UNITED STATES DISTRICT COURT NORTHERN DISTRICT OF ILLINOIS EASTERN DIVISION

LaDON LOTT,)
Plaintiff,)
v.) No. 10 CV 1686
ITW FOOD EQUIPMENT GROUP LLC,) Judge Rebecca R. Pallmeye
Defendant.)

MEMORANDUM OPINION AND ORDER

Plaintiff LaDon Lott, a food service assistant at Ingalls Memorial Hospital, suffered severe injuries to her right hand and arm while cleaning the hospital's food waste disposal system. The hospital's Hobart WS 1000 Waste Equipment System was designed and manufactured by Defendant ITW Food Equipment Group, LLC. In this lawsuit, Plaintiff seeks recovery from ITW for design defect and failure to warn under products liability and negligence theories. In support of her claims, Plaintiff has offered the opinions of two experts: Ronald Lobodzinski, a mechanical engineer, and Richard Kragh, an electrical engineer. Defendant moves to exclude the opinions and testimony of both of these witnesses. Plaintiff also disclosed a rebuttal expert, Howard Sarrett, a mechanical engineer, and Defendant has moved to strike Plaintiff's rebuttal disclosure as untimely. Finally, Defendant has moved for summary judgment on Plaintiff's design defect and failure to warn claims. For the reasons set forth below, Defendant's motion to exclude the opinions and testimony of Ronald Lobodzinski [176] is granted in part and denied in part; Defendant's motion to exclude the opinions and testimony of Richard Kragh [179] is granted in part and denied in part; Defendant's motion to strike Plaintiff's rebuttal disclosure [191] is denied; and Defendant's motion for summary judgment [182] is denied.

BACKGROUND

The facts are drawn from the pleadings and the parties' Local Rule 56.1 submissions. On October 17, 2009, Plaintiff LaDon Lott (hereinafter "Plaintiff" or "Lott") was injured while cleaning

a commercial waste equipment system designed and manufactured by Defendant ITW Food Equipment Group, LLC (hereinafter "ITW"). (PI.'s 56.1 Resp. [198] ¶¶ 1-2.) Lott worked as a food service assistant at Ingalls Memorial Hospital. (*Id.* ¶ 18.) ITW manufactures and sells commercial food equipment under several brand names, including "Hobart." (*Id.* ¶ 6.) ITW manufactured the Hobart model WS 1000 waste equipment system involved in Lott's injury. (*Id.* ¶ 17.) In 2003, ITW sold the WS 1000 to Aramark American Food Services, Inc. (hereinafter "Aramark"), and delivered it to Ingalls Memorial Hospital with the understanding that Ingalls Memorial Hospital was the end user. (*Id*; Kelly Dep. Part 1, Ex. J to PI.'s 56.1 Resp., at 86.)

I. Hobart WS 1000

A. Operation

The WS 1000 is a commercial grade waste disposal system used to turn large amounts of kitchen waste (e.g., food scraps, paper cups and napkins, plastic utensils) into compact pulp for disposal. (Pl.'s 56.1 Resp. ¶ 6.) A photograph of the system is attached to this opinion as Appendix 1.¹ The system consists of two primary sections: the pulper and the water press. (Id. ¶ 7.) The pulper is a cylindrical machine that turns kitchen waste into pulp. Raw kitchen waste is placed into a trough where it is washed into the pulper by a stream of water. (Id. ¶ 8.) The pulper's drum unit spins and grinds the solid waste while adding water, turning the mixture into a liquid slurry. (Id. ¶ 9; Lobodzinski Rpt., Ex. E to Pl.'s 56.1 Resp., at 4.) The slurry is then pumped from the bottom of the pulper into the water press. (Id.) The water press is housed in a rectangular tower connected to the pulper. The water press, as the name suggests, squeezes water out of the slurry. When the waste reaches the top of the water press, it has become a compact pulp resembling thick pieces of confetti. (Id. ¶ 10; Lobodzinski Rpt. at 4.) At the top of the water press, two rotating blades—also referred to as "wiper plates"—push the pulp into a discharge chute, which extends downward at a forty-five degree angle from the upper portion of the water press tower side

See also Def.'s Mem in Supp. of Mot. for Summ. J. [186] at 3-4.

opposite the pulper. (*Id.* ¶ 11.) The WS 1000's operator controls are located on the front of the water press tower and include the following: an "On" button, which turns on the water, fills the pulper section with water, and then starts the pulper; an "Off" button, which shuts off the water and the pulper and water press motors; and a "Clean Cycle" button, which starts the cycle to clean the inside of the water press for a preset time, after which the system shuts down. (*Id.* ¶ 13.) In addition, ITW provided a main control box with a power disconnect switch, which was mounted on a wall nearby. (*Id.* ¶ 14.)

The discharge chute lid, which runs the full length of the top of the chute, guards against the hazard posed by the rotating blades inside the water press. (Kelly Dep. Part 3, Ex. K to Pl.'s 56.1 Resp., at 65-66.) The discharge chute lid is equipped with a safety device, referred to as an interlock, designed to cut power to the system automatically if the lid is opened exposing the blades during operation. (Pl.'s 56.1 Resp., ¶ 12; Lobodzinski Rpt. at 6-7; Lobodzinski Dep., Ex. D to Pl.'s 56.1 Resp., at 36-38, 40-41.) If the discharge chute cover interlock is working correctly, the system cannot be started when the discharge chute lid is open, and the system shuts down if the lid is opened while the system is running. (Schlieper Dep., Ex. M to Pl.'s 56.1 Resp., at 51.)

B. Warnings and Instructions

ITW affixed two different warnings to the WS 1000. Photographs of the warnings are attached as Appendix 2 to this opinion. (Pl.'s 56.1 Resp. ¶ 14.) The first warning depicts an image of a hand crushed between two gears and contains the following statements:

- Rotating parts inside
- Keep hands out
- Do not operate without:
 - 1. Electrical interlock on pulper cover or door and/or
 - 2. Electrical interlock on water press discharge chute
- Disconnect electrical power at disconnect switch before cleaning or servicing

(*Id.* ¶ 14.) This warning appears on the side of the pulper, on the side of the water press tower opposite the discharge chute, and on the discharge chute itself. A second warning states: "Disconnect electrical power supply to this unit prior to servicing any parts." (*Id.* ¶ 15.) The second warning is located near the top right corner of the water press tower above the discharge chute, and in the same location on the side opposite the tower. This warning also appears below the power disconnect switch on the bottom right corner of the wall-mounted control box.

Lott testified that she was aware of these warnings, but that she understood the warning to "[k]eep hands out" applied only when the system was running; she testified that she had in fact been trained to clean the discharge chute by hand. (Lott Dep., Ex. A to Pl.'s 56.1 Resp., at 61-62, 65, 209-10.) Aramark's patient services manager, Jennifer Aidinovich, who supervised the Ingalls Hospital employees, testified that she believed this warning prohibited reaching into the discharge chute. (Aidinovich Dep., Ex. C to Pl.'s 56.1 Resp., at 14, 25-26, 59.) Aidinovich acknowledged, however, that she had seen Ingalls employees clean the chute by hand. (*Id.* at 61.) Aidinovich admitted, further, that in spite of the general warning to "[k]eep hands out," employees were permitted to clean inside the trough by hand so long as the power was disconnected. (*Id.* at 57, 64-66.)

In addition to the posted warnings, the instruction manual included the following language:

WARNING: THE PULPER COVER AND THE DISCHARGE CHUTE ARE EQUIPPED WITH INTERLOCK DEVICES. THE PULPER COVER MUST BE IN PLACE, THE DISCHARGE CHUTE LID MUST BE CLOSED, AND THE DISCHARGE CHUTE MUST BE LOWERED BEFORE THE MACHINE IS USED.

(PL's 56.1 Resp. ¶ 16.) (emphasis in original). Although the warnings above, and the WS 1000 manual, refer to the interlocks, they do not explain what an interlock is or how to test an interlock to ensure it is functioning. (Kelly Dep. Part 3 at 45-48.) Aidinovich testified that she had access to the WS 1000 manual, but had not read it. (Aidinovich Dep. at 72-73.) It is not clear from the record where this manual was kept, or whether food service assistants, such as Lott, had access to it, but Lott herself never saw the manual. (Lott Dep. at 53.)

C. Cleaning

The WS 1000 required regular cleaning. (Schlieper Dep. at 53.) Kitchen employees at Ingalls Memorial Hospital cleaned the system three times a day. (Def.'s Resp. to Pl.'s 56.1 Add'I [208] ¶ 2.) Aidinovich explained that cleaning the WS 1000 involved six basic steps: (1) disconnect the power at the wall-mounted disconnect switch (Aidinovich Dep. at 55-56); (2) drain the water (*id.* at 66); (3) remove the trough lid, and spray out, or remove by hand, any debris in that area (*id.* at 57, 66); (4) open the water press tower and spray down the cylindrical colander² located inside (*id.* at 56, 66); (5) open the discharge chute and remove any of the debris inside (*id.* at 57-58, 66); (6) replace all of the lids and press the "Clean Cycle" button to activate the clean cycle. (*Id.* at 66-67.)

There is some disagreement regarding the proper procedure for cleaning the discharge chute. Lott was trained to clean the WS 1000 by two other hospital employees. (Pl.'s 56.1 Resp. ¶ 19; Lott Dep. at 51.) Lott asserts that these employees trained her to clean the discharge chute by hand. (Def.'s Resp. to Pl.'s 56.1 Add'l ¶¶ 1-2.) According to Lott, she was instructed to press the "Off" button on the front of the water press tower and disconnect the power supply on the main control box before cleaning. (Pl.'s 56.1 Resp. ¶ 19.) Then, after the system was turned off and the power disconnected, she was to open the lid to the discharge chute and reach into the chute to remove any excess waste that had collected inside. (Def.'s Resp. to Pl.'s 56.1 Add'l ¶¶ 1-2.) Lott understood that the system would not run if any door or lid–such as the lid to the discharge chute–were opened. (Id. ¶ 3.)

Aidinovich testified that employees were not to clean the discharge chute by hand, but instead were to use a high pressure hose. (Aidinovich Dep. at 58.) As noted, however, Aidinovich had observed Ingalls employees cleaning the chute by hand. (*Id.* at 61.) Steve Graff, another

The record contains no description of the colander or its purpose.

Ingalls food service assistant³, also testified that employees were not supposed to reach into the discharge chute, and that his practice was to use a hose to clean the chute. (Graff Dep., Ex. B to Pl.'s 56.1 Resp., at 26-28.) But Graff, too, had seen other hospital employees, including Lott, clean the chute by hand before Lott's injury. (*Id.* at 27-29.)

II. Lott's Injury

On October 17, 2009, Lott was injured while manually removing waste from the discharge chute. Lott and Graff offer slightly differing accounts of the events leading up to Lott's injury. Lott testified that she and Graff were cleaning the WS 1000 together. (Lott Dep. at 80-81.) Graff was to clean a portion of the conveyor belt and clean out the pulper drum, while Lott was to clean another portion of the conveyor belt and the discharge chute. (Id. at 81, 83-85.) Lott testified that she first pressed the "Off" button, shutting off the water and the pulper and water press motors. (Pl.'s 56.1 Resp. ¶ 21.) Next, she cleaned her portion of the conveyor belt. (Lott Dep. at 86-87.) Meanwhile, Graff was at the other end of the system cleaning his portion of the conveyor belt. (Id. at 88.) After Lott finished cleaning the conveyor belt, she disconnected the power at the disconnect switch on the wall-mounted control box. (Pl.'s 56.1 Resp. ¶ 21; Lott Dep. at 85-87, 151.) Lott then raised the discharge chute lid to begin removing waste from the chute. (Pl.'s 56.1 Resp. ¶ 21; Lott Dep. at 86-87.) Lott reached her right arm into the discharge chute up to her shoulder. (Pl.'s 56.1 Resp. ¶ 22; Def.'s Resp. to Pl.'s 56.1 Add'l ¶ 4.) Lott claims that Graff turned the system on, causing the wiper plates inside the discharge chute inlet to spin, seriously injuring her hand and arm. (Pl.'s 56.1 Resp. ¶ 23; Def.'s Resp. to Pl.'s 56.1 Add'l ¶ 4.) Lott's arm became entrapped in the discharge chute and she quickly reached over with her left hand and "jiggled" the wall-mounted

At the time of the incident, both Graff and Lott held the title "food service assistant." Lott had been employed by Ingalls Memorial Hospital for two years (Lott Dep. at 31), and Graff had been by employed by Ingalls Memorial Hospital for thirty-one years. (Graff Dep. at 8.) Lott received training on the operation and cleaning of the WS 1000 from two other hospital employees, not Graff. (Pl.'s 56.1 Resp. ¶ 19; Lott Dep. at 51; Graff Dep. at 25.) The record does not reflect whether Graff had a supervisory role, or whether his seniority gave him any authority over Lott.

power disconnect switch. (Pl.'s 56.1 Resp. ¶ 26.) The machine stopped; Lott is not sure whether she turned the system off when she jiggled the wall-mounted power disconnect switch, or if Graff turned the system off at the control panel on the water press tower. (Lott Dep. at 94-96.)

Graff's description of the incident differs. Graff explained that cleaning the WS 1000 was his responsibility, but that Lott often assisted him. (Graff Dep. at 22, 24.) Graff testified that, before Lott was injured, he had begun cleaning the system by himself. (*Id.* at 29-30.) According to Graff, at some point before the accident, Lott turned the system off at the control panel on the water press tower. (*Id.* at 68-69.) Graff testified that he believed the power had not been disconnected at the wall-mounted disconnect switch, although he does not claim he actually observed the disconnect switch. (*Id.* at 30-31, 33-34.) He testified that he saw Lott cleaning the conveyor belt, but that he did not know that she was going to clean the discharge chute. (*Id.* at 35-36.) Graff then turned the system on by pressing the "Clean Cycle" button, without looking back at the water press tower where Lott was standing with her arm inside the discharge chute. (*Id.* at 32, 69, 76.) Graff heard Lott scream and immediately pressed the "Off" button on the water press tower, stopping the system. (*Id.* at 33, 76.) Graff testified that he did not reconnect the power at the wall-mounted disconnect switch before he pressed the "Clean Cycle" button. (*Id.* at 32, 69, 76.)

III. Interlock Failure

The parties and their experts agree that at the time of the incident, the interlock on the discharge chute lid, which prevents the WS 1000 from operating if the lid is open, was not functioning. (Pl.'s 56.1 Resp. ¶ 27.) The interlock consisted of a reed switch—that is, an electrical switch composed of a set of metal contacts, referred to as "leads" or "reeds," which are sealed inside a glass tube. (Kelly Dep. Part 1 at 53-54, 55.) When the reeds are separated—the switch's default position—the result is an open circuit, which prevents electrical current from passing through the switch. (*Id.* at 54.) When a magnet is brought into close proximity to the switch, the magnetic field causes the reeds to contact one another, closing the switch, completing the circuit, and

permitting power to flow through the system. (*Id.*) The reed switch on the WS 1000's discharge chute lid was attached to the housing of the water press with two screws. (*Id.* at 54, 85.) The switch also had two wires, which were attached to two other wires in the system. (*Id.* at 85-86.) A magnet was attached to the discharge chute lid. (*Id.* at 54.) Closing the lid brought the magnet to the switch, causing the reeds to make contact and complete the circuit as described above. Opening the lid moved the magnet away from the switch, allowing the reeds to separate, thereby opening the circuit and cutting power to the system. (*Id.* at 54.)

The discharge chute interlock on the hospital's WS 1000 had not been functioning properly for some time before Lott was injured. (Def.'s Resp. to Pl.'s 56.1 Add'l ¶ 5; Kelly Dep. Part 3 at 63.) Graff testified that a few weeks before the accident, he had seen other workers open the lid to the discharge chute and observed that the system continued to operate. (Def.'s Resp. to Pl.'s 56.1 Add'l ¶ 5; Graff Dep. at 56-57, 61, 63-66, 77.) Graff reported this malfunction to his supervisor, Aidinovich, at some point before Lott's injury. (Def.'s Resp. to Pl.'s 56.1 Add'l ¶ 5.) There is no evidence that Lott had ever observed this malfunction, or was otherwise made aware that the interlock was not working properly. (Lott Dep. at 74-75, 146-47.) Nor was the malfunction reported to ITW. Although the interlock was not functioning, the WS 1000 remained in use, and no action was taken to have the interlock repaired before Lott's injury. (Pl.'s 56.1 Resp. ¶ 28.)

The WS 1000 was taken out of service after Lott's injury, and later examined and tested on three occasions, described in more detail in the next section. (Lobodzinski Dep. at 32, 36-37; Lobodzinski Rpt. at 7-8.) The reed switch on the discharge chute lid was removed, inspected, tested, and X-rayed. (Kragh Rpt., Ex. H to Pl.'s 56.1 Resp., at 2.) The X-rays reveal that the switch's contacts had partially welded together, which prevented the contacts from separating and opening the circuit when the lid was opened. (*Id.*) In this condition, the switch could no longer serve to protect the operator from the hazard posed by the rotating wiper plates guarded by the discharge chute lid because the switch could not disconnect the flow of electricity through the

system when the discharge chute lid was opened.

IV. Plaintiff's Experts

A. Ronald Lobodzinski

1. Qualifications and Testing

Ronald Lobodzinski is a mechanical engineer with experience in machine design and accident investigation. (*See* Lobodzinski C.V., Ex. F to Pl.'s 56.1 Resp.) Lobodzinski received his B.S. degree in mechanical engineering from the University of Illinois in 1968, and has been a registered Professional Engineer in Illinois since 1973. (*Id.*) Since 1975, Lobodzinski has worked as a consulting engineer specializing in investigations involving commercial and construction equipment, and consumer products. (*Id.*) Lobodzinski has consulted on several matters involving a variety of commercial food equipment including bakery equipment such as food grinders, a dough roller, and a bread crumb machine. (Lobodzinski Dep. at 11-23.) In one bakery equipment case, he offered opinions regarding various interlock designs that could have been used. (*Id.* at 25-27.) Although he had no experience with the WS 1000 before Lott retained him, Lobodzinski has worked on cases involving Hobart equipment. (*Id.* at 18.)

Lobodzinski examined and tested the WS 1000 involved in Lott's accident at Ingalls Hospital on three occasions. (*Id.* at 32, 36-37; Lobodzinski Rpt. at 5-8.) At the first examination on November 11, 2009, Lobodzinski inspected the exterior of the WS 1000 and checked the condition of the wiring inside the control box. (Lobodzinski Rpt. at 5-6.) Lobodzinski turned the system on and engaged the motors so the interlocks could be tested. (Lobodzinski Dep. at 32; Lobodzinski Rpt. at 6-7.) Lobodzinski tested the function of all three interlocks, including the discharge chute lid interlock. (Lobodzinski Dep. at 36-38, 40-41; Lobodzinski Rpt. at 6-7.) When the discharge chute lid was lifted while the system was operating, the motors did not stop, indicating that the interlock switch was faulty. (Lobodzinski Rpt. at 6-7.)

During his second examination on December 8, 2009, Lobodzinski again engaged the

system and lifted the discharge chute lid confirming the malfunction. (*Id.* at 7.) He next inspected the wiring, removed the faulty interlock switch, and replaced it with a new switch. (*Id.*) With the new switch in place, the discharge chute lid interlock operated properly to stop the system when the lid was lifted, suggesting that the malfunction was limited to the switch. (*Id.*) Lobodzinski performed an electrical continuity test⁴ on the faulty interlock switch, the results of which showed that the switch was stuck in the closed contact position. (*Id.* at 7; Lobodzinski Dep. at 42-43, 45.)

At the third examination on April 23, 2010, Lobodzinski again examined the faulty switch and conducted a second electrical continuity test confirming that the switch was stuck in the closed position. (Lobodzinski Rpt. at 8.) He also ran the WS 1000 and again tested the function of the interlocks, including the discharge chute lid interlock which had been replaced during the previous examination, and found that all the interlocks were functioning normally. (*Id.*)

2. Lobodzinski's Opinions

According to Lobodzinski, a properly functioning discharge chute interlock switch would have disabled the system when the chute lid was opened, preventing Lott's injury. (*Id.* at 12.) In his expert report, Lobodzinski opined that the WS 1000 was defective and unreasonably dangerous because it did not operate properly to disconnect the electrical current. (Lobodzinski Dep. at 63.) He offered the following opinions in support of this conclusion:

A hazard exists at the rotating wiper plates at the opening to the chute inlet.

This hazard is exposed when the discharge chute cover is open and the safety interlock switch is not functioning.

The safety interlock on the door was inadequate to provide reliably[sic] protection from this hazardous area.

The pulper manufacturer Hobart (ITW) should have provided a more reliable failsafe type switch or redundancy to insure the continued operation of the safety interlock system when a switch fails.

An electrical continuity test is an electrical test used to determine the presence and location of a broken connection. *McGraw-Hill Dictionary of Scientific and Technical Terms* 474 (6th ed. 2003).

ITW knew or should have known that interlock switches fail. The drum safety interlock switch failed and was replaced on 10/31/07 and the discharge chute cover safety interlock switch failed before the time of Ms. Lott's injury on 10/17/09.

Hobart should have provided instructions to test the operation of the safety interlocks and instructions and warnings to lockout/tagout⁵ electrical power before opening a guard.

ITW knew or should have known the importance of the safety interlocks. The safety interlocks were tested each time their technicians serviced these machines. The pulper manual warns to tagout the disconnect switch after it is switched off. It does not warn to lockout the switch, to insure the switch could not be turned on.

(Lobodzinski Rpt. at 11.)

At his deposition, Lobodzinski explained that the WS 1000 was defective and unreasonably dangerous because the discharge chute interlock switch was not sufficiently reliable, and that ITW should have incorporated a more reliable switch with a longer life span. (Lobodzinski Dep. at 84.) Lobodzinski testified based on his experience that "life cycle" testing can be performed on switches to determine the number of cycles a switch can be put through before failure, and that there are switches available that test as functional up to one million cycles. (*Id.* at 47-49.) How long a switch should last depends on the application and the number of cycles to which the switch can be expected to be subjected. (*Id.* at 45.) According to Lobodzinski, an equipment manufacturer should select a switch that is able to withstand a much larger number of cycles than the switch is expected to be put through. (*Id.* at 51.) In Lobodzinski's view, the switch on the discharge chute in this particular application should last at least twenty years.⁶ (*Id.*)

Occupational Safety and Health Administration ("OSHA") Standards Subpart J defines lockout/tagout procedures. A lockout device is "[a] device that utilizes a positive means such as a lock, either key or combination type, to hold an energy isolating device in the safe position and prevent the energizing of a machine or equipment." 29 C.F.R. 1910.147(b). A tagout device is "[a] prominent warning device, such as a tag and a means of attachment, which can be securely fastened to an energy isolating device in accordance with an established procedure, to indicate that the energy isolating device and the equipment being controlled may not be operated until the tagout device is removed." *Id*.

Lobodzinski did not specify the number of cycles for which a switch must be rated to reliably function for twenty years in this application. Although ITW has made no argument (continued...)

Lobodzinski identified alternative switches that he believes would make the interlock more reliable. (*Id.* at 84-85.) One alternative he identified is a "fail-safe switch." (*Id.* at 128-29.) According to Lobodzinski, a fail-safe switch is more likely to fail in the open position as opposed to the closed contact position, so that in the event of a switch failure the system would not operate. (*Id.* at 127-28.) Another design alternative Lobodzinski recommended was to add a redundant switch to protect the discharge chute in the event of a switch failure. (*Id.* at 84.) To do so, the manufacturer would simply install a second switch and an indicator light to alert the operator when one of the two switches has failed. (*Id.* at 85.) Lobodzinski testified that he has seen redundant interlock designs which incorporate an indicator light, though he acknowledged that he had not designed one himself. (*Id.*)

Lobodzinski referred only to the type of switches that he contends should have been used. He did not identify specific switches by brand, model, or part number. Lobodzinski says he is aware of more reliable switches and fail-safe switches, and he considers the design of an interlock to be within his expertise. He testified that he would nevertheless defer to an electrical engineer regarding the "nitty-gritty" of the components and the selection of a specific switch for this equipment. (*Id.* at 127-28, 131-33.)

Lobodzinski also opined that the warnings on the WS 1000 were inadequate. Although one of the warnings states that the system should not be operated without an electrical interlock on the water press discharge chute, Lobodzinski criticizes this warning because it does not explain how the operator is to check the interlock to ensure that it functions. (*Id.* at 69-70.) He also testified that the warnings should advise the operator to disconnect the power and lockout/tagout the power disconnect switch before cleaning or servicing the system. (*Id.* at 80.)

⁶(...continued) regarding the foundation for this particular opinion, the court notes that, according to Kragh, the subject switch is rated for 100,000 cycles (Kragh Dep., Ex. G to Pl.'s 56.1 Resp., at 41-42), which would allow for more than thirteen cycles per day for twenty years.

B. Richard Kragh

1. Qualifications and Investigation

Lott also retained an electrical engineer, Richard Kragh. Kragh earned his B.S. degree in electrical engineering from the University of Iowa in 1962. (Kragh C.V., Ex. I to Pl.'s 56.1 Resp., at 1.) He is a registered Professional Engineer in Illinois and Minnesota, and was formerly a licensed Professional Engineer in Wisconsin and as a Class A Licensed Master Electrician in Minnesota. (*Id.*) Since 1980, Kragh has been the president of Kragh Engineering, a consulting firm, whose work includes forensic engineering projects involving electrical failures and malfunctions of appliances and other devices. (*Id.* at 2.) Kragh has consulted on safety issues for manufacturers of food equipment such as deep fryers. (Kragh Dep., Ex. G to Pl.'s 56.1 Resp., at 30-32.)

Lott retained Kragh to examine the faulty interlock switch. (*Id.* at 12.) To prepare his report, Kragh reviewed the deposition transcripts, exhibits, and numerous photographs from the inspections and testing of the WS 1000 and the interlock, as well as documents from ITW concerning the WS 1000 and documents from the reed switch manufacturers. (*Id.*; Kragh Rpt. at 1.) The documents Kragh reviewed direct that a PS-60 reed switch manufactured by either Gentech or Parker Hamlin is to be used as the interlock switch on the WS 1000. (Kragh Rpt. at 2.) The switch on the WS 1000 involved in Lott's injury was manufactured by Parker Hamlin. (*Id.*) This type of reed switch is rated for 100,000 cycles. (Kragh Dep. at 41-42.) Kragh noted that according to Underwriter's Laboratories ("UL") standards, this type of reed switch is not appropriate for "field use," which means that unless the switch is replaced by the factory, the UL rating for the equipment will no longer be valid. (*Id.* at 42-43.) Kragh reviewed a third party engineering study on reed switch failure; that study identified problems in the seal between the leads for the type of

switch involved here as well as the glass envelope in which the leads were encased.⁷ (Kragh Rpt. at 4, 7-8.) Kragh's expert report also states that the reed switch contacts are prone to weld⁸ when switching capacitive or inductive loads.⁹ (*Id.* at 4.)

Kragh never operated or inspected the WS 1000 involved in the incident, but he physically examined and X-rayed the faulty reed switch. (Kragh Dep. at 12, 14.) Kragh's X-rays confirmed that the reeds had partially welded together. (Kragh Rpt. at 2.) Kragh also examined exemplar switches provided by the manufacturer of the subject reed switch (Kragh Dep. at 20, 45-46), and he attended an inspection on January 31, 2011, the nature of which is unexplained. (*Id.* at 17-19.)

2. Kragh's Opinions

As noted above, Kragh states that the subject reed switch contacts have a propensity to weld. (Kragh Rpt. at 4.) According to Kragh, welding can be caused by arc—that is, the discharge of electricity between two contacts. He explained that an everyday example of arc is the small spark that can sometimes be observed inside a wall light switch when turning the lights on. (Kragh Dep. at 126.) If the switch opens far enough and fast enough, the arc is quenched by the air. (*Id.*) If the switch does not open far enough and fast enough for air to quench it, the arc can cause the reeds to weld together. (*Id.*) According to Kragh, all switches produce arc, and some produce arc

The study Kragh refers to is a document prepared by Read Consulting dated January 29, 2010 and entitled "Failure Analysis of Reed Switch Glass Failure." The document appears to have been printed from Read Consulting's website. The record does not explain whether this study was conducted independently or at the direction of one of the parties.

Kragh did not explain whether this propensity to weld is a feature of reed switches generally, or the result of the problems with the seal between the leads and the glass envelope on the particular switch referred to in the third party engineering study.

⁹ Kragh did not define the terms "capacitive" or "inductive" in this context. He also did not explain how switching capacitive or inductive loads causes reed switch contacts to weld, nor did he explain the extent to which the switch in the WS 1000 was exposed to such load switching.

Arc is a highly luminous and sustained discharge of electricity between two conductors separated by gas. Steven M. Kaplan, *Wiley Electrical and Electronics Dictionary* 34 (2004) Contact arc can form between two contacts when a circuit is opened. *Id.* at 142.

more than others. (*Id.* at 127.) He explained that reed switches are not designed to carry heavy arcing currents (*id.*), and the welding he observed in the switch at issue here suggests that the switch did not have sufficient rating for surge currents. (*Id.* at 89.) Welding can also be caused by "contact bounce," which is the rapid opening and closing of the switch due to vibration. (*Id.* at 128-29.) Kragh noted that the WS 1000's service records show that on January 3, 2008, the conveyor was jerking, and on January 10, 2008 the discharge chute hinge bracket was broken. (*Id.* at 129.) Kragh believes that these problems may have introduced vibration into the system, causing the reeds to bounce open and repeatedly generate contact arc. (*Id.* at 129-30, 138-39.)

Kragh was critical of ITW's use of a reed switch as the sole interlock for the discharge chute lid. (Kragh Rpt. at 6.) In Kragh's opinion, the use of a single reed switch is inappropriate because such a switch is not reliable for an interlock that is so critical for the safe operation of the WS 1000. (*Id.* at 4.) In light of the reed switch's propensity to weld and its limited circuit-interrupting capability, ¹¹ Kragh also faulted ITW for failing to incorporate redundancy into the mechanism for interrupting the circuitry or arc quenching circuitry. ¹² (*Id.* at 4; Kragh Dep. at 125-27, 132.) Kragh prepared a report in which he offered the following opinions regarding Hobart, *i.e.* Defendant ITW.

- 1. Hobart had better choices for the interlock switch.
- 2. Hobart failed to use redundant safety switches.
- 3. Hobart failed to incorporate lockout/tagout procedures in their instructions.
- 4. Hobart failed to incorporate any visual or audible warning signals that the interlocks had failed.
- 5. Hobart failed to provide a test procedure for assuring that the interlocks are

That is, the ability to remove energy from an arc in order to extinguish it. *McGraw Hill Dictionary*, *supra* note 4, at 396.

As noted earlier, Kragh's report states that either a Parker Hamlin or a Gentech switch could be used on the WS 1000. (Kragh Rpt. at 2.) Kragh does not provide a description or designs of the protective circuitry in his reports. He did refer in his deposition to designs included in the "GENTECH documents," Exhibit 14 to his deposition entitled "Gentech Magnetic Reed Switches," and schematics marked as Exhibit 15 to his deposition. (Kragh Dep. at 133-37.)

functional.

6. Hobart failed to use any arc-quenching circuitry with the reed switch, as it should have, given the switch's propensity to weld and its limited circuit-interrupting capacity.

(Kragh Rpt. at 6.)

At his deposition, Kragh opined that the hazard posed by the wiper plates could have been eliminated, had the WS 1000 design incorporated a more effective interlock switch. (Kragh Dep. at 114-15.) Kragh identified several alternatives he believed would have been better choices. Specifically, Kragh stated, ITW could have incorporated a snap-action switch, ¹³ a fail-safe switch, redundant switches, and/or a warning light. (*Id.* at 85, 87-88.) According to Kragh, a snap-action switch could be mounted on the outside of the discharge chute, and part of the lid used to mechanically activate the switch. (*Id.* at 87-88.) Kragh also explained that ITW could have used a switch that fails in the open, *i.e.* off, position, or configured the wiring so that the system operated with the reed switch in the open position and shut down in the closed position. (*Id.* at 140-41, 153.) In the latter configuration, if the reed switch failed by welding in the closed position, as it did in this case, the system would not operate. Kragh also identified redundant switches as a more reliable alternative. (*Id.* at 92; Kragh Rpt. at 4, 6.)

Kragh provided examples of the visual or audible warning signals of interlock failure he believed ITW should have incorporated into the WS 1000 design. For instance, Kragh explained that the switch could be run through a relay with a "push-to-test" panel light. (Kragh Dep. at 90.) The light would illuminate if the switch failed. The "push-to-test" function would allow the operator to push a button to activate the light to ensure that the indicator light had not also failed. (*Id.* at 91.) Kragh testified that he has seen this configuration used on industrial equipment (*id.*), and that he had recommended an interlock configuration utilizing both redundant switches and an indicator light

A snap-action switch is a mechanical switch that rapidly transfers to the opposite position once its actuating button, lever, paddle, or the like is moved past a comparatively small distance. Kaplan, *supra* note 10, at 720.

to 3M in the past. (*Id.* at 120-21.) Kragh testified, further, that these modifications would require minimal design changes: specifically, the changes would involve no more than a relay, a panel light, and two feet of wire, costing approximately \$15.00 to \$17.00. (*Id.* at 91.)

Kragh also added that ITW could have included an emergency hand-operated palm switch to enable the operator to quickly stop the system, a switch configuration he characterized as very common. (*Id.* at 92-93, 98-99.) Kragh testified that such a switch should be mounted "by the pulper." (*Id.* at 92.) Kragh testified that descriptions of the alternative designs he recommended could be found in any "standard control book." (*Id.* at 100.)

Kragh also faulted ITW for failing to provide procedures to assure that the interlocks were functional. (Kragh Rpt. at 6.) He observed that the literature provided with the WS 1000 did not include safety testing procedures for the interlocks. (*Id.* at 4-5.) Finally, Kragh opined that ITW's warnings should have incorporated lockout/tagout procedures. (*Id.* at 6; Kragh Dep. at 101.)

V. Defendant's Experts¹⁴

A. John Kelly

John Kelly is a mechanical engineer employed by ITW. Kelly was deposed twice, once as a representative of ITW, and a second time as an expert witness. His work for ITW involves product design, standards that apply to ITW products, and the instructions and warnings that are included on the products. (Kelly Dep. Part 1 at 31.) Kelly testified that he was involved in the design of the WS 1000, but he did not explain his role with any specificity. (*Id.* at 30-32.) Kelly recognizes that the wiper plates pose a hazard when the system is running, and that it was foreseeable to ITW that someone might put their hands in the discharge chute to clean it. (*Id.* at 50.) To address this hazard, Kelly testified, ITW enclosed the moving parts, and included an electrical interlock so that the system would shut off when the lid was removed and the wiper plates

Because Lott has not challenged ITW's experts' opinions, the court makes only brief mention of those experts' background, qualifications, and opinions.

exposed. (*Id.*) Kelly noted that Underwriters Laboratories' standards and National Sanitation Foundation standards applied to this machine, and that both testing labs evaluated the machine and determined that it met their applicable safety standards. (*Id.* at 120.)

Kelly concluded that the design of the WS 1000 interlock was sufficient, and that there was no need for ITW to have done anything else to make the system reasonably safe. (*Id.* at 64-65.) According to Kelly, the reed switch was "ideal for this product application because it was sealed and not affected by the environment in which it was used." (Kelly Rpt., Ex. L to Pl.'s 56.1 Resp., at 7.) Kelly agreed with Lott's experts, however, that the discharge chute interlock was not functioning properly when Lott was injured. (*Id.* at 3; Kelly Dep. Part 3 at 63.) Kelly acknowledged that he has no expertise regarding reed switches (Kelly Dep. Part 1 at 56, 59-61, 84), and, though he knows that the subject switch leads had welded together, he does not know how or why the switch failed in this manner. (*Id.* at 77-78; Kelly Dep. Part 3 at 68, 77.)

Kelly also considered the design alternatives proposed by Lott's experts. Kelly opined that a palm-operated emergency button was unnecessary because the WS 1000's stop button was within reach of the discharge chute, and an additional button would not have prevented the injury. (Kelly Rpt. at 7.) He acknowledged that it was technically possible to install redundant interlock switches on the discharge chute so that there would be a back-up if one switch failed. (Kelly Dep. Part 1 at 61-63.) Kelly acknowledged, further, that installing a second interlock is not complex; it would involve no more than screwing the switch to the lid with two screws, screwing a magnet to the other side, and wiring the switch. (Kelly Dep. Part 3 at 69.) Kelly's report states that a fail-safe interlock switch "does not exist, nor can it." (Kelly Rpt. at 7.) Kelly also testified initially that he was unaware of a switch that fails in a safe position (Kelly Dep. Part 1 at 63) and that he did not know if such a switch existed that could have been used on the WS 1000. (*Id.* at 64.) Kelly later clarified that he is aware of fail-safe switches, but believes that the switch manufacturers are simply predicting how the switch would fail (Kelly Dep. Part 3 at 80), and that he does not believe it is

possible to make such a prediction. (*Id.* at 71-72.) Kelly concluded that the additional safety devices recommended by Lott's experts would add unnecessary complexity to the WS 1000's design with no corresponding benefit. (Kelly Rpt. at 7.)

B. William Schlieper

William Schlieper is an electrical engineer also employed by ITW, who had some undescribed involvement in the design of the WS 1000. (Schlieper Rpt., Ex. N to Pl.'s 56.1 Resp., at 1, 39.) Schlieper opined that the WS 1000 was reasonably safe for its intended purpose, was not defective or unreasonably dangerous, and did not require any additional guarding or other safety devices. (Schlieper Rpt. at 6-7.) Schlieper acknowledged that the rotating wiper plates in the water press pose a hazard, but explained that this hazard cannot be designed out of the machine without destroying the machine's utility. (*Id.* at 6.) Like Kelly, Schlieper acknowledged that it was foreseeable that someone might remove waste from the discharge chute inlet by hand. (Schlieper Dep. at 56.) Schlieper opined, however, that the discharge chute interlock provided sufficient protection from this hazard. (Schlieper Rpt. at 6-7.)

In Schlieper's view, the interlock was sufficient and reliable, and, like Kelly, he stated that the reed switch was "ideal for this product application because it was sealed and not affected by the environment in which it was used." (*Id.* at 6-7.) Schlieper also noted Underwriters Laboratories' and the National Sanitation Foundation's approval of the WS 1000. (*Id.* at 7.) Schlieper offered no opinion regarding how or why the switch failed, and testified that he did not know if the contacts had welded together or were stuck together for some other reason. (Schlieper Dep. at 21, 103.)

Schlieper also criticized the design alternatives proposed by Lott's experts. According to Schlieper, the conventional snap-action switch recommended by Kragh is no better or safer than the reed switch ITW used. (Schlieper Rpt. at 7.) Schlieper agrees with Kelly that a palm-operated emergency shut off was not necessary and would not have prevented Lott's injuries. (*Id.*) Finally, Schlieper insisted that fail-safe switches simply do not exist. (*Id.*) Schlieper concluded that Lott's

experts' proposed design changes are unnecessary and would add complexity to the system with no corresponding benefit. (*Id.*)

VI. Plaintiff's Rebuttal Expert Howard Sarrett

Lott disclosed Howard Sarrett as a rebuttal expert. Sarrett is a mechanical engineer and a licensed Professional Engineer in the state of New Jersey. (See Sarrett C.V., Ex. I to Pl.'s Resp. to Def.'s Mot. to Strike [197].) He was retained to rebut two opinions offered by ITW's experts. First, both Kelly and Schlieper's reports note that Underwriters Laboratories and the National Sanitation Foundation evaluated the WS 1000 and determined that the system complied with their applicable safety standards. (Kelly Rpt. at 6; Schlieper Rpt. at 6.) Both reports specifically noted that the WS 1000 complies with Underwriters Laboratories' Standard for Waste Disposers, UL 430, including Section 24.1, which provides that "[i]f operation of an appliance could result in a risk of injury to persons, protection shall be provided to reduce such risks," and Section 27.1, which directs that moving parts "shall be enclosed or guarded to reduce such risk." (Kelly Rpt. at 6; Schlieper Rpt. at 6.) At his deposition, Kelly opined further that UL 430 and NSF 13¹⁶ are the only standards applicable to this case. (Kelly Dep. Part 3 at 30.)

Sarrett disagrees, contending that the Occupational Safety and Health Administration ("OSHA") rules and regulations are also relevant. (Sarrett Rpt., Ex. I to Pl.'s Resp. to Def.'s Mot. to Strike, at 1-2.) Sarrett refers to the general requirements for machines found in 29 C.F.R. 1910.212:

The point of operation of machines whose operation exposes an employee to injury, shall be guarded. The guarding device shall be in conformity with any appropriate standards therefor, or, in the absence of applicable specific standards, shall be so

Lott disclosed Sarrett's report on December 14, 2012. ITW has moved to strike the disclosure as untimely. (See Def.'s Mem. In Supp. of Mot. to Strike [192].) The sequence of events preceding this disclosure are discussed in detail below in the section addressing ITW's motion to strike.

Neither Kelly nor Schlieper discuss the applicability of NSF 13 in their reports or depositions.

designed and constructed as to prevent the operator from having any part of his body in the danger zone during the operating cycle.

29 C.F.R. 1910.212(a)(3)(ii). According to Sarrett, this section "requires that the guard at such a location be interlocked or otherwise constructed so that the operator cannot be injured at the point of operation during any operation of the machine being guarded," and that "the lockout/tagout procedures are not to be relied upon to protect the operator when the machine is running." (Sarrett Rpt. at 2.)

Second, Sarrett addressed the opinions of Kelly and Schlieper that "fail-safe" switches (described by Lott's experts as one that predictably fails in the safe mode) do not and could not exist. (Kelly Rpt. at 7; Schlieper Rpt. at 7; Kelly Dep. Part 3 at 71-72, 79-80; Schlieper Dep. at 66, 98.) Sarrett stated that such switches do exist and their failure mode is predetermined rather than predicted. Sarrett's report explains that fail-safe switches "employ a positive non-resilient mechanism to drive the contacts of a switch open even if the latter are welded closed." (Sarrett Rpt. at 2.)

DISCUSSION

As noted, ITW has moved to bar the opinions and testimony of Ronald Lobodzinski and Richard Kragh as unreliable. ITW also moved to strike Lott's rebuttal expert disclosure as untimely. Finally, ITW seeks summary judgment on Lott's design defect and failure to warn claims. The court will address each motion in turn below.

I. Defendant's Motions to Bar Plaintiff's Experts

A. FRCP 702

The court turns first to ITW's motions to bar opinions and testimony of Ronald Lobodzinski and Richard Kragh. Rule 702 of the Federal Rules of Evidence, which governs the admissibility of expert testimony, provides:

If 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) 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. In Daubert v. Merrell Dow Pharm., Inc., 509 U.S. 579, 597 (1993), the Supreme Court 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." The Court explained in Kumho Tire Co. v. Carmichael, 526 U.S. 137, 152 (1999), that the objective of the "gatekeeping" requirement of Daubert and Rule 702 is "to make certain that an expert, whether basing testimony upon professional studies or personal experience, employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field." The Kumho Tire Court explained, further, that the trial judge's gatekeeping obligation applies not only to testimony based on "scientific" knowledge, as in Daubert, but also to testimony based on "technical" or "other specialized" knowledge. Id. at 141. The test for reliability is a flexible one, and the trial judge may, but need not, consider the specific factors identified in Daubert, including whether a technique has been subjected to testing and peer review and whether it is "generally accepted in the relevant scientific community." Id. at 149-50 (citing Daubert, 509 U.S. at 592-94). The Daubert factors are important "where they are reasonable measures of the reliability of expert testimony," id. at 152, but those factors do not apply "to all experts or in every case." Id. at 141. Instead, the trial court has discretion in determining the reliability of the experts' testimony. Id. at 152.

B. Lobodzinski's Opinions

Lobodzinski's testimony is admissible if it is both relevant and reliable. *Daubert*, 509 U.S. at 597. There is no dispute here that the interlock switch failed, and absent this failure, Lott would not have been injured. There is, however, significant disagreement over whether the interlock switch and the accompanying warnings were sufficient to guard against the hazard posed by the wiper plates inside the water press tower. Lobodzinski's testimony is relevant because it addresses

these questions. ITW challenges the reliability of his opinions, however, noting that Lobodzinski has no prior experience with the WS 1000 specifically or commercial food equipment generally; has not designed or identified a more reliable or redundant interlock; and has not tested an alternative design or warning. (Def.'s Mem. in Supp. of Mot. to Exclude the Opinions and Testimony of Lobodzinski [177] (hereinafter "Def.'s Mem. in Supp. of Mot. to Bar Lobodzinski") at 1.)

1. Qualifications

The court turns first to ITW's claim that Lobodzinski is not qualified to render opinions regarding the WS 1000 because he has no prior experience with the WS 1000 specifically and has no general experience designing or manufacturing commercial food equipment or components, or drafting warnings or instructions for such equipment. (Def.'s Mem. in Supp. of Mot. to Bar Lobodzinski at 1, 5.) Lott counters that experience with the specific piece of equipment is not required because Lobodzinski's education, training, and experience in mechanical engineering is sufficient to render his opinions reliable. (Pl.'s Resp. to Mot. to Bar Lobodzinski [195] at 5.) Lott also points out that Lobodzinski in fact has experience investigating and analyzing commercial food equipment, and although he had no specific experience with the WS 1000, he had previously worked on cases involving other commercial food equipment manufactured by Hobart. (Id. at 2.)

The court agrees that Lobodzinski's lack of prior experience with the WS 1000 does not render his opinions *per se* unreliable. The *Daubert* standard does not require particular credentials for an expert witness. *Tuf Racing Prods., Inc. v. American Suzuki Motor Corp.*, 223 F.3d 585, 590 (7th Cir. 2000). "Anyone with relevant expertise enabling him to offer responsible opinion testimony helpful to judge or jury may qualify as an expert witness." *Id.* "An expert need not necessarily have specific experience with a particular facet of his or her expertise in order to be competent to testify as to that facet." *Hawthorne Partners v. AT&T Tech., Inc.*, No. 91 C 7167, 1993 WL 311916 at *3 (N.D. III. Aug. 11, 1993). District courts in this Circuit have qualified witnesses as experts even where they did not specialize or have experience in the particular product or field involved in the

case. Superior Aluminum Alloys, LLC v. U.S. Fire Ins. Co., 05 CV 207, 2007 WL 1850860, at *5 (N.D. Ind. June 25, 2007) (collecting cases). When determining whether an expert is qualified to render an opinion, the court considers the witness's "full range of practical experience as well as academic or technical training" United States v. Parra, 402 F.3d 752, 758 (7th Cir. 2005) (quoting Smith v. Ford Motor Co., 215 F.3d 713, 718 (7th Cir. 2000)). A lack of specialization generally affects the weight of the opinion, not its admissibility. See Loeffel Steel Prods., Inc., 372 F. Supp. 2d 1104, 1113 (N.D. III. 2005). Under these standards, Lobodzinski need not have specific experience with this particular piece of equipment to render an opinion, and his expertise in mechanical engineering is sufficient to permit him to testify at trial.

Notably, while Lobodzinski had no prior experience with the WS 1000 before he was hired by Lott, he did have experience with commercial food equipment in general. Lobodzinski served as a consultant for a commercial food equipment manufacturer with regard to a number of cases involving bakery equipment. (Lobodzinski Dep. at 21-22.) Moreover, he has offered his expert opinions as to various alternative interlock designs that could have been implemented on the equipment at issue in one of those cases. (*Id.* at 25-26.)

Further, Lobodzinski familiarized himself with the WS 1000 before rendering his opinions. Lobodzinski examined and tested the equipment involved in Lott's accident at Ingalls Hospital on three occasions. (*Id.* at 32, 36-37; Lobodzinski Rpt. at 5-8.) He inspected both the system components and the wiring. (Lobodzinski Rpt. at 5-7.) Although Lobodzinski never used the system to actually pulp kitchen waste, he did turn the system on and engage the motors so the interlocks could be tested. (Lobodzinski Dep. at 32; Lobodzinski Rpt. at 6-7.) Lobodzinski tested all three interlocks, including the discharge chute lid interlock. (Lobodzinski Dep. at 36-38, 40-41; Lobodzinski Rpt. at 6-7.) Finally, Lobodzinski removed and tested the discharge chute lid reed switch to determine that the switch was stuck in the closed contact position. (Lobodzinski Dep. at 42-43, 45; Lobodzinski Rpt. at 7-8.)

ITW's attack on Lobodzinski's qualifications is unconvincing. "A witness may qualify as an expert even if the opposing counsel can point to deficiencies in his or her qualifications." *Superior Aluminum*, 2007 WL 1850860, at *5 (quoting *Traherne v. Wayne Scott Fetzer Co.*, 156 F. Supp. 2d 697, 706 (N.D. III. 2001)). Furthermore, "[o]nce a witness passes the threshold of knowledge, skill, experience, training, or education to qualify as an expert, any shortcomings or deficiencies which he or she possesses are reserved for cross-examination." *Id.*; *see also Bourke v. Ford Motor Co.*, No. 03 CV 136, 2006 WL 3833324, at *2 (N.D. Ind. Dec. 27, 2006). The court finds Lobodzinski qualified to render an expert opinion.

2. Reliability

a. Interlock Opinions

Though Lobodzinski is qualified, his testimony is admissible only if it is also reliable, a test ITW claims he has not met. (Def.'s Reply in Supp. of Mot. to Bar Lobodzinski [206] at 5.) Lobodzinski opined that the WS 1000 was defective and unreasonably dangerous because the safety interlock on the discharge chute lid was inadequate to provide reliable protection from the hazard posed by the rotating wiper plates at the opening to the discharge chute inlet. (Lobodzinski Rpt. at 11.) Lobodzinski identified four alternatives available to ITW which he believes could have guarded against the hazard: a more reliable switch, *i.e.*, a switch that lasts for at least twenty years; a redundant interlock switch; a light that indicates when an interlock has failed; or a fail-safe interlock switch. ITW insists that these opinions should be excluded because Lobodzinski did not identify or test any specific alternative designs (Def.'s Mem. in Supp. of Mot. to Bar Lobodzinski at 7), nor rely on any proven designs or testing done by others. (Def.'s Reply in Supp. of Mot. to Bar Lobodzinski at 5.) Because Lobodzinski did not design an interlock that would have been more reliable, and has not identified or relied upon proven designs by others, ITW contends that his opinions would leave the jury to speculate as to the actual design. (*Id.* at 6.)

"[A]Ithough the fundamental task of the trial court remains the same no matter what sort of

specialized information is proffered, the *Daubert* factors set forth above ought not be considered a definitive check list suitable for the evaluation of all kinds of evidentiary submissions involving specialized knowledge." *United States v. Conn*, 297 F.3d 548, 555-56 (7th Cir. 2002). Contrary to ITW's argument, the absence of formal testing is not an automatic bar to the admissibility of an expert opinion. Testing is often important, particularly in alternative design cases, but it is not "an absolute prerequisite to the admissibility of expert testimony." *Cummins v. Lyle Indus.*, 93 F.3d 362, 369 (7th Cir. 1996). The key inquiry is whether the expert is testifying with the "same standards of intellectual rigor that are demanded in [his] professional work." *Id.* at 369. "This objective can be accomplished in a number of different ways," *Id.*; see generally Dewick v. *Maytag Corp.*, 324 F. Supp. 2d 894, 899 (N.D. III. 2004) ("Instead of making any particular methodology the sin qua non of reliability, a court must keep its eye on the ultimate question: Do the methods used by a witness adequately guarantee that his or her findings (while not necessarily correct, a matter for the factfinder to decide at trial) are at least reliable . . . ?").

In support of its argument that testing is indeed required in this case, ITW relies on Bourelle v. Crown Equip. Corp., 220 F.3d 532 (7th Cir. 2000). In Bourelle, the plaintiff was injured when the forklift she was driving crashed into a warehouse aisle, causing pallets to fall into the forklift operator's compartment. 220 F.3d at 533. The plaintiff's expert opined that the forklift was defective because it was designed with inadequate guarding. Id. at 535. The expert stated that existing wire mesh guarding should have been extended to cover other areas of the operator's compartment. Id. The district court found this testimony unreliable because

"[h]is opinion as to guarding has not been tested nor has any attempt been made to prove its feasibility. He did not prepare engineering drawings of his proposed design and undertook no study of strength of materials necessary to create the guards he proposes. His knowledge and experience with TSP's is limited to his examination of photographs and manufacturer's literature. He has never seen one in operation in the narrow warehouse aisles for which the TSP was designed. The court can only conclude that [the proposed expert's] opinions about an unreasonably dangerous condition in the TSP fall into the category of subjective belief or unsupported speculation.

Id. (quoting district court's ruling). The Seventh Circuit agreed that without testing, the plaintiff's expert's opinions were unreliable speculation. Id. at 538. The Bourelle court was concerned with the feasibility of the alternative design proposed by the plaintiff's expert. Id. at 535. Particularly, the court noted unanswered questions regarding whether the guarding proposed could actually be implemented, and whether such guarding would have prevented the plaintiff's injury. Id.

Plaintiff in this case does not face the same difficulty in establishing the feasibility or effectiveness of the alternative designs her experts have proposed. There is no dispute that a functioning interlock switch would have prevented Lott's injury. Further, the interlock at issue is not a particularly complex component of the WS 1000. The interlock consists of a reed switch attached to the WS 1000's water press housing with two screws. (Kelly Dep. Part 1 at 53, 54, 85.) Two wires connect the switch to the system's electronics, and a magnet is attached to the discharge chute lid. (*Id.* at 54, 85-86.) Lobodzinski's opinion is that ITW should have used a more reliable switch configuration. All other aspects of the WS 1000 design, including the discharge chute and the discharge chute lid, would remain unaltered.

ITW suggests that without design and testing, one is left to speculate as to the actual design of the interlock. (Def.'s Reply in Supp. of Mot. to Bar Lobodzinski at 6.) The court disagrees. Lobodzinski opined that ITW could have utilized a switch with a longer life span, a fail-safe switch, or a redundant switch with a light that indicates when one of the two switches failed. (Lobodzinski Dep. at 51, 84-85; Lobodzinski Rpt. at 11.) Lobodzinski's testimony makes it clear that the WS 1000 interlock design would remain unchanged with the exception of adding an additional reed switch on the discharge chute lid, or substituting the existing reed switch with a more reliable one. Lobodzinski's alternative design consists of replacing the reed switch with another switch—one with a longer life span or one more likely to fail in the open position—or adding a second switch and an indicator light. He did not, as ITW suggests, base his opinion on speculation regarding the existence or function of alternative switches.

Nor is it necessary for Lobodzinski to design or test a new switch. Lobodzinski has not testified that the reed switch itself was defective or should have been designed differently. Instead, Lobodzinski claims that the WS 1000 is defective due to its reliance on this type of reed switch, and that the WS 1000 should have incorporated a more reliable or redundant switch. He testified that the switches he advocates, unlike the guarding at issue in *Bourelle*, already exist. Lobodzinski asserted that he knows from his experience that life cycle testing can determine the number of cycles the switch can be put through before failure, and that he is aware of switches that test as functional up to a million cycles. (Lobodzinski Dep. at 47-49.) Lobodzinski also testified that he is aware of fail-safe switches, which are more likely to fail in the open position as opposed to the closed contact position, so that in the event of a switch failure the system would not run. (*Id.* at 127-28.) Lobodzinski did not need to perform testing to prove the effectiveness of his proposed alternative design of a fail-safe switch because such switches have already been designed and function in industrial settings. (*Id.* at 124.)

Notably, ITW asserts that the existing reed switch was sufficiently reliable, and that alternative designs were not necessary to make the WS 1000 reasonably safe. (Kelly Rpt. at 6-7; Schlieper Rpt. at 6-7.) Neither of ITW's experts opined that the reed switch could not have been replaced, or that the proposed alternatives were not technically possible. The most substantial design change proposed by Lobodzinski involves the addition of a second switch and an indicator light. ITW's own expert, John Kelly, agrees that it was technically possible to install redundant switches on the discharge chute so that there is a back-up if one switch fails (Kelly Dep. Part 1 at 61-63), and that inclusion of a second switch is not complex. (Kelly Dep. Part 3 at 69.)

Here, even in the absence of engineering drawings or testing, the court sees no analytical gap between the data Lobodzinski relied upon and the opinions he proffered. "Determination on admissibility should not supplant the adversarial process; shaky expert testimony may be admissible, assailable by its opponents through cross-examination." *Gayton v. McCoy*, 593 F.3d

610, 616 (7th Cir. 2010) (internal quotation marks omitted); see also Metavante Corp. v. Emigrant Sav. Bank, 619 F.3d 748, 762 (7th Cir. 2010). ITW's criticisms of the quality of Lobodzinski's testimony do not go to admissibility but to the appropriate weight that should be accorded to the evidence. The court denies ITW's motion to bar Lobodzinski's opinions as to alternative designs.

b. Instruction and Warning Opinions

In addition to his alternative design opinion, Lobodzinski testified that ITW's instructions and warnings were inadequate. Specifically, Lobodzinski opined that ITW should have provided instructions to test the interlock and warnings to lockout/tagout the machine before cleaning. (Lobodzinski Rpt. at 11.) He also opined that the warning should explain how the operator can check the interlock to ensure it functions. (Lobodzinski Dep. at 69-70.) ITW argues that these opinions should be excluded because Lobodzinski has not drafted or designed any proposed instructions or warnings and could not identify any commercial food equipment that included instructions to test the interlock and lockout/tagout before cleaning. (Def.'s Mem. in Supp. of Mot. to Bar Lobodzinski at 6, 11.) ITW contends that an expert cannot opine on the adequacy of warnings unless he has proposed and tested a supposedly superior alternative. (*Id.* at 11.) ITW again relies on *Bourelle*, wherein the Seventh Circuit affirmed the trial court's exclusion of the testimony of an expert who had failed to draft or test an alternative warning. 220 F.3d at 538.

In *Bourelle*, the expert's opinion as to the alleged inadequacy of the existing warning was unreliable because the expert had not even attempted to propose an alternative warning and was unable to provide even the "gist" of the warning. 220 F.3d at 538-39. In this case, Lobodzinski did propose alternative warnings: He explained that while one warning directs the operator not to operate the WS 1000 without an interlock, neither the warning nor the WS 1000's instructions explain how to check the interlock. (Lobodzinski Dep. at 68-69.) Lobodzinski testified that an alternative warning would include specific information and instructions on how to test the interlock to ensure that it is working properly. (*Id.* at 68-70.) Lobodzinski also suggested that the warning

to "disconnect electrical power at disconnect switch before cleaning or servicing," should be amplified to read "disconnect and lockout/tagout switch." (*Id.* at 80.)

For the purposes of this decision, the court is satisfied that Lobodzinski has offered the "gist" of alternative warnings. The court is nevertheless unwilling to admit this portion of his proposed "expert" testimony because Lobodzinski does not appear to have any relevant qualifications to testify about this issue. His training and experience as a mechanical engineer qualify him to testify about the design and operation of the WS 1000 interlock, but not about what instructions or warnings are effective in the workplace. Lott will, of course, be free to testify about how she interpreted the warnings' language and whether she was confused or misled by it. She will not be permitted to dress up her views on those issues with "expert" opinions on an issue for which her expert has no particular education, training, or experience. ITW's motion to bar Lobodzinski's opinions on the adequacy of the instructions and warnings is granted.

C. Kragh's Opinions

ITW also challenges Kragh's alternative design and warning opinions on essentially the same grounds as it challenged Lobodzinski's opinions. (See Def.'s Mem. in Supp. of Def.'s Mot. to Exclude the Opinions and Testimony of Kragh [180] (hereinafter "Def.'s Mem. in Supp. Mot. to Bar Kragh") at 8.)

1. Qualifications

ITW first seeks to bar Kragh's opinions and testimony because he has no experience designing or manufacturing commercial food equipment or any components, warnings, or instructions thereof. (*Id.* at 5.) As noted earlier, Kragh is an electrical engineer by training, is registered in Illinois and Minnesota, and works as a consultant on forensic engineering projects. (*See* Kragh C.V.) Kragh has experience consulting on safety issues for food equipment manufacturers. (Kragh Dep. at 30-32.) As with Lobodzinski, Kragh's lack of prior experience with the WS 1000, or limited experience with commercial food equipment in general, does not alone

render his opinions unreliable. When determining whether an expert is qualified to render an opinion, the court considers his "full range of practical experience as well as academic or technical training" *Parra*, 402 F.3d at 758 (quoting *Smith v. Ford Motor Co.*, 215 F.3d at 718). Kragh's background and experience affect the weight of his opinions, not their admissibility. *See Loeffel Steel*, 372 F. Supp. 2d at 1113. The court is satisfied that Kragh's education, training, and experience in the field of electrical engineering qualify him to testify regarding the interlock switches and other components of the WS 1000.

2. Reliability

ITW also seeks to bar Kragh's interlock opinions because he did not design and test an alternative interlock switch. (Def.'s Mem. in Supp. Mot. to Bar Kragh at 8.) Again invoking *Bourelle*, ITW asserts that Kragh has not prepared engineering drawings for his alternative design theories and cannot identify any particular piece of commercial food equipment that features the alternative design components he proposes. (*Id.* at 6, 10.) Thus, ITW urges, there is no evidence that the WS 1000 is unreasonably dangerous; that the alternatives Kragh proposed would be technically feasible; or that those alternatives would have prevented Lott's injury. (*Id.* at 10.)

For the same reasons discussed with respect to Lobodzinski's alternative design opinions, the court concludes that Kragh's alternative design opinions are admissible despite the absence of engineering drawings or testing. Like Lobodzinski, Kragh opined that the hazard posed by the wiper plates could have been eliminated by using an appropriate switch for the interlock. (Kragh Dep. at 114-15.) Kragh did not propose any change to the overall design of the WS 1000, the discharge chute, or the discharge chute lid, instead simply noting that a mechanical snap-action switch or a fail-safe switch would have been feasible in this application and resulted in a more reliable interlock. Nor did Kragh propose designing a new switch. Because he proposed replacing

one commonly available switch with another, the absence of testing is not fatal to his opinion.¹⁷ Kragh, an electrical engineer, is familiar with how these switches function and testified that their use would be feasible in this application.

The most complicated change to the interlock design Kragh proposed involved the addition of a redundant switch and a push-to-test light. Kragh testified that such switch configurations are very common. (*Id.* at 98-99.) Further, Kragh explained exactly what materials are required, how such a configuration would be installed, and its estimated cost. (*Id.* at 90-91.) Kragh has seen this kind of wiring system used on industrial equipment (*id.* at 91), and he has recommended an interlock configuration utilizing both redundant switches and an indicator light to a manufacturer he worked with in the past. (*Id.* at 120-21.) Finally, Kragh testified that descriptions of the alternative components he described could be found in standard books on electronics. (*Id.* at 100.) ITW is correct that testing is often of great importance in alternative design cases, but in the circumstances of this case, the absence of test data does not reduce Kragh's opinions to mere speculation. (Def.'s Reply in Supp. of Mot. to Bar Kragh [204] at 3, 5.)

Kragh's opinions cross the line, however, when he opines that ITW should have incorporated audible warning signals of interlock failure, or an emergency hand-operated palm switch. (Kragh Rpt. at 6; Kragh Dep. at 92-93.) The discharge chute interlock is an existing component of the WS 1000 that the parties agree, if functioning properly, would have prevented Lott's injury. The WS 1000, however, did not have an audible warning or emergency stop switch, and Kragh made no attempt to explain how these new features would be incorporated into the existing design. Regarding the emergency stop switch, he did not explain exactly where such a switch could or should have been located. Finally, Kragh did not explain how either of these

Kragh also faulted ITW for failing to incorporate redundancy into the circuitry or arc quenching circuitry. While ITW has not specifically attacked this opinion in its motion to bar, the court notes that Kragh relied upon schematics and other documents provided by Gentech to support this opinion. (Kragh Rpt. at 4; Kragh Dep. at 125-27, 132-37.)

additions would have prevented Lott's injury. Kragh may have been able to explain this just as easily as he explained the installation of a redundant interlock, but his report is silent, and these questions were not put to him at his deposition.

ITW similarly argues that Kragh's instruction and warning opinions should be barred because he has not drafted or tested an alternative warning. (Def.'s Mem. in Supp. Mot. to Bar Kragh at 11.) Kragh opined that ITW should have provided test procedures for assuring that the interlocks are functional. (Kragh Rpt. at 6.) He also opined that ITW's warnings should have advised the operator to follow lockout/tagout procedures. (*Id.*; Kragh Dep. at 101.) Like Lobodzinski, Kragh does not appear to have any education, training, or experience regarding instructions or warnings. Lott insists that Kragh's opinions on the effectiveness of the instructions and warnings are reliable and admissible based on his training and experience as an electrical engineer. (Pl.'s Resp. to Def.'s Mot. to Bar Kragh [196] at 13-15.) But she has not explained how Kragh's training and experience in electrical engineering equip him to testify concerning a machine operator's response to particular warning language. ITW's motion to bar Kragh's opinions on the adequacy of the instructions and warnings is granted.

III. Motion to Strike Plaintiff's Rebuttal Expert Disclosure

ITW has also moved to strike Lott's rebuttal expert disclosure. (*See* Def.'s Mem. in Supp. of Mot. to Strike [192].) ITW contends that the opinions offered by Lott's rebuttal expert, Howard Sarrett, do not constitute rebuttal testimony and should have been offered with her original expert disclosures. (*Id.* at 1, 4-6; Def.'s Reply in Supp. of Mot. to Strike [205] at 1-5.) Alternatively, ITW argues that, even if Sarrett's opinions can be characterized as rebuttal testimony, the disclosure was still untimely, filed more than thirty days after ITW filed its expert disclosures. (Def.'s Mem. in Supp. of Mot. to Strike at 6.)

The Federal Rules of Civil Procedure allow for rebuttal experts where the "evidence is intended solely to contradict or rebut evidence of the same subject matter identified by another

party[.]" FED R. Civ. P. 26(a)(2)(D)(ii). "The proper function of rebuttal evidence is to contradict, impeach or defuse the impact of the evidence offered by an adverse party." *United States v. Grintjes*, 237 F.3d 876, 879 (7th Cir. 2001) (internal quotations omitted); *see also Green v. Kubota Tractor Corp.*, No. 09 CV 7290, 2012 WL 1416465 (N.D. III. Apr. 24, 2012). "Testimony offered only as additional support to an argument made in a case in chief, if not offered 'to contradict, impeach or defuse the impact of the evidence offered by an adverse party,' is improper on rebuttal." *Peals v. Terre Haute Police Dep't*, 535 F.3d 621, 630 (7th Cir. 2008) (quoting *Grintjes*, 237 F.3d at 879). However, "the mere fact that opinions offered in a rebuttal report touch upon the same subjects covered in an initial expert report does not require that the rebuttal report be stricken." *Green*, 2012 WL 1416465, at *5; *see also City of Gary v. Paul Shafer*, No. 07 CV 56 PRC, 2009 WL 1370997, at *5 (N.D. Ind. May 13, 2009).

Lott has disclosed Howard Sarrett as a rebuttal expert. Sarrett addresses two opinions offered by ITW's experts. (See Sarrett Rpt.) First, ITW's expert, John Kelly, opined that Underwriters Laboratories' standard UL 430 and National Sanitation Foundation standard NSF 13 are the only standards applicable to this case. (Kelly Dep. Part 3. at 30.) Sarrett disagrees and contends that the Occupational Safety and Health Administration ("OSHA") general requirements for machines found in 29 C.F.R. 1910.212 also apply. (Sarrett Rpt. at 1-2.) Second, both John Kelly and William Schlieper opined that fail-safe switches do not exist, and that it is not possible to predict that a switch will fail in such a fashion as to stop the machinery. (Kelly Dep. Part 3 at 71-72, 79-80; Schlieper Dep. at 66, 98.) According to Sarrett's report, such switches do exist and their failure mode is not predicted but rather predetermined. (Sarrett Rpt. at 2.)

ITW contends that Sarrett's report does not address any new or additional material introduced by ITW's experts, but instead attempts to bolster the opinions of Lott's original experts.¹⁸

In its reply, ITW argues further that Sarrett's opinions were not only untimely but also incorrect and inadmissable. ITW contends that OSHA applies only to employers and not (continued...)

(Def.'s Mem. in Supp. of Mot. to Strike at 6.) The court acknowledges that Sarrett's opinions address subjects previously covered by both of these experts, who generally opined that the WS 1000 discharge chute interlock should have incorporated a fail-safe switch. That fact alone, however, does not require that his report be stricken. In *Green v. Kubota Tractor Corp.*, the plaintiffs sued a tractor manufacturer for injuries their son suffered when a lawn tractor backed over his foot. 2012 WL 1416465, at *1. The defendants contended that the plaintiff's rebuttal expert was not truly a rebuttal expert "because his opinions 'are not intended solely to contradict or rebut opinions of [defendants'] experts, but to buttress [the plaintiffs'] previously identified evidence on the issues they need to prove." *Id.* at *5. The court rejected the defendants' argument. Although the court noted that each of the ten opinions offered by the rebuttal expert touched upon subjects previously addressed by the plaintiff's experts, the court found that the opinions were properly characterized as rebuttal opinions because each opinion "specifically targeted expert evidence proffered by defendants: and "either contradict[ed] of rebut[ted]" that evidence. *Id.* at *5, 7.

Similarly, in *City of Gary v. Paul Shafer*, the City of Gary sued the operator of an auto yard, alleging that the operator was responsible for the lead contamination found on his property. 2009 WL 1370997, at *1. Both sides' experts filed reports on the sources of the contamination. *Id.* at *1-2. The plaintiff's expert then filed a rebuttal report in which he contradicted opinions in the report of the defendants' expert that the lead contamination came from (1) runoff of a nearby municipal landfill, (2) illegal dumping on the property, and/or (3) spills that occurred before the auto yard began operations. *Id.* at *4.

The court rejected the defendants' argument that an opinion is not a rebuttal opinion solely because it addresses the same subject matter addressed in the initial expert report. *Id.* at *5. The

¹⁸(...continued) manufacturers like ITW (Def.'s Reply in Supp. of Mot. to Strike at 4 n. 3), and that Sarrett's opinion regarding OSHA is a legal opinion which cannot be offered by an expert witness. (*Id.* at 4 n. 4.) The court declines to address an argument raised for the first time in footnotes in the reply brief.

court explained that "Rule 26 does not automatically exclude evidence that an expert could have included in his original report as '[s]uch a rule would lead to the inclusion of vast amounts of arguably irrelevant material in an expert's report on the off chance that failing to include any information in anticipation of a particular criticism would forever bar the expert from later introducing relevant material." *Id.* (citing *Crowley v. Chait*, 322 F. Supp. 2d 530, 551 (D. N.J. 2004)). The focus of Rule 26 is not on the similarity between the initial and rebuttal reports, the court explained, but rather "on whether the opinions expressed in a rebuttal report rebut the 'same subject matter' identified in the other party's expert report." *Shafer*, 2009 WL 1370997, at *5.

Sarrett specifically identifies two opinions rendered by ITW's experts and directly rebut and/or contradict those opinions. Because Sarrett's opinions specifically rebut ITW's experts' opinions, they satisfy the "same subject matter" requirements of Rule 26(a)(2)(D)(ii) and are, therefore, properly characterized as rebuttal opinions. See Green, 2012 WL 1416465, at *7.

as untimely. (Def.'s Mem. in Supp. of Mot. to Strike at 6.) Lott disclosed Sarrett's report on December 14, 2012. ITW correctly points out that absent a court order, rebuttal reports must be made "within thirty days of the other party's expert disclosure." FED. R. Civ. P. 26(a)(2)(D)(ii). ITW disclosed its own expert reports on October 30, 2012; ITW contends that Lott's rebuttal disclosures were due by November 29, 2012. (Def.'s Mem. in Supp. of Mot. to Strike at 6.) As Lott observes, however, the chronology is in fact a bit more complicated. ITW initially filed a combined expert report on October 30, 2012. (Pl.'s Resp. to Mot. to Strike at 9.) Lott moved to strike the combined expert disclosures (see Pl.'s Mot. to Strike Def.'s Expert Disclosure [169]), and on November 21, 2012, the court directed ITW to furnish a separate report for each of its experts. (See Nov. 21, 2012 Minute Order [172].) The first of these separate reports was submitted on November 21, 2012, and the second on December 30, 2012. (Pl.'s Resp. to Mot. to Strike at 9.) Lott contends that based on these disclosure dates, her rebuttal disclosure was timely. Regardless whether the

substance of the separate reports was the same as the earlier combined report, as ITW contends, the court agrees with Lott that she was entitled to thirty days after the later disclosure in which to disclose rebuttal expert testimony. ITW's motion to strike Lott's rebuttal disclosure is denied.

IV. Summary Judgment

A. Standard of Review

ITW has moved for summary judgment on Lott's design defect and failure to warn claims. The court will grant summary judgment if, construing all facts in the light most favorable to the non-moving party, the moving party demonstrates that "there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law." FED. R. CIV. P. 56(a). If the moving party adduces sufficient evidence to show it is entitled to summary judgment, the non-moving party must "affirmatively demonstrate, by producing evidence that is more than merely colorable, that there is a genuine issue for trial." *Omnicare, Inc. v. UnitedHealth Grp., Inc.*, 629 F.3d 697, 705 (7th Cir. 2011) (internal quotation marks and citation omitted).

Summary judgment is proper against "a party who fails to make a showing sufficient to establish the existence of an element essential to that party's case, and on which that party will bear the burden of proof at trial." *Celotex Corp. v. Catrett*, 477 U.S. 317, 322 (1986). The party opposing summary judgment "must do more than simply show that there is some metaphysical doubt as to the material facts." *Matsushita Elec. Indus. Co., Ltd. v. Zenith Radio Corp.*, 475 U.S. 574, 586 (1986). "The mere existence of a scintilla of evidence in support of the [opposing] position will be insufficient; there must be evidence on which the jury could reasonably find for the [opposing party]." *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 252 (1986).

B. Design Claims

"In a strict product liability action, a product may be found unreasonably dangerous by virtue of a physical flaw, a design defect, or a failure of the manufacturer to warn of the danger or instruct on the proper use of the product as to which the average consumer would not be aware." Solis v.

BASF Corp., 2012 IL App (1st) 110875, 979 N.E.2d 419, 443 appeal denied, 982 N.E.2d 775 (III. 2013) (citation and internal quotation omitted). "A plaintiff may show that the product is defective in design by showing (1) that the 'product failed to perform as safely as an ordinary consumer would expect when used in an intended or reasonably foreseeable manner' or (2) that the 'design proximately caused his injury and the defendant fails to prove that on balance the benefits of the challenged design outweigh the risk of danger inherent in such designs." Romero v. Cincinnati Inc., 171 F.3d 1091, 1094 (7th Cir. 1999) (quoting Lamkin v. Townwer, 138 III. 2d 510, 529, 563 N.E.2d 449, 457 (III.1990)).

In a negligent design action, a plaintiff must prove either that: "(1) the defendant deviated from the standard of care that other manufacturers in the industry followed at the time the product was designed, or (2) that the defendant knew or should have known, in the exercise of ordinary care, that the product was unreasonably dangerous and defendant failed to warn of its dangerous propensity." *Blue v. Envtl. Eng'g, Inc.*, 215 III. 2d 78, 96, 828 N.E.2d 1128, 1141 (III. 2005) (collecting cases). "The Seventh Circuit has construed Illinois law on negligent design to require a plaintiff to establish: (1) the existence of a defective condition in the product at the time it left the manufacturer's control, and (2) a causal link between the alleged design defect and the plaintiff's injury." *Robenhorst v. Siemens Logistics & Assembly Sys., Inc.*, 05 C 3192, 2008 WL 656054 (N.D. III. Mar. 6, 2008) (citing *Fuesting v. Zimmer, Inc.*, 421 F.3d 528, 532 (7th Cir. 2005)). "The question of what is unreasonably dangerous is generally left for the trier of fact to determine." *Sparacino v. Andover Controls Corp.*, 227 III. App. 3d 980, 985, 592 N.E.2d 431, 434 (1st Dist. 1992) (citations omitted).

ITW moves for summary judgment on Lott's design defect claims on two grounds. First, anticipating that Lott's experts would be barred, ITW argues that Lott lacks admissible expert testimony to support her design defect claims. (Def.'s Mem. in Supp. of Mot. for Summ. J. [186] at 8.) Second, ITW contends that Lott's theory is that the interlock switch failed after years of

"normal wear and tear," which ITW asserts cannot be a basis for a products liability or negligence claim. (*Id.* at 8, 10.) The court will address each of these arguments in turn.

1. Expert Testimony

ITW asserts that understanding the WS 1000 and its components requires knowledge of mechanical and electrical engineering, rendering the material issues in this case beyond the ken of the average juror. (*Id.* at 9-10.) Without expert testimony, ITW urges, Lott cannot support her claims that the WS 1000 was unreasonably dangerous and could have been better or alternatively designed. (*Id.*) Lott counters both that she has adequate expert testimony, and that even without expert testimony, the lay testimony establishes an issue of material fact as to the defective and unreasonably dangerous condition of the WS 1000. (Pl.'s Resp. to Mot. for Summ. J. [200] at 3-4.)

ITW is correct that in negligent design and design defect cases involving a specialized piece of equipment, the design and manufacture of which requires specialized knowledge, expert testimony is required unless the defect is obvious and thus within a juror's common understanding and experience. *See Baltus v. Weaver Div. of Kidde & Co.*, 199 III. App. 3d 821, 835, 557 N.E.2d 580, 589 (1st Dist. 1990); *see also Henry v. Panasonic Factory Automation Co.*, 396 III. App. 3d 321, 326, 917 N.E.2d 1086, 1092 (4th Dist. 2009). Lott has presented expert testimony in support of her design defect claims, however, and the court has denied ITW's motion to bar that testimony. Lott's experts opined that the wiper plates in the discharge chute are a hazard and that the discharge chute lid and its interlock were insufficient protection from this hazard. (Lobodzinski Rpt. at 11; Kragh Dep. at 114-15; Kelly Rpt. at 6; Schlieper Rpt. at 6.) There is no dispute that the reed switch which served as the discharge chute interlock failed (Def.'s Resp. to Pl.'s 56.1 Add'l ¶ 5), and that absent this failure, Lott would not have been injured. Lott's experts have testified that, in light of the foregoing, reliance on this reed switch alone rendered the WS 1000 unreasonably dangerous, and that ITW should have used available alternatives in lieu of, or in addition to, a single reed switch. ITW and its experts disagree with this conclusion. Such a disagreement

creates disputed issues of material fact that preclude summary judgment on Lott's design defect claims. To the extent that ITW's summary judgment arguments rely on its objections to Lott's experts, it must be denied for the reasons explained above.

2. Normal Wear and Tear

ITW also contends that Lott cannot sustain a design defect claim because, as ITW understands Lott's evidence, her theory is that the reed switch "deteriorated after six years of normal wear and tear." (Def.'s Mem. in Supp. of Mot. for Summ. J. at 11.) Because Lott has not alleged that the WS 1000 was defective at the time it was sold, ITW urges, her theory amounts to nothing more than allegations that the interlock switch succumbed to normal wear and tear. (*Id.* at 10.) ITW argues that such an allegation cannot support a design defect claim because to do so would place ITW in the position of an insurer in contravention to Illinois law. (*Id.* at 11-12; Def.'s Reply in Supp. of Mot. for Summ. J. [207] at 11-12.); see Korando v. Uniroyal Goodrich Tire Co., 159 III. 2d 335, 343, 637 N.E.2d 1020, 1024 (III. 1994) ("Strict products liability is not a doctrine of absolute liability; the manufacturer of a product is not an absolute insurer.").

ITW is correct that an allegation that a product succumbed to normal wear and tear cannot support a design defect claim because, under both negligence and strict liability theories, the alleged defective condition must have existed in the product at the time it left the manufacturer's control. *See Fuesting*, 421 F.3d at 532; *Romero*, 171 F.3d at 1094. That principle does not control this case, however, because Lott has neither argued that the WS 1000 worked properly when it was sold, nor that the reed switch succumbed to normal wear and tear. Lott explains that her claim is that the system was unreasonably dangerous because ITW "failed to provide adequate safety devices to prevent the machine from malfunctioning and guard against serious injury." (PI.'s Resp. to Mot. for Summ. J. at 7.) In support of this claim, Lott's experts have opined that ITW's reliance on a single reed switch to serve as the discharge chute lid interlock made the WS 1000 unreasonably dangerous.

The court also notes that the cause of the switch failure remains an unresolved issue of fact. While all the experts agree that the reed switch failed, there is no agreement as to how or why this failure occurred. Neither of ITW's experts was able to explain what caused the switch to fail. Kelly knows that the switch leads welded together, but he does not know how or why the switch failed in this manner. (Kelly Dep. Part 1 at 77-78; Kelly Dep. Part 3 at 68, 77.) Schlieper offered no opinion regarding how or why the reed switch failed, and testified that he did not know if the reed switch contacts had welded together or were stuck together for some other reason. (Schlieper Dep. at 21, 103.) Lobodzinski performed tests which determined that the switch was stuck in the closed position, but did not offer an opinion as to the cause of the failure. (Lobodzinski Rpt. at 7; Lobodzinski Dep. at 42-43, 45.) Kragh opined that the reeds may have welded because problems with the conveyor and the discharge chute hinge could have introduced vibration into the system causing the reeds to bounce and repeatedly generate arc. (Kragh Dep. at 129-30, 138-39.) No expert attributed the switch failure to normal wear and tear.

ITW also argues that Lott's design defect claims must fail because her experts' proposed alternative designs are prone to fail for the same reason as the original interlock. (Def.'s Reply in Supp. of Mot. for Summ. J. at 9.) ITW contends that there is no evidence of an actual defect in the design of the interlock, and that Lott cannot show that the alternative designs proposed by her experts would not have failed under the same conditions. (*Id.* at 9-10.) ITW points out that "all products will fail when used over time" and that regardless of the number or type of interlocks employed at some point, each piece of equipment will eventually fail. (*Id.* at 10.) While it is probably true that no component incorporated into the interlock on the discharge chute lid would function forever, this fact does not support ITW's conclusion that Lott's experts' proposed designs "can fail in the exact same manner" (or as quickly) as the original interlock.

Lott may not have identified the exact cause of the switch failure, but this is not fatal to her claim. "The existence of a defect may be proved inferentially by either direct or circumstantial

evidence." *Renfro v. Allied Indus. Equip. Corp.*, 155 III. App. 3d 140, 156, 507 N.E.2d 1213, 1227 (5th Dist. 1987) (collecting cases). Further, Lott's claim does not rest solely on the theory that the reed switch itself was defective. Here, Lott has presented expert testimony that the WS 1000 was defective because its design incorporated a single reed switch as the interlock. Lott's experts have opined that this kind of switch was not sufficiently reliable for this application. Moreover, Lott's experts recommended alternatives such as a mechanical snap-action switch, a fail-safe switch, or redundant switches, and have asserted that these switches and switch configurations are more reliable and would not have failed in the same manner as the subject reed switch. These theories do not collapse into a challenge to the reed switch's failure as a result of normal usage.

C. Failure to Warn Claims

ITW has also moved for summary judgment on Lott's failure-to-warn claims. ITW argues first that Lott lacks admissible expert testimony to support these claims. (Def.'s Mem. in Supp. of Mot. for Summ. J. at 12.) Second, ITW contends that the warnings on the WS 1000 were adequate as a matter of law. Third, ITW claims that Lott cannot establish causation. (*Id.*)

A product may be unreasonably dangerous if a manufacturer failed to warn or gave an inadequate warning of a condition which it knew or should have known was dangerous. *Soto v. E.W. Bliss Div. of Gulf & W. Mfg. Co.*, 116 III. App. 3d 880, 886-87, 452 N.E.2d 572, 577 (1st Dist. 1983) (citation omitted). "The fact that defendant gave [some] warnings is not conclusive that the warnings were adequate." *Collins v. Sunnyside Corp.*, 146 III. App. 3d 78, 81, 496 N.E.2d 1155, 1158 (1st Dist. 1986). (citations omitted). "Warnings may be inadequate if they: (1) do not specify the risk presented by the product; (2) are inconsistent with how a product would be used; (3) do not provide the reason for the warnings; or (4) do not reach foreseeable users." *Id.* (citation omitted).

1. Expert Testimony

ITW contends that expert testimony is required where an alleged defective warning is beyond the comprehension of a layperson. (Def.'s Mem. in Supp. of Mot. for Summ. J. at 14.) The court granted ITW's motions to bar Lott's experts' testimony regarding the warnings, but does not agree that expert testimony on the issue is required. The fact that most jurors will be unfamiliar with the WS 1000's operation does not require the conclusion that they are incompetent to make decisions about the adequacy of the warnings. In fact, the court agrees with Lott that the warnings at issue are not beyond the comprehension of a layperson. "The question of whether a product was in an unreasonably dangerous or defective condition because of the failure to give adequate warnings is a question of fact for the jury." *Collins*, 146 III App. 3d at 80-81, 496 N.E.2d at 1158.

2. Adequacy of Warnings as a Matter of Law

ITW also contends that the warnings on the WS 1000 were adequate as a matter of law because they would have prevented the accident if followed. (Def.'s Mem. in Supp. of Mot. for Summ. J. at 14.) One of the warnings affixed to the WS 1000 depicts an image of a hand crushed between two gears and contains the following statements:

- Rotating parts inside
- Keep hands out
- Do not operate without:
 - 1. Electrical interlock on pulper cover or door and/or
 - 2. Electrical interlock on water press discharge chute
- Disconnect electrical power at disconnect switch before cleaning or servicing (Pl.'s 56.1 Resp. ¶ 14.) ITW argues that if Lott had simply heeded either the warning to keep hands out or to disconnect the electrical power at the wall-mounted disconnect switch before cleaning, the incident would not have occurred. (Def.'s Mem. in Supp. of Mot. for Summ. J. at 16.) Whether Lott followed these warnings is disputed, however. First, there is a dispute regarding

whether or not Lott disconnected electrical power at the wall-mounted disconnect switch. If the power had been disconnected, Graff would have been unable to activate the system by pressing the "Clean Cycle" button on the control panel. ITW concludes that Lott could not have disconnected the power because the system powered on when Graff pressed the "Clean Cycle" button. (*Id.* at 17.) Lott, however, asserts just the opposite. Lott testified that after she finished cleaning the conveyor belt, she disconnected the power to the system at the wall-mounted disconnect switch (Pl.'s 56.1 Resp. ¶ 21; Lott Dep. at 85-87, 151) before raising the discharge chute lid to begin cleaning. (Pl.'s 56.1 Resp. ¶ 21; Lott Dep. at 86-87.) ITW essentially asks the court to reject Lott's testimony that she disconnected the system's power at the wall-mounted disconnect switch, to accept Graff's testimony that he did not turn on the power at the disconnect switch before he activated the clean cycle, and to conclude that no one else could have turned the power back on at some point after Lott claims that she disconnected it. While a jury may very well reject Lott's version of events, it is not the court's role to make credibility determinations or resolve contested issues of fact on summary judgment.

The court turns next to the warning to "keep hands out." Lott was aware of this warning, and there is no dispute that Lott placed her hand into the discharge chute. ITW argues that Lott did so in spite of a clear warning to the contrary. (Def.'s Mem. in Supp. of Mot. for Summ. J. at 15.) ITW urges that Lott's failure to warn claims fail as a matter of law because she would not have been injured if she had simply heeded this existing warning. (*Id.* at 14-16.) Lott contends that this warning is in fact vague and ambiguous, and, as she read it, it applied only to circumstances in which the system was running. (Pl.'s Resp. to Mot. for Summ. J. at 13-14.) Such an understanding is consistent with the training Lott received from other Ingalls Hospital employees to clean the discharge chute by hand. (*Id.*) This ambiguity is further demonstrated, Lott contends, by the evidence that other Ingalls Hospital workers were trained to clean the discharge chute by hand. (*Id.*) Specifically, both Aidinovich and Graff witnessed other employees clean the discharge

chute by hand. (Aidinovich Dep. at 61; Graff Dep. at 27-29.) The court also notes that while Aidinovich testified that she believed the warning to keep hands out applied to the discharge chute during cleaning, she did not think it applied to the trough where the waste enters the pulper, so long as the power was disconnected. (Aidinovich Dep. at 57, 64-66.) In some circumstances, servicing the machine—to replace an internal part, for example—might require placing one's hands in some portion of the machine. A jury could reasonably conclude that under some circumstances, an operator may have to place his or her hands inside portions of the machine—so long as the power is disconnected—to adequately clean out the food waste inside.

Here again, a jury may agree with ITW's claim that the warning to "keep hands out" is clear and unambiguous. But viewing the evidence in the light most favorable to Lott, the court cannot say that the evidence so overwhelmingly favors ITW that no contrary verdict could stand. The court agrees with Lott that under the circumstances presented here, the adequacy of the warnings is a question of fact for the jury. *Collins*, 146 III App. 3d at 80-81; *Palmer v. Avco Distrib. Corp.*, 82 III. 2d 211, 221 412 N.E.2d 959, 965 (III. 1980) (collecting cases) (The adequacy of warnings usually presents a jury question.).

3. Causation

Finally, ITW argues that Lott's failure to warn claims fail for lack of causation. (Def.'s Mem. in Supp. of Mot. for Summ. J. at 16.) A plaintiff alleging failure to warn must also prove that the allegedly inadequate warning was the proximate cause of her injury. *Northern Trust Co. v. Upjohn Co.*, 213 III. App. 3d 390, 401, 572 N.E.2d 1030, 1037 (1st Dist. 1991). According to the Seventh Circuit, "[a] defendant's conduct is the proximate cause of a plaintiff's injury if all events following that conduct, including any actions by the plaintiff, are its reasonably foreseeable results." *Suzik v. Sea-Land Corp.*, 89 F.3d 345, 348 (7th Cir. 1996) (citing *Bently v. Saunemin Twp.*, 83 III. 2d 10 413 N.E.2d 1242 (III. 1980). ITW contends that Lott cannot establish proximate cause because she did not heed the aforementioned warnings to keep hands out and to disconnect the electrical power

at the wall-mounted disconnect switch before cleaning. In light of these circumstances, ITW asserts there is no basis to conclude that a more specific warning, such as a warning to test the interlock or lock out the system, would have altered Lott's conduct. (Def.'s Mem. in Supp. of Mot. for Summ. J. 16-17.); see Strang v. R.J. Reynolds Tobacco Co., No. 05 C 50108, 2008 WL 4951325, at *6 (N.D. III. Nov. 18, 2008) (granting summary judgment where there was no "evidence to show that [the decedent] would have read and heeded" a different warning).

ITW directs the court to *Todd v. Societe BIC, S.A.*, in which the plaintiff brought a products liability action against the manufacturer of a butane lighter after a child was killed in a fire started by another child who was playing with the lighter. 9 F.3d 1216 (7th Cir. 1993). The lighter was emblazoned with the warning: "KEEP OUT OF REACH OF CHILDREN." *Id.* at 1218 (emphasis in original). One of the plaintiff's theories was that the defendant's warning should have included information about the specific risks lighters pose to households with children. *Id.* In upholding summary judgment, the court held that the warning was sufficient because had plaintiff followed it, the child could not have started the fire. *Id.* The court also questioned whether a more specific warning would influence a consumer who would disregard the existing warning. *Id.* at 1219.

The present case is distinguishable. First, as discussed above, there is a question of fact as to whether Lott followed the warning to disconnect the power before cleaning. Second, there is also a question as to whether the warning to keep hands out was vague and ambiguous. Third, the plaintiff in *Todd* did not claim to have followed the warning to keep the lighter out of reach of children; the *Todd* plaintiff claimed to have disregarded the warning because the defendant did not provide the reason for the warnings. Lott, however, claims that the warning is vague and ambiguous because it does not specify when it applies, and insists that her conduct was consistent with the warning as written. Lott apparently understood the risks posed by the rotating parts inside the WS 1000, but believed that she was not at risk at the time of her injury because she had disconnected the power supply, and as she understood it, the machine could not operate while the

discharge chute lid was open. If a jury were to conclude both that Lott followed the warning to

disconnect the power at the disconnect switch before cleaning and that the warning to "keep hands

out" was not adequate, the jury could also reasonably conclude that she would have followed a

more specific warning. On the facts presented here, the court cannot not conclude, as a matter

of law, that there is no evidence that Lott would not have heeded a different more specific warning

such as a warning to "keep hands out while cleaning," for example.

Finally, the court turns to ITW's contention that Lott was the sole proximate cause of her

injuries. (Def.'s Reply in Supp. of Mot. for Summ. J. at 2-3.) ITW argues that she must have failed

to disconnect the power at the wall-mounted disconnect switch, and this failure was the sole cause

of her injury. (Id.) In a strict product liability action, "a manufacturer can avoid all responsibility

where the evidence establishes that the sole proximate cause of the injury was the conduct of

another." Soto, 116 III. App. 3d at 887, 452 N.E.2d at 578 (citation omitted). At trial, the argument

that Lott herself, or someone else, was responsible for her injuries, may be effective. The

argument that she is alone responsible must fail on summary judgment, because, as explained in

detail above, whether Lott disconnected the power is a contested issue of material fact, and the

court cannot find as a matter of law that Lott failed to heed this warning.

CONCLUSION

ITW's motion to exclude the opinions and testimony of Ronald Lobodzinski [176] is granted

in part and denied in part; ITW's motion to exclude the opinions and testimony of Richard Kragh

[179] is granted in part and denied in part; ITW's motion to strike Lott's rebuttal disclosure [191] is

denied; and ITW's motion for summary judgment [182] is denied.

ENTER:

Dated: July 15, 2013

REBECCA R. PALLMEYER

buce Hackweye

United States District Judge

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