4 Automatic Power Source & Line Quality Monitoring

Wouldn't it be great to be able to detect a ground fault, loose wire, or wiring error just by looking at the cable? All of these failure modes can either damage equipment, or worse, risk exposing workers to electrical shock. A method to quickly rule out any issues saves inspection and test time, which can add up at large work sites.

To provide protection against these types of failures, utilize power source and line quality monitoring devices. Whether the power source is not wired correctly, or the cable has failed, a monitoring device at both ends of a cordset can alert operators to problems. The monitor provides feedback via indicator lights in the plug and receptacle ends of the cord set, with one color meaning proceed, and another color meaning a problem exists, and do not use.

5 Cable Protection

In the heavy industrial environment equipment can take a beating, and this includes cables that deliver the power in and around your worksite. A cable failure can mean downtime for machinery and tools, but cables with nicked or weakened outer insulation can also expose workers to shock hazards. In order to protect cables getting damaged from trucks, equipment traffic, and even to prevent tripping hazards, be sure to employ a cable protection scheme.

While cable protection can come in the form of a trench or fabricated wood or steel box, it is often convenient to utilize temporary, portable cable ramps, molded in heavy duty thermo-plastics. These are comprised of three parts: a ramp on each side of the cable, and a center section that conceals the cables beneath a lid. Cable protection ramps, or just cable protectors, are available in a wide range of colors and sizes, although the general industry trend is to manufacture them in interconnecting three foot sections.

When sourcing cable protectors, go for the standard three foot lengths, and look at the weight load rating to be sure it is compatible with your application. Sometimes a slightly higher load rating could be extra insurance for unforeseen impacts in the future.

For over 100 years, Ericson has engineered and manufactured the safest portable power distribution and temporary lighting products on the market. Designed for superior durability and convenience, our engineered solutions offer customers the best tailor-made products to fit their specific needs - no one does it better.

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SAFETY IS OUR STANDARD

5 WAYS TO PROTECT WORKERS

DURING TURNAROUNDS & SHUTDOWNS

Introduction

At Ericson, we understand that turnaround, outage, and new construction projects are inherently dangerous. Therefore, a well-planned strategy will keep workers safe and operations running smoothly. Equipment selection is a critical aspect of this strategy to safeguard against electrical shock or explosion hazards and keep project equipment downtime to a minimum.

Below, we have put together five ways that safety can be incorporated into worksite projects when selecting and specifying portable, temporary power distribution equipment.

1 Wet Location Protection

A wet location is classified as anywhere outdoors, indoors, or underground that is subject to direct moisture by exposure or hose down cleaning.

Keeping moisture out of enclosures and connections is key to preventing electrical shock hazards to your work crew. The National Electrical Manufacturers Association (NEMA), provides standards on water intrusion resistance for electrical enclosures. The NEMA 3R standard speaks to equipment that protects against water intrusion and has covers over any connection locations. The NEMA 6P standard goes a step further in that the connection can actually be submerged in water and still operate safely.

When selecting power distribution equipment for a wet area, be sure to ask the manufacturer which of their equipment is NEMA 3R and 6P rated, and use the one appropriate for your application.

2 Confined Space Protection

A confined space (non-permit) location is an area not designed for continuous occupancy and has limited access to the entry or exit. Typical examples are tanks, vessels, and manholes.

Preventing energizing of the tank or vessel and protecting the operator from electrical shock is essential. This can be achieved through the use of GFCI protection or a low-voltage power supply.

It's also a good idea to review any in-house safety policies your company might have. Years ago, before GFCIs were commonly available, OSHA demanded that low voltage, such as 12 volts, had to be used in any location defined by OSHA as a confined space. OSHA has since revised those requirements to allow low voltage *or* GFCI protection, but some companies have not revised their procedures and still require low voltage in such spaces.

3 Hazardous Location Protection

The National Electric Code (NEC) classifies hazardous locations in three ways - by type, condition, and nature. Class I is the most common type found in refineries, and pertains to gases, vapors, and liquids hazards. The Condition identifies whether the exposure is normally present (Division 1) or not normally present but may accidentally exist (Division 2). The Nature represents the ignition temperature of the substance, the explosion pressure, and other flammable characteristics.

For these areas, specially designed equipment will be required that have these characteristics:

Explosion Proof

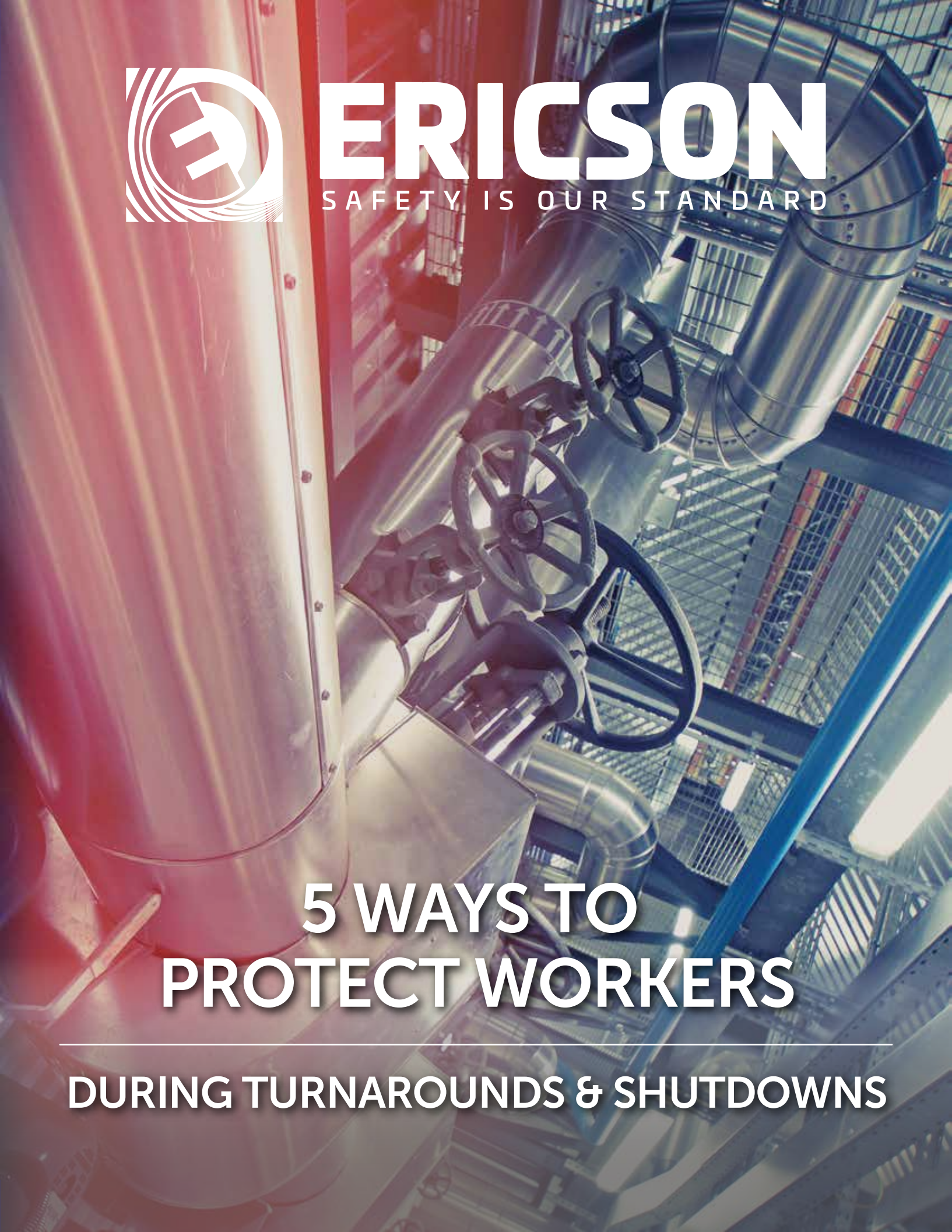
Strength | Durability | Capability of withstanding the internal strain of an explosion

Well Established Flame Path

Controlled escape path for exploding gases | Gases are cooled off and flames extinguished | Several types exist including threaded and ground surface.

Special Fittings and Seals

Prohibits hot gases from traveling through the conduit system | Prohibits flammable dusts from entering dust-ignition-proof enclosures | Prohibits ignition in other areas of the closed system.



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