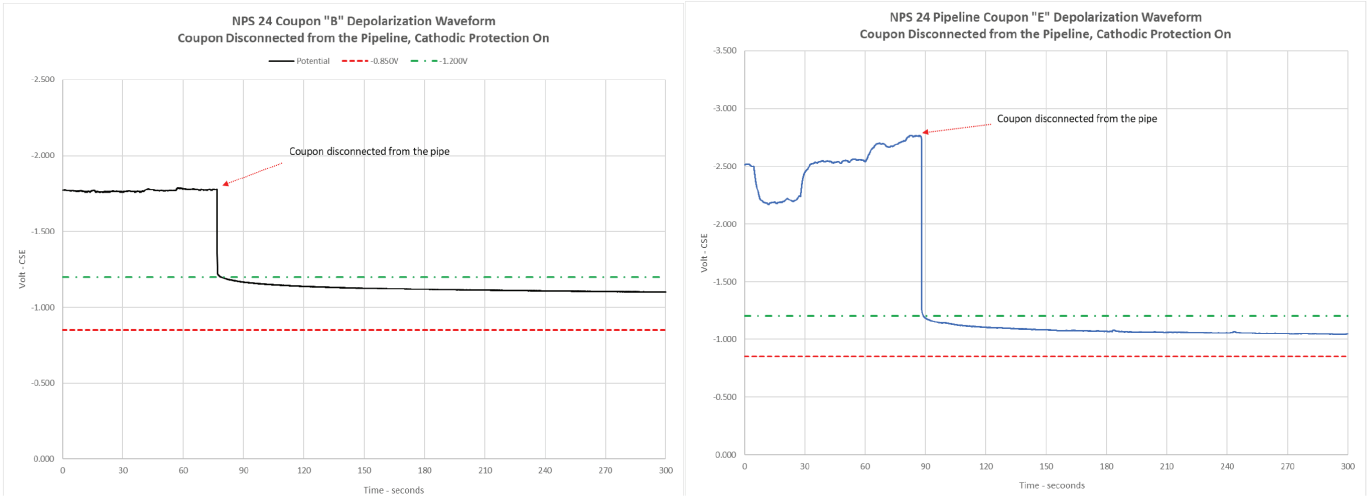

FIGURE 6 NPS Test Station B (left) and E (right) depolarization waveform.

record potential waveforms proved to be valuable tools when evaluating pipeline polarization levels under challenging conditions, such as dynamic stray currents in pipeline/HVAC common corridors.

- The use of coupons proved to be a practical and technically sound option to determine the level of polarization of pipelines affected by dynamic stray current interference.
- The depolarization on a pipeline affected by dynamic stray current interference was measured accurately by coupons and was confirmed by the in-line inspection tool reporting no corrosion.
- Coupon potentials can be affected by anode bed voltage gradients during interruption where the CP current and/or the soil resistivity is sufficiently high, even away from the voltage gradients of the CP anode bed.
- The use of coupons can establish a CP criterion during periods of stray current or with PCRs installed.

References

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4 AMPP CP3 Course Manual (Houston, TX: AMPP, 2023): Chapter 5.

5 N.G. Thompson, K.M. Lawson, "Development of Coupons for Monitoring Cathodic Protection Systems," PRCI Contract PR-186-9220, Catalog No. L51888, Final Report (2001).

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