

EMERGENCY PROCEDURE

BLDG 88.STANDBY GENERATOR OPERATION

APPLICATION

Maintain the 88-Inch Cyclotron in a standby condition in the event of electrical power loss.

SPECIAL INSTRUCTIONS

- Water pumps will not operate during a power outage. The treated-water-to-city-water crossover will automatically provide city water for cooling, but only for the main diffusion pumps and basement mechanical pumps. Only pumps MP-1, MP-3, and MP-5 (located in rm 045) will operate on standby power.
- Standby power is supplied to the following:
 - Control room racks for Rm 163A.
 - Berkeley boxes in high level cave area, Rm 135 and Rm 137.
 - Hood exhaust blowers in Rm 129 and Rm 135.
 - Pit exhaust fan, low speed (controls are outside Rm 137).
 - Main cyclotron diffusion pumps, DP-1 and DP-2 (panel A-19).
 - Mechanical pumps MP-1, 3, and 5 in the Basement Pump Rm (During power outage, MP-1 or MP-3 may be used to back the main DP's and MP-5 is on the house vacuum line.
 - Target storage manifold pumps and LN2 trap located on Cave 5 roof.
 - Small 2-ft fluorescent emergency egress lights located throughout the building (these are not an indication of standby power, as they are also on under normal conditions).

WORK STEPS

1. Check that generator EG-90-88 is running.(Located in cooling tower area.)
2. If generator fails to start automatically following a power loss, start it manually by rotating the selector switch to the MANUAL position. (The selector switch is located on the generator control panel inside the Generator Room).
3. Verify that air compressor KC-4 is running. (Located in basement pump room.)
4. If compressor is not running, start the compressor.
5. Secure tower water supply and return valves on EX-10-88.
6. Valves are located on wall behind KC-6.
7. OPEN industrial water supply and drain valves on EX-10-88.
8. On Cave 5 roof, check target vacuum manifold for proper operation. (Follow instructions attached to the target vacuum manifold.)
9. Check EG-90-88 engine oil level every two hours of operation.
 - If oil level is low, add as required from the flammable storage locker adjacent to the generator.
 - This generator runs on low pressure natural gas; shutoff is located at corner of Bldg 65.

RESPONSIBILITIES AND CONTROLS

Provide signature lines as follows:

Rev. No.	SME/Title	Approved/Title	Date	Effective Date
1	 Jim Murphy Immediate Services Supervisor	 Ken Fletcher Operations Department Head	2/23/09	2/23/09