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To: Editor of Crossties Magazine

From: Terry L. Amburgey, PhD and Shane C. Kitchens, PhD

Date: 7/26/11

Subject: Borate-Creosote Alternative Crosstie Treatment Processes

In Crossties (May/June) 2011 (pages 8-9), an RTA member expressed concern about issues raised in the TASKpro article published in Crossties (March/April) 2011 (pages 10-11). While there may be some confusion over the borate treatment procedures currently available to RTA members, questions are welcomed and this will attempt to answer some of them.

First, it is understandable that a concern exists about the lack of AWWA standards for borate dual treatment processes. TaskPro continues to work on details of procedures used in the original MSU-RTA-AAR study (begun nearly 30 years ago) to make them even more commercially viable. The intention is to seek AWWA standardization in the near future for the original process. This is going to be a very complex task, and that is why TaskPro has been collecting data over the last 9 years from various sites.

The inference seems to be that industry standards are being ignored, presumably relating to the comments that currently-used retentions of creosote can be significantly reduced when used as a dual treatment on ties that were treated with borates prior to air-drying. A worthwhile thought that should be understood is that there is not an industry standard for creosote retentions when used in the dual treatment process, only standards for when creosote is used by itself as a preservative.

This may seem to be too fine a line, but there is data to back the assertion on the use of creosote when used in conjunction with borates. This long-term data (including the original retentions by individual tie in the 1987 study and creosote dip-only over-treatments) clearly indicates that the retention of creosote, when used as a dual treatment on **properly** borate-treated non-seasoned ties, can be reduced from 8 - 10 pcf while increasing, not decreasing, service life. This data will be published in the near future along with new data about degradation rates of non-borate ties in air seasoning yards.

TASKPro would never suggest a system to a railroad that was not based in sound science. Neither would our scientists intentionally offer a product or recommend something that could have a negative effect on the service life of the wood tie. Since this is too large a subject to cover here and to further support the above statement we have created a complete document including references that has been submitted to RTA for distribution.

Please know that the ongoing work is designed to enhance the quantifiable increased service life attributable to the original process in a meaningful way beyond the 24-year study, and in such a way that can be relied on if the railroads and the tie industry decide they wish to seek standardization of this process.