

EMERGENCY POWER

DSPM INC.
DIGITAL SIGNAL POWER MANUFACTURER
www.dspmanufacturing.com

Quarterly Communication for Emergency Lighting Professionals

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Message from DSPM's CEO...

Since our founding over 25+ years ago, everyone at DSPM has been committed to developing the most reliable, advanced, and dependable open architecture emergency lighting solutions possible. A goal, I am proud to say, we've achieved. With 2019 well on its way, I'm excited to share with you DSPM's focus — YOU! We're proud that engineers, architects, and project managers coast-to-coast are aware of DSPM's emergency power solutions and incorporate them in their project specifications. However, with our rapid technological breakthroughs, I've decided to take the next step toward ensuring decision-makers, like you, are aware of our innovations, flexibility, and capabilities. To achieve this objective, we have two initiatives. The first, you're holding in your hands; DSPM's new **Emergency Power** newsletter to keep you aware of DSPM's projects and advancements. Second, we want to help you maximize your valuable time. Toward this end, we're producing a new webinar series entitled **Power That Matters!** The first episode of this series will be presented three times in May on the 9th, 14th & 23rd at times convenient for your schedule. Please join us as we dive deep into our technology in manageable thirty minute increments.

Our goal for 2019 is to help you exceed your clients' mission-critical expectations. Toward this end, we've launched **Emergency Power**. It would be easy to conclude that what you're reading is just a newsletter. In doing so, you would be incorrect. This first issue of **Emergency Power** demonstrates DSPM's commitment to you, our most important partner. I urge you to be prepared for the tempo of communications and information from DSPM to elevate to an exciting level. Join us as DSPM rolls out its 21st Century Emergency Power strategy centered around you and your clients.

Milton "Moe" Hanson, President
April 2019

DSPM — BUY AMERICAN ACT COMPLIANT

Yes. DSPM's emergency power solutions are Buy American Compliant. We hope "just saying so" should be sufficient. However, for many, understanding of the Buy American Act ("BAA") of 1933 may be a little fuzzy. After all, it's been eighty-six years. According to the U.S. Government Accountability Office, the BAA passed by Congress and signed by President Hoover on his last day in office in 1933 requires the United States government and federally funded projects to prefer American-made products in their purchases.

Historically, America has a long-standing preference for incorporating domestically made products whenever possible. Certainly there are statutes and regulations that promote this policy, but the Buy American Act of 1933 is the oldest and most well-known.



The essence of the BAA's provisions sound simple: "...the use of foreign-produced materials and products on public construction projects is prohibited." However, a dense web of regulations and statutes interact to create exceptions and exemptions often making the BAA's complex body of laws difficult to comprehend.

(Continued on page 3)

Emergency Power Webinar

**75W to 125KW
CENTRALIZED
INVERTER
LIGHTING
POWER
THAT
MATTERS!**



Why struggle alone with yet another specification issue when the team at DSPM is here to assist you? DSPM is committed to being your emergency lighting partner.

From by-pass switches to circuit breakers, we understand your need to specify the right emergency lighting power solution for your clients — A solution that is at the ready when the need for power matters most!

To learn about DSPM's reliable, innovative, and proven emergency lighting inverter solutions, reserve your spot today for episode "one" of our free and informative webinar series: **Power that Matters!** For your convenience, episode one will be hosted three times in May.

MAY 9th
11:00am Pacific Time

MAY 14th
8:00am Pacific Time

MAY 23rd
11:00am Pacific Time

To reserve your seat, simply register at

www.dspmready.com

We promise, this will be the best 30-minutes you can spend to ensure your clients' lights are on when it matters most...**during an emergency.**

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Battery Ready™

DSPM's Inverter/Battery Monitoring System

The investment in centralized emergency power is made with the belief that electrons will flow when needed most — in an emergency.

Toward this end, regulators across the country have placed oppressive demands on the shoulders of building managers to monitor and confirm backup systems are at the ready. Unfortunately, the demands for compliance are burdensome, expensive, and in many cases, exposes technicians to serious injury and liability to your client. To address this very real demand for emergency power dependability, DSPM implemented the most robust and affordable computerized battery monitoring system unprecedented in the emergency lighting industry — **Battery Ready™**

A Matter of Compliance

Day in and day out, accountants, administrators, safety officers, and building managers are plagued with the never-ending demand to be compliant with numerous regulatory agencies and codes that govern every aspect of their business, including emergency lighting. Some of these regulating authorities include:

- Occupational Safety and Health Administration (OSHA),
- National Fire Protection Association (NFPA),
- Joint Commission on Accreditation of Healthcare Organizations (JCAHO),
- International Building Code, and
- International Fire Code.

Above and beyond the requirements of these agencies, businesses must also follow the requirements of their local authority having jurisdiction and responsibility for monitoring and enforcing building and/or fire codes.

To illustrate the complexity of emergency lighting regulations and compliance, let's look at one agency, OSHA who defines emergency lighting requirements as follows:

OSHA's requirements for lighting and marking exit routes are covered under 1910.37(b). It states that each exit route must be adequately lighted so that an employee with normal vision can see along the exit route and each exit must be clearly visible and marked by a sign reading "Exit."

Amazing. And that's just Section 1910.37(b). Rest assured, when it comes to OSHA there are many more conditions about which OSHA has an opinion including luminosity, exit sign positioning, and distance between signs to name a few. The real question, however is, **With all the regulations placed on the shoulders of building owners and managers, how can anyone actually comply with all of them?** The answer is simple, **they can't.**

Even more complicated is the topic of egress lighting designed to illuminate and identify hallways, stairwells, and exits to facilitate a safe and orderly evacuation. Emergency lighting is generally required in all commercial, industrial, educational, religious, institutional, public housing, military, medical, and many other facilities whether for-profit or non-profit. While OSHA does not have any regulations specific to emergency lighting, the NFPA's *Life Safety Code* addresses the topic in detail.

Section 7.9.3, of the Life Safety Code, addresses NFPA's requirements for periodic testing of emergency lights. This section acknowledges three different categories of emergency lights: (1) traditional, (2) self-testing/self-diagnostic, and (3) computer based self-testing/self-diagnostic. Essentially, this code requires both a monthly activation test, where the lights remain illuminated for a minimum of 30-seconds, and an annual test where the lights are activated for 1.5-hours simulating a long term emergency event with swarms of lighting technicians rushing from light-to-light and floor-to-floor in multi-story high-rise buildings — truly a sight to see. Written records of the monthly and annual tests must be maintained for inspection by the local authority having jurisdiction. Computer based emergency lighting systems must be capable of generating a self-report of testing at all times — a valuable feature of DSPM's **Battery Ready™** technology.

Risk Management

Apart from being exposed to burdensome recordkeeping and relentless visits from the local authority, ensuring your clients'

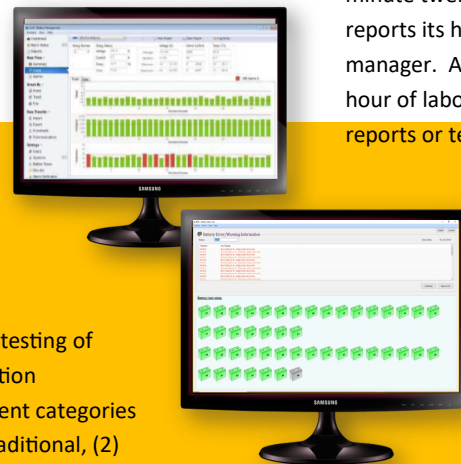
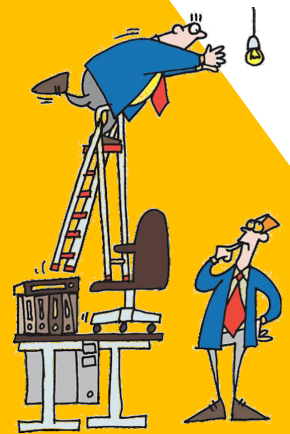
emergency lighting solution is functional often requires attention from trained professionals (or in some cases, not so trained.) In either case, the cost of staffing paired with the ever-present exposure to injury is a very real and expensive threat your clients face. In an effort to reduce the burden of compliance and testing, DSPM invented its Inverter/Battery Monitoring System — **Battery Ready™** which takes control of your clients' centralized emergency lighting power and actively monitors its health every minute twenty-four hours a day, and reports its health to the property manager. All this is done without one hour of labor expended preparing reports or technicians put at risk.

DSPM's Battery Ready technology diligently tests the health of each battery in your clients' systems, logs the results ensuring compliance, and ensures the lights are on when needed

most — in an emergency.

Security

Consistent with DSPM's commitment to securing the wellness and safety of your clients' building occupants, **Battery Ready™** goes one step further ensuring the integrity of your clients' centralized emergency lighting system. More than anti-virus, **Battery Ready™** incorporates leading-edge security by providing each **Battery Ready™** client a uniquely encoded USB security key plugged into the client's computer monitoring DSPM's emergency power system. DSPM's security strategy ensures no one can gain access and violate the integrity of **Battery Ready's** monitoring, reporting and DSPM's lighting inverters.



DSPM — BUY AMERICAN ACT CERTIFIED *continued*

(Continued from page 1)

Unfortunately, contractors who fail to comply with the BAA's requirements can face costly legal issues, debarment or in some situations, criminal investigation and prosecution. With the new administration, now is the time to get familiar with the BAA and we hope to guide you in your journey.

What is the Buy American Act?

As mentioned above, the Buy American Act of 1933 provides preference for goods and materials produced in the United States over products sourced from outside the country. Since there is a possibility a needed product may not be made in America, or is superior to the domestically produced alternative, the BAA simply prioritizes domestic products and does not necessarily prohibit the purchase of products that are not BAA compliant.

As odd as it may seem, the BAA basically sets a price preference where the federal government will pay a higher price for domestic products. For example, if there are two products of equal price, and one is domestic and the other foreign, the federal agency must award the contract to the domestic offer. But, you ask, what if a foreign product is cheaper or a better value than the domestic product? To address this possibility, the government adds a "price penalty" to the lowest non-domestic offer to evaluate it against the second lowest domestic offer. This penalty is a percentage that can range anywhere from six to fifty percent of the foreign product's price, depending on the size of the business. Once the percentage has been added, the federal agency will use the adjusted price to determine which offer is the lowest and best value.

What does it mean that DSPM is Buy American Act Compliant?

According to the BAA, vendors are asked to certify that their products are "domestic-end-products" meaning: (1) the end-product must be manufactured in the U.S., and (2) more than fifty percent of the cost of all the parts must also be manufactured in the U.S. **DSPM complies with both conditions.**

Some ask, what's the big deal?

The BAA provides for the use of waivers and exceptions to requirements that allow for the purchase of foreign goods. This is the case when foreign-made goods are more cost-effective or under the \$3,500 micro-purchase threshold. Additionally, the Trade Agreements Act allows for the purchase of foreign products in certain situations. To complicate matters, some contracts are subject to different rules. For example, federal agencies may have additional or fewer restrictions or contract stipulations. Also, if a commercial off-the-shelf product is being purchased, it is not subject to the BAA. In the case of DSPM, all our emergency power units are above the micro-purchase threshold, and more importantly, each DSPM unit is built specifically to your clients' specifications.

Like all federal regulations, there are plenty of gaps in the BAA that cause confusion, and could undermine its purpose and effectiveness. In an attempt to provide some clarity for an ambiguous, broad and occasionally contradictory law, President Trump signed Executive Order 13788. The obvious logic is that the Buy American Act and Executive Order 13788 will promote economic growth and create well-paying jobs for Americans. These requirements will likely make waivers harder to obtain and navigation of the compliance-waters increasingly difficult. The upside is the BAA and Executive Order 13788 strive to ensure current trade agreements are fair and limit the ability for foreign countries to offer lower-priced goods through unfair trade practices.

What are the implications of Buy American Hire American on government contracting?

President Trump's Executive Order did not provide specifics on what the end goal was or provide a roadmap or timeline to get there. Legally, nothing has changed, since substantive changes require Congressional action and will likely take a while. Additionally, no money has been appropriated from the U.S. Treasury to fund Executive Order 13788. So, during this initial stage, the Buy American Hire American order primarily affects federal agencies and projects that are federally funded. Fundamentally, Executive Order 13788 simply calls upon the heads of federal agencies to evaluate the enforcement and implementation of the BAA.

With the desire to tighten rules and close loopholes, the Buy American Act takes an aggressive stance on procurement in regard to federal contracting. Trump's Executive Order is simply the first step in cracking down on violators of the BAA, and an attempt to reinforce laws that have either been diluted over time or gone unenforced. The burden to Federal contractors is the requirement to keep up-to-date on ever-changing requirements, and ensure they have the appropriate BAA certifications on hand when replying to government solicitations.

Like so many state and federal regulations, the BAA is complicated and often difficult to ensure compliance. The good news is this; ***DSPM is Buy American Act Compliant and relieves you and your clients of yet another burden, distraction, and concern.***

The Future of Electric Rail



Currently, according to the American Public Transportation Association, the United States has fifteen rapid transit systems with over one thousand stations moving people in unbelievable numbers — more than 3.8 Billion riders annually representing 10.4 million per day.

In our climate aware society, mass-transit and electric rail solutions appear inevitable. It is difficult to argue the benefits of switching away from fossil fuel to electric-powered rail in minimizing contribution to climate change. With such a change, however, brings with it a unique and dramatic challenge — Power Loss. The good news is that most municipalities have taken this into consideration and ensure rail power is provided separately from the municipal grid. Unfortunately, electric train power is incompatible with the needs for powering such things as telecommunications, lights, gates, etc. As such, the consequences of riders trapped in trains or tunnels without power for communication and train control is truly frightening. There is good news however, DSPM's High Voltage DC to AC Converter takes the very high DC voltage that powers the trains and converts it into alternating current compatible with the power needs of communication and control.

Today, we're proud to share that DSPM's High Voltage DC to AC Converter is the only American made high DC voltage inverter approved by the City of Chicago and has been installed at the Jarvis Station since June 2018 which allows for controlling of the subway signaling in the area by converting very high DC voltage to useable AC voltage, just like the utility companies provide their customers. If you have rapid transit projects, give us a call and we will gladly help.

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DSPM, Inc. — The Power to Make a Difference™



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Frequently Asked Questions

Please explain inrush current

Inrush current is the instantaneous high input current drawn by a power supply or electrical equipment at turn-on. This arises due to the high initial currents required to charge capacitors, inductors, or transformers. The inrush current is also known as the switch-on surge, or the input surge current.

What is DSPM's inrush or surge capacity?

DSPM's inverters and uninterruptable power supplies are capable of 300% to 500% of inrush current dependent on power level.

Is DSPM UL 924 compliant?

DSPM is fully compliant with Underwriters Laboratories Standard for Safety of Emergency Lighting and Power Equipment — UL 924. DSPM's UL 924 compliance ensures its equipment used for your emergency lighting needs meets the functionality, reliability, and visibility standards set under UL 924. One of those requirement's is a minimum 90-minute battery backup to safely evacuate the facility. Keep in mind, some areas require more time to safely evacuate larger buildings so it is not unusual to have 120 to 240 minute battery backup requirements.