PROCEDURES FOR THE 12.47 kV POWER SYSTEM INDEX LIST INFORMATION PROCEDURE

STANDARD OPERATION

Overview and General Operations: OPER-253

This procedure provides an overview of, and the general operation guidelines for the Lab's 12.47 kV system. It also identifies the hazards associated with this system, and the use of protective grounds.

Clearance of Lines and Equipment: OPER-254

This procedure provides the steps for clearing the lines and equipment on the 12.47 kV system prior to the start of work.

Testing and Sectionalizing of Equipment and Circuits: OPER-255

This procedure provides instruction for testing and sectionalizing of equipment and circuits.

Switching Coordination w/UCB and PG&E: OPER-257

This procedure outlines the steps to be taken for switching within the LBNL 12.47 kV system in conjunction with UCB and PG&E.

Switching Station Entry, Inspection and Operation: OPER-258

This procedure provides instruction for the entry and inspection of switching stations.

Binder Document Control: ADMN-056

This procedure lists all documents and their locations.

Power Shutdown Checklist: ADMN-060:

This procedure provides a checklist to be used preceding a power shutdown for any LBNL building.

EMERGENCY RESPONSE

Power Failure Responses: EMRG-045

This procedure is an overview of the steps for responding to a Hill-wide or isolated power outage before power is restored by PG&E. It contains three sections which provide information for:

- Section A Notification List;
- Section B Preliminary Assessment of Outage and Response;
- Section C Power Outage Response by Building.

Power Outage Responses: EMRG-048

This procedure provides the outline of steps to be taken for responding to power outages and to restore power. It contains four sections:

- Section A Low Voltage Failure (600 volts or Less);
- Section B 115 kV Outage Caused by PG&E;
- Section C 12.47 kV Outage Caused by LBNL System Failure;
- Section D Outage Due to Other Causes (Fire, Explosion, etc.).

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Grizzly Substation Emergency Responses: EMRG-068

This procedure describes the steps to be taken for responding to an emergency at the Grizzly Substation. It contains six sections:

- Section A: All Grizzly Substation Emergencies;
- Section B: Phase Overcurrent (51) and short circuit for Incoming Main Breakers;
- Section C: Ground Ground Overcurrent (51N) (50G) for Incoming Main Breakers;
- Section D: Phase Time Overcurrent (51) and Short Circuit for Feeder Breakers;
- Section E: Ground Overcurrent (51N) (50G) for Feeder Breakers;
- Section F: Bus Differential (87).

ALS Switching Station Emergency Responses: EMRG-069

This procedure describes the steps to be taken for responding to an emergency at the ALS Switching Station. It contains five sections:

- Section A: All ALS Switching Stations Emergencies;
- Section B: Phase Overcurrent (51) for Incoming Main Breakers;
- Section C: Ground Overcurrent (51N) for Incoming Main Breakers;
- Section D: Phase Time Overcurrent (51) for Feeder Breakers;
- Section E: Ground Overcurrent (50/GS) for Feeder Breakers.

OLS Switching Station Emergency Responses: EMRG-070

This procedure describes the steps to be taken for responding to an emergency at the OLS Switching Station. It contains five sections:

- Section A: All OLS Switching Stations Emergencies;
- Section B: Phase Overcurrent (51) for Incoming Breakers;
- Section C: Ground Overcurrent (51/51N) for Incoming Main Breakers;
- Section D: Phase Time Overcurrent (51) for Feeder Breakers;
- Section E: Ground Overcurrent (51G) for Feeder Breakers.

East Canyon Switching Station Emergency Responses: EMRG-071

This procedure describes the steps to be taken for responding to an emergency at the East Canyon Switching Station. It contains five sections:

- Section A: All East Canyon Switching Stations Emergencies;
- Section B: Phase Overcurrent (51) for Incoming Breakers;
- Section C: Ground Overcurrent (51N) for Incoming Main Breakers;
- Section D: Phase Time Overcurrent (51) for Feeder Breakers;
- Section E: Ground Overcurrent (50/51G) for Feeder Breakers.

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Blackberry Switching Station Emergency Responses: EMRG-078

This procedure describes the steps to be taken for responding to an emergency at the Blackberry Switching Station. It contains five tables:

- Section A: All Blackberry Switching Stations Emergencies;
- Section B: Phase Overcurrent (51) for Incoming Breakers;
- Section C: Ground Overcurrent (51N) for Incoming Main Breakers;
- Section D: Phase Time Overcurrent (51) for Feeder Breakers;
- Section E: Ground Overcurrent (50/51G) for Feeder Breakers.

REFERENCES

Protective Relay Description: INFO-048

This procedure provides information on the names, numbers, and descriptions of the protective relays used in the LBNL 12.47 kV power system.

Chronological Logs and Records: INFO-049

This procedure provides information on the logs and records associated with the 12.47 kV system.

Reference Drawings: Document Control: INFO-051

This procedure provides the names, and locations of the 12.47 kV circuit breakers and disconnects in the LBNL system.

Circuit Disconnect Locations: INFO-052

This procedure provides information on the logs and records associated with the 12.47 kV system.

Electric Shop Emergency Phone List: INFO-054

This procedure provides the names and phone numbers of LBNL Electric Shop personnel to be contacted by plant maintenance technicians in the event of a 12.47 power interruption.

Switching Announcements: INFO-055

This procedure provides standardized announcements for the switching of 12.47 kV power.

RESPONSIBILITIES AND CONTROLS

Completion of the following signature lines constitutes approval of this procedure:

REV NO.	SME	REVIEWED BY	APPROVED BY / DATE	REVISION DATE
2	James Murphy Elec Shop Supv	Lawrence D Domansky Chief Elec Eng	Dennis Nielsen 5/30/07 Plant Ops Mgr	4/26/07
	James Murphy (Print Name)	LAWRENCE D. DOMANSKY (Print Name)	DENNIS NIELSEN (Print Name)	INFO-057

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