

IN THE UNITED STATES DISTRICT COURT FOR THE  
EASTERN DISTRICT OF OKLAHOMA

## ORDER

This matter comes before the Court on Defendant's Thirteenth Motion in Limine Regarding Plaintiff's Metallurgist Expert, Larry Hanke, P.E. Offering Opinions Which Are Beyond the Scope of His Expertise (Docket Entry #154). On August 10, 2020, this Court conducted a hearing to receive the testimony of Mr. Hanke. Counsel for the parties was present and inquired of the witness.

This case is brought under the Federal Employers' Liability Act ("FELA") and the Federal Safety Appliance Act ("FSAA") after Plaintiff allegedly suffered an injury while assisting in the replacement of a broken knuckle on a locomotive operated by Defendant. Specifically, as a part of replacing the knuckle, it was necessary to remove a cotter key to allow the removal of the knuckle. The method and tools necessary for the safe removal of the cotter key stands as one of the disputed issues in this case. Larry Hanke, P.E., a metallurgist, was employed by Plaintiff as an

expert witness to testify as to the conditions surrounding the failure of the knuckle.

Mr. Hanke testified at the hearing that he has never worked for a railroad nor been trained in the inspection of locomotives or the attendant regulations concerning the requirements for inspections imposed by the Federal Railroad Administration. He inspected the broken knuckle which forms the subject matter of this case. Mr. Hanke concluded that the crack in the knuckle was attributable to a casting flaw below the surface of the knuckle. He also opined that the crack would have been visible weeks or even months prior to the failure but that it. Mr. Hanke testified in his deposition, however, that there was no way to identify a particular time when the crack would have become visible. He could not state whether the crack violated the regulations governing the railroads.

Defendant challenges the methodology employed by Mr. Hanke in arriving at the conclusion that the crack in the knuckle would have been visible to the naked eye.

Generally, expert testimony is permitted under the following criteria:

A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if:

- (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;

- (b) the testimony is based on sufficient facts or data;
- (c) the testimony is the product of reliable principles and methods; and
- (d) the expert has reasonably applied the principles and methods to the facts of the case.

Fed. R. Evid. 702.

The court acts as a gatekeeper on two fronts under Rule 702 – whether the proposed expert witness is qualified to render the opinions he sets out and, if he is so qualified, whether the opinion is sufficiently supported by making “a preliminary assessment of whether the reasoning or methodology underlying the testimony is scientifically valid and of whether that reasoning or methodology properly can be applied to the facts in issue.”

Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579, 593 (1993); see also Bitler v. A.O. Smith Corp., 400 F.3d 1227, 1233 (10th Cir. 2005). This analysis applies to all expert testimony. Kuhmo Tire Co., Ltd. v. Carmichael, 526 U.S. 137 (1999).

BNSF does not challenge Mr. Hanke’s qualifications as a metallurgist. It does challenge his methodology in arriving at his opinion that the crack would have been visible.

In his expert report, Mr. Hanke states that he performed a metallurgical engineering evaluation including the examination of the failed knuckle at the Engineering Systems, Inc. facility in Omaha, Nebraska on January 22, 2019. His analysis consisted of a

visual inspection and light microscopy examination of the failed knuckle as well as microstructure characterization, chemical analysis, and mechanical testing of the knuckle material.

Mr. Hanke concludes that the "failed coupler was weakened by a substantial crack in the knuckle casting that existed prior to the final fracture." He also found the crack had a "brick-red surface deposit" which "indicated that this area of the fracture had been exposed to weather elements for a longer time period. Fracture features indicated that that final fracture initiated from this pre-existing crack." *Def. Mot. at Exh. No. 1, p. 2.*

In his deposition, Mr. Hanke stated that he believed the two inch length of the crack in the knuckle was present months before the failure. He also opined that the crack would have been visible to the naked eye upon inspection. *Def. Mot. at Exh. 3, p. 62, ll. 11-20.*

BNSF is critical of Mr. Hanke's lack of experience in the railroad industry, generally, and with knuckles, specifically. It states that an FRA inspection in 2014 did not find a crack, challenging Mr. Hanke's findings.

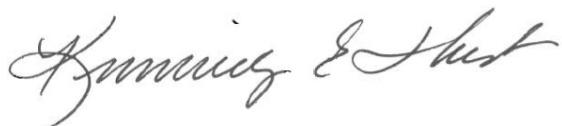
The record, including Mr. Hanke's report, indicates that the crack in the knuckle was due to a casting flaw below the surface of the metal. Because he lacks experience in the railroad industry, Mr. Hanke admitted on examination that he did not know whether the crack violated the applicable railroad regulations or

whether the regulations allows some cracks. He is familiar with forces such as those applied to the couplings in this case and with metallurgy in particular.

Mr. Hanke demonstrated a knowledge of metallurgy such that his methodology was supported in reaching his conclusions. Knowledge of the railroad industry and railroad industry regulations does not disqualify him from offering an opinion as to the origins of the crack in the knuckle and whether it would be visible to the naked eye given the metallurgical nature of the crack arising from an internal casting flaw. Whether the crack should have been visible to inspectors of the knuckle is a matter to be decided by the jury based, in part, upon Mr. Hanke's expert analysis and opinion. His testimony will be permitted at trial.

IT IS THEREFORE ORDERED that Defendant's Daubert Motion pertaining to Larry Hanke, P.E. represented in its Thirteenth Motion in Limine (Docket Entry #154) is hereby **DENIED**.

IT IS SO ORDERED this 31<sup>st</sup> day of March, 2021.



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KIMBERLY E. WEST  
UNITED STATES MAGISTRATE JUDGE