

National Electric Code, ANSI/SCTE 77

NEC and Underground Enclosures

The National Electric Code states in article 314.30 that enclosures "shall be designed and installed to withstand all loads likely to be imposed,"¹ and addresses issues related to enclosure size, wiring entries, enclosures without bottoms, and bonding requirements for covers.

The Code references the ANSI/SCTE 77² "Specification for Underground Enclosure Integrity" National Standard³, which outlines various tests that enclosures must pass to meet the standard. ANSI/SCTE 77 also provides load charts with Tier ratings to help end users determine the appropriate enclosure to select depending on the loadings expected in the application.

All CDR enclosures meet or exceed the test provisions of ANSI/SCTE 77 2007. No one wants to be responsible for an accidental electrocution from a collapsed enclosure or energized cover. By using the NEC, ANSI/SCTE 77 requirements in the enclosure selection process, end users will help ensure long service life, increased safety and reduced potential liability associated with failed underground enclosures.

Testing Requirements for ANSI/SCTE 77 2007

Underground enclosures must successfully pass numerous material and product performance test before they can meet ANSI/SCTE 77 2007. These tests include:

- Three Position Load Testing to Simulate Actual Application
- UV Degradation per ASTM G-154
- Fire Resistance per RUS 7CFR 1755.910 (PE-91)
- Chemical Resistance per ASTM D-543
- Water Absorption per ASTM D-570
- Impact Resistance per ASTM D-2444
- Accelerated Service per ASTM D-756, Procedure E

NOTE: ETL listed Products are available upon request please contact manufacturer representatives.

1 National Fire Protection Agency, 2005 & 2008 National Electric Code.

2 Subsequent to the insurance of the 2005 NEC, ANSI approved an updated version of the standard, ANSI/SCTE 77 2007.

3 The latest copy of the standard may be purchased from ANSI. It may also be viewed in PDF form on SCTE's website at www.scte.org/documents/pdf/ANSISCTE%202007.pdf.