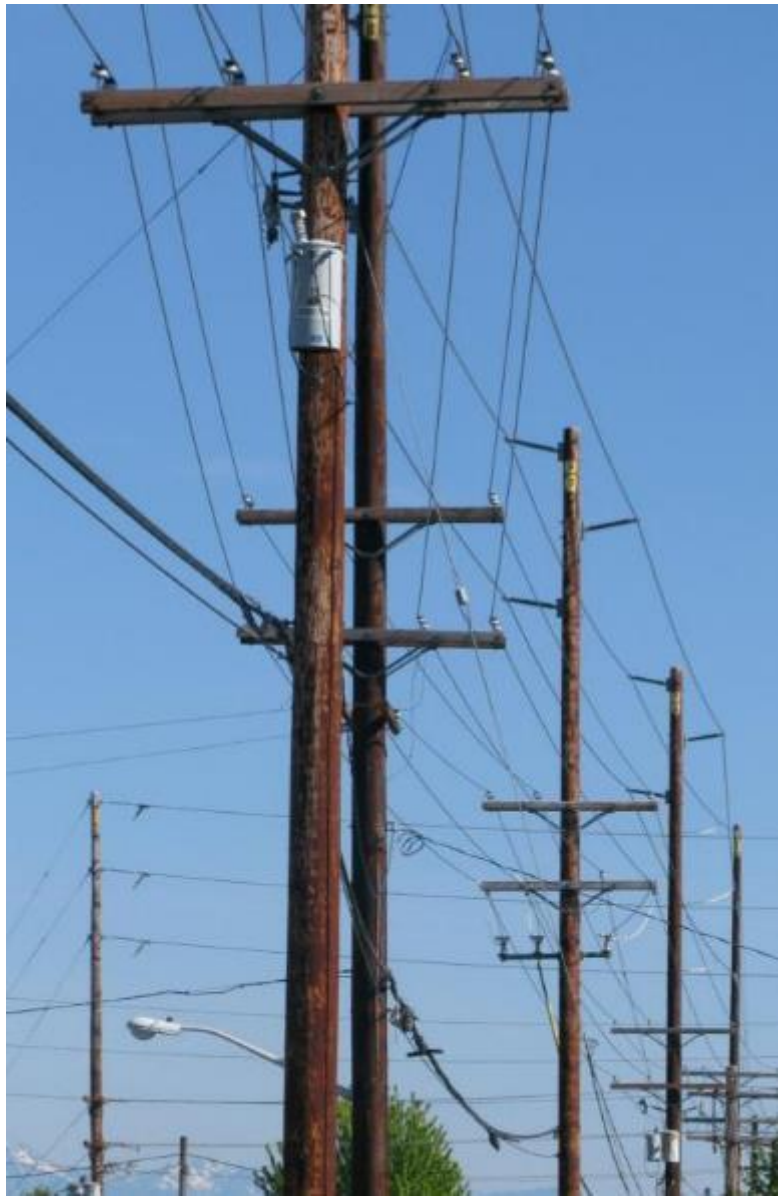

POLE JOINT USE

ATTACHMENTS

Jim Campbell
Electric Safety Seminar
September 8, 2021

BACKGROUND INFORMATION

https://www.puc.pa.gov/press-release/2020/puc-notes-pennsylvania-success-in-federal-broadband-auction

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OREGON JOINT USE ASSOCIATION

In November of 1999, a task force was established by the Oregon Legislature to advise the Oregon Public Utility Commission (OPUC) at the direction of the Legislature, addressing issues pertaining to utility poles. The task force submitted proposed rules for determining appropriate sanctions for unauthorized attachments and criteria for certifying compliance with laws regulating pole attachments. The Oregon Joint Use Association (OJUA) was formed based on the initial work from the task force and the realization of what else needed to be accomplished to help the entire industry be successful.

THE OJUA MISSION & FOCUS

Their mission was to become a resource that builds trust, cooperation, and organization between support structure (pole) owners, users, and government entities that will result in a safe, efficient use of the Right of Way and a self-sustaining nonprofit association.

Their focus is on:

Executive Committee

Conflict Resolution

Standards Development

Publicity & Education Committee

Mapping Project Subcommittee

Inspection/Correction Efficiency

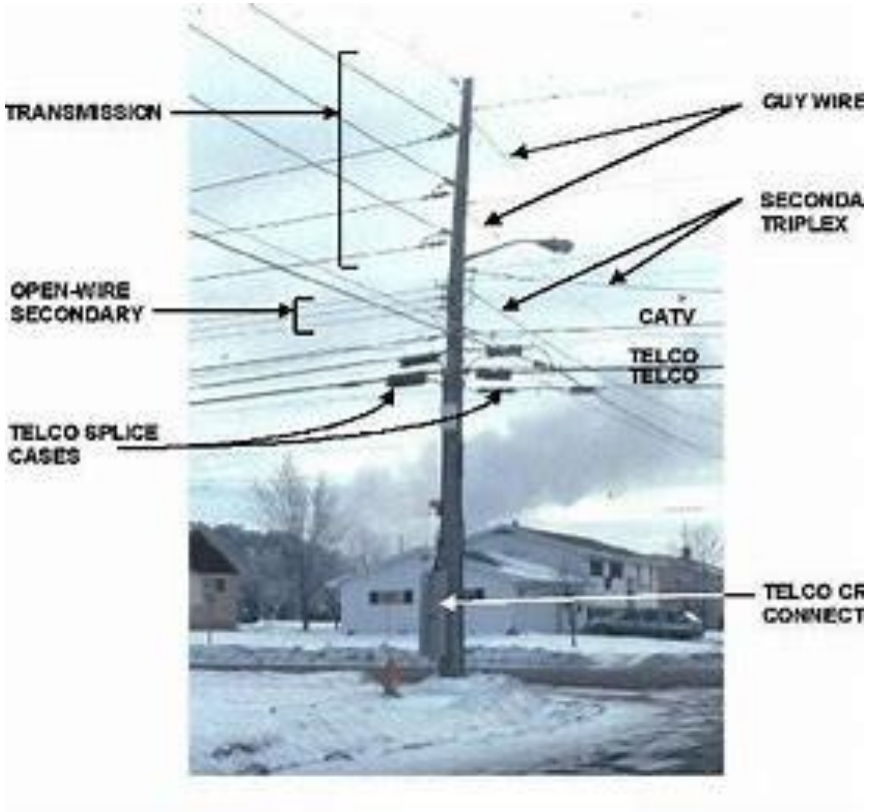
POLE JOINT USE DEFINITION

Joint Use refers to the partnered use of utility and communication poles by utilities, cable and telecommunication companies, municipalities, and a growing number of other public and private organizations.

POLE JOINT USE PURPOSE

Joint Use is the ability to share invested infrastructure between service-deploying companies in a similar geographic area. Instead of one company owning a utility pole and using it for only their services, other providers in the same area can rent out the infrastructure for their facilities as well.

DEFINED ZONES



MOST COMMONLY USED NESC CLEARANCE TABLES:

- 232-1 Vertical Clearance of wires, conductors, and cables above ground, roadway, rail, or water surfaces
- 234-1 Clearance of wires, conductors, cables, and unguarded rigid live parts adjacent but not attached to buildings and other installations except bridges
- 235-1 Horizontal clearance between wires, conductors, or cables at supports
- 235-5 Vertical clearance between conductors at supports

LUMINARIES AND ANTENNAS

OTHER CLEARANCES TO BE CONSIDERED

MOST COMMONLY USED NESC CLEARANCE TABLES:

- 235-6 Clearance in any direction from line conductors at or near a support to supports, and to vertical or lateral conductors, service drops, span or guy wires, and to communication antennas attached to the same support
- 236-1 Horizontal clearance between conductors bounding the climbing space
- Table 238-1 Vertical clearance between supply conductors and communications equipment, between communication conductors and supply equipment, and between supply and communications equipment
- Table 238-2 Vertical clearance of span wires and brackets from communication lines

WORKSPACE QUALIFICATIONS

NESC Part 4

- Section 41 – Supply and communications systems rules for employers
- Section 42 – General rules for employees

Table 431-1 Communication worker minimum approach distances

Table 441-1 Electric worker minimum approach distances

RADIO FREQUENCY HAZARDS

- High exposures to RF can heat human tissue in a similar way to how microwaves cook our food. This “thermal effect” can permanently damage tissue, especially the eyes, resulting in cataracts and harmful cognitive health effects. Direct physical contact with antennas can also cause shock and/or burns to the skin. High RF exposures are particularly dangerous because:
- RF radiation is hard to recognize – it is invisible, odorless and tasteless
- By the time workers feel symptoms (e.g., overheating, reddening of the skin) they are already overexposed
- Levels can be low at the start of work and spike without warning
- RF radiation may interfere with medical devices (e.g., pacemakers) and concerns have been raised about possible non-thermal effects (e.g., nerve damage and psychological injuries)

WORKING TOGETHER

OREGON JOINT USE ASSOCIATION'S

INSPECTION/CORRECTION EFFICIENCY (ICE) COMMITTEE

A successful collaborative inspection and maintenance program should provide these benefits:

- Cost savings for the inspecting parties
- Reduced long-term costs, including manpower reduction (initial cost could be more, but may be offset by cost recovery)
- Reduced number of visits to the pole
- Build trust, develop relationships, and improve coordination with all participating entities
- Improved customer perception
- Clarified expectations among parties
- Established geographic areas that are "clean" (providing correction program follows inspection program)
- Identified facilities (location of pole and identification of attachers)
- Improved coordination among the pole owner and the attachers
- Established uniform reporting
- Increased compliance resulting in reduced sanctions
- One party will not subsidize another party

WHAT'S MISSING IS:

WORKER SAFETY

THREE TYPES OF SAFETY-ASSOCIATED ELEMENTS ESTABLISHED:

- **Type 1 - Facility Maintenance:** The general repairs associated with pole ownership are to be the sole responsibility of the pole owner. Such items may include but are not limited to:
  - The replacement of rotten or otherwise deteriorated poles and crossarms
  - Broken or missing vertical (pole) grounds
  - Illegible pole tag replacements (to help identify the utility owner)
  - Vegetation Management
  - Items generally considered to be part of the maintenance process

THREE TYPES OF SAFETY-ASSOCIATED ELEMENTS ESTABLISHED:

Type 2 - Individual Violations: The correction of violations that are associated with one individual occupant may be incurred solely by that occupant with no cost incurred by other occupants, including the pole owner. These items may include but are not limited to:

- Excessive sag
- Clearance from the ground or structures
- Non-bonded (grounded) or non-insulated guy wires
- Unmarked, loose, broken, or missing guy wires

THREE TYPES OF SAFETY-ASSOCIATED ELEMENTS ESTABLISHED:

Type 3 - Joint Violations: The individual responsibilities associated with mutual violations may be shared equally with all associated occupants. These items may include but not be limited to:

- Improper clearance between facilities that had been done in previous years so that no singular responsibility can be established,
- Obstructed climbing space that affects all attachers and no singular responsibility can be established (different maintenance agreements),
- Replacement of poles where clearance has not been established or has changed due to the change in the surrounding grade, etc.,
- Double poles and their removal

JOINT INSPECTION SUBCOMMITTEE (JIS)

The OJUA Joint Inspection Subcommittee (JIS) was created as a working committee to develop products and tools that would help facilitate conducting a joint inspection. One of the first work products to come out of JIS is a matrix designed to identify the most common joint violations, recommend courses of corrective action, and suggest assignment(s) for correction of the violation. In identifying the recommended courses of corrective action, it was the goal of the Subcommittee to select options that represent industry best practices while offering cost efficiencies without negatively impacting worker safety.

PA PUC POLE ATTACHMENT WORKING GROUP

The Commission adopted the addition of 52 PA Code § Chapter 77 which will institute a pole attachment Working Group consisting of: industry, Commission staff, and the Statutory Advocates. The Law Bureau, in coordination with the Bureau of Technical Utility Services and the Office of Special Assistants, shall be responsible for convening a stakeholder working group that pole owners (including those exempt from commission regulation), attachers, the Statutory Advocates, and main interest groups will be invited to join.

PA PUC POLE ATTACHMENT WORKING GROUP

The Working Group shall be charged with monitoring and advising the Commission on federal and state pole attachment issues, providing an ongoing forum for parties to discuss issues and ideas regarding pole attachment regulations, and evaluating the effectiveness and efficiency of Commission complaint, mediation, and dispute resolution processes.

- This Working Group will provide a forum in which interested stakeholders can discuss issues that have arisen and ideas for more effective regulation of pole attachments.
- This Working Group will continue dialogue between pole owners and pole attachers as well as provide a forum for all stakeholders to influence policy and recommend changes to benefit Pennsylvanians.

PA PUC POLE ATTACHMENT WORKING GROUP

The Electric Safety Division (ESD) believes that an ongoing working group to discuss pole attachment concerns will ensure that the Commission remains apprised of industry concerns and will aid in resolving disputes efficiently and deploying broadband across the state while being mindful of electric safety and reliability.

52 Pa. Code Chapter 77. Pole Attachments

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