

[Products Liability Law Daily Wrap Up, DESIGN AND MANUFACTURING DEFECTS—INDUSTRIAL AND COMMERCIAL EQUIPMENT—D. Minn.: Ethanol processing facility's lack of maintenance, familiarity with warnings led to equipment failure, \(Oct. 5, 2018\)](#)

Products Liability Law Daily Wrap Up

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By Leah S. Poniatowski, J.D.

The designer and manufacturer of equipment used in ethanol processing did not create an unreasonably dangerous product, the processing facility's failure to maintain the equipment was a superseding cause, and their warning in the equipment manuals were sufficient to have no liability in the fire and explosion that occurred at the facility, a federal district court in Minnesota ruled ([Green Plains Otter Tail, LLC v. Pro-Environmental, Inc.](#), October 4, 2018, Frank, D.).

Green Plains Otter Tail, LLC (Green Plains), purchased a regenerative thermal oxidizer (RTO) from Pro-Environmental, Inc. (PEI), which processed ethanol co-products. The RTO facilitates ethanol production by collecting exhaust vapors from a large rotary drum dryer and burning off pollutants before the vapors are released. PEI designed, manufactured, distributed, and sold the RTO along with accompanying equipment.

The RTO is made up of three chambers and a set of dampers controlling the vapor movement; a hydraulic power unit (HPU) powers the dampers. In an emergency, the dump stack damper is designed to open automatically to release the gases and the isolation damper is designed to close in order to prevent the heated vapors from moving into the dryer.

A pump supplying hydraulic pressure to the RTO operates the HPU. An accumulator in the HPU is designed to move the dampers to the fail-safe positions should the main power unit fail; there is no back-up pump. The accumulator, which had been pre-charged with nitrogen gas, must be charged in order to function.

In 2014, the Green Plains RTO had a high temperature fail and alarm. Pressure was lost as the HPU's driveshaft failed, locking the dampers in positions opposite their fail-safe positions, and a fire and explosion broke out in the dryer. Following the incident, an investigation determined that there was no pre-charge pressure in the accumulator and, hence, no back-up power to properly position the dampers. Green Plains filed a products liability lawsuit against PEI.

**Design defect.** Under Minnesota products liability law, a product is defectively designed if the product was in a defective condition unreasonably dangerous for its intended use, the defect existed when it left the manufacturer's control, and the defect was the proximate cause of the damage. The court explained that it applies a reasonable-balance test to determine whether a product is unreasonably dangerous. Green Plains asserted that the RTO lacked an adequate alarm or backup system, and provided several design alternatives. However, the RTO conformed to industry standards, had been installed in 75 other facilities, and there was no evidence that it was prone to catastrophic failure. The court determined that the alternate designs proffered by Green Plains were not sufficient to tip the reasonable-balance scale in its favor.

The court observed that Green Plains' poor maintenance of the RTO was the sole cause of the fire and explosion. Applying the superseding cause doctrine, the intervening effect of Green Plains' actions broke the proximate causation connection between the incident and PEI's actions. The four elements of the doctrine were satisfied: (1) there was nothing in the record supporting the argument that the RTO would have failed independent of Green Plains' failure to maintain the equipment; (2) the lack of maintenance was not brought about by the alleged design defect; (3) Green Plains' actions led to the failure; and (4) the lack of maintenance

was not reasonably foreseeable to PEI. Consequently, PEI was granted summary judgment on the negligent and strict products liability design defect claims.

**Failure to warn.** The court was also unpersuaded by Green Plains' argument that PEI failed to issue a proper warning of the risk of fire and explosion. The operation manual for the RTO explicitly warned that "[p]eriodic cleaning and maintenance of the equipment is required. Failure to do so may cause the equipment to malfunction with the potential for fire and explosion hazards." The manual also advised that the HPU be inspected daily by a qualified technician, among other warnings and inspection instructions. The court found the information in the manuals sufficiently warned of the risks and noted that the chief boiler engineer testified that he did not read through the manuals. Under Minnesota case law, there can be no causal link between an injury and an allegedly inadequate warning if the injured party did not actually read the warning. Accordingly, PEI was granted summary judgment on the failure to warn claims.

The case is No. [16-370](#).

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Companies: Green Plains Otter Tail, LLC; Pro-Environmental, Inc.

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