

**Table 2b: Procedures for Work in SSRL Accelerator Tunnel Following Operator Lock-Out of Exposed Electrical Hazards
Linac Vault With Covered Hazards**

- NOTES:**
1. All electrical hazards for the injector gun and linac are locked out by SPEAR operators; those for the GTF are locked out by GTF operators. All electrical hazards are covered.
 2. The Linac PPS has no electrical hazard interlock and has only 2 access states: Permitted Access and No Access.

L/T/V = lock/tag/verify PA = Permitted Access CA = Controlled Access

Work Type	Work Description	Tunnel Exposed Electrical Hazard Control	Work Plan ⁽¹⁾
1	“Major work” directly on exposed conductors of hazardous electrical equipment controlled by Ops tunnel access lock-out (e.g. disconnecting, drilling or welding magnet leads, etc.)	PA: Lock/tag on Ops lock box	-
2	<ul style="list-style-type: none"> - “Minor work” directly on exposed conductors of hazardous electrical equipment controlled by Ops tunnel access lock-out (e.g. tightening coil connections or water fittings, servicing klixons, etc..) - Work on non-hazardous equipment within 1 ft of exposed conductors of hazardous electrical equipment controlled by Ops tunnel access lock-out (e.g. photon beam lines, water circuits, alignment, etc.) - Tunnel inspection with possible or known contact with exposed conductors of hazardous electrical equipment controlled by Ops tunnel access lock-out (including search) 	PA: Lock/tag on Ops lock box	
3	Work on hazardous electrical equipment not controlled by the tunnel access lock-out (e.g. re-terminating ion pump cables) within 1 ft of covered conductors of hazardous equipment controlled by Ops tunnel access lock-out	PA: L/T/V for electrical hazard not included in Ops lock-out	EWP for work on elec. hazard not in Ops lock-out
4	Work on hazardous electrical equipment not controlled by tunnel access lock-out >1ft from covered conductors of hazardous electrical equipment controlled by Ops tunnel access lock-out	PA: L/T/V for electrical hazard not included in Ops lock-out	EWP for work on elec. hazard not in Ops lock-out
5	<ul style="list-style-type: none"> - Work on non-hazardous equipment >1ft from covered conductors of hazardous elect. equipment controlled by Ops tunnel access lock-out - Tunnel inspection >1ft from covered conductors of hazardous electrical equipment controlled by Ops tunnel access lock-out 	PA: None	-
6	Escorted inspection or tour	PA: None	-

¹ In all cases, it is assumed that staff have valid routine JHAMs and, if required, non-routine JHAMs and/or EWPs, as enforced by supervisors.