

U.S. EPA Approves Continued Registration Of Creosote

By David A. Webb & Lawrence S. Ebner

In November 2008, the U.S. Environmental Protection Agency (EPA) completed a comprehensive review of creosote's risks and benefits. As a result of this review, EPA announced that this effective and important industrial wood preservative could be reregistered under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA).

The Creosote Council, a product stewardship and joint data development group representing creosote producers and pressure-treaters, was instrumental in achieving this significant result. The Railway Tie Association (RTA), Association of American Railroads (AAR), and American Short Line and Regional Railroad Association (ASLRRA) also played important roles in providing EPA with information and data about the widespread usage and continuing benefits of creosote-treated crossties, switch ties and bridge timbers.

Reregistration Program

Under FIFRA, a wood preservative must be granted a registration by EPA in order to be sold and distributed in the United States. Creosote has been continuously registered under FIFRA since 1948.

In 1986, EPA launched its FIFRA "reregistration review" of creosote, as well as parallel reviews for pentachlorophenol and chromated copper arsenate (CCA). The purpose of EPA's reregistration program was to reassess the risks and benefits of more than 600 previously registered active ingredients and ensure that they continue to meet current health and safety standards.

The first phase of the review required manufacturers to fill "data gaps" by conducting and submitting studies on product chemistry, toxicology, worker expo-

sure and other subjects in order to update and expand EPA's scientific database.

The Creosote Council was formed in 1986 for the purpose of jointly

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sponsoring the studies required by EPA for reregistration of creosote. Over the course of more than 20 years, the Creosote Council sponsored approximately 50 studies, analyses and assessments at a total present-day cost of more than \$27 million in order to support con-

tinued registration of creosote.

The Creosote Council also submitted extensive written comments on EPA's preliminary assessments of creosote's risks and benefits, and interacted with EPA personnel to ensure that they had all of the information and data needed to conduct and complete the review. RTA, AAR and ASLRRA participated in some of the Creosote Council's informational discussions with EPA.

EPA assigned creosote and other wood preservatives to the lowest reregistration scheduling priority since they are not used on food crops. This is why EPA's multi-year creosote reregistration review

was not completed until November 2008, shortly before the statutory deadline for conclusion of the overall reregistration program.

EPA's "RED" For Creosote

The Nov. 19, 2008, Federal Register ▶



(73 Fed. Reg. 69646) announced availability of the “heavy duty wood preservative” REDs. The 91-page creosote RED, which is available on EPA’s website,¹ states (p. 33):

“The Agency has determined that wood preservative uses of creosote are eligible for reregistration...With amended labeling, EPA believes that [pressure-treatment] uses...will not present risks inconsistent with FIFRA and that the benefits of creosote to society outweigh the remaining risks.”²

The amended creosote labeling will implement a number of administrative and engineering controls that EPA, in consultation with the Creosote Council, has determined are necessary to mitigate potential occupational risks at wood treatment plants. Creosote registrants also will be required to conduct additional studies, including a follow-up creosote pressure-treatment plant worker exposure study and an environmental fate and ecological exposure study.

Benefits Of Creosote

Because a reregistration review involves weighing a pesticide’s potential risks against its real-world benefits, EPA carefully considered the demonstrated benefits of creosote-treated ties vs. non-wood alternatives. After noting that “99 percent of the U.S. market of wood treated

railroad crossties, bridge, and switch ties are treated with creosote,” the RED (pp. 34-35) explains that in terms of efficacy...

“...creosote-treated crossties offer lower mass and greater resiliency, which results in a more resilient [track] with improved dynamic attenuation or impact loading. It also improves the track component life and improves ride quality by reduction in noise and vibration.

Creosote-treated wood ties also provide electrical isolation properties[,] which minimizes electrical leakages into ties that could disrupt signal systems

“...[A]lternatives are known to pose installation challenges due to weight as well as premature degradation. They also are known to cause electrical leakages resulting in signal disruptions.”

Although many exceptions exist, creosote generally offers lower initial costs than many alternatives, offer[s] documented and predictable lifespan, and in many cases can be disposed of in municipal landfills. Because certain alternatives, although lower in initial costs, do not offer the same resistance and/or do not last as long as creosote-treated products, they also cannot be considered as direct replacements. Economic considerations are particularly relevant to railroads and other public works uses because increased costs are frequently

passed on to the public.

Thus, the creosote RED (p. 35) concludes that “eliminating these uses could result in reliance on products with greater safety risks, reduced effectiveness, and higher costs.”

Secondary Uses Of Creosote-Treated Ties

In concluding that creosote is eligible for reregistration, EPA also considered possible “residential exposure” to creosote through the landscaping use of “retired” ties. The RED (p. 14) indicates that “the Agency has no data to conduct a risk assessment of these secondary uses of creosote-treated materials.”

Although further evaluation of the risks and benefits of secondary uses will be conducted in the future, “[b]ecause the lifespan of these treated materials is fairly long, the Agency believes that...leaching from the [creosote] treated material is significantly less than when it was originally placed into service.” Furthermore, while commercial and residential landscaping continues to be an effective way to utilize out-of-service ties, industry is moving toward using more retired ties for energy recovery.

Conclusion

After an exhaustive 22-year review involving generation of a new, state-of-the-art health-and-safety database and compilation of up-to-date benefits information, EPA has given the go-ahead to continued federal registration of creosote for pressure-treatment of railway ties and other industrial wood products such as utility poles. The creosote industry and its crosstie and railroad industry allies should take great pride in the substantial informational role they played to facilitate EPA’s reregistration decision. §

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¹ http://www.epa.gov/oppsrrd1/REDs/creosote_red.pdf

² The Creosote Council’s members voluntarily cancelled all non-pressure treatment uses of creosote, effective Dec. 31, 2004.

