

**UNPUBLISHED**UNITED STATES COURT OF APPEALS  
FOR THE FOURTH CIRCUIT

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**No. 14-2416**

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CHRISTINE P. PACE, Individually and as Personal  
Representative of the Estate of William L. Pace, Deceased,

Plaintiff - Appellant,

v.

AIR & LIQUID SYSTEMS CORPORATION, Successor by merger  
Buffalo Pumps Inc.; CBS CORPORATION, f/k/a Viacom, Inc.,  
f/k/a Westinghouse; CRANE CO; GORMAN RUPP COMPANY; GOULDS  
PUMPS, INCORPORATED,

Defendants - Appellees,

and

3M COMPANY, a/k/a Minnesota Mining & Manufacturing Company;  
AW CHESTERTON COMPANY; ELLIOTT COMPANY, f/k/a Elliott  
Turbomachinery Co. Inc.; FISHER CONTROLS INTERNATIONAL LLC;  
GENERAL ELECTRIC COMPANY; GOODRICH CORPORATION, f/k/a BF  
Goodrich Company; IMO INDUSTRIES, INCORPORATED,  
individually and as successor to Transamerica Delaval Inc.  
and IMO Delaval Inc.; INGERSOLL-RAND COMPANY; ITT  
CORPORATION, d/b/a Bell & Gossett Pumps; MCNALLY  
INDUSTRIES, INC.; METROPOLITAN LIFE INSURANCE COMPANY;  
MILWAUKEE VALVE COMPANY; NATIONAL SERVICE INDUSTRIES, INC.,  
f/k/a North Brothers, Incorporated; PATTERSON PUMP COMPANY;  
SEPCO CORPORATION; STERLING FLUID SYSTEMS USA LLC; SVI  
CORPORATION, f/k/a Stockham Valves & Fittings, f/k/a Marlin  
Valve; UNIROYAL, INCORPORATED; VIKING PUMP, INCORPORATED;  
HENRY VOGT MACHINE COMPANY; WARREN PUMPS, INCORPORATED, a  
member of the Colfax Pump Group; JOHN CRANE INCORPORATED;  
YARWAY CORPORATION; BAYER CROPSCIENCE, INCORPORATED,  
Successor in Interest, Amchem Products Inc.; FOSTER WHEELER  
ENERGY CORPORATION,

Defendants.

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Appeal from the United States District Court for the District of South Carolina, at Charleston. Bristow Marchant, Magistrate Judge. (2:11-cv-02688-BM)

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Argued: January 28, 2016

Decided: March 30, 2016

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Before NIEMEYER, KING, and DUNCAN, Circuit Judges.

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Affirmed by unpublished opinion. Judge Duncan wrote the opinion, in which Judge Niemeyer and Judge King joined.

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**ARGUED:** William Christopher Swett, MOTLEY RICE, LLP, Mt. Pleasant, South Carolina, for Appellant. Emily Janney Kennedy, JONES DAY, Washington, D.C.; Michael James Ross, K&L GATES, LLP, Pittsburgh, Pennsylvania; Scott Edward Frick, HAYNSWORTH, SINKLER & BOYD, PA, Greenville, South Carolina; G. Mark Phillips, NELSON MULLINS RILEY & SCARBOROUGH, LLP, Charleston, South Carolina, for Appellees. **ON BRIEF:** Shay Dvoretzky, JONES DAY, Washington, D.C., for Appellee CBS Corporation. James Bruce Glenn, Robert O. Meriwether, NELSON MULLINS RILEY & SCARBOROUGH, LLP, Charleston, South Carolina, for Appellee Air & Liquid Systems Corporation. Nicholas P. Vari, K&L GATES, LLP, Pittsburgh, Pennsylvania, for Appellee Crane Co. William David Connor, Moffatt Grier McDonald, HAYNSWORTH, SINKLER & BOYD, PA, Greenville, South Carolina, for Appellee Goulds Pumps, Inc.

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Unpublished opinions are not binding precedent in this circuit.

DUNCAN, Circuit Judge:

After William L. Pace ("Pace") was diagnosed with mesothelioma on July 12, 2011, he and his spouse, Christine P. Pace ("Plaintiff"), filed suit against thirty-one companies alleging personal injuries due to exposure to the defendants' asbestos and asbestos-containing products. A few months after filing suit, Pace died from his disease, and his wife continued with the case both individually and as personal representative of her deceased husband's estate. The district court granted summary judgment to a number of defendants, four of which are the subject of this appeal: Crane Company ("Crane Co."), CBS Corporation ("Westinghouse"), Goulds Pumps, Inc. ("Goulds"), and Air & Liquid Systems Corporation ("Buffalo") (collectively, "Defendants").

On appeal, Plaintiff contends that the district court erred in granting summary judgment, arguing that Plaintiff has provided sufficient evidence to support a reasonable inference that Defendants' products were a substantial cause of Pace's mesothelioma. Because we agree with the district court that Plaintiff has failed to meet her burden under applicable South Carolina law, we affirm as to each of the four Defendants.

## I.

William L. Pace worked at Charleston Naval Shipyard in Charleston, South Carolina, from 1972 to 1995. He was an apprentice machinist from 1972 to 1975, during which time he spent one year working in Shop 31 at the shipyard. After completing his apprenticeship, he worked as a marine machinist. In this capacity, Pace primarily worked on pumps and valves, responsible for both repair and installation. He also worked on turbines, boilers, and "all associated machinery used aboard naval vessels." J.A. 1246.<sup>1</sup> In the shipyard, both asbestos-containing and non-asbestos-containing gaskets, insulation, and packing materials were used with the pumps and valves. Pace attested in a sworn affidavit that he "regularly worked with or in the vicinity of asbestos containing products" and that the "cutting, handling and application of these products produced a visible dust" that he inhaled. Id.

This appeal concerns asbestos dust that Pace allegedly inhaled while he was working in Shop 31 and Shop 38.<sup>2</sup> As an

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<sup>1</sup> "J.A." refers to the Joint Appendix filed by the parties in this appeal.

<sup>2</sup> Pace has not challenged on appeal the district court's conclusions regarding Pace's alleged exposure to asbestos while aboard ships. Therefore, although much of the evidence that Plaintiff cites to in her briefs relates to Pace's exposure aboard ships, we are only concerned with this evidence insofar as it relates to asbestos exposure that occurred on land in (Continued)

apprentice in Shop 31, Pace worked on pumps, motors, and valves. When a pump came into Shop 31, it typically still had thermal insulation on it. Pace's job as a machinist included using a needle gun to remove the insulation.

From 1972 to the mid-1980s, except for the year that he was in Shop 31, Pace worked out of Shop 38. Significantly, working out of Shop 38 involved spending part of the day working aboard ships and part of the day in the shop on land. The shop itself was "a big warehouse," composed of "two big old buildings probably two football fields each," where approximately 400-500 machinists and their apprentices worked. J.A. 359; 809. As a marine machinist based out of Shop 38, Pace assembled and disassembled valves, pumps, and turbines. He also cleaned valves, turbine casings, and packing glands.

Pace stopped working at the shipyard in 1995 and was diagnosed with mesothelioma on July 12, 2011. Shortly thereafter, he filed suit against a number of defendants in the South Carolina Court of Common Pleas for Charleston County, alleging personal injury due to exposure to "asbestos and asbestos-related materials mined, manufactured, processed, imported, converted, compounded and/or sold by the defendants."

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Shops 31 and 38.

J.A. 59. In addition, Plaintiff sued for "loss of the consortium, society, companionship, fellowship and other valuable services of her husband." J.A. 63.

The case was removed to the United States District Court for the District of South Carolina and was then transferred by the Judicial Panel on Multidistrict Litigation ("JPML") to the Eastern District of Pennsylvania (the "transferee court") as part of Asbestos Multidistrict Litigation No. 875 ("MDL No. 875"), pursuant to 28 U.S.C. § 1407(a). The transferee court granted summary judgment to Defendants Crane Co., Westinghouse, Goulds, and Buffalo, among others, because of Plaintiff's failure to provide sufficient evidence to support a reasonable inference that Defendants' products substantially caused Pace's mesothelioma.

Following the conclusion of all pre-trial proceedings, the transferee court issued a conditional remand order and the case was transferred back to the District of South Carolina. The district court entered final judgment on November 25, 2014.

Plaintiff timely appealed the orders granting summary judgment to Crane Co., Westinghouse, Goulds, and Buffalo, arguing that she had indeed presented sufficient evidence to withstand summary judgment. In response, Defendants argue that the Fourth Circuit does not have jurisdiction over this case because the summary judgment orders were entered by the Eastern

District of Pennsylvania, which lies within the jurisdiction of the Third Circuit. Additionally, they argue that even if this court does have jurisdiction, the district court did not err in concluding that Plaintiff failed to demonstrate that Defendants' products substantially caused Pace's mesothelioma.

## II.

We address the jurisdictional question first. Defendants argue that because Plaintiff is appealing summary judgment orders entered by the Eastern District of Pennsylvania, this court lacks jurisdiction. We disagree.

This case is an appeal from a final judgment that was entered by the District Court for the District of South Carolina. "The courts of appeals have jurisdiction over 'appeals from all final decisions of the district courts of the United States.'" Hudson v. Pittsylvania Cty., 774 F.3d 231, 234 (4th Cir. 2014)(quoting 28 U.S.C. § 1291). Generally, "a district court's decision is final if it 'ends the litigation on the merits and leaves nothing for the court to do but execute the judgment.'" Id. (quoting United States v. Modanlo, 762 F.3d 403, 409 (4th Cir. 2014)). After the District of South Carolina entered final judgment in this case, this court became the proper forum for an appeal.

It is of no moment that Plaintiff's appeal centers on summary judgment orders that were issued by a district court within a different circuit as part of earlier proceedings in MDL No. 875. In federal litigation, "the general rule [is] that a party is entitled to a single appeal, to be deferred until final judgment has been entered, in which claims of district court error at any stage of the litigation may be ventilated." Digital Equip. Corp. v. Desktop Direct, Inc., 511 U.S. 863, 868 (1994) (emphasis added) (citation omitted). Plaintiff waited to file this appeal until after final judgment was entered, and did so in the circuit that encompassed the district court that had entered that judgment. We therefore conclude that this court has jurisdiction to hear this appeal.

### III.

We next consider Plaintiff's argument that the district court erred in granting summary judgment to Defendants. This court reviews an order granting summary judgment de novo. Lee Graham Shopping Ctr., LLC v. Estate of Kirsch, 777 F.3d 678, 681 (4th Cir. 2015). On a motion for summary judgment, we view "all facts and reasonable inferences in the light most favorable to the non-moving party." Dulaney v. Packaging Corp. of Am., 673 F.3d 323, 330 (4th Cir. 2012). A district court "shall grant summary judgment if the movant shows 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).

Because this case involves state-law tort claims, we apply South Carolina law. Laurens Elec. Coop., Inc. v. Altec Indus., Inc., 889 F.2d 1323, 1324 (1989). To establish that Defendants are liable for asbestos exposure under South Carolina law, Plaintiff must satisfy the "frequency, regularity, and proximity" test set forth in Lohrmann v. Pittsburgh Corning Corp., 782 F.2d 1156, 1162 (4th Cir. 1986) (applying Maryland tort law). The Supreme Court of South Carolina adopted this test in Henderson v. Allied Signal, Inc., a case concerning a man who had developed mesothelioma and other asbestos-related diseases. 644 S.E.2d 724, 727 (S.C. 2007). Under this test, "[t]o support a reasonable inference of substantial causation from circumstantial evidence, there must be evidence of exposure to a specific product on a regular basis over some extended period of time in proximity to where the plaintiff actually worked."<sup>3</sup> Henderson, 644 S.E.2d at 185 (quoting Lohrmann, 782 F.2d at 1162) (emphasis added).

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<sup>3</sup> Plaintiff argues that the Lohrmann test "must be applied less rigidly in mesothelioma cases than in cases involving non-malignant asbestosis, which develops after a more substantial exposure to asbestos." Appellant's Br. at 20. Given that Henderson, the very case that adopted this test in South Carolina, (Continued)

Applying the Lohrmann test, we consider the evidence provided against Crane Co., Westinghouse, Goulds, and Buffalo in turn. We note that Plaintiff faces particular challenges on these facts because she must isolate Pace's exposure to solely his areas of work in an otherwise expansive work environment on land. As we explain below, we are constrained to conclude that no reasonable jury could find that any of the Defendants' products substantially caused Pace's mesothelioma under the Lohrmann test.<sup>4</sup>

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Carolina, concerned a man who had developed mesothelioma, we find this argument unpersuasive.

<sup>4</sup> We note at the outset that Defendants challenge the admissibility of a number of the depositions that Plaintiff relies on. See, e.g., Appellees' Br. at 41. Because we conclude that Plaintiff has failed to provide sufficient evidence as to any of her claims even if this testimony is considered, we find it unnecessary to rule on the admissibility of specific testimony.

For the same reason, we also find it unnecessary to reach the merits of Defendants' argument that "summary judgment was also proper on the independent ground that defendants neither manufactured nor supplied any of the asbestos products that allegedly injured Mr. Pace." See Appellees' Br. at 48-63.

Finally, Defendants point out that for certain depositions, Plaintiff has included in the Joint Appendix larger excerpts than were originally before the district court. To the extent that Plaintiff has included in the Joint Appendix deposition testimony that was not properly presented below, we decline to consider it here. See Fed. R. App. P. 10(e)(2).

## A.

We first consider whether Plaintiff introduced sufficient evidence to support her claim against Crane Co., a manufacturer of pumps found in the Charleston Naval Shipyard. The district court found that "no reasonable jury could conclude from the evidence that Pace was exposed to asbestos from [gaskets, packing, or insulation] manufactured or supplied by Defendant Crane Co, [sic] or used in connection with Crane Co. pumps or valves, such that it was a substantial cause of the development of his mesothelioma." J.A. 1964-65. Because there was "no evidence" that specifically connected Pace to Crane Co.'s asbestos-containing pumps, the district court granted Crane Co.'s motion for summary judgment. J.A. 1963-65.

Plaintiff argues that the district court erred and that Pace's exposure to Crane Co.'s asbestos-containing pumps was a substantial cause of his mesothelioma. Because we conclude that Plaintiff has not shown that any Crane Co. pumps that Pace might have worked on or near contained asbestos, we must disagree.

Plaintiff has introduced evidence showing that Pace worked in Shop 38 assembling pumps, and that some of the pumps in the shipyard contained asbestos. Plaintiff has also provided some evidence that Pace worked on Crane Co. pumps in particular, relying in large part on the deposition of Raymond Lee, Pace's coworker in Shop 38 from 1972 until the mid-1980s. Lee

testified that Pace assembled pumps in Shop 38 and that the manufacturers of some of the pumps that Pace "may have assembled" there included DeLaval, Werner, and Crane. J.A. 688.

Plaintiff also relies on Lee's testimony in claiming that Pace worked on Crane Co. pumps "a lot." Appellant's Br. at 23. However, when Lee's statement is read in context, it is clear that he based this conclusion on speculation. When questioned why he believed that Pace worked on Crane Co. pumps "a lot," Lee responded "[b]ecause, I mean, he worked in the shipyard for 20 something years." J.A. 721. He conceded that "supervisors like to try to keep you separated" and said that "I can't tell you a specific pump or ship that I can remember standing there and seeing him work on it or--but I just know that he did, and I have seen it." J.A. 721-22.

Even if it could be inferred from this testimony that Pace worked on Crane Co. pumps regularly, Plaintiff has not shown that Pace worked on Crane Co. pumps containing asbestos. The record is clear that both asbestos-containing and non-asbestos-containing gaskets, packing, and insulation were used in connection with pumps in the shipyard. The only evidence that Plaintiff offers to show that Crane Co. pumps contained asbestos are advertisements for Crane Co. products containing asbestos. Plaintiff points to two advertisements in particular: the first for "asbestos packed iron cocks" and the second for Cranite

sheet packing. J.A. 1393; 1397. Plaintiff has neither established, nor argued, that these products are in any way related to products that Pace worked on. Moreover, other Crane Co. advertisements in the record establish that the company sold varieties of certain products with asbestos and varieties without. See, e.g., J.A. 1394 (advertising different varieties of Crane Co. insulation, some made with asbestos, and some made with other materials).

Given this, Plaintiff has not established that Pace was exposed to Crane Co. products containing asbestos. Plaintiff has thus failed to provide evidence supporting a reasonable inference that Crane Co.'s products were a substantial cause of Pace's mesothelioma. Therefore, we affirm the district court's order granting Defendant Crane Co.'s motion for summary judgment.

B.

With respect to Westinghouse, a turbine manufacturer, the district court found that there was evidence that Pace had worked with and around Westinghouse turbines in machine shops, but that this work had not resulted in exposure to asbestos with sufficient frequency, regularity, and proximity to render Westinghouse liable. Relying primarily on the testimony of Raymond Lee and Robert Lee Tant, Plaintiff on appeal attempts to show that Pace's exposure to Westinghouse's asbestos-containing

turbines in Shop 38 was a substantial cause of his mesothelioma. Ultimately, however, we conclude that Plaintiff has failed to show that Pace's work in Shop 38 specifically was conducted in such a manner as to expose him to asbestos with the requisite frequency, regularity, and proximity.

Plaintiff has provided evidence demonstrating that Westinghouse turbines were present at the shipyard, and that Pace worked on them. When asked if he remembered any brands of the equipment he worked on at the shipyard, Pace responded that "[i]t was a lot of General Electric and Westinghouse." J.A. 111. Additionally, when his coworker Raymond Lee discussed his work on turbines aboard ships, Lee testified that he worked on Westinghouse turbines with Pace "[m]aybe once or twice." J.A. 743.

Plaintiff also relies upon the testimony of Robert Lee Tant and Raymond Lee in her attempt to demonstrate that Pace was exposed to asbestos through his work on Westinghouse turbines. Unfortunately for Pace, however, much of this testimony concerns work upon Westinghouse turbines aboard ships, not on land in Shop 38. See, e.g., Appellant's Br. at 38. Additionally, some of the cited testimony describes Pace's work on turbines generally, without specifying whether that task occurred on land or aboard ships. The instant appeal, however, only involves potential asbestos exposure related to Westinghouse turbines in

Shop 38. As discussed below, Plaintiff has not provided sufficient evidence about the type of work on Westinghouse turbines that occurred on land in Shop 38 to support a reasonable inference under Lohrmann that this exposure substantially caused Pace's mesothelioma.

The evidence shows that certain repair and maintenance tasks took place while the turbines were still on ships and that other tasks were completed in machine shops. When turbines were worked on aboard ships, machinists and others would remove insulation. Some turbine components were then sent to Shop 38 for cleaning or repair, including turbine casings. There, machinists like Pace would clean turbine casings, removing any residual insulation.

Plaintiff cites the testimony of David Fanchette, Pace's coworker, in arguing that "[l]ogically, if the removal of asbestos insulation from Westinghouse turbines on vessels created a fog of asbestos dust, the reasonable inference is that Mr. Pace's removal of insulation from Westinghouse turbines in Shop 38 with a wire brush and mechanical grinder likewise created a fog of asbestos dust." Reply Br. at 8. However, as the record reflects, insulation was primarily removed aboard ships, leaving only residual insulation behind on turbine casings. Further, Fanchette did not testify that Pace would clean turbines with a wire brush and mechanical grinder in

Shop 38; he actually stated that valves were cleaned this way. J.A. 864. Fanchette makes no mention of how turbine casings would be cleaned or if this activity would result in asbestos dust. As the Supreme Court of South Carolina held in Henderson, "presence in the vicinity of static asbestos is not exposure to asbestos." 644 S.E.2d at 727 (citation omitted). Plaintiff must show that Pace worked on Westinghouse turbines in such a way that actually exposed Pace to asbestos, which she has failed to do.

Construing the facts in the light most favorable to Plaintiff, a reasonable jury could conclude that Westinghouse turbines, which Pace sometimes worked on, contained asbestos-containing parts. However, there is nothing in the record to establish that Pace's work on land in Shop 38 was conducted in such a manner as to expose him to asbestos with such frequency, regularity, or proximity to give rise to an inference that asbestos exposure from Westinghouse turbines substantially caused his mesothelioma. Given the lack of evidence about Pace's exposure in Shop 38, rather than aboard ships, we agree with the district court that Westinghouse is entitled to summary judgment.

C.

With respect to Goulds, a manufacturer of pumps present in the shipyard, the district court found that "there is no

evidence that [Pace] worked with or around Goulds pumps in any machine shop--much less that he was exposed to asbestos in connection with any Goulds pump in a machine shop." J.A. 1990. Because Plaintiff has not shown that any Goulds products that Pace may have worked on or around in either Shop 31 or 38 contained asbestos, we must also conclude that the district court correctly granted summary judgment to Goulds.

In attempting to establish that Pace worked in proximity to Goulds pumps in Shops 31 and 38 with sufficient regularity and frequency, Plaintiff offers an array of circumstantial evidence trying to connect Pace's typical on-land work to Goulds pumps. For example, Plaintiff relies upon the testimony of Gerald M. Karst and Guy Lookabill, as well as other evidence in the record, to show that Pace was exposed to asbestos-containing Goulds products in both Shop 31 and Shop 38. Even if we assume that Pace worked in proximity to Goulds pumps with regularity and frequency in either or both shops, however, Plaintiff's claim still fails, because she does not establish that any Goulds pumps present in the shipyard contained asbestos.

In arguing that these pumps contained asbestos, Plaintiff notes that "prior to 1985, Goulds sold centrifugal pumps with asbestos-containing gaskets and stuffing box packing." Appellant's Br. at 5. She also states that Goulds "specified the use of asbestos-containing packing and gaskets in its pumps

from the 1940s to the mid-1980s" and that the company "did not cease selling any products which incorporated asbestos-containing gaskets and asbestos-containing packing until approximately 1985." Id.

However, the record does not establish that any Goulds pumps that Pace may have come into contact with contained asbestos, and Plaintiff presents information from the record out of context in her attempt to show the contrary. First, the record establishes that "[p]rior to approximately 1985, Goulds sold some centrifugal pumps with asbestos-containing casing gaskets and stuffing box packing"--not that all of Goulds' pumps contained asbestos. J.A. 1474 (emphasis added). Second, while the record does indeed show that Goulds recommended the use of asbestos-containing products like gaskets and sheet packing, the documents provided do not establish that only asbestos-containing products were recommended, to the exclusion of non-asbestos containing products. Finally, contrary to Pace's suggestion, the record only establishes that Goulds ceased selling asbestos-containing products in 1985, not that it only sold products containing asbestos before that date.

Given the above, Plaintiff has not established that any Goulds products that Pace may have worked with contained asbestos. To find otherwise would require significant speculation, and "[m]ere unsupported speculation, such as this,

is not enough to defeat a summary judgment motion.” Ennis v. Nat’l Ass’n of Bus. & Educ. Radio, Inc., 53 F.3d 55, 62 (4th Cir. 1995). Accordingly, we affirm the order of the district court granting summary judgment to Goulds.

D.

Finally, Plaintiff challenges the district court’s grant of summary judgment to Buffalo, a manufacturer of pumps used in the shipyard. The district court found that there was “no evidence that [Pace] worked with or around Buffalo pumps in any machine shop--much less that he was exposed to asbestos in connection with any Buffalo pump in a machine shop.” J.A. 2002-03. On appeal, Plaintiff focuses on the affidavit of Martin K. Kraft, Pace’s work on the USS Proteus AS 19, and the testimony of Guy Lookabill in arguing that exposure to asbestos-containing Buffalo pumps in Shop 38 substantially caused Pace’s mesothelioma. Although Plaintiff demonstrates that asbestos-containing Buffalo pumps were indeed present at the shipyard, she fails to provide evidence to show that Pace worked on or near them with frequency or regularity.

To establish that Buffalo pumps contained asbestos, Plaintiff points to the affidavit of Martin K. Kraft, the Production Manager of Buffalo. Kraft testified that Buffalo adhered to numerous military specifications during the time

period in question, including the requirement that “[p]ump casing joints shall be made up using compressed asbestos sheet gaskets.” J.A. 1236 (alterations in original). Assuming without deciding that this establishes that all Buffalo pumps in the shipyard contained asbestos, we next consider whether Plaintiff has provided sufficient evidence to support a reasonable inference that Pace worked on or around these products with sufficient frequency, regularity, and proximity, and find that she has failed to do so.

To establish that Pace worked in proximity to Buffalo pumps, Plaintiff relies in part on Pace’s work in connection with the USS Proteus AS 19. Pace worked aboard this ship, which contained several pumps manufactured by Buffalo. Because pumps from ships were overhauled in Shop 38, Plaintiff argues that it is reasonable to infer that when asbestos-containing Buffalo pumps were taken from the USS Proteus AS 19 to Shop 38 for repair, Pace worked on or near them and was therefore exposed to asbestos. See Reply Br. at 14.

In addition to this evidence, Plaintiff also cites Guy Lookabill’s testimony to establish that Pace worked on or around Buffalo pumps. Plaintiff emphasizes two portions of Lookabill’s deposition testimony in particular. First, when Lookabill was asked the names of the “main” products that he recalled seeing during his time at the shipyard generally, Lookabill mentioned

six company names, including Buffalo. J.A. 466-67. Second, according to Plaintiff, Lookabill testified that Pace installed Buffalo pumps. Appellant's Br. at 28. Although Lookabill did indeed say that he believed that Pace installed Buffalo pumps, he also made clear that he was speculating, stating: "I'm sure there was Buffalo pumps and Goulds in the space. Now, whether or not he worked on that particular pump, I don't know." J.A. 495 (emphasis added).

Plaintiff argues that Lookabill's testimony is significant because Lookabill and Pace worked closely at the shipyard from 1972 to 1974. She therefore argues that since Buffalo was one of the "main" manufacturers that Lookabill remembers, and since Buffalo pumps were present in the same "space" as Pace, a jury could reasonably infer that Pace was exposed to asbestos from Buffalo pumps with frequency, regularity, and proximity.

We disagree that a jury could draw this conclusion from the scant evidence that Pace has offered. In evaluating this evidence, we first note that Lookabill only worked with Pace on the same ship or in the same machine shop "[m]aybe a couple times a week"--or about 30% of the time--from 1972 to 1974. J.A. 477-78; 554-55. During the days they spent working together, they would spend about six hours out of an eight hour shift aboard a ship and two hours on land. J.A. 478. Given that about three-fourths of the time the two men worked together

was spent aboard ships, and bearing in mind that Lookabill's testimony does not specify which "space" the Buffalo pumps were actually in, the evidence that Pace worked in proximity to Buffalo pumps in the area at issue in this appeal is tenuous.

Even if we construe Lookabill's testimony to mean that Buffalo pumps were present in Pace's immediate workspace in Shop 38, Plaintiff's claim against Buffalo still fails because Plaintiff does not provide any evidence showing that Pace worked on or around Buffalo pumps in Shop 38 with any sort of regularity or frequency. Plaintiff makes too much of Lookabill's testimony regarding the "main" products that he identified, especially considering that Lookabill specifically stated that he could not remember all of the different kinds of pumps that were aboard the ships that he and Pace worked on. J.A. 494.

Showing only that Pace and Buffalo pumps were at some point in the same machine shop is insufficient to support an inference of substantial causation. In Lohrmann, this court declined to adopt the proposed rule that "if the plaintiff can present any evidence that a company's asbestos-containing product was at the workplace while the plaintiff was at the workplace, a jury question has been established as to whether that product contributed as a proximate cause to the plaintiff's disease." 782 F.2d at 1162. Instead, more was required, specifically:

"evidence of exposure to a specific product on a regular basis over some extended period of time in proximity to where the plaintiff actually worked." Id. at 1162-63. Plaintiff has not provided such evidence here.

Plaintiff argues that the circumstantial evidence described above is sufficient to support a reasonable inference of substantial causation and that the district court erroneously required direct testimony of Pace's asbestos exposure. Plaintiff invokes this court's opinion in Roehling v. National Gypsum Co. Gold Bond Building Products, 786 F.2d 1225 (4th Cir. 1986), to argue that "witnesses need not provide direct testimonial evidence via a specific recollection that a plaintiff was exposed to a specific asbestos-containing product on a specific number of occasions to survive summary judgment on the issue of substantial causation." Appellant's Br. at 28.

We agree with Plaintiff that under Roehling--as well as under Lohrmann--circumstantial evidence may be sufficient to show causation. However, we do not agree that the district court erroneously required direct evidence. The district court found, as we do here, that the circumstantial evidence described above is insufficient to show that Pace was exposed to asbestos-containing Buffalo pumps with sufficient frequency, regularity, and proximity to support a reasonable inference of substantial

causation. Therefore, we affirm the district court's order granting Buffalo's motion for summary judgment.

IV.

Given the above, the district court's orders granting summary judgment to Crane Co., Westinghouse, Goulds, and Buffalo are

AFFIRMED.