

Cummings Electrical, Inc.

HOT WORK CLASSIFICATIONS AND SAFETY REQUIREMENTS MATRIX

TABLE 6

HOT WORK CLASS	TEST & TROUBLESHOOT BRANCH CIRCUITRY		WORK ON ENERGIZED BRANCH CIRCUITRY		WORK ON ENERGIZED PANELS, MCC's & EQUIPMENT		WORK ON ENERGIZED SWITCHBOARDS / SWITCHGEAR BUSS DUCT		WORK ON ENERGIZED SWITCHBOARDS / SWITCHGEAR BUSS DUCT		
	CLASS 1		CLASS 2		CLASS 3		CLASS 4		CLASS 5		
ELECTRICAL EXPOSURES	600 VOLTS MAXIMUM	NO DIRECT TOOL CONTACT WITH LIVE PARTS OTHER THAN A TESTER	600 VOLTS MAXIMUM	"TOOL CONTACT" OR CLOSE PROXIMITY (NOT IN PANELS)	600 VOLTS MAXIMUM ⊗ FED BY 400 AMPS MAXIMUM	"DIRECT" TOOL CONTACT OR PROXIMITY TO ENERGIZED PARTS	600 VOLTS MAXIMUM	NO DIRECT TOOL CONTACT WITH LIVE PARTS OTHER THAN A TESTER	600 VOLTS MAXIMUM	"DIRECT" TOOL CONTACT	
EXAMPLES OF WORK IN EACH CLASS	NOT IN PANELS ★ <u>Non-disruptive</u> testing & visual inspections or circuits without removing or disconnecting the conductor or device. ★ <u>Trouble shooting</u> branch circuits. ★ <u>Removal of covers, visual inspections and voltage testing</u> in J-boxes, Pole Lights, Light fixtures, Switches, Receptacles, Drives, Motors, Mechanical Equipment, Disconnects, Time Clocks & Low Voltage Control Panels.		NOT IN PANELS. ★ <u>Landing</u> the de-energized loadside of an energized disconnecting means. ★ <u>Disrupting</u> branch circuits while energized. ★ <u>Branch taps, removal and/or installation</u> of devices on energized branch circuitry such as: Ballasts, Light Pole Fuses, Photo Cells, Receptacles, Switches, Dimmers & Branch Circuits. ★ <u>Removal</u> of wire nuts from energized devices. M^ = MANDATORY CALL-IN FOR ALL WORK ABOVE 60 AMPS. M^ = MANDATORY CALL-IN FOR ALL WORK WITHOUT A STAND-BY.		⊗ WORKING IN ENERGIZED PANELS 400 AMPS OR LESS. ★ <u>Pulling</u> panel covers on energized panels. ★ <u>Drilling or using a KO punch</u> in energized panels. ★ <u>Pulling or terminating wire</u> in energized panels. ★ <u>Adding breakers</u> in energized panels. ★ <u>Pulling / stabbing</u> Meters, every type. ★ <u>Removing or adding wires</u> on the load side of a meter. ★ <u>Working in / on</u> energized MCC's, Starters, Transfer Switches, VFD's and Non-utility transformers.		★ ENERGIZING A NEW SERVICE. ★ <u>Testing & Troubleshooting</u> in/on energized switchboards, switchgear, or buss duct. ★ <u>Terminating, pulling or removing</u> feeders in/from switchboards / switchgear. (NOT ON LIVE PARTS) ★ <u>Work</u> on buss ducts. ★ <u>Stabbing</u> buss plugs. ★ <u>Switching</u> loads. M* = Mandatory PPE when inserting / removing buckets or circuit breakers w/ doors open or panels removed. Removing bolted covers to expose bare energized parts.		★ <u>Tapping</u> live components. ★ <u>Adding</u> breakers. ★ <u>Working</u> on the line side of meters. ★ <u>Drilling / Tapping</u> a buss for connection. ★ <u>Removing insulation</u> for exposure to connect. ★ <u>Adding bussing</u> for additional sections or breaker fingers. ★ <u>Clean & Torque</u> procedures. M* = Mandatory PPE when Inserting / Removing buckets or circuit breakers w/ doors open or panels removed. Removing bolted covers to expose bare energized parts.		
SAFETY REQUIREMENTS	CALL-IN	O		O / M^		M		M		M	
	JHA REQUIRED	O		O		M		MOP		MOP	
	HW PERMIT CHECKLIST	O		M		M		M		M	
	QUALIFIED WORKER AUTHORIZATION	M [PS/ST]		M [PS / ST]		M		M		M	
	STAND-BY PERSON	O		O (See Call-In M^)		M / PER JHA		M / PER MOP		M / PER MOP	
	CLEAR SAFETY GLASSES	M		M		M		M		M	
	HEARING PROTECTORS	O		O		PER JHA		PER MOP / M*		PER MOP / M*	
	LONG SLEEVE SHIRT	O		O		O		PER MOP		PER MOP	
	FR FACE SHIELD	O		O		M / PER JHA		M / PER MOP / M*		M / PER MOP / M*	
	FR SOCK	O		O		M / PER JHA		M / PER MOP / M*		M / PER MOP / M*	
	VOLTAGE RATED RUBBER & LEATHER GLOVES	O		M		M / PER JHA		M / PER MOP / M*		M / PER MOP / M*	
	FR COVERALLS [LAB COAT]	O		O		M / PER JHA		M / PER MOP / M*		M / PER MOP / M*	
	MEANS OF RESCUE	O		O		M / PER JHA		M / PER MOP		M / PER MOP	
	RUBBER MATS	O		O		PER JHA		PER MOP		PER MOP	
	RUBBER BLANKETS	O		O		PER JHA		PER MOP		PER MOP	
	HOT STICKS	N/A		N/A		PER JHA		PER MOP		PER MOP	
	INSULATED TOOLS	O		O		PER JHA		PER MOP		PER MOP	
WARNING SIGNS/BARRICADES	O		O		M / PER JHA		PER MOP		PER MOP		
MANAGEMENT APPROVAL	MEANS ALL DIRECT CONTACT WORK IN CLASS 5 & CLASS 6, OTHER THAN TESTING & TROUBLESHOOTING, REQUIRES AUTHORIZATION FROM CHRIS LASATER, BILL MEMORY OR TROY BRAINARD. (WILL REQUIRE A MEETING TO REVIEW THE WORK)									M	

M = MANDATORY USE OF ITEM OR STEP O = OPTIONAL AS DETERMINED BY THE QUALIFIED WORKER'S HAZARD ASSESSMENT N/A = NOT APPLICABLE
 [PS/ST] = QUALIFIED PROJECT SUPERINTENDENTS and SERVICE TECHS HAVE AUTHORIZATION TO PERFORM CLASS 1 & 2 HOT WORK
 MOP = WRITTEN METHOD OF PROCEDURES REQUIRED JHA = WRITTEN JOB HAZARD ANALYSIS REQUIRED PER JHA/MOP = HAZARDS & SAFETY REQUIREMENTS TO BE ADDRESSED IN
 M* = PPE MANDATORY BY NFPA 70E STANDARD FOR CERTAIN TASKS & VOLTAGES