IN THE UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF IOWA

MARTY S. CUMMINGS,)	
) Case No. 4:06-CV-5	16
Plaintiff,)	
)	
vs.)	
) ORDER	
DEERE & COMPANY,)	
)	
Defendant.)	

THE COURT HAS BEFORE IT three motions filed by defendant Deere & Company ("Deere"): (1) Deere's motion to exclude the testimony of Dr. Charles Roberts ("Dr. Roberts"), filed November 6, 2007 (Docket #29); (2) Deere's motion to strike portions of Dr. Roberts' rebuttal expert disclosure, filed November 6, 2007 (Docket #30); and (3) Deere's motion for summary judgment, filed November 8, 2007 (Docket Number #32). Plaintiff Marty S. Cummings ("Cummings") resisted each motion (respectively at Docket # 34, #33, and #35), and Deere filed a reply to each resistance (respectively at Docket #41, #40, and #42). A hearing on the motions was held on January 18, 2007. The motions are now considered fully submitted.

I. BACKGROUND

Marty Cummings was the owner of a 2004 John Deere Model 9660 STS Combine ("the Cummings combine"). On September 21, 2005, while harvesting soybeans near Malcom, Iowa, the Cummings combine was destroyed by fire ("the fire"). On October 2, 2006, Cummings commenced the present action in the Iowa District Court for Poweshiek County, alleging product

defect and breach of warranty claims against Deere.¹ Deere removed the action to this Court on October 23, 2006.

Dr. Charles Roberts, Ph.D., was retained by Poweshiek Mutual Insurance Association ("Poweshiek"), the insurer of the Cummings combine, shortly after the fire. On September 28, 2005, Dr. Roberts traveled to Malcom and conducted his investigation of the Cummings fire.² On September 29, 2005, Dr. Roberts prepared a report for Steve Hanssen of Poweshiek entitled "Preliminary Analysis of a John Deere Combine Fire" (hereinafter "the first report"). In his first report, Dr. Roberts opined that the fire that destroyed the Cummings combine was caused by "fuel leakage from the fuel tank." First Report at CMA 018.³ Dr. Roberts was unable, however, to conclude what caused the fuel leakage from the tank or what the ignition source was for the leaking fuel. *Id.* at CMA 017.

On April 25, 2007, after the present litigation had commenced, Dr. Roberts prepared a second report, this time for Cummings' attorney David Taylor, entitled "Failure Analysis of a Fuel Tank in a John Deere 2004 9660 STS Self Propelled Combine Harvester (Second Report)" (hereinafter "the second report"). The stated purpose of preparing a second report was "to refine opinions regarding the probable cause of a fire in the combine harvester." Second Report at

¹ Cummings' petition states three counts against Deere - (1) negligence, (2) breach of warranty, and (3) strict liability. Each count relates to the manufacturing, design and/or distribution of the Cummings combine.

² Dr. Roberts' investigation included inspection of the Cummings combine, the field where the combine burned, and interviews of several witnesses to the fire. According to his deposition testimony and invoices, Dr. Roberts billed 11 hours of time spent working on the Cummings matter on September 28, 2005, which included 498 miles of travel to and from Malcom, Iowa. Dr. Roberts spent an additional hour on September 29, 2005 preparing his first report. Roberts Dep. at 42-45 and Defendant's Deposition Exhibit 6.

³ CMA stands for Combined Motion Appendix, found in the record at Docket # 29.

CMA 020. In this report, Dr. Roberts' theory of the cause of the fire was significantly more detailed than his theory in the first report. While his opinion regarding the general cause of the fire which destroyed the combine remained the same – "fuel leakage from the fuel tank" – Dr. Roberts was now able to conclude what caused the initial fuel leak: "ESD⁴ ignited crop debris in and around the fuel tank, causing the fuel tank polymer to fail and develop a hole, which leaked." *Id.* at CMA 027. In Dr. Roberts' opinion, Deere's choice to used polymer components on its combines (including the fuel tank) is a defect "in that insufficient means has been provided to dissipate electrostatic voltages, prevent ESD from igniting crop debris and protect polymer components from ESD generated fires." *Id.*

Dr. Roberts explained that he was able to reach a definitive opinion on the cause of the fire in his second report because "further analysis ha[d] been performed regarding the above captioned loss." *Id.* at CMA 027. Dr. Roberts explained at his deposition that this "further analysis" referred to work that he had done in some other litigation matters that he was involved with between the dates of his first and second reports. Roberts Dep. at 123-24, CMA 096. Dr. Roberts admitted that his "further analysis" did not include any additional testing of the artifacts of the Cummings combine or additional field investigation, or any new discussions or interviews with any of the witnesses to the fire. *Id*.

The other litigation matters referred to by Dr. Roberts are what is collectively known as the "Kansas litigation." In September of 2006 (between the dates of his first and second

⁴ ESD stands for an electrostatic discharge.

⁵ Dr. Roberts was not able to identify an ignition source for the leaking fuel, opining that it was "either by burning crop debris, ESD or other electrical sources." Second Report at CMA 027.

Reports), Dr. Roberts was retained to investigate several John Deere combines which had been damaged by fires in western Kansas. In addition to investigating the damaged combines themselves, Dr. Roberts conducted testing on three other John Deere combines which had not been damaged by fire. In this testing (hereinafter "the Kansas testing"), Dr. Roberts used a device called an electrostatic voltmeter to measure static electrical voltages on various nonconductive surfaces of these three combines shortly after they had been in operation. The testing showed that, at least on the three combines tested, "static electrical voltages can exceed 22 KV." Second Report at CMA 021. While the Kansas testing measured static electrical voltages, it did not document any crop debris fires ignited by a static electrical discharge on the combines tested.

In the course of his work in the Kansas litigation and the present case, Dr. Roberts reviewed a number of John Deere "Dealer Technical Assistance Center" (DTAC) reports (found in the record at CMA 059-081).⁶ In general terms, the DTAC reports reviewed by Dr. Roberts document reports and inquiries made by various Deere equipment dealers regarding problems with static electricity and fires that they have purportedly experienced with various Deere combines. Second Report at CMA 021.

On April 30, 2007, Dr. Roberts spent one hour preparing a one page letter addressed to Cummings' attorney which listed six, single sentence, "proposed design modifications to eliminate the problem" he believes exist on Deere's STS combines. Roberts Letter at CMA 028. This letter, along with Dr. Roberts' first and second reports were disclosed to Deere as part of

⁶ The DTAC is an online reporting system which allows Deere's independent equipment dealers to obtain support for technical, service and maintenance issues pertaining to Deere equipment.

Dr. Roberts' expert disclosure pursuant to Fed. R. Civ. P. 26 in early May 2007.

Deere disclosed the expert report of Mr. Michael Senneff on July 2, 2007 (hereinafter "the Senneff Report"). In addition to offering his own opinion as to the cause of the fire, Mr. Senneff criticized the opinions of Dr. Roberts as "highly speculative, self-contradictory, and generally not supported by the evidence available for review and analysis." Senneff Report at CMA 122. The primary focus of Mr. Senneff's report, as emphasized in his November 5, 2007 affidavit (found at CMA 142 - 146), is that, at the time Dr. Roberts formed his opinions as to the cause of the Cummings fire he did not investigate, test, validate, or indeed, even know several key variables necessary to conclude that ESD was, or even could have been the cause of the Cummings fire.

Mr. Senneff also criticized Dr. Roberts' proposed design modifications as not being supported by any testing, drawings or specifications. Senneff Report at CMA 134. According to Mr. Senneff, Dr. Roberts' provided "no basis, facts, or data tending to establish that his 'proposed design modifications' would have reduced or avoided the foreseeable risks of harm posed by the present design of the Model 9660 STS combine." *Id.*¹⁰

On August 6, 2007, Dr. Roberts disclosed his rebuttal report entitled "Rebuttal of Deere

⁷ Dr. Roberts was deposed on June 19, 2007.

⁸ Mr. Senneff opined that he believes the Cummings fire "was a result of packed crop debris coming in contact with the moving straw chopper drive parts." Senneff Report at CMA 126.

⁹ According to Mr. Senneff, Dr. Roberts did not know the energy value of the spark he claims was generated by ESD on the Cummings combine or the minimum ignition energy of the crop debris he claims was ignited by ESD, in addition to various other things which Mr. Senneff deemed crucial to a proper analysis.

¹⁰ Mr. Senneff was deposed on July 27, 2007.

& Company Analysis of Fire Cause and Origin of a Self-Propelled Combine Harvester" (hereinafter "the Rebuttal Report"). In addition to various general rebuttal opinions, Dr. Roberts set forth for the first time a number of variables and calculations which Mr. Senneff had identified as missing from his initial expert disclosure.

Deere presently moves to have the proposed testimony of Dr. Roberts excluded on the grounds that his conclusions do not meet the basic indicia of scientific reliability required for admissibility under *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579 (1993), and in the alternative to have various portions of Dr. Roberts' rebuttal testimony stricken as improper. Finally, in the event that this Court grants Deere's motion to exclude the testimony of Dr. Roberts, Deere moves for summary judgment on the grounds that Cummings cannot generate a submissible issue of fact on his product defect and breach of warranty claims without the testimony of an expert witness.

II. ANALYSIS AND APPLICABLE LAW

A. MOTION TO EXCLUDE THE TESTIMONY OF DR. ROBERTS

1. Legal Standard

Under the framework developed in *Daubert v. Merrill Dow Pharm., Inc.*, 509 U.S. 579 (1993), "trial courts must serve as "gatekeepers to 'insure that proffered expert testimony is both relevant and reliable." "Wagner v. Hesston Corp., 450 F.3d 756, 758 (8th Cir. 2006) (internal citation omitted). "Trial courts are given broad discretion in fulfilling this gatekeeping role." *Id.* (citing *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 152-53 (1999)).

Under Federal Rule of Evidence 702, the opinion of a qualified expert is admissible if (1)

it is based upon sufficient facts or data; (2) it is the product of reliable principles and methods; and (3) the expert has applied the principles and methods reliably to the facts of the case. Fed. R. Evid. 702. When evaluating an expert's theory against these requirements, *Daubert* provided a list of non-exclusive factors courts are to consider: (1) whether the theory or technique can be (and has been) tested; (2) whether the theory or technique has been subjected to peer review and publication; (3) whether the theory or technique has a known or potential error rate and standards controlling the technique's operation; and (4) whether the theory or technique is generally accepted in the scientific community. *Smith v. Cangieter*, 462 F.3d 920, 923 (8th Cir. 2006) (citing *Daubert*, 509 U.S. at 592-94). Eighth Circuit precedent provides additional factors which may be relevant such as: "whether the expertise was developed for litigation or naturally flowed from the expert's research; whether the proposed expert ruled out other alternative explanations; and whether the proposed expert sufficiently connected the proposed testimony with the facts of the case." *Lauzon v. Senco Products, Inc.*, 270 F.3d 681, 687 (8th Cir. 2001).

2. Analysis

The primary point of disagreement between the two experts in this case is the issue of whether an electrostatic charge with sufficient energy to ignite crop debris could have, and indeed did, develop on the Cummings combine. The issue properly before this Court is whether Dr. Roberts used reliable principles and methods to reach his conclusion that such a sufficient charge can and did exist. For the reasons discussed below, this Court finds that Dr. Roberts failed to use reliable principles and methods in reaching his opinions in this case, and therefore,

Deere's motion to exclude the testimony of Dr. Charles Roberts is granted.¹¹

a. "General Acceptance"

The first factor this Court finds relevant is whether Dr. Roberts' theory or technique is generally accepted in the scientific community. Both experts in this case seem to agree that burning crop debris was the likely cause of the Cummings fire. Neither expert disputes the fact that static electricity frequently builds up on agricultural equipment such as a combine. Furthermore, it appears to be generally accepted and well-documented that an electrostatic discharge of sufficient energy can ignite certain combustible materials. *See* Senneff Dep. at 44-45 (in the record at Docket #34). Cummings argues that because of this basic agreement about the underlying science, "Dr. Roberts should be allowed to testify to the jury." Plaintiff's Br. at 8 (Docket #34). This Court disagrees.

There is nothing in the record to suggest that it is generally accepted in the scientific community that *any* combine, let alone the Deere 9660 STS series, can generate a static electrical charge with sufficient energy to ignite accumulated crop debris. It is not enough to simply argue that because it is generally accepted that static electricity can generate on a combine and that an electrostatic discharge can ignite certain combustible materials, then by extension, Dr. Roberts' theory of the fire in this case is generally accepted in the scientific community. To the contrary, Plaintiff's counsel acknowledged that Dr. Roberts' theory is "generally new." Motion Hearing Tr. at 42. Dr. Roberts himself acknowledged that "this ESD related fire phenomenon appears to be unique to Deere STS combines." Rebuttal Report at

Given that the Court grants Deere's motion to exclude, Deere's motion to strike portions of Dr. Roberts' testimony will not be addressed, as the issue is moot.

CMA 047; *see also* Roberts Dep. 190:11-19, CMA 106D (stating that he is "not aware of any other manufacturer that has such a problem"). Dr. Roberts has presented no publications or data to suggest that his theory presented in this case - *i.e.* that a Deere 9660 STS combine (or any combine for that matter) can generate a static electrical discharge capable of igniting accumulated soybean debris - is "generally accepted." This factor, therefore, weighs against the admissibility of Dr. Roberts' testimony.

b. "Peer Review"

The next factor to consider is whether Dr. Roberts' theory or technique has been subjected to peer review. Dr. Roberts openly admitted that his underlying theory has not been subjected to peer review or publication. Roberts Dep. at 132-35, CMA 097-098. At the hearing, however, Cummings brought to the Court's attention that there may be some constraints on Dr. Roberts' ability to submit his theory for peer review based on a confidentiality order from the previous litigation in which Dr. Roberts generated some of the information necessary to support his theory. As such, while the Court does not necessarily hold that this factor weighs against the admissibility of Dr. Roberts' testimony, the fact remains that there is no evidence of peer review or publication to support Dr. Roberts' admittedly "new" theory. This certainly makes it all the more necessary that Dr. Roberts' theory be supported by other indicia of reliability.

c. Testing

The next factor which the Court finds relevant is whether Dr. Roberts' theory or technique can be (and has been) tested. It appears undisputed that the only testing offered by Dr. Roberts to support his opinion as to the cause of the Cummings fire was the work that he did in the Kansas litigation. Roberts Dep. at 165, CMA 105. Dr. Roberts relies heavily on the Kansas

testing, as he must, because he made no effort to re-examine or re-test any of the physical artifacts from the Cummings combine and made no effort to re-interview any of the witnesses to the fire in drafting his second report.¹²

As detailed above, in the Kansas testing Dr. Roberts used a device called an electrostatic voltmeter to measure static electrical voltages on various nonconductive surfaces of three Deere combines shortly after they had been in operation. He did not document fires on the three combines tested. Dr. Roberts did no testing or mathematical analysis to quantify, even as a rough estimate, how much energy would be present in a potential electrostatic charge generated by any of the three combines tested. At the time of his expert disclosure in the present litigation, Dr. Roberts assumed the same voltages measured in the Kansas testing, yet again failed to provide any testing or mathematical analysis to quantify how much energy would be present in a potential electrostatic charge generated by the Cummings combine, or whether the energy present in such an electrostatic charge would be sufficient to ignite soybean debris.

The Kansas testing did not document that an electrostatic discharge at the level measured

The other new piece of information Dr. Roberts relied on in this second report are the DTAC reports, which will be discussed more fully below.

Both experts seem to agree that the generally accepted formula used to calculate the energy available in a capacitive spark discharge requires knowing both the charged voltage and the capacitance of the charged body. Senneff Dep. 158-161, CMA 148-150. (Capacitance refers to a measure of a materials ability to retain or store an electrical charge). Dr. Roberts testified that he did not know the capacitance of the Cummings combine at the time of his expert disclosure, nor did he find it to be relevant to his opinions. Roberts Dep. at 165, CMA 105.

To determine whether a given spark energy is sufficient to ignite a particular substance, it is necessary to know the minimum ignition energy (MIE) of the substance in question. Dr. Roberts testified that he did not know the MIE of soybean debris at the time of his expert disclosure, nor had he considered it. Roberts Dep. at 158-59, CMA 103-104.

in the Kansas testing either caused soybean debris to ignite or was of a sufficient energy level to ignite soybean debris – it merely measured voltage. Without doing the necessary work to determine whether the voltages measured in the Kansas testing were sufficient to ignite soybean debris on the Cummings combine, this Court concludes that, at the time of Dr. Roberts' expert disclosure, "there [was] simply too great an analytical gap between the data and the opinion proffered," *Gen. Elec. Co. v. Joiner*, 522 U.S. 136, 146 (1997), for Dr. Roberts' opinion that the Cummings combine generated an electrostatic discharge of sufficient energy to ignite soybean debris to be reliable.¹⁴

In his rebuttal report, Dr. Roberts attempted to set forth calculations which he claims establish that there is sufficient energy "available in a Deere combine" to ignite accumulated soybean debris. Rebuttal Report at CMA 041. In addition, Dr. Roberts cites to several publications purporting to show the minimum ignition energy for soybean debris. *Id.* at CMA 040 - 041. Deere argues that Dr. Roberts' attempt to interject such calculations and corresponding opinions in his rebuttal report is improper.¹⁵ Cummings claims that Dr. Roberts'

The Court also notes that Dr. Roberts admitted at this deposition that he did not observe *any* crop debris in the vicinity of the fuel tank when he conducted his only investigation of the Cummings combine. Roberts Dep. at 113, CMA 094. In fact, Dr. Roberts first report, drafted on the day after his *only* investigation of the Cummings fire, makes no mention of accumulated crop debris at all, let alone that the ignition of accumulated crop debris was a likely cause of the fire. Roberts Dep. at 116-117, CMA 094 - 095. After completing his Kansas testing, Dr. Roberts made no effort to re-examine any of the physical artifacts from the Cummings combine, or have them tested, and made no effort to re-interview any of the witnesses to the fire. Furthermore, Dr. Roberts theorized that crop debris had been ignited on the fuel tank without identifying, and indeed testifying he could not identify, where on the fuel tank the crop debris had been ignited. Roberts Dep. at 117, CMA 095.

Dr. Roberts' calculations are the primary focus of Deere's motion to strike portions of Dr. Roberts' testimony.

belated calculations and corresponding opinions are proper rebuttal testimony because the purpose was "to directly rebut allegations by Deere's experts of deficiencies in Dr. Roberts' ESD theory." Plaintiffs' Br. at 8 (Docket #33).

This Court disagrees. As it relates to the variables and calculations discussed above, Mr. Senneff's expert report did not offer substantive opinions. He merely pointed out that Dr. Roberts *did not know* several variables and *had not done* several calculations which were necessary, in Mr. Senneff's opinion, to support his opinions. Yet in "rebuttal," Dr. Roberts attempted to cure these alleged deficiencies by offering the very calculations and variables which he openly *admitted* that he had not done and did not know, in fact, testifying that they *were not relevant*. Performing calculations and belatedly considering variables which an opposing expert correctly points out you did not do or know, and which you admitted you did not do or know, is not rebuttal – it is clearly the interjection of new opinion evidence. In this Court's view, such tactics weigh heavily in favor of finding that Dr. Roberts' opinions are not reliable, and are, in fact, a results-driven product of litigation.

Dr. Roberts' belated attempts to create a scientific basis for his opinions are a tacit admission on his part that his opinions were not properly founded when they were formed. The issue of any validity of Dr. Roberts' rebuttal calculations aside, there is no question that Dr. Roberts formed his primary opinion in this case – i.e. that an electrostatic discharge ignited crop debris on the Cummings combine – without knowing variables and without having done calculations necessary to render a reliable opinion.¹⁶

The Court does not consider the "rate of error" factor particularly relevant given that Dr. Roberts' "testing" (i.e. - the Kansas testing), even if done in a scientifically reliable way, has no bearing on whether the results of the Kansas testing allowed Dr. Roberts to reach reliable

d. Other Considerations

Several additional factors are relevant to the Court's analysis in this case. First, the Court finds that the specific development of Dr. Roberts' theory within the context of litigation weighs heavily against the admission of his testimony. *See Lauzon*, 270 F.3d at 687. Dr. Roberts drafted his first report on September 29, 2005. Over a year and a half later, several days before the deadline for Cummings' expert disclosure, Dr. Roberts had a conversation with plaintiff's counsel during which the idea to draft a second report arose. Dr. Roberts admitted at his deposition that the idea to draft a second report was not his own, but rather was the idea of plaintiff's counsel, Mr. Taylor. Roberts Dep. at 106-07, CMA 093A. According to Dr. Roberts, it was Mr. Taylor's idea to have Dr. Roberts draft a second report in order to "refine opinions on this matter as the process proceeds." *Id.* Prior to the conversation with Mr. Taylor on April 25, 2007, Dr. Roberts testified that he had not contacted anyone about refining the opinions he expressed in his first report. *Id.*

After his conversation with Mr. Taylor, Dr. Roberts drafted his second report, which incorporated information from the Kansas testing, and reached his final conclusion about the cause of the Cummings fire. Dr. Roberts admitted that he did no additional testing on the Cummings combine or additional field investigation. Roberts Dep. at 124, CMA 096. He made no attempt to talk to, re-interview, or obtain any additional information from any of the witnesses to the Cummings combine fire. Roberts Dep. at 175, CMA 101. He did no testing or mathematical analysis to quantify, even as a rough estimate, how much energy would be present in an electrostatic charge generated by the Cummings combine. Under these particular

conclusions in the present case.

circumstances, the Court finds it troubling that Dr. Roberts significantly revised his theory of the cause of the fire several days before his disclosure was due, and only after prompting from counsel.¹⁷

Second, there is little evidence in the record that Dr. Roberts made efforts to rule out other alternative explanations for the Cummings fire after he had developed his ESD theory of the cause of the fire. See Lauzon v. Senco Products, Inc., 270 F.3d 681, 687 (8th Cir. 2001); see Indiana Ins. Co. v. General Elec. Co., 326 F. Supp. 2d. 844, 849-50 (N.D. Ohio 2004) (noting from National Fire Protection Association 921 ("a recognized guide for assessing the reliability of expert testimony in fire investigations") that "[a]ll other reasonable origins and causes should be eliminated."). In his first report, immediately after his *only* investigation of the physical evidence of the fire, Dr. Roberts was unable to conclude what had caused the Cummings fire. He admitted at his deposition that there are a number of documented causes of crop debris fires on combines, including documented instances of various crop debris fires in the area where the Cummings combine occurred. Roberts Dep. at 154, CMA 102.¹⁸ Yet, without conducting any new analysis of the actual fire at issue or re-interviewing any witnesses, Dr. Roberts concluded in his second report that ESD had ignited crop debris on the Cummings combine. While the requirement that an expert rule out other possibilities in forming his or her opinion "cannot be carried to a quixotic extreme," Lauzon, 270 F.3d at 691, this Court does not find evidence in the

The Court also notes that the record shows no evidence of any work done by Dr. Roberts in developing his theory of electrostatic discharge related fires outside the realm of retained litigation work.

On this point, Dr. Roberts admitted that he did even not know when the Cummings combine had last been cleaned of crop debris, nor did he find such information relevant to his opinion. Roberts Dep. at 176-77.

record to suggest that Dr. Roberts did much of anything to exclude other possibilities once he formed his new opinion that ESD was the cause of the Cummings fire.¹⁹

3. Conclusion

Based on the relevant factors discussed and analyzed above, this Court finds that Dr.

Roberts proposed testimony does not meet the basic indicia of scientific reliability required for admissibility under *Daubert*. Deere's motion to exclude the testimony of Dr. Charles Roberts is granted.²⁰

B. MOTION FOR SUMMARY JUDGMENT

Deere argues that summary judgment must be granted in this case because Iowa law requires expert testimony in a "technically complicated case such as this." Def. Br. at 5 (Docket #42) (citing *James v. Swiss Valley AG Service*, 449 N.W.2d 886, 890 (Iowa Ct. App. 1989)). Given that this Court has granted Deere's motion to exclude the testimony of Dr. Roberts, Deere

Dr. Roberts points to the DTAC reports as other new evidence he had in his possession at the time of his second report which allowed him to reach a definitive conclusion as to the cause of the fire. The Court is skeptical about the value of these reports. While the DTAC reports ostensibly document problems with fires and static electricity that have been seen with various Deere combines, Dr. Roberts did not personally investigate any of these fires with the exception of those involved in the Kansas litigation. Furthermore, Dr. Roberts testified that the only DTAC reports he received for review were those which related to combine fires and static electricity. Roberts Dep. at 127. He was not provided, and did not request, DTAC reports relating to combine fires where there is no reference to static electricity, and thus, could do no comparison between the two. *Id.* Finally, Dr. Roberts testified that he was not aware of any evidence that anyone associated with the Cummings combine had experienced or witnessed any electrostatic discharge. Roberts Dep. at 169, CMA 106.

The Court notes that Deere asserted two grounds in its motion to exclude: (1) the failure under *Daubert* of Dr. Roberts' testimony as to the cause of the fire; and 2) the failure under *Daubert* of Dr. Roberts' proposed alternative designs. The Court finds it unnecessary to reach Deere's second ground for exclusion, as it grants Deere's motion on the first ground.

argues that "[w]ithout Dr. Roberts' proposed testimony, Plaintiff's claims fail as a matter of law." Def. Br. at 1 (Docket #32). Cummings claims that *even without* Dr. Roberts testimony there is sufficient evidence – namely the DTAC reports, so-called "admissions" by Deere's expert, and Deere's alleged failure to investigate, and hence warn of, static electrical discharge related problems with its combines – to submit to a jury the question of whether the fire was a result of a manufacturing defect, a design defect, and/or Deere's failure to warn. Plaintiff's Br. at 4-5 (Docket #35). For the reasons discussed below, this Court agrees with Deere.

The Iowa Supreme Court adopted sections 1 and 2 of the Restatement (Third) of Torts:

Product Liability for product defect cases. See *Wright v. Brooke Group, Ltd.*, 652 N.W.2d 159, 169 (Iowa 2002). Iowa law (under the Restatement) does not, in all instances, require expert testimony in a products liability case to generate a jury issue. *See Benedict v. Zimmer, Inc.*, 405 F. Supp. 2d 1026, 1032 (N.D. Iowa 2005) (quoting *Reed v. Chrysler Corp*, 494 N.W.2d 224, 226-27 (Iowa 1992)) (noting that "when the issues presented relate to matters which require only common knowledge and experience to understand them, the testimony of experts is not essential."). However, "[w]hether expert testimony is required ultimately depends on whether it is a fact issue upon which the jury needs assistance to reach an intelligent or correct decision . . . [D]esign defect cases sometimes involve technical, scientific issues which cannot be fully understood by the average juror without some expert assistance. In such cases, expert testimony as to the defective nature of defendant's design will be an *indispensable element* of plaintiff's case." *Id.*

This Court holds that the present action involves complicated technical and scientific issues such that expert testimony is required to submit the issue of a product defect to a jury

under Iowa law. ²¹ Given the Court's earlier decision to exclude the testimony of Dr. Roberts, Cummings has failed to present sufficient evidence – i.e. expert testimony as to the defective nature of Deere's product – to submit this case to a jury. Cummings' claim of product defect fails as a matter of law. ²²

Cummings maintains, however, that *even if* the testimony of Dr. Roberts is excluded, there is sufficient evidence of a manufacturing defect to submit the issue to a jury. This Court disagrees. The evidence, according to Cummings, are "Deere's own DTAC reports" which show "that the Deere combines deviated from their intended design and were not supposed to generate static charges and burst into flames." Plaintiff's Br. at 2 (Docket #35). While the Court doubts that Deere would disagree with Cummings' assertion that Deere did not intend for its combines to "generate static charges and burst into flames," the largely anecdotal evidence found in the DTAC reports is not a substitute for the expert testimony required under Iowa law for jurors to understand the complicated technical issues raised in this case.²³

The Court notes that Cummings offers no explicit argument that this is not the case.

[&]quot;[W]arranty liability under [Iowa law] requires proof of a product defect as defined in Products Restatement section 2." *Wright v. Brooke Group, Ltd.*, 652 N.W.2d 159, 182 (Iowa 2002). Therefore, because Cummings cannot, as a matter of law, establish a product defect, his breach of warranty claim fails as a matter of law as well.

Even if this were not the case, Cummings' argument on this point fails. The *Wright* Court held that "under Iowa law, a plaintiff may not recover . . . under a manufacturing defect theory when the [products in question] were in the condition intended by the manufacturer." *Wright*, 652 N.W.2d at 178. "The issue is whether the product was rendered unsafe by an error in the manufacturing process." *Id.* (internal citation omitted). Properly understood, "[a] manufacturing defect exists only where an item is substandard when compared to other identical units off of the assembly line." *Id.* (internal citation omitted). There has been no evidence, including the DTAC reports, to suggest that the <u>Cummings combine</u> had a manufacturing defect. To the contrary, Dr. Roberts' entire theory in this case is that it is the *design* of the STS combines - *i.e.* the use of polymer parts - that is defective.

Cummings next argues that there is sufficient evidence of a design defect to submit the issue to a jury because Deere's expert "admitted that the foreseeable risks of electrical build-up posed by the new polymer parts could have been reduced or avoided by the adoption of a reasonable alternative design, such as using metal for such parts, as had been previously done." Plaintiffs' Br. at 4 (Docket #35). Senneff further "admitted that Deere's new polymer parts and fuel tanks were not as conductive of static electricity as the older metal parts and metal fuel tanks the polymers replaced." *Id.* These "admissions," according to Cummings, create a sufficient question of fact "for the Jury to determine if going back to the use of metal parts would have been a reasonable alternative to the electrical charge inducing polymer parts." *Id.* Again, the Court disagrees.

While Mr. Senneff did "admit" that Deere previously used more metal parts on its combines and that metal parts are more conductive than their polymer counterparts, this has little bearing on the central issue in this case -i.e. whether the <u>Cummings fire</u> was the result of a product defect. Mr. Senneff certainly does not admit that the Cummings fire was the result of an electrostatic discharge caused by the use of polymer components as opposed to metal. Without the testimony of Dr. Roberts, Cummings does not have sufficient evidence that a product defect caused the damage to the Cummings combine.

Cummings finally argues that Mr. Senneff admitted that Deere had not done "any testing to determine the level of static electrical discharge that might be held on the surface of its polymer panels" *even after* is was alerted to problems with such a phenomenon by the DTAC reports. Plaintiff's Br. at 5 (Docket #35). According to Cummings, because Deere had "never bothered to investigate" the danger of static electrical buildup and its polymer fuel tanks, "a fact

question exists for the Jury to decide if adequate warnings were given." Id.

Even if the Court were to accept Cummings' characterization of Mr. Senneff's testimony,

Cummings' "failure to warn" claim still fails as a matter of law. Under Iowa law, a plaintiff

asserting a "failure to warn" claim must establish that "the omission of the instructions or

warnings renders the product not reasonably safe." Restatement (Third) of Torts: Product

Liability at § 2(c)(emphasis added). For the same reasons discussed above, without the

testimony of Dr. Roberts Cummings does not have sufficient evidence that the Deere 9660 STS

was not reasonably safe. Deere's motion for summary judgment is granted.

III. CONCLUSION

For the foregoing reasons, Deere's motion to exclude the testimony of Dr. Charles

Roberts, and motion for summary judgment are GRANTED. Deere's motion to strike portions

of the testimony of Dr. Charles Roberts is denied as moot.

IT IS ORDERED.

Dated this 7th day of February, 2008.

RØNALD E. LOMGSTAFF, Senior Judge

United States District Court

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