



Pulse Data Recorder (KYZ Pulses) Testing protocol:

(a) ANSI 12.1 (2014) compliance:

(i) Section 5.7.1 compliance

1. Pulse counting is certified to be within  $\pm 2\%$  (e.g. if your expected count is 1440 pulses then can only gain/miss 28)
2. Timing error shall be no more than  $\pm 2$  minutes per week

(b) (Additional) Timestamp on first and last (daily) pulse reading must match the clock reading 1) on a Stratum 2 NTP server that syncs directly with the NIST Stratum 1 NTP server pool OR 2) match the clock reading of the NIST Stratum 1 NTP server pool.

In addition, PDR calculated usage must be reconciled against EDC metered usage after the installation:

- (i) If EDC has an interval meter, then compare interval usage over a continuous 7-day period and ensure average daily error  $\leq 2\%$  (accuracy).
  1. No interval should have a difference of  $> 10\%$  absolute pct error from the EDC usage (spike check).
- (ii) If EDC meter is not an interval meter, then compare PDR data with EDC monthly billing usage and error should be within  $\pm 2\%$ .