

Monthly Newsletter

Date: 04/02/2024

Our Mission: "To build a community that develops and promotes excellence in maintenance reliability, and asset management in Kansas City and the surrounding area"



Upcoming Networking/Training Events

Training Events are a fantastic way to earn recertification hours for CMRP.

Please Register.

April 18, 2024, NE/IA SMRP Annual Conference.

Presented By: NE/IA Chapter of the SMRP

Location: SAC Air Command Center and Museum, Omaha Nebraska

Time: 9:00 a.m. to 4:30 p.m.

To help with planning and catering we ask that you PLEASE register in advance.

Please Register by Friday, April 12th, 2024

When registering, please be sure to provide contact information for all attendees.

\$16.00 Museum Admittance Fee Included w/ Event Ticket

(Substitutions Welcome if Registered Persons are Unable to Attend)

Attendance: NE/IA members \$25, Non-chapter Members \$50.

Registration: <https://nebraska-iowa-smrp-chapter.square.site/>

May 16, 2024: Top Golf

Location 10611 Nall Ave,

OverlandPark, KS 66207 **Location:**

Attendance: Chapter members \$30, Non-chapter Members \$60.

This is a great opportunity to make some new connections for your professional network. And spend some quality time with your significant other. An inexpensive date!

Registration: KCSMRP **Website:** <https://www.kcsmrp.org>

Time: 6:00 p.m. to 8:00 p.m.

June 2024: Presentation by SKF

Location: TBD.

Time: TBD.

Calling for Chapter Event Ideas!

So that we learn and grow together, we need ideas for the Chapter events. Are you an expert in something? Come share it with us! Is one of your vendors an expert and can speak on his expertise and experience. Contact one of the KCSMRP board members so that we can get it scheduled and on our calendar.

****Member Corner: Don't Miss Our Speakers at the Upcoming SMRP IA/NE Educational Conference!****

Exciting news! Members of KC SMRP are gearing up for the upcoming 2024 SMRP NE/IA Annual Educational Conference on April 18th at the Strategic Air Command & Aerospace Museum in Ashland, NE. We're also thrilled to announce that two of our own members will be taking the stage as speakers.



KC SMRP Board Members Doug Hart and Kristin Steins will presenting an interactive session on Applying MRO Best Practices to Realize Innovative Improvements to Everyday Challenges Within Your Operation. This conference is an excellent opportunity for networking and staying abreast of industry trends. Click the link below to register and support our speakers!

Registration: [Home](#) | [Nebraska Iowa SMRP Chapter \(square.site\)](#)

Officer Nominations and Elections

To: All Kansas City SMRP Members

We will be holding officer elections for the Kansas City Chapter's Board on Tuesday, April 30, 2024. This announcement is your opportunity to nominate a current chapter member in good standing to one of the elected officer positions: Chair, Vice-Chair, Treasurer and Secretary/Historian. Please submit your officer nomination(s) to Josh Harris via email at JoshHarris@amerisourcebergen.com who is the KC chapter's secretary. **All officer nominations must be submitted via email by Midnight CST on Monday, April 1st.** If you have any questions about an officer's role and responsibilities, contact one of the members below and we will get you a PDF.

Maintenance Tip- Ground Faults

THIS IS THE FIRST OF TWO ARTICLES ON BUS BAR OPERATION, WALKDOWN CONSIDERATIONS, TYPICAL FAILURES & TIPS ON PROPERLY MAINTAINING BUS BAR



What is it? - In [electric power distribution](#), a **bus/busbar** (also **bus bar**) is a metallic strip or bar, typically housed inside [switchgear](#), [panel boards](#), and [busway enclosures](#) for local high current power distribution and operate at constant voltages. They are also used to connect high voltage equipment at electrical switchyards, and low voltage equipment in [battery banks](#). They are generally uninsulated and have a sufficient stiffness to be supported in air by insulated pillars. These features allow enough cooling of the conductors, and the ability to tap in at various points without creating a new joint.

Operational principles – a conductor's ability to carry current (how much it can carry) is dependent, partly, on the cross-sectional area of the conductor and partly on the material of the conductor. A bus provides a proportionally larger cross section than the standard insulated conductors that could be fitted into the same space. This is partly due to the space that insulation occupies. Most busbars are not insulated along their length. This is possible because they are rigidly mounted on insulation 'stand-offs' and use air as the insulating medium along the length. Connections between lengths of busbars are soldered/welded for smaller sizes, but often bolted on larger bars. With the rigidity of the bar itself, and the rigid mounting, this allows for connections to be made by clamping around the bar.

What to watch for during walkdown:

- Safety Note – Review and carefully observe minimum approach distances. Busbars can operate at any voltage level.
- Bus systems are usually 3-phase. If the number of phases is not noted or obvious, ask the electrical craft personnel.
- Minimum information required for hierarchy build and maintenance/reliability processes to be applied:
 - Line Voltage, Number of phases, Current rating and Feed #.
 - Manufacturer, if available and Material and physical dimensions
 - Type/configuration of connection points
 - General identification of load circuit(s) i.e. MCCxxxxxx, or Disconnect XXX

Failures – Bus failures usually occur at joints, connections, and insulated 'stand-offs'. Bolts loosen and welded joints break, sometimes with only a hairline crack. Stand-offs crack or crumble but may also develop tracking if carbon deposits on the surface provide a current path. Almost all bus failures are due to excessive heat. Good electrical conductors are usually good heat conductors, also. A single bad connection can cause the joint to overheat, causing bolts to

stretch and the torque to be reduced, causing more overheating. Heat deteriorates stand-off insulators, and results in expansion and contraction of the bar itself resulting in breaks or cracks. In extreme cases, the bar can buckle or sag. Isolated buses can fail due to loss or contamination of isolation or insulation media. Gas-filled enclosures must be checked for integrity and gas leakage, as well as gas volume and contamination.



Certain applications require bus bar plating in order to minimize oxidation. Protective coatings also allow the bar to have a good contact surface, maintaining low resistant contact when attached. Depending on the environment in which the Busbar is located, bus plating can be: **Tin** – specifically bright acid tin – is generally the most ubiquitous, based on its professional look and feel, prevention of oxidation & low resistivity. Additionally, tin is the most economical while still providing a high-quality product.

Tin is the most common bus bar plating option; however, other choices are available. **Silver** is best for conductivity and **Nickel** plating is ideal for harsh environments.

Thank You to Mark Thomas from Allied Reliability for this first Part of a two-part Series- Appreciate it Mark!!!



SMRP Calendar of Events

Be sure to save the dates for the following upcoming events:

Board Meeting Schedule:

April 18, 2024, May 16, 2024, June 20, 2024



Monthly Newsletter Schedule:

April 20, 2023, May 20, 2024 June 24, 2024,

Or as chapter needs determine.

We hope this information has been helpful. We look forward to assisting you on your journey of Maintenance and Reliability Excellence. We help each other by sharing lessons learned from our collective breadth of experience. Come join us and become involved. For questions contact one of the board members:

Dave Koncak	913-991-8519	Yahya Khan	256-929-8136
Joshua Harris	816-536-1547	Paul Crocker	913-645-9050
Doug Hart	816-724-5061	Steve Lacey	913-370-1742
Kristin Steins	913-577-8452		

For More Information

E-Mail: info@kcsmrp.org

OR

Website: <https://www.kcsmrp.org>

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Note: The KCSMRP does not endorse or discriminate any specific OEM, supplier or provider of any specific Reliabilityrelated products or services and the opinions of the interviewed members do not necessarily reflect those of the local KC Chapter or the National Organization.