To Be Argued By:
RODNEY M. ZERBE

New York County Clerk's Index No. 113838/04

New York Supreme Court

APPELLATE DIVISION—FIRST DEPARTMENT

In Re: New York City Asbestos Litigation

ALFRED D'ULISSE, *et al.*,

Plaintiffs-Respondents,

—against—

AMCHEM PRODUCTS, INC., *et al.*,

Defendants,

—and—

DAIMLERCHRYSLER CORPORATION,

Defendant-Appellant.

BRIEF OF CATERPILLAR INC.; HONEYWELL INTERNATIONAL INC., AS SUCCESSOR IN INTEREST TO BENDIX CORPORATION; PNEUMO ABEX LLC; BORG-WARNER CORPORATION BY ITS SUCCESSOR IN INTEREST BORGWARNER MORSE TEC, INC.; CHAMBER OF COMMERCE OF THE UNITED STATES OF AMERICA AND THE AMERICAN CHEMISTRY COUNCIL, *AS AMICI CURIAE* IN SUPPORT OF DEFENDANT-APPELLANT

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STATEMENT OF INTEREST

Amici Caterpillar Inc., Pneumo Abex LLC, Borg-Warner Corporation by its successor in interest Borg Warner Morse TEC Inc., and Honeywell International Inc., as successor in interest to Bendix Corporation, are United States corporations that do business in the state of New York and have been named as defendants in asbestos-related claims by plaintiffs similar to the claim in the action presently before this Court.

The Chamber of Commerce of the United States of America ("U.S. Chamber") is the world's largest business federation. The U.S. Chamber represents an underlying membership of more than three million businesses and organizations of every size, in every business sector, and from every region of the country. An important function of the U.S. Chamber is to represent the interests of its members in court on issues of national concern to the business community. Accordingly, the U.S. Chamber has filed more than 1,000 *amicus curiae* briefs in state and federal courts.

The American Chemistry Council ("ACC") represents the leading companies engaged in the business of chemistry. The business of chemistry is a key element of the nation's economy, accounting for ten cents out of every dollar in U.S. exports. Chemistry companies invest more in research and development than any other business sector.

INTRODUCTION AND SUMMARY

In 2003 two expert witnesses attempted to testify in a New York case that the plaintiff gas station attendant's exposure to benzene contained in gasoline was sufficient to cause his cancer, acute myelogenous leukemia (AML). They did so, however, without assessing or estimating the attendant's dose of benzene and comparing it to exposure levels in epidemiology studies of refinery workers documenting cases of AML from benzene exposure. The New York Court of Appeals rejected this testimony as insufficient to support causation in toxic tort litigation. *Parker v. Mobil Oil Corp.*, 7 N.Y.3d 434, 857 N.E.2d 1114 (2006). The *Parker* Court found this testimony to be unreliable and unscientific because the experts had "neither state[d] the level of the refinery workers' exposure, nor specifie[d] how Parker's exposure exceed[ed] it." *Id.* at 449. The experts' subjective claims of "frequent" and "excessive" exposures were not good enough, nor was their assertion that "there is no threshold below which leukemia would not occur." *Id.* at 446, 449.

The *Parker* Court thus established the standard for causation testimony in New York toxic tort cases: an expert witness may not guess at exposure, or simply assert that all exposures are causative, but instead must both assess the plaintiff's dose to the specific toxin and compare that dose to exposures otherwise established

by epidemiology studies as a known cause of the particular disease at issue. The required *Parker* dose analysis prevents claims from proceeding to trial if they are based on speculative causation testimony regarding minimal exposures that are not a substantial contributing factor in causing plaintiff's injury.

The *D'Ulisse* appeal presents this Court squarely with the question as to how the *Parker* standard will apply in asbestos cases. More specifically, the Court must deal with the *any exposure* theory relied on by the plaintiff's experts in *D'Ulisse* in the context of the *Parker* ruling. A cadre of plaintiff experts in asbestos litigation, including the two experts in this case, has adopted the practice of relying on the "each and every exposure" theory to support litigation against defendants whose products would result in only minimal or trivial exposures. The *any exposure* theory, as we will refer to it,[1] rejects the need to perform a dose assessment and assumes that every breath or minuscule exposure to any asbestos fibers in the workplace, no matter how insubstantial, is part of the individual's overall exposure of asbestos and thus must be considered an actionable cause of disease.

The *any exposure* approach ensnares in litigation any entity whose product the plaintiff encountered, even if the encounter was only one or a handful of

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[1] This approach is variously referred to by plaintiff experts as "any fiber," "every exposure," "all exposures above background" or some identified level, "each and every breath," or other similar phrase. All of these approaches are essentially the same – the expert avoids assessing the dose by assuming that all exposures are a substantial factor in causation.

events, of limited duration, and of undefined fiber release. At the same time, however, these experts have no science to support the theory that *any exposure* causes disease – it is only an unproven hypothesis. In fact, as Appellant Chrysler has pointed out, all the published epidemiology studies regarding mechanic work and other low-dose, chrysotile exposures contradict the *any exposure* hypothesis. Nor can the opinion that every exposure is causative be found in published literature – it is a litigation opinion created to support asbestos lawsuits. Despite the lack of scientific community acceptance, these experts are attempting to present the *any exposure* theory in almost every asbestos court in the country in an effort to expand asbestos litigation to any product with any asbestos in it.

The *any exposure* asbestos theory is fundamentally at odds with the *Parker* decision. The experts in *Parker* at least claimed the exposures were "frequent" and "excessive" and approached levels in epidemiological studies. The *any exposure* experts do not even try to characterize the dose – they accept even the smallest dose as causative. Thus, the two experts in this case assumed Mr. D'Ulisse's brake pad handling was causative because he must have breathed "some" fibers during that work.

It is not just New York that has declared causation testimony without a dose assessment to be unreliable. In the last four years, fourteen courts across the

country, using phrases like "fundamentally flawed" and "a fiction," have rejected the *any exposure* theory as unscientific and insufficient to support asbestos claims:[2]

- The *any exposure* hypothesis "is *not a theory which is generally accepted in the scientific community* . . . " *Anderson*, No. 05-2-04551-5 SEA, at 144-45.

- "[T]here is *no medical authority or generally accepted methodology* that would support the conclusion that . . . 'each and every exposure' substantially contributed" to a particular plaintiff's disease process." *Vogelsberger*, 2006 WL 2404008, at *13.

- The opinion that "each and every exposure" was a substantial factor in contributing to mesothelioma is "*fundamentally flawed* and *not generally accepted* by the relevant scientific community." *Vogelsberger*, 2006 WL 2404008, at *13.

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[2] *See Borg-Warner Corp. v. Flores*, 232 S.W.3d 765, 774 (Tex. 2007); *Gregg v. V-J Auto Parts, Inc.*, 943 A.2d 215 (Pa. 2007); *Georgia-Pacific Corp. v. Stephens*, 239 S.W.3d 304, 312-21 (Tex. App.-Houston. 2007); *In re W.R. Grace & Co.*, 355 B.R. 462, 474, 478 (Bkrtcy.D.Del. 2006); *Vogelsberger v. Owens-Illinois, Inc.*, 2006 WL 2404008, *13 (Pa. Ct. Com. Pl. Aug. 17, 2006), *on appeal, Betz v. Pneumo-Abex LLC,* No. 1058 WDA 2006 (Pa. Super. 2006); *Brooks v. Stone Architecture*, 934 So.2d 350, 255-56 (Miss. Ct. App. 2006); *Summers v. Certainteed Corp.*, 886 A.2d 240, 244 (Pa. Super. 2005); *Bartel v. John Crane Inc.,* 316 F. Supp. 2d 603, 611 (N.D. Ohio 2004), *aff'd, Lindstrom v. A-C Prod. Liab. Trust*, 424 F.3d 488 (6th Cir. 2005); *Anderson v. Asbestos Corp., Ltd.*, No. 05-2-04551-5 SEA (Wash. Super. Oct. 31, 2006) (Transcript of Bench Ruling at 144045), *reversed on other grounds, Anderson v. Caterpillar, Inc.,* No. 60271-3 (Wash. Ct. App. August 11, 2008); *In re Asbestos,* No. 2004-3964 (Tex. Dist. Ct., 11th Dist., Harris County Jan 20, 2004) (Letter Ruling); *In re Asbestos*, Cause No. 964 (Tex. Dist. Ct. Jul. 18, 2007) (Letter Ruling); *Basile v. Am. Honda Motor Co.*, No. 11484 CD 2005 (Pa. Ct. Comm. Pl. Feb. 22, 2007) (Order Granting Caterpillar's Motion to Exclude Plaintiffs' Experts' Testimony); *Free v. Ametek*, No. 07-2-04091-9-SEA (Wash. King County Super. Ct. Feb. 29, 2008) (Barnett J.) (ruling on motion *in limine*); Findings, Memorandum, and Order, *In re Asbestos Litigation*, Trial Division-Civil, Control # 084682 (Pa. Ct. Comm. Pl. Sep. 26, 2008), at 53.

If the Court grants leave to file this brief, Counsel will provide the Court with copies of these cases and other authorities for its convenience.

- "We do not believe that it is 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 ...." *Gregg*, 943 A.2d at 227.

- "I have been unable to find, and I do not believe that [plaintiffs' experts], or any other witness or authority offered on behalf of the plaintiffs have offered any generally accepted methodology to support this [*any exposure*] proposition." *Vogelsberger*, 2006 WL 2404008, at 6.

- "If an opinion such as [this] would be sufficient for plaintiff to meet his burden, the *Sixth Circuit's 'substantial factor' test would be meaningless*..." *Bartel*, 316 F. Supp. 2d at 611.

- "While science has confirmed the threat posed by asbestos, we have not had the occasion to decide whether a person's exposure to 'some' respirable fibers is sufficient to show that a product containing asbestos was a substantial factor in causing asbestosis...we conclude that it is not." *Borg-Warner*, 232 S.W.3d at 744.

- "[T]he opinion of Dr . Frank, that every breath Lindstrom took which contained asbestos could have been a substantial factor in causing his disease, *is not supported by the medical literature*." *Bartel*, 316 F. Supp. 2d at 611.

- "[T]he assumption that every exposure to asbestos ... is a substantial factor contributing to development of an asbestos-related disease, is *not a scientifically proved proposition* that is accepted in the field of epidemiology, pulmonology, or any other field relevant to this case." *Free*, No. 07-2-04091-9-SEA, at 4.

(Emphasis added throughout). These opinions include, among others, those of two state supreme courts (Texas and Pennsylvania); two intermediate state appellate

courts (Texas and Mississippi); one federal appellate court (the United States Court of Appeals for the Sixth Circuit); and the Delaware federal bankruptcy court in the widely-followed *W.R. Grace* litigation. These are not insubstantial courts or insubstantial opinions. The *any exposure* theory has been thoroughly discredited, including under the reasoning of the *Parker* Court, and should likewise be eliminated as a substitute for proof of causation in New York asbestos litigation.

Amici submit this brief to address the rejection of the *any exposure* theory in asbestos litigation decisions throughout the country and its inconsistency with the standards expressed in *Parker*. Neither the Court of Appeals in *Parker* nor any other New York court has suggested that plaintiffs should be excused from standards of proof in toxic tort litigation just because the substance at issue is asbestos. We urge the Court to examine carefully not just what these experts have opined, but whether they have presented the kind of data and scientific support for those opinions that *Parker* requires – *Amici* submit they have not.

ARGUMENT

I. The *Any Exposure* Theory of Causation Fails the Standards Set Forth in *Parker v. Mobil Oil*.

The *Parker* case is now the law of New York for toxic tort causation and expert testimony, including in asbestos cases. Appellant Chrysler has briefed the *Parker* requirements for causation and the necessity under *Parker* of applying the

existing vehicle mechanic epidemiology studies. We will not revisit those arguments but will address instead the critical application of *Parker*'s dose requirement to the expert testimony in this case and the flawed nature of the *any exposure* theory underlying it.

A. Dose Is a Critical Element in Any Toxic Tort Case, Including Asbestos Cases.

The *Parker* standard for expert testimony in a toxic tort case is based on one of toxicology's central tenets, "the dose makes the poison."[3] Every substance known to science is harmful at some dose, and benign, or at least not known to be harmful, at lower doses. Examples are easy to identify – two aspirin relieve a headache, fifty might kill; some sunlight is healthy, but too much can cause melanoma; even poisons like arsenic are essential elements for the human body at low doses.

Thus, a leading scientist in this field has instructed courts to *pay attention to dose*: "Dose is the single most important factor to consider in evaluating whether an alleged exposure caused a specific adverse effect." David L. Eaton, *Scientific Judgment and Toxic Torts—A Primer in Toxicology for Judges and Lawyers*, 12

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[3] A fundamental tenet of toxicology is that "the dose makes the poison." Federal Judicial Center, Reference Manual on Scientific Evidence, Reference Guide on Toxicology 403 (2000). The "father of toxicology," physician and philosopher Paracelsus first articulated this principle in the 16th Century, stating: "All substances are poisonous—there is none which is not; the dose differentiates a poison from a remedy." Eaton, *infra*, at 11 .

J.L. & POL'Y 5, 11 (2003). *See, e.g., McClain v. Metabolife Int'l, Inc.*, 401 F.3d 1233, 1241 (11th Cir. 2005) ("In toxic tort cases, [s]cientific *knowledge of the harmful level of exposure* to a chemical, plus knowledge that plaintiff was exposed to *such quantities* are minimal facts necessary to sustain the plaintiff's burden.") (emphasis added) (quoting *Allen v. Pa. Eng'g Corp.*, 102 F.3d 194, 199 (5th Cir. 1996)); Bernard D. Goldstein & Mary Sue Henifin, *Reference Guide on Toxicology,* in Reference Manual on Scientific Evidence 403 (Federal Judicial Centered., 2d ed. 2000) (first tenet of toxicology is whether substances cause harm is "a question of dose").

Thus, at the most basic level, to determine whether exposure to a particular defendant's product was a cause of injury, there *must be an assessment of the quantity of exposure.* Dozens of courts around the country, in non-asbestos toxic tort litigation, have recognized this principle and excluded or criticized experts who try to avoid any dose assessment or demonstration of a toxic level of exposure.[4] As discussed in Section B below, the necessity of a dose assessment

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[4] *See, e.g., McClain*, 401 F.3d at 1241 (plaintiff must establish level at which substance is harmful and that his exposures were of that level); *Wright v. Willamette Indus., Inc.*, 91 F.3d 1105, 1108 (8th Cir. 1996) (excluding opinion "not based on any knowledge about what amounts of wood fibers impregnated with formaldehyde involve an appreciable risk of harm"); *Mitchell v. Gencorp Inc.*, 165 F.3d 778, 781 (10th Cir. 1999) ("plaintiff must demonstrate 'the levels of exposure that are hazardous to human beings generally as well as the plaintiff's actual level of exposure'") (quoting *Wright v. Willamette Indus., Inc.*, 91 F.3d 1105, 1106 (8th Cir 1996)); *Moore v. Ashland Chem. Inc.*, 151 F.3d 269, 278 (5th Cir. 1998) (excluding expert who "had no accurate information on the level of [plaintiff's] exposure" to fumes); *Allen*, 102 F.3d at 199

(continued...)

has been carried over to asbestos litigation by courts that have rejected the *any exposure* approach. A dose assessment alone, however, is only half the equation – it is also critical to compare that dose to exposures demonstrated to cause disease, typically through epidemiology studies. *See Parker*, 7 N.Y.3d at 449 . If a worker's dose is well below the levels causing disease, there is nothing to support a causation opinion except speculation.

B. The Expert Testimony in *D'Ulisse* Is Insufficient to Establish Causation Because the *Any Exposure* Theory Ignores the Element of Dose.

The *Parker* case is a paradigm example of an improper causation assessment that is insufficient to support toxic tort liability. Both of the plaintiff's experts in *Parker* testified that a gasoline station attendant's exposure to benzene in gasoline

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(continued)

("Scientific knowledge of the harmful level of exposure to a chemical, plus knowledge that the plaintiff was exposed to such quantities, are minimal facts necessary to sustain the plaintiffs' burden in a toxic tort case."); *Cano v. Everest Minerals Corp.*, 362 F. Supp.2d 814, 825 (W.D. Tex. 2005) ("[T]o establish specific causation, a claimant must not only introduce sufficient epidemiological evidence, he must also show that he is similar to those in the studies, which includes 'proof that the injured person was exposed to the same substance, that the exposure or dose levels were comparable to or greater than those in the studies.'") (quoting *Merrell Dow Pharmaceuticals, Inc. v. Havner*, 953 S.W.2d 706, 720 (Tex. 1997)); *Nat'l Bank of Commerce v. Dow Chem. Co.*, 965 F. Supp. 1490, 1524 (E.D. Ark. 1996) (plaintiff must show "evidence from which a jury could responsibly assess the level of the exposure" and "whether the levels of exposure and dose" were likely to produce birth defects); *Louderback v. Orkin Exterminating Co., Inc.*, 26 F. Supp. 2d 1298, 1305 (D. Kan. 1998) (plaintiff must prove levels of exposure that are hazardous and plaintiff's level of exposure); *Nelson v. Tenn. Gas Pipeline Co.*, No. 95-1112, 1998 WL 1297690, at *6 (W.D. Tenn. Aug. 31, 1998) (excluding opinion of expert who did not assess dose); *Mancuso v. Consol. Edison Co. of N.Y., Inc.*, 967 F. Supp. 1437, 1453 (S.D.N.Y. 1997) (expert "did not make sufficient determinations of environmental PCB levels, nor of the extent of the plaintiffs' exposure thereto").

caused his cancer, AML. Neither expert, however, attempted to assess or determine in any way what Mr. Parker's dose of benzene was – instead, they substituted generic adjectives such as "frequent," or "extensive," or "excessive" to describe his exposures. *Parker,* 7 N.Y.3d at 449. The only epidemiology studies documenting cases of AML from benzene are in contexts involving much higher levels of exposure – typically last-century refinery workers directly handling large amounts of benzene. *Id.* at 444. Neither expert made any effort to compare Mr. Parker's dose to those involved in these studies.

Like the experts in *Parker*, neither of Mr. D'Ulisse's experts made any attempt whatsoever, either themselves or through any industrial hygienist or published studies, to assess or even estimate the dose received by Mr. D'Ulisse by handling brake pads. Instead, going even further than the *Parker* experts, Drs. Panitz and Schachter testified that they are wholehearted devotees of the *any exposure* theory. (*See* A-2364-65, A-3265-66). Under that approach, by assuming that Mr. D'Ulisse breathed *any* fibers from his brake pad work, these experts

testified that this exposure was a substantial factor in causing his disease.[5] They have made no effort to compare Mr. D'Ulisse's dose to any published epidemiology studies documenting mesothelioma from such extremely low exposures as merely handling brake pads.

The effect of this expansive theory of causation is that it ensnares every company that ever made or used an asbestos-containing product as a defendant in litigation, regardless of the likelihood the product could have materially contributed to disease. Among other things, the *any exposure* theory entirely ignores differences in fiber type potency, differences in the products themselves (many are bonded in resins and do not easily release fibers), or other factors widely accepted as affecting the toxicity of products and causation analysis. *See Gideon v. Johns-Manville Sales Corp.*, 761 F.2d 1129, 1145 (5th Cir. 1985) ("all asbestos products cannot be lumped together in determining their dangerousness."); *In re Ethyl Corp.*, 975 S.W.2d 606 (Tex. 1998) ("In some products, the asbestos is

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[5] Dr. Panitz testified: "My opinion is that each and every exposure contributed to his total body burden of asbestos, which contributed to his increased risk for mesothelioma." Testimony of Elaine Panitz, at 654 (A-1587). *See also* Panitz testimony at 1487-1488 (A-2420-2421) (agreeing with question of Plaintiff's own counsel that "each and every exposure that Mr. D'Ulisse had to asbestos-containing dust that was visible from the asbestos-containing products" was a "substantial contributing factor" to his mesothelioma). Dr. Schachter testified that "any asbestos exposure is potentially carcinogenic" (*see* Testimony of Edwin Schachter, at 2333 (A-3266)), and "My opinion is that those exposures that occurred within the window of time that is associated with the development of mesothelioma, which is usually somewhere over twenty years could significant – could and did significantly contribute to Mr. D'Ulisse's disease." Schachter Testimony, at 2332 (A-3265).

embedded and fibers are not likely to become loose or airborne, [while] [i]n other products, the asbestos is friable.").

The *Parker* Court has thoroughly rejected this approach, in terms that offer no room for the *any exposure* theory and no basis for distinguishing asbestos as a "special" tort not subject to the ordinary rules of causation. To the contrary, the *Parker* Court requires toxic tort experts to follow the widely accepted, three-step process published by the World Health Organization and National Academy of Sciences, including the "general causation" requirement: "[P]roof that the toxin in question can in fact cause the illness, and *the amount of exposure required to cause the illness* (the dose-response relationship)." *Parker*, 7 N.Y.3d at 445-446. The Court later restated this requirement in even clearer terms:

> It is well-established that an opinion on causation should set forth a plaintiff's exposure to a toxin, and that the toxin is capable of causing the particular illness (general causation), and *that plaintiff was exposed to sufficient levels of the toxin to cause the illness (specific causation)*.

Id. at 448. The *Parker* experts' substitution of generic descriptions in lieu of an actual dose assessment was fatal to the substance of their opinions. Similarly here, substituting the unproven notion that every breath of asbestos causes mesothelioma does not suffice for a proper dose assessment.

As in *Parker*, the experts have not identified any epidemiology studies documenting that very low doses of chrysotile asbestos, such as those likely

experienced by Mr. D'Ulisse in merely handling brake pads, can cause mesothelioma.[6] The *Parker* Court required both an assessment of the plaintiff's dose, and a comparison of that dose to known levels associated with disease. *Parker*, 7 N.Y.3d at 449 ("Comparison to the exposure levels of subjects in other studies could be helpful provided that the expert made a specific comparison sufficient to show how the plaintiff's exposure level related to those of the other subjects."). The *D'Ulisse* experts have failed to comply with this second requirement of *Parker* every bit as much as the two experts in *Parker* did.

In several other respects, the parallels between the weaknesses of the *any exposure* testimony of Drs. Panitz and Schachter and the *Parker* expert testimony are remarkably close:

(1) No known safe dose. Both the *Parker* experts and Drs. Panitz and Schachter improperly relied on the notion that there is no *known* safe dose for carcinogens, as to benzene in *Parker* and as to asbestos here. *See Parker*, 7 N.Y.3d at 444; Schachter Testimony, at 2333 (A-3266) ("any asbestos exposure is potentially carcinogenic"); Panitz Testimony, at 1431-32 (A-2364-65) ("asbestos

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[6] Chrysler's brief describes the lack of disease documented in 18 studies of mechanics. *See Brief of Appellant-Defendant*, at 29-30. The accepted level of dose from chrysotile fiber exposures for mesothelioma, as demonstrated in published epidemiology studies, is in the range of 25 to 100 f/cc years, doses associated with the extensive exposures of asbestos miners and textile workers. Andrew Churg, *Nonneoplastic Disease Caused by Asbestos*, *in* PATHOLOGY OF OCCUPATIONAL LUNG DISEASE at 349-52 (Andrew Churg & Francis H.Y. Green eds., 2d ed. 1998).

is such a powerful carcinogen . . . that if there is any – almost any significant asbestos exposure to an individual who developed mesothelioma, it should be considered causative."). Simply not knowing where the safe dose lies is not an excuse for assuming every dose, including the smallest, is a cause of disease. *Vogelsberger,* at *8-9*; W.R. Grace,* 355 B.R. at 476. Thus, the *Parker* Court properly placed the burden on plaintiffs to demonstrate, ordinarily through epidemiology, where the level sufficient to cause disease lies, and then document that the plaintiff's dose was at or above that level.

(2) Reliance on regulatory and theoretical approaches. Both the *Parker* experts and the *D'Ulisse* experts relied heavily on theoretical approaches used primarily for regulatory purposes, which the experts misconstrue instead in an effort to "prove" that low doses cause disease. Principally, these and other *any exposure* experts utilize the "linear non-threshold" theory, which originated in the regulatory context to assist in establishing acceptable exposures in the workplace and elsewhere, not to prove causation. *W.R. Grace,* 355 B.R. at 476. The *any exposure* experts, however, adopt that theory to *assume*, without proof, that disease will occur at exposures all the way down to zero exposure. Several courts have noted the impropriety of utilizing an unproven regulatory theory like the linear non-threshold theory to establish actual causation in court. *In re Toxic Substance Cases*, 2006 WL 2404008, at *7-8; *Free*, slip op. at 3-4. The *Parker* Court also

specifically rejected the use of a regulatory theoretical method to prove causation: "[S]tandards promulgated by regulatory agencies as protective measures are inadequate to demonstrate legal causation." *Parker*, 7 N.Y.3d at 450.

(3) Dose assumptions: The *Parker* experts' unsupported assumption that exposures from gasoline would "far exceed" epidemiology levels is extremely close to the *D'Ulisse* experts' apparent assumption that Mr. D'Ulisse's handling of brake pads would produce exposures comparable to a lifetime of work as a brake mechanic, a profession they claim is at risk of mesothelioma. *Amici* join Chrysler in rejecting the notion that mechanics get mesothelioma from their work – that conclusion is directly contradicted by every published epidemiology study.[7] Either way, these experts cannot assume under *Parker* that Mr. D'Ulisse's dose of asbestos fibers approached even that of vehicle mechanics without substantiating the amount of Mr. D'Ulisse's exposure.

Perhaps most critically, one of the two experts in *Parker*, Dr. Landrigan, came very close to relying on the *any exposure* theory. Rather than identify the dose received by Mr. Parker, Dr. Landrigan claimed that there was no known safe dose of benzene thereby attempting to justify his assumption that Mr. Parker's dose

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[7] The studies are summarized and discussed in Francine Laden, *Lung Cancer and Mesothelioma among Male Automobile Mechanics: A Review*, 19 Revs. On Envtl. Health 39 (2004); Michael Goodman et al., *Mesothelioma and Lung Cancer among Motor Vehicle Mechanics: A Meta-analysis*, 48 Annals Occupational Hygiene 309, 309 (2004).

was causative even though he did not know what it was. *Parker*, 7 N.Y.3d at 446; *see also id.* at 445 (experts relied on "the theory that there is no threshold of exposure under which there will be no negative health effects"). Without question, the *Parker* Court found this approach entirely unpersuasive – the Court instead required a dose assessment. The Court also favorably cited the Appellate Division's rejection of Dr. Landrigan's approach:

> The Court also rejected Landrigan's position that there is no threshold below which leukemia would not occur as "the scientific reliability of th[at] methodology has flatly been rejected as merely a hypothesis... We now affirm. (*Id.* at 446)

These *Parker* holdings demonstrate that New York will not permit an expert to rely on the *any exposure* theory or any other method that fails properly to assess the dose and compare it to the causation conclusions within legitimate epidemiology.[8] Since *Parker* came out, at least two New York courts have applied the case exactly in the manner *Amici* suggest that this Court should in *D'Ulisse* – to find expert testimony insufficient unless the experts follow the *Parker*

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[8] Although *Parker*'s analysis was directed at the error in admitting expert testimony, the same analysis logically applies to substantial factor causation in any asbestos trial. New York courts since *Parker* have applied that ruling to reject expert testimony as sufficient to support a trial verdict, and have not limited *Parker's* application to the issue of whether expert testimony should be excluded. *See Hellert v. Town of Hamburg*, 857 N.Y.S.2d 825, 50 A.D.3d 1481 (4th Dept. 2008) ("In sum, the conclusory assertion of plaintiffs' expert that an unquantified exposure to certain toxins caused the child's migraine headaches is insufficient to raise a triable issue of fact with respect to causation."); *Coratti v. Wella Corp.,* No. 106168/01, 2006 WL 3718247, at 8 (N.Y. Sup., New York County Dec. 15, 2006) (complaint dismissed where "plaintiff's failed to present reliable or admissible expert opinion evidence that exposures to the chemicals" contained in hair coloring products can cause plaintiff's illness).

methodology by documenting a sufficient dose to cause disease. In *Hellert v. Town of Hamburg*, plaintiff's expert contended that a child's migraines were caused by contaminants in groundwater, but "fail[ed] to set forth the levels of the toxins detected on the property of the child's parents" and "did not refer to any study establishing that the child was exposed to sufficient levels" to cause migraines. 857 N.Y.S.2d 825, 828, 50 A.D.3d 1481, 1483 (4th Dept. 2008). Citing *Parker,* the court held that the expert's "unquantified exposures" were "insufficient to raise a triable issue of fact...." *Id.* Likewise, in *Coratti v. Wella Corp.*, plaintiff's experts' testimony failed to meet plaintiff's causation burden of proof because "they have not provided information regarding the amount of [hair dye] chemicals ... required to cause Mr. Coratti's alleged illnesses *and* they have failed to quantify Mr. Coratti's exposure (*citing Parker*)." 831 N.Y.S.2d 358, 2006 WL 3718247 (N.Y. Sup New York County 2006), at *7.

To date, New York asbestos rulings have not dealt directly with the *any exposure* theory, but some of them at least have allowed plaintiff experts considerable discretion in testifying as to asbestos causation.[9] At a minimum,

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[9] *See Berger v. Amchem Prods.,* 818 N.Y.S.2d 754 (N.Y.S.2d 2006); *Lustenring v. AC&S, Inc.*, 13 A.D.3d 69, 786 N.Y.S.2d 20 (1st Dept., 2004); *Wiegman v. AC&S*, 24 A.D.3d 375 (1st Dept. 2005). Other New York courts have been more skeptical of plaintiff low-dose cases. *See, e.g., DeMeyer v. Advantage Auto*, 797 N.Y.S.2d 743 (N.Y. Sup., 2005). None of these decisions dealt directly with the *any exposure* theory, and most were in fact addressing whether a *Frye* hearing was required, an issue that is not on appeal in *D'Ulisse.*

Parker should be read to prohibit asbestos experts from relying on an approach that fails to consider or evaluate the dose plaintiff received, including the *any exposure* approach relied on by plaintiff's experts in this case.

II. The *Any Exposure* Theory Has Been Discredited and Should Not Suffice as Evidence of Causation in New York Asbestos Litigation.

Appellant's brief raises the *Parker* dose issue but does not directly discuss the *any exposure* theory or its flaws. Because *Amici* believe that the *any exposure* theory is at the heart of the opinions of Drs. Panitz and Schachter (as they so testified), and must be addressed in light of *Parker*, we provide a brief review of the state of asbestos law in other jurisdictions addressing the question of whether this theory can support an asbestos case. Virtually every court to consider this approach has ruled that it is not scientific and cannot support causation.

In Pennsylvania, Judge Colville, in a 2005 ruling addressing several vehicle mechanic cases, provided one of the earliest and best analyses of the flaws in the *any exposu*re theory, setting the pattern for most of the decisions that followed. *Vogelsberger*, 2006 WL 2404008 at *13. He noted that the expert in that case, Dr. John Maddox (who testifies nationally for plaintiffs in asbestos litigation) failed to explain how he could exclude substantial amounts of "background" or ambient exposures from causation, yet include every breath of occupational exposures as a cause. *Vogelsberger*, 2006 WL 2404008 at *3, 13. Judge Colville criticized Dr. Maddox's "extrapolate down" methodology as an effort to assume that low doses

will cause the same effects as high doses, with no proof of that proposition. *Vogelsberger*, 2006 WL 2404008 at *11-12. And the court rejected Dr. Maddox's reliance on "no known safe dose" and the "linear no-threshold theory," as the *Parker* Court did. *Vogelsberger*, 2006 WL 2404008 at *8. Shortly after Judge Colville's opinion, a second Pennsylvania trial court followed suit, likewise rejecting Dr. Maddox's *any exposure* testimony for similar reasons. *Basile*, No. 11484 CD 2005, at 3-12.

Prior to these rulings, Pennsylvania's intermediate court had already pointed out the fallacy in the *any exposure* theory in relation to vehicle mechanics:

> [Plaintiffs' expert] used the phrase, "Each and every exposure to asbestos has been a substantial contributing factor to the abnormalities noted." However, suppose an expert said that *if one took a bucket of water and dumped it in the ocean, that was a "substantial contributing factor" to the size of the ocean.* [Plaintiffs' expert's] statement saying every breath is a "substantial contributing factor" is not accurate. If someone walks past a mechanic changing brakes, he or she is exposed to asbestos. If that person worked for thirty years at an asbestos factory making lagging, *it can hardly be said that the one whiff of the asbestos from the brakes is a "substantial" factor* in causing disease.

Summers, 886 A.2d at 244 (emphasis added). The Pennsylvania Supreme Court more recently called the entire theory "a fiction":

> We do not believe that it is 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. . . .

Gregg, 943 A.2d at 226-27. And most recently, within the past week another Pennsylvania trial court reached the same conclusion in a 53-page analysis following a lengthy *Frye* hearing in which some of the strongest proponents of the *any exposure* theory (Dr. Eugene Mark, Dr. Arthur Frank, Dr. Richard Lemen) all testified:

> Plaintiffs' experts rely upon the conclusion that each and every exposure to asbestos is a substantial contributing factor in causing Plaintiffs' disease. They have not demonstrated any methodology for arriving at such conclusions. It must follow that this failure cannot meet the *Frye* requirements.

In re Asbestos Litigation, Trial Division-Civil, Control # 084682, at 53. Four plaintiffs in that matter had experienced a wide variety of low-level exposures, including from brakes and gaskets, that the experts had improperly identified as substantial factors in causation.

The Texas Supreme Court has provided one of the strongest rejections of the *any exposure* approach in *Borg-Warner*. Plaintiff experts, including Dr. Barry Castleman, based their causation opinions (purported asbestosis) on the testimony that a lifelong brake mechanic was exposed to "some" asbestos fibers. *Borg-Warner,* 232 S.W.3d at 772. The Texas Supreme Court held that this testimony was insufficient: "[W]hile some respirable fibers may be released upon grinding some brake pads, the sparse record here contains no evidence of the approximate quantum of Borg-Warner fibers to which Flores was exposed, and whether this

sufficiently contributed to the aggregate dose of asbestos Flores inhaled, such that it could be considered a substantial factor in causing his asbestosis." *Id.* at 772, 774.

Following *Borg-Warner*, a Texas appellate court expanded that analysis to a mesothelioma case involving a painter exposed to joint compound containing asbestos fibers. *Georgia-Pacific Corp.*, 239 S.W.3d at 312-21. The court reversed a jury verdict on the ground that Dr. Sam Hammar (another widely known plaintiff testifying expert) could not "show that the 'any exposure' theory is generally accepted in the scientific community" and could not testify that the worker's exposures were a cause of disease without the "factual and scientific foundation" of a proper dose assessment and comparison to disease-inducing levels. *Georgia-Pacific Corp.*, 239 S.W.3d at 320-21. Even prior to *Borg-Warner*, the state court judge in charge of the Texas asbestos MDL proceeding rejected the *any exposure* approach of Dr. Eugene Mark (*In re Asbestos,* No. 2004-3964, Letter Ruling, at 4-5, January 20, 2004). The same court later applied *Borg-Warner* by dismissing a joint compound case lacking any expert dose assessment (*In re Asbestos*, Cause No. 2004-3964, Letter Ruling, at 4, July 18, 2007).

In addition to the *Georgia-Pacific Corp.* ruling in Texas, two Washington state court judges within the last year have restricted or excluded Dr. Hammar's testimony under *Frye* because of the expert's reliance on the *any exposure* theory,

which the courts specifically held is not accepted in the scientific community. *See Anderson*, No. 05-2-04551-5 SEA, Trial Transcript at 145; *Free*, No. 07-2-04091-9-SEA, at 2-4. The analysis in *Free*, a case involving removal of engine gaskets, is particularly incisive because the opinion documented Dr. Hammar's candid admission that the *any exposure* testimony is an unproven and theoretical hypothesis; rejected his reliance on regulatory standards and the "no known safe level" approach; and noted the absence of any epidemiology studies documenting asbestos-related disease at low levels of exposure. *Free*, No. 07-2-04091-9-SEA, at 3.

Other courts in a number of other jurisdictions have independently found the *any exposure* theory to be insufficient and unscientific. A federal district court in Ohio rejected the *any exposure* approach of two plaintiff experts, including Dr. Frank, in a gasket exposure case:

> The two experts who disagreed, Dr. Frank and Dr. Suzuki, testified that every exposure to asbestos Lindstrom had during his working career, no matter how small, was a substantial factor in causing his peritoneal mesothelioma . . . . If an opinion such as [this] . . . would be sufficient for plaintiff to meet his burden, the Sixth Circuit's "substantial factor" test would be meaningless . . . .
>
> In addition, the opinion of Dr. Frank, that every breath Lindstrom took which contained asbestos could have been a substantial factor in causing his disease, is not supported by the medical literature.

Bartel, 316 F. Supp. 2d at 611. The United States Court of Appeals for the Sixth Circuit affirmed, criticizing the theory. *Lindstrom,* 424 F.3d at 498 ("we reject

plaintiff-appellant's argument" that any level of exposure is a substantial factor). The Delaware federal bankruptcy court rejected the contention that trace asbestos in vermiculite housing insulation was a threat of disease, in part because the experts relied on a "no safe dose" approach. *In re W.R. Grace & Co.*, 355 B.R. at 474, 478. For similar reasons, the intermediate appellate court in Mississippi rejected a claim that students were endangered by asbestos contained in their school building. *Brooks v. Stone Architecture*, 934 So.2d at 255-56.

Even in a recent Court opinion favorable to plaintiffs on the epidemiology issue, the court took pains to distance itself from the *any exposure* approach. Citing to the *Bartel* court's rejection of Dr. Frank, the Court stated that "[i]f, in a given case, a plaintiff must rely upon a no threshold theory to establish causation, ... suffice it to say, the testimony will be *scrutinized carefully*." *In re Asbestos Litig.*, 911 A.2d 1176, 1209 n.202 (Del. Super. Ct.) (emphasis added), *cert. denied*, No. 77C-AASB-2, 2006 WL 1579782 (Del. Super. Ct. June 7, 2006), *appeal refused*, 906 A.2d 806 (Del. 2006).[10]

The *any exposure* view has been almost universally rejected in the last four years through an array of opinions from many different jurisdictions. The *Parker*

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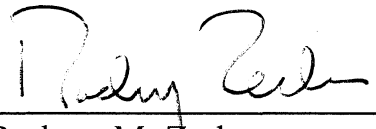
[10] The Michigan *Chapin* opinion, which also addressed mechanic cases, provides no guidance because neither the *any exposure* theory or the required proof in any particular case was at issue in that appeal. *See Chapin v. A & L Parts*, 732 N.W.2d 578, 587 (Mich. Ct. App.), *appeal denied*, 733 N.W.2d 23 (Mich. 2007), 733 N.W.2d 29 (Mich. 2007), *and* 733 N.W.2d 35 (Mich. 2007).

opinion applies a similar analysis to benzene and strongly demonstrates that New York should follow the same approach in asbestos litigation.

CONCLUSION

The *any exposure* theory is not necessary for plaintiffs who are truly harmed by asbestos exposures to present and win a case. Under the Court of Appeals' ruling in Parker, a claimant that is able to demonstrate exposure to a toxin at a dose proven to be associated with disease is entitled to proceed with its claim. Absent that proof, however, the *Parker* ruling has established that plaintiffs can no longer sustain a case in New York under the *any exposure* theory. *Amici* request that the Court apply *Parker*, reverse the *D'Ulisse* verdict, and provide guidance consistent with *Parker* for future asbestos litigation in New York.

Respectfully submitted,



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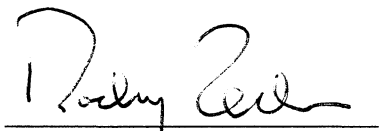

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