UNITED STATES DISTRICT COURT
DISTRICT OF MINNESOTA

John Lenzen,

Plaintiff,

v.

Garon Products, Inc.,

Defendant and Third-Party Plaintiff,

v.

Suttle Apparatus Corp., and
Hexion Specialty Chemicals, Inc.,

Third-Party Defendants.

Civil No. 09-CV-2893 (SRN/AJB)

MEMORANDUM OPINION AND ORDER

L. Michael Hall, Hall Law, P.A., 1010 St. Germain Street West, Suite 100, St. Cloud, Minnesota 56301, and Peter G. Van Bergen and Valorie C. Rosha, Cousineau McGuire Chartered, 1550 Utica Avenue South, Suite 600, Minneapolis, Minnesota 55416, for Plaintiff.

Brian M. McSherry, Margaret Ann Mullin, Michael M. Skram, Timothy J. Leer, and Mark R. Azman, Johnson & Condon, PA., 7401 Metro Boulevard, Suite 600, Minneapolis, Minnesota 55439, and Joseph M. Price, Jennifer Y. Dukart and Christine R. M. Kain, Faegre Baker Daniels, LLP, 90 South Seventh Street, Suite 2200, Minneapolis, Minnesota 55402, for Third-Party Defendant Hexion Specialty Chemicals, Inc.

SUSAN RICHARD NELSON, United States District Judge

This matter is before the Court on the Motion to Exclude Expert Testimony of Dr. Foscante [Doc. No. 84] filed by Third-Party Defendant Hexion Specialty Chemicals, Inc., and the Motion to Exclude Expert Testimony of James Funk [Doc. No. 97] filed by Plaintiff. For the reasons that follow, the parties' motions are denied.

I. BACKGROUND

On September 27, 2007, Plaintiff John Lenzen was using an extension ladder to install electrical conduit along the rafters of the new warehouse owned by his employer, former Third-Party Defendant Suttle Apparatus Corporation. While performing this work, Lenzen fell and was seriously injured. The parties dispute whether the ladder slid out or whether Lenzen fell off the ladder. While there were no witnesses to the fall, as Lenzen lay on the ground following the accident, he told a colleague that the ladder started to slip and he could do nothing to stop himself from falling. (Vacek Dep. at 11-12, Ex. K to Aff. of Michael Hall in Supp. Mot. Exclude Funk [Doc. No. 100-2].) Lenzen brought this lawsuit against former Defendant Garon Products, Inc., contending that a concrete coating material that Garon manufactured had been applied to the floor of Suttle's warehouse, and that this sealant was defective and caused the ladder to slide out from under him. Plaintiff sustained multiple injuries from the fall and is a quadriplegic. (Pl.'s Mem. Opp'n to Hexion's Mot. Summ. J. [Doc. No. 66] at 2; Rule 14(a)(3) Claim ¶ 9 [Doc. No. 23].)

The concrete coating material at issue is called Garonguard. There is no dispute that Garonguard was first applied to the warehouse floor several days before Lenzen's accident by a group of high school students. Two days later, on September 24, Suttle employees applied a second coat of Garonguard.

After removing Lenzen's lawsuit to this Court, Garon filed two Third-Party Complaints, one against Suttle and one against Hexion Specialty Chemicals, Inc., the manufacturer of the concrete coating material's two components, an epoxy resin and a curing agent. (Third-Party Compl. ¶ X [Doc. No. 19].) In its Answer to the Third-Party Complaint, Hexion filed a cross-

claim against Suttle and a counterclaim against Garon. [Doc. No. 20.] Also, Lenzen filed a Rule 14(a)(3) claim against Hexion, repeating the contentions in Garon's Third-Party Complaint. [Doc. No. 23.]

Garon subsequently settled its claims with Lenzen, executing a Pierringer release. On October 31, 2011, this Court granted Suttle summary judgment. [Doc. No. 78.] Thus, the remaining claims in the lawsuit are Lenzen's claims against Hexion. The parties have filed cross motions to exclude expert testimony. Plaintiff moves to exclude the testimony of Defendant's expert James Funk and Defendant moves to exclude the testimony of Plaintiff's expert Raymond Foscante.

A. Dr. Foscante's Opinion

Plaintiff proffers the opinion of Raymond E. Foscante, a chemistry expert, regarding the use of the Garonguard sealant and its effect on the ladder in question. Dr. Foscante has a B.S. and Ph.D. in Chemistry, as well as a law degree. He has management experience in the paint, coatings, specialty chemicals and construction materials industries. (2009 Foscante Report at 3, Ex. A in Supp. Def.'s Mot. Exclude Foscante [Doc. No. 87-1].) Dr. Foscante has provided three reports: (1) a report of August 27, 2009, which Plaintiff characterizes as "preliminary;" (2) a report of December 30, 2010; and (3) a rebuttal report of May 15, 2011. Defendant seeks to exclude Dr. Foscante's opinions as unreliable, arguing that each report provides a different, conflicting theory as to the alleged problems with Garonguard. Moreover, Defendant asserts that Dr. Foscante's opinions are contradicted by his own testing.

1. 2009 Report

In his first report of August 27, 2009, Dr. Foscante opined that cured clear coats applied

to concrete floor coatings have very low coefficients of friction, i.e., "high slip propensity," and the Garonguard on the warehouse floor had sufficiently cured at the time of Plaintiff's injury.[1] (Id. at 3, 6, 8.) Dr. Foscante thus concluded that the "movement (slippage) of the ladder occurred because of the inherent slip properties of the cured floor." (Id. at 10.)

2. 2010 Report

Between the issuance of the first and second reports, Plaintiff contends that other evidence was acquired showing that the floor coating had failed cohesively and was not fully cured at the time of Plaintiff's fall. (Pl's Opp'n Mem. at 14 [Doc. No. 104].) Plaintiff identifies the discovery of epoxy on the ladder feet and scrape marks on the floor, in addition to testing of the actual Garonguard that had been applied to the warehouse floor, as this additional evidence. (Id.) In his second report of December 30, 2010, Dr. Foscante thus opined that the Garonguard on the warehouse floor had not fully cured and that the information on the Garonguard Technical Data Sheet and related literature failed to offer warnings or guidance on factors that would affect slip resistance, specifically time-temperature-property relationships (Foscante 2010 Report at 17-20, Def.'s Ex. B Re: Foscante [Doc. No. 87-2].) Specifically, Dr. Foscante opined that the primary factor causing a slow cure of the sealant is low temperature. (Id. at 12-13.) Dr. Foscante investigated temperatures at the Suttle warehouse on September 24-27, 2007, the period of time during which the second application of Garonguard was curing, and found that they were below the temperature necessary for adequate curing. He therefore found that

[1] Webster's defines the "coefficient of friction" as "the ratio of the tangential force needed to start or to maintain uniform relative motions between two contacting surfaces to the perpendicular force holding them in contact, the ratio usually being larger for starting than for moving friction." (http://www.merriam-webster.com/dictionary/coefficient%20of%20friction.)

"[u]nder no scenario . . . was the second coat sufficiently cured to withstand the mechanical force of ladder placement and movement." (Id. at 17.)

Also in connection with this 2010 report, Dr. Foscante obtained samples of the Garonguard that remained in Suttle's possession following the 2007 application to the warehouse floor. (See id. at 10.) Dr. Foscante designed an experiment, established the variables and protocol and directed an independent laboratory to perform tests on the Garonguard samples. Because Garonguard is sold as two separate components which are mixed together prior to use, Dr. Foscante proscribed the mix ratio for the experiment. (Id.; Foscante Dep. at 83-84, Def.'s Ex. E Re: Foscante [Doc. No. 87-5].) He concedes that the initial 2:1 mix ratio that the laboratory used for half of his tests was not the actual ratio that Suttle was instructed to use, or did use, to mix Garonguard. (Foscante 2011 Report at 2, Def.'s Ex. G Re: Foscante [Doc. No. 87-7].) The other mix ratio that Dr. Foscante specified for the testing, 2:0.8, was closer to the Garonguard mix ratio used by Suttle. (Id. at 2-5.)

3. 2011 Report

Lastly, Dr. Foscante provided a rebuttal report dated May 15, 2011. In light of issues raised by other experts in the case regarding his initial opinion, Dr. Foscante noted that he undertook additional testing to further amplify and support his opinion. (Id. at 2.) In particular, he observed that while initial discovery had indicated a 2:1 mix ration for Garonguard, Rule 30(b)(6) deposition discovery had revealed that the ratio was actually 3:1 by volume. (Id.) In his 2011 report, Dr. Foscante opined that an oily residue appears on the surface of Garonguard

during the curing process and this residue decreases the static coefficient of friction.[2] (Id. at 13, 18.) Dr. Foscante again directed an independent laboratory to undertake four categories of testing at his direction: (1) a chemical composition analysis that was performed to assist in identifying the chemicals used in Garonguard; (2) two tests that were performed to measure curing; (3) residual cure testing that was performed to measure the extent of cure after 72 hours; and (4) static coefficient of friction testing that was performed on three samples of Garonguard. (Stonebridge Report at 1-2; 8, Def.'s Ex. F Re: Foscante [Doc. No. 87-6].)

The fourth category of testing, static coefficient of friction, was performed on three coatings of Garonguard: (1) Coating C was a 3:1 ratio mix using newly obtained Garonguard samples; (2) Coating D was a 2:0.8 mix ratio using newly obtained samples of Garonguard; and (3) Coating E was a 3:1 mix ration using old samples of Garonguard. (Id. at 2-3.) Dr. Foscante directed the laboratory to apply Garonguard to glass plates, which were to be prepared for testing at different temperatures. (Id. at 3.) He testified that he decided to perform the testing on glass in order to eliminate the effect of the underlying surface, or substrate. (Foscante Dep. at 136, Def.'s Ex. E Re: Foscante [Doc. No. 87-5].)

In his 2011 Report, Dr. Foscante observed that the data showed that all of the samples applied to glass plates contained an "oily residue," and were "sticky" or "a little sticky," depending on the sample group. (Foscante 2011 Report at 9; 12, Def.'s Ex. G Re: Foscante [Doc. No. 87-7].) Dr. Foscante noted that the "impact of the [oily] residue on slip is dependent on the hardness of the surface (which at any given point is dependent on stoichiometry,

[2] As noted in his 2009 Report, Dr. Foscante explained that "slip resistance is measured, reported, and described in terms of coefficent of friction (COF), most typically static coefficient of friction (SCOF)." (2009 Foscante Report at 7, Ex. A to Hall Aff. Re: Foscante.)

temperature, and time)." (Id. at 9.) He concluded that the lubricating effect of the oily residue, or exudate, was "the controlling factor in the stability of the ladder," such that the ladder slipped in areas of higher hardness and a longer level of cure. (Id.)

The static coefficient of friction properties of the samples were measured using wet and dry methods. A sled type of mechanism was applied to the glass plate films to obtain these measurements. Dr. Foscante also directed the laboratory to spray five milliliters of plasticizer to the slides for additional static coefficient of friction testing. (Id.) In his deposition, Dr. Foscante testified that he used the plasticizer on the surface of the coating to verify that it would have an effect on the coefficient of friction. (Foscante Dep. at 137, Def.'s Ex. E Re: Foscante [Doc. No. 87-5].)

Dr. Foscante reported that after the "dry pull" static coefficient of friction testing, the surfaces of Coatings C and E "were marred." (Foscante 2011 Report at 9, Def.'s Ex. G Re: Foscante [Doc. No. 87-7].) As he testified in his deposition, Dr. Foscante found the "marring" of the coating surfaces significant, opining that it supported his theory that the sliding of the ladder disrupted the surface of the undercured floor coating and left scrape marks on the floor. (Foscante Dep. at 81; 128-29, Def.'s Ex. E Re: Foscante [Doc. No. 87-5].)

4. 2011 Foscante Affidavit

In response to Defendant's Motion to Exclude Dr. Foscante's Testimony, Plaintiff submitted an affidavit from Dr. Foscante [Doc. No. 106], including six attached exhibits. In the affidavit, Dr. Foscante responds to the argument advanced by Defendant that his three reports contain conflicting opinions, as well as theories that contradict his own testing. (Foscante Aff. ¶ 4 [Doc. No. 106].) Dr. Foscante reiterates the conclusions found in the three reports and

explains why he believes the opinions are consistent. Defendant objects to the consideration of this affidavit, arguing that it constitutes an untimely expert disclosure and contains a reversal of Dr. Foscante's opinion regarding marring on test slides. Defendant also objects to the submission of new exhibits. (See Def.'s Reply Mem. [Doc. No. 109].)

B. Dr. Funk's Opinion

James Funk, Ph.D., is a biomedical engineer who was retained by Defendant Hexion to provide "an injury causation analysis." (Funk Report at 1, Ex. A to Aff. of Michael Hall Re: Funk [Doc. No. 100-1].) Essentially, Dr. Funk renders the opinion that Plaintiff fell from a stationary ladder onto his head. (Id. at 6-7.)

In reaching his conclusion, Dr. Funk contends that he reviewed Plaintiff's medical records from the first 72 hours after his fall (Funk Dep. at 17, Def.'s Ex. 1 Re: Funk [Doc. No. 103]), inspected the Suttle warehouse, including the ladder, floor and trusses (Funk Report at 2, Ex. A to Hall Aff. Re: Funk [Doc. No. 100-1]), reviewed 134 photos of the Suttle warehouse (Funk Dep. at 17-18, Def.'s Ex. 1 Re: Funk [Doc. No. 103]), and read Plaintiff's depositions. (Id. at 17.) He further reviewed certain pleadings, discovery responses, expert reports, summaries of deposition transcripts and summaries of additional medical records. (Id. at 17-20; Funk Report at 2-3, Ex. A to Hall Aff. Re: Funk [Doc. No. 100-1].)

Dr. Funk testified that the location of Plaintiff's injuries informed his opinion that Plaintiff fell when the ladder was in a fixed position and its feet were not sliding. (Funk Dep. at 23, Def.'s Ex. 1 Re: Funk [Doc. No. 103].) In his report, he explains that the pattern of Plaintiff's neck fracture illustrates that Plaintiff's head made the first contact with the warehouse floor and that Plaintiff did not have injuries to his lower extremities. (Funk Report at 3, Ex. A to

Hall Aff. Re: Funk [Doc. No. 100-1].) He further states that a head-first falling position is consistent with a fall from a stationary ladder, as opposed to a ladder that slipped on the floor. (Funk Dep. at 24-25; 27, Def.'s Ex. 1 Re: Funk [Doc. No. 103-1].) Dr. Funk also bases his opinion on the fact that, during the time period in question, other persons walked on the warehouse floor for significant periods of time without slipping. (Funk Report at 8-9, Ex. A to Hall Aff. Re: Funk [Doc. No. 100-1].) With respect to this observation, Dr. Funk calculated the coefficient of friction necessary to prevent a ladder from sliding out, as compared to the required coefficient of friction for normal walking. (Id. at 9-11.)

In addition, Dr. Funk performed tests with the use of a dummy to test his theory that a fall from a stationary ladder would result in a head-first landing position. In one test, Dr. Funk used a dummy to demonstrate the phenomenon by which resistance from the ladder step supported Plaintiff's lower body when the fall began, resulting in a head-first fall. (See Funk Dep. at 122, Def.'s Ex. 1 Re: Funk [Doc. No. 103-1].) Dr. Funk explained that this particular demonstration was not designed to "exactly" replicate what occurred to plaintiff, but rather, it went "a long way to explaining what happened" because the "landing position explains all of his injuries and all of his lack of injuries." (Id. at 123.) Dr. Funk testified that this testing "replicates [Plaintiff's] landing in a substantially similar way; the fall and landing. . . ." (Id.)

In a second dummy test, Dr. Funk simulated a ladder slide-out in which "the dummy remained relatively upright during the fall and landed on his feet," which became entangled in the ladder rungs. (Funk Report at 7-8, Ex. A to Hall Aff. Re: Funk.) Dr. Funk explained that this test supported his opinion that a ladder slide-out would have resulted in different injuries, i.e., injuries to Plaintiff's lower extremities. (Id.)

To rebut Mr. Funk's opinion, Plaintiff consulted with expert Erick Knox, a biomechanical engineer specializing in the "biomechanical analysis, determination of injury causation and mechanisms, ergonomics and human factors analysis, accident investigation and reconstruction, mechanical testing and failure analysis, human motion analysis including occupant kinematics, and biomedical devices." (Knox C.V. at 1, Ex. S to Hall Aff. Re: Funk [Doc. No. 100-2].) Dr. Knox opines that "Dr. Funk's one test of a slide-out scenario cannot be used to rule out all other possible slide-out scenarios and /or user movements as a result of a slide out. There are a myriad of other possible ladder and/or user kinematics that cannot be ruled out." (Knox Report at 10, Ex. M to Hall Aff. Re: Funk [Doc. No. 100-2].) In reaching his opinion, Dr. Knox performed eight tests utilizing a ladder and a dummy. (Id. at 8-9.) Dr. Knox identifies several variables that he believes must be considered when determining the manner in which a person falls in a ladder slide-out and the person's ultimate orientation when reaching the floor.[3] (Aff. of Erick Knox ¶ 5 [Doc. No. 101].)

Plaintiff argues that Dr. Funk's testimony should be excluded because it rests solely on a single ladder simulation and that his coefficient of friction opinion is internally inconsistent. As to this opinion, Plaintiff contends that Dr. Funk's testimony is inadmissible because Funk's own report says that the coefficient of friction for walking can be as low as 0.15, which is lower than the 0.19 number he cites for the coefficient of friction for safe ladder use.

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[3] According to Dr. Knox, these factors include: (1) the speed at which the slide-out occurs; (2) the location and posture of the user on the ladder; (3) the active and passive interaction of the user with the ladder; (4) the active and passive interaction of the user with other parts of the environment; (5) the user's active physical reaction during the fall; (6) the set-up angle of the ladder; (7) the condition of the floor (particularly the coefficient of friction between the ladder and the floor and whether it is level and even); and (8) the condition of the ladder. (Knox Aff. ¶ 5.)

Plaintiff also argues that Dr. Funk fails to adequately consider the variables identified by Dr. Knox and that his opinion is entirely based on inadequate testing. Defendant, however, objects to any use of the Knox Affidavit, arguing that it is an untimely second rebuttal opinion that should be stricken. Moreover, Defendant argues that the mere fact that Dr. Funk relied on variables different than those identified by Dr. Knox is not grounds for the exclusion of his testimony. In addition, Defendant contends that Dr. Funk's opinion is based on multiple factors, and not simply a single experiment. Also, Defendant asserts that Dr. Funk's coefficient of friction calculation is sound.

II. DISCUSSION

A. Admissibility of the Affidavits of Dr. Foscante and Dr. Knox

As a preliminary matter, the Court addresses Defendant's request to strike the affidavit of Dr. Foscante [Doc. No. 106], submitted by Plaintiff in opposition to Defendant's motion on December 22, 2011, as well as Defendant's request to strike Plaintiff's motion altogether, due to Plaintiff's submission of the affidavit of Dr. Knox [Doc. No. 101] on December 1, 2011, offered in support of Plaintiff's motion. Defendant argues that both affidavits constitute second rebuttal opinions, submitted well after the Court's deadline for disclosure of rebuttal expert discovery. The deadline for disclosure of rebuttal expert reports was May 11, 2011. (Second Am. Pretrial Sched. Order at 2 [Doc. No. 36].) In resolving an earlier discovery dispute in this matter involving motions to strike expert testimony, Chief Magistrate Judge Boylan ruled that the applicable deadline for the disclosure of Dr. Knox's rebuttal opinion was the standing deadline for such disclosures, May 15, 2011. (Order of May 11, 2011 [Doc. No. 51].) In response to Defendant's instant request that the affidavits be stricken, Plaintiff contends that the affidavits

are offered in rebuttal and that Plaintiff is obliged to supplement its experts' disclosures under the Federal Rules.

In some cases, this Court has refused to consider tardy expert disclosures when no cause is given, other than "carelessness, inadvertence, or inattention." N. Star Mut. Ins. Co. v. Zurich Ins. Co., 269 F. Supp.2d 1140, 1145 (D. Minn. 2003). The Eighth Circuit has also viewed later-filed, contradictory affidavits, coming after deposition testimony, as suspect, see City of St. Joseph v. Sw. Bell Tel., 439 F.3d 468, 476 (8th Cir. 2006), and with disfavor. In some circumstances, the court has ordered them stricken. See Camfield Tires, Inc. v. Michelin Tire Corp., 719 F.2d 1361, 1364-66 (8th Cir. 1983). It is also true that parties have a duty to supplement their disclosures under Fed. R. Civ. P. 26(e)(2), as enforced by Fed. R. Civ. P. 37(c). However, these rules still contemplate that disclosure occurs within the pretrial disclosure deadline. Rule 26(e)(2) provides "[a]ny additions or changes to this information [information included in the expert report and information given during the expert's deposition] must be disclosed by the time the party's pretrial disclosures under Rule 26(a)(3) [applicable to pretrial disclosures] are due." Fed. R. Civ. P. 26(e)(2). Rule 37(c) provides consequences for the failure to provide information as required by Rule 26(e). Specifically, the offending party is not allowed to use the information in question or its witness is not allowed to supply evidence on a motion, or at trial, "unless the failure was substantially justified or is harmless." Fed. R. Civ. P. 37(c).

Plaintiff argues that as to both of the submissions, the affidavits are offered merely to rebut argument or issues raised by Defendant. For example, as to Dr. Foscante, Plaintiff argues that the Foscante Affidavit is primarily offered to rebut Defendant's assertion that he has

reversed his opinions or that his opinions are unsupported. Even assuming that is true, this Court, like the Eighth Circuit, views late expert disclosures with concern. The concern arises due to the likely harm that late disclosures cause the opposing party, which has had no opportunity to depose the expert on the recently-disclosed information. The Court finds that as to both affidavits here, Plaintiff presents a close question that the opinions expressed therein are supplemental, as the Rules contemplate supplemental disclosures. On balance, the Court finds that the information is primarily supplemental. However, the late disclosure is not harmless. Defendant was unable to question Dr. Foscante and Dr. Knox about the content of their respective affidavits, or rebut their information in Defendant's own expert reports. To cure this prejudice, the Court therefore requires Plaintiff to make available Dr. Foscante and Dr. Knox for an additional two hours of deposition time, each limited to the content of their respective affidavits.

B. Admissibility of Expert Testimony

Opinion testimony from an expert "qualified . . . by knowledge, skill, experience, training or education" is admissible "[i]f scientific, technical, or other specialized knowledge will assist the trier of fact" and if "(1) the 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 Court, acting as a "gatekeeper," must evaluate whether proffered expert testimony passes muster under Rule 702, Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579, 597-98 (1993), bearing in mind that the touchstone for admitting such testimony is assistance to the trier of fact. See, e.g., Larson v. Kempker, 414 F.3d 936, 941 (8th Cir.2005). Courts may allow expert testimony only

when it is both relevant and reliable, Daubert, 509 U.S. at 597-98, but "Rule 702 reflects an attempt to liberalize the rules governing the admission of expert testimony," and "favors admissibility over exclusion." Lauzon v. Senco Prods., Inc., 270 F.3d 681, 686 (8th Cir. 2001). Accordingly, doubts regarding the usefulness of an expert's testimony should be resolved in favor of admissibility, United States v. Finch, 630 F.3d 1057, 1062 (8th Cir. 2011), and "[g]aps in an expert witness's qualifications or knowledge generally go to the weight of the witness's testimony, not its admissibility." Robinson v. GEICO Gen. Ins. Co., 447 F.3d 1096, 1100 (citing 29 Charles Alan Wright & Victor James Gold, Federal Practice and Procedure: Evidence § 6265 (1997)). "The exclusion of an expert's opinion is proper only if it is so fundamentally unsupported that it can offer no assistance to the jury," Wood v. Minn. Mining & Mfg. Co., 112 F.3d 306, 309 (8th Cir. 1997) (internal quotations and citation omitted).

> In screening expert testimony under Rule 702, a district court applies a three-part test.
>
> First, evidence based on scientific, technical, or other specialized knowledge must be useful to the finder of fact in deciding the ultimate issue of fact. This is the basic rule of relevancy. Second, the proposed witness must be qualified to assist the finder of fact. Third, the proposed evidence must be reliable or trustworthy in an evidentiary sense, so that, if the finder of fact accepts it as true, it provides the assistance the finder of fact requires.

Lauzon, 270 F.3d at 686 (internal citations and quotations omitted).

1. Dr. Foscante

Applying this test to Dr. Foscante's proffered expert opinion, the Court finds it sufficiently reliable to be admitted under Rule 702 and Daubert. Courts analyze reliability from a flexible, case-specific standpoint. Kumho Tire Co. v. Carmichael, 526 U.S. 137, 149-150 (1999). Factors to be considered are whether the expert's theory or technique can be or has been tested, whether it has been or is subject to peer review, and whether the theory or technique is

generally accepted within the relevant scientific community. Id. Defendant does not challenge Foscante's qualifications. Rather, Defendant challenges his testing methodology and the "fit" of his opinion to the facts of this case.

In 2009, Dr. Foscante initially opined that the Suttle warehouse floor had cured sufficiently to prevent transfer of Garonguard from the floor to the ladder feet. (2009 Foscante Report at 10, Ex. A to Hall Aff. Re: Foscante [Doc. No. 105-1].) He therefore offered the "preliminary opinion" that the movement, or slippage, of the ladder "occurred because of the inherent slip properties of the cured floor." (Id.) He reached this opinion after 'doing a walk-around' in the warehouse, reviewing documents then available, talking to persons about their experience with Garonguard, and examining photographs of the feet of the ladder. (Foscante Dep. at 16; 22, Ex. D to Hall Aff. Re: Foscante [Doc. No. 105-1].) He opined that "surface characteristics [of Garonguard] should have been disclosed in product literature to allow the customer to choose the safest method for working on the floor" and that failure to do so was a serious disclosure defect. (2009 Foscante Report at 10, Ex. A to Hall Aff. Re: Foscante [Doc. No. 105-1].)

After the suit was filed, Foscante and other experts conducted a more thorough investigation of the warehouse on September 10, 2010. (2010 Foscante Report at 7, Ex. B to Hall Aff. Re: Foscante [Doc. No. 105-1].) He observed scrape marks on the floor in the area of the accident that corresponded to the initial placement of the ladder and its subsequent movement. (Id.) The inspection of the ladder feet revealed small amounts of a polymeric residue having epoxy content. (Id.) Based on this finding, as well as the scrape marks, Dr. Foscante opined that the Garonguard had not cured to the point of mechanical strength to

provide a stable base for the ladder and that it provided inadequate frictional force "to oppose the lateral movement of the ladder feet in contact with the surface. This explains the presence of epoxy residue on the ladder feet and the scrape marks on the floor coating." (Id. at 4.) In addition, he observed scrape marks on the surface of the wooden rafter against which the ladder had been resting. (Id. at 7.)

Following the September 10, 2010 visit to the warehouse, Dr. Foscante and other experts obtained samples of Garonguard remaining from the batch that had been applied to the warehouse floor. This prompted more testing, the results of which Dr. Foscante reported in his 2010 report. At Dr. Foscante's direction, a laboratory conducted testing on the characteristics of Garonguard as it cured at various temperatures. In performing the tests, Dr. Foscante directed the laboratory to blend the samples in two different mix ratios: one was the ratio disclosed by Garon in its discovery responses as the correct ratio and the other was the ratio that Dr. Foscante understood was actually applied to the floor. (Id. at 4; Foscante Dep. at 82-83, Ex. D to Hall Aff. Re: Foscante [Doc. No. 105-1].) According to Dr. Foscante, the tests revealed the accumulation of a "diluent/plasticizer" on the surface during the curing cycle, which "would cause a lubricating effect on the surface further reducing the frictional force between the ladder feet and the floor coating." (Foscante 2010 Report at 4, Ex. B to Hall Aff. Re: Foscante [Doc. No. 105-1].)

Defendant retained biomechanical and mechanical engineers, including Dr. Funk, to rebut Dr. Foscante's 2010 opinion, but did not apparently retain a chemistry expert. Generally speaking, Defendant's experts conducted tests regarding slip resistance, involving measurements of the static coefficient of friction. To rebut these opinions, Dr. Foscante issued his 2011

Report, in which he described the results of further testing that he commissioned. Dr. Foscante directed that this round of testing was to be conducted on glass substrates. In response to Defendant's argument that the results of this testing are not a proper fit to the facts of this case, Dr. Foscante attests that good experimental design requires the isolation of the experimental variables sought to be measured and the only way for him to determine the behavior of Garonguard during the curing process was to apply the coating to a surface which would not affect its behavior, i.e., glass. (Foscante Aff. ¶22 [Doc. No. 106].)

From the description of his testing methodology, the Court is satisfied that, for purposes of the Daubert standard, Dr. Foscante reached his conclusions using a generally-accepted methodology. Prior to issuing his reports, Dr. Foscante reviewed the available evidence, obtained information, and inspected the warehouse and the ladder. The testing undertaken by the independent lab was performed in accordance with ASTM standards. (See, e.g., 2010 Report at 10-11, Ex. B to Hall Aff. Re: Foscante [Doc. No. 105-1]; 2011 Report at 6-7, 12, Ex. C to Hall Aff. Re: Foscante [Doc. No. 105-1].) To the extent that Dr. Foscante's testing changed or evolved, it appears to have done so in light of new information and/or to rebut Defendant's competing expert theories.

The Court is not persuaded that the facts of this case are sufficiently similar to those in Fireman's Fund Ins. Co. v. Canon U.S.A., Inc., 394 F.3d 1054, 1059 (8th Cir. 2005) to warrant the exclusion of Dr. Foscante's testimony. In Canon, the Eighth Circuit held that the experts' last-minute alternative theories lacked evidentiary support in the record so as to be unreliable and were properly excluded. Id. Moreover, the experts in Canon failed to propose a specific defect on the copy machine in question that could have caused the underlying fire and neither

expert followed the standard methodology of the fire industry to examine their hypotheses against empirical data obtained from the fire scene. Here, Dr. Foscante has adequately explained the bases for his opinions with reference to the record and has performed testing using the actual sealing product in question. Defendant is free to inquire further into the evolution of Dr. Foscante's opinion at trial, but the evolution of his opinion is not so inexplicable as to render it unreliable and inadmissible.

Defendant is particularly critical of Dr. Foscante's methodology in testing the samples described in his 2011 Report on glass substrates, as well as the conclusions drawn as they relate to temperature. However, Dr. Foscante has adequately explained that he conducted the testing on glass in order to isolate the experimental variables being tested. (See Foscante Aff. ¶ 22 [Doc. No. 106].) Further, he attests that a concrete substrate would not affect either the rate of cure or the appearance of the exudate on the surface. (Id.) Dr. Foscante has sufficiently explained his overall methodology and, to the extent that Dr. Foscante has offered inconsistent explanations regarding particular aspects of his testing, Defendant will have a full opportunity to explore any inconsistencies at trial. Defendant's disagreement with Foscante's methodology and conclusions, however, is not grounds for the exclusion of his opinion.

As to Defendant's concern about the possible overall use of Dr. Foscante's testimony to reconstruct or recreate the conditions of the accident, the Eighth Circuit has found that:

> experimental evidence falls on a spectrum and the foundational standard for its admissibility is determined by whether the evidence is closer to simulating the accident or to demonstrating abstract scientific principles. . . . The closer the experiment gets to simulating the accident, the more similar the conditions of the experiment must be to the accident conditions.

McKnight v. Johnson Controls, Inc., 36 F.3d 1396, 1402 (1994) (citing Fusco v. General Motors

Corp., 11 F.3d 259, 264 (1st Cir. 1993). In McKnight, the court held that the plaintiff's expert testimony should have not been admitted, as the expert's testing went beyond demonstrating abstract principles, and instead simulated the accident, without satisfying the substantial similarity requirement for the admission of such evidence. Id. Here, Plaintiff concedes that Dr. Foscante did not attempt a reconstruction or recreation of Plaintiff's fall. (Plaintiff's Opp'n Mem. at 8 [Doc. No. 104].) The Court finds that Dr. Foscante's proffered testimony primarily is designed to demonstrate abstract scientific principles, as it appears that his testimony will address his efforts to isolate the variables related to Garonguard. Subject to proper foundation, he can opine as to the effect of Garonguard on a glass substrate.

Defendant, citing Jaurequi v. Carter Mfg. Co., Inc., 173 F.3d 1076, 1084 (8th Cir. 1999), also argues that Dr. Foscante's proffered testimony regarding the adequacy of Garonguard's warnings should not be admitted because Dr. Foscante has not suggested alternative language. Plaintiff responds that Dr. Foscante will not be testifying on the sufficiency of Garonguard warnings and instructions, but will instead address the accuracy of the Garonguard literature. Plaintiff has retained expert Tarald Kvalseth to address the sufficiency of warnings and instructions.

In Jaurequi, the plaintiff's warnings experts had not designed a more appropriate warning for the product in question, nor had they tested an alternative warning. Jaurequi, 173 F.3d at 1084. Moreover, one of the warnings experts admitted that he had never read the warnings in question, which had been painted over on the machine in question, a corn head for a combine. Id. While the Eighth Circuit noted the experts' failure to suggest alternative warnings, the primary basis for affirming the exclusion of their testimony was on relevance grounds – the corn

head's warnings had twice been painted over and any inadequacies in the warnings could not have been considered a cause of the plaintiff's injuries. Id. In addition, the evidence demonstrated that the plaintiff's coworkers had verbally warned him against walking in front of the corn head, but he persisted in doing so. Accordingly, the Eighth Circuit concluded that "[t]hese breaks in the causal chain render any insufficiencies in the painted-over Deere warning signs irrelevant,"and found that the failure to warn testimony was properly excluded. The Court finds that Jaurequi is not directly applicable to the facts of this case, or to Dr. Foscante's proffered opinion. Plaintiff avers that Dr. Foscante will not be opining as the adequacy of Garonguard's warnings. Defendant is free to object to, or to move in limine to exclude, portions of any expert's testimony about which it contends the expert lacks sufficient expertise or foundation on which to testify. However, this particular argument, on the facts before the Court, is not a basis for the exclusion of Dr. Foscante's proffered testimony.

As to the relevance of Dr. Foscante's proffered testimony, the Court finds that his proffered opinion is highly relevant. Defendant offers no substantive argument to the contrary, other than its arguments against Foscante's methodology and reliability. Opinion evidence that sheds light on the cause of the accident is the central issue in this case. Such testimony is therefore relevant and will assist the trier of fact. The Court does not find that Dr. Foscante's testimony will unnecessarily confuse the jury. Defendant's motion to exclude the testimony and opinion of Dr. Foscante is denied. Accordingly, Defendant's request for summary judgment based on the exclusion of Dr. Foscante's testimony is likewise denied.

2. Dr. Funk

The Court finds that Dr. Funk's testimony is reliable and admissible, subject to proper

foundation being laid, and with the clear understanding that Dr. Funk, like Dr. Foscante, does not purport to have simulated or recreated the accident. While Plaintiff argues that Dr. Funk lacks expertise related to kinematics or walking, the Court finds that as a biomedical engineer, Dr. Funk possesses the necessary qualifications to render his opinion. Plaintiff also challenges Dr. Funk's experience with ladders and slide-outs and his citations to published literature. Dr. Funk, however, is qualified to provide his opinion regarding ladders, given his past experience and training in biomedical engineering, particularly as it relates to accidents. Plaintiff's concerns regarding Dr. Funk's experience with ladders and slide-outs and references to the published literature may be addressed on cross-examination, but they do not warrant the exclusion of Dr. Funk's testimony.

As to Dr. Funk's methodology, he first reviewed Plaintiff's medical records, inspected the warehouse, including the ladder, floor and trusses, reviewed interviews with persons present at the time of the accident, reviewed 134 photos of the Suttle warehouse and reviewed applicable pleadings in this case. (See Funk Report, Ex. A to Hall Aff. Re: Funk [Doc. No. 100-1].) Based on this information, he then devised tests involving the use of a dummy and a ladder to determine the position in which the dummy would land in different falling or slide-out scenarios. (Id. at 6.) Dr. Funk also explained the basis for his opinion that the ladder did not slip was because people were able to walk on the warehouse floor for significant periods of time without slipping. (Id. at 8-9.) While Plaintiff characterizes Dr. Funk's opinion as being supported by a single dummy simulation, it appears that his opinion is based on more than one dummy test, as clarified in his expert report and deposition testimony.

Plaintiff also argues that Dr. Funk's opinion regarding the coefficient of friction on the

warehouse floor is unreliable and renders his opinion inadmissible. Defendant, however, counters that Dr. Funk's rationale is based on the multiple people who walked multiple steps on the warehouse floor without slipping. (Funk Dep. at 130, Def.'s Ex. 1 Re: Funk [Doc. No. 103-1.) Dr. Funk has explained the basis for this opinion and his testimony will not be excluded on this basis. Again, Plaintiff is free to subject Dr. Funk to fulsome cross-examination on this aspect of his opinion.

As with the arguments posed by Defendant with respect to Dr. Foscante, the existence of contrary expert testimony is not sufficient grounds for the exclusion of an expert's testimony. Although Dr. Knox opines that other variables than those considered by Dr. Funk could explain Plaintiff's fall, experts are not required to rule out every possible alternative explanation of an event for their opinion to be admissible. Lauzon, 270 F.3d at 693. While Dr. Funk focused on other variables different from those identified by Dr. Knox, his opinion is not rendered inadmissible as a result. Again, Plaintiff will be given fair opportunity to challenge Dr. Funk's opinion at trial.

Dr. Funk relies on his experience and training as a biomedical engineer, his review of the medical records and review of the literature. His testimony is both relevant to the central issue of the case and helpful to the trier of fact. To the extent that Plaintiff disagrees with Dr. Funk's methodology and conclusions, Plaintiff may challenge Funk's credibility at trial, rebut his testimony with Plaintiff's own witnesses and submit its own contrary evidence. Plaintiff's Daubert motion as to Dr. Funk, however, is denied.

The Court cautions both parties, however, that neither Dr. Funk nor Dr. Foscante may opine that their opinions are based on a reconstruction or recreation of the accident without a

finding of substantial similarity and a solid foundation for such testimony.[4] McKnight, 36 F.3d at 1405, n.8. At his deposition, Dr. Funk testified that his side fall experiment replicated Plaintiff's fall trajectory in a substantially similar way. (Funk Dep. at 123-24, Def.'s Ex. 1 Re: Funk [Doc. 103-1].) As noted earlier, under McKnight, where an expert purports to testify that experimental evidence simulated an accident, the evidence must satisfy the substantial similarity requirement, whereas evidence demonstrating general scientific principles need not.[5] 36 F.3d at 1402 (citations omitted). From the record before the Court, in the context of the parties' Daubert motions, the experimental evidence about which these experts will testify does not appear to meet the substantial similarity requirement.

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[4] In McKnight, the court addressed the way in which substantial similarity is typically addressed at trial :

> We previously have stated that "[o]rdinarily, dissimilarities affect the weight of the evidence, not its admissibility." Champeau v. Fruehauf Corp., 814 F.2d 1271, 1278 (8th Cir. 1987) (quotation omitted). However, we made this observation only after noting that there must be substantial similarity between the experimental evidence and the actual accident conditions. This statement, therefore, should be read in context and limited in its application to cases where a district court first finds substantial similarity. After the district court makes a finding of substantial similarity, any remaining issues about whether there are remaining dissimilarities that would affect the impact of this evidence are weight of the evidence determinations to be made by the jury. Simply stated, the district court's finding of substantial similarity only gets the evidence before the jury, but the ruling does not tell the jury how much weight to give it.

36 F.3d at 1405, n.8

[5] As the Eighth Circuit noted in McKnight, "many courts also have found that when evidence of experiments is admitted by the trial court for the purpose of merely demonstrating a scientific principle, the trial court should instruct the jury that the evidence is received only for that limited purpose and not for the purpose of reconstructing the accident." Id. at 1403, n.6.

THEREFORE, IT IS HEREBY ORDERED THAT:

1. Hexion's Motion to Exclude Expert Testimony of Dr. Foscante [Doc. No. 84] is **DENIED**; and

2. Plaintiff's Motion to Exclude Expert Testimony of James Funk [Doc. No. 97] is **DENIED**.

Dated: April 23, 2012

s/Susan Richard Nelson
SUSAN RICHARD NELSON
United States District Judge