

In the  
United States Court of Appeals  
For the Seventh Circuit

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No. 22-2556

ALUMINUM RECOVERY TECHNOLOGIES, INC.,  
*Plaintiff-Appellant,*

*v.*

ACE AMERICAN INSURANCE COMPANY,  
*Defendant-Appellee.*

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Appeal from the United States District Court for the  
Northern District of Indiana, Fort Wayne Division.  
No. 1:17 CV 383 — **William C. Lee**, *Judge.*

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ARGUED NOVEMBER 7, 2023 — DECIDED FEBRUARY 23, 2024

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Before EASTERBROOK, WOOD, and ST. EVE, *Circuit Judges.*

EASTERBROOK, *Circuit Judge.* Aluminum Recovery Technologies (ART) operates a smelter, recovering aluminum from scrap metal. It renovated and enlarged Furnace #4, which failed the very day it was put back into operation. Molten aluminum escaped and damaged both the plant and the furnace itself. ACE American Insurance paid some of ART's losses but not the cost of replacing the furnace's refractory. (A refractory is a heat-resistant material that prevents molten metal from

damaging a furnace's skeleton. In Furnace #4 the refractory was a mixture of ceramic and concrete.) Eventually all of the refractory from Furnace #4 was removed and replaced, at a cost approaching \$400,000. In this suit under the diversity jurisdiction the district court held that the insurer need not indemnify ACE for that outlay. 2019 U.S. Dist. LEXIS 79873 (N.D. Ind. May 13, 2019). (Entry of final judgment was delayed while the court resolved other matters. Only the dispute about the refractory remains.)

After the furnace failed, the insurer retained Engineering Systems, Inc., to determine why. Francisco Godoy, a mechanical engineer, conducted the investigation on its behalf. Godoy proposed a protocol for the investigation; a team of interested parties, including representatives of ART, unanimously approved that protocol. On the investigation's first day the refractory nearest the site of the leak was removed. On the second day additional refractory was removed to extend the inspection. Eventually ART had to tear out and replace all of the remaining refractory to put the furnace back in operation.

When ART demanded indemnity for this expense, the insurer invoked an exclusion in the policy. This exclusion provides that:

This Policy does not cover: ... Any refractory lining or catalyst, except for damage or destruction directly resulting from the perils of fire, lightning, windstorm, hail, explosion ... .

Engineering Systems concluded that faulty welding led the furnace's frame to fail, allowing aluminum to escape. If this is so, then the policy's exclusion blocks reimbursement for the cost of replacing the refractory. ART contends, by contrast, that an explosion in the furnace caused the structure's failure. If that is so, then the exclusion does not apply.

The district court sided with the insurer. The judge doubted that evidence would permit a reasonable jury to find that an explosion, if any, preceded the leak. One employee at the plant said that he heard a noise, which he deemed a sign of an explosion, about the time people first noticed molten metal outside Furnace #4. The insurer maintains that the sound came from the reaction of the molten aluminum with the plant's floor, after the metal was already outside the furnace. Like the district court, we need not determine the sequence, because even if we assume that an explosion of some kind came first, the policy's exclusion applies unless that explosion *caused* the leak.

A straightforward way to show causation would be to present an expert witness who could identify the nature of the explosion and how it led the furnace's frame to fail. Godoy, the insurer's expert engineer, concluded that faulty welding explained the failure. William Sale of K-Industrial of Indiana, LLC, ART's refractory contractor, agreed with this assessment. On the other side, ART offered ... lawyers' talk, but no evidence.

The insurer maintains that all of the evidence about an explosion, either before or after the aluminum's escape, is hearsay, speculation, or both. To simplify matters we assume that an explosion occurred before the metal's escape. The question remains: Did it cause the escape? (The contractual language is "resulting from", a synonym for "caused by".) ART's principal argument boils down to what in tort law would fit the Latin phrase *res ipsa loquitur* ("the thing speaks for itself"). *Res ipsa loquitur* is useful when there is only one plausible explanation—for example, when a piece of terra cotta falls off a building and an injured pedestrian contends that negligent

maintenance allowed the stonework to become loose. Yet for the failure of Furnace #4 there are at least two potential explanations: bad welding and an explosion powerful enough to rupture the furnace's frame.

Neither a judge nor a jury can determine which explanation is correct without the assistance of expert engineering evidence. Yet ART did not offer engineering evidence that supports an inference of cause-by-explosion. Indeed, ART did not even try to estimate how powerful an explosion inside the furnace (likely the result of water flashing to steam) could be; Godoy thought it unlikely that much water would be inside the furnace. Sale testified in discovery that an explosion "could have" damaged the furnace but declined to venture an opinion about whether it did. The district court excluded even the "could have" part of Sale's testimony, because ART had not disclosed Sale (or anyone else) as an expert during discovery. That left ART without useful evidence on the subject.

At oral argument counsel for ART took a different tack, summed up by a different Latin phrase: *post hoc ergo propter hoc* ("after and necessarily because of"). The explosion preceded the metal's escape and therefore caused it, the argument goes. This is not a good argument. Maybe an explosion occurred but was too slight to rupture the furnace. Maybe both the rupture and the explosion had a common cause, so that the explosion was a symptom of a deeper problem rather than a contributor to the failure. *Post hoc ergo propter hoc* is the name of a logical fallacy, not a reliable means of meeting one's burden of proof. Whatever happens first *can* cause the next step in a chain of events, but more than timing is needed to support an inference of causation. We make this point frequently in employment-discrimination suits, holding that a

plaintiff cannot win just by showing that a protected act preceded an adverse employment action. See, e.g., *Rozumalski v. W.F. Baird & Associates, Ltd.*, 937 F.3d 919 (7th Cir. 2019); *Leonard v. Eastern Illinois University*, 606 F.3d 428, 432–33 (7th Cir. 2010). The need for other evidence to make an inference of causation plausible is equally great elsewhere in the law. All ART offers, however, is the temporal sequence.

ART has one more contention. It maintains that the insurer (or its expert, Godoy) engaged in unnecessarily destructive testing. As ART now sees things, the cost of repairing the refractory lining would have been under \$10,000 had Godoy removed less of the material during his investigation. The insurer must cover the excess expense, ART insists. This line of argument goes nowhere, however, because ART agreed to the plan of investigation, including the destructive testing. If ART's representatives were unaware that the insurer would not cover the cost of rebuilding the refractory lining, that is ART's own problem. Perhaps ART told its representatives to be cooperative in order to maximize the potential recovery under the policy—and the insurer did pay more than \$400,000 for repair work plus extra operating expenses, balking only at the cost of replacing the refractory. Perhaps ART's representatives consented because they believed (as the insurer contends) that recasting the whole refractory lining was inevitable once the furnace failed, no matter how the testing was done. We need not speculate about ART's thinking, however. It is enough that ART agreed to Godoy's proposed investigative protocol.

AFFIRMED