALL INDICATING DEVICES AS FOLLOWS - 1) CHECK FOR AND REPLACE BURNED OUT INDICATING LAMPS. 2) CHECK AMMETERS FOR SIGNS OF OVERLOADING. 3) CHECK VOLTMETERS FOR PROPER VOLTAGE. 4) CHECK TARGETS ON RELAYS, REPORT ALL TARGETS BEFORE CLEARING TARGETS.	MV	Visual Check	X
PERFORM ULTRASONIC PARTIAL DISCHARGE TESTING (NEW)		Ultrasonic Test	X

Cubicle 6 (NO BREAKER)

CHECK THAT ALL ENCLOSURE PANELS, DOORS, AND STRUCTURES ARE IN GOOD CONDITION. ENSURE THAT VENTILATION OPENINGS ARE NOT OBSTRUCTED (ALL VENTS AND FAN GRILLS ARE TO BE CLEANED OF ALL DUST AND/OR DIRT ACCUMULATIONS). WHERE SEALS AND/OR GASKETS ARE INSTALLED, THESE SHOULD BE EXAMINED AND REPAIRED OR REPLACED AS NECESSARY.	MV	Visual Check	X
CLEAN INSIDE OF SPACE CAREFULLY - USE NON METALLIC VACUUM CLEANER TOOL. ANY BUILDUP OF DIRT OR OTHER CONTAMINATES THAT WILL NOT COME OFF WITH VACUUMING SHOULD BE CLEANED WITH LINT FREE RAGS USING CLEANING SOLVENTS RECOMMENDED BY THE MANUFACTURER	MV	Clean	X
EXAMINE FOR EVIDENCE OF MOISTURE THAT MAY LEAD TO TRACKING OR FLASH OVER WHILE IN OPERATION. EXAMINE SURROUNDING AREAS FOR SIGNS OF TRACKING, ARCING, OR OVERHEATING. NOTE PRESENT OF UNUSUAL AMOUNT OF OZONE ODOR.	MV	Visual Check	X
VERIFY ALARMS FOR PROPER OPERATION	MV	Functional Check	X
CHECK FOR UNUSUAL NOISE AND VIBRATION. ENSURE ALL BOLTED CONFECTIONS ARE SECURED.	MV	Visual Check	X
EXAMINE HEATER UNITS FOR DAMAGE AND/OR DETERIORATION. CLEAN, REPAIR OR REPLACE HEATER ELEMENTS AS REQUIRED	MV	Visual Check	X
CLEAN AND INSPECT DRAW-OUT CONTACTS ON THE CIRCUIT BREAKER AND THE STATIONARY CONTACTS IN THE CUBICLE FOR OVERHEATING, ALIGNMENT, AND BROKEN OR WEAK SPRINGS. COAT CONTACT SURFACES WITH CONTACT LUBRICANT TO EASE MATING	MV	Clean	X
INSPECT ALL CABLES FOR TIGHT CONNECTIONS AND AMPLE SUPPORT.	MV	Mechanical Check	X
CHECK ALL VOLTAGE, WARNING AND DANGER SIGNAGE FOR LEGIBILITY AND SECURE MOUNTING	MV	Visual Check	X
PERFORM INFRARED SURVEY ON SWITCHGEAR	MV	Infrared	X
MEDIUM VOLTAGE SWITCHGEAR: INSPECT SWITCHGEAR FRAMES FOR ALIGNMENT, LEVEL, ANCHORAGE, AND GROUNDING	MV	Visual Check	X
MEDIUM VOLTAGE SWITCHGEAR: VISUALLY CHECK AUXILIARY CONTROL DEVICES, INCLUDING MOLDED CASE CIRCUIT BREAKERS, KNIFE SWITCHES, FUSE HOLDERS, FUSES, CONTACTORS, AND INSTRUMENT AND CONTROL SWITCH CONTACTS	MV	Visual Check	X
MEDIUM VOLTAGE SWITCHGEAR: CHECK ALL INDICATING DEVICES AS FOLLOWS - 1) CHECK FOR AND REPLACE BURNED OUT INDICATING LAMPS. 2) CHECK AMMETERS FOR SIGNS OF OVERLOADING. 3) CHECK VOLTMETERS FOR PROPER VOLTAGE. 4) CHECK TARGETS ON RELAYS, REPORT ALL TARGETS BEFORE CLEARING TARGETS.	MV	Visual Check	X
PERFORM ULTRASONIC PARTIAL DISCHARGE TESTING (NEW)		Ultrasonic Test	X

Cubicle 7

CHECK THAT ALL ENCLOSURE PANELS, DOORS, AND STRUCTURES ARE IN GOOD CONDITION. ENSURE THAT VENTILATION OPENINGS ARE NOT OBSTRUCTED (ALL VENTS AND FAN GRILLS ARE TO BE CLEANED OF ALL DUST AND/OR DIRT ACCUMULATIONS). WHERE SEALS AND/OR GASKETS ARE INSTALLED, THESE SHOULD BE EXAMINED AND REPAIRED OR REPLACED AS NECESSARY.	MV	Visual Check	X
CLEAN INSIDE OF SPACE CAREFULLY - USE NON METALLIC VACUUM CLEANER TOOL. ANY BUILDUP OF DIRT OR OTHER CONTAMINATES THAT WILL NOT COME OFF WITH VACUUMING SHOULD BE CLEANED WITH LINT FREE RAGS USING CLEANING SOLVENTS RECOMMENDED BY THE MANUFACTURER	MV	Clean	X

EXAMINE FOR EVIDENCE OF MOISTURE THAT MAY LEAD TO TRACKING OR FLASH OVER WHILE IN OPERATION. EXAMINE SURROUNDING AREAS FOR SIGNS OF TRACKING, ARCING, OR OVERHEATING. NOTE PRESENT OF UNUSUAL AMOUNT OF OZONE ODOR.	MV	Visual Check	X
VERIFY ALARMS FOR PROPER OPERATION	MV	Functional Check	X
CHECK FOR UNUSUAL NOISE AND VIBRATION. ENSURE ALL BOLTED CONFECTIONS ARE SECURED.	MV	Visual Check	X
EXAMINE HEATER UNITS FOR DAMAGE AND/OR DETERIORATION. CLEAN, REPAIR OR REPLACE HEATER ELEMENTS AS REQUIRED	MV	Visual Check	X
CLEAN AND INSPECT DRAW-OUT CONTACTS ON THE CIRCUIT BREAKER AND THE STATIONARY CONTACTS IN THE CUBICLE FOR OVERHEATING, ALIGNMENT, AND BROKEN OR WEAK SPRINGS. COAT CONTACT SURFACES WITH CONTACT LUBRICANT TO EASE MATING	MV	Clean	X
INSPECT ALL CABLES FOR TIGHT CONNECTIONS AND AMPLE SUPPORT.	MV	Mechanical Check	X
CHECK ALL VOLTAGE, WARNING AND DANGER SIGNAGE FOR LEGIBILITY AND SECURE MOUNTING	MV	Visual Check	X
PERFORM INFRARED SURVEY ON SWITCHGEAR	MV	Infrared	X
MEDIUM VOLTAGE SWITCHGEAR: INSPECT SWITCHGEAR FRAMES FOR ALIGNMENT, LEVEL, ANCHORAGE, AND GROUNDING	MV	Visual Check	X
MEDIUM VOLTAGE SWITCHGEAR: VISUALLY CHECK AUXILIARY CONTROL DEVICES, INCLUDING MOLDED CASE CIRCUIT BREAKERS, KNIFE SWITCHES, FUSE HOLDERS, FUSES, CONTACTORS, AND INSTRUMENT AND CONTROL SWITCH CONTACTS	MV	Visual Check	X
MEDIUM VOLTAGE SWITCHGEAR: CHECK ALL INDICATING DEVICES AS FOLLOWS - 1) CHECK FOR AND REPLACE BURNED OUT INDICATING LAMPS. 2) CHECK AMMETERS FOR SIGNS OF OVERLOADING. 3) CHECK VOLTMETERS FOR PROPER VOLTAGE. 4) CHECK TARGETS ON RELAYS, REPORT ALL TARGETS BEFORE CLEARING TARGETS.	MV	Visual Check	X
PERFORM ULTRASONIC PARTIAL DISCHARGE TESTING (NEW)		Ultrasonic Test	X

Cubicle 8

CHECK THAT ALL ENCLOSURE PANELS, DOORS, AND STRUCTURES ARE IN GOOD CONDITION. ENSURE THAT VENTILATION OPENINGS ARE NOT OBSTRUCTED (ALL VENTS AND FAN GRILLS ARE TO BE CLEANED OF ALL DUST AND/OR DIRT ACCUMULATIONS). WHERE SEALS AND/OR GASKETS ARE INSTALLED, THESE SHOULD BE EXAMINED AND REPAIRED OR REPLACED AS NECESSARY.	MV	Visual Check	X
CLEAN INSIDE OF SPACE CAREFULLY - USE NON METALLIC VACUUM CLEANER TOOL. ANY BUILDUP OF DIRT OR OTHER CONTAMINATES THAT WILL NOT COME OFF WITH VACUUMING SHOULD BE CLEANED WITH LINT FREE RAGS USING CLEANING SOLVENTS RECOMMENDED BY THE MANUFACTURER	MV	Clean	X
EXAMINE FOR EVIDENCE OF MOISTURE THAT MAY LEAD TO TRACKING OR FLASH OVER WHILE IN OPERATION. EXAMINE SURROUNDING AREAS FOR SIGNS OF TRACKING, ARCING, OR OVERHEATING. NOTE PRESENT OF UNUSUAL AMOUNT OF OZONE ODOR.	MV	Visual Check	X
VERIFY ALARMS FOR PROPER OPERATION	MV	Functional Check	X
CHECK FOR UNUSUAL NOISE AND VIBRATION. ENSURE ALL BOLTED CONFECTIONS ARE SECURED.	MV	Visual Check	X
EXAMINE HEATER UNITS FOR DAMAGE AND/OR DETERIORATION. CLEAN, REPAIR OR REPLACE HEATER ELEMENTS AS REQUIRED	MV	Visual Check	X
CLEAN AND INSPECT DRAW-OUT CONTACTS ON THE CIRCUIT BREAKER AND THE STATIONARY CONTACTS IN THE CUBICLE FOR OVERHEATING, ALIGNMENT, AND BROKEN OR WEAK SPRINGS. COAT CONTACT SURFACES WITH CONTACT LUBRICANT TO EASE MATING	MV	Clean	X
INSPECT ALL CABLES FOR TIGHT CONNECTIONS AND AMPLE SUPPORT.	MV	Mechanical Check	X
CHECK ALL VOLTAGE, WARNING AND DANGER SIGNAGE FOR LEGIBILITY AND SECURE MOUNTING	MV	Visual Check	X
PERFORM INFRARED SURVEY ON SWITCHGEAR	MV	Infrared	X
MEDIUM VOLTAGE SWITCHGEAR: INSPECT SWITCHGEAR FRAMES FOR ALIGNMENT, LEVEL, ANCHORAGE, AND GROUNDING	MV	Visual Check	X
MEDIUM VOLTAGE SWITCHGEAR: VISUALLY CHECK AUXILIARY CONTROL DEVICES, INCLUDING MOLDED CASE CIRCUIT BREAKERS, KNIFE SWITCHES, FUSE HOLDERS, FUSES, CONTACTORS, AND INSTRUMENT AND CONTROL SWITCH CONTACTS	MV	Visual Check	X

MEDIUM VOLTAGE SWITCHGEAR: CHECK ALL INDICATING DEVICES AS FOLLOWS - 1) CHECK FOR AND REPLACE BURNED OUT INDICATING LAMPS. 2) CHECK AMMETERS FOR SIGNS OF OVERLOADING. 3) CHECK VOLTMETERS FOR PROPER VOLTAGE. 4) CHECK TARGETS ON RELAYS, REPORT ALL TARGETS BEFORE CLEARING TARGETS.	MV	Visual Check	X
PERFORM ULTRASONIC PARTIAL DISCHARGE TESTING (NEW)		Ultrasonic Test	X

Cubicle 9

CHECK THAT ALL ENCLOSURE PANELS, DOORS, AND STRUCTURES ARE IN GOOD CONDITION. ENSURE THAT VENTILATION OPENINGS ARE NOT OBSTRUCTED (ALL VENTS AND FAN GRILLS ARE TO BE CLEANED OF ALL DUST AND/OR DIRT ACCUMULATIONS). WHERE SEALS AND/OR GASKETS ARE INSTALLED, THESE SHOULD BE EXAMINED AND REPAIRED OR REPLACED AS NECESSARY.	MV	Visual Check	X
CLEAN INSIDE OF SPACE CAREFULLY - USE NON METALLIC VACUUM CLEANER TOOL. ANY BUILDUP OF DIRT OR OTHER CONTAMINATES THAT WILL NOT COME OFF WITH VACUUMING SHOULD BE CLEANED WITH LINT FREE RAGS USING CLEANING SOLVENTS RECOMMENDED BY THE MANUFACTURER	MV	Clean	X
EXAMINE FOR EVIDENCE OF MOISTURE THAT MAY LEAD TO TRACKING OR FLASH OVER WHILE IN OPERATION. EXAMINE SURROUNDING AREAS FOR SIGNS OF TRACKING, ARCING, OR OVERHEATING. NOTE PRESENT OF UNUSUAL AMOUNT OF OZONE ODOR.	MV	Visual Check	X
VERIFY ALARMS FOR PROPER OPERATION	MV	Functional Check	X
CHECK FOR UNUSUAL NOISE AND VIBRATION. ENSURE ALL BOLTED CONFECTIONS ARE SECURED.	MV	Visual Check	X
EXAMINE HEATER UNITS FOR DAMAGE AND/OR DETERIORATION. CLEAN, REPAIR OR REPLACE HEATER ELEMENTS AS REQUIRED	MV	Visual Check	X
CLEAN AND INSPECT DRAW-OUT CONTACTS ON THE CIRCUIT BREAKER AND THE STATIONARY CONTACTS IN THE CUBICLE FOR OVERHEATING, ALIGNMENT, AND BROKEN OR WEAK SPRINGS. COAT CONTACT SURFACES WITH CONTACT LUBRICANT TO EASE MATING	MV	Clean	X
INSPECT ALL CABLES FOR TIGHT CONNECTIONS AND AMPLE SUPPORT.	MV	Mechanical Check	X
CHECK ALL VOLTAGE, WARNING AND DANGER SIGNAGE FOR LEGIBILITY AND SECURE MOUNTING	MV	Visual Check	X
PERFORM INFRARED SURVEY ON SWITCHGEAR	MV	Infrared	X
MEDIUM VOLTAGE SWITCHGEAR: INSPECT SWITCHGEAR FRAMES FOR ALIGNMENT, LEVEL, ANCHORAGE, AND GROUNDING	MV	Visual Check	X
MEDIUM VOLTAGE SWITCHGEAR: VISUALLY CHECK AUXILIARY CONTROL DEVICES, INCLUDING MOLDED CASE CIRCUIT BREAKERS, KNIFE SWITCHES, FUSE HOLDERS, FUSES, CONTACTORS, AND INSTRUMENT AND CONTROL SWITCH CONTACTS	MV	Visual Check	X
MEDIUM VOLTAGE SWITCHGEAR: CHECK ALL INDICATING DEVICES AS FOLLOWS - 1) CHECK FOR AND REPLACE BURNED OUT INDICATING LAMPS. 2) CHECK AMMETERS FOR SIGNS OF OVERLOADING. 3) CHECK VOLTMETERS FOR PROPER VOLTAGE. 4) CHECK TARGETS ON RELAYS, REPORT ALL TARGETS BEFORE CLEARING TARGETS.	MV	Visual Check	X
PERFORM ULTRASONIC PARTIAL DISCHARGE TESTING (NEW)		Ultrasonic Test	X

Cubicle 10

CHECK THAT ALL ENCLOSURE PANELS, DOORS, AND STRUCTURES ARE IN GOOD CONDITION. ENSURE THAT VENTILATION OPENINGS ARE NOT OBSTRUCTED (ALL VENTS AND FAN GRILLS ARE TO BE CLEANED OF ALL DUST AND/OR DIRT ACCUMULATIONS). WHERE SEALS AND/OR GASKETS ARE INSTALLED, THESE SHOULD BE EXAMINED AND REPAIRED OR REPLACED AS NECESSARY.	MV	Visual Check	X
CLEAN INSIDE OF SPACE CAREFULLY - USE NON METALLIC VACUUM CLEANER TOOL. ANY BUILDUP OF DIRT OR OTHER CONTAMINATES THAT WILL NOT COME OFF WITH VACUUMING SHOULD BE CLEANED WITH LINT FREE RAGS USING CLEANING SOLVENTS RECOMMENDED BY THE MANUFACTURER	MV	Clean	X
EXAMINE FOR EVIDENCE OF MOISTURE THAT MAY LEAD TO TRACKING OR FLASH OVER WHILE IN OPERATION. EXAMINE SURROUNDING AREAS FOR SIGNS OF TRACKING, ARCING, OR OVERHEATING. NOTE PRESENT OF UNUSUAL AMOUNT OF OZONE ODOR.	MV	Visual Check	X
VERIFY ALARMS FOR PROPER OPERATION	MV	Functional Check	X
CHECK FOR UNUSUAL NOISE AND VIBRATION. ENSURE ALL BOLTED CONFECTIONS ARE SECURED.	MV	Visual Check	X
EXAMINE HEATER UNITS FOR DAMAGE AND/OR DETERIORATION. CLEAN, REPAIR OR REPLACE HEATER ELEMENTS AS REQUIRED	MV	Visual Check	X

CLEAN AND INSPECT DRAW-OUT CONTACTS ON THE CIRCUIT BREAKER AND THE STATIONARY CONTACTS IN THE CUBICLE FOR OVERHEATING, ALIGNMENT, AND BROKEN OR WEAK SPRINGS. COAT CONTACT SURFACES WITH CONTACT LUBRICANT TO EASE MATING	MV	Clean	X
INSPECT ALL CABLES FOR TIGHT CONNECTIONS AND AMPLE SUPPORT.	MV	Mechanical Check	X
CHECK ALL VOLTAGE, WARNING AND DANGER SIGNAGE FOR LEGIBILITY AND SECURE MOUNTING	MV	Visual Check	X
PERFORM INFRARED SURVEY ON SWITCHGEAR	MV	Infrared	X
MEDIUM VOLTAGE SWITCHGEAR: INSPECT SWITCHGEAR FRAMES FOR ALIGNMENT, LEVEL, ANCHORAGE, AND GROUNDING	MV	Visual Check	X
MEDIUM VOLTAGE SWITCHGEAR: VISUALLY CHECK AUXILIARY CONTROL DEVICES, INCLUDING MOLDED CASE CIRCUIT BREAKERS, KNIFE SWITCHES, FUSE HOLDERS, FUSES, CONTACTORS, AND INSTRUMENT AND CONTROL SWITCH CONTACTS	MV	Visual Check	X
MEDIUM VOLTAGE SWITCHGEAR: CHECK ALL INDICATING DEVICES AS FOLLOWS - 1) CHECK FOR AND REPLACE BURNED OUT INDICATING LAMPS. 2) CHECK AMMETERS FOR SIGNS OF OVERLOADING. 3) CHECK VOLTMETERS FOR PROPER VOLTAGE. 4) CHECK TARGETS ON RELAYS, REPORT ALL TARGETS BEFORE CLEARING TARGETS.	MV	Visual Check	X
PERFORM ULTRASONIC PARTIAL DISCHARGE TESTING (NEW)		Ultrasonic Test	X



GENERAL ORDER 174

SUBSTATION

REPORT FOR

2014

This report presents the annual inspections and maintenances of substation facilities results of City of Moreno Valley Electric Utility (MVU) covering the period from January 1, 2014 to December 31, 2014. All items requiring repair and maintenance were addressed and corrected on the day they were identified, as indicated in the attached detailed report.

MVU's aim during General Order 174 inspections is to plan, report and maintain substation equipment in a timely manner in accordance with General Order guidelines and manufacturer standards and recommendation. Our substation maintenance is performed by the substation constructor and equipment manufacturer.

MVU GENERAL ORDER 174

MAINTENANCE

2014 REPORT

		WHO	Type	2014
Station Visual Inspections				
Transformers				
Transformer	T1			
	CLEAN INSULATORS	MV	Clean	X
	CHECK ALL CONNECTIONS FOR PROPER TIGHTNESS. TIGHTEN ALL CONDUCTOR CONNECTIONS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.	MV	Mechanical Check	X
	TAKE OIL SAMPLES AND CONDUCT THE FOLLOWING TESTS::	MV	Oil	X
	1) DIELECTRIC STRENGTH - ASTM-1816 WITH 40 MIL GAP	MV	Oil	X
	2) MOISTURE CONTENT - ASTM-1533	MV	Oil	X
	3) INTERFACIAL TENSION - ASTM-971.	MV	Oil	X
	4) POWER FACTOR - ASTM-974	MV	Oil	X
	5) GAS-IN-OIL ANALYSIS	MV	Oil	X
	PERFORM INFRARED SURVEY ON TRANSFORMER	MV	Infrared	X
	INSPECT SUPPORTS FOR SOUNDNESS & STABILITY	MV	Visual Check	X
Load Tap Changer	LTC 1			
	EVERY 5 YEARS (NEXT DUE DATE: APR 2017): TAKE OIL SAMPLES AND CONDUCT THE FOLLOWING TESTS:	MV	Oil	X
	1) DIELECTRIC STRENGTH - ASTM-1816 WITH 40 MIL GAP.	MV	Oil	X
	2) MOISTURE CONTENT - ASTM-1533.	MV	Oil	X
	3) INTERFACIAL TENSION - ASTM-971.	MV	Oil	X
	4) POWER FACTOR - ASTM-974.	MV	Oil	X
	5) GAS-IN-OIL ANALYSIS.	MV	Oil	X
Transformer	T2			
	CLEAN INSULATORS	MV	Clean	X
	CHECK ALL CONNECTIONS FOR PROPER TIGHTNESS. TIGHTEN ALL CONDUCTOR CONNECTIONS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.	MV	Mechanical Check	X
	TAKE OIL SAMPLES AND CONDUCT THE FOLLOWING TESTS::	MV	Oil	X
	1) DIELECTRIC STRENGTH - ASTM-1816 WITH 40 MIL GAP	MV	Oil	X
	2) MOISTURE CONTENT - ASTM-1533	MV	Oil	X
	3) INTERFACIAL TENSION - ASTM-971.	MV	Oil	X
	4) POWER FACTOR - ASTM-974	MV	Oil	X
	5) GAS-IN-OIL ANALYSIS	MV	Oil	X
	PERFORM INFRARED SURVEY ON TRANSFORMER	MV	Infrared	X
	INSPECT SUPPORTS FOR SOUNDNESS & STABILITY	MV	Visual Check	X
Load Tap Changer	LTC 2			
	EVERY 5 YEARS (NEXT DUE DATE: APR 2017): TAKE OIL SAMPLES AND CONDUCT THE FOLLOWING TESTS:	MV	Oil	X
	1) DIELECTRIC STRENGTH - ASTM-1816 WITH 40 MIL GAP.	MV	Oil	X
	2) MOISTURE CONTENT - ASTM-1533.	MV	Oil	X
	3) INTERFACIAL TENSION - ASTM-971.	MV	Oil	X
	4) POWER FACTOR - ASTM-974.	MV	Oil	X
	5) GAS-IN-OIL ANALYSIS.	MV	Oil	X
	EVERY 5 YEARS (NEXT DUE DATE: APR 2017): PERFORM WINDING RESISTANCE TEST ON LOAD TAP CHANGER (LTC). DATE COMPLETED:	TRES	Electrical Test	X
High Voltage Breakers				