

City of Los Angeles

California



ANTONIO R. VILLARAIGOSA
MAYOR

May 23, 2012

The Honorable Members of the
Public Safety Committee
Information Technology and General Services Committee
c/o City Clerk Office
Room 395, City Hall
200 North Spring Street
Los Angeles, CA 90012

MT. LEE POWER OUTAGE

On April 20, 2012, the joint committee of Information Technology and General Services and Public Safety requested a report back on the following items:

- 1) Investigation of the root cause of the Uninterruptible Power Supply (UPS) units malfunction at Mt. Lee;
- 2) Status of tune-up and preventive maintenance of UPS units;
- 3) Possible legal action against third party UPS maintenance contractor;
- 4) Status of Mt. Lee electrical power system upgrade;
- 5) ITA's staff support for 911 Communication Centers; and
- 6) Assessment of vital City public safety facilities as it relates to UPS systems, emergency generators and electrical design.

These issues are addressed below.

Investigation of the Root Cause of the UPS Units Malfunction at Mt. Lee on April 3, 2012 (ITA):

The ITA contracted with Emerson Network Power (Emerson), the manufacturer of the UPS system, to analyze the malfunction of the UPS units at Mt. Lee and determine the cause(s) for the failure. The May 5, 2012 report prepared by Emerson did not provide a conclusive reason for the UPS failure and instead identified preventive maintenance

procedures that would be typically performed with an Emerson maintenance contract vs a 3rd party service contract.

The Emerson analysis indicated UPS failure may have been due to the original contractor's inability to maintain and update the UPS consistent with factory directed changes and procedures. UPS requires precise set-up and regular and frequent calibration service in order to perform as designed. During Emerson's course of maintenance, UPS set points were found to have drifted beyond engineering recommended tolerances causing system performance issues and nuisance alarms (over/under frequency). However, it was not determined that this issue resulted in the power drop to the facility.

ITA contracted with Emerson/Liebert, the Mt. Lee UPS manufacturer, to provide the recommended tune-up and preventive maintenance services for the UPS units. Concurrently, the BOE had recently completed and awarded an engineering contract to Gruen/iFactor, to evaluate the power systems status and correct identified issues relating to the UPS power distribution throughout the Mt. Lee facility. The Mayor's office has also requested a detailed analysis of all UPS system installations in coordination with ITA and GSD facilities management.

Status of Tune-up and Preventive Maintenance of UPS Units (ITA):

Since the event on April 3, 2012, a Work Group, including, ITA, GSD, LAPD, LADWP, BOE, Mayor's Office, Emerson Network Power/Liebert and Gruen Associates/Infrastructure Factor Consulting has been established. The Work Group developed a Method of Procedures (MOP) to coordinate all activities during the testing, calibration, troubleshooting and adjustment processes. During this joint effort, a plan to upgrade and test the two existing UPS systems and two emergency generators was developed and executed. The upgrade and testing were successfully conducted on April 24th and 25th.

On May 2, 2012, additional tests were performed on the backup generators and the Automatic Transfer Switches (ATS). A second MOP was developed and was again used to coordinate each activity. The UPS input filters were removed and both generators were exercised under simulated and actual load conditions. Preventive maintenance was also conducted on both automatic transfer switches. The maintenance and testing activities were successfully completed on May 2, 2012.

The Working Group is currently reviewing all of the maintenance and tests that have taken place to determine if any additional adjustments or testing needs to be conducted. This work will be scheduled if required.

Possible Legal Action Against Third Party Maintenance Provider (ITA):

The City Attorney has been notified of this situation. At this time, the previous maintenance contract and the work schedule logs have been collected and reviewed and will be sent to City Attorney shortly. The City Attorney has not yet commented.

Status of Mt. Lee Electrical Power Upgrade (BOE):

In two weeks, BOE will issue a Notice to Proceed to the consultant Gruen Associates to design and upgrade the existing electrical system installation in the Mt. Lee equipment room and reconfigure the distribution of backup power to the critical load for more redundancy and reliability. This work will be performed with both GSD and ITA to ensure that the current standards for UPS installation and system connections to power are considered.

ITA's Staff Support for 911 Communication Centers (ITA):

ITA maintains 24X7 CE (Communications Electrician) staffing at the Mt. Lee facility that performs various support functions to the communications systems installed at that location, as well as central management of the problems reported from both LAPD and LAFD stations. ITA Mt. Lee staff monitors and responds to alert tools, receives trouble calls, and assigns work to field services staff. In addition,

ITA maintains 24X7 CE staffing at both Metro Dispatch Center (MDC) and Valley Dispatch Center (VDC) 911 Communications Centers to monitor the communications infrastructure supporting the City's public safety agencies. The staff uses various tools to monitor and coordinate with other ITA and customer department staff to resolve issues affecting the operation of the various communications systems.

During the Maintenance period at the Valley Dispatch Center, ITA maintained a presence on-site during the times needed to assist with testing.

Assessment of Vital Public Safety Facilities (BOE and GSD – with input from ITA, LAPD and LAFD):

The Working Group is currently identifying the critical communication sites utilized by the public safety radio systems and other services that are essential to city business. The facilities include 37 other radio communication system sites located throughout the city, the 911 Dispatch Centers, the core network and computer room locations. The facility infrastructure concerns include utility power, the UPS systems, batteries and transfer switch components, the HVAC (Heating Ventilating Air Conditioning), fuel systems and the managed processes to control changes and regular maintenance services.

The sites have been identified and prioritized and information on each site is being collected. This information will be evaluated to determine what corrections are necessary.

If you have any further questions, please contact Tony M. Royster, GSD General Manager, at 213-928-9555; Randi Levin, ITA General Manager, at 213-978-3311; or Gary Lee Moore, City Engineer, at 213-485-4935.



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