August 22, 2012

Planning and Land Use Management Committee
200 North Spring Street
Los Angeles, CA 90012

REPORT ON BEST PRACTICES FOR LOS ANGELES DEPARTMENT OF BUILDING AND SAFETY ELECTRICAL TEST LABORATORY (CF#12-0600-S5)

Honorable Members of the Planning and Land Use Management Committee:

On May 21, 2012, the Planning and Land Use Management Committee directed the Department of Building and Safety (LADBS) to prepare a report regarding the best practices for the Electrical Test Laboratory.

To prepare the best practices report, LADBS surveyed many local jurisdictions as to their practices of code enforcement as related to electrical equipment and also surveyed many LADBS Electrical Test Laboratory (LADBS-ETL) customers (Attachment A) about the LADBS-ETL services, approval cost, and listing time as compared to other recognized testing agencies.

This report states the requirements for equipment testing and listing acceptance services provided by the LADBS-ETL, abstracts of customer comments, and fees and time needed to approve equipment from various manufacturers between recognized Testing Agencies and LADBS-ETL.

Requirements for Electrical Equipment Testing

To reduce risk of fire, shock hazards, and personal injury, in 1996, the State of California mandated that all local jurisdictions enforce the California Electrical Code (CEC), which was adopted from the National Electrical Code with the State of California amendments. Sections 110.2 and 110.3 of the CEC require that all equipment required or permitted by the CEC can only be accepted for use in local jurisdictions if the following conditions are met:
1) All equipment must be tested and approved, per the National Electrical Safety (NES) standards, by a recognized testing agency and conform to CEC requirements. Examples of recognized agencies are: Underwriters Laboratory, Canadian Standards Association, FM Approvals LLC, Intertek Testing Services NA, Inc., TUV America, Inc., LADBS-ETL, etc.

(Please note that sometimes testing agencies test equipment only per manufacturer’s standards and not NES standards. In these cases, local jurisdictions cannot accept the equipment and must require the equipment to be retested per NES standards).

2) All tested and approved equipment must bear the label, symbol, or other identifying mark of the approved testing agency to identify the equipment as “listed.”

To meet the State’s mandate, all local jurisdictions amended their codes to enforce CEC Sections 110.2 and 110.3. The result of a survey among the surrounding jurisdictions verifies that we all enforce the same code sections.

<table>
<thead>
<tr>
<th>City of Los Angeles (Code Sections)</th>
<th>County of Los Angeles (Code Sections)</th>
<th>City of Santa Monica (Code Sections)</th>
<th>City of Burbank (Code Sections)</th>
<th>City of Long Beach (Code Sections)</th>
<th>City of Glendale (Code Sections)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes 110.2, 110.3, 93.0402, 93.0403</td>
<td>Yes 110.2, 110.3, 83.3 &amp; 83.4</td>
<td>Yes 110.2, 110.3</td>
<td>Yes 110.2, 110.3, 9-1-5-90.7.1</td>
<td>Yes 110.2, 110.3</td>
<td>Yes 110.2, 110.3, 90.10 of vol. 4</td>
</tr>
</tbody>
</table>

**LADBS Electrical Test Lab (LADBS-ETL)**

As one of the testing agencies in the Southern California region, the LADBS-ETL has assisted industries, manufacturers, businesses, inspection authorities, hospitals, importers, and construction projects by testing and listing equipment for 78 years. The ETL provides initial and subsequent yearly laboratory approval, one-time field approval of installed unlisted equipment, and required approval standards for new equipment when there is none established. Even though currently staffed by two full time engineers, all these services are provided at low cost and shorter turn-around time compared to other approved testing agencies equipment listing (see page 3 for details and Attachment “A” for examples.)

Below are some Questions and Answers related to the functions of the LADBS-ETL:

**Does electrical equipment installed in the City of Los Angeles have to be tested and listed by the LADBS-ETL?**
No, not if the electrical equipment is already tested and listed according to NES standards by a recognized testing agency such as Underwriters Laboratory, Canadian Standards Association, FM Approvals LLC, Intertek Testing Services NA, Inc., TUV America, Inc., etc. If equipment is not already tested and listed, or if it is only tested and listed according to manufacturer standards, or if it is not CEC compliant, then it needs to be retested according to NES standards and CEC requirements by the LADBS-ETL or any other recognized testing agency.

**Why do many individuals prefer to use the service of the LADBS-ETL over other testing agencies?**

Many individuals prefer the LADBS-ETL service because of the following reasons:

1) The LADBS-ETL provides initial and subsequent yearly approvals of equipment at low cost ($689 and $705 respectively) and shorter approval turnaround time (typically 1 to 5 months). Other testing agency approvals may cost about $10,000 or more for initial and about $6000 subsequent yearly listing, and take approximately 4 - 6 months for approval.

2) The LADBS-ETL provides a one-time field approval of installed unlisted equipment at low cost (as low as $1,181) and shorter turnaround time (within 25 days). Other testing agencies approvals may cost about $2,000 and take approximately 2 months for approval.

3) The LADBS-ETL establishes required approval standards for new equipment when no adopted standards are available. Some examples are: automated car lifts, LED luminary retrofit, Skycam-within building, carbon monoxide detectors, portable generators, elevator equipment, therapeutic pools, spas, pool lights, etc.

In summary, many of our customers appreciate the aforementioned services.

**LADBS-ETL Customer Comments**

**Eugene Tsai of Grifols, Inc.**

"One Stop for all electrical equipment certification needs. Speed of electrical equipment certification done in days and weeks not months. Critical for new industry equipment approved. Knowledge of electrical equipment certification needs for LADBS Electrical Inspection. Outside contractor’s UL approving processes are very slow. Cost-Controllable cost estimate - UL costs typical are 10 times or more what the city test lab service cost."

**William Meurer of Go Green Solutions, Inc.**

"Having a local safety testing lab really helps to get our products to market quickly and to make sure they comply with the LA City safety standards. I also had a motion
picture power distribution product certified several years ago and the LA Testing was instrumental in assisting with our success.”

Todd Peterson of Seesmart LTD
“The City of LA ETL provided a superior service that was fast, efficient and very purposeful for our needs. As a local, fast growing company, we needed to get fast and accurate approval for our products that were stated to be sold and used within the City of LA. Since we were delayed in completing our UL and Intertek evaluations and approval, the City ETL provided the fast and thorough evaluation and approval process that we needed...”

Hector Saldana of USC University Hospital
“We have been conducting business for the last 15 years or more. The Electrical Testing Laboratory has been evaluating/certifying a variety of medical equipment from surgical equipment to clinical laboratory equipment.”

Richard Puczowski of City of Los Angeles Bureau of Engineering
“If not for the Electrical Testing Laboratory, we would have had to find a replacement compressor with an UL label for the entire assembly. To date, we have not been able to find one, we have used the Electrical Test Lab for many previous assignments and they have helped us achieve our goals. I am not sure how we could operate without them.”

Please contact Ifa Kashefi of my staff @ 213.482.0440, if you have any further questions on this matter.

ROBERT R. “BUD” OVROM,
General Manager
## Attachment A

### Fee Comparison and Listing Time Survey

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Testing Agency</th>
<th>Listed Equipment</th>
<th>Initial Cost</th>
<th>Listing/ Approval Time</th>
<th>Annual Renewal Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Edey Mfr. Co, Inc</td>
<td>U.L. LLC</td>
<td>Freezer Doors</td>
<td>$20,000-$30,000</td>
<td>6 months</td>
<td>$6,000</td>
</tr>
<tr>
<td></td>
<td>LADBS-ETL</td>
<td></td>
<td>$1,310</td>
<td>5 months</td>
<td>$902</td>
</tr>
<tr>
<td>Champion Cooler</td>
<td>U.L. LLC</td>
<td>Evaporator Cooler</td>
<td>$15,000 range</td>
<td>4 months</td>
<td>$6,000</td>
</tr>
<tr>
<td></td>
<td>LADBS-ETL</td>
<td></td>
<td>$1,310</td>
<td>1 month</td>
<td>$902</td>
</tr>
<tr>
<td>Alverado Mfr.</td>
<td>CSA, US</td>
<td>Security equipment</td>
<td>$18,000-$20,000</td>
<td>6 months</td>
<td>$2,000</td>
</tr>
<tr>
<td></td>
<td>LADBS-ETL</td>
<td></td>
<td>$1,472</td>
<td>2 months</td>
<td>$1,015</td>
</tr>
<tr>
<td>Currie Medical</td>
<td>CSA, US</td>
<td>Air Pump</td>
<td>$9,500</td>
<td>6 months</td>
<td>$5,600</td>
</tr>
<tr>
<td>Specialties, In</td>
<td>LADBS-ETL</td>
<td></td>
<td>$689</td>
<td>3 weeks</td>
<td>$705</td>
</tr>
<tr>
<td>A.J. Antunes &amp; Co.</td>
<td>Intertek</td>
<td>Food Steamer</td>
<td>$10,000 range</td>
<td>3 - 4 months</td>
<td>Did not renew</td>
</tr>
<tr>
<td></td>
<td>LADBS-ETL</td>
<td></td>
<td>$1,166</td>
<td>2.5 months</td>
<td>$1,015</td>
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</table>