

Table of Contents

1 Introduction

1.1 Purpose and Scope	1-1
1.2 Organization	1-1
1.3 Reason for Reissue	1-1
1.4 Requirements Terminology	1-2
1.5 Requirement Labeling Conventions	1-2
1.5.1 Numbering of Requirement and Related Objects	1-3
1.5.2 Requirement, Conditional Requirement, and Objective Identification	1-3

2 General Information

2.1 General Product Description	2-1
2.2 Special Identification of Poles	2-1
2.3 Selection of Wood Species and of Preservatives	2-1
2.4 Ordering Information	2-4
2.5 Framing Information	2-10

3 General Requirements

3.1 Material Requirements for Wood Utility Poles Prior to Preservative Treatment	3-1
3.1.1 Pole Classes (Reference ANSI Paragraph 4)	3-1
3.1.2 Species (Reference ANSI Paragraph 5.1.1)	3-1
3.1.3 Prohibited Defects; Decay (Reference ANSI Paragraph 5.2)	3-1
3.1.4 Knots (Reference ANSI Paragraph 5.4.6)	3-2
3.1.5 Shape (Reference ANSI Paragraph 5.4.9)	3-2
3.1.6 Circumference (Reference ANSI Paragraph 6.2)	3-2
3.1.7 Shaving (Reference ANSI Paragraph 7.4)	3-2
3.1.8 Marking and Code letters (Reference ANSI Paragraph 7.5)	3-3
3.1.9 Incising	3-3
3.1.10 Framing	3-4
3.2 Material Requirements for Preservatives and Preservative Systems	3-4
3.2.1 Preservation	3-4

4 Specific Requirements

4.1 Dimensions, Species, and Wood Quality	4-1
4.2 Oil-Borne Preservative Treatment of Poles	4-1
4.2.1 Oil Carrier	4-1
4.2.2 Conditioning and Seasoning	4-1
4.2.2.1 Air Seasoning	4-2
4.2.2.2 Steam Conditioning	4-2
4.2.2.3 Kiln Drying	4-2
4.2.2.4 Boulton Drying	4-3
4.2.3 Treatment	4-4
4.2.4 Results of Treatment - Penetration of Preservative	4-4
4.2.4.1 Results of Treatment - Net Retention of Preservative	4-5
4.2.5 Results of Treatment - Cleanliness, Appearance, and Color	4-8
4.3 Water-Borne Oxide Preservative Treatment of Poles	4-8

- 4.3.1 Chromated Copper Arsenate, Type C 4-8
- 4.3.2 Ammoniacal Copper Zinc Arsenate 4-9
- 4.3.3 Conditioning or Seasoning Prior to Treatment With Water-Borne Preservatives (CCA-C, ACZA) 4-10
- 4.3.4 Presteamng Prior to ACZA Treatment 4-10
- 4.3.5 Treatment Process 4-11
- 4.3.6 Results of Treatment - Penetration of Preservative 4-11
- 4.3.7 Results of Treatment - Retention of Preservative 4-12
- 4.3.8 Cleanliness, Appearance, and Post-Treatment Operations 4-13
- 4.4 Coal Tar Creosote Treatment of Poles 4-13
 - 4.4.1 Conditioning and/or Seasoning Prior to Treatment 4-14
 - 4.4.2 Treatment 4-14
 - 4.4.3 Results of Treatment - Penetration of Preservative 4-15
 - 4.4.4 Results of Treatment - Retention of Preservative 4-16
- 4.5 Miscellaneous Requirements (Common to Sections 4.2, 4.3, and 4.4) 4-16
 - 4.5.1 Treatment Charge Identification 4-16
 - 4.5.2 Plugging Increment Borer Holes 4-16
 - 4.5.3 Treatment Damage 4-17
 - 4.5.4 Re-treatment 4-17
 - 4.5.5 Re-treatment of Stored Poles 4-17
 - 4.5.6 Re-treatment of Poles Cut Back After Original Treatment 4-17
 - 4.5.7 Post Treatment Cleaning 4-17
 - 4.5.8 Storage and Shipping 4-18

5 Performance Verification and Test Procedures

- 5.1 Material Requirements for Wood Poles 5-1
- 5.2 Oil-Borne Preservative Treatment of Poles 5-1
- 5.3 Water-Borne Preservative Treatment of Poles 5-2
- 5.4 Coal Tar Creosote - Treatment of Poles 5-2

Appendix A: References

Appendix B: Glossary

Requirement-Object Index

List of Figures

Figure 2-1	Marking on Face of New Poles	2-5
Figure 2-2	Standard Framing of Poles	2-10
Figure 4-1	Regional Potentials for Wood Deterioration in Wood Used in Contact With the Ground	4-3

List of Tables

Table 2-1	Wood Utility Poles - Species	2-4
Table 2-2	Dimensions - Southern Pine and Douglas Fir Poles	2-6
Table 2-3	Dimensions - Western Red Cedar and Ponderosa Pine Poles	2-7
Table 2-4	Dimensions - Lodgepole Pine, Jack Pine, and Red Pine Poles	2-8
Table 2-5	Dimensions - Western Larch Poles	2-9
Table 3-1	Preservative Treatment, Species, and Corresponding Codes	3-5