

front of the left center caster wheel. The MS-3 controls are monitored and adjusted by the MS-3 operator during paving.

Corr was operating the MS-3 on November 22. Corr contends that there was an asphalt leak that he was investigating while the machine was running. Corr was injured when his foot was caught under the MS-3's center caster wheel. Corr suffered significant injuries to his leg and foot. Corr contends that the design of the MS-3 presented a foreseeable risk of injury because of the unguarded center wheel placement. Corr filed this suit against Terex alleging that the MS-3 was defectively designed and that Terex was negligent in failing to perform a risk assessment or hazard analysis of the MS-3. Corr hired Vaughn Adams, a safety systems and human factors engineer, to testify as an expert. Adams is a licensed engineer in the state of Arizona. He has taught in the areas of system safety engineering, systems design and human factors engineering at Arizona State University for eighteen years.

A systems safety engineer evaluates products in various conditions as part of the total design process. As a consultant, Adams has done failure analysis of the man/machine/environment interface of various industrial and vehicular products. Adams has analyzed numerous failures specific to heavy equipment, paving and road milling operations. Adams has not been involved in the design of an MS-3. Instead, Adams prepared his report after reviewing photographs, reports, industry standards of care and deposition testimony. Adams did not physically examine an MS-3 and has never seen one in operation.

Adams opined that the MS-3 is defectively designed because there

is a reasonable foreseeable injury event when operating the MS-3. Adams opined that an operator can slip or fall during inspection of the MS-3 which would cause a run-over by the left center frame caster wheel. Adams testified that the design of the MS-3 warranted the following:

1) an operator stand or platform to allow inspection and operation from a fixed station and away from the rotating center caster wheel; or

(2) guarding of the center wheels compliant with SAE 198 guarding personal protection standard with a fixed guard that will guard or shield the MS-3 operator's foot and lower leg during their operation and control of the machine's function.

Alternatively, if neither an operator platform or guarding are utilized, a relocation of the center frame wheel to be inboard of the machine framework would be warranted. (See other manufacturer designs: Caterpillar and Road Tec.)

Additionally, Cedar Rapids could have placed the MS-3 controls on a remote operator panel to be utilized by the paving operator. This remote terminal option was available on the MS-4, and would have eliminated the need for a MS-3 ground operator. Additional placard warnings on the sides of the machine thereby should have warned all personnel to stay clear of the machine sides.

(Doc. 171, exh. 2 at 20-21).¹

Adams testified during the hearing that if the MS-3 was equipped with a remote station Corr's accident would not have occurred. Adams further testified that if the MS-3 had been equipped with a guard on the wheel Corr's accident would not have been as serious. Adams, however, has not drawn a new design based on his opinions. Adams has also not done any feasibility studies on the new design. Adams testified that these modifications have been in use by other

¹ According to Adams, the MS-3 was manufactured by Cedar Rapids Inc., now a division of Terex.

manufacturers and are readily available and feasible.

II. Standards

"Rule 702 sets forth the standard for admission of expert testimony," U.S. v. Fredette, 315 F.3d 1235, 1239 (10th Cir. 2003), and assigns "to the trial judge the task of ensuring that an expert's testimony both rests on a reliable foundation and is relevant to the task at hand." Daubert v. Merrell Dow Pharm., 509 U.S. 579, 597, 113 S. Ct. 2786, 2799, 125 L. Ed. 2d 469 (1993). Rule 702 provides that

[i]f scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if (1) testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.

Fed. R. Evid. 702. The standards embraced by Rule 702 and Daubert apply equally to scientific testimony and other testimony of a technical nature. Kumho Tire Co. v. Carmichael, 526 U.S. 137, 147-48, 119 S. Ct. 1167, 1174, 143 L. Ed. 2d 238 (1999). A party offering an expert witness bears "the burden of demonstrating to the district court that [the proffered expert is] qualified to render an expert opinion." United States v. Nacchio, 519 F.3d 1140, 1171-72 (10th Cir. 2008); see also Ralston v. Smith & Nephew Richards, Inc., 275 F.3d 965, 970 (10th Cir. 2001). Still, the court's "gatekeeping" role favors admissibility of expert testimony when it is reliable, relevant and helpful to the jury. Burton v. R.J. Reynolds Tobacco Company, 183 F. Supp. 2d 1308, 1311 (D. Kan. 2002). Indeed, exclusion of expert testimony is the exception, not the rule. See Advisory

Committee Notes concerning the amendment to Rule 702 (noting that "a review of the case law after Daubert shows that the rejection of expert testimony is the exception rather than the rule.")

III. Analysis

Terex relies heavily on Daubert and a Tenth Circuit case interpreting Daubert - Dodge v. Cotter Corp., 328 F.3d 1212, 1222 (10th Cir. 2003). Dodge provides an excellent summary of Daubert and its progeny as those cases relate to assessing the reliability of scientific testimony. See Dodge, 328 F.3d at 1221-23. Indeed, Dodge addressed admissibility of expert testimony in a case involving pollution of water sources by a uranium mine. Id. at 1217-18. The testimony was extremely technical and scientific in nature, and involved opinions such as whether contamination from the mine caused particular illnesses in the numerous plaintiffs. Id. at 1224. However, the Daubert factors relied on by Dodge are more suited for scientific testimony than for the technical testimony at issue here. In fact, Dodge noted that the Daubert factors were "not exclusive, and district courts applying Daubert have broad discretion to consider a variety of other factors. Kumho Tire, 526 U.S. at 150, 119 S. Ct. 1167 ('[W]e can neither rule out, nor rule in, for all cases and for all time the applicability of the factors mentioned in Daubert Too much depends upon the particular circumstances of the particular case at issue.')." Dodge, 328 F.3d at 1222.

As Dodge hinted, Kumho Tire provides more appropriate guidance when dealing with non-scientific expert testimony:

In Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579, 113 S. Ct. 2786, 125 L. Ed. 2d 469 (1993), this Court focused upon the

admissibility of scientific expert testimony. It pointed out that such testimony is admissible only if it is both relevant and reliable. And it held that the Federal Rules of Evidence "assign to the trial judge the task of ensuring that an expert's testimony both rests on a reliable foundation and is relevant to the task at hand." Id., at 597, 113 S. Ct. 2786. The Court also discussed certain more specific factors, such as testing, peer review, error rates, and "acceptability" in the relevant scientific community, some or all of which might prove helpful in determining the reliability of a particular scientific "theory or technique." Id., at 593-594, 113 S. Ct. 2786.

This case requires us to decide how Daubert applies to the testimony of engineers and other experts who are not scientists. We conclude that Daubert's general holding--setting forth the trial judge's general "gatekeeping" obligation--applies not only to testimony based on "scientific" knowledge, but also to testimony based on "technical" and "other specialized" knowledge. See Fed. Rule Evid. 702. We also conclude that a trial court may consider one or more of the more specific factors that Daubert mentioned when doing so will help determine that testimony's reliability. But, as the Court stated in Daubert, the test of reliability is "flexible," and Daubert's list of specific factors neither necessarily nor exclusively applies to all experts or in every case. Rather, the law grants a district court the same broad latitude when it decides how to determine reliability as it enjoys in respect to its ultimate reliability determination.

Kumho Tire, 526 U.S. at 141-42, 119 S. Ct. at 1171 (emphasis added).

The court finds that Terex's reliance on the Daubert factors is not helpful in evaluating Adams' testimony. Adams was asked to examine and evaluate system safety and human factors engineering issues surrounding Corr's accident. In doing so, he made no calculations, performed no simulations, nor did he do anything else of a rigorous scientific nature. Instead, he drew on his experience and education to make suggestions of modifications to the MS-3 that

would have prevented the injury. Adams utilized safety standards, reports, depositions and his knowledge of the designs of other machines in forming his opinions. This is not the sort of activity that is normally assessed through "testing, peer review, error rates, and acceptability in the relevant scientific community." Kumho Tire, 526 U.S. at 141, 119 S. Ct. at 1171 (summarizing the Daubert factors) (internal quotation marks omitted). While "[e]ngineering testimony rests upon scientific foundations, the reliability of which will be at issue in some cases," "[i]n other cases, the relevant reliability concerns may focus upon personal knowledge or experience." Id. at 150, 119 S. Ct. at 1175. Therefore, Terex's objections to Adams' testimony on the grounds of testing, peer review and acceptance in the scientific community are not applicable.

Next, Terex asserts that Adams is not qualified to testify because he has no experience with the MS-3 machines or other pavers.² "A lack of specialization does not affect the admissibility of the opinion, but only its weight." Wheeler v. John Deere Co., 935 F.2d 1090, 1100-01 (10th Cir. 1991)(citing Lavespere v. Niagara Machine & Tool Works, Inc., 910 F.2d 167, 176-77 (5th Cir. 1990) (in products liability action against manufacturer of press brake, witnesses may testify on safety of brake design despite lack of personal design experience); Exum v. General Electric, 819 F.2d 1158, 1163-64 (D.C. Cir. 1987) (registered engineer experienced in industrial safety and

² Terex also argues that Adams' opinions are not relevant. (Doc. 163 at 18-19). Terex, however, is essentially attacking Adams' opinions on his lack of expertise on the MS-3 and his failure to produce a design drawing. These arguments go to the weight of Adams' opinion and not its admissibility.

product design, but lacking any specific expertise in kitchen design, qualified to testify in products liability action against manufacturer of industrial fryer); Dixon v. International Harvester Co., 754 F.2d 573, 580 (5th Cir. 1985) (design engineer may provide expert testimony on safety of crawler tractor in product liability action against manufacturer despite lack of prior experience approving crawler tractor designs); Martin v. Fleissner GMBH, 741 F.2d 61, 64 (4th Cir. 1984) (mechanical engineers were qualified to present expert testimony in product liability action against manufacturer of synthetic fiber crimper although they lacked previous background in either crimpers or the textile industry); Hammond v. International Harvester Co., 691 F.2d 646, 653 (3d Cir. 1982) (witness who had sold automotive and agricultural equipment and taught automobile repair at local high school could render expert opinion on safety of loader despite lack of formal education in either engineering or physics)). "[F]irsthand knowledge is not requisite to the admissibility of an expert opinion." Smith v. Ingersoll-Rand Co., 214 F.3d 1235, 1244 (10th Cir. 2000).

Adams is an engineer with some expertise in safety and human factors. Adams' opinion that the MS-3 is dangerous as designed and that modifications to the MS-3, which were utilized by other machines, would prevent an accident are opinions that are within his expertise. See Wheeler, 935 F.2d at 1100-01; Rogers v. Ingersoll-Rand Co., 971 F. Supp. 4, 15 (D.D.C. 1997) ("Dr. Adams' opinions on various alternative safety features and the feasibility of their design and application-especially as they were drawn from designs that actually exist on machines either made by IR competitors or from the MT-6520 milling machine IR outfitted for German client Joachim Kobow in

1985-were not based in fantasy or speculation, but on actual known applications. This showed Dr. Adams' theories can and have been tested, in the "real world.")

Terex further contends that Adams is not qualified to testify because Adams never physically inspected a MS-3 prior to offering his opinions. This argument goes to the weight of the testimony and not to its admissibility since an expert "may rely on facts outside the record and not personally observed, but of the kind that experts in his or her field reasonably rely in forming opinions." See Ramsey v. Culpepper, 738 F.2d 1092, 1101 (10th Cir. 1984) ("Under Rule 703, there are three methods by which an expert may learn facts in order to reach an opinion. First, the expert may gather information by means of firsthand observation. Second, the expert may base his or her testimony upon facts presented at trial, either in the form of hypothetical questions propounded by counsel or evidence before the court. Third, the expert may rely on facts outside the record and not personally observed, but of the kind that experts in his or her field.")

Terex asserts that Adams' opinions are not reliable because he has failed to prepare alternative designs or calculations based on the modifications he has proposed. Terex has failed to cite any authority, however, that an expert such as Adams is required to prepare a design or calculation. Adams is a safety expert and has prepared an opinion based on his expertise. Adams has suggested alternative safety devices based on his experience and knowledge of features on other machines. There is no evidence that Adams' opinions and methodology are inconsistent with the practices of other safety

and human factors engineers. These issues go to the weight of Adams' testimony and not its admissibility.

Further, implicit in Rule 702 is that the testimony offered must be helpful to the finder of fact. See Fed. R. Evid. 702 (If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue); see also Daubert, 509 U.S. at 591-92, 113 S. Ct. at 2795-96; City of Wichita, Kan. v. Trs. of APCO Oil Corp. Liquidating Trust, 306 F. Supp. 2d 1040, 1110 (D. Kan. 2003). Here, Adams' opinions will be helpful to the jury at least to the extent that members of a jury will likely have no experience in operating a paving machine. Adams' testimony arguably will be helpful in explaining the safety risks of the MS-3 as manufactured and potential modifications to eliminate the risks.

Finally, Terex asserts that Adams' opinions will confuse or mislead the jury because he has not tested or designed an alternate MS-3 and therefore his opinions should be excluded under Fed. R. Evid. 403. Terex can, through cross examination of Adams, explore these areas. The court believes that a jury will be able to understand what Adams did in this case and make their own decision about whether his opinions are credible. Moreover, based on the record, Terex will offer its own expert to testify in this case. Presumably its expert will refute Adams' opinions and testify about the feasibility of the alternate designs.³

³ In asking the court to make a Rule 702-703/Daubert/Kumho Tire, the parties need to understand that the court does not evaluate the witness's credibility, the potential weight of his testimony, whether the witness will make a favorable or unfavorable appearance or

IV. Conclusion

Terex's motion to exclude the testimony of Adams is denied. (Doc. 161).

A motion for reconsideration of this order pursuant to this court's Rule 7.3 is not encouraged. The standards governing motions to reconsider are well established. Comeau v. Rupp, 810 F. Supp. 1172 (D. Kan. 1992). Any such motion shall not exceed three pages and shall strictly comply with the standards enunciated by this court in Comeau v. Rupp. The response to any motion for reconsideration shall not exceed three pages. No reply shall be filed.

IT IS SO ORDERED.

Dated this 17th day of March 2011, at Wichita, Kansas.

s/ Monti Belot

Monti L. Belot

UNITED STATES DISTRICT JUDGE

impression before a jury or how the witness's opinions will fare when the opinions of other experts are considered by the triers of fact. Instead, these are factors which should be considered by the party which selects the expert and which must live with its selection.