

# Meter checks at site, keeps safety high

## Multi-Range Voltage Detector in Approved Work Methods

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**F**or on-site assurance that a line has been de-energized, OG&E crews use a Chance Multi-Range Voltage Detector (MRVD). So they can safely place temporary grounds to begin dead-line maintenance tasks, the MRVD helps them confirm that our normal system procedures to de-energize the line have been effective.



Moreover, the MRVD lets our crews determine if the dead line carries a static charge from an adjacent live circuit. This testing capability can prevent personnel from receiving severe shocks should they presume the line otherwise dead and contact it before installing grounds.

The MRVD's scaled readings give the crew an easy way to distinguish such stray charges from actual live-line conditions. The old method of "buzzing" with a wrench on a hookstick gave uncertain indications. The MRVD is so much more effective, all of our crews have one available when needed. It comes in three sizes: 1 through 40 kV, 16 through 161 kV and 69 through 500 kV

### Two-way R&D background

In response to OG&E requests,



Chance developed the MRVD in the early 1970's. In our joint exchange of ideas, we subjected prototypes to extensive field and laboratory tests. Chance then made modifications for the few improvements we suggested.

The resultant design since has been accepted by OG&E and included in our Approved Work Methods. Among its most practical features:

- Relatively small size makes it easy to handle and store,
- Handy range switch can be set while rubber gloves are being worn,
- Removable hook exchanges for underground probe to test deadfront transformer bushings,
- Voltage indications on the dial can

**Typical application: MRVD confirms not voltage present at worksite on de-energized circuit.**

be read from a considerable distance

### Training essential

Of course, each of our personnel who will use the MRVD must read and understand completely the instruction booklet that comes with it. To further familiarize them, we demonstrate its operation in a substation. That environment offers various voltage ranges with which we

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*Built-in pushbutton performs self-test. To make sure the MRVD and its 9-volt battery are working properly, OG&E makes this test before and after checking line voltage with the device.*

For more details, see Chance Catalog Bulletin 2450, Instruments and Meters.

can simulate many field situations. We emphasize that the MRVD is not an exact-reading instrument like a voltmeter, but a highly-beneficial field tool for detecting a variety of line conditions.

Operated by personnel properly trained in its use, the MRVD can contribute to safe working practices around electrical conductors.

*For demonstration only, two units illustrate a technique that takes good advantage of the variable-scale function. With range selector set at proper system voltage, MRVD at left registers a low reading. MRVD at right, set at lowest range, displays a higher deflection. This can be quite helpful in discerning capacitance or inductance from other lines on a de-energized circuit.*



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NOTE: Because Hubbell has a policy of continuous product improvement, we reserve the right to change design and specifications without notice.