

Selected docket entries for case 22-13024

Generated: 04/17/2024 09:59:49

Filed	Document Description	Page	Docket Text
04/24/2023	30 Appellant Brief	2	Appellant's brief filed by Bethany Cotromano, Richard Cotromano, Frank DeCarlo, Paulette DeCarlo, Gregory Dunsford, Jennifer Dunsford and Joyce Featherston. [22-13024] (ECF: Mara Hatfield)

**UNITED STATES COURT OF APPEALS FOR THE ELEVENTH
CIRCUIT**

Case No. 22-13024-JJ

RICHARD COTROMANO, et al., all on behalf of
themselves and all others similarly situated,

Plaintiffs-Plaintiffs,

vs.

RAYTHEON TECHNOLOGIES CORPORATION,
Pratt & Whitney Group, A Connecticut Corporation,

Defendant-Appellee.

District Court
Docket No.:
9:13-cv-80928-
KAM

Appeal from the United States District Court
For the Southern District of Florida, West Palm Beach Division

PRINCIPLE BRIEF OF PLAINTIFFS

SEARCY DENNEY SCAROLA BARNHART
& SHIPLEY

John Scarola
Florida Bar No. 169440
jsx@searcylaw.com
Mara R. P. Hatfield
Florida Bar No. 37053
mrh@searcylaw.com
2139 Palm Beach Lakes Boulevard
West Palm Beach, Florida 33409
Telephone: (561) 686-6300

*Attorneys for Plaintiffs-Plaintiffs Richard Cotromano, Bethany Cotromano,
Frank DeCarlo, Paulette DeCarlo, Gregg Dunsford, Jennifer Dunsford, and
Joyce Featherston*

CERTIFICATE OF INTERESTED PERSONS AND CORPORATE
DISCLOSURE STATEMENT

In compliance with Local Rule 26.1-1, Plaintiffs certify that the following is a complete list of the trial judges, all attorneys, persons, associations of persons, firms, partnerships, or corporations that have an interest in the outcome of the particular case or appeal, including subsidiaries, conglomerates, affiliates and parent corporations, including any publicly held corporation that owns 10% or more of the party’s stock, and other identifiable legal entities related to a party.

<p>All persons who, on August 24, 2009, owned residential property within the neighborhood in Palm Beach County, Florida known as “the Acreage.” The denial of certification of the claims alleged by these Plaintiffs is an issue in this appeal</p>
<p>Adinolfe, Joseph Consolidated Litigant, separate claims</p>
<p>Bartlit Beck, LLP Appellee’s Counsel</p>
<p>Cifrodella, Thomas Related Litigant. This person is a Plaintiff in a litigation relying in part on the theories of liability and expert disclosures at issue in this case</p>

Cotromano, Bethany Appellant
Cotromano, Richard Appellant
Craig, Debora Related Litigant. This person is a Plaintiff in a litigation relying in part on the theories of liability and expert disclosures at issue in this case
Craig, Raymond Related Litigant. This person is a Plaintiff in a litigation relying in part on the theories of liability and expert disclosures at issue in this case
Creed & Gowdy, P.A. Consolidated Litigant's Counsel
DeCarlo, Kristina M. Related Litigant. This person is a Plaintiff in a litigation relying in part on the theories of liability and expert disclosures at issue in this case.
DeCarlo, Frank Appellant
DeCarlo, Paulette Appellant

<p>Dunsford, Gregory</p> <p>Appellant</p>
<p>Dunsford, Jennifer</p> <p>Appellant</p>
<p>Ekstrand, Alyson</p> <p>Related Litigant. This person is a Plaintiff in a litigation relying in part on the theories of liability and expert disclosures at issue in this case.</p>
<p>Ekstrand, Guy</p> <p>Related Litigant. This person is a Plaintiff in a litigation relying in part on the theories of liability and expert disclosures at issue in this case.</p>
<p>Featherston, Joyce</p> <p>Appellant</p>
<p>Florez, Fedra M.</p> <p>Related Litigant. This person is a Plaintiff in a litigation relying in part on the theories of liability and expert disclosures at issue in this case</p>
<p>Gallagher, Sean W., Esq.</p> <p>Appellee Counsel</p>
<p>Gayahpersad, Reynold</p> <p>Related Litigant. This person is a Plaintiff in a litigation relying in part on</p>

<p>the theories of liability and expert disclosures at issue in this case</p>
<p>Gayahpersad, Teri</p> <p>Related Litigant. This person is a Plaintiff in a litigation relying in part on the theories of liability and expert disclosures at issue in this case</p>
<p>Gdanski, Jonathan R., Esq.</p> <p>Consolidated Litigant's Counsel</p>
<p>Genck, Jill M.</p> <p>Related Litigant. This person is a Plaintiff in a litigation relying in part on the theories of liability and expert disclosures at issue in this case</p>
<p>Genck, Jonathan C.</p> <p>Related Litigant. This person is a Plaintiff in a litigation relying in part on the theories of liability and expert disclosures at issue in this case</p>
<p>Gowdy, Bryan S., Esq.</p> <p>Consolidated Litigant's Counsel</p>
<p>Groden, Alexander L., Esq.</p> <p>Appellee Counsel</p>
<p>Guarin, Carolina</p> <p>Related Litigant. This person is a Plaintiff in a litigation relying in part on</p>

the theories of liability and expert disclosures at issue in this case
Gunster Yoakley & Stewart, P.A. Appellee Counsel
Haberman, Jeffrey L., Esq. Consolidated Litigant's Counsel
Hammer, Steven J., Esq. Consolidated Litigant's Counsel
Hatfield, Mara R.P., Esq. Appellant Counsel
Latham, Darren R., Esq. Appellant Counsel
Law Offices of Craig R. Zobel, P.A. Consolidated Litigant's Counsel
Law Offices of Steven J. Hammer, P.A. Consolidated Litigant's Counsel
Lozada, Ida Related Litigant. This person is a Plaintiff in a litigation relying in part on the theories of liability and expert disclosures at issue in this case;
Lozada, Jesus

<p>Related Litigant. This person is a Plaintiff in a litigation relying in part on the theories of liability and expert disclosures at issue in this case</p>
<p>MacNally, Andrew C., Esq.</p> <p>Appellee Counsel</p>
<p>Marra, Honorable Kenneth A.</p> <p>Trial Judge</p>
<p>McElroy, Daniel R., Esq.</p> <p>Appellee Counsel</p>
<p>Patrie, Kimberly</p> <p>Related Litigant. This person is a Plaintiff in a litigation relying in part on the theories of liability and expert disclosures at issue in this case</p>
<p>Peart, Roderick</p> <p>Related Litigant. This person is a Plaintiff in a litigation relying in part on the theories of liability and expert disclosures at issue in this case</p>
<p>Peart, Yvette</p> <p>Related Litigant. This person is a Plaintiff in a litigation relying in part on the theories of liability and expert disclosures at issue in this case</p>
<p>Raytheon Technologies Corporation (Stock Ticker: NYSE: RTX)</p> <p>Formerly known as United Technologies Corporation</p>

Appellee
Scarola, John, Esq. Appellant Counsel
Schlesinger Law Offices, P.A. Consolidated Litigant's Counsel
Schlesinger, Scott P., Esq. Consolidated Litigant's Counsel
Schwinghammer, Jr., Gregory J., Esq. Appellee Counsel
Searcy Denney Scarola Barnhart & Shipley, P.A. Appellant Counsel
Stoica, Patricia Related Litigant. This person is a Plaintiff in a litigation relying in part on the theories of liability and expert disclosures at issue in this case
Thibodeau, Luz Related Litigant. This person is a Plaintiff in a litigation relying in part on the theories of liability and expert disclosures at issue in this case
Thibodeau, Steven Related Litigant. This person is a Plaintiff in a litigation relying in part on

the theories of liability and expert disclosures at issue in this case

Tvenstrup, Kevin R.

Related Litigant. This person is a Plaintiff in a litigation relying in part on the theories of liability and expert disclosures at issue in this case

Wise, Ronald G., Deceased, Estate of

Related Litigant. This person is a Plaintiff in a litigation relying in part on the theories of liability and expert disclosures at issue in this case

Zobel, Craig R., Esq.

Consolidated Litigant's Counsel

STATEMENT REGARDING ORAL ARGUMENT

This is a complex toxic-tort including significant community-wide issues warranting oral argument. Appellants, hereinafter “Plaintiffs,” are parents of members of a cancer cluster declared by The Florida Department of Health (FDOH) due to a significantly elevated incidence of pediatric brain and CNS cancers in The Acreage, an incorporated community of West Palm Beach, Florida. The FDOH noted that “ionizing radiation is the primary known environmental risk factor” for such an increase. (Doc. 906-08 pg 9 and 17.) The jury found that Defendant Pratt & Whitney (P&W) failed to exercise reasonable care in its handling and disposal of radioactive material (RAM) on its West Palm Beach campus, but they did not find P&W liable for the stigma. (Doc 816.) This appeal argues that several arbitrary Daubert rulings led to this causal disconnect and that the Daubert errors were compounded by a flawed verdict form. Plaintiffs also assert that the case should have been certified as a class action to assure Acreage-wide relief for the diminution in the Acreage community’s property value caused by the Acreage cancer cluster stigma.

TABLE OF CONTENTS

	Page
CERTIFICATE OF INTERESTED PERSONS AND CORPORATE DISCLOSURE STATEMENT	C1
STATEMENT REGARDING ORAL ARGUMENT	i
TABLE OF CONTENTS	ii
TABLE OF AUTHORITIES	iv
JURISDICTIONAL STATEMENT	vii
STATEMENT OF THE ISSUES.....	1
STATEMENT OF THE CASE.....	2
A. Course of proceedings.	2
1. Initial Filing and Consolidation	2
2. Motion to Certify the Claims and Order Denying	2
3. Plaintiffs’ Pre-Trial Disclosures and Dispositive Motions.	6
4. P&W’s evolving expert disclosures.....	8
5. The Daubert Hearing and Orders	9
6. The Verdict Form	14
7. The Verdict.....	18
B. Relevant Facts.....	19
C. Standard of Review.....	23
SUMMARY OF ARGUMENT	24
ARGUMENT	25
I. The District Court Abused Its Discretion in Excluding the Testimony of Plaintiffs’ Expert Witnesses	25
A. The District Court abused its discretion in excluding the testimony of Plaintiffs’ Soil Remediation and Transport Expert, Brian Moore	25
1. Finding that Moore did not set forth his opinions on the standard of care ignored his testimony and used the wrong legal standard	26

2. Finding that Plaintiffs had not disclosed Moore as a standard of care expert was clearly erroneous.....	27
3. Finding Moore’s transport opinion would not assist the jury was arbitrary.....	28
4. The preclusion significantly harmed Plaintiffs case.....	30
B. The District Court abused its discretion in excluding the testimony of the Plaintiffs’ radiation dosimetrist and toxicologist and admitting P&W’s neurosurgeon.....	32
1. The District Court abused its discretion in excluding the testimony of Plaintiffs’ dosimetrist, Bernd Franke.....	32
2. The District Court erred in excluding Sawyer’s dose-response assessment, which it ignored because it erroneously assumed that Sawyer did not work with a specific dose.....	37
3. The Court erred in denying plaintiffs’ motions to preclude or to limit P&W’s Mitchell.....	47
4. The preclusion of Franke and Sawyer significantly harmed Plaintiffs’ case.....	51
II. The Verdict Form Arbitrarily Doubled the Burden of Proving Negligence, Compounding the Harm.....	52
III. The District Court Abused Its Discretion in Denying Plaintiffs’ Motion for Class Certification.....	55
A. The District Court applied an incorrect legal standard for determining “ascertainability.”.....	57
B. The District Court erred to the extent it found that the class proposed was overbroad.....	59
C. The District Court erred in finding the Rule 23(a)(2) and 23(b)(3) requirements were not met by failing to distinguish Plaintiffs’ claims.....	60
CONCLUSION.....	64

TABLE OF AUTHORITIES

Cases

<i>Adinolfe v. United Techs. Corp.</i> , 768 F.3d 1161 (11th Cir. 2014).....	2,16, 24,52,61,63
<i>Allison v. McGhan Med. Corp.</i> , 184 F.3d 1300, 1314 (11th Cir. 1999).....	47, 48
<i>Ashcroft v. Iqbal</i> , 556 U.S. 662, 678, (2009).....	53
<i>Busby v. City of Orlando</i> , 931 F.2d 764 (11 th Cir. 1991)	52
<i>Carrizosa v. Chiquita Brands Int'l, Inc.</i> , 47 F.4th 1278 (11th Cir. 2022).....	26, 29, 36
<i>Central Alabama Fair Housing Center v. Lowder Realty Co.</i> , 236 F.3d 629 (11 th Cir. 2000)	23, 52
<i>Chapman v. P&G Distrib., LLC</i> , 766 F.3d 1296, (11th Cir. 2014).....	48
<i>Cherry v. Dometic Corp.</i> , 986 F.3d 1296 (11th Cir. 2021)	57
<i>Cook v. Rockwell Intern. Corp.</i> , 790 F.3d 1088 (10th Cir. 2015) (“Cook II”).....	vii
<i>Cordoba v. DIRECTV, LLC.</i> , 942 F.3d 1259 (11th Cir. 2019).....	23, 55, 59
<i>Curd v. Mosaic Fertilizer, LLC</i> , 39 So.3d 1216 (Fla., 2010).....	16, 53
<i>Daubert v. Merrell Dow Pharm., Inc.</i> , 509 U.S. 579 (1993).....	25, 29
<i>Duffin v. Exelon Corp.</i> , No. Civ-A-06-C-1382, 2007 WL 845336 (N.D. Ill. Mar. 19, 2007).....	62

Hall v. Hall,
 138 S.Ct. 1118 (2018).....60

Hubbard v. Rubbermaid, Inc.,
 78 F.R.D. 631 (D. Md. 1978).....59

Johnson v. Georgia Highway Exp., Inc.,
 417 F.2d 1122 (5th Cir. 1969) (Godbold, J., concurring).....58

Jones v. Trawick,
 75 So.2d 785 (Fla. 1954)63

Kumho Tire Co., Ltd.v. Carmichael,
 526 U.S. 137 (1999).....32, 51

McClain v. Metabolife Intern, Inc.,
 401 F.3d 1233 (11th Cir. 2005).....37, 44

Mitchell v. Ford Motor Co.,
 318 F. App'x 821 (11th Cir. 2009).....27

Moore v. Intuitive Surgical, Inc.,
 995 F.3d 839 (11th Cir. 2021)26

Quiet Tech. DC-8, Inc. v. Hurel-Dubois UK Ltd.,
 326 F.3d 1333 (11th Cir. 2003).....47

Rensel v. Centra Tech Inc,
 2 F.4th 1359 (11th Cir. 2021)57

Rivera v. Ring,
 810 F. App'x 859 (11th Cir. 2020).....29

Scott v. Univ. of Del.,
 601 F.2d 76 (3d Cir. 1979) (Adams, J., concurring)59

U.S. v. Alabama Power Co.,
 730 F.3d 1278 (11th Cir. 2013)23

U.S. v. Frazier
 387 F.3d 1244 (11th Cir. 2004).....25, 29, 32, 47, 51

Wal-Mart Stores, Inc. v. Dukes,
564 U.S. 338 (2011).....58

Williams v. Mosaic Fertilizer, LLC,
889 F.3d 1239 (11th Cir. 2018)44

Statutes

28 U.S.C. § 1332(d) xvii

42 USC § 2210..... xvii

Section 376.313 Florida Statutes.....13

Other Authorities

Federal Judicial Center Manual for Complex Litigation § 21.222 (4th ed. 2004) ..57

Rules

Fed. R. Civ. Proc. 23 55, 56, 60

Fed. R. Civ. Proc. 37 9, 28

JURISDICTIONAL STATEMENT

District Court Jurisdiction

P&W removed the case to District Court pursuant to 42 USC § 2210(n)(2), the Price Anderson Act (PAA), and 28 U.S.C. § 1332(d), Class Action Fairness Act diversity. (Doc. 1). Plaintiffs sought remand, arguing that CAFA did not apply and that the PAA applies to claims it indemnifies under 42 USC § 2210. (Doc 14). The court disagreed as to the scope of the PAA. (Doc 61). Plaintiffs amended the complaint to add PAA liability. (Doc 69.) Later, the court found that the PAA does not include property diminution claims as set forth in *Cook v. Rockwell Intern. Corp.*, 790 F.3d 1088, 1096 (10th Cir. 2015) (“Cook II”).¹ (Doc 762).

Appellate Jurisdiction

The court certified judgment under Rule 56 on August 5, 2022. The Notice of Appeal was timely filed on September 6. (Doc. 899). This Court determined jurisdiction for the appeal existed on March 13, 2023.

¹ The Tenth Circuit held that a diminution of property value claim is not controlled by the PAA as they are not “nuclear incidents” under 42 USC 22014 (q). Plaintiffs moved for summary judgment on the preemption defense on that basis. (Doc. 552 at 15-19.) The Court reserved ruling until trial (Doc. 647 at 5) and the issue was again briefed by the parties. (Doc. 733, 734, and 758.) The court found that the PAA did not apply to diminution claims so only the state liabilities were tried. (Doc.762.) Plaintiffs retain the right to argue that the finding of PAA jurisdiction in Doc 58 was in error because their claims that are not indemnified under 42 USC 2210. Because the Court agreed that the PAA did not preempt state claims for other reasons, that error was not prejudicial.

STATEMENT OF THE ISSUES

Plaintiffs present these issues for review:

- a. Whether the *Daubert* exclusion of Plaintiffs' proffered experts was based upon erroneous findings of fact and incorrect legal standards while the blanket admission of P&W's responsive opinions lacked "careful scrutiny," and caused a biased presentation of environmental and biological transport?
- b. Whether the special interrogatory verdict erroneously required a finding of offsite misconduct supported by expert opinion testimony?
- c. Whether the denial of class certification was based upon first, an erroneous finding that the Acreage community was not an ascertainable class, and second, an arbitrary assessment of the cancer cluster stigma claim these Plaintiffs raised on behalf of all Acreage property owners?

STATEMENT OF THE CASE

A. Course of proceedings.

1. *Initial Filing and Consolidation*

Plaintiffs filed this action in 2013, seeking compensation for diminution of property value resulting from a stigmatizing Florida Department of Health (DOH)-declared pediatric brain cancer cluster in the Acreage neighborhood. They alleged that P&W's mishandling of radioactive material (RAM) uniformly stigmatized all Acreage property. (Doc 1-2.)

This cancer cluster claim was consolidated with a prior contamination stigma claim under Rule 42 for pretrial only after that claim was remanded in *Adinolfi v. United Techs. Corp.*, 768 F.3d 1161, 1175 (11th Cir. 2014). (Doc 227).

2. *Motion to Certify the Claims and Order Denying*

Noting that “(i)n ruling on a class certification motion, a court should assess whether certification is appropriate on a claim-by-claim basis,” the parties jointly moved for certification. (Doc 265 pg 29). Plaintiffs focused on P&W's soil contamination, citing Marco Kaltofen, PhD, PE's opinion that RAM (including cesium-137, strontium-90, and others) and other industrial contaminants used in

P&W operations remained at the P&W campus and were present at the cluster victims' homes and in the fill-product used by neighboring homes which had received fill from P&W's soil transporters. (Doc 265 pg 23 and Doc 258-4 pg 14). Kaltofen explained during cross-examination that finding such nuclear material on the P&W campus did **not** suggest local detonation of a nuclear device:

Q To get Cesium-137 or Strontium-90 from something other than a sealed source, you would need to have nuclear fission, wouldn't you?

A You would.

Q So that would mean having a nuclear reactor or a bomb, wouldn't it?

A Those are two ways, yes.

Q So is it the case, sir, that if we set aside the closed sources that you knew were there, for you to have Cesium -- for you hypothesize that there was Cesium-137 at Pratt & Whitney or Strontium-90 at Pratt & Whitney that was put into the environment by Pratt & Whitney, you would have to assume that they had a nuclear reactor or detonated a bomb.

A No.

(Doc 400 pg 114:22-115:10).

Four additional experts supported the Cancer Cluster stigma claim:

- a. Ari Perry, MD, world-renowned consulting neuropathologist, confirmed that that the pediatric brain cancers were glial-type cancers associated with exposure to “low-level ionizing radiation,” pointing to the seminal *Ron et al* study of a community exposed to scalp radiation treatment for ringworm which experienced gliomas at a rate of 2.6 times background. (Doc 363-7, pg 2-4).
- b. Richard Smith, Ph.D., opined that the malignant female brain cancers occurring from 2004-2009 was an increase 7.88 times above the expectation for that period. The resulting p-value was .00004. (Doc 363-9 pg 7), which Smith explained means that the probability of that incidence number occurring in the Acreage by random chance is one in twenty-five thousand as determined. (Doc. 404-6 pg 21-22).
- c. John Kilpatrick, Mass Appraisal Expert, compared sales in the Acreage to “control” neighborhoods to quantify the Acreage-wide stigma. Before the cluster, the Acreage property values averaged 8.35% lower than comparable neighborhoods. After, the Acreage prices averaged 28.49% lower—a stigma-related discount of over 20%. (Doc 363-15 pg 2 at ¶¶4-8, pg 11-12).
- d. Brian Moore, P.G, L.S.P, a Licensed Site Professional with 25 years of site remediation experience opined that gaps in P&W’s remediation records

indicated an incomplete investigation of soils removed from former RAM burial sites, coupled with an improper soil remediation process using local soil recyclers and fill transporters, was a likely source of the RAM contamination Kaltofen isolated in both Acreage fill and P&W waste sites. (Doc 363-5.) His review included a summary of hundreds of pages of internal and public records on the remediation, testimony, records regarding the Acreage development and building history. P&W moved to strike Moore's declaration as "undisclosed." (Doc 379 pg 3.) Appellant conceded that the affidavit's opinion on industry standards relied on recently obtained records. (Doc 385 pg 7-8) Moore explained his expertise to the court and summarized an opinion based on industry standards and what he perceived to be an incomplete remediation by P&W. (Doc 400 pg 49:01-51:02, 53:18-54:13, 55:19-61:15; and 63:19-69:04.)

After a five-day hearing including the cross examination and redirect of all experts, written summations and proposed findings and conclusions were filed. (Doc 425-428.) The Court denied the motion for certification as to all claims, characterizing all claims as proximity-to-contamination claims, in summary, as follows:

[Plaintiffs] claim their properties are either *contaminated, at risk of future contamination, or in proximity to contaminated property* as a result of Pratt & Whitney's environmental abuses, and that they have suffered a loss of use and enjoyment of their property, as well as a diminution in property values, as a result.

(Doc 438 pg 2 (emphasis added).)

3. Plaintiffs' Pre-Trial Disclosures and Dispositive Motions.

- a. Plaintiffs' expert disclosures including Moore, Sawyer, and Franke.

For trial, plaintiffs disclosed nine experts. (Doc 487)

Kilpatrick updated the sale trend analysis (STA) applying the discount rate applicable for the annual quarter during which each plaintiff sold their property, except for DeCarlo for whom he applied a loss of use figure. (Doc 496 pg 1-10).

The Court would later strike the entire opinions of three experts:

Brian Moore, LSP, updated his original class certification affidavit summarizing facts he had discerned from manifests, contemporaneous emails, Florida agency records regarding P&W and its contractors, subsequent testimony of employees and owners of the contracting companies, and public records regarding the build-out of the Acreage. (Doc 550-89 pg 6-11, 33-41).

William Sawyer, PhD, D-ABFM,² chief toxicologist disclosed reports regarding the specific causation of the cluster and three Acreage brain-CNS cancers including Cynthia's Santiago 2009 ependymoma diagnosis, for which he provided a dose-assessment relating the amount of thorium (Th-230) isolated from Cynthia's post-mortem ependymal tissues to her disease, finding that the amount of thorium discernible in her post-mortem tissue documented an exposure that most likely caused her cancer. (Doc 550-77).

Dosimetrist Bernd Franke provided three opinions, first comparing the amount of thorium in Cynthia's central nervous system tissue to background numbers suggesting an excessive exposure; second, calculating the radiation dose to her central nervous system tissues; and lastly, using coefficients supplied by the International Commission on Radiological Protection³ for brain tissue, to provide an effective radiation dose and dose models illustrating a single intake of Th-230 via inhalation type S4 with a particle size (AMAD) of 1 μm and alternatively via the ingestion of soil in the environment. (Doc 600-05, 600-06, 600-07).

² While a toxicologist, not medical doctor, Sawyer's four-and-a-half-year PhD program in toxicology included three years of medical schooling up to pathology and obtaining certification in practical medicine. Doc 549-27 pg 5.

³ The ICRP publishes Database of Dose Coefficients for Workers and Members of the Public for radiation dosimetrists to use for such quantifications.

- b. P&W filed a motion to strike Kilpatrick and moved for early summary judgment.

In June 2019, P&W moved to strike Kilpatrick's updated STA relying on the rationale set forth in the order denying certification. P&W also moved for summary judgment, claiming that no other experts supported Plaintiffs' case. Doc 496 and 498. In response, Plaintiffs specifically noted Moore's unrebutted opinion as to P&W's remediation practices. (Doc 509 pg 3). Following a hearing, the Court denied P&W's motions to strike Kilpatrick's revised STA opinion as applied to the individual properties. (Doc 553-554).

- c. Plaintiffs' January 2020 Dispositive Motion.

Plaintiffs moved for summary judgment against the PAA defenses (as summarized in the Jurisdictional Statement) and on liability (Doc. 550-Doc 552), arguing the unrebutted testimony of Brian Moore established that P&W breached the standard of care for remediation practice. (Doc 552 pg 9). P&W responded that Moore's testimony merely endorsed Plaintiffs' "trucking theory." (Doc. 559 pg 14-16).

4. P&W's evolving expert disclosures.

P&W filed motions relying on expert opinions that it had not disclosed in this case, (Doc. 544-545; Doc 545; Doc 548-549), which Plaintiffs moved to strike.

(Doc 555). Performing a Rule 37 analysis, the court denied the motion in part, allowing P&W to amend disclosures including the opinions attached to its *Daubert* motions, but allowed Appellants' time to move to strike those opinions or to revamp their motions for summary judgment if needed. (Doc 590).

One of P&W's disclosed experts is subject to this appeal: Dwayne Mitchell, MD, a neurosurgeon administering the clinical trial program for the University of Florida.⁴ He responded to the general and specific causation opinions of Perry and Sawyer, opining essentially that the diagnoses were too disparate in type to share a common pathway, and that no linkage between the Santiago's cancer development and an environmental exposure in the Acreage could be established within a degree of medical certainty. (605-02 pg 25-26).

5. The Daubert Hearing and Orders

P&W moved to strike Franke, Smith, Moore, Sawyer, and Kaltofen.⁵ Plaintiffs moved to strike P&W's neurosurgeon (Mitchell), statistician (Marais), and

⁴ Plaintiffs do not challenge his qualifications.

⁵ The briefing on the relevant experts includes a Motion, Response, and Reply for each including Moore (Doc 602, 611, and 621), Franke (Doc 600, 610, 618) and Sawyer (Docs 604, 615, 620).

Certified Health Physicist (Frazier).⁶ The *Daubert* hearings extended over two days. (Doc 664, 665)

a. Moore.

P&W argued that allowing Moore’s opinion would impermissibly subject P&W’s testimony about its own remediation efforts to doubt. Plaintiffs responded that P&W’s argument would effectively abolish professional standard of care opinions. After the court noted that Moore’s reports effectively included a “standard of care” opinion, P&W suggested that defending Moore as a “standard of care” expert was a “new *argument*” but that also in their briefs the Plaintiffs failed to put citation numbers to standard of care testimony and that there was none. (Doc 664-01 pg 38 to 42). The court required Plaintiffs to submit a narrative of Moore’s disclosures and P&W to respond. (Doc 637 and 638).

The court then precluded Moore’s testimony, finding he was not previously disclosed “as a standard of care opinion,” that he did not set forth a standard of care opinion in his reports, and that the transport issue could be evaluated without the aid of industry expertise. (Doc 643 pg 2).

⁶The briefing on the relevant expert Mitchell includes a Motion, Response, and Reply (Doc 605, 614, 622).

b. Franke.

The court struck Franke on the rationale that there was “no scientifically reliable or supportable basis to conclude that “a dose of toxins to the spine will be the same as a dose to the brain,” and thus, “he has no scientifically reliable basis to measure the dose exposure to the brain in this case,” citing to a single page of Franke’s deposition in support and without addressing Franke’s CNS dose or background comparison. (Doc 641 pg 2-3).

c. Sawyer.

At the hearing, the Court asked whether Sawyer’s specific causation opinion relied on Franke’s dose; Plaintiffs responded Sawyer only notes Franke’s dose in his deposition and that there was no such reliance, including that “Dr. Sawyer did not say that the dose that Franke ascribed to the radiation was the most likely cause of (Santiago’s) cancer.” Plaintiffs distinguished Franke’s radiation dosimetry calculation from Sawyer’s dose-response relationship assessment, arguing that Sawyer’s assessment based on the amount of thorium remaining in the ependymal tissue satisfied the Court’s requirement for the dose-response assessment: “What *McLain* requires... and *Mosaic* requires is a dose-response relationship. What was the person exposed to, and is it reasonable that their response to that was a disease that we see before us?” (Doc 664 pg 116:14-123:15).

The court struck Sawyer's opinion as follows:

Plaintiffs do not dispute that Dr. Sawyer did not perform a dose-response calculation. At the hearing, Plaintiffs argued that Dr. Sawyer relied upon Mr. Bernd Franke's dose-response calculation. A review of Mr. Franke's reports shows that this is not the case. (See Doc 604-3, 604-4, 604-5, 604-14, 604-21.) Moreover, the Court rejects Plaintiffs' justifications or explanations as to why Dr. Sawyer did not have to perform a dose-response calculation. Because the Court concludes that a dose-response calculation is required by Eleventh Circuit Court of Appeals precedent, Dr. Sawyer's failure to perform the dose-response calculation requires the Court to strike him as an expert.

Doc. 644 2-3.

d. Denial of Motion for Reconsideration regarding Moore and Franke.

Plaintiffs attempted to correct any erroneous admission that Sawyer relied on Franke for dose and clarifying that Sawyer performed his own dose-response assessment using the amount of thorium measured in Cynthia's tissues. Doc 649, 653.

The court denied reconsideration, stating that "Plaintiffs acknowledge that Dr. Sawyer did not provide an exact dose or rely on anyone else's dose because he is not a dosimetrist, and this is not a personal injury radiation case." Doc 655 pg 4.

e. *Denial of Plaintiffs' motions to strike or limit Mitchell.*

Plaintiffs argued that Mitchells' "no correlation" of low-dose radiation and brain cancer opinion overlooked several well-regarded epidemiological studies concluding that a correlation existed—including generally accepted theories of radiation and glioma causation. The court remarked upon the complexity of the matter:

I don't really understand all of the medicine that you keep referring to, and but beyond that, I mean, you say, well, there's the study and he should have cited it and he didn't. And there's this Chernobyl study and you misread it or he says it's the opposite of what he said. Again, is it my job to conclude that this expert who knows a lot more about it than I do used the -- didn't cite the proper study? Or am I supposed to read this Chernobyl study and decide whether he misread it? I'm having trouble trying to understand how I'm supposed to decide who's right and who's wrong here, and it seems like those are the arguments that you're making is why he's wrong, and because he's wrong, he should be excluded. I don't know how I'm supposed to decide that he's right or wrong on the merits of his opinions versus whether he's doing something improper in terms of from a methodological standpoint. I'm -- I'm sorry, if I'm not making myself clear but that's kind of the problem I'm having to follow up your argument.

Doc. 665 pg 126:18-127:13:

In response, Plaintiffs noted that the inclination to take the expert's word for it was the precise hazard at issue:

Dr. Mitchell is an expert and, of course, you should be able to take what he has to say at face value. And the jury is going to take what he has to say at face value...

...because he is this expert and because he's relying on articles that he knows say something different than what they say, or he's relying on articles that he's not read entirely, that makes him unreliable.

If he only cited to articles that say what he wants them to say and our guy only cited to articles that our guy wanted them to say, that would be a battle of the experts. But Dr. Mitchell is citing to articles that say something very different than what he said that they say. And that makes him unreliable. You can't as an expert say I've reviewed X, Y and Z documents and then show that you actually did not review those documents.

(Doc. 665 pg 127:14-128:11).

In one order, the court denied all three of the Plaintiffs motions to strike P&W's experts including Mitchell with a single explanation:

To the extent (Plaintiffs) are challenging the opinions, the Court finds that these challenges go to the credibility, and not to the admissibility, of the opinions.

(Doc. 646 pg 2).

6. The Verdict Form

Plaintiffs proposed a simple verdict form, with a single question for liability and causation on each claim before assessing damages:

As to Florida Statute Strict Liability Claim.

1. Did Pratt & Whitney violate Chapter 376 and was such violation a legal cause of damage to the Plaintiffs?

As to Negligence Claim

2. Was there negligence on the part of Pratt & Whitney which was a legal cause of damage to the Plaintiffs?

(Doc. 767-1 pg 55-56).

P&W requested a special interrogatory verdict form, including a separate finding of transport on the negligence claim, to which Plaintiffs objected. (Doc. 767-1 pg 61-63).

Plaintiffs also opposed any verdict interrogatory that limited the scope of Chapter 376, Florida Statutes liability, arguing the Chapter 376 claim does not need to allege or prove contamination on an offsite property as Section 376.313 remedies damages caused by any violations of Section 378.308 (a)-(c), prohibiting discharges, failures to obtain permits or to comply with regulations and law, and knowingly making false statements, representations, or certifications. (Doc 767-01 pg 30–40).

Plaintiffs requested a concurring cause instruction stating that to be a legal cause, the negligence or unlawful condition of pollution did not need to be the only cause. (Doc. 767-01 at 42). The Court declined the addition of a concurring cause instruction. Acreage. (Doc 828 at 4).

The Court did not take up the jury questions or verdict form until the close of evidence, advising counsel after jury selection and before opening to refrain from any preliminary reference to instructions. (Doc. 778 pg 241:09-242:03).

The first half of the charge conference occurred after the close of evidence. (Doc 804 162-210.) As to Chapter 376, Plaintiffs again argued that the scope was broader than discharges and did not necessitate the finding of unlawful offsite activity, citing *Curd v. Mosaic Fertilizer, LLC*, 39 So.3d 1216 (Fla., 2010). (Doc. 804 pg 164-168).

At the charge conference the following day, the Court, citing the decision in *Adinolfi v. United Techs. Corp.*, 768 F.3d 1161, 1175 (11th Cir. 2014), proposed a verdict form that removed any reference to a violation of regulations or the statute.

P&W and Plaintiffs noted that that the cause of action does require demonstrating some violation of the act. Plaintiffs maintained their objection to any requirement that liability include an unlawful release into the Acreage. (Doc 828 pg 24-26).

Before reaching causation on the Chapter 376 claim, the Verdict form at trial asked as follows:

QUESTION 1: Did Plaintiffs prove, by a preponderance of the evidence, that a discharge or other condition of pollution from Pratt & Whitney prohibited by the Florida

Department of Environmental Protection was released into or upon the Acreage?

(Doc. 816 pg 1.)

As to negligence, the Court proposed a verdict form using two interrogatories on liability before inquiring into causation, patterned after P&W's negligence questions 1 and 3, which were as follows:

QUESTION 1: Did Plaintiffs prove, by a preponderance of the evidence, that Pratt & Whitney failed to exercise reasonable care in the use and disposal of radioactive materials at its Jupiter facility?

QUESTION 3: Did Plaintiffs prove, by a preponderance of the evidence, that radioactive materials traveled by ground or surface water to locations in the Acreage from Pratt's facility?

(Doc. 767-01 pg 62.)

At the charge conference, P&W requested that the second prong, the "transport" prong, include the phrase "as a result of P&W's failure to use reasonable care" language, claiming it was necessary to tie P&W's misconduct to transport and the Plaintiffs objected to the inclusion as entirely unnecessary. The Court reserved its ruling until providing a revised version sometime later. (Doc. 828 pg 39-40.)

At trial, before reaching the issue of causation, the verdict form read as follows on the Negligence claim, adding in P&W's request for a secondary assertion of reasonable care:

QUESTION 4: Did Plaintiffs prove, by a preponderance of the evidence, that Pratt & Whitney failed to exercise reasonable care in the use and disposal of radioactive materials at its Palm Beach County facility?

QUESTION 5: Did Plaintiffs prove, by a preponderance of the evidence, that *as a result of Pratt & Whitney's failure to use reasonable care*, radioactive materials from Pratt & Whitney's facility were transported to locations in the Acreage?

(Doc. 816 pg 2, emphasis added.)

At closing, P&W argued that since “(n)o one can claim that P&W Whitney's records on (remediation), even today, 20 years later, are somehow not reasonably comprehensive,” Plaintiffs entire case amounts to an implausible or “absurd theory” and a “preposterous accusation” that defied “common sense.” Moreover, since there was no toxicologist opining on how RAM in soil can cause a brain cancer, the evidence of RAM in Acreage victim tissues was also unavailing. (Doc 822 pg 99:05-25).

7. The Verdict

The jury found that Pratt & Whitney failed to exercise reasonable care in the use and disposal of RAM at its Palm Beach County facility. (Doc 816 pg 2).

But they did not find that “*as a result of Pratt & Whitney's failure to use reasonable care*, radioactive materials from Pratt & Whitney's facility was transported to locations in the Acreage.” (Doc 816 pg 2, emphasis added.) They did not find that a discharge or other condition of pollution from P&W prohibited by the Florida Department of Environmental Protection was released into or upon the Acreage. (Doc 816 pg 1).

Judgment was entered upon that verdict.

B. Relevant Facts.

P&W’s Florida Research Development Center (*FRDC*) campus hosted classified projects such as the *FRDC-JTN-11*, a conceptual portable nuclear reactor powered engine. (Doc. 905-01—905-04.) A related project at the Connecticut Airplane Nuclear Engineering Laboratory, CANEL, would later require decontamination of nuclear materials including cobalt-60, cesium-137, and thoriated nickel parts by a P&W contractor called RCA, which performed a complete assessment of P&W’s Connecticut structures for Nuclear Regulatory Commission decommissioning. (Doc 810-10 pg 1—2).

In 1965, P&W buried “radioactive materials” in a scrapyard and the *FRDC* campus. (Doc. 905-05.) During a 1980’s governmental investigation of the site as a

potential Superfund site, P&W management was “deliberately vague” about the presence of buried RAM, labeling them as “other materials.” (Doc 784 pg 55 and 126-128). As late as 2000, P&W was disposing of RAM including thorium powders, and uranium powders. (Doc-905-54 pg 1, 53-54) using the Connecticut contractor RSA. RSA refused to take the materials P&W listed as “unknowns” and never performed the radiological assessment of the FRDC campus like it had in Connecticut. Doc 810-05.

P&W sent fuel laden soil from the FRDC campus for incineration to a local soil recycling company, Magnum, because the contamination was above Florida regulatory standards for certain contaminants. (Doc 810-12 pg 14-15). P&W testified that it never tested the soil for RAM as part of the remediation. (Doc 810-12 pg 13, 22, 39). The remediation included the transport of over 10,000 tons of benzopyrene soil to Magnum in Pompano Beach and 50,000 tons of PCB contaminated soil to Alabama. (Doc 905-50, 11-12), erroneously identifying Magnum’s recycling center as located in a different county. A transporter, Tru Trucking would remove the soil after it was excavated and stockpiled, for example on October 12, 2000. (Doc 905-46 pg 5, 20-35).

Tru-trucking, headquartered in the Acreage, was the main fill provider for an Acreage developer in August through November 2000 when Tru Trucking filed liens on Acreage homes. (Doc 810-08 pg 18-23).

The latency for pediatric brain cancer is from one to eight years from suspected contamination to diagnosis. (Doc 906-8 pg 5).

Plaintiffs DeCarlo and Dunsford met in February 2008 as their children were admitted for surgery at Miami Children's Hospital to remove rare glioma type central nervous system (CNS) tumors and then discovered other Acreage families experiencing the same crisis. (Doc 783 118:17-123:25, Doc 799 0:11-132:18).

In August 2009, the FDOH published the Acreage Cancer Review, finding brain and CNS tumors had occurred at a statistically significant increased rate among Acreage children. (Doc 906-8 pg 14 to 15). The Review expressly recognized that the primary contaminant associated with such an increase was ionizing radiation. (Doc 906-8 pg 9 and 17).

The FDOH based that causal connection on the seminal study of children treated with radiotherapy for ringworm. (Doc. 799 pg 141.) That study, *the Ron et. al. study*, examined a population of roughly 10,900 children who were exposed to "relatively low dose of radiation" in their childhood. The 7 gliomas experienced in that cohort was 2.7 times the expected occurrence rate (background), an increase

concluded to be causally associated with that low-dose treatment. (Doc 608 pg 1 and Doc 799, 41:15-43:16.)

In 2010, the FDOH confirmed that the Acreage incidence of 4 brain cancers from 2005-2007 was 3.8 times the background. There was another in 2004. (Doc. 905-58 pg 7-8). FDOH then confirmed that the 2008 diagnoses already equaled the number of the 2005-2007 increased incidence and that, yet another confirmed child diagnosis occurred in 2009. (Doc 905-73, pg 2 and Doc 905-74, pg 1-2). The pediatric population of 10,332 children. (Doc 906-08 pg 25).

While investigating the cluster, state agencies found contaminants above Florida clean-up levels in places, but did not find evidence of substantial spills, dumping, or area wide contamination. (Doc 906-01 pg 1). One of the contaminants found at excessive levels in case homes was benzopyrene. (Doc 906-01 pg 23). FDEP disclosed that benzopyrene was among the contaminants undergoing remediation at P&W but did not disclose the burial of RAM in P&W soil or P&W's use of soil recycling companies and transporters in Loxahatchee, Florida. (Doc 905-59).

FDEP had preexisting concerns about recycled fill use in the Acreage but did not investigate the defunct soil recycling facility used by P&W nor did it analyze recycling center product for radioactive contamination. (Doc 810-09 pg 11 and 14).

C. Standard of Review

Orders excluding or admitting expert testimony, the phrasing of special jury interrogatories, and the denial of class certification are all reviewed for abuse of discretion. *U.S. v. Alabama Power Co.*, 730 F.3d 1278 (11th Cir. 2013), *Cordoba v. DIRECTV, LLC.*, 942 F.3d 1259, 1267 (11th Cir. 2019). *Central Alabama Fair Housing Center v. Lowder Realty Co.*, 236 F.3d 629, 635 (11th Cir. 2000).

SUMMARY OF ARGUMENT

Plaintiffs allege that the Acreage cancer cluster was caused by P&W's RAM and that a resulting stigma diminished the value of the Acreage properties. The jury found that P&W failed to exercise reasonable care in its handling and disposal of RAM but did not find P&W liable for any transport or release of RAM into the Acreage. (Doc. 816 pg 1-2).

Plaintiffs argue two abuses of discretion led to this result.

First, the *Daubert* decisions were arbitrary. When eliminating three of Plaintiffs' experts, the court applied an incorrect standard and made erroneous findings of fact. When admitting one of P&W's experts, the court improperly relied upon the expert's qualifications and disregarded challenges to his methodology.

Second, the use of special verdict interrogatories, requiring an additional finding of fault as to transport and unlawfulness as to the release into the Acreage, injected a burden of proof into the claims that is contradicted by Florida law regarding ecological toxic torts as set forth in *Adinolfi v. United Techs. Corp.*, 768 F.3d 1161 (11th Cir. 2014).

Finally, the denial of class certification was arbitrary and should be reversed.

ARGUMENT

I. The District Court Abused Its Discretion in Excluding the Testimony of Plaintiffs' Expert Witnesses

A ruling regarding expert admissibility is an abuse of discretion if it (i) applies an incorrect legal standard, (ii) follows improper procedures, or (iii) makes clearly erroneous findings of fact. *Alabama Power Co.*, 730 F.3d at 1282. When only a portion of an expert's testimony warrants exclusion, "wholesale exclusion" is also an abuse of discretion. *Id.* at 1280.

A court must act as a "gatekeeper" and assess whether each proffered opinion is consistent with the requirements of the Federal Rules of Evidence. See *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 589 n.7 (1993); *United States v. Frazier*, 387 F.3d 1244, 1260 (11th Cir. 2004).

A. The District Court abused its discretion in excluding the testimony of Plaintiffs' Soil Remediation and Transport Expert, Brian Moore

Moore disclosed a 2018 report re-summarizing the facts elicited at the Certification hearing that supported his opinions. (Doc 550-89, pg 8-10, ¶9(a)-(p)). He listed failures in remediation standards, most critically explaining that P&W's "process utilized to pre-characterize soils for off-site thermal treatment from an area where residual radioactive materials had been interred indicates that only

cursory inspection activities were performed which relied upon incomplete screening methods in lieu of appropriate analytical testing techniques to prevent uncontrolled removal/handling of radioactive materials.” And, that “transportation and disposal documentation of record indicate planning and manifesting mechanisms employed during remediation of soil contamination at the UTC Site were also inadequate given an inability to reconcile the same.” (Doc 550-89 pg 11).

1. Finding that Moore did not set forth his opinions on the standard of care ignored his testimony and used the wrong legal standard.

A court should not apply the “exacting analysis,” used to assess reliability, to the qualifications of an expert who opines on industry standards. *See Moore v. Intuitive Surgical, Inc.*, 995 F.3d 839, 852 (11th Cir. 2021).

Moreover, when determining whether the expert’s opinion has been disclosed, a district court abuses its discretion if it fails to consider the expert’s complete record in the case. *See Carrizosa v. Chiquita Brands Int’l, Inc.*, 47 F.4th 1278, 1320 (11th Cir. 2022) (failure to consider “the full universe of information on which [the expert] relied” or “the evidence supporting [the expert’s] opinion”).

Moore’s reports clearly contradict the finding that “[a] review of *Mr. Moore’s reports* shows that he did not set forth his opinions on the standard of care and the basis for those opinions in his reports” (Doc 643, pg 2, emphasis added). True, Moore did not use the phrase “standard of care,” but after reviewing all the records—which he summarized multiple times—and applying his 25 years of expertise performing and certifying remediations, he stated that P&W’s remediation was “incomplete,” “inappropriate,” “lacking in control,” and “inadequate.”

If there were any doubt that his report included an opinion as to the standard of care, and the several deviations from that standard that he details as red-flags, the testimony Moore provided in his deposition and to the court at the certification hearing clarified the nature of his opinion.

The citation to “*Mitchell v. Ford Motor Co.*, 318 F. App’x 821, 825 (11th Cir. 2009) is inapposite as that case affirmed the exclusion of an expert who never provided the foundations of his opinions during his deposition and otherwise before the *Daubert* hearing. *Id.* at 823. In *Mitchell*, the court excluded **new opinions**, here, **no new opinions were offered**.

2. Finding that Plaintiffs had not disclosed Moore as a standard of care expert was clearly erroneous.

As to standard of care, the court found that Plaintiffs did not properly disclose Moore as “this type of expert,” while, the same day, denying Plaintiffs’ long-pending motion for summary judgment on liability—which argued that Moore’s objective expert standard of care opinion was unrebutted. In denying that motion, the court noted that it had stricken Moore’s opinion, rendering that argument moot. But that motion described Moore as a “standard of care” expert, and predated P&W’s delayed disclosures and *Daubert* motions in this case.

This fact highlights the court’s failure to address any of the Rule 37 factors that should have been assessed if Moore’s opinion had been disclosed beyond the deadline, the same factors the court assessed when allowing P&W that late disclosure of all its experts. (Doc. 590). Clearly, finding Plaintiffs failed to disclose Moore as a standard of care expert was erroneous.

3. Finding Moore’s transport opinion would not assist the jury was arbitrary.

The court granted P&W’s motion to preclude Moore’s transport opinion as conclusory or unnecessary on the rationale that “(s)uch a conclusion can be instead reached by the jury based on any direct or circumstantial evidence upon which Plaintiffs rely.” (Doc 643, pg 2).

Rule 702 does not preclude expert testimony merely because a jury is capable of reaching some conclusion on an issue without it; the rule asks whether an expert's testimony is "likely to assist the trier of fact." And the Supreme Court has held that standard is met by expert testimony that "concerns matters beyond the understanding of the average lay person and logically advances a material aspect of the proponent's case." *Daubert*, 509 U.S. at 591; *see also Frazier*, 387 F.3d at 1262–63.

This Court has recently confirmed the admissibility of expert testimony on industry practices and procedures. *Rivera v. Ring*, 810 F. App'x 859, 863–64 (11th Cir. 2020), affirmed the admission of testimony from a police practices and procedures expert whose knowledge regarding the use of force would assist in determining whether an officer's use of canine assistance followed procedure.

And the Court recently affirmed the validity of "soft-science expert testimony," which "cannot have the exactness of hard science methodologies," *Carrizosa*, 47 F.4th at 1317 (rejecting a determination that an expert's use of geographic, temporal, and witness recollection testimony was "simply far too speculative, standing alone, to permit a reasonable juror to conclude, more likely than not, that the death of any decedent was linked to an AUC operation")

Such experts may opine on their review of records and data. For instance, by “simply collect[ing] historical crime war statistics” as a basis for deducing an AUC connection to the victims’ deaths. *Id.* at 1317.

It is true that the circumstantial evidence included things that may be familiar to some jurors: manifests that were filled out and faxed back months after completion, testimony regarding changing routes of transport, missing invoices, and how the trucks were only weighed in but not weighed out. But how those pieces fit together—and the significance those deviations have from routing industrial standards have on the efficacy of controlling industrial waste are not within the common understanding of layperson. If laypersons could determine the proper means of transporting and safely remediating contaminated soils, educated and trained remediation professionals such as Moore would not exist.

4. The preclusion significantly harmed Plaintiffs case.

Here, the harm could not have been clearer. The jury found that Plaintiffs did not prove, “by a preponderance of the evidence, that **as a result of Pratt & Whitney's failure to use reasonable care**, RAM from Pratt & Whitney's facility were transported “to locations in the Acreage.” That finding was made only after P&W—who asked the Court to strike the transport opinion as unnecessary, then requested and was granted a special interrogatory as to transport, and then

requested and was granted a modification of the interrogatory requiring the transport issue be related to a separate breach of care—explained the burden of proving the claim to the jury as follows:

No one can claim that Pratt & Whitney's records on this, even today, 20 years later, are somehow not reasonably comprehensive.

And what the evidence shows is that somebody from Pratt & Whitney certified what was being shipped out. The trucker here, somebody from Tru Trucking, certified that they were taking the soil to Magnum without offloading or subtracting from it in any way or delaying delivery. And then someone from Magnum, in this case Donna Johnson, certifies the receipt of the soil at Magnum. And all of this was done to keep a record so that people and companies involved in this project could get paid. For plaintiffs' theory to be true, all of these certifications would have to be false, and a bunch of honest, hardworking people, with absolutely no motive to do so, would need to have committed a huge fraud and be lying about it now to cover it up.

(Doc 822 pg 99:9-25, emphasis added.)

Moore's excluded opinions describe the consequences of the simple negligence he observed in those very procedures P&W counsel described and directly refutes the assertion that the diversion of contaminated soil for use as fill would require conspiracy to commit a "a huge fraud."

B. The District Court abused its discretion in excluding the testimony of the Plaintiffs’ radiation dosimetrist and toxicologist and admitting P&W’s neurosurgeon.

The gatekeeping function requires an exacting analysis of an expert’s reliability, relevancy, and “intellectual rigor” required by Fed. R. Evid. 702. *Frazier*, 387 F.3d at 1260 (quoting *Kumho Tire Co., Ltd.v. Carmichael*, 526 U.S. 137, 152 (1999)). Because “expert testimony may be assigned talismanic significance in the eyes of lay jurors,” careful consideration under Daubert “cannot be overstated.” *Id.* at 1260, 1263.

1. The District Court abused its discretion in excluding the testimony of Plaintiffs’ dosimetrist, Bernd Franke

As P&W’s expert neurosurgeon Mitchell agrees, Cynthia’s disease was an ependymoma central nervous system tumor arising from the cells that line the ventricles and passageways in the brain and spinal cord. Ependymal cells are glial cells which make cerebrospinal fluid (CSF). (Doc 605-02 pg 23.)

Franke’s dose opinions demonstrated that the level of thorium in her diseased CNS tissues was significant because it was significantly above background. Franke also provided an calculation for CNS and then an effective dose for the brain as the coefficients for such doses do not include “CNS” as a target organ.

Dosimetrist Franke repeatedly opines that he used tissue from Cynthia's central nervous system tissue to dose a central nervous system cancer: "The equivalent dose for the spinal cord tissue from the concentration found in spinal cord tissue at the time of death is calculated to be 0.23 rem per year." He further opined that this is a reliable methodology under the circumstances, and that when the disease is a CNS brain tumor, it is also acceptable to use CNS tissue to determine an effective dose to the brain. (Doc 600-03 42:9-13, 53:2-25, 105:4-13, 108:14-21).

P&W asserted two oblique points regarding Franke's secondary brain dose calculation and his assertion that the CNS tissue could be used to dose the brain. First, that their own dosimetrist, John Frazier, "explained that the dose guidance publication that Franke relied upon "describes the brain and spinal cord as 'separate and distinct' including that they 'receive blood via separate vascular systems—the brain from common carotid arteries and the spinal cord from vertebral arteries arising from subclavian arteries.'" Second, that its expert, Mitchell "testified that animal experiments demonstrate thorium distributes unevenly within the brain (much less across the central nervous system) such that you could not estimate the dose to the brain by looking at tissues from the spine. (Doc 600 pg 4).

But neither Frazier nor Mitchell could testify that the dose which caused Cynthia's CNS cancer had to provide a dose to the brain—because her cancer originated in CNS tissues at the ventricles, supporting structures of the brain and not the brain tissue itself. In other words, none of P&W's scientific opposition to Franke's technique mattered, even if reliable (which it was not).

Frazier had never heard the word ependymoma before reading it “somewhere in the case.” He did not know if the cancer at issue was in Santiago's brain or spinal column, and, as to whether ependymoma or all brain cancers were actually CNS cancers, he could offer no opinion. (Doc 603 pg 2-4 and Doc 623 3-6, Doc 603-9, pg 145:11-146:8).

Plaintiffs further cited technical document ORAU-OTIB-0005 on dose reconstruction which provides guidance under the Energy Employees Occupational Illness Compensation Program Act of 2000. The organs or tissues for which doses must be estimated are those that are delineated by the specified ICD-10 code that is received from the U.S. Department of Labor (DOL). When assessing a diagnosed metastatic CNS cancer such as Santiago's, the target organ Franke is directed to name is the brain. (Doc 610 pg 8 and Doc 653 pg 5).

At the hearing the Court noted that P&W's argument sounded like a battle of experts. P&W responded that the argument boiled down to whether Franke

supported his assumption that “spine equals brain.” (Doc 664 pg 160:10-161:20).

The order precluding Franke’s opinion, based on one line of testimony in Franke’s deposition, and in contradiction to Franke’s complete testimony, agreed with the science as explained by P&W’s counsel:

Mr. Franke’s dose-response analysis centers on his assumption that a dose of toxins to the spine would be the same as a dose of toxins to the brain. A review of Mr. Franke’s deposition (DE 600-3 pg p.54) reveals that he has no evidence to support that assumption. *** Thus, Mr. Franke is unable to opine, to a reasonable degree of scientific certainty, that the dose exposure of toxins in this case was sufficient to cause brain cancer. Because Mr. Franke’s opinion is not based on scientifically reliable or supportable data to meet the requirements for the dose-response relationship, the Court must strike his testimony pursuant to Daubert.

(Doc. 641 pg 2.)

The summary dismissal of Franke’s opinion based upon one statement and disregard of the CNS dose stated in his report and remainder of his testimony, as cited by Plaintiffs (that he used CNS tissues to diagnose a CNS-system cancer), misrepresents the scope of Franke’s opinion and overlooks the established scientific basis for naming the brain as the target organ when measuring a dose provided by CNS tissues.

The faulty suggestion within P&W's argument, and the order approving it, is that no effective dose may be derived from CNS tissues simply because there is no coefficient for any CNS organ either than the brain. The exclusion is an abuse of discretion failing to consider "the full universe of information on which [the expert] relied" or "the evidence supporting [the] opinion," *Carrizosa*, 47 F.4th at 1320.

The wholesale exclusion of Franke's opinion overlooks the opinions of both Plaintiffs' toxicologist and P&W's neurosurgeon describing Cynthia's cancer as originating in the CNS. Failing to consider Franke's reports, testimony, and the proffered regulations regarding that correlation and, instead treating as dispositive a cherry-picked statement from P&W's examination at page 54 of his deposition.

At page 53, Franke had confirmed that he first calculated a dose for the CNS from the spinal cord. Next, as dose coefficients are not available for the CNS, he used brain coefficients as it is part of the CNS system. (Doc 600-03 pg 53.) The subsequent testimony cited by the order includes only when Franke was asked if he was relying on any studies of radiation in spinal cord and brain tissue that shows that they are the same amount and he replied that he looked for any such studies and did not find them. (Doc 600-03 pg 54). That acknowledgement does not mean

that using CNS tissue to first dose the CNS and then to derive an effective dose using brain tissue coefficients, is without support—since he testified that this is how the industry treats CNS tissue and P&W cited no study to discredit the accepted use of spinal column tissue in a metastatic CNS cancer patient.

2. The District Court erred in excluding Sawyer’s dose-response assessment, which it ignored because it erroneously assumed that Sawyer did not work with a specific dose.

This Court explained a four-step process to determine causation of a specific disease:

First, “the toxic substance in question must have been demonstrated to cause the type of illness or disease in question.” . . . This focuses on general causation . . . Second, “the individual must have been exposed to a sufficient amount of the substance in question to elicit the health effect in question.” This requires not simply proof of exposure to the substance, but proof of enough exposure to cause the plaintiff’s specific illness. This focuses on the issue of individual causation. . . . Third, “the chronological relationship between exposure and effect must be biologically plausible.” . . . Fourth, and finally, “the likelihood that the chemical caused the disease or illness in an individual should be considered in the context of other known causes.”

McClain v. Metabolife Intern, Inc., 401 F.3d 1233 (11th Cir. 2005).

Sawyer’s opinion met each of these requirements.

Identifies the disease and the alleged carcinogen:

Cynthia's ependymoma was diagnosed at age 13. Sawyer summarized her cancer through the final ependymal tumors at her lower spine. She lived in the Acreage from when she was 4 months old until death in October 2016. Doc 509-07 pg 2-3. He first described ependymoma as "a central nervous system cancer originating from the ependymal cells that line the spinal cord and supportive brain structures called the ventricles and create and distribute cerebral spinal fluid (CSF)." (Doc 509 pg 4.)⁷

General causation:

Sawyer notes the established environmental risk for central nervous system cancers is ionizing radiation, and then discusses how alpha radiation causes cancer by mutating the DNA of nearby cells. Of the four sources of radiation known to be carcinogenic, "thorium dioxide decay by alpha emission is one," citing the 2016 Report on Carcinogens published by the U.S. Department of Health and that "alpha emitting radioactive materials emit subatomic particles carrying energy as they are ejected by the atoms of the thoria." He discussed the seminal *Ron et. al.* study on

⁷ Doc. 605-02 at 23, P&W's expert Mitchell admits that "Ependymomas are central nervous system tumors that arise from the cells that line the ventricles and passageways in the brain and the spinal cord. Ependymal cells make cerebrospinal fluid (CSF) and are a type of glial cells."

ionizing radiation and brain cancer noted above where relatively low-dose radiation was used in one skin treatment session. (Doc 509-07 pg 5-7).

Amount.

Cynthia's spinal ependymal tumor was resected upon death, and Sawyer confirmed that the tissue excised included intradural and extradural ependymal tumor tissue. (Doc 509-07 pg 19).

He compared the amount in Cynthia's spinal ependymal tissue with a separate amount found in her adjacent vertebra tissue and found them to be in biologically plausible ratios, reinforcing the 90% to 95% certainty numbers the laboratory assigned them. (Doc 509-07 pg 23).

He compared the amount and circumstances of the thorium found in her spinal cord with the amount of thorium injected into patients who received thoratrast, now banned, and were later diagnosed with cancers in adjacent tissues. He noted that to draw a complete correlation, the thorium had to be at or near the system where the cancer originates and had to be suspected of being introduced to the system within a reasonable latency period. Both were true here: First, thorium was found in the diseased ependymal tissues of her spine and her original tumor was a located in the ependymal tissues of her third ventricle—the cord and ventricles together circulate and create CSF. Second, Cynthia was diagnosed with

ependymoma brain cancer in 2009, she moved to the Acreage in 1996. (The exposure was considered to have occurred as a result of the P&W remediation of 1999-2001.) One year latency or more is considered appropriate for children. (Doc 509-07 pg 26-30).

Sawyer compared the separate amount found in Cynthia's spinal vertebra to similarly exposed populations (uranium miners inhaling uranium dust), demonstrating that Cynthia's levels were in considerable excess of that exposed cohort, which he opines suggests exposure via inhalation to thorium dust particles. (Doc 509-07 pg 22-23).

Pathway and Timing

He studied and described multiple pathways for the thorium to have entered her body including through inhalation to deposition into the spinal vertebra and cord, including ependymal tissues of the cerebral nervous system system-brain barrier (CNS-Brain barrier), accounting for the size of thorium particles generally and the size of a separate thorium particle found independently on the original 2009 ventricular ependymoma cancer diagnostic slide. (509-07 pg 24-25).

He reviewed the likely sources of thoria in her environment including the thorium particles used by P&W processes and considered that data in concert with the increased incidence of brain cancer incidence found by NIOSH at its facility.

(Doc 509-07 pg 7-9). He reviewed Kaltofen's reporting on the presence of thorium-230 and its parent uranium at the facility and in the Acreage residential soils. Doc (509-07 pg 9-13).

He explains the mechanism of carcinogenicity by radiation and how radioactive materials cause cell damage, carcinogenesis and tumor progression through the decay and spread of free radicals emanating from the materials themselves. (Doc 509-07 pg 13-16).

He notes that while thorium can only cause brain cancer by passing the brain barriers, it is thought to do so when small particles of thoria are released from larger thoria from the free radical activity he described earlier. This is substantiated by studies finding thoria in brain tissue. (Doc 509-07 pg 25).

He defended the pathways he examined against the response of Dr. Mitchell, who opined that thorium would not transgress the blood brain barrier and cause an ependymoma. Sawyer opined that Mitchell did not account for the alpha-radio-decay but treated thoria which was found in the ependymal tissues as a molecular toxin only ignoring the CSF-brain barrier mechanism entirely despite the fact that the thoria was found in that barrier system. (Doc 604-21).

Differential Assessment

Sawyer assessed other causes in determining that the thorium retained in her CNS tissue was the likely cause of her ependymoma disease. Aside from sporadic idiopathic cancers, only ionizing radiation and genetic predisposition were known causes of her cancer. Her medical history included only episodes reinforcing his pathway model (she had meningitis the year before diagnosis), there was no genetic disposition for the disease, and Cynthia was known to be one of a cluster significantly unlikely to occur randomly. (Doc 509-07 35-39).

Here, the court simply evaded analysis of Sawyer's dose assessment because it misunderstood the dose that Sawyer used—first erroneously understanding that he relied on Franke and then erroneously finding that Sawyer did not rely on any dose at all:

The court's initial order as to Sawyer was only this:

Plaintiffs do not dispute that Dr. Sawyer did not perform a dose-response calculation. At the hearing, Plaintiffs argued that Dr. Sawyer relied upon Mr. Bernd Franke's dose-response calculation.⁸ A review of Mr. Franke's reports shows that this is not the case. (See Doc 604-3, 604-4, 604-5, 604-14, 604-21.) Moreover, the Court rejects Plaintiffs' justifications or explanations as to why Dr. Sawyer did not have to perform a dose-response calculation. Because the

⁸ As noted in the procedural history, the hearing transcript contains no such admission and was not available even when Plaintiffs' deadline to file a motion for reconsideration was due.

Court concludes that a dose-response calculation is required by Eleventh Circuit Court of Appeals precedent, Dr. Sawyer's failure to perform the dose-response calculation requires the Court to strike him as an expert.

(DE 644 2-3).

The district court's misapprehension of the respective domains of dosimetry and toxicology imposed an unwarranted Catch-22 for Plaintiffs' experts: the court rejected the dose calculation of a dosimetrist, Franke, finding that his opinion did not "meet the requirements for the dose-response relationship," (Doc 641 pg 2) and then rejected the dose-response relationship assessment of a toxicologist, Sawyer, because the court believed that this Court requires a "dose response calculation." (Doc 644 pg 2).

Plaintiffs moved for reconsideration emphasizing again that Sawyer did not rely on Franke's dose and that Franke did not rely on Sawyer—Plaintiffs relied on the two opinions as each explains and verifies the other. (Doc 649 at 3).

The Court denied the motion stating that no new grounds were stated for reconsideration and that "Specifically, the Court excluded Dr. Sawyer because he failed to conduct a dose-response analysis, which the Court found to be required under controlling Eleventh Circuit precedent." (Doc 655-4). In fact, the court

never assessed that dose-response assessment but excluded Sawyer because he did not provide a “dose-response calculation,” a requirement that does not exist.

While this Court has stated that it “(has) never required an expert to “give precise numbers about a dose-response relationship,” *see Williams v. Mosaic Fertilizer, LLC*, 889 F.3d 1239, 1248 (11th Cir. 2018) (citing *McClain*, 401 F.3d at 1237, n.6), Sawyer indeed provided precisely the sort of analysis this Court expects: he put forth “reliable groundwork for determining the dose-response relationship.” *Id.* at 1241 (emphasis added).

Essentially, Sawyer performed the exact dose assessment described above and that this Court most recently described *Pinares*, 2013 WL 2661521, (C.A.11 (Fla.), March 28, 2023) at *2, a related case where the same trial court excluded a dose-response assessment after examining it in detail.

The *Pinares* case alleges that exposure to a host of contaminants including bromodichloromethane, chloroform, and methylene chloride, all classified as reasonably anticipated human carcinogens, found on the Pinares and other Acreage properties emanated from groundwater pollution known to exist on the P&W property 8 miles away. Pinares alleged it caused her renal cell carcinoma. *Id.* This

Court summarized the trial court's five-page exclusion of the Pinares expert as follows:

Specifically, the district court reasoned that Dr. Wylie: (1) failed to show whether “the alleged carcinogens were present” in the Pinareses’ water before Mrs. Pinares's diagnosis and “how long they were present”; (2) overlooked “the effects of the body in metabolizing or eliminating chemicals before any toxic effect t[ook] hold”; (3) relied on an invalid “one-hit model” of causation; (4) provided no evidence to support his calculation of Mrs. Pinares's exposure to the contaminants; and (5) failed to “isolate” Mrs. Pinares's “exposure to each of the various chemicals separately, which [wa]s necessary to analyze the potential cancer causing likelihood of each compound.”

Id. at 3.

Sawyer’s opinion on how the amount of ionizing thorium in Cynthia’ ependymal tissues was causally related to her ependymoma disease had none of those defects attributed to Wylie’s opinion.

Wylie relied on an invalid “one-hit model” of causation and hypothetical that any amount of exposure to suspected carcinogens is too much, while Sawyer cited the NLT dose model, generally accepted for radiation and the basis of the entire field of dosimetry, and then instead of limiting his reliance to that theory, did a full-blown dose-response assessment.

While Wylie overlooked “the effects of the body in metabolizing or eliminating chemicals before any toxic effect” occurs, Sawyer explained how the thorium dust

is absorbed through inhalation and moves via free radicals within the cerebral-spinal-fluid-brain barrier by the very cells that create CSF, the ependymal cells, where the exact amount he relies upon as the effective dose was found. The dose he works with is what is left in the CNS after all of that pre-absorption. And he supports this pathway with studies on exposed populations and with a discussion of the free radical expression of thorium generated alpha emitting radiation, classified as a known carcinogen.

While Wylie “provided no evidence to support his calculation of Mrs. Pinares's exposure to the contaminants,” Sawyer rigorously reviewed the amounts of thorium reported by the laboratories, with the reported uncertainties, and by comparing the cord and vertebral tissues where the materials was found and finding that the proportionate levels of uptake made biological sense.

While Wyle “failed to “isolate” Mrs. Pinares's “exposure to each of the various chemicals separately” and “analyz[e] the potential cancer-causing likelihood of each compound,” Sawyer dealt with only one material—the nuclear material he demonstrated was found in Cynthia’s spinal cord and vertebra at levels high above exposed populations.

But the primary significance of the opinion in *Pinares* rests in a comparison of the detailed analysis that the court conducted in rejecting the Wylie dose assessment, and that this Court approved in *Pinares*, and the analysis of Sawyer's dose assessment in this case. Here, the order never assesses Sawyer's dose-assessment and, instead, rejects it summarily based on the erroneous understanding that it has to include a "dose-relationship reconstruction" and then upon the flawed finding that a dose-response relationship assessment for a CNS ependymal cancer could not be based upon materials found in the decedent's CNS ependymal tissue.

3. The Court erred in denying plaintiffs' motions to preclude or to limit P&W's Mitchell

The testimony of even a well-qualified expert is unreliable if he "neither testifie[s] to the collective view of his scientific discipline nor explain[s] the grounds for his differences." *Allison v. McGhan Med. Corp.*, 184 F.3d 1300, 1314 (11th Cir. 1999). Such a lack of reliability in an extensively experienced expert cannot be overlooked. *Frazier*, 387 F.3d at 1261, (citing *Quiet Tech. DC-8, Inc. v. Hurel-Dubois UK Ltd.*, 326 F.3d 1333, (11th Cir. 2003)).

And experts opining as to causation, whether it be specific or general, cannot simply ignore which diseases are tied to a certain exposure and which are not.

Chapman v. P&G Distrib., LLC, 766 F.3d 1296, 1303-04 (11th Cir. 2014). In *Chapman*, the plaintiffs' expert failed to show a possible pathway and mechanisms for exposure, instead relying only on alternative pathways without rationally connecting those established pathways to the cancer at issue.

Plaintiffs argued that Mitchell's opinions exhibited the defects noted in *Chapman* in reverse effect and are replete with half-truths used to support emphatic but false statements. He does not "connect the dots" because he ignores material facts which he later admits he disregarded.

Indeed, Mitchell's expertise made him misinformative rather than helpful. Until confronted with the contrary science, he "neither testified to the collective view of his scientific discipline nor explained the grounds for his differences." *Allison*, 184 F.3d at 1314.

His opinion, essentially, was that the diagnoses were too disparate in type to share a common pathway, and that no linkage between the Santiago's cancer development and an environmental exposure in the Acreage could be established within a degree of medical certainty. (605-02 pg 25-26).

During deposition however, he demonstrated that his disclosed opinion failed to demonstrate the collective view of his scientific discipline and then he refused to explain the grounds for his differences in any coherent way.

- Mitchell conceded that the cancers in the cluster were all subtypes of the type glioma sharing mitotic features and a general association with ionizing radiation. (Doc 605-4 pg 8, Testimony of Duane Mitchel, May 9, 2018, 26:19-27:09, 29:20-30.)
- He did not cite generally accepted studies correlating low-dose radiation to such cancers, such as CT scan exposure with brain and CNS cancers (instead citing only the follow-on studies showing no increase of brain cancer in those who administer such tests). When asked if these studies presented epidemiological evidence expressly concluding a correlation between low-dose exposures and brain cancer, he would not answer the question as he had not read the follow-on studies and would only hypothesize about the difference between low-dose in ct-scan exposure as opposed to inhalation exposures. (Doc. 605-04 pg 8 and 11 (26:19-27:09, 29:20-3; 36:12-37:02, 40:24-41:15, 80:13-81:18).

- He ignored the general acceptance of the linear no-threshold response even though it was discussed in the articles he and Sawyer cited.⁹ When it was pointed out that the Chernobyl study he relied upon critiqued the widely accepted LNT model, but that he had not even cited the model, he refused to answer whether he would agree that it should be characterized as “generally accepted,” instead asking for time to review the study as though he had not himself cited it. When asked if he agreed that the International Committee on Radiation Protection accepted the LNT model as was directly stated in the article he cited, he answered, “I’m not trying to be difficult. I couldn’t characterize what they’ve accepted.” (Doc. 604-05 pg 17-18). He then insisted that it was irrelevant to his opinions because dose modeling was not the issue.
- He admitted that if thorium made its way to the cerebral spinal fluid-brain barrier pathway, it could possibly move to the ventricles. (Doc 605-04 pg 15 (54:3- 56:12) pg 21 (80:13-81:18)).

But the court’s ruling simply evaded those methodological defects:

⁹ The LNT model states that no level of exposure to ionizing radiation has a zero risk of causing cancer. The model is used as the guide for imaging and radiation dosimetry exposure policies.

To the extent (Plaintiffs) are challenging the opinions, the Court finds that these challenges go to the credibility, and not to the admissibility, of the opinions.

(Doc. 646 pg 2).

4. The preclusion of Franke and Sawyer significantly harmed Plaintiffs' case.

The gatekeeping function requires an exacting analysis of an expert's reliability, relevancy, and "intellectual rigor" required by Fed. R. Evid. 702. Frazier, 387 F.3d at 1260 (quoting *Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137, 152 (1999)). Because "expert testimony may be assigned talismanic significance in the eyes of lay jurors," careful consideration under Daubert "cannot be overstated." *Id.* at 1260, 1263.

As additional evidence that RAM was released in the Acreage, Plaintiffs introduced evidence that RAM related to the P&W site was found in tissues of Acreage pediatric brain cancer victims and that low-dose exposure to ionizing radiation could cause the FDOH declared Acreage cancer cluster.

Here, the lopsided rulings on experts left the Plaintiffs, who had the burden of proving a toxic tort at trial, without the ability to assist the jury to understand that complex issue, an issue that even the court struggled with in the *Daubert* hearing.

First, the only talisman that the jury was provided to understand P&W's remediation efforts was the self-serving testimony of its own professionals. Then, as to whether that soil could be the cause of the significant and otherwise unexplained cluster in the Acreage, the jury was afforded only the expertise of P&W experts who admitted to overlooking the substantial support that their experts, now precluded, utilized.

II. The Verdict Form Arbitrarily Doubled the Burden of Proving Negligence, Compounding the Harm.

The phrasing of special jury interrogatories is reviewed for abuse of discretion. *Central Alabama Fair Housing Center*, 236 F.3d at 635, and “reversal is warranted where the interrogatories have ‘the potential for confusing or misleading the jury.’” *Id.* Moreover, “if there is uncertainty as to whether the jury was actually misled,” an “erroneous instruction cannot be ruled harmless.” *Busby v. City of Orlando*, 931 F.2d 764, 727 (11th Cir. 1991).

In *Adinolfe*, this Court reversed a dismissal of a complaint that did not allege contamination exceeding regulatory levels in the Acreage, despite P&W's argument that to be liable for such damage, they had to release contamination offsite in the Acreage. This Court disagreed, noting that if contamination occurs

on your property, you may be liable for the downstream effects depending upon the totality of the circumstances:

[W]ith respect to the common-law tort claims, the allegations of the second amended complaints sufficiently set forth a plausible causal chain connecting P & W with the alleged contamination. The complaints link P & W's release of contaminants onto its own property and the adjacent Corbett Wildlife Management Area, the southward migration of these pollutants to The Acreage, the digging of test wells in The Acreage and the subsequent confirmation of the presence of contaminants in groundwater, the discovery of metal drums marked "hazardous waste," and the designation of The Acreage as a cancer cluster. In the aggregate, these assertions give rise to a "reasonable inference that [P & W] is liable for the misconduct alleged."

768 F.3d at 1175 (citing *Ashcroft v. Iqbal*, 556 U.S. 662, 678, (2009)).

Under Florida law, the elements of both the common law and the statutory claim do not include a "transfer" element but only duty, breach, proximate cause between the conduct and resulting injury, and actual loss or damage. *Curd v. Mosaic Fertilizer, LLC*, 39 So.3d 1216, 1227 (Fla., 2010).

In this case, the jury found that P&W negligently handled and disposed of nuclear materials on its property. The case was then lost not on the issue of whether Plaintiffs showed evidence of transport of that RAM to the Acreage, but whether they showed that P&W's

failure to exercise reasonable care in transporting RAM into the Acreage. As to the Chapter 376 claim, Plaintiffs were erroneously required to demonstrate that P&W unlawfully released a discharge or pollutive condition into the Acreage. In a groundwater case, this would be akin to finding P&W not only responsible for contamination on its property, but for the fact that water flows south. P&W contaminated its property. It knew its contaminated soil would be moved south via fill transporters to a local recycling company in the exact manner it would know that the water would flow south. Liability did not require negligence in the transport of contaminated soil since the contamination of the soil with RAM was itself the result of P&W's established negligence.

Here, the first and fifth special jury interrogatory created the potential for confusing or misleading the jury. Considering the separate finding that P&W negligently disposed of RAM on its campus, there is uncertainty as to whether the jury was misled.

By introducing the requirement that the jury find a failure to exercise reasonable care on the negligence claim twice, the District Court essentially invented an element of "negligent transport." That

is, the court created the implication that to find that P&W was liable, Plaintiffs had to prove that P&W failed to exercise reasonable care in the handling of its radioactive (RAM) and then separately, that P&W failed to exercise reasonable care in the transport of RAM. This was a particularly troublesome added burden since the transport was not performed by P&W but by third parties and the Court struck Plaintiffs' expert opinion regarding P&W's obligations to supervise their work and to investigate the means and measures they would use before being selected for the work. The court's failure to provide the concurring cause instruction Plaintiffs requested only aggravated this confusion.

III. The District Court Abused Its Discretion in Denying Plaintiffs' Motion for Class Certification

This Court reviews orders denying class certification for abuse of discretion *Cordoba v. DIRECTV, LLC.*, 942 F.3d 1259, 1267 (11th Cir. 2019). The order denying class certification clearly (A) applied an incorrect legal standard under the heading "ascertainability" and erred in finding that the proposed class was not ascertainable; (B) erred to the extent it found that the class proposed was

overbroad; and (C) erred in finding the Rule 23(a) and 23(b)(3) requirements were not met for the Plaintiffs.

Of the factual findings, only three appear to relate to Plaintiff's cancer cluster stigma claim. The errors in legal holdings elaborated below owe, in part, to those three erroneous fact findings:

- that Kilpatrick's STA unreliably failed to account for property variability such as house style and proximity to P&W. (Doc 438 pg 35)
- that without class-wide dose reconstruction data, the misconduct could not be alleged to cover the proposed class area. (Doc 438 pg 22.)
- that area-wide contamination was implausible because for that to be so P&W must have had a nuclear reactor or bomb on site. (Doc 438 pg 10).¹⁰

¹⁰ The order in fact stated that Kaltofen admitted that the strontium-90 and cesium-137 he detected "*could only be present in the amounts he detected if such fission-producing work occurred at the Pratt & Whitney site.*" (DE 438 at page 10, emphasis added). As noted above, Kaltofen's cross examination testimony cited by the Court clearly *denied* that fission-producing work had to occur at the site of contamination, (Doc. 427-5, Daubert Hearing Transcript, Vol. IV, at 114:22-115:10.)

A. The District Court applied an incorrect legal standard for determining “ascertainability.”

“Ascertainability” is an implied requirement for certification in addition to Rule 23’s express requirements. *Cherry v. Dometic Corp.*, 986 F.3d 1296, 1302 (11th Cir. 2021). A proposed class is ascertainable “if it is adequately defined such that its membership is capable of determination,” *id.* pg 1304. Determination of class membership by some “objective” criteria is all that the ascertainability analysis requires. *See Rensel v. Centra Tech Inc*, 2 F.4th 1359, 1370 (11th Cir. 2021). This enables the court, initially, to assess commonality, numerosity, and typicality under Rule 23(a), *Cherry*, 986 F.3d at 1303-04, and, post certification, facilitates identifying “the persons (1) entitled to relief, (2) bound by a final judgment, and (3) entitled under Rule 23(c)(2) to the ‘best notice practicable’ in a Rule 23(b)(3) action,” Federal Judicial Center Manual for Complex Litigation § 21.222 (4th ed. 2004). A class being “ascertainable,” definitionally, means it is “adequately defined” (such that its membership is capable of determination). *Id.*

In the seminal precedent for this Court’s ascertainability requirement, *DeBremaecker v. Short*, 433 F.2d 733 (5th Cir. 1970), an unascertainable class is described as being defined by vague, open-ended, or subjective terms, such as the definition held inadequate in that case: “[a] class made up of ‘residents of this State

active in the peace movement.” 433 F.2d at 734 (emphasis added)

By contrast, ascertainability is indisputably met here because—unlike the amorphous “active in the peace movement” criterion rejected in *DeBremaeker*—Plaintiffs sought to represent a class “including all past and current property owners of residential lots (including vacant and improved properties) in the Acreage within the time frame of August 2009. The designated cancer cluster area consists of 850 Census blocks, which is depicted on page 23 of the Acreage cancer review. (Doc 318 pg 14-15 par. 62b).

In failing to find ascertainability here, the District Court conflated two separate issues, and got both wrong:

“adequately defined and clearly ascertainable” . . . *means* the class must be defined “by reference to objective criteria,” *Bussey*, . . . , ***and, as defined, must include a common claim for injury attributable to a common cause (the defendant’s conduct)***. *Wal-Mart Stores, Inc. v. Dukes*, 564 U.S. 338, 349-50.

DE 438 pg 17 (emphasis added).

While it is true both (i) that ascertainability requires the class to be defined “by reference to objective criteria” and (ii) that, “***as defined***, [the class must share] a common claim for injury attributable to a common cause (the defendant’s conduct),” the “class definition” itself need not refer to the common injury or to the

defendant's conduct, at all. But the injury must be applicable to the class as that class is defined. To the extent the order denied certification because "the injury" was not clear in the class definition, it was erroneous.

B. The District Court erred to the extent it found that the class proposed was overbroad.

A class should not be certified if it would either include "a great many persons" who lacked Article III standing or if it would undermine the interests of unnamed putative class members so severely as to deny them due process. *See Johnson v. Georgia Highway Exp., Inc.*, 417 F.2d 1122, 1126 (5th Cir. 1969) (Godbold, J., concurring); *Scott v. Univ. of Del.*, 601 F.2d 76, 94 (3d Cir. 1979) (Adams, J., concurring) (quoting Judge Godbold's concurrence in *Johnson*); *Hubbard v. Rubbermaid, Inc.*, 78 F.R.D. 631, 640 (D. Md. 1978) (same). Neither is an issue here.

Holding that "a class should not be certified if it is apparent that it contains *a great many* persons who have suffered no injury at the hands of the defendant," this Court tied the requirement to avoid overbreadth to Article III standing—the non-named plaintiffs in the putative class must be found to have claims "fairly traceable" to the defendant's conduct. *Cordoba*, 942 F.3d at 1273-76. Since "a properly defined class will often include uninjured class members, and that is not a

problem that precludes class certification,” *id.* at 1275, this principle applies only when it is apparent at the certification determination that many if not most of the putative unnamed class members have not been damaged. *Cordoba*, for instance, reversed certification of a class of recipients of telemarketing calls allegedly in violation of the Telemarketing Consumer Protection Act, when “it seem[ed] likely the class definition was overbroad” because it was likely that “many, perhaps most, members of the class” had never asked the telemarketer not to call back. *Id.* at 1264, 1271–72.

The class proposed here is not overbroad under *Cordoba*, as it is not apparent that any, let alone “a great many,” of the unnamed plaintiffs lack an injury traceable to P&W’s alleged misconduct. The stigma is alleged to attach to the Acreage as a whole and diminish the value of all properties within it. The chance that any of those listed in the property appraiser scrolls as owning those properties but did not own them is certainly not an issue for “many if not most” and can be efficiently handled in administering remedy.

C. The District Court erred in finding the Rule 23(a)(2) and 23(b)(3) requirements were not met by failing to distinguish Plaintiffs’ claims

Following consolidation under Rule 42(a), the “constituent cases retain their separate identities.” *Hall v. Hall*, 138 S.Ct. 1118, 1131 (2018). The District Court

ignored the fundamental distinction between the Adinolfi and Cotromano claims, clearly erring in finding the Cotromano proposed class did not satisfy (1) the commonality requirement of Rule 23(a)(2) and (2) the predominance and superiority requirements of Rule 23(b)(3).

In sum, the court concluded the proposed class to be “overbroad” or “overinclusive,” defeating commonality, as follows: (i) no evidence that contamination is uniformly distributed; (ii) a class cannot be defined by proximity to contamination absent exposure or risk evidence; (iii) the proposed class loosely identifies area alleged to suffer perception of health risk due to proximity; (iv) fear or perception of risk is not an objective criterion by which to ascertain a class; and (v) evidence of exposure and dose levels at discrete locations is required.¹¹ (Doc 438, at 19–22).

But none of those five impediments to commonality that the court identified undermines the case for certification of the proposed Cotromano class. The fourth—regarding fear or perception of risk—does not affect ascertainability or render the Cotromano claims non-actionable under present Eleventh Circuit and Florida law, as detailed below. And the other four—(i), (ii), (iii), and (v)—inextricably

¹¹ See Doc 438, at 19–22.

depend on the proximity-to-contamination nature of the Adinolfi claims that distinguish them from the Cotromano claims.

In its opposition to the joint motion to certify, P&W repeated the phrase “arbitrarily drawn lines on a map” seven times. (Doc 320 pg 11, 37, 38; Doc 426-1 pg 19; Doc 427-1 pg 6) P&W argued that the class area, date, and definition were “arbitrary,” using that term in its headings. (Doc 320 and Doc 427-1). The ensuing order denying certification does not use the term “arbitrary” specifically, but invokes that concept, under “ascertainability:”

Plaintiffs contend that . . . the class of property owners negatively affected by th[e] “perception” [of an elevated risk to human health] may be captured here by *drawing a line* around nearby residential neighborhoods and communities *loosely defined* as “the Acreage.”

(Doc 438 pg 21 emphasis added).

The concept of arbitrariness P&W attempted to invoke does not even apply here. P&W’s “arbitrarily drawn lines on a map” quotation originates with *Duffin v. Exelon Corp.*, No. Civ-A-06-C-1382, 2007 WL 845336, *4 (N.D. Ill. Mar. 19, 2007). *Duffin* held the proposed class boundaries to be arbitrary because “[t]here is simply no correlation between plaintiffs’ evidence concerning” contamination and the proposed boundaries. *Id.* at *4. The court held that there was no evidence to support the plaintiffs’ choice of a particular two roads, pond, and river to bound the

class area, *id.* at *2, as opposed to, say, using a different pair of roads for the boundary. In great contrast, the relationship between the Cotromano class boundaries and the evidence is a perfect, one-to-one correlation. Here a governmental agency identified a precisely bounded area as having exhibited significantly elevated cancer risk, and Plaintiffs' experts have opined that P&W caused that elevated risk and that the public designation of it by the government stigmatized the area, diminishing property values.

Finally, the order posits that “engaging in conduct which causes a *subjective, unreasonable* fear of environmental danger is not actionable.” (Doc 438 pg 21 (emphasis added)). Under Florida law, a defendant may be liable for the economic harm caused by perception of risk due to its conduct, regardless of whether the perceptions or fears of participants in the economically-relevant market are rational—so long as the defendant’s conduct is determined to be the legal cause of that foreseeable perception or fear and, in turn, the ensuing economic harm. *See Jennings*, 518 So.2d at 895 (“The public’s ‘fear’ as a factor ... may be utilized as a basis for an expert’s valuation opinion regardless whether that fear is objectively reasonable.”); *Jones v. Trawick*, 75 So.2d 785, 788 (Fla. 1954).

In *Jones*, discussed in this Court’s *Adinolfe* decision, the Florida Supreme Court noted that constructing a proposed cemetery in a primarily-residential area would

introduce the subjective disamenities of “constant reminders of death” and “depression of mind” for homeowners, who would “object to the thought of drinking water that had been drawn from a surface so near the dead, no matter how pure the health authorities had stated it to be.” *Jones*, 75 So.2d at 788.

CONCLUSION

Prejudicial errors on the part of the District Court require reversal of the judgment and remand for a new trial (wherein the Appellant’s experts are admitted to trial and the verdict form suggested by the Plaintiffs for the negligence claim is used). When remanded, the claims at issue should be certified for class-wide relief so that the Plaintiffs’ claims redress the entire class of persons owning property in the 850-census block of the Acreage as of the date of the Acreage Cancer Review.

Dated this 24th day of April, 2023.

Respectfully submitted,

By: /s Mara R. P. Hatfield
Mara R. P. Hatfield
Florida Bar No.: 37053
SEARCY DENNEY SCAROLA
BARNHART & SHIPLEY, P.A.
2139 Palm Beach Lakes Boulevard
West Palm Beach, Florida 3340
Phone: (561) 686-630
Fax: (561) 383-9539
hatfieldteam@searcylaw.com
Counsel for Plaintiffs

**CERTIFICATE OF COMPLIANCE WITH TYPE-VOLUME LIMIT,
TYPEFACE REQUIREMENTS, AND TYPE-STYLE REQUIREMENTS**

This brief complies with the type-volume limitations of Fed. R. App. P. 32(a)(7)(B) as the brief contains 12,940 words, excluding those parts exempted by 11th Cir. Local R. 32-4.

This brief complies with the typeface requirements of Fed. R. App. P. 32(a)(5) and the type-style requirements of Fed. R. App. P. 32(a)(6) as this brief has been prepared in a proportionally spaced typeface using Microsoft Word in 14-point Times New Roman font.

CERTIFICATE OF SERVICE

I hereby certify that on April 24, 2023 copies of the brief were dispatched for delivery to the Clerk's Office of the United States Court of Appeals for the Eleventh Circuit by third-party commercial carrier for overnight delivery at the following address:

David J. Smith
Clerk of Court
U.S. Court of Appeals for the 11th Circuit
56 Forsyth St., N.W.
Atlanta, Georgia 30303

On this same date, a copy of the brief was served on the following by CM/ECF or in some other authorized manner for those counsel or parties who are not authorized to receive electronic Notices of Electronic Filing:

/s/ Catherine B. Simpson
Counsel Press
1011 East Main Street
Richmond, VA 23219
(804) 648-3664

Filing and service were performed by direction of counsel.