

United States Court of Appeals  
For the Eighth Circuit

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No. 18-3357

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Green Plains Otter Tail, LLC

*Plaintiff - Appellant*

v.

Pro-Environmental, Inc.

*Defendant - Appellee*

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Appeal from United States District Court  
for the District of Minnesota

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Submitted: November 12, 2019  
Filed: March 20, 2020

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Before COLLOTON, WOLLMAN, and BENTON, Circuit Judges.

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BENTON, Circuit Judge.

Green Plains Otter Tail, LLC owns and operates an ethanol production facility. In 2014, an explosion and fire extensively damaged it. Green Plains sued Pro-Environmental, Inc. for negligence and products liability, alleging defective design and failure to adequately instruct and warn users. The district court granted summary

judgment to PEI. Green Plains appeals. Having jurisdiction under 28 U.S.C. § 1291, this court affirms in part, reverses in part, and remands.

## I.

Green Plains produces ethanol in Fergus Falls, Minnesota. Producing ethanol makes pollutants. These pollutants are burned off in a regenerative thermal oxidizer (RTO). Dampers control the flow of vapors in and out of the RTO's chambers. These dampers are powered by a hydraulic pump unit (HPU). In an emergency, the RTO should (1) close to keep unprocessed vapors out and (2) release the vapors already inside into the atmosphere. Both functions require hydraulic pressure (1) to close the input damper, and (2) to open the release damper.

The HPU has an accumulator that supplies hydraulic fluid for the RTO's regular cycles. If a hydraulic pump within the HPU fails, the accumulator should force its fluid back into the system, moving the dampers to safe positions. In order to operate, the accumulator must be recharged with nitrogen.

The HPU's hydraulic pump is connected to the other parts of the HPU by couplings. In 2014, a coupling failed, causing a loss of hydraulic pressure to the HPU. Several alarms sounded. Green Plains's staff discovered that the dampers did not move to safe positions. An hour later, an explosion damaged the RTO, other equipment, and buildings.

The RTO's dampers could move to safe positions only if the accumulator was sufficiently precharged. Post-explosion investigations showed almost no precharge of the HPU's accumulator. The HPU manual that PEI gave Green Plains said:

The accumulator is precharged at time of commissioning to a predetermined pressure with inert nitrogen. A charging

and gauging assembly should periodically be attached to the accumulator charge port to check the accumulator precharge, and should be recharged as needed using only dry, inert nitrogen. These operations should be performed with the system off, and all hydraulic pressure relieved from the system.

The manual added: “It is suggested that a check be made a week after installation, and thereafter once a month.” A label on the HPU unit warned, in all capital letters, that failure to follow directions can cause malfunctions leading to death, personal injury, and property damage. The label directed users to a website with instructions. Green Plains never checked the level of precharge, or recharged the nitrogen, during the six years between the RTO’s commissioning and the explosion, nor did Green Plains keep on-site the parts to check the precharge.

Green Plains sued PEI in 2016, alleging negligence and products liability for defective design of the RTO, and inadequate warnings of the importance of the accumulator. The district court granted summary judgment to PEI, ruling that Green Plains’s lack of maintenance was a superseding cause negating PEI’s liability for any design defect, and that the design was not unreasonably dangerous. The court also granted summary judgment on Green Plains’s failure-to-warn claim, stressing the absence of evidence in the record that employees read the warnings in the manuals. *Green Plains Otter Tail, LLC v. Pro-Environmental, Inc.*, 349 F. Supp. 3d 768, 780 (D. Minn. 2018).

Minnesota law governs this diversity action. *Lamoureux v. MPSC, Inc.*, 849 F.3d 737, 739 (8th Cir. 2017). This court reviews de novo the grant of summary judgment. *Thompson v. Hirano Tecseed Co., Ltd.*, 456 F.3d 805, 808 (8th Cir. 2006). Summary judgment is proper if there are no genuine issues of material fact and the moving party is entitled to judgment as a matter of law. **Fed. R. Civ. P. 56(c)**. “Where the record taken as a whole could not lead a rational trier of fact to

find for the nonmoving party, there is no genuine issue for trial.” *Torgerson v. City of Rochester*, 643 F.3d 1031, 1042 (8th Cir. 2011) (en banc), *citing Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 587 (1986).

## II.

Under Minnesota law, a products liability claim for defective design requires: (1) the product was in a defective condition unreasonably dangerous for its intended use; (2) the defect existed when it left the manufacturer’s control; and (3) the defect was the proximate cause of the injury sustained. *Adams v. Toyota Motor Corp.*, 867 F.3d 903, 916-17 (8th Cir. 2017), *citing Bilotta v. Kelley Co.*, 346 N.W.2d 616, 623 n.3 (Minn. 1984). A manufacturer has a duty to design its product to avoid an unreasonable risk of harm when the product is used as intended or in an unintended yet reasonably foreseeable manner. *Id.* at 621. “Whether a product is defective is generally a question of fact; only where reasonable minds cannot differ does the question become one of law.” *Thompson*, 456 F.3d at 809 (applying Minnesota law).

“Minnesota merges negligence and strict liability claims into a single products liability theory, which employs a reasonable-care balancing test to determine whether a product is defective.” *Id.* “To determine whether there is enough evidence to submit the claim to a jury, the court must balance the ‘the likelihood of harm, and the gravity of harm if it happens, against the burden of the precaution which would be effective to avoid the harm.’” *Young v. Pollock Eng’g Grp., Inc.*, 428 F.3d 786, 789 (8th Cir. 2005), *citing Bilotta*, 346 N.W.2d at 621.

“An important factor in this balancing test is the availability of a feasible, safer alternative design.” *Id.* To demonstrate that the product is unreasonably dangerous, “the plaintiff ordinarily has the burden of showing the existence of an alternative design that was safer.” *Kallio v. Ford Motor Co.*, 407 N.W.2d 92, 96 (Minn. 1987).

If the manufacturer presents evidence to dispute the product is unreasonably dangerous “the trier of fact will resolve the ‘unreasonably dangerous’ issue.” *Id.*

Green Plains insists that the RTO’s design was defective and unreasonably dangerous, emphasizing that the dampers use hydraulic pressure for movement, while other potential designs, like compressed air or weighted dampers, could move the dampers without a precharged accumulator. Green Plains introduced evidence of the existence of alternative designs that are safer.

Green Plains points to deposition testimony of the owner of a company that designs ethanol production plants, where dampers move by compressed air, not hydraulics. According to him, in a compressed-air system, dampers have an automatic fail position and can fail “open” with a loss of pressure. Green Plains also points to the testimony of its chief boiler engineer that after the explosion, Green Plains added weights to the dampers so that if the hydraulics failed, employees could manually open the dampers.

PEI counters that the RTO design was consistent with industry standards, and that Green Plains’s expert never tested the alternative designs. The district court ruled, “PEI’s design struck an acceptable balance among competing factors and was not unreasonably dangerous.” *Green Plains*, 349 F. Supp. 3d at 775-76.

While a manufacturer’s compliance with industry standards can be evidence of a reasonable design, it “is not conclusive proof on the question of whether a manufacturer exercised reasonable care.” *Zimprich v. Stratford Homes, Inc.*, 453 N.W.2d 557, 560 (Minn. App. 1990), *citing Schmidt v. Beninga*, 173 N.W.2d 401, 408 (Minn. 1970). Here, Green Plains’s experts did not need to test the alternatives to prove their feasibility, because they were successfully in use. *See Young*, 428 F.3d at 790. “Credibility determinations, the weighing of the evidence, and the drawing of legitimate inferences from the facts are jury functions, not those of a judge.”

*Torgerson*, 643 F.3d at 1042, citing *Reeves v. Sanderson Plumbing Prods., Inc.*, 530 U.S. 133, 150 (2000). In Minnesota, “the jury ultimately decides whether the [product is] unreasonably dangerous.” *Young*, 428 F.3d at 791.

Because reasonable minds could differ about whether the RTO was defective, Green Plains submitted sufficient evidence of a defective design to survive summary judgment.

### III.

It is undisputed that if the accumulator had been recharged, the explosion would not have happened. PEI argues that the lack of recharging is a superseding cause that cuts off liability for any alleged defect. The district court was “unconvinced that any alleged defect was the proximate cause of the fire and explosion.” *Green Plains*, 349 F. Supp. 3d at 776. It ruled that “Green Plains’ own lack of maintenance was a superseding cause that broke any causal connection between an alleged design defect and the fire and explosion.” *Id.*

Proximate cause is generally a question of fact for the jury. *Lubbers v. Anderson*, 539 N.W.2d 398, 402 (Minn. 1995). However, “where reasonable minds can arrive at only one conclusion, proximate cause is a question of law.” *Id.* In a proximate-cause analysis, Minnesota courts look to whether an injury “follows in an unbroken sequence, without an intervening efficient cause, from the original negligent act.” *DeLuna v. Mower Cty.*, 936 F.3d 711, 717 (8th Cir. 2019), citing *Dellwo v. Pearson*, 107 N.W.2d 859, 861 (Minn. 1961). A superseding event breaks the chain of causation and “prevents the original negligent actor from being liable for the final injury.” *Wartnick v. Moss & Barnett*, 490 N.W.2d 108, 113 (Minn. 1992).

An intervening act is a superseding cause if four elements are met:

(1) its harmful effects must have occurred after the original negligence; (2) it must not have been brought about by the original negligence; (3) it must have actively worked to bring about a result which would not otherwise have followed from the original negligence; and (4) it must not have been reasonably foreseeable by the original wrongdoer.

*Canada ex rel. Landy v. McCarthy*, 567 N.W.2d 496, 507 (Minn. 1997). “A defendant is liable, despite an intervening cause, if the cause is foreseeable.” *Bilotta*, 346 N.W.2d at 625. An injury is not reasonably foreseeable as a matter of law when the undisputed facts, considered together, establish that the connection between defendant’s conduct and the plaintiff’s injury was too attenuated. *Montemayor v. Sebright Prods., Inc.*, 898 N.W.2d 623, 629 (Minn. 2017). “[C]omparative negligence does not automatically foreclose [the manufacturer’s] potential liability for defective design and warnings. Rather, if reasonable minds could disagree as to whether [the purchaser’s] negligence was reasonably foreseeable to [the manufacturer], summary judgment must be denied.” *Id.* at 632.

The Supreme Court of Minnesota approves submitting to the jury a wide range of superseding causes, including removing a detachable safety device, not heeding the manufacturer’s warnings against unclogging a machine with the power connected, and violating occupational safety regulations. *Id.* at 630-31, citing *Germann v. F.L. Smithe Mach. Co.*, 395 N.W.2d 922, 925 (Minn. 1986); *Bilotta*, 346 N.W.2d at 625; *Parks v. Allis-Chalmers Corp.*, 289 N.W.2d 456, 458-59 (Minn. 1979). This court, applying Minnesota law, upheld a jury verdict because the manufacturer could reasonably foresee the failure to pass along a machine’s operating manual, and the unfamiliarity of a trainer with the machine’s operating manual. See *Bursch v. Beardsley & Piper*, 971 F.2d 108, 112 (8th Cir. 1992). This court held: “As to machine maintenance, [the manufacturer] reasonably could have foreseen that [users]

would not maintain the machine in the strict manner recommended in the operating manual.” *Id.*

PEI argues, as the district court ruled, that never recharging the accumulator was a superseding cause because “it is unforeseeable that Green Plains would fail to maintain its equipment.” *Green Plains*, 349 F. Supp. 3d at 776. True, Green Plains did no maintenance on the accumulator despite the manual’s suggestion to check the accumulator a week after installation and thereafter once a month. But, in order to check the level of precharge in the accumulator, the machine had to be powered off, fluid drained, and a charging and gauging assembly attached. Reasonable minds could disagree whether PEI could foresee that a company would view the “suggested” maintenance as mandatory, or would ignore it due to the effort required. *See Parks*, 289 N.W.2d at 459 (“The jury could find that defendant knew, or in the exercise of reasonable care should have known, that some users would leave the power connected while unclogging because that would furnish mechanical assistance, saving time and effort.”), *approved in Montemayor*, 898 N.W.2d at 630.

Under Minnesota law, PEI was not entitled to summary judgment on proximate causation.

#### IV.

Green Plains argues that PEI did not adequately warn that a failure to recharge could cause an explosion. A failure-to-warn claim requires that: (1) PEI had a duty to warn; (2) PEI breached that duty by providing an inadequate warning; and (3) PEI’s inadequate warning caused Green Plains’s damages. *See Kapps v. Biosense Webster, Inc.*, 813 F. Supp. 2d 1128, 1155 (D. Minn. 2011), *citing Balder v. Haley*, 399 N.W.2d 77, 81 (Minn. 1987). “[A] supplier has a duty to warn end users of a dangerous product if it is reasonably foreseeable that an injury could occur in its use.” *Gray v. Badger Mining Corp.*, 676 N.W.2d 268, 274 (Minn. 2004). This duty



extends to “all reasonably foreseeable users.” *Hauenstein v. Loctite Corp.*, 347 N.W.2d 272, 275 (Minn. 1984). Whether a duty exists “is a legal issue for court resolution.” *Germann*, 395 N.W.2d at 924.

Here, PEI had a duty to warn Green Plains, a foreseeable user, of the dangers of the RTO failing and exploding. The issues are whether the warnings were adequate, and if inadequate, whether they caused the explosion.

“To be legally adequate, a warning should (1) attract the attention of those that the product could harm; (2) explain the mechanism and mode of injury; and (3) provide instructions on ways to safely use the product to avoid injury.” *Glorvigen v. Cirrus Design Corp.*, 816 N.W.2d 572, 582 (Minn. 2012). “In any theory of products liability, the plaintiff must show a causal link between the alleged defect and the injury.” *Rients v. Int’l Harvester Co.*, 346 N.W.2d 359, 362 (Minn. App. 1984).

Here, PEI gave Green Plains an RTO manual. It specifically warns, “Periodic cleaning and maintenance of equipment is required. Failure to do so may cause the equipment to malfunction with the potential for fire and explosion hazards.” The “Maintenance” section of the manual also warns, with a cartoon “bomb” icon:

PERIODIC CLEANING AND MAINTENANCE OF  
EQUIPMENT IS REQUIRED. FAILURE TO  
UNDERTAKE SUCH ACTION MAY CAUSE  
EQUIPMENT DAMAGE, IMPROPER FUNCTION, OR  
THE CREATION OF AN EXPLOSIVE HAZARD.

PEI also gave Green Plains an HPU manual. It has instructions on the maintenance of the accumulator, including how to check the precharge. This manual warns:

It is imperative that personnel involved in the installation, service, and operation of the power unit be familiar with

how the equipment is to be used. They should be aware of the limitations of the system and its component parts; and have knowledge of good hydraulic practices in terms of safety, installation, and maintenance.

Green Plains argues that these warnings are inadequate because they do not give adequate instruction for safe use, explain the injury from a failure to maintain equipment, or provide instructions how to safely use the accumulator. Green Plains asserts it did not know the importance of recharging the accumulator and that the consequences were not sufficiently apparent.

To the contrary, a warning label on the accumulator, under an all capital letters “WARNING!”, says: “Failure to read and follow these directions can cause rapidly discharging gas and/or hydraulic fluid which can result in death, personal injury and property damage.” The label directs the reader to instructions in the product catalog or on a website. The website, with detailed instructions, instructs readers to check the accumulator once per month. Also on the label is an instruction to “follow the above mentioned bulletin for all servicing, including precharging and maintenance.”

There must be a causal relationship between the failure to warn and the injury. *Balder*, 399 N.W.2d at 81-82 (finding no causation as a matter of law when a mother and son disregarded verbal warnings and “[t]here is no reason to believe that a warning label would have done anything more to impress [him] or his mother”). *See also Hauenstein*, 347 N.W.2d at 276 (if the injured plaintiff would not have acted any differently had there been warning, manufacturer’s failure to warn is not cause of injury).

“Absent a reading of the warning, there is no causal link between the alleged defect and the injury.” *J&W Enters., Inc. v. Econ. Sales, Inc.*, 486 N.W.2d 179, 181 (Minn. App. 1992). “[A]n issue as to the adequacy of a warning necessarily

presupposes that the operator has read the warning.” *Johnson v. Niagara Mach. & Tool Works*, 666 F.2d 1223, 1225 (8th Cir. 1981) (applying Minnesota law).

The Chief Boiler Engineer at Green Plains testified he glanced through the manuals, but did not read them cover to cover. He testified he understood the role of the accumulator and knew that the accumulator’s precharge needed to be checked. He also acknowledged he was not aware that the HPU manual discusses checking the accumulator precharge. The warning label on the accumulator specifically says to follow instructions for precharging and maintenance. Additional warnings would not have changed the behavior of Green Plains.

The district court properly granted summary judgment on the failure-to-warn claim.

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The judgment as to failure-to-warn is affirmed. The judgment as to defective-design is reversed, and the case remanded for further proceedings consistent with this opinion.

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