

[DO NOT PUBLISH]

IN THE UNITED STATES COURT OF APPEALS

FOR THE ELEVENTH CIRCUIT

No. 06-11132

D.C. Docket No. 03-14040-CV-JIC

FILED U.S. COURT OF APPEALS ELEVENTH CIRCUIT April 2, 2008 THOMAS K. KAHN CLERK
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SCOTT FINESTONE, individually, as parent,
guardian and friend of Zachary Finestone,
REBECCA FINESTONE, individually, as parent,
guardian and friend of Zachary Finestone,

Plaintiffs-Appellants,

versus

FLORIDA POWER AND LIGHT COMPANY,
a Florida public utility corporation,

Defendant-Appellee.

No. 06-11133

D.C. Docket No. 03-14128-CV-JIC

TISH BLAKE, as personal representative of the
Estate of Ashton Lowe, on behalf of the Estate of
Ashton Lowe as the surviving parent,
JOHN LOWE, as personal representative of the
Estate of Ashton Lowe, on behalf of the Estate of
Ashton Lowe as surviving parent,

Plaintiffs-Appellants,

versus

FLORIDA POWER AND LIGHT COMPANY,
a Florida public utility corporation,

Defendant-Appellee.

Appeals from the United States District Court
for the Southern District of Florida

(April 2, 2008)

Before DUBINA and KRAVITCH, Circuit Judges, and COOGLER,* District Judge.

PER CURIAM:

Appellants, the parents of minor children Ashton Lowe and Zachary Finestone, filed separate “public liability actions” against Florida Power & Light (“FPL”) in the United States District Court for the Southern District of Florida, alleging that their children developed cancer as a result of radiation released from FPL’s St. Lucie nuclear power plant. The actions were consolidated, and the district court granted FPL’s motions for summary judgment. For the reasons that follow, we affirm.

*Honorable L. Scott Coogler, United States District Judge for the Northern District of Alabama, sitting by designation.

I. BACKGROUND.

A. Radiation Releases.

FPL began operations at its St. Lucie nuclear power plant (“the Plant”) near Port St. Lucie, Florida, in 1976. During construction of the Plant in 1975, a wash trough, or “sink,” was incorrectly plumbed in the radiation control area. Unbeknownst to FPL, the sink diverted its wastewater directly into the standard sanitary sewage system. In 1978, the Plant began using the incorrectly-plumbed sink to rinse items such as respirators and mops, which had been exposed to radiation. From 1978 to 1979, the Plant’s standard sewage was deposited into a septic tank that was emptied daily and shipped by truck to the Fort Pierce Sewage Treatment Plant.

In December 1979, the Plant started an on-site sewage treatment facility. On January 8, 1982, and June 22, 1982, sludge from the on-site sewage treatment facility was transported to unoccupied farmland located near “Glades Cutoff” road (“the Glades Cutoff site”). The sludge was dispersed onto a field at the Glades Cutoff site, which was licensed and regulated, but only for the disposal of non-radioactive sewage sludge.

On September 10, 1982, the incorrectly-plumbed sink clogged, and FPL subsequently discovered the original plumbing error. FPL notified the Nuclear Regulatory Commission (“NRC”), the Florida Office of Radiation Control, and the

Florida Department of Health and Rehabilitative Services (“FDHRS”) about the error and unmonitored disposals. FDHRS took soil and grass samples from various locations at the Glades Cutoff site. The presence of Cobalt-60, a radionuclide, was measured and recorded. NRC also took samples, and an aerial survey was performed by helicopter. FPL then removed contaminated soil from the Glades Cutoff site. Over the next two weeks, more samples were taken and additional contaminated soil was removed. In October 1982, FDHRS concluded:

Based on the decontamination limit of five (5) picocuries per gram [pCi/g] averaged over one square meter . . . Florida Power and Light Company has achieved adequate decontamination. Post clean up maximum activities’ levels were no greater than one-half the decontamination limit. These data were from samples taken at the sites of greatest gamma exposure levels remaining after the decontamination.

NRC opined: “it is unlikely that anyone received a measurable radiation dose.”

B. Children’s Cancer.

Ashton Lowe was born on May 3, 1988. At the age of seven, Ashton was diagnosed with medulloblastoma. From his birth until the time of his diagnosis, Ashton lived in Port St. Lucie, Florida. Ashton died of his cancer on May 21, 2001.

Zachary Finestone was born on March 1, 1994. Prior to his birth, his parents lived near the Plant. Zachary lived in Port St. Lucie, Florida, from August 1995

through August 1998. He was diagnosed with stage IV neuroblastoma, which had spread to his bone marrow, at the age of six. Zachary continues battling his cancer today.

Plaintiff's expert, Dr. Hari Sharma, presented evidence in this case that the baby teeth of both Ashton Lowe and Zachary Finestone contained elevated levels of Strontium-90 ("SR-90"). SR-90 is a radioactive isotope created by nuclear fission reactions. Common sources of SR-90 include nuclear power plants and nuclear weapons testing fallout. However, routine testing of Florida's citrus fruit shows that SR-90 has been detected in citrus fruit in St. Lucie County since before the Plant began its operations.

C. Proceedings Below.

Appellants brought their claims against FPL in the United States District Court for the Southern District of Florida under the Price-Anderson Act, which provides for federal lawsuits asserting public liability due to exposure to nuclear radiation. *See* 42 U.S.C. §§ 2210(n)(2), 2014(hh). FPL filed a motion for determination of duty owed, and the district court subsequently issued an order holding that the standard of care in Appellants' action "is set forth by the Radiation Dose Limits for Individual Members of the Public [outlined in 10 C.F.R. § 20.1301] applicable for the time of the releases in question" ("the Dose Limits"). *Finestone v. Fla. Power & Light Co.*,

319 F. Supp. 2d 1347, 1350 (S.D. Fla. 2004). The district court rejected Appellants' contention that the standard of care should also include a requirement that licensee companies "achieve . . . doses to members of the public that are as low as is reasonably achievable (ALARA)²." *Id.* at 1349-50; *see also* 10 C.F.R. § 20.1101(b).

Extensive discovery was conducted, and Appellants contend that FPL consistently refused to provide documents crucial to their case. FPL concedes that it "inadvertently" omitted from production a single report on radiation releases in the Glades Cutoff site ("the Bailey Report"), which Appellants uncovered later in the litigation. As a result of FPL's failure to timely disclose the Bailey Report, Appellants were granted an adverse jury instruction noting the belated production, and discovery was extended six weeks.

FPL subsequently filed motions for summary judgment, and Appellants moved for partial summary judgment. The parties filed motions to strike the testimony of various experts. After four days of *Daubert* hearings on the parties' motions to strike, the district court entered an Omnibus Order on January 6, 2006. The Omnibus Order

²"ALARA . . . means making every reasonable effort to maintain exposures to radiation as far below the dose limits in this part as is practical consistent with the purpose for which the licensed activity is undertaken, taking into account the state of technology, the economics of improvements in relation to state of technology, the economics of improvements in relation to benefits to the public health and safety, and other societal and socioeconomic considerations, and in relation to utilization of nuclear energy and licensed materials in the public interest." 10 C.F.R. § 20.1003.

excluded the testimony of four of Appellants' expert witnesses and granted FPL's motions for final summary judgment based on Appellants' inability to proffer admissible evidence to support their claim that FPL released radiation in excess of the Dose Limits. This appeal followed.

II. DISCUSSION.

Two broad issues are presented to this Court. First, Appellants attack the district court's conclusion regarding the applicable standard of care in public liability actions under the Price-Anderson Act. They contend that this Court should reconsider and revise its holding in *Roberts v. Florida Power & Light Co.*, 146 F.3d 1305 (11th Cir. 1998), and incorporate state law standards of care. In the alternative, they request that we apply ALARA as a requisite standard of care under *Roberts*. Second, Appellants argue that the district court erred in granting summary judgment in favor of FPL. They contend that the district court misapplied *Daubert* standards when it excluded Appellants' expert witnesses' testimony regarding radiation and the Dose Limits, and ignored the "prejudice" caused by FPL's late production of the Bailey Report.

A. Standard of Care.

"We review *de novo* the district court's grant of summary judgment."
Greenberg v. BellSouth Telecomms., Inc., 498 F.3d 1258, 1263 (11th Cir. 2007)

(citing *Burton v. Tampa Hous. Auth.*, 271 F.3d 1274, 1276-77 (11th Cir. 2001)). Moreover, a court's determination of the applicable standard of care in a case like the one at hand is a question of law, also reviewed *de novo*. See, e.g., *Jones v. United Space Alliance, L.L.C.*, 494 F.3d 1306, 1309 (11th Cir. 2007).

In *Roberts*, this Court held that “federal safety regulations conclusively establish the duty of care owed in a public liability action.” 146 F.3d at 1308. While Appellants have requested that we reconsider this holding, “it is the firmly established rule of this Circuit that each succeeding panel is bound by the holding of the first panel to address an issue of law, unless and until that holding is overruled en banc, or by the Supreme Court.” *United States v. Hogan*, 986 F.2d 1364, 1369 (11th Cir. 1993). Therefore, we are bound by *Roberts*.

However, *Roberts* does not preclude a holding that ALARA is a standard of care in public liability actions—if, in fact, ALARA is mandated by federal safety regulations. The opinion of the district court for the Northern District of Ohio in *McCafferty v. Centerior Serv. Co.*, 983 F. Supp. 715 (N.D. Ohio 1997), may be persuasive on the question whether ALARA is a current standard of care in public liability actions, as set forth by federal regulation. See also Jason Bjorn Aamodt, Comment, *Regulating the Standard of Care Owed to the Public During an Emergency at a Nuclear Power Plant*, 16 ENERGY L.J. 181, 184-89 (1995)

(discussing, in part, how NRC guidance provides a measurable and precise ALARA standard); 58 Fed. Reg. 67657 (Jan. 1, 1994) (noting that “[t]he revised standards for protection against radiation incorporated scientific information and reflected changes in the basic philosophy of radiation protection that had occurred since the promulgation of the original regulations”). In *McCafferty*, the court reasoned that a 1991 amendment adding mandatory ALARA language to a newly created subpart under the federal regulation labeled “Standards for Protection Against Radiation,” which also contains the Dose Limits relied upon by the district court below, “demonstrates an intention to have the ALARA principle . . . act as a standard for radiation protection.” 983 F. Supp. at 719.

While this Court finds the *McCafferty* rationale reasonable, we are not called upon to decide whether ALARA is mandated by current regulation. Rather, it is undisputed that the radiation releases at issue in this case occurred prior to the 1991 amendment discussed in *McCafferty*. In fact, Appellants conceded at oral argument that in order for this Court to conclude ALARA applies to their claims, we must hold that ALARA was the requisite standard of care “all along”; that cannot be done.

As correctly held by the Third Circuit Court of Appeals in *In re TMI*, 67 F.3d 1103 (3d Cir. 1995), an ALARA standard of care did not exist in the federal regulations prior to the 1991 amendment. Before the amendment, ALARA language,

as it pertains to public radiation exposure, was located in a portion of the regulations dealing with licensing, which also included a clarification that the guidelines outlined therein were “not to be construed as radiation protection standards.” 10 C.F.R. § 50.34a(a). ALARA was also included in a different portion of the “Standards for Protection Against Radiation” section referenced above. This particular pre-amendment language, which was officially removed in 1994 as superseded by the revised radiation protection standards initiated in 1991, *see* 58 Fed. Reg. 67657 (Jan. 1, 1994), stated only that licensees “*should*, in addition to complying with the *requirements* set forth in this part, make every reasonable effort to maintain radiation exposures, and releases of radioactive materials in effluents to unrestricted areas, as low as is reasonably achievable,” 10 C.F.R. § 20.1 (1991) (emphasis added). This language does not establish the pre-amendment ALARA requirement for public liability that Appellants want this Court to adopt, and we affirm the district court’s use of the Dose Limits as the applicable standard of care in this case.

B. Evidentiary Burden.

Appellants nevertheless maintain that they presented sufficient evidence, in the form of expert testimony, that FPL breached the Dose Limits. In its Omnibus Order, the district court excluded the testimony of Arnold Gundersen, Martin Resnikoff, Stanley Waligora, Christopher Busby, and Robert Peter Gale under the principles of

Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579 (1993). Appellants focus their appellate argument on the exclusion of their “dose calculation” experts: Gundersen, Resnikoff, and Waligora. Aside from a single footnote in their initial brief, Appellants do not discuss Gale and Busby, two of their “causation” experts. Because we do not reach the issue of causation unless Appellants can show they have sufficient evidence of a breach of the Dose Limits, this Court will focus its initial inquiry on the dose calculation experts. To that end, Appellants argue that although the district court couched its ruling in terms of their “reliability,” it is clear from the Omnibus Order that the dose calculation experts’ testimony was excluded only because their conclusions conflicted with those of the NRC.

A district court’s decision to exclude expert testimony is reviewed for an abuse of discretion. *See Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 152 (1999). “That standard applies as much to the trial court’s decisions about how to determine reliability as to its ultimate conclusion.” *Id.* Therefore, “we defer to the district court’s ruling unless it is ‘manifestly erroneous,’” and “we give the district court ‘considerable leeway’ in the execution of its duty.” *Rink v. Cheminova, Inc.*, 400 F.3d 1286, 1291 (11th Cir. 2005) (citations omitted).

Pursuant to Federal Rule of Evidence 702, as well as *Daubert* and its progeny, “district courts must act as ‘gatekeepers[,] admitting] expert testimony only if it is

both reliable and relevant.” *Id.* “To fulfil their obligation under *Daubert*, district courts must engage in a rigorous inquiry to determine whether: ‘(1) the expert is qualified to testify competently regarding the matters he intends to address; (2) the methodology by which the expert reaches his conclusions is sufficiently reliable as determined by the sort of inquiry mandated in *Daubert*; and (3) the testimony assists the trier of fact, through the application of scientific, technical, or specialized expertise, to understand the evidence or to determine a fact in issue.’” *Id.* at 1291-92 (quoting *City of Tuscaloosa v. Harcros Chems., Inc.*, 158 F.3d 548, 562 (11th Cir. 1998)). “The party offering the expert has the burden of satisfying each of these three elements by a preponderance of the evidence.” *Id.* at 1292 (citing *Allison v. McGhan Med. Corp.*, 184 F.3d 1300, 1306 (11th Cir. 1999)).

“In ascertaining the reliability of a particular scientific expert opinion, we consider, to the extent possible: (1) whether the expert’s theory can be and has been tested; (2) whether the theory has been subjected to peer review and publication; (3) the known or potential rate of error of the particular scientific technique; and (4) whether the technique is generally accepted in the scientific community.” *Quiet Tech. DC-8, Inc. v. Hurel-Dubois UK Ltd.*, 326 F.3d 1333, 1341 (11th Cir. 2003) (citing *McCorvey v. Baxter Healthcare Corp.*, 298 F.3d 1253, 1256 (11th Cir. 2002)). “Notably, however, these factors do not exhaust the universe of considerations that

may bear on the reliability of a given expert opinion, and a federal court should consider any additional factors that may advance its Rule 702 analysis.” *Id.* (citing *Kumho Tire Co.*, 526 U.S. at 150).

Yet, a “district court’s gatekeeper role under *Daubert* ‘is not intended to supplant the adversary system or the role of the jury.’” *Maiz v. Virani*, 253 F.3d 641, 666 (11th Cir. 2001) (quoting *Allison*, 184 F.3d at 1311). “[V]igorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence.” *Allison*, 184 F.3d at 1311 (quoting *Daubert*, 509 U.S. at 596). “The judge’s role is to keep unreliable and irrelevant information from the jury because of its inability to assist in factual determinations, its potential to create confusion, and its lack of probative value.” *Id.* at 1311-12. After a thorough review of the dose calculation experts’ reports and testimony, it is evident that the district court did not abuse its discretion; exclusion of these experts under *Daubert* was appropriate.

This Court does question the district court’s focus on radiation samples taken by government agencies as a “real world test” of the conclusions of Gundersen, Waligora, and Resnikoff. While reliability of an expert’s opinion can be gauged by “whether the expert’s theory can be and has been tested,” *Quiet Tech. DC-8, Inc.*, 326

F.3d at 1341, the sample results by government agencies are not actual tests of these experts' theories. In fact, there are plausible explanations that could account for the differences between these experts' conclusions, if correct, and the sample results.

However, in this case, the district court also faulted the assumptions underlying Gundersen, Waligora, and Resnikoff's methodologies. For instance, Gundersen bases his expert conclusions on hypotheticals that begin with the assumption that a truckload of radioactive sewage plant solids shipped from the Plant for disposal in Barnwell, South Carolina, in 1991 is the material that was dug up from the Glades Cutoff site nearly a decade earlier in 1982. There is, however, no evidence to support this assumption that the 828 cubic feet of material, which weighs approximately 100,000 pounds, was from the Glades Cutoff, nor any explanation why the Plant would hold on to such a large amount of material for almost ten years. Yet, Gundersen takes the radiation concentration of the sewage solids in the 1991 shipment and extrapolates backward using decay calculations for radioactive isotopes—effectively multiplying the radiation measurement for the 1991 shipment—to conclude that the material dumped in 1982 had an excessive radiation concentration. Simply put, this is “the kind of scientifically unsupported ‘leap of faith’ which is condemned by *Daubert*.” *Rink*, 400 F.3d at 1292 (citing *Rider v. Sandoz Pharms. Corp.*, 295 F.3d 1194, 1202 (11th Cir. 2002)).

Waligora and Resnikoff, authors of a joint report, also made unsupported “leaps of faith.” For example, these experts extrapolated a dose exposure calculation by using an isotope ratio that FPL submitted to the NRC in its Final Safety Analysis Report (“FSAR”) as part of its original license application. This FSAR ratio was derived from the contents of a spent fuel pool in a separate building from the source of the Glades Cutoff site sewage sludge. Using the FSAR isotope ratio, Waligora and Resnikoff concluded that other radionuclides were present in the sewage sludge and calculated a total radiation concentration in excess of the Dose Limits. However, no expert was able to provide support for the assumption that the isotope ratios in the spent fuel pool would equate to those in the sewage sludge. When questioned at his *Daubert* hearing, Waligora would not say that use of the FSAR ratio was appropriate or scientifically acceptable. Waligora could only testify that “it was the best thing we could go with.”

The choices made and utilized by these experts differ from a situation in which an expert inputs “hard data arrived at by unassailable methods.” *Rink*, 400 F.3d at 1293. This is not a case where the trial court rejected experts only because their final conclusions were inconsistent with the findings of other experts or agencies. “Here, the data [these three excluded experts] produced was driven by the methodology [they] used, and thus the district court’s inquiry into how [they] arrived at the data is

not inappropriate.” *Id.* Therefore, we cannot say the district court erred when it examined and rejected unsupported assumptions underlying these three experts’ methodologies. And, without their dose calculation experts, Appellants have not presented the sufficient admissible evidence of a breach of the Dose Limits needed to survive summary judgment on their Price-Anderson Act public liability actions.

Appellants nevertheless maintain that summary judgment is inappropriate because the district court found that they had been prejudiced by the failure to produce the Bailey Report. The court rejected the ultimate sanction and, instead, granted Appellants “the lesser sanction of an adverse inference in the form of a jury instruction that Defendant did not timely produce the Bailey Report.” Appellants now contend that summary judgment “rewards” FPL for its sanctionable conduct.

However, there is no legal support for Appellants’ proposition that summary judgment cannot be granted in this case because the district court previously sanctioned the moving party for belated production. Moreover, discovery was extended six weeks to allow Appellants time to follow up on information garnered in the Bailey Report. It appears from the record that no additional discovery extension was sought. Apparently, this was because Appellants were eager to keep their January 2006 trial date due to concerns related to Zachary’s serious illness. We cannot find fault, therefore, with the district court’s decision to enter judgment based

on the evidence presented.

III. CONCLUSION.

These are truly tragic cases. We extend our deepest sympathies to the families involved, and we sincerely hope that Zachary prevails in his fight against cancer. However, for the reasons stated above, the district court's order granting summary judgment must be, and hereby is, AFFIRMED.