

# SUBSTATION TEMPORARY GROUNDING



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# CHANCE<sup>®</sup>

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# TEMPORARY GROUNDING *for* SUBSTATION MAINTENANCE

*Advance preparation and dedicated tools pay rewards in safety, efficiency*

**P**roperly applied, temporary grounding for de-energized work creates an equipotential work zone guarding against possible threats:

- Voltage induced from adjacent energized lines,
- Fault current on adjacent systems,
- Storm or lightning strike,
- Accidental re-energizing.

These are the basic reasons for placing personal protective grounding sets prior to working “cold.” Because electrical systems are built to be ideal for potential, their conductivity remains real and present even during shutdowns.

#### MAINTENANCE BY DESIGN

Maintenance may get displaced in operating priorities during system-design planning stages. But, it is best provided for at that time. Because, whether on distribution, transmission or in substations, maintenance is a fact of life.

Since downtime is critical, substation maintenance often is scheduled in advance. Making procedures routine for these vital links can help get them back in service fast.

#### RETROFIT OR BUILD IN GROUNDING PROVISIONS

Chance offers several products to help solve substation grounding problems. They work together to ease the process for either planned maintenance or emergency-outage work.

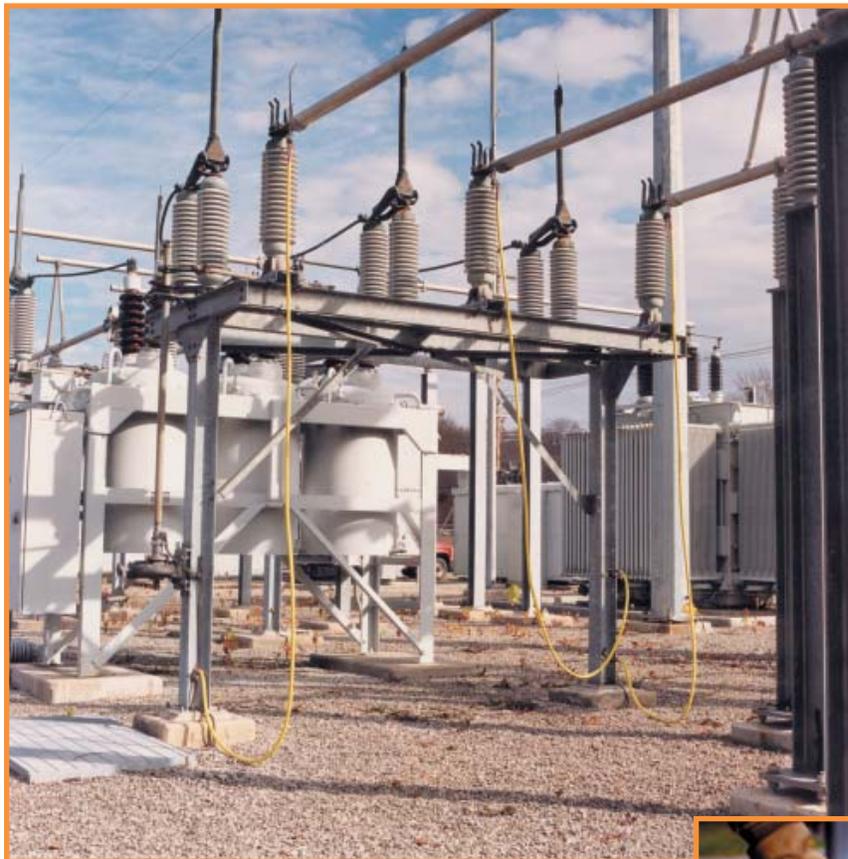
A relatively new innovation now enhances the set of substation-grounding tools Chance has long offered. A ball-stud/socket-clamp design, it can add multi-angle access for connecting the lower end of each cable set to ground.



***Permanently installed ball-stud terminals accept socket-type clamps for convenient interconnection to substation ground grid. Optional covers snap on the ball studs to reduce corrosion and contamination when not in use. The covers are made of the same nonconductive thermoplastic elastomer material as Chance cover-up line hose .***



**Socket clamps and ball-stud connectors team up for easy attachment of grounds from most any approach angles using a standard clampstick.**



**INSTANT UPGRADE FOR CURRENT METHODS**

Even the time-proven practice for buswork grounding can immediately benefit from the ball-stud/socket-clamp. Just add it at the lower end of the grounding cables and keep the wide-capacity clamps required at the top to grip the bus.

Or, where NEMA terminal pads are present, add the stud at both ends.

A third alternative permits using standard type grounding on the cable sets by permanently installing the

**Clutter-free complete installation.**

**Ready-made for temporary grounding, long shank ball studs accommodate many conventional grounding clamps as well as the socket type.**





***Teamwork safely lands the large clamps required to ground substation buswork. Shepherd-hook assist stick features a sheave with lift line to manage control.***



optional long-shank ball stud. Its 3-inch-long shaft accepts C-type or duckbill clamps. Or, its ball end can accept the socket-style clamp.

#### **SAVINGS IN LABOR, INVENTORY AND COSTS**

This versatility allows you to phase in the extra efficiency of the new clamp's features.

Also consider adding the socket clamp to grounding sets for underground-distribution work by installing ball-studs on equipment with no other provisions. With these identical components also common to substation grounding sets, inventory and costs may be reduced. These side benefits re-emphasize the need for periodic reviews of all the temporary-grounding schemes and equipment across an operating system.

All Chance grounding products meet ASTM Specifications. Each was designed to meet specific needs, but other practical and effective uses also may be derived in the field. ■

***For optimum efficiency, locate ball studs at serviceable heights on substation legs. As available as any option, these custom-made substation cable sets each combine a bus clamp on one end and a socket-type on the other.***

