J. Chin Originated 2/17/09

| Inputs | **Laser Interface System** | LIS Heartbeat Dead | **Laser System** | Laser Not Faulted | Laser Enclosures Not Opened | **Facility System** | No Facilitility E-STOP | **Bypass and Enable Switches** | Fast Shutter Permissive Bypass | Fast Shutter Enable Switch | Laser Servicing Enable Switch | BTS Servicing Enable Switch | BTS System in Place | **Laser Service Enclosure** | LSE Enclosures Not Opened | No Laser STOP | Smoke/Fire detection Not Triggered | **Beam Transfer System** | Beam within Position Sensors | Laser Power Within Threshold | BTS Enclosures Closed | Fast Shutter Not Failed | **Propagation System** | Spotters Packs Connected | Spotters Pack NO Laser Stop | ASCAM Permisisve ON | DCS Permissive ON | Boresight Camera Operational | Boresight Permissive ON | Observing Assistant Permissive ON | LTCS Permissive ON | Satellite Permissive ON |
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| **Permissives** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Laser ON Permissive | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Normal Operations | | | | | ✓ | | ✓ | | | | | | | | ✓ | ✓ | ✓ | | | | | | | | | | | | | | | |
| Servicing | | | | | | | ✓ | | | | ✓ | | | | ✓ | ✓ | ✓ | | | | | | | | | | | | | | | |
| Laser Shutter Permissive | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Normal Operations | | | | ✓ | | | | | | | | | | | | | | | ✓ | ✓ | ✓ | ✓ | | | | | | | | | | |
| Servicing/Alignment | | | | ✓ | | | | | | | | ✓ | | | | | | | | | | ✓ | | | | | | | | | | |
| Fast Shutter Permissive | | | | | | | | | | | | | | | | | | | | | | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Normal Operation | | | | ✓ | | | ✓ | | | ✓ | | | ✓ | | | ✓ | | | | | | ✓ | | | | | | | | | | |
| Service | | | | ✓ | | | ✓ | | ✓ | ✓ | | | ✓ | | | ✓ | | | | | | ✓ | | | | | | | | | | |
| Safe Mode Operations Permissive | | ✓ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Inputs | **Laser Interface System** | LIS Heartbeat Dead | **Laser System** | Laser Faulted | **Facility System** | Facility E-STOP | **Bypass and Enable Switches** | Fast Shutter Permissive Bypass | Fast Shutter Enable Switch | Laser Servicing Enable Switch | BTS Servicing Enable Switch | BTS System in Place | **Laser Service Enclosure** | Laser Stop | Smoke/Fire detection Triggered | LSE Glycol Temperatures Exceeded | LSE Room Temperature Exceeded | LSE Humidity Exceeded | LSE Glycol Flow Sensor | LSE Pneumatic Sensor | **Beam Transfer System** | BTS Room Temperature Exceeded | BTS Humidity Exceeded | Beam outside Position Sensors | Laser Power Outside Threshold | Fast Shutter Failed | **Propagation System Triggers during Propagation** | Spotters Pack disconnected | Spotters Laser Stop triggered | ASCAM permissive disabled | DCS permissive disabled | Boresight Camera OFF | Boresight Permissive disabled | Observing Assistant Permissive disabled | LTCS Permissive disabled | Satellite Permissive disabled |
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| **Warnings** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| LSE Environmental (OR) | | | | | | | | | | | | | | | | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | | | | | | | | | | | | | |
| BTS Environmental (OR) | | | | | | | | | | | | | | | | | | | | | | ✓ | ✓ | | | | | | | | | | | | | | |
| Bypass/Servicing (OR) | | | | | | | | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | | | | | | | | | | | | | | | | | | | | | |
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| **Alarms** | | ✓ | | ✓ | | ✓ | | | | | | | | ✓ | ✓ | | | | | | | | | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |