Assay Creosote Extraction of Selected Post from the 1958 Cooperative Test
After 50 Years of Exposure as a Ground Contact Preservative

David A. Webb  
Creosote Council  
Valencia, PA

Stacy A. McKinney  
Koppers, Inc.  
Harmarville, PA

Russel G. Pfeiffer  
Koppers, Inc.  
Harmarville, PA

ABSTRACT
This paper presents creosote retention and gas chromatic data from the southern pine posts, which have been a part of the 1958 Cooperative Project. The data is from selected posts treated with creosotes that closely matched distillates conforming to the American Wood Protection Association (AWPA) Standards for Creosote P1/P13 and Creosote Solution P2.

An Evaluation of Used Wood Crossties

David A. Webb  
Creosote Council  
Valencia, PA

James C. Gauntt  
The Railway Tie Association  
Fayetteville, GA

ABSTRACT
Creosote treated wood crossties continue to be the rail transportation industry’s primary track and rail support of choice. At the end of their service life in any track application, creosote treated wood products can be recycled. Although a limited study in terms of the number of crossties tested, this study evaluated the amount of creosote remaining in used creosote treated crossties. Age was determined of the used crossties to range from 15 to 78 years with creosote being extracted from the outer one-inch of the top and bottom surfaces of the crosstie. Estimates were made of the amount of creosote remaining within the aged crosstie; comparisons were also made with the 1975 Association of American Railways Study and the 1958 Cooperative Study of Posts in ground contact exposure for 50 years.
Taking a Digital Approach to Pole Inspections (Case Study)

Oliver Hein
IML, Inc.
Kennesaw, GA

Earle Jenkins -
Alamon Telco Inc
Holderness, NH

ABSTRACT

During a pole inspection RFP meeting with a client in July of 2008, a discussion concerning inspection methodologies revealed that the majority of telephone companies and electric utilities utilize four basic “approved” inspection methods and two types of remedial treatments that have existed for many years. Based on this finding, it seemed reasonable to expect that advancements in methods and technologies must have evolved over time that provide improved accuracy, effectiveness, and reduced cost.

Rather than bid on the project utilizing the “old” methods, Alamon, a full-service contracting company with no affiliations or endorsement agreements with vendors, decided to conduct an investigation to determine the “best in class” technologically updated methodology. This type of research is not unusual for Alamon. We routinely conduct “best practice” research in order to provide the best service to our customers and share with the industry.

The initial step in the basic process of all programs calls for a visual inspection and sound & prod test of all poles. This is truly an institutionalized process within the telecommunications industry. Researches of AT&T practices dated September 1975 as well as current OSHA standards require this test sequence to be performed as a standard work process for technicians prior to working on any pole.

Step 2 details an eight - ten year inspection cycle for all poles at or over the age of 20 years utilizing a visual above ground and below ground excavation inspection and treatment process. Here again, the goal of determining the serviceability of a pole is not only a long standing industry practice but a National Electrical Safety Code (NESC) requirement to establish an inspection process that will determine if a pole is “serviceable” or a “reject”.

This is an area where our “best practice” research uncovered the introduction of technology based methodologies that were not available when AT&T practice 621-215-015 was issued in 1975 or in 1996 when RUS bulletin 1730B-121 was published. We conducted field trials utilizing the most promising methods and spent time with the vendors and companies utilizing these technologies to determine their accuracy. The results of our research clearly indicated that the inspection process has moved into the digital age.
Accelerated Tests on Several AWPA P9 Type A Solvent Systems including a Biodiesel Blend FP9-HTS

Dennis Morgan
Forest Products Research Laboratory, LLC
Springfield, OR

ABSTRACT

Several standard AWPA and ASTM laboratory tests conducted on several AWPA P9 Type A solvent systems with and without pentachlorophenol. Tests conducted include ASTM D974 (Total Acid Number), AWPA E10 (Soil block culture), AWPA E11 (Water leachability), AWPA E12 (Corrosion of metal in contact with treated wood) and AWPA E20 (Leachability of preservatives in ground contact). The TAN values of treating solutions are very directly proportional to the concentration of pentachlorophenol in the solution. FP9-HTS solvent does not show any increase in carboxylic acid even after months of use in Boultonizing Douglas fir treating plants. The use of biodiesel as a cosolvent in FP9-HTS does not lead to an increase in corrosion of copper, aluminum or hot dipped galvanized steel compared to traditional P9 solvents. The threshold toxicity of pentachlorophenol in FP9-HTS oil is similar to the threshold toxicity of pentachlorophenol in #2 diesel and KB3 cosolvent. FP9-HTS oil showed the least amount of pentachlorophenol leaching of all the solvent system tested. Pentachlorophenol depletion is significantly less when FP9-HTS is used as the carrier in D. fir sap wood.

Update on RTA Research Activities and other Industry Efforts

James C. Gauntt
The Railway Tie Association
Fayetteville, GA

ABSTRACT

The Railway Tie Association sponsors and conducts research and field trip projects designed to improve the life cycle performance of the engineered treated wood crosstie system. This presentation will review ongoing and recently completed research efforts, as well as other pertinent RTA related information on resources available to members and the public.
The TEC Hybrid Pole

Charles Faulds,
Texas Electric Cooperatives
Jasper, TX

Charles Kerr
Kerr Labs
Jasper, TX

ABSTRACT

Durability of wood poles is a general performance standard required by utility pole users and achieved through the application of AWPA specifications. Wood preserving plants then meet these specifications using process controls in the manufacturing operations.

Climbability and Weatherability of wood poles are also desirable performance standards. The hybrid pole was developed to meet these qualitative performance standards. The product specification for the Hybrid pole is a steam condition pole treated with CCA to AWPA standards and then provided with a one inch penetration of creosote in 90% of the poles, and having 3 lbs/cu ft retention in the outer half inch. Data is presented showing how the process controls were developed to meet this performance standard.