



Neon Shop Tune Up

By Morgan Crook, Transco, Inc.

One common theme I've seen going into many neon shops over the years, is that when shops are busy they are always making excuses for how bad the shop looks, the lack of organization, lack of co-worker training, and equipment that is in need of service. The obvious problem is it means that you are putting out tubes that are not as good as they could be. Or maybe it's just more cumbersome to make them as good as possible. Neither is good. It's likely that in this economy the shop is not as busy as it could be. How about using this time as an opportunity to make some improvements?

Most of these suggestions are inexpensive—mostly time and labor. But by investing in them now your neon department will be more efficient, produce a better product for your customer, and in general reduce problems in the future. Don't think of the ideas presented here as a complete list. Use them as inspiration for a list that fits your neon shop.

Equipment Tune Up

Does your vacuum system have all the gauges required to make processing neon a consistent and repeatable process? All electrode manufacturers provide very specific instructions for processing neon. Without a full complement of gauges your operator is guessing. They might be experienced and a pretty good guesser, but they are guessing. Do they guess the same every day? If they were replaced, would the new person guess the same or different? If you stray from the written pumping procedures you are shortening the life of the tube. Maybe so much that it becomes a warrantee issue; this is not saving you money in the long run. This is not a guess. Get the gauges working and buy the ones you need. Most pump system manufacturers have inexpensive (or free, save shipping fees) calibration services for the gauges that require it. Call the manufacturer for some free advice on them.

Now is the time to get the manifold cleaned and the oils changed in the pumps. The burners for the fires can be soaked overnight in vinegar to clean out combustion debris. Don't forget the splicing and tipping torches. Are the valves for the fires sized correctly and easy to make adjustments to? Air and gas hoses should be checked. Air supply filter too.

Environment Tune Up

Beyond the obvious cleaning and painting look into the layout of the shop itself. Is there enough storage? Are the bending tables flat? If not, the tubes that are being made won't be flat either. Do you have good mercury storage, a clean up kit, and a disposal plan? The mercury applicator should be either glass or stainless steel; not plastic.

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■ FEBRUARY MEMBERSHIP DINNER MEETINGS

CSA and CSLB Working Together to Rid California of Unlicensed Sign Contractors

Losing work to unlicensed contractors is a topic that almost always raises the hackles of legitimate sign contractors in the state. CSA's February Membership Dinner Meetings, scheduled for Tuesday, February 24 at the Royal Cut Restaurant in Ontario and Thursday, February 26 at The Englander Sports Pub in San Leandro, will feature California Contractors' State License Board (CSLB) Enforcement Representatives Sharon Abrantes (Ontario) and Marco Bautista (San Leandro). Both presenters bring years of contractor investigative experience with the Northern and Southern SWIFT Units of the CSLB.

Among other things, Abrantes and Bautista will provide information to attendees letting them know the most effective methods available to them to report unlicensed contractors and get action from their respective SWIFT units. In addition, they will pass along ideas and suggestions of how CSA and the CSLB can work together to eliminate companies that operate illegally by not holding the proper contractors licenses. Bring your questions to either or both meetings. Undoubtedly, you are in for an informative evening with a representative of the Board that regulates all sign

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■ FEBRUARY EDUCATION & TRAINING

Welding for the Sign Industry: Increase Your Visual Welding Knowledge

Local regulation of American Welding Society (AWS) codes and standards is on the rise. It's important that sign industry welders improve their knowledge and understanding of field and shop welding techniques. It's equally important that sign fabricators and production supervisors understand the use of visual welding inspection procedures. Proper training enables sign companies to increase product quality and stem unsafe practices.

CSA, in cooperation with ISA, is offering "Welding for the Sign Industry: Increase Your Visual Welding Knowledge" on Wednesday, February 25 at the Miller Electric facility in Rancho Cucamonga. This seminar provides an in-depth review of visual welding-acceptance criteria for structural applications, as per the AWS D1.1 and AWS D1.2 welding codes. The course is intended for sign installers, shop managers, sign fabricators and production supervisors. In this intensive one-day seminar and hands-on workshop, attendees will:

- Acquire knowledge of basic welding code requirements to minimize liability;
- Recognize correct versus incorrect welding techniques and develop skills to distinguish weld quality; and
- Review acceptable methods for welding repairs as required by welding codes.

Richard (Rick) J. Braun is teaching this course. Braun has spent the last 35 years in the welding arena. He spent 3 years as the lead welding instructor in the state of Wisconsin prison system. After that, he held curriculum development and instructor positions with a noted technical college. After 11 years with the college, he resigned and re-started with Miller Electric as a course designer and regional instructor. Braun is now an 18-year employee of Miller Electric Mfg. Co. He is a Certified Welding Inspector (CWI), Certified Welding Educator (CWE), and Certified Welding Supervisor (CWS) with the American Welding Society (AWS).

Seating for this session is limited to the first 20 paid registrants and we anticipate the class selling out quickly. Don't delay—Register TODAY!

TRAINING INFORMATION

February 25, 2009

Miller Electric Mfg. Co.
9570 Santa Anita Ave.
Rancho Cucamonga, CA 91730
8:30 am – 4:30 pm
Maximum Capacity: 20

Tuition (includes lunch!)

- Both a CSA and ISA Member
\$125 per person
- CSA member only
(not an ISA Member)
\$145 per person
- ISA member only
(not a CSA Member)
\$165 per person
- Nonmember
\$225 per person

Neon Shop Tune Up

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Skills Tune Up

This is a pretty broad group. In some shops it may mean getting a copy of the ISA Neon Processing video and thoroughly learning all that is there about how to correctly bombard neon. It may mean cross training from the more skilled in the shop to the newer or less skilled employees in both processing and bending. Perhaps it is specific as in improving tubulation tip offs (video instruction available on the Transco Web site) for more durable tubes. It could be the tubebender becoming proficient in cold cathode lampwork which might open up some new sales opportunities for your company. Or maybe it's making sure that the right people in the shop know all they need to know about properly loading and servicing ground fault transformers.

Materials Tune Up

In this area there are some very strong gains to be made in tube brilliance and longevity. Switching to triphosphor glass gives a brighter sign, better color rendering index, and has greater lumen maintenance (it stays brighter longer). It costs pennies more per foot. Your signs look better than the competition. You may be able to drop strokes in larger letters. You may be able to run with 30mA transformers rather than 60's. Either of these saving far more money than the initial materials cost. Representatives from any of the tube coating companies can give demos comparing standard glass to the triphosphors. You will be impressed.

Make sure that you have a clear company policy on which blue gas mixture that you are using: make sure it's the most appropriate for the work and the location and stick to it. Chang-

ing mixtures can have some effect on both brightness and transformer loading.

UL 879 is going to be changing the materials you use for assembling your neon—sort of a forced improvement; but you can use your sign association, distributor, and the manufacturers themselves to keep up to date.

And finally, how about having a discussion with your tubebender and get their thoughts on where other improvements might lie. Not only are they most familiar with the problems, but their involvement in the planning will make them even more qualified to carry out the work in the end.

■ MARCH EDUCATION & TRAINING

Effective Employee Recruitment and Retention Strategies

Finding qualified and skilled management and supervisory employees can be taxing. Once found and hired, keeping them can sometimes be even more challenging. In this seminar, custom designed for CSA, owners and managers of sign companies who are in charge of hiring middle and upper management employees will learn the following and much more:

- Sourcing candidates for open jobs;
- Pros and cons of using a headhunter or recruiting firm;
- Questions you can and cannot ask (from a legal perspective);
- Pros and cons of employment contracts;
- Determining new hire rates of pay;
- Employee retention strategies;
- Other than money, effective management techniques that enhance employee retention; and
- “Right-to-work” versus “At-will” states as it relates to employee termination.

Teaching the course will be Rebecca “Becky” Regan, owner of Regan HR. Regan is a Certified Compensation Professional with World at Work (formerly known as American Compensation Association). She has been cited for her expertise in the design of total compensation programs that are consistent with and support company strategies and initiatives. Currently, Regan is the principal consultant in the human resources consulting firm that bears her name, Regan HR. Prior to starting her own firm ten years ago, she served as the Corporate Human Resources Director for The McClatchy Company. Clients include PRIDE Industries, Reno-Sparks Convention & Visitors Authority, The Fresno Bee, Hands On Services, Raleys, EdFund and many more.

This course will be taught in both Southern and Northern California. Come learn how to pick the best employees and then how to put the “golden handcuffs” on them!

MONA: Neon Sign Restoration Workshops

The Museum of Neon Art (MONA) will be conducting 10 workshops and a Symposium to discuss and share the techniques and aesthetics of repairing neon and illuminated signs. The workshops are scheduled for Sundays from 10:00am – Noon at the museum, starting in January.

The Symposium, a panel discussion on “More to Repairing a Neon Sign than Meets the Eye,” will include the director of the American Sign Museum, Tod Swormstedt. Date and location will be announced shortly. Anyone interested in participating in the workshops can call (213) 489-9918 or email info@neonmona.org for more information.

WORKSHOP SCHEDULE

All workshops will be held from 10:00 am to Noon at MONA, 136 W. 4th St., Los Angeles. Symposium date & location to be announced.

January 18

Bending the Neon Tube I

February 1

Pre-Neon Signs, Opal Glass

February 15

*Reverse Painting on Glass & Surface
Painting on Plastic & Metal*

March 15

Incandescent & Fluorescent Signs

April 5

Anatomy of a Neon Sign

April 19

Designing & Patterning

May 3

Assembling the Sign

May 17

Bending the Neon Tube II

June 21

Solving the Mystery

July 19

Wiring & Animation

TRAINING INFORMATION

Southern California

March 4 (Ontario)

Ontario Airport Marriott Hotel
2200 E. Holt Blvd.
Ontario, CA 91761
10:00 am – 3:30 pm
Seating Capacity: 35

Northern California

March 5 (Sacramento)


Sacramento Sheraton
Four Points Hotel
4900 Duckhorn Dr.
Sacramento, CA 95834
10:00 am – 3:30 pm
Seating Capacity: 35

Tuition (includes lunch!)

- CSA member
\$125 per person
- Nonmember
\$225 per person

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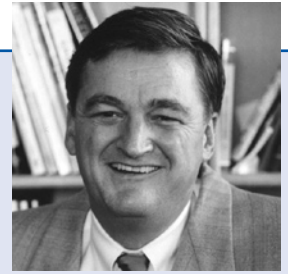
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The President's Column

By Skip Moore, CSA President



When I assumed the office of President of the California Sign Association, I did not relinquish my Chairmanship of CSA's 50th Anniversary Committee to which last year's President Ray Smith had appointed me. Amidst all the responsibilities and obligations of my current office, I find this role to be the most intriguing and rewarding.

As I've explained before, it is only appropriate that the second generation of one of CSA's founding fathers be President of CSA in our Golden Anniversary year. My history as the third generation in the family sign business offers me perspective and appreciation for the tradition and evolution of the sign industry in California in the last 50 years. In 1959, when the California Electric Sign Association was incorporated, I would have been six years old, and even then I was no stranger to the family business, Nelson Neon, that was founded by my grandfather Art Nelson and his brother Carl in Richmond. A sign shop to a boy like me was like the biggest playground I could imagine. It also proved to be the foundation of my future.

From the day I was old enough to walk from my grade school to the shop, I would walk the familiar path to arrive to the welcome aromas of welders and acrylic, of paint and coffee, to wander freely about the buildings that housed the family business, unaware that I was witnessing the future of my eventual career. As the company grew, so did I, until I was sweeping the floors and wiring ballasts at the age of twelve, cashing my first paychecks at \$1.65 an hour.

In 1968, Nelson Neon moved to Benicia, and through my high school years, my summers and Saturdays were spent gassing trucks, cleaning the offices, restocking the stockroom, sweeping the yards and watching as our sign manufacturing techniques matured. Sure, I got away to college to study architecture and was even a land-use planner upon graduation from the University of Oregon in 1977, but I soon returned to the family business, now called Bill Moore & Associates, located in Albany.

Over 33 years later and I am the principle of the family sign business and President of the California Sign Association. It takes that kind of tradition and appreciation to fully appreciate the significance of CSA's 50th anniversary.

As phone calls and historical materials requested in the *Powerline* arrive to my attention, I marvel at the stories, the growing list of who's who and photos documenting almost a century of sign making, photos of proud sign servicemen and examples of period installations. (I also regret the missing documentation of our association that has been carelessly displaced over the years.) A box sits behind my desk full of memories contained in documents and photos of the past half century and beyond generously offered by some of our members. To tell you the truth, it's a bit overwhelming as I try to figure how to make sense of it all. I only wish I had more time to commit to the purpose of placing each item on a comprehensive timeline, complete with names and places. I've abandoned such hope, at least until I retire. But I pledge to share what we can with the members in the coming year.

Bill Chufu, now retired from his company in Van Nuys, Inner City Signs, called me the other day. Having seen our *Powerline* request for materials, he said he had old blueprints and historical materials that we might be interested in. What struck me in this conversation was Bill's misconception that we were going to create a museum to place these things in. What a wonderful idea!

Until we get such an opportunity, this year gives us a chance to look back from where we've come and to acknowledge the individuals and technological developments that have preceded 2009. It also provides the perspective by which we can view ourselves today and to try to envision what lies ahead. I hope that 50 years from now, the members of our industry have occasion to look back and see us with the same appreciation and pride that we look back with today.

■ GOVERNMENT AFFAIRS REPORT

by Jeff Aran, CSA Government Affairs Director

NEW BALLGAME AT THE CAPITOL

Whether it's the budget mess or more bureaucracy, our elected officials will shortly be hammering away at hundreds of new bills over the next few months. CSA's Government Affairs Committee leadership met in November to outline the GA Committee's activities for 2009 and to respond to recently proposed regulatory changes to the Outdoor Advertising Act.

On tap this year we expect further regulatory work with Caltrans, the Air Resources Board, the Contractors State License Board and the California Energy Commission. We also plan to explore holding a "legislative day" in Sacramento and strengthening our ties with allied associations. In particular, Caltrans recently proposed regulatory changes which seemingly redefine on-premise signage. A copy of our letter outlining concerns and opposition to the changes may be found on the CSA Web site (www.calsign.org, click on Legal/Legislation).

Legislatively, the Committee anticipates greater dialogue in the areas of amortization of nonconforming signs, where there exists significant disparity between how on- and off-premise signage is evaluated under the OAA. In redevelopment zones, for example, Caltrans is seeking to apply to billboards the on-premise standard for purposes of just compensation.

Legal

"I've been sued where??" Anyone making purchases online may soon experience the headache of not receiving what they bargained for, whether due to failure to deliver goods, defective product, misleading advertising, or just plain fraud. Where do you, as the buyer, turn for relief? First, of course, talk to the seller. Second, if the purchase was made through a service like Amazon or eBay, use their dispute resolution process. Third, if paid with plastic, your credit card company may be able to help. Last, there's always the courthouse.

But where do you file suit when you're in California and the seller is in Wisconsin? Can you sue in California and bring the seller into California to

defend? Or worse, can the seller force you to retain attorneys in its state?

The Ninth Circuit Court of Appeal recently resolved this issue against a California purchaser of a classic 1964 Ford Galaxie 500XL car. The car was sold online for \$34,000 on eBay by a Wisconsin seller who represented it as being in "awesome condition, recently rebuilt and ready to be driven." When the car arrived it was covered with rust and dents and the engine would not turn over.

The buyer sued in California Federal Court. The seller defended by alleging it was not subject to jurisdiction in California because it had no "contact" with California.

Most every state requires that a defendant be sued where they "reside," unless (in the case of an out-of-state defendant) they "purposely avail" themselves of the forum state, i.e., the state where suit was filed. The Appeals Court held that one lone transaction did not satisfy the "purposeful availment" test, which requires that a defendant "must have performed some type of affirmative conduct which allows or promotes the transaction of business within the forum state." Here, the seller simply listed the car for sale on eBay, which is accessible throughout the world. Merely because the buyer was located in California did not confer jurisdiction nor "venue" in California because the seller did not affirmatively seek to do business in California. (Although the court dismissed the case, the seller can still be sued in Wisconsin.)

In the sign industry, product suppliers and wholesalers often "reside" out of state. It is also not uncommon for out-of-state contractors to send purchase orders to in-state companies for local installations. How can you protect yourself and/or make sure you get paid? Some easy steps you can take:
(1) Whenever you issue or receive a PO, be sure to respond with or include confirmation language setting venue for any dispute resolution in California, subject to California law (preferably in the county where your business is situ-



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A Burning in Question

By Morgan Crook and Jacob Fishman

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Burning vs. Cleaning

Although the terms are often used interchangeably and action usually occurs simultaneously, burning in and cleaning up are two different things. It is necessary to react to each of them very differently.

What Clean Can Mean

Cleaning up is the absorption of small amounts of impurities left in the tube after bombarding. This is achieved by metals in the electrodes acting as a getter. That is, in spite of all that we do while bombarding—even with huge vacuum pumps—there are always some impurities left in the tube, added while filling, or produced when we tip off. One of the beautiful things about a neon tube is that when a tube is lit on a “burn in” transformer these impurities become imbedded in the electrode shell. Over time only the inert gases remain. This elegant feature should not be used to “fix” a tube instead of proper processing technique. As explained in previous chapters look for impurities right before tipping the tube off the manifold, using a static or spark tester. Using either of these tools provides a visual check for small amounts of impurities that checking the tube by flashing with the bombarder would clean up the tube too much. Even with the static tester your tube should be the “right” color at the far electrode.

Clean up should be thought of as time to observe the tube. Look for leaks and impurities not removed through bombarding. Most problems will show up in the first hour.

Burning In

Burning in is the process step of dispersing mercury vapor throughout an argon tube—the vapor needed to make light and stimulate the phosphor coatings. There are two ways to move this vapor through the tube. The first is through the electromotive forces provided by the transformer. The mercury atom has a charge to it and the tube has a positive and negative end to it. The mercury tries to move toward one end and then to the other as it switches back and forth sixty times a second with a conventional transformer.

A couple of points here: with an electronic transformer things can be different. Many electronic transformers operate around 20,000 Hz. (cycles per second). There is a shorter distance the mercury travels before the polarity is switched. Think of the mercury atoms inside the tube vibrating rather than really moving. Also if the A.C. voltage output of an electronic transformer is not symmetric, the resulting current will contain a small D.C. component in the waveform. This causes an unequal current flow over time and will eventually cause the majority of mercury to end up at one end of the tube. This action is called “mercury migration”.

Finally, since we’re getting vibration rather than real long distance collision between particles in the tube, there is less heat. This heat is the second force that drives mercury vapor through the tube.

The more heat, the more vapor, and the faster the tube comes up to full brilliance. A couple of examples to keep in mind as to how this works: if you were in a sealed room in one corner and there was someone in the opposite corner and they were to open a bottle of perfume, in some given amount of time the room would smell equally strong with the perfume. In fact there is nothing that you could do to keep all the scent in one corner. The hotter the room the faster this would happen. The same thing happens in the mercury tube. To prove this we did an experiment: we took a pumped tube and just tipped the mercury into the lamp keeping the mercury “behind” the ceramic collar and then tipped off the mercury trap. Without lighting the lamp we set this 4 row grid (5 feet of glass) in a tray in a BBQ grill and turned on the heat. The temperature rose to 300°F and stayed there for 30 minutes. The grill was turned off and the tube allowed to cool. When it was lit, it was almost uniformly bright immediately. While we are not advocating this method for burning in, it does show that heat, by itself, is a powerful force in dispersing mercury vapor—in burning a tube in.

Well what about the opposite—the lack of heat? A second experiment was run using 8 feet of glass bent into a U shape and laid flat. Again, the mercury was carefully rolled just inside the one electrode and it was set outside at night in the cold Rhode Island air. The temperature started at 27 degrees and dropped to 18 with light snow. In 2 hours it was bright 4 feet from the first electrode. Ten hours later, the brightness had crept 2 feet further. In 24 hours it was still inches from the “far” electrode. So we see that in the (relative) absence of heat, we can still burn in, but it is real slow going.

So how do we add heat? Burn in on a higher mA transformer. For this test we took several 12 foot tubes bent into 4 row grids. In the shop to test the “worst case scenario” we again only put the mercury on one end of the lamp. Running on 60mA it took about 4 hours to come to full brightness along the full length of the tube. When we ran tubes on 30mA it took 20 hours. Next we tried it with mercury on both electrodes. For consistency we did not to leave any loose mercury in the tube, just on the electrodes. We found that these burn in times dropped by 75 percent or so. This gave us two heat sources (the electrodes) and twice the rate of mercury vaporization. So why didn’t it burn in more than twice as fast? Looking back at the test from Rusty Russo in Rhode Island, we saw that the “brightness” moved quickly at first away from the electrode, then slowed way down the further it got away from the original source even though both electrodes were equally hot.

Now that we’ve got the tube burned in, does it stay that way? Yes, according to several other tests.

Compare and Contrast

- A couple different lamps were used in the 12 foot tube at 30mA with Hg on one end test. The time of 20 hours was pretty consistent regardless if it was 20 hours continuous running or if it was timed, turned off over night and the test resumed the next day. In fact when the

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■ STATE FUND Electric Equipment Guarding and Workspaces

Electrical current is found in power lines, transformers, breaker boxes, and power outlets and switches. Exposure to electric current can cause shock, injury and electrocution. Workers that service electrical sources need to get training on electrical safety, assume electrical equipment and lines are live, and use lock out/tag out procedures. Proper guarding and clearance around electrical equipment can prevent accidental worker exposure to electrical currents.

A shock can occur when a worker's body becomes part of the flow of an electrical circuit. The severity of injury depends on the voltage and time that the electrical current passes through the body. Low voltage causes pain and slight burns, a large voltage can cause severe burns and stop the heart. A minor shock may cause a large injury if a surprised worker takes a fall.

To avoid the risk of accidental shock, live electrical components

operating at 50 volts or more must be guarded with covers or other permanent barriers to prevent accidental contact by workers and their tools. Equipment can also be locked behind an enclosure, in a room, or at an elevated height. These areas should have restricted access and warnings against unauthorized entry. Permanent markings on electrical equipment with the voltage, current or wattage provide power output information for workers.

Electrical boxes and equipment are best stored in areas free from moisture, chemicals, and excessive temperatures. Electric cabinets with ventilation holes need to remain clear to allow air circulation. Electric parts that ordinarily spark or arc require covers and isolation from combustion sources. Equipment should be securely mounted to the surface that it rests on.

There should be adequate working space to allow workers to safely maneuver around electrical equip-

ment. Electrical equipment with a voltage of 0-150 requires 36 inches of clearance. A voltage of 150-600, where there are energized parts on one side, also needs 36 inches of clearance. Equipment with a voltage of 150-600 and exposed energized and grounded parts on either side requires 42 inches clearance; equipment with exposed energized parts on both sides must have 48 inches clearance.

The clearance workspace around electrical equipment is not intended for storage. The area should be kept clear to allow safe movement and to prevent a fire hazard. Electric equipment workspaces require adequate lighting for safe work; light operating switches should not be near live electrical feeds. Enclosures need at least one entrance and enough headroom to work safely.

With adequate clearance and guarding around electrical equipment, workers can avoid accidental exposure to electric shock.

Reprinted courtesy of the State Compensation Insurance Fund

Did You Know? Business Entity Names

California law requires the Secretary of State to determine that a proposed business entity name (for corporation, limited liability company and limited partnership entity types) is not the same as or too similar to a reserved name or to the name of an existing business entity of record (of the same entity type) with the Secretary of State; and that the name is not misleading to the public. In the case of a limited partnership subject to the Uniform Limited Partnership Act of 2008, the Secretary of State is required to determine that the proposed name is distinguishable on the record.

The Secretary of State's office is proposing to adopt regulations that will (1) provide guidelines to assist the public in selecting a business entity name prior to reserving the name or filing documents with the Secretary of State; (2) provide the public with more certainty that a proposed business entity name will meet statutory standards; and (3) assist Secretary of State staff in determining if a proposed business entity name is acceptable, ensuring more consistency in the application of the statutory standards.

For more information and to download the Public Notice, the Initial Statement of Reasons and the text of the proposed regulations, visit www.sos.ca.gov/business or call (916) 653-6244.

Source: California Secretary of State Web site, <http://www.sos.ca.gov/business/regs-business-entity-names.htm>.

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Professionalism

By Brad Walker, CSA Executive Director

In today's high-demand culture, quality, low prices, and rapid turn around times are a must. As an industry we must resist the temptation to succumb to unethical behavior. We can help our entire industry by showing that we are all trustworthy professionals.

I was recently talking to a long time association member and he mentioned noticing that a company had used one of his company drawings. After some discussion, I noted the CSA Powerline is sent to all C45's in California. We both agreed it would be a great idea to remind these licensed contractors to get written permission prior to ever using another company's design information.

The cost to develop a presentation includes performing a site check, taking photographs, and it culminates in a professional designer adding his or her unique design abilities to provide the perfect presentation for the end user. To use another company's materials is, at the very least, unethical, and there is no reason for sign companies to put themselves in a position where industry peers are questioning their ethics.



CALENDAR OF EVENTS

Membership Dinner Meetings

Southern Meetings:

- February 24 • Ontario
- March 17 • Pasadena/Pomona
- No April South Meeting—
See you in Vegas at ISA Sign Expo 2009!
- May 5 • Anaheim
- June 16 • Museum of Neon Art, Los Angeles

Northern Meetings:

- February 26 • Pleasanton
- March 19 • Sacramento
- No April North Meeting—
See you in Vegas at ISA Sign Expo 2009!
- May 9 • Sacramento

Educational Seminars

Welding for the Sign Industry: Increase Your Visual Welding Knowledge (co-sponsored by ISA)

- February 25 • Rancho Cucamonga (SoCal location only)

Human Relations/Employment Seminar

- March 4 • Ontario
Marriott Hotel
- March 5 • Sacramento
Sheraton Four Points Hotel

Digital Printing

- March 25 • Ontario
Marriott Hotel
- March 26 • Sacramento
Sheraton Four Points Hotel

ISA Events

ISA Sign Expo 2009

- April 15-19 • Mandalay Bay Convention Center, Las Vegas, NV

Consider this...

The International Year of Astronomy

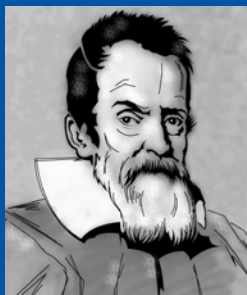
Four hundred years ago, Galileo Galilei lifted his new telescope to study the sky, setting in motion a myriad of astronomical discoveries that forever changed our view of the universe.

Contrary to current wisdom, Galileo was not persecuted by the Church for his belief that the planets orbited the sun. In fact, that idea had been around for hundreds of years and was the publicly held belief of other scientists, including Copernicus (1473-1543). But in a time before the concept of "free speech", Galileo was not exactly diplomatic. When he publicly mocked the pope in a book published by the church, he landed in jail for several days. Later, he was confined to his villa and during those 10 years he continued his research, writing, received visitors, and remained outspoken in his beliefs. He died in 1642.

It was actually his development of the telescope that constitutes his greatest contribution to science.

In honor of Galileo, the United Nations declared 2009 the International Year of Astronomy. One of the main events of the year is the 100 hours of astronomy, April 2-5, days when the early evening is good for observing. The goal is to have as many people as possible peering through telescopes to study the sky.

For more information, visit www.astronomy2009.org.



End of an Era

In December, CSA Director Emeritus Pat McGehee of Interstate Electric Co., Inc., submitted this photo taken by Steve Weeks, YESCO Las Vegas, of the dismantling of the Frontier Casino sign. The juxtaposition of the brand-new Encore Las Vegas hotel behind it is striking. Along with the photo, Steve wrote that he believed “the Frontier sign coming down marks the end of the 60-70’s signage on the strip. I intend to drive the strip and see if I am mistaken, but if not, it is sad to see it gone.”

Echoing Steve’s sentiments, Pat noted in his email, “This picture is a good page in the history of electrical signage in Las Vegas. We may never see this type of electrical signage in Las Vegas again as it is changing from neon to LED. I, for one, hate to see it go.”

To submit your photo or industry-related item to CSA for publication consideration, email stephanie@calsign.org for details.



A Burning in Question

Continued from page 6

tube was turned on the next day (and the day after) the tube lit bright to the same point on the tube upon relighting on its way to the “far end”. It did not “un-burn in” anywhere along the length of the tube.

- One of these same “20 hour” tubes was left outside not running for several days including nights in the mid-20’s. On the third morning (34°F) we lit the tube at 30mA. Within 2 minutes it was fully and evenly bright.

- Seven 5 foot tubes were bent into 4 row grids. Pairs of tubes were tested with mercury just tipped into one end and with mercury on both electrodes and then burned in for several different time spans. All the tubes except for the baseline tube were put in freezer overnight (approximately 20°F). They were taken out of the freezer and ran on a 30mA transformer in the shop. All tubes looked exactly the same in less than 2 minutes.

These tests show that once a tube is burned in it does not “un-burn in”. It also shows that when it is so cold that the mercury does condense, for the short term, it pretty much stays where the vapor was.

If the mercury stays evenly dispersed, can we move it? With poorly made electronic transformers we can, but we try to stay away from those. Over time the mercury will always move on its own, condensing in the coolest part of the tube. In the photo of this sample

tube that has been running for 2 years on 60mA, we see that there is no mercury to be seen on either electrode—most of it appears to have condensed in the coldest part of the tube, which is the tubulation tip outside of the hotter arc stream. The only other visible traces were in the “outside” of the sharp bends at the bottom of this U-shaped lamp which makes sense as these are the second coolest parts of the lamp.

It’s All in the Ball

This small amount of extra mercury is good. Later in the tube’s life the “excess” liquid mercury droplets end up in the coolest parts of the tube. When it does get cold enough the vapor condenses. The tube heats back up (restart or daylight for example) this “excess” mercury is exactly where you need it—the coldest part of the tube. You have likely seen this example when you roll a ball of mercury through a tube that is not fully burned in. It is bright where the ball of mercury is. This is to say that in cold weather “excess” mercury is helpful in bringing the lamp up to brilliance. So yes it will move—thankfully to the precise parts of the tube that need it most. For it to work this way makes it obvious that this “extra” mercury was not “excess” from the beginning. How much mercury do you need to provide “excess”? Consensus during the ISA Processing Standards meetings fell between 100 and 300 mg. (1 to 3 drops), depending

on the tube and the conditions it operated under.

This also shows that old adage of “having to have mercury on both electrodes” is not true. While it does speed up burn in times the tube does get bright and it stays bright regardless of where the mercury is. In fact, the “mercury on the electrodes” doesn’t even remain there.

I still burn all my red units in on 30mA. The smaller mercury tubes that I can shake around to break the mercury apart into little balls throughout the tube are also run 30mA transformer. They burn in for 10 minutes or so. The first set of the day may run for an hour before the “final” tipping off is done. When time comes to turn it off, to be honest, if I grab the leads when the burn in transformer is on rather than off a 15/30 hurts much less than a 15/60.

In the End

I still prefer the slower getting of the 30mA for better visual inspection. On longer units there is much time to be saved by using 60mA to burn in. So use the right transformer for the job at hand, pay attention to the color of the tubes from the start of clean up to the end of burn in, and *make sure that switch is off*.

For more information about the book, visit www.NeonEngineers.com.

MEMBER NEWS

Structural Technology Consultants Has New Leadership

San Diego, CA—Structural Technology Consultants (STC), a structural engineering firm that has provided engineering services to the sign industry since 1990, is proud to announce that Karen Nowacki has formally acquired the firm. Karen has been with STC since its inception in 1990 and has been Vice President for the past eight years.

As President, her executive responsibilities will continue to focus on STC's mission to provide clients with simple, practical, buildable engineering solutions, being mindful of costs and the need to maintain a high degree of structural integrity. "A large percentage of our business is repeat clients," says Karen Nowacki. "We place considerable importance on long-term relationships. Our team approach allows us to work closely with clients, look out for their interests, and genuinely care about each project's outcome."

According to Karen, "Our ownership has changed, but our staff is the same professional, capable people who have always serviced our clients' best interests." Leading the engineering team is Duane J. Gee, P.E., Senior Engineer. Duane has been with STC since 2006 and has more than 17 years of industry experience. He holds B.S. and M.S. degrees in structural engineering from the University of California, San Diego. Gee has consulted with top engineering firms around the world to prepare design and construction documents.

Headquartered in San Diego, CA, STC is a structural engineering firm with a staff of 11 engineers and support staff that provides expertise in signage engineering nationwide with professional registrations in 17 states.

Industry News

Brighter Thinking—The Neon Group Forms to Represent the Neon Lighting Industry

Phoenix, AZ—The Neon Group, a new non-profit organization, has formed to represent the interests of the neon lighting industry to a growing consumer market interested in clean, efficient and time-proven lighting solutions.

The Neon Group's membership is a network of professionals including neon component manufacturers, supply distributors, power supply manufacturers, wholesale neon tube benders, sign makers, lighting designers and artists. It represents the many facets of this American tradition, from the artisans who utilize neon to the engineers who perfect its efficiency and expand its applications. "By creating a united front, we are protecting the interests of the neon trades, educating a misinformed public and promoting awareness of neon as a valuable lighting system," asserts Loren Hudson, president of The Neon Group.

The group uses quantified data to endorse neon lighting as a product that in many ways outperforms LED and fiber optics systems currently popular in the lighting and signage market. The Neon Group's message sites environmental and financial benefits (neon signage requires less energy, contains fewer hazardous chemicals and lasts longer than other lighting methods) as well as creative benefits (neon gas can produce a more complete color spectrum compared to the relatively few colors available from LED and fiber optics).

In recent years, neon signage has come under misguided political fire, even becoming outlawed in certain jurisdictions. The Neon Group has formed in light of such action to provide factual information about the environmental impact of neon, as well as to re-introduce neon as an environmentally responsible and creatively flexible lighting solution to consumers swayed by the novelty of LED and fiber optics. The marketing strategies proposed by The Neon Group include legislative advocacy and educational workshops.

Professionals in the neon trades are encouraged to become a member of The Neon Group to help strengthen the network and build cooperative efforts within the industry. The group is headquartered in Phoenix, Arizona and a Membership Application form is available online at www.theneongroup.org.

For more information, please contact The Neon Group office at (866) 637-6264, or online at www.theneongroup.org.

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BRIGHTER
THINKING

GOVERNMENT AFFAIRS REPORT

Continued from page 5

ated); (2) Be sure to add an attorney fees provision; (3) Get paid upfront when possible; (4) If you must file suit and jurisdiction is valid in either forum state, be the first to file in your state (the rule generally is that if there is more than one locale where jurisdiction or venue is proper, the first to file controls).

In the News...

"All Signs Point to Increased Sales" was the headline in a November *LA Business Journal* positive news story about the sign industry. "With sales slowing, retailers are paying more attention to improving the signs that bring customers into their stores. And that means a bump in business for Los Angeles signmakers," reports the *Business Journal*. Yours truly was quoted on behalf of CSA: "Jeff Aran, director of government relations for the California Sign Association in Sacramento, advises business owners to hire a sign company that knows the local regulations...If you see a center with nice signage you tend to notice it. Part of that has to do with regulation, part with the developer's signage policy, and finally with the sign company's design capability."

Church and State

According to news reports, an organization that advocates for the separation of church and state filed a lawsuit in November, claiming that Rancho Cucamonga and Redevelopment Director Linda Daniels violated the group's free speech rights. The complaint—filed by the Freedom From Religion Foundation in the U.S. District Court in Riverside—claims the city interfered and contributed to the removal of a billboard displaying the message, "Imagine No Religion." According to the complaint, reports the *Inland Empire Daily Bulletin*, the city "gave the appearance of religious endorsement, including an expressed preference for religion over non-religion," and violated the First Amendment by intending to "interfere with and...contribute to cause Freedom From Religion Foundation's billboard to be removed from public display because of opposition to the message communicated by (the Foundation's) billboard." The "Imagine No Religion" sign is allegedly part of a national campaign to encourage dialogue on "non-theism."

Easing Up

With bad news affecting all sectors of the economy, **Apple Valley, CA** is helping out, sort of, by temporarily easing up on restrictions banning temporary signs. The city has adopted a six-month "moratorium" on enforcement, reports the *Daily Press*. The new policy took affect December 1 and, if it's found not to cause a blight, may be considered for a permanent change. Nearby **Victorville** recently increased the height allowed for signs on larger parcels along major roadways, to help with visibility. The city also started free "pre-submittal meetings," where aspiring business owners can get questions answered before they start their application for permitting to ensure everything goes smoothly. **San Bernardino County** announced a series of free workshops to help struggling businesses. The county will also pick up the tab on personal business assessments, which normally cost \$100. The assessments will be offered through the High Desert Small Business Development Center, where residents can also receive one-on-one counseling, training and other services to help develop and sustain business.

FEBRUARY DINNER MEETINGS

Continued from page 1

contractors in the state. Don't forget to bring a prospective member—if you do, you both eat free! Early Bird Bonus! Register early and be automatically entered in a drawing to win a FREE \$10,000 Drawing ticket. Details listed below. Seating for both meetings is limited so register **TODAY** by email: stephanie@calsign.org or phone (916) 932-0021.

CSA and CSLB Working Together to Rid California of Unlicensed Contractors

Southern California
February 24 (Ontario)

Speaker: Sharon Abrantes, CSLB
5:00 pm – Happy Hour
6:00 pm – Dinner

Royal Cut Restaurant
2345 S. Grove Ave.
Ontario, CA 91761

Northern California
February 26 (San Leandro)

Speaker: Marco Bautista, CSLB
5:00 pm – Happy Hour
6:00 pm – Dinner

The Englander Sports Pub
101 Parrot St.
San Leandro, CA 94577

- Registration: \$35 per person
 - Early Bird Bonus: Register before the deadlines and qualify for a chance to win a free \$10,000 Drawing ticket!
- Deadlines: Ontario – February 20 (4:00pm); San Leandro – February 23 (4:00pm)

Quote of the Month

It's a damn poor mind that can think of only one way to spell a word.

~Andrew Jackson



★ ISA SIGN EXPO Expo Offers More Bang for Marketing Buck in Tough Economy

Alexandria, VA—The ISA International Sign Expo 2009 (April 15-18 in Las Vegas) is more than ever the meeting-point for the entire international supply chain for the on-premise sign industry. Each year, the event brings together sign suppliers and distributors to showcase sign industry products, services and technologies to a vast audience of sign manufacturers. The upcoming event is tracking well, as ISA has sold more than 1,700 booths to more than 430 companies, outpacing booth sales in the same time period for the 2008 Expo (1,696 booths; 420 companies).

The annual event, which alternates between Orlando, Fla., and Las Vegas, Nev., ranks on *Tradeshows Week* magazine's prestigious top 200 list as the 106th largest trade show in the U.S. In 2009, the exposition returns to Mandalay Bay Convention Center, in Las Vegas with educational and networking events taking place April 15-18 and the exhibit hall open April 16-18.

"Exhibiting at an industry leading show like ISA's Sign Expo becomes even more important during a recession," said Sam Lippman, president of Integrated Show Management & Marketing and producer of the Exhibition and Convention Executives Forum and Large Show Roundtable. "At a minimum exhibiting protects market share; your presence announces your corporate strength."

Lippman, who has managed large graphics industry tradeshows including CES, Graph Expo and Print, adds that exhibitors get more for their investment than just a booth.

"The upside to exhibiting during a recession is it offers the rare opportunity to take customers from competitors that have cancelled or downsized their exhibits," he said.

"During a recession, trade shows like Sign Expo become an even better value," Lippman added. "Your company can reduce its travel costs because customers and prospects will travel to see you at industry leading shows."

The quality of attendees at the top shows tends to increase as companies focus on cutting costs, because they will be sure to send their top decision makers.

With looming concerns about a slow economy and sluggish retail growth, ISA emphasizes the scope of its annual exposition and the diversity of its exhibitors and attendees.

"ISA Sign Expo 2008 attracted nearly 20,000 attendees and showcased 1,952 exhibit booths, representing 563 companies demonstrating the newest technologies in the electronic sign, printing and graphics industries," said ISA President and CEO Lori Anderson. "The packed exhibit hall featured 130 more booths than in 2007, and we anticipate similar growth in 2009."

Since its debut in 1947, the ISA International Sign Expo has been breaking records in exhibit sales and attendance, and expanded its reach on a global scale. Roughly 20 percent of exhibitors and 14 percent of attendees travel from outside of the U.S. to the show, and that percentage continues to grow each year.

"Last year, we hosted nearly 4,000 individuals representing 111 countries

outside the United States," Anderson said, noting the Las Vegas show tends to draw strongly from companies operating in the Pacific Rim. "With a weaker U.S. dollar, it is more cost-effective than ever for overseas buyers to travel stateside for events like ours."

The enormous popularity of the ISA International Sign Expo mirrors the growth the sign industry itself has experienced over the last 60 years. The advent of digital print imaging has largely contributed to this expansion of the sign industry, which continues to grow through advancements and innovations in digital technology.

In addition, ISA's Sign Expo is the best place to get up to speed on important industry issues and trends. Learning opportunities abound at the show, with educational programs focusing on topics such as graphic design, sign code legislation, business management, sales and marketing, technology and more.

The ISA Discovery Seminar Series features interactive forums, hands-on workshops and seminars and Continuing Education Units (CEUs) are available.

Online registration is open now. Rates for admission to the exhibit hall are \$15 for ISA members and \$30 for nonmembers, prior to April 2, and \$25 for members and \$40 for nonmembers onsite during the event. Additional fees apply for seminars and keynote speaker presentations.

To reserve exhibit space, contact Mellisa Cooper at (703) 836-4012. For a complete list of exhibitors and events, or to register, visit www.signexpo.org.

2009 Expo Schedule at a Glance *All locations are the Mandalay Bay Convention Center unless otherwise noted.*

Tuesday, April 14

7:30 am – 5:00 pm Exhibitor Registration

Wednesday, April 15

7:30 am – 5:00 pm Exhibitor Registration

8:30 am – 11:30 am Pre-Conference Workshops

10:00 am – 5:00 pm Attendee Registration

1:00 pm Shotgun Start—ISA/WSSC Golf Tournament, Legacy Golf Club

Thursday, April 16

7:30 am – 5:00 pm Attendee & Exhibitor Registration

8:30 am – 4:00 pm Discovery Seminars

9:20 am Opening Ceremony

9:30 am – 5:00 pm Exhibit Hall Open

4:00 pm – 6:00 pm Global Sign Forum & Reception

Friday, April 17

8:30 am – 5:00 pm Attendee & Exhibitor Registration

8:30 am – 4:00 pm Discovery Seminars

9:30 am – 5:00 pm Exhibit Hall Open

11:30 am – 1:30 pm Keynote Luncheon & ISA Annual Membership Meeting

4:30 pm – 6:00 pm Custom/National Sign Company Meeting & Reception

Saturday, April 18

8:30 am – 4:00 pm Discovery Seminars

9:00 am – 2:00 pm Attendee & Exhibitor Registration

10:00 am – 4:00 pm Exhibit Hall Open

4:00 pm – 6:30 pm ISA Closing Party

For a full description of events, a complete listing of all seminars including speaker bios & photos, and trade show information, be sure to visit www.signexpo.org.

■ SUBMISSIONS REQUESTED

Does your company have good news to share? Are you on a CSA committee and want to get the word out on your upcoming event? Do you just like to write and you want an audience? Well, then submit your articles, press releases, and photos to the CSA office for consideration in *Powerline*!



The Communications Committee and CSA Staff welcome submissions from our members for any issue. All submissions are subject to editing for space and content. Content for *Powerline* is due on the first of the month prior to the issue it will run.

Please submit any item for publication consideration to stephanie@calsign.org. For information, please call the CSA office at (916) 932-0021.

WANTED

HISTORICAL DOCUMENTS & PHOTOS

CSA is looking to secure copies of historical photos and stories associated with CESA-member companies and individuals.

First person narratives, articles and the like will all be welcome. All items that are submitted for consideration will be properly tracked, credited and returned.

For more information, please contact Skip Moore, Chairman of the CSA 50th Anniversary Committee, at skip@billmoore.com or (510) 526-0296.



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