

op. at 17 (discussing the present record as it relates to the inability to distinguish causative effects of different exposures). For example, the plaintiff's experts acknowledged the human body's substantial efficiency in removing asbestos fibers, and that the lower the exposure or dose, the more effective are these defense mechanisms. See, e.g., N.T., Sept. 20, 2011, at 99, 103 (reflecting the testimony of plaintiff expert, Arnold Brody, PhD, an expert in cell biology, that the body is ninety to ninety-nine percent efficient in removing asbestos fibers). Moreover, from what is known by scientists, rare, discrete, and idiosyncratic events occurring at the cellular level (or a series of them) are required to cause mesothelioma. See, e.g., N.T., Sept. 19, 2011 (A.M.), at 141-42 (reflecting the explanation of the plaintiff's specific causation expert, Arthur Frank, M.D., that scientists do not know how asbestos alters the DNA to yield cancer, but the process begins with a single cell).¹

In light of the great uncertainties involved in assessing actual product-specific, substantial-factor causation, the plaintiff's sole expert witness testifying on the matter of specific causation – Dr. Frank – acknowledged that his testimony was premised on an assessment of the increased risk presented by discrete exposures. See, e.g., N.T., Sept. 19, 2011 (P.M.), at 51 (reflecting Dr. Frank's acknowledgement that not every exposure *causes* the DNA alteration predicate to mesothelioma, but what can be said is

¹ One court summarized the science as follows:

If a precise series of changes takes place, one cell becomes a malignant cell. A mesothelioma tumor consists of billions of cells but started from one single cell. Attempting to find that one cell to determine which fiber caused the initial malignancy is like "looking for a needle in a haystack."

Bartel v. John Crane, Inc., 316 F. Supp. 2d 603, 609-10 (N.D. Ohio 2004) (citation omitted).

that every exposure *increases the risk*); accord *Amici Scientists' Brief* at 2 ("Scientists are concerned because it is indeed an irrefutable scientific fact that each exposure does actually contribute to a person's total dose and to that person's *risk or probability* of developing mesothelioma and other cancers." (emphasis added)). The plaintiff's general causation expert, Mr. Brody, also recognized this very clearly. See, e.g., N.T., Sept. 20, 2011 (A.M.), at 78 ("You can't say what a given exposure does. You don't get to see that."); accord Majority Opinion, *slip op.* at 6 (discussing Dr. Frank's testimony that "it is not scientifically possible to identify the particular exposure or exposures that caused a patient's mesothelioma"). The plaintiff's expert in *Betz* echoed such understanding also. See *Betz*, 615 Pa. at 548, 44 A.3d at 55 ("[A]s is clear from various passages of testimony [from the plaintiff's expert witness] . . ., his opinion was plainly grounded on *risk assessment*." (emphasis added)).

Thus, it should be plain enough, by now, that – because actual, product-specific causation generally cannot be demonstrated by those suffering from asbestos-related diseases – this Court, like many others, is accepting assessments of increased risk as surrogates for traditional substantial-factor causation. See generally Steve C. Gold, *When Certainty Dissolves Into Probability: A Legal Vision of Toxic Causation for the Post-Genomic Era*, 70 WASH. & LEE L. REV. 237, 298 (2013) (explaining that many courts "recognize[] that in light of causal indeterminacy, it is appropriate to treat proof of contribution to risk as proof of contribution to cause"). Personally, I have abided by this particular accretion in the substantive law,² but I do think that it is important that it be

² I accept the approach, because I believe that, administered subject to appropriate constraints, it advances the goal of corrective justice. Along these lines, as a member of a previous Court majority, I have recognized "the difficulties facing plaintiffs in this and similar settings, where they have unquestionably suffered harm on account of a disease having a long latency period and must bear a burden of providing specific causation under prevailing Pennsylvania law which may be insurmountable." *Gregg v.* (continued...)

recognized for what it is, namely, a material adjustment to substantive-law proof requirements. See generally David L. Faigman, Edward K. Cheng, Jennifer L. Mnookin, Erin E. Murphy, Joseph Sanders & Christopher Slobogin, 3 MOD. SCI. EVIDENCE §26:5 (2015-2016) (discussing the causal question in asbestos litigation in terms of “the willingness of the courts to establish special ‘asbestos rules’ that ease plaintiff’s causal proofs”). Viewed as such, I believe that some balance and perspective is implicated, particularly in terms of the degree of the relaxation of the traditional burden that is involved.

Along the lines of perspective, I note that the courts were asked to take the leniency that has been extended to an extreme with the advancement of the any-breath or any-exposure theory as a means of establishing the legal requirement of substantial-factor causation. As is amply developed in this Court’s decision in *Betz* and elsewhere, such theory is fundamentally inconsistent with the legal requirement of substantial-factor causation. See, e.g., *Betz*, 615 Pa. at 552, 44 A.3d at 57; *Martin v. Cincinnati Gas & Elec. Co.*, 561 F.3d 439, 443 (6th Cir. 2009) (“[A]n expert’s opinion that ‘every exposure to asbestos, however slight, was a substantial factor’ . . . would render the substantial factor test ‘meaningless.’” (quoting *Lindstrom v. A-C Prod. Liab. Trust*, 424 F.3d 488, 493 (6th Cir. 2005))). See generally *Betz*, 615 Pa. at 539 n.25, 44 A.3d at 49 n.25 (collecting cases from jurisdictions that have rejected the any-breath or any-exposure theory).

(...continued)

V-J Auto Parts, Co., 596 Pa. 274, 291-92, 943 A.2d 216, 226 (2007). Nevertheless, and as further developed below, I maintain that it is not “a viable solution to indulge in a fiction that each and every exposure to asbestos, no matter how minimal *in relation to other exposures*, implicates a fact issue concerning substantial-factor causation[.]” *Id.* at 292, 943 A.2d at 226-27 (emphasis added).

Presently, it is the contention of Appellant and several of its *amici* that Dr. Frank's opinion in this case represents a sort of a fallback in the aftermath of this Court's rejection of the any-breath or any-exposure theory as a means of establishing legal causation. In their view, the approach of various experts in the medicolegal community is now to liberally espouse the any-breath or any-fiber theory when discussing general causation (*e.g.*, any exposure can cause mesothelioma) and specific causation (*e.g.*, every exposure contributed to Mr. Rost's mesothelioma), then, in addressing the substantial-factor aspect, to merely render conclusory pronouncements of substantiality (*e.g.*, Mr. Rost's exposure to Ford products was a substantial factor in Mr. Rost's mesothelioma).³ For these reasons, they urge this Court to undertake a critical examination of Dr. Frank's testimony to determine whether any scientific basis was offered to distinguish between these general and specific causation aspects and the essential expert opinion as it concerned substantiality.

The majority's response is to suggest that such arguments "confuse[] or conflate[] the 'irrefutable scientific fact' that every exposure cumulatively contributes to the total dose (which in turn increases the likelihood of disease), with the legal question under Pennsylvania law as to whether particular exposures are 'substantial factors' in causing the disease." Majority Opinion, *slip op.* at 18. However, I agree with Appellant

³ See, *e.g.*, Brief for Appellant at 2 (characterizing Dr. Frank's opinion as "the same [any-exposure] opinion in new garb"); Reply Brief for Appellant at 20 (stating that "Plaintiff asks the Court to endorse a rule that condemns the any-exposure rule in name only"); Brief of *Amicus* Prod. Liab. Advisory Council, Inc. ("PLAC") at 2 ("Dr. Frank's 'any-exposure' opinion was glaringly transparent to anyone who cared to look beyond semantics."); Brief for *Amici* Coal. for Litig. Justice, Inc., Nat'l Ass'n of Mfrs., Am. Tort Reform Ass'n, & Am. Ins. Ass'n at 23 (asserting that Dr. Frank "simply recited the alleged exposures and concluded they were sufficient – dose is irrelevant to his opinion and appears nowhere in [them]"); Brief for *Amicus* Honeywell Int'l Inc. at 11 (indicating that Dr. Frank's opinion "discounts, indeed ignores, the substantiality of any particular exposure").

and its *amici* that – to the degree that an expert witness fails to offer a scientific basis to distinguish his oft-repeated opinions concerning general and specific causation from his opinion about the discrete matter of specific causation – the source of the confusion lies with the expert.

Notably, the present case involves relatively low-dose exposure to asbestos from Ford products. In this regard, Mr. Rost’s attorney at trial candidly explained to the jurors that the dose experienced from Ford brakes during the approximately three-month period of exposure “was a relatively low dose compared to some other exposures.” N.T., Oct. 5, 2011, at 49.⁴ The time differential (at least ten years of largely unprotected industrial exposure versus three months of exposure as a garage worker) alone is illustrative, even without addressing the differences between exposure to friction products,⁵ versus exposure to friable insulation materials and loose powder and spray in the industrial setting. See, e.g., Majority Opinion, *slip op.* at 4 (discussing the record as it pertains to Mr. Rost’s industrial exposures).

Dr. Frank, however, did not provide the jury with any standards, or benchmarks, or other scientifically-accepted premises for assessing the substantiality of the risk

⁴ In complex toxic tort cases, many layers of abstractions tend to obscure the material issues. For example, the majority repeatedly refers to material including residue accumulated in automobile wheel wells and around brake linings as “asbestos dust.” Majority Opinion, *slip op.* at 3. At least in terms of the premises underlying Dr. Frank’s opinion, however, the expert accepted that such accumulations are generally 99.6 percent asbestos free. See N.T., Sept. 19, 2011 (P.M.), at 16.

⁵ With regard to new friction products, since most of the asbestos is encapsulated in a binder or resin material, Dr. Frank agreed that the material is not considered friable as are thermal asbestos-containing insulation products such as were used in industrial applications. See, e.g., Sept. 19, 2011 (P.M.), at 14. Moreover, Dr. Frank acknowledged that, upon exposure to heat and friction, much of the asbestos material in brake shoes is converted into a different substance, forsterite, which Dr. Frank did not claim was causative of mesothelioma. See *id.* at 14-15.

associated with Mr. Rost's "relatively low dose" exposure to Appellee's products in the context of Mr. Rost's overall exposure. Rather, in response to a hypothetical question generally presenting the circumstances of Mr. Rost's exposure to Ford products, Dr. Frank merely affirmed, in a conclusory fashion, his belief that the exposure was substantially causative. See N.T., Sept. 19, 2011 (A.M.), at 116-17.⁶ By way of explanation or otherwise, the expert then reverted to various reaffirmations of his other opinions on general and specific causation, *i.e.*, that "all [exposures] contributed[.]" *Id.* at 121-22; see also *id.* at 122 ("All of the exposures that can be documented should all be considered as contributory to [Mr. Rost's] developing his disease.").

⁶ From my point of view, the majority's assertion that Dr. Frank took into consideration "exposure history, individual susceptibility, biological plausibility, and relevant scientific evidence (including epidemiological studies)," Majority Opinion, *slip op.* at 20, represents an abstract assessment of the record in this case as it relates to the matter of substantial-factor causation. Dr. Frank made no attempt to even roughly quantify either the dose experienced by Mr. Rost at Smith Motors or his cumulative exposure or dose. See, *e.g.*, N.T., Sept. 19, 2011 (P.M.), at 22 (reflecting Dr. Frank's recognition that aspects of Mr. Rost's industrial exposure "could have been high, it could have been low" and his statement that: "I can't speak to what his level of exposure was."). I have found nothing on the record as far as Mr. Rost's individual susceptibility goes, or anything to relate such concept to Dr. Frank's opinion concerning substantial-factor causation. Biological plausibility in the abstract goes more to general causation than to establishing substantial-factor causation, particularly where the issue is presented in terms of risk. In terms of the epidemiological evidence pertaining to mesothelioma in auto workers, Dr. Frank's discussion was vague, with specific-study treatment focusing mostly on his discounting of ones that were inconsistent with his position. See N.T., Sept. 19, 2011 (A.M.), at 103-05. *Compare Yates v. Ford Motor Co.*, 113 F. Supp. 3d 841, 861 (E.D.N.C. 2015) ("Rather than engage in any specific, meaningful comparison of the scientific data with [the plaintiff's] exposures, [the expert's] opinions essentially attempt to overwhelm with statistics and studies, lacking guidance as to how a juror ought to apply them in the instant case, aside from joining [the expert's] ultimate conclusion that [the plaintiff's] mesothelioma was caused by defendants' products. This is not a reliable method, and it will not assist a jury."); *Comardelle v. Pa. Gen. Ins. Co.*, 76 F. Supp. 3d 628, 635 (E.D. La. 2015) (offering similar criticisms of an expert witness's substantial-factor causation grounded on a broad array of cases, studies, and regulatory materials to which the witness "refer[red] cursorily").

There is no dispute between the litigants concerning the essential proposition that cumulative dose matters relative to dose-dependent diseases such as mesothelioma.⁷ The dispute now concerns whether a plaintiff should be required to address this critical factor, in any sort of a meaningful fashion, as a component of the burden of proof to establish substantial-factor causation.⁸

Where the issue is simply risk – I fail to appreciate how the substantiality of relatively low-dose exposures can be fairly demonstrated in the absence of some sort of reasonably-developed comparative risk assessment accounting for higher-dose

⁷ See, e.g., Majority Opinion, *slip op.* at 6 (“All exposures to asbestos contribute to the cumulative dose of asbestos, and *the cumulative dose causes mesothelioma.*” (emphasis added)); Brief for Appellee at 28, 43 (“[T]he total cumulative exposure collectively causes a disease.”); *accord* Brief for *Amicus* Asbestos Disease Awareness Org. at 13 (“[C]umulative dose best explains the increased risk of mesothelioma in the population and is the standard metric used in epidemiological studies that evaluate dose and risk of disease.”). See generally Joseph V. Rodricks, *Reference Guide on Exposure Science*, REFERENCE MANUAL ON SCIENTIFIC EVIDENCE 507 (Fed. Judicial Center 3d ed. 2011) (“Ultimately the dose incurred by populations or individuals is the measure needed by health experts to quantify the risk of toxicity.”).

⁸ In point of fact, Appellee accepts the burden to meaningfully address exposures to Ford products in the context of his cumulative dose (including his industrial exposure) to establish substantial-factor causation. See, e.g., Brief for Appellee at 42-43 (indicating that this Court’s decisions in “*Gregg, Betz, and Howard* maintained [a] fair balance” when “they required experts to consider both the frequency, proximity, and regularity of the plaintiff’s exposure to asbestos from the defendant’s products, *and to place this exposure in context with other exposures to ensure, in the wider context of a plaintiff’s exposure history, that defendant’s contribution was a ‘substantial factor’ and not merely a factor.*” (emphasis added)).

From my perspective, the only remaining question should be whether, at trial, Mr. Rost meaningfully did so via Dr. Frank’s testimony, or whether, as Ford and its *amici* contend, the expert’s opinion concerning substantial-factor causation merely collapsed into his other general and specific causation opinions (*i.e.*, that all exposures are contributory). The majority, however, proceeds of its own accord to overturn the requirement to address substantial-factor causation in the context of cumulative dose, see Majority Opinion, *slip op.* at 22-32, thus yielding the differences concerning the prevailing legal standards that are discussed below.

industrial exposures. Surely the courts would not sanction liability on the part of an individual for an automobile accident if the plaintiff did not proffer some form of evidence that would establish a fair probability that the defendant was, in fact, one of the actual drivers. Although this is not a perfect analogy, it highlights that, to the degree that we accept amorphous possibilities or probabilities with no real effort to address the overall risk exposure, the substantive law of substantial-factor causation is being applied in a highly idiosyncratic fashion in toxic tort cases.⁹

From my point of view – again, where the plaintiff is plainly proceeding to address causation by reference to risk – a jury that is not provided with meaningful information concerning cumulative dose simply lacks sufficient information to make a rational decision concerning substantiality. Instead, the fact finder is left to conjecture and speculation, colored by the liberal reaffirmations of the opinion concerning general and specific causation (sans the substantial-factor aspect), *i.e.*, that all doses are contributory.¹⁰ Put in terms of the frequently referenced bucket-in-the-ocean analogy

⁹ In this vein, I believe that an approach that relieves the plaintiff of addressing exposure to a defendant's product in the context of the plaintiff's overall exposure is tantamount to a form of burden shifting, which this Court has otherwise refused to extend into the toxic tort arena. *See, e.g., Skipworth v. Lead Indus. Ass'n, Inc.*, 547 Pa. 224, 231-32, 690 A.2d 169, 172 (1997). As further discussed below, I would submit that any changes to the law along such lines should be attended by consideration of the full host of relevant policy matters, which are well beyond the scope of the presentations here.

¹⁰ *Cf. Stark v. Armstrong World Inds., Inc.*, 21 Fed. Appx. 371, 376 (6th Cir. 2001) (expressing the concern that “defendants not be subjected to open-ended liability based solely on a jury’s inexpert speculation on proximate cause” (citation omitted)); *Burleson v. Texas Dep’t of Criminal Justice*, 393 F.3d 577, 587 (5th Cir. 2004) (explaining that a causation opinion where the expert “fail[s] to conduct a dose assessment” produces “too great an analytical gap between the data and the opinion proffered” (citation omitted)). *See generally* Gold, *When Certainty Dissolves Into Probability*, 70 WASH. & LEE L. REV. at 320-21 (“The mechanistic model fails when proof of causation rests on evidence derived from population-based data on the association of disease and exposure[.] [i]n such cases the fact-finder must test its belief in a frequentist-probability value supported by evidence of risk contribution.”).

coined by former Judge Klein, see *Summers v. Certaineed Corp.*, 886 A.2d 240, 244 (Pa. Super. 2005) (rejecting the notion that “if one took a bucket of water and dumped it into the ocean, that was a ‘substantial contributing factor’ to the size of the ocean”), I submit that a jury cannot meaningfully assess the substantiality of the impact of a bucket of water introduced into a receptacle where the jurors have been provided with no means to assess whether such receptacle is a bathtub, or a pond, or a lake, or an ocean.

Again, I recognize the difficulties facing plaintiffs in cases involving long-latency disease. See *supra* note 2.¹¹ Given, however, that alteration of long-standing and central tort-law concepts such as the requirement of substantial-factor causation has the potential to have broad-scale social effects, I believe that such matters are most appropriately considered by the policy-making branch of government. See *generally Seebold v. Prison Health Servs., Inc.*, 618 Pa. 632, 652-54 & n.19, 57 A.3d 1232, 1245-46 & n.19 (2012) (discussing the nature of common-law adjustments to the substantive law, the necessity for a fully developed policy analysis, and the superior position of the General Assembly to undertake such assessments).¹² To the degree that the judiciary

¹¹ In this regard, I acknowledge the expense and difficulty in attempting to address dose in concrete terms. See, e.g., N.T., Sept. 20, 2011 (A.M.), at 84 (reflecting the recognition, on the part of the plaintiff’s expert, Mr. Brody, that “you would need an industrial hygienist to explain what [the] dose might be,” albeit that Mr. Rost did not present such testimony). Again, however, to the degree that these sorts of practical considerations are at work – as opposed to a conventional application of established principles of tort law – I maintain that a wider-scale policy assessment is implicated.

¹² For example, further relaxation of the governing standards of proof obviously can exacerbate what the Supreme Court of the United States has characterized as an “elephantine mass of asbestos litigation . . . [which] defies customary judicial administration and calls for national legislation.” *Ortiz v. Fibreboard Corp.*, 527 U.S. 815, 821, 119 S. Ct. 2295, 2302 (1999). On a micro scale, the docket of the present case reflects that Mr. Rost filed his claims against 66 defendants, most of which attained summary dismissals. Moreover, the consequences of the adjustments reverberate through the product chain, since strict liability for a defective product does (continued...)

should continue to reassess the core and fundamental requirements of tort law as applied in the toxic tort arena, it is my position that the policy arguments should be

(...continued)

not merely attach to manufacturers but extends through the product chain to distributors and retailers as well. See, e.g., *Gregg*, 596 Pa. 274, 943 A.3d 216 (reflecting a suit against a local automobile parts supplier).

In a footnote, the majority opinion appears to suggest an inclination to consider eliminating the requirement of substantial-factor causation in the asbestos-litigation arena altogether in favor of a *de minimis* threshold for liability, based on the fact that the Legislature has cabined joint and several liability through the enactment of the Fair Share Act. See Majority Opinion, *slip op.* at 16 n.7. For supportive policy implications, the majority references a law review comment for the proposition that the “‘frequency, regularity and proximity’ test imposes an inappropriately high burden of proof upon many asbestos victims,” as it “distort[s] the medically proven fact that significant injury can result without ‘frequent’ or ‘regular’ exposure.” Brian M. DiMasi, Comment, *The Threshold Level of Proof of Asbestos Causation: The “Frequency, Regularity and Proximity Test” and a Modified Summers v. Tice Theory of Burden-Shifting*, 24 CAP. U. L. REV. 735, 750 (1995) (for the proposition).

It should be noted, however, that the burden-shifting premises underlying the author’s proposals rest, at least in part, upon his determination of culpable conduct on the part of asbestos product manufacturers. See, e.g., *id.* at 759 (charging the suppliers, manufacturers, and distributors of asbestos products at large with “a conspiracy to cover up the harmful effects of asbestos exposure”). Notably, given the once-widespread use of asbestos in products, there are thousands upon thousands of defendants in asbestos cases. See Alan Calnan & Byron G. Stier, *Perspectives on Asbestos Litigation: Overview and Preview*, 37 SW. U. L. REV. 459, 462-63 (2008) (tallying at least 8,400 entities spanning 75 of the 83 industries classified by the United States Department of Commerce), not all of whose culpability has been assessed. For example, asbestos defendants in Pennsylvania are often sued in strict liability, which, at least under the liability regime prevailing at the time the present action was litigated, foreclosed the defendants from from presenting conduct-based defenses, such as reliance on industry and government standards. See, e.g., *Lewis v. Coffing Hoist Div., Duff-Norton Co., Inc.*, 515 Pa. 334, 343, 528 A.2d 590, 594 (1987).

I mention these points to provide one of the many layers of perspective which I believe would need to be considered before making further adjustments to substantive law in asbestos cases.

made plain by the litigants, rather than proceeding as subtexts to the position that the traditional legal requirements are being adhered to straightforwardly.

Returning to what I believe to be the issue in this case, *see supra* note 8, I find that the record does not present an adequate basis for any meaningful assessment of Mr. Rost's long-term industrial exposure to asbestos. *Accord* Brief for *Amicus* Asbestos Disease Awareness Org. at 34 nn.78 & 79 (reflecting the recognition by an *amicus* for Appellee that any assessment of Mr. Rost's industrial exposure "is wholly speculative," because "[t]he record contained very little testimony regarding the duration and intensity of the exposures at Met-Ed"). In any event, it was quite apparent, in terms of Dr. Frank's opinion, that he was not concerned with even attempting to address Mr. Rost's cumulative dose on any sort of tangible or proportionate terms. *See, e.g.,* N.T., Sept. 19, 2011 (P.M.), at 22 (reflecting Dr. Frank's recognition that aspects of Mr. Rost's industrial exposure "could have been high, it could have been low" and his statement that: "I can't speak to what his level of exposure was"). Again, another expert for Mr. Rost indicated that such an assessment would have been within a different realm of expertise. *See* N.T., Sept. 20, 2011 (A.M.), at 84 (reflecting the recognition, on the part of Mr. Brody, that "you would need an industrial hygienist to explain what [the] dose might be").

For these reasons, in the absence of any sort of a meaningful assessment of proportionality, I agree with Ford's central position that the basis for Dr. Frank's opinion concerning substantial-factor causation is not materially distinguishable from his other opinions concerning general and specific causation, *i.e.*, that every exposure counts.¹³

¹³ I am not in any way suggesting that substantial-factor causation can be proved only by eliminating "every other potential cause of the development of disease through a ranking of different exposures." Majority Opinion, *slip op.* at 31. I do believe, however, that a plaintiff must meaningfully address his long-term industrial exposure to friable asbestos-containing products in a case premised on short-term exposure to non-friable (continued...)

Reaffirmation of Betz

Consistent with the above, I would take this opportunity to reaffirm, and not cabin, the Court's opinion in *Betz*. Initially, I do not agree with the majority's position that the requirement for a plaintiff to address, in some meaningful fashion, the plaintiff's cumulative dose was unnecessary to the decision in *Betz*. See Majority Opinion, *slip op.* at 22. Rather, the *Betz* Court proceeded through essentially the above analysis, recognizing that the liability theory was risk based, and concluded that the only rational way to assess substantiality in a risk calculus (particularly in lower-dose scenarios) is to compare the risk attributable to a particular defendant with the plaintiff's overall risk exposure. See *Betz*, 615 Pa. at 549-54, 44 A.3d at 55-58; accord *Moeller*, 660 F.3d at 954 ("The question [of] whether [defendant's] acts probably caused [plaintiff's] mesothelioma must be viewed in the context of [plaintiff's] other substantial exposures to asbestos[.]" (quoting *Cardinal Indus. Insulation Co., Inc. v. Norris*, Nos. 2004-CA-000525-MR, *et al.*, *slip op.*, 2009 WL 562614, at *8 (Ky. Ct. App. Mar. 6, 2009))); *Bailey*

(...continued)

materials and their low-asbestos-content byproducts. Cf. *Moeller v. Garlock Sealing Techs., LLC*, 660 F.3d 950, 955 (6th Cir. 2011) ("Given that the [p]laintiff[-executrix] failed to quantify [her decedent's] exposure to asbestos from [a defendant's] gaskets and that the [p]laintiff concedes that [the decedent] sustained massive exposure to asbestos from [other] sources, there is simply insufficient evidence to infer that [the defendant's] gaskets probably, as opposed to possibly, were a substantial actor of [the decedent's] mesothelioma.").

I certainly would not hold plaintiffs to exactitude in this setting. Indeed, there is no question that "[l]arge swaths of tort law are, to put it charitably, highly approximate." Gold, *When Certainty Dissolves Into Probability*, 70 WASH. & LEE L. REV. at 326. From my point of view, however, courts must engage in some line drawing, and, in the present context, Mr. Rost's failure to offer even rough approximations of dose either as to the approximately three-month period of exposure to friction products at the Smith Ford garage or the long-term industrial exposure should be deemed dispositive relative to Ford's liability.

v. N. Am. Refractories Co., 95 S.W.3d 868, 873 (Ky. Ct. App. 2001); *Martin*, 561 F.3d at 443 (“[O]ne measure of whether an action is a substantial factor is the number of other factors which contribute in producing the harm and the extent of the effect which they have in producing it.”).

In *Betz*, it was precisely because the any-exposure theory fails to account for cumulative dose (which drives the overall risk of disease) that the Court rejected the theory as a means to establish substantial-factor causation. See, e.g., *Betz*, 615 Pa. at 550, 44 A.3d at 56 (“[O]ne cannot simultaneously maintain that a single fiber among millions is substantially causative, while also conceding that a disease is dose responsive.”). In this regard and otherwise, I do not view *Betz* as merely circling back to the frequency, regularity, and proximity test. See Majority Opinion, *slip op.* at 31.

Frequency, Regularity, Proximity

From my perspective, the frequency, regularity, and proximity test is best conceptualized as a rough exposure-related screening test, most useful for product identification purposes at the summary judgment stage. See generally Faigman, *et al.*, 3 MOD. SCI. EVIDENCE §25:5 (explaining that, given the volume of defendants being hailed into court by plaintiffs in individual cases, “[c]ourts have been forced to develop a set of sufficiency tests for judging which cases should be taken from the jury”). After all, the test is undeveloped in terms of metrics or degree-based standards of any kind and, in cases involving mesothelioma, tends to devolve into the any-exposure theory.

In complex toxic tort cases such as the present one, the requirement for competent expert testimony – to connect exposure with actual disease – obviously remains a central one. *Accord Hamil v. Bashline*, 481 Pa. 256, 267, 392 A.2d 1280, 1285 (1978) (“[I]t is generally acknowledged that the complexities of the human body place questions as to the cause of pain or injury beyond the knowledge of the average

layperson[;] therefore, the law requires that expert medical testimony be employed.” (citation omitted)). The *Betz* Court recognized the influential nature of the testimony of expert witnesses and the potential for distortions to mislead laypersons and, therefore, decided that courts should maintain a gatekeeping role relative to expert testimony about the critical issue of substantial-factor causation in toxic tort cases. See *Betz*, 615 Pa. at 545, 44 A.3d at 53.

To the degree that the decision in *Tragarz v. Keene Corp.*, 980 F.2d 411 (7th Cir. 1992), suggests that no comparative risk or probability assessment is required, this Court plainly departed from that approach based on developed reasoning in *Betz*. See *Betz*, 615 Pa. at 553-54, 44 A.3d at 58. Again, I respectfully differ with the majority’s decision to overturn this and other material portions of such decision.

The Structural Error in Consolidation

On the issue of consolidation, the majority recognizes that the trial court committed a blatant, structural error by consolidating unrelated complex, toxic tort cases merely on the basis that all plaintiffs suffered from the same disease. See Majority Opinion, *slip op.* at 34. In other contexts, courts have recognized the difficulty facing a litigant charged with establishing prejudice resulting from structural errors. See, e.g., *State v. Shearer*, 334 P.3d 1078, 1083 (Wash. 2014). In my view, given the breadth of the present record – subsuming the differences among the plaintiffs and defendants and all of the attendant circumstances relative to the three materially unrelated cases involved – the high potential for prejudice is evident, even if one were to discount the emerging empirical evidence referenced by Ford. See Brief for Appellant at 42 (citing, *inter alia*, Kenneth S. Bordens & Irwin A. Horowitz, *The Limits of Sampling and Consolidation in Mass Tort Trials: Justice Improved or Justice Altered?*, 22 LAW &

PSYCHOL. REV. 43, 66 (1998), for the proposition that consolidation “can alter the patterns of verdicts and awards handed down by jurors”).

If a tipping point is needed, I would find that to have been reached, *inter alia*, in the argument presented to the jury by an attorney representing Sears in another of the consolidated cases:

And, oh, the automotive companies, *the brake companies have this grand conspiracy*. Well, ladies and gentlemen, I represent Sears. We are a department store, a retailer. You didn't hear anything about Sears funding studies about brakes.

N.T., Oct. 5, 2011, at 157 (emphasis added).

For these reasons, I believe that Ford would be entitled to a new trial, but for the failure of proof relative to substantial-factor causation. In light of such failure, I would reverse and remand for entry of judgment notwithstanding the verdict.