

IN THE DISTRICT COURT OF THE VIRGIN ISLANDS
DIVISION OF ST. CROIX

COMMISSIONER OF THE DEPARTMENT	:	CIVIL ACTION
OF PLANNING AND NATURAL	:	
RESOURCES, ALICIA V. BARNES,	:	
et al.	:	
	:	
v.	:	
	:	
CENTURY ALUMINUM COMPANY,	:	
et al.	:	NO. 05-62

MEMORANDUM

Bartle, J.

August 15, 2013

Plaintiffs, Commissioner of the United States Virgin Islands Department of Planning and Natural Resources, Alicia V. Barnes (the "Commissioner"), and the Government of the Virgin Islands (together with the Commissioner, the "Government"), filed this multi-count environmental lawsuit against entities who at various times owned portions of an industrial area in Kingshill, St. Croix on which both an alumina refining facility and an oil refinery have operated. These defendants were Century Aluminum Company ("Century"), Virgin Islands Alumina Corporation ("VIALCO"), St. Croix Alumina, LLC ("SCA"), Lockheed Martin Corporation ("Lockheed"), Alcoa World Alumina, LLC, ("Alcoa"), St. Croix Renaissance Group, LLLP ("SCRG"), HOVENSA, LLC ("HOVENSA") and Hess Oil Virgin Islands Corporation ("HOVIC").¹

1. The Virgin Islands Port Authority and the Virgin Islands Waste Management Authority are third-party defendants sued by
(continued...)

We have previously approved a settlement between the Government and SCA, Alcoa, and SCRG and granted summary judgment in favor of Century. Accordingly, the remaining defendants are VIALCO, Lockheed, HOVENSA, and HOVIC.

There are a number of pending motions under Daubert v. Merrel Dow Pharmaceuticals, 509 U.S. 579 (1993). We will now consider the motion of the plaintiffs to exclude the expert report, opinions, and testimony of Dr. Ann Morrison ("Dr. Morrison").

I.

The court has a "gatekeeping" function in connection with expert testimony. See Gen. Elec. Co., et al. v. Joiner, 522 U.S. 136, 142 (1997); see also Daubert, 509 U.S. at 589. Rule 702 of the Federal Rules of Evidence provides:

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.

1.(...continued)
defendants VIALCO and Lockheed and former defendant Century for contribution.

As our Court of Appeals has repeatedly noted, Rule 702 embodies three requirements: qualification, reliability, and fit. Pineda v. Ford Motor Co., 520 F.3d 237, 244 (3d Cir. 2008).

An expert is qualified if she "possess[es] specialized expertise." Schneider ex rel. Estate of Schneider v. Fried, 320 F.3d 396, 404 (3d Cir. 2003). This does not necessarily require formal credentials, as "a broad range of knowledge, skills, and training qualify an expert," and may include informal qualifications such as real-world experience. In re Paoli R.R. Yard PCB Litig., 35 F.3d 717, 741 (3d Cir. 1994). The qualification standard is a liberal one, and an expert may be sufficiently qualified under Rule 702 even if "the trial court does not deem the proposed expert to be the best qualified or because the proposed expert does not have the specialization that the court considers most appropriate." Holbrook v. Lykes Bros. S.S. Co., 80 F.3d 777, 782 (3d Cir. 1996).

To determine reliability, we focus not on the expert's conclusion but on whether that conclusion is "based on the methods and procedures of science rather than on subjective belief or unsupported speculation." Schneider, 320 F.3d at 404 (internal quotation marks omitted). Our analysis may include such factors as:

- (1) whether a method consists of a testable hypothesis;
- (2) whether the method has been subject to peer review;
- (3) the known or potential rate of error;
- (4) the existence and maintenance of standards controlling the technique's operation;
- (5) whether the method is generally accepted;
- (6) the relationship

of the technique to methods which have been established to be reliable; (7) the qualifications of the expert witness testifying based on the methodology; and (8) the non-judicial uses to which the method has been put.

Pineda, 520 F.3d at 247-48.

"[T]he test of reliability is flexible" and this court possesses a broad latitude in determining reliability. Kumho Tire Co. v. Carmichael, 526 U.S. 137, 141-42 (1999). To be reliable under Daubert, a party need not prove that his or her expert's opinion is "correct." Paoli, 35 F.3d at 744. Instead:

As long as an expert's scientific testimony rests upon good grounds, based on what is known, it should be tested by the adversary process-competing expert testimony and active cross-examination-rather than excluded from jurors' scrutiny for fear that they will not grasp its complexities or satisfactorily weigh its inadequacies.

United States v. Mitchell, 365 F.3d 215, 244 (3d Cir. 2004) (quoting Ruiz-Troche v. Pepsi Cola Bottling Co., 161 F.3d 77, 85 (1st Cir. 1998)).

As for "fit," expert testimony must also "assist the trier of fact to understand the evidence or to determine a fact in issue." Fed. R. Evid. 702. Thus, to "fit," such evidence must bear some relation to the "particular disputed factual issues in the case." United States v. Downing, 753 F.2d 1224, 1237 (3d Cir. 1985). Accordingly, this factor has been described as one of relevance. Daubert, 509 U.S. at 591; Paoli, 35 F.3d at 745 & n.13.

II.

Dr. Morrison was retained by Lockheed "to conduct an examination of the offshore habitats adjacent to the [alumina refining] facility and document any damage to these habitats potentially related to activities conducted at the [alumina refining] facility." She was "asked specifically to review and respond to the expert report written by Dr. Vance Vicente...." She is Managing Scientist in the Ecological and Biological Science Practice at Exponent, a scientific and engineering consulting firm. She has over fifteen years of experience "evaluating the relationship between anthropogenic contamination and health effects to aquatic life and humans."

She has been involved in projects concerning oil spills, sewage releases, heavy metal contamination, and industrial and municipal facilities that generated complex releases to the aquatic environment. She spent several years in Bermuda, monitoring the health of corals and seagrass beds exposed to anthropogenic influences. She also has experience in water quality assessment as it relates to sewage contamination from her work at the Massachusetts Water Resources Authority. Dr. Morrison has never served as a testifying expert. She received a B.S. in Biology from Rhodes College in 1997 and an M.S. and Sc.D. in Environmental Health from the School of Public Health at Harvard University in 2001 and 2004 respectively.

Dr. Morrison makes the following opinions in her expert report:

The reef and seagrass communities south of the SCRG facility do not show any indication of adverse health related to activities or chemicals used at the SCRG facility....

Eutrophic conditions in Alucroix Channel are a result of nutrient enrichment from inadequate sewage operations into a deep, narrow channel with limited water exchange and are unrelated to the operations of the SCRG facility....

Alucroix Channel is a man-made water body that was created through dredging. The benthic habitat in the channel is a function of this physical alteration, and the flora and fauna resident in Alucroix Channel cannot be compared to areas that have not experienced similar physical modification.... Claims of injury to the mangrove population in Alucroix Channel are not supported by the evidence.

III.

The plaintiffs make three arguments for why Dr. Morrison should be precluded from testifying at trial. First, they argue that she is unqualified under Daubert because she does not have sufficient specialized knowledge regarding seagrasses and mangroves within the Caribbean, nor does she have sufficient specialized knowledge about sewage contamination. Dr. Morrison is qualified to make the opinions in her report. Although she does not have significant practical experience with seagrasses and mangroves in the Caribbean specifically, she has over fifteen years of experience studying the effects of contamination on aquatic life. She also has advanced degrees in environmental health. Further, she worked with both mangroves and seagrasses in Bermuda, both in college and after college. The plaintiffs try to characterize this as a mere internship, but as noted above

she was graduated from college in 1997, and worked in Bermuda until 2000. Dr. Morrison also has experience with sewage contamination from her work at the Massachusetts Water Resources Authority. While that work may not be exactly the same as the subject to which she will testify here, it did provide relevant experience. As noted above, the qualification standard is liberal, and an expert may be sufficiently qualified even if "the trial court does not deem the proposed expert to be the best qualified or because the proposed expert does not have the specialization that the court considers most appropriate." Holbrook, 80 F.3d at 782. The plaintiffs are, of course, welcome to question Dr. Morrison on her qualifications on cross-examination.

The plaintiffs' second argument is that Dr. Morrison's first opinion regarding the health of the seagrass communities in Manning Bay should be excluded because it is not relevant to Dr. Vicente's opinion, which focused on seagrasses in the Alucroix Channel. The plaintiffs have not cited any cases that stand for the proposition that a responsive expert report must directly mirror the expert report to which it is responding, and we see no reason why it should do so. Dr. Morrison explained in her deposition that she examined areas outside of the area surrounding the former alumina facility "to understand the pervasive nature of the problem on the island of St. Croix... to understand [] what's happening in the Alucroix Channel, you have to take into account everything that's happening throughout the island of St. Croix."

Dr. Morrison is not limited to opining only on the specific areas which Dr. Vicente addressed. This testimony "will help the trier of fact to understand the evidence or to determine a fact in issue." Fed. R. Evid. 702.

Finally, the plaintiffs argue that Dr. Morrison's opinion regarding the alleged effects of inadequate sewage operations on groundwater entering the Alucroix Channel, referred to in the second and fourth opinions in her report, should be excluded because it is unreliable, lacking any factual foundation in the record. Dr. Morrison relied on data from DPNR for these opinions. This data showed that there are sewage problems throughout St. Croix. However, Dr. Morrison testified at her deposition that she did not know if the data showed that these sewage problems caused eutrophication in the Alucroix Channel.

She may testify about the sewage systems and why she believes they are outdated and faulty, but she may not state that the sewage contamination caused the eutrophic conditions in the Alucroix channel. There is a clear difference between data supporting the fact that sewage problems exist and data supporting the fact that the sewage problems caused the eutrophication. In crafting her opinions, she was aware only that DPNR report included the former.

Lockheed appears to argue that the Daubert reliability standard should be lower since this is a responsive expert report

to Dr. Vicente's opinions.² They cite to no case to support this proposition, and we are not persuaded. Dr. Morrison's description of the sewage problems may raise doubts in the mind of the jury about Dr. Vicente's testimony or the plaintiffs' causation argument, but she may not opine that the sewage problems caused the eutrophication without reliable data.

Accordingly, Dr. Morrison may not testify that sewage contamination caused eutrophication in the Alucroix Channel, but the remainder of the plaintiffs' motion will be denied.

2. Lockheed writes: "What Plaintiffs misapprehend, however, is that Dr. Morrison's opinions are not being offered to prove Plaintiffs' claims of 'eutrophication conditions,' i.e., low dissolved oxygen and increased nitrogen phosphate within the Alucroix Channel; they are being offered to discredit Plaintiffs' theory that such conditions are unique to the Channel by evaluating its surrounding areas."