

NATIONAL ELECTRICAL SAFETY CODE [NESC®]

OCTOBER 2019

HISTORY OF THE NESC®

- **1914 Work Rules Codified**
 - 1915 Construction Standards added
 - 1915 1st NESC Conference (New York)
- **1918 First full code adopted**
- **1973 IEEE becomes Administrative Secretary**
 - The Committees of the NESC are independent of the IEEE
- **1993**
 - Code Cycle extended to 5 years from 3 years



THE NESC® STRUCTURE

SC1
Coordination
Sections 1, 2 and 3
Coordinate
between technical
subcommittees

SC2
Grounding
Methods
Section 9

SC3
Electric Supply
Stations
Sections 10-19

SC4
Overhead Lines
Clearances
Sections 20-23

SC5
Overhead Lines
Strength and
Loading
Sections 24-27

SC7
Underground Lines
Sections 30-39

SC8
Work Rules
Sections 40-43

SOME USES OF THE NESC®

- **The NESC indicates that utilities should**
 - replace or reinforce poles when they deteriorate to two-thirds of their original required strength. These weak poles, sometimes termed "danger poles" or "hazard poles," can create safety risks and prove more prone to breaking during storms.
- **The NESC determines safe separation of services**
 - how far away communication facilities must be from active conductors
 - where restrictions must be for unqualified workers
 - safe and proper grounding



TOOLS DEVELOPMENT

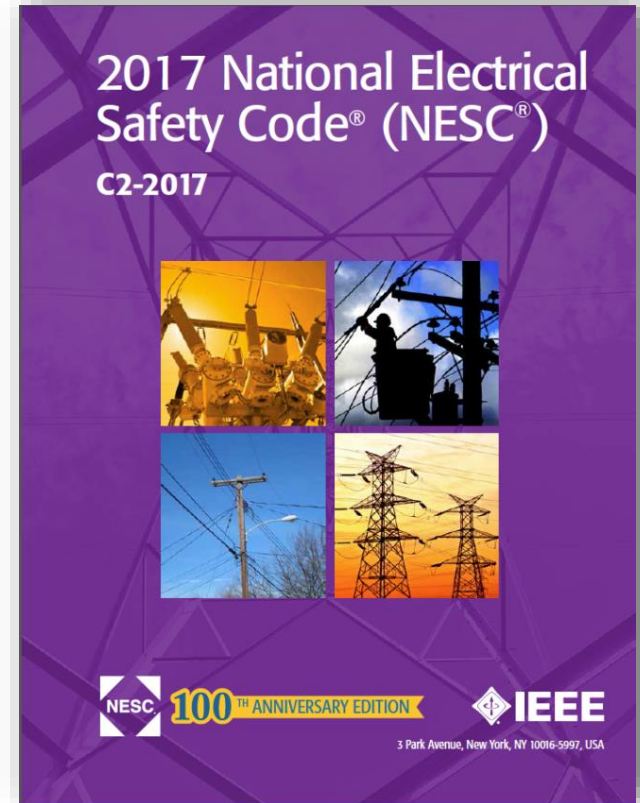
THE NESC® “CONTENT” STRATEGY

- **NESC Content will be developed in multiple forms**

- Traditional Standards Content
- Contributions from Subject Matter Experts
- in written form
- in lecture form
- Situational “real world” content
- photos/videos

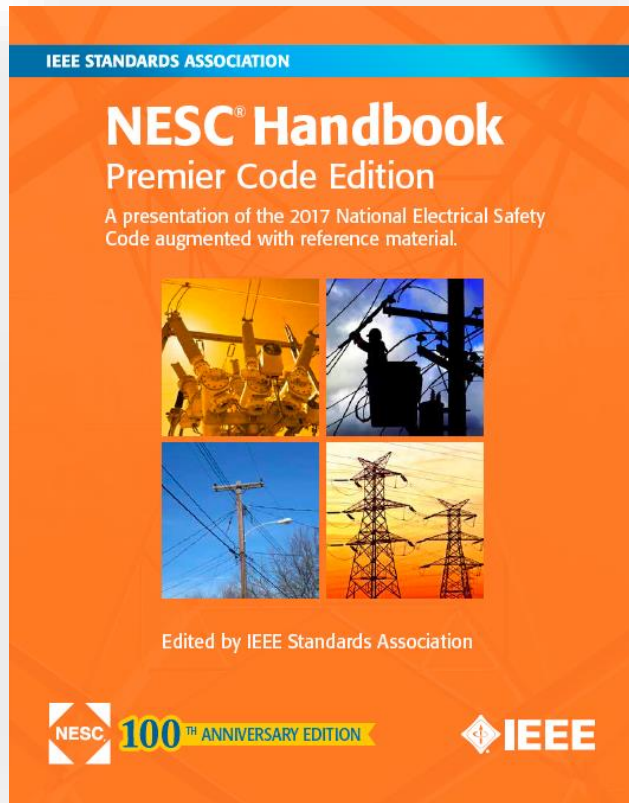
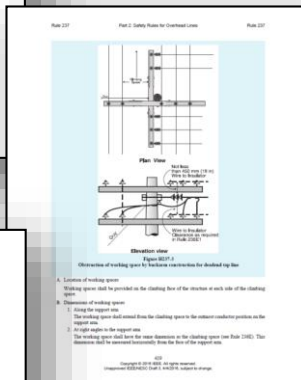
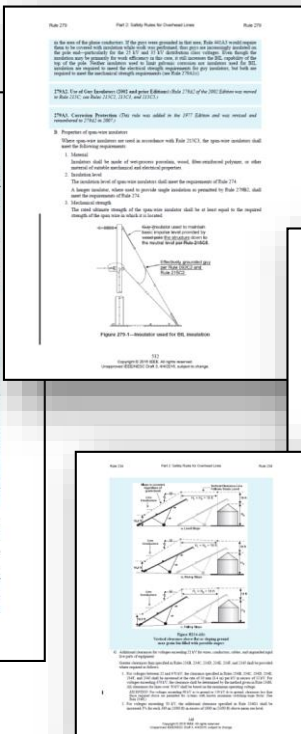
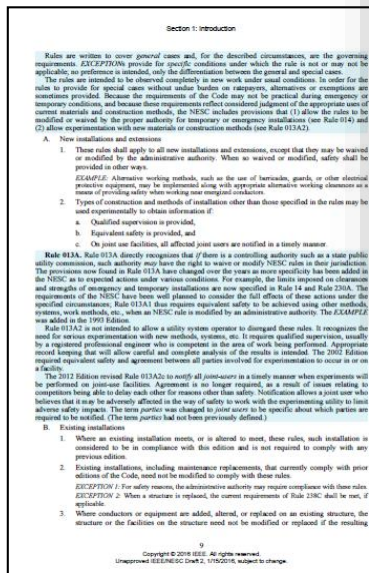
- **NESC Content will be utilized in multiple ways**

- Books and Handbooks
- Online Training
- Mobile Applications



THE NESC® HANDBOOK 2017 PREMIER EDITION

A representation of the Code text will be interspersed with commentary, including diagrams, pictures and historical content

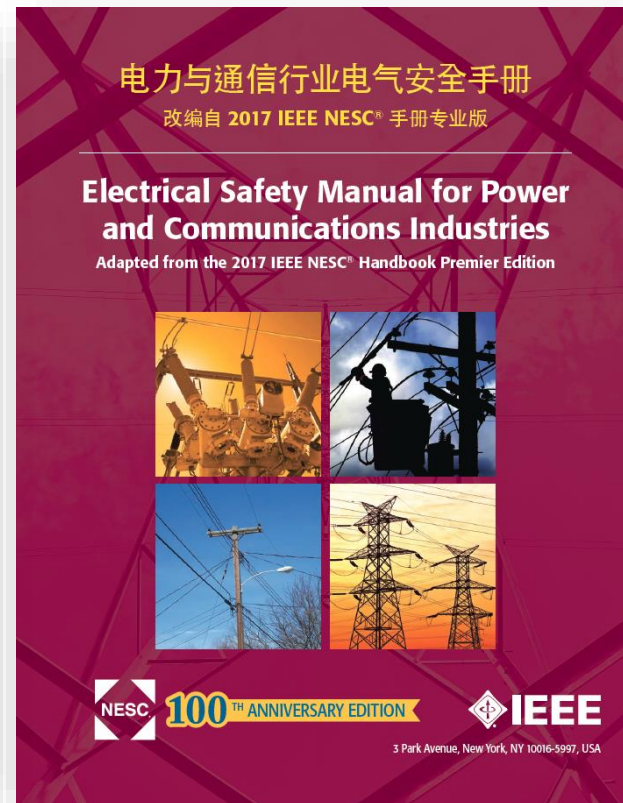
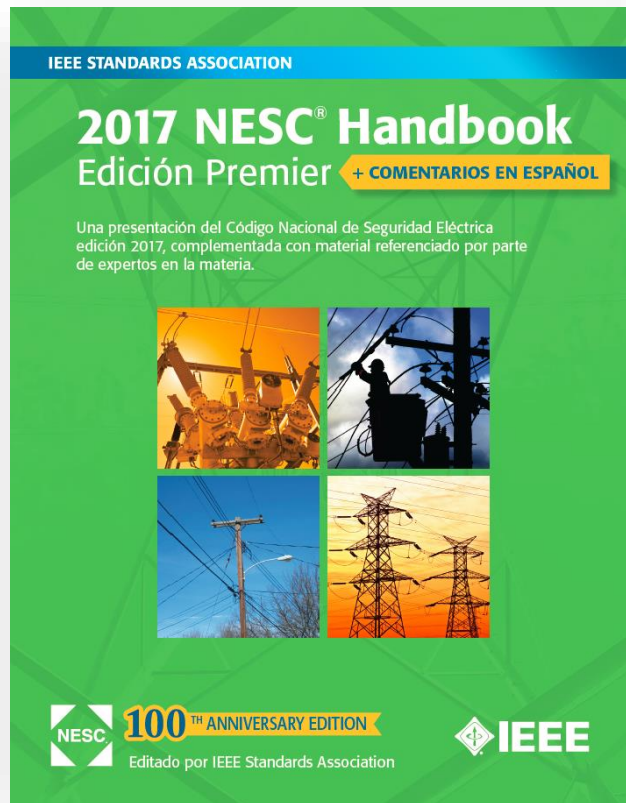


THE NESC® HANDBOOK IN SPANISH & CHINESE



*Spanish Edition:
Code in English +
Commentary in
Spanish*

*Chinese Edition:
100% in Chinese,
Code + Commentary*



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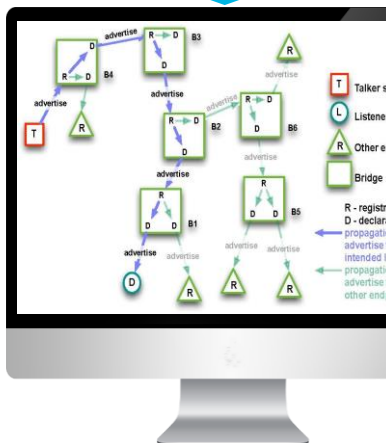
*Coming soon in
Spanish & Chinese
(close captioned)*

Courses Leverage:

Lectures

Diagrams

Videos



THE NESC® AS A MOBILE APP

- **Standard Content**

- Print/PDF

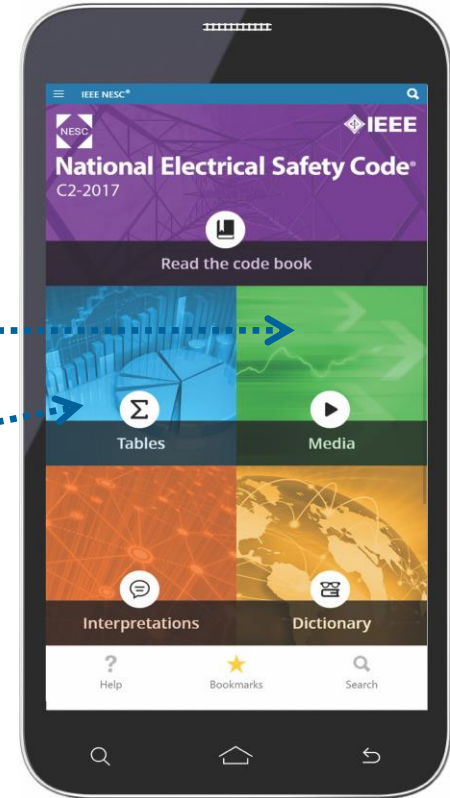
- **Multi-media**

- Lecture
- Video

- **Mathematical References**

- Tables
- Equations
- Solver

- **Historical Content**



OUR

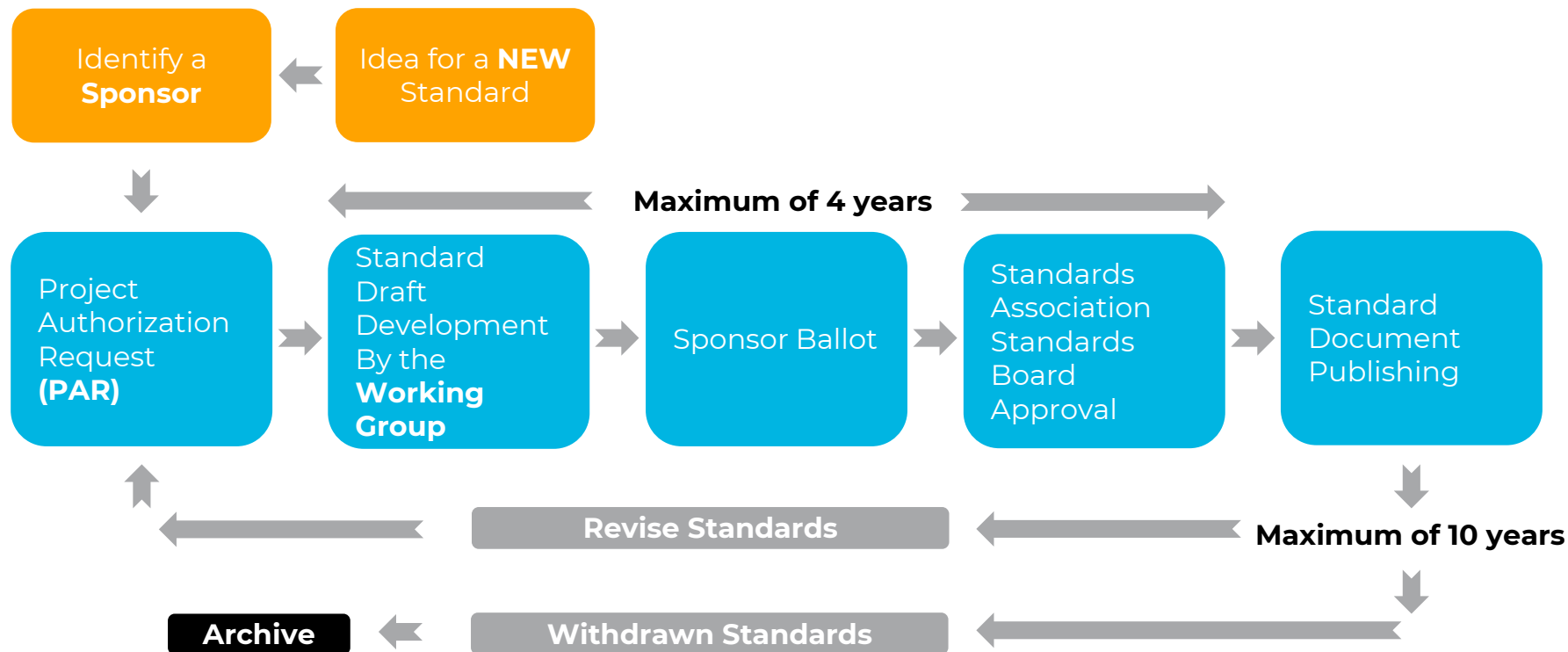
STANDARDS PROCESS

SUPPORT TO LOCAL AND REGIONAL CODES

- The NESC can be used as a baseline
- New “regional” codes can be developed Nationally or in cooperation amongst a group of countries.
- Local codes can be developed through the IEEE Standards Process as a local working group of the IEEE SA
- Alternative approaches (e.g. Code development through independent Consortia/Alliance) can also be supported by the IEEE SA
- The learning and the expertise (human resources) of the NESC can be leveraged in the development of regional codes



IEEE STANDARDS DEVELOPMENT PROCESS



ANY QUESTIONS...?
