

Electrical work performed as part of MPO projects

- RSL-II Electrical Scope Overview
 - Complete demolition and removal of antiquated/dated electrical systems
 - Install new switchgear (555) and switchboards (510)
 - Provide all new feeders, panels, transformers, and branch wiring throughout the renovated areas
 - Provide new grounding throughout the renovated areas
 - Provide new emergency lighting and signage throughout the renovated areas
 - Provide Emergency power Off (EPO) capabilities at all renovated labs
 - Provide lightening protection for both facilities
 - Provide new fire alarm system at all renovated areas
 - Provide new lighting controls throughout the renovated areas
 - Electrical isolation of the renovated areas from the balance of the occupied facility
- 817
 - Installed a new 277/480V 3 phase electrical panel to support the new HVAC unit
 - Completed \$46K of upgrades to code compliance issues in area above the drop ceiling discovered during construction.
- 599
 - Completed \$8K of upgrades to code compliance issues in area above the drop ceiling discovered during construction.
- 902
 - Completed \$140K of upgrades to code compliance issues in area above the drop ceiling discovered during construction.

DEFERRED MAINTENANCE REDUCTION

	Notes	FY 2012		Total	
		Planned	Costed	PYC	TEC
1 03610/01282 - Replace 69kV circuit breaker at Substation 631 Installed two of three gas circuit breakers.		90,000	164,104	431,234	1,520,000
2 03610/01283 - Replace Overdutied Electrical Equipment Investigated B-490 and identified 9 panels with indeterminate short circuit rating. Available fault current exceeded the assumed breaker rating of 10kA. Panels have been procured and awaiting installation.		100,000	124,628	302,390	1,520,000
3 03610/01294 - Electrical Distribution Panel Labeling - OSHA Verify and update panel directories, apply appropriate labelling for voltage, power source, and arc flash ratings. Inputted directory information into computerized software package.		75,000	81,282	377,174	4,000,000
4 03610/ 03597 (W.O. EP885109) - Refurbish 480V circuit breakers and install electronic trip devices 16 kits received from previous years. 6 kits total have been installed at B-490 & B-1008. Additional units are being installed this fiscal year at these buildings.		75,000	30,818	355,324	TBD
5 01800/01824 - Replace 8 69kV switch operators with worm-gear operators All have been replaced with other funds	1	n/a	n/a		
6 01800/01840 - Refurbish 4 480V circuit breakers with electronic trips in B-535 4 electronic trip devices have been installed on spare breakers and awaiting for a maintenance period to interchange with existing breakers.	2	n/a	n/a		
7 01800/01871 - Electrical Safety Training In September 2012, Line Crew, 2 engineers, and 1 electrical inspector completed training on Electrical Safety for Industrial Facilities. Class pertained to OSHA 1910.269 & 332. To be certified as a Substation Technician Certificate, additional training is required: Substation Maintenance I and II. SF6 Breaker training has also been added to the classes given.		50,000	6,447	6,447	TBD
8 01800/01872 - Limit access to electrical equipment (Substations) (Includes 03610/01295 - Substation Grounding and Bonding) An procedure and check list has been developed to inspect substations. Line Crew has corrected deficiencies identified at 3 of 8 locations, B-490, B-930, & B-835. 3 of the 8 locations have had some deficiencies corrected, B-933, B-555, B-902.		75,000	40,102	40,102	TBD
9 01800/01873 - Protective Device Maintenance Perform protective device maintenance in buildings identified. Scope includes: thermal imaging, updating directories, and performing general maintenance of tightening connections, exercising breakers, cleaning, and assuring proper grounding and bonding.		10,000	97,366	97,366	TBD

Notes

- 1) Item being removed from list
- 2) Labor to install breakers to be coordinated and funded by South Complex

DEFERRED MAINTENANCE REDUCTION

	Notes	FY 2013		Total	
		Planned	Costed	PYC	TEC
1 03610/01282 - Replace 69kV circuit breaker at Substation 631 The third of three to be installed at Transformer #6 during the summer		0	0	431,234	1,520,000
2 03610/01283 - Replace Overdutied Electrical Equipment Investigated B-490 and identified 9 panels with indeterminate short circuit rating. Available fault current exceeded the assumed breaker rating of 10kA. Panels have been procured and awaiting installation.		31,000	11,012	302,390	1,520,000
3 03610/01294 - Electrical Distribution Panel Labeling - OSHA Verify and update panel directories, apply appropriate labelling for voltage, power source, and arc flash ratings. Inputted directory information into computerized software package.		20,134	20,192	377,174	4,000,000
4 03610/ 03597 (W.O. EP885109) - Refurbish 480V circuit breakers and install electronic trip devices Replacement of existing trip units with new electronic continued. Purchased 6 additional kits and installed 5 kits. Approximately 10 kits are onhand. If time allows, linecrew will install additional kits.		20,000	12,187	355,324	TBD
5 01800/01824 - Replace 8 69kV switch operators with worm-gear operators All have been replaced with other funds	1	n/a	n/a		
6 01800/01840 - Refurbish 4 480V circuit breakers with electronic trips in B-535 4 electronic trip devices have been installed on spare breakers and awaiting for a maintenance period to interchange with existing breakers.	2	n/a	n/a		
7 01800/01871 - Electrical Safety Training Training has continued. Substation Maintenance I and SF6 Breaker training have been given. Substation Maintenance II to be given in June.		73,000	33,652	6,447	TBD
8 01800/01872 - Limit access to electrical equipment (Substations) (Includes 03610/01295 - Substation Grounding and Bonding) Line Crew has continued to correct deficiencies identified at 5 of remaing 8 locations identified. To date the following substations have been corrected: 490,555, 911A, 930, 703, 510, 535, 463, 815, 901, 901a, 801, 912B, 488, & 617. The following substations have only been inspected: 835, 912A, 933, & 912K.		23,000	22,750	40,102	TBD
9 01800/01873 - Protective Device Maintenance Perform protective device maintenance in buildings identified. Scope includes: thermal imaging, updating directories, and performing general maintenance of tightening connections, exercising breakers, cleaning, and assuring proper grounding and bonding.		24,000	40,212	97,366	TBD
10 01800/01874 - B-490 Bust Duct 4 Bus Duct 4 is installed and awaiting an outage for tying into switchgear.		155,000	123,359	52,236	TBD

Notes

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