

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF LOUISIANA

STEVE COLEMAN

CIVIL ACTION

VERSUS

NO. 17-4158

BP EXPLORATION &
PRODUCTION, INC., ET AL.

SECTION "R" (1)

ORDER AND REASONS

Before the Court is BP Exploration & Production, Inc., BP American Production Company, and BP p.l.c.'s (collectively the "BP parties") motion to exclude the testimony of plaintiff's general causation expert, Dr. Jerald Cook.¹ Plaintiff Steve Coleman opposes the motion.² Also before the Court is the BP parties' motion for summary judgment.³ Plaintiff also opposes this motion.⁴

For the following reasons, the Court grants defendants' motion to exclude the testimony of Dr. Cook. Without Dr. Cook's expert report,

¹ R. Doc. 45. The remaining defendants, Halliburton Energy Services, Inc., Transocean Deepwater, Inc., Transocean Holdings, LLC, and Transocean Offshore Deepwater Drilling, Inc. join the BP parties' motion to exclude the testimony of Dr. Cook. R. Doc. 45-1 at 1 n.1.

² R. Doc. 55.

³ R. Doc. 46. The remaining defendants also join the BP parties' motion for summary judgment. R. Doc. 46-1 at 1 n.1.

⁴ R. Doc. 50.

plaintiff cannot establish the general causation element of his claim at trial. Accordingly, defendants' motion for summary judgment is also granted.

I. BACKGROUND

This case arises from plaintiff Steve Coleman's alleged exposure to toxic chemicals following the *Deepwater Horizon* oil spill in the Gulf of Mexico. Plaintiff alleges that he performed cleanup work after the *Deepwater Horizon* oil spill from May 2010 through October 2010.⁵ Coleman asserts that, as part of this work, he was exposed to "known-carcinogenic compounds via exposure to crude oil and the Corexit dispersants used."⁶ Plaintiff also represents that this exposure has resulted in the following conditions: light sensitivity, chronic eye irritation, chronic chemically-induced conjunctivitis, blurred vision, eye burning, irritated sinuses, cough, congestion, acute and chronic sinusitis, sensitivity to dust, decreased sense of smell, facial pain or sinus pain, nasal discharge, nosebleed, sore throat, shortness of breath, reactive airway disease, wheezing, depression/anxiety, insomnia, mood swings, hypersensitivity dermatitis, acne, blistering, boils, crusting, dryness/flaking, inflammation,

⁵ R. Doc. 45-2 at 15.

⁶ *Id.*

redness or swelling, itching, peeling, welts, chronic headaches, arthralgias/myalgias, joint pain, lightheadedness, dizziness, excessive hunger/thirst, abdominal cramps and pain, diarrhea, nausea, and vomiting.⁷

Coleman's case was originally part of the multidistrict litigation ("MDL") pending before Judge Carl J. Barbier. His case was severed from the MDL as one of the "B3" cases for plaintiffs who either opted out of, or were excluded from, the *Deepwater Horizon* Medical Benefits Class Action Settlement Agreement.⁸ Coleman is a plaintiff who opted out of the settlement.⁹ After plaintiff's case was severed, it was reallocated to this Court. Plaintiff asserts claims for general maritime negligence, negligence per se, and gross negligence against the defendants as a result of the oil spill and its cleanup.¹⁰

To demonstrate that exposure to crude oil, weathered oil, and dispersants can cause the symptoms Coleman alleges in his complaint, he offers the testimony of Dr. Jerald Cook, an occupational and environmental physician.¹¹ Dr. Cook is plaintiff's sole expert offering an opinion on general

⁷ R. Doc. 45-4 at 1-4.

⁸ *In re Oil Spill by Oil Rig "Deepwater Horizon" in the Gulf of Mex., on Apr. 20, 2010*, No. MDL 2179, 2021 WL 6053613, at *2, 12 & n.12 (E.D. La. Apr. 1, 2021).

⁹ R. Doc. 1-1 at 2.

¹⁰ R. Doc. 28 ¶¶ 19-49.

¹¹ R. Doc. 45-5 at 5 (Cook Report).

causation.¹² In his report, Dr. Cook utilizes a “general causation approach to determine if a reported health complaint can be from the result of exposures sustained in performing [oil spill] cleanup work.”¹³ Dr. Cook concludes that “general causation analysis indicates” that the following conditions “can occur in individuals exposed to crude oil, including weathered crude oil:” chronic rhinitis, chronic sinusitis, allergic rhinitis, chronic obstructive pulmonary disease (“COPD”), bronchitis, asthma, reactive airway disease, dermatitis, skin irritation, skin rash, skin itching, acute conjunctivitis, chronic conjunctivitis, and dry eye disease.¹⁴

The BP parties now move to exclude Dr. Cook’s expert opinion, arguing that it is unreliable and unhelpful.¹⁵ Defendants also move for summary judgment, asserting that if Dr. Cook’s general causation opinion is excluded, plaintiff is unable to carry his burden on causation.¹⁶ Plaintiff opposes both motions.¹⁷ The Court considers the parties’ arguments below.

¹² Plaintiff has also retained Dr. Rachel Jones, a certified industrial hygienist, to provide a report describing “the common, or shared, occupational exposures among worker[s]” who participated in the *Deepwater Horizon* response and cleanup. R. Doc. 55-1 at 4 (Jones Report).

¹³ R. Doc. 45-5 at 14 (Cook Report).

¹⁴ *Id.* at 86-87, 92, 99.

¹⁵ R. Doc. 45.

¹⁶ R. Doc. 46.

¹⁷ R. Docs. 50 & 55.

II. MOTION TO EXCLUDE DR. COOK'S TESTIMONY

A. Legal Standard

The district court has considerable discretion to admit or exclude expert testimony under Federal Rule of Evidence 702. *See Gen. Elec. Co. v. Joiner*, 522 U.S. 136, 138-39 (1997); *Seatrax, Inc. v. Sonbeck Int'l, Inc.*, 200 F.3d 358, 371 (5th Cir. 2000). Rule 702 provides that an expert witness “qualified . . . by knowledge, skill, experience, training, or education may testify” if:

- (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or determine a fact in issue;
- (b) the testimony is based on sufficient facts or data;
- (c) the testimony is the product of reliable principles and methods; and
- (d) the expert has reliably applied the principles and methods to the facts of the case.

Fed. R. Evid. 702.

In *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), the Supreme Court held that Rule 702 “requires the district court to act as a gatekeeper to ensure that ‘any and all scientific testimony or evidence admitted is not only relevant, but reliable.’” *Metrejean v. REC Marine Logistics, LLC*, No. 08-5049, 2009 WL 3062622, at *1 (E.D. La. Sept. 21, 2009) (quoting *Daubert*, 509 U.S. at 589). This gatekeeping function applies

to all forms of expert testimony. *See Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 147 (1999).

The Court's gatekeeping function consists of a two-part inquiry into reliability and relevance. First, the Court must determine whether the proffered expert testimony is reliable. The party offering the testimony bears the burden of establishing its reliability by a preponderance of the evidence. *See Moore v. Ashland Chem. Inc.*, 151 F.3d 269, 276 (5th Cir. 1998). The reliability inquiry requires the Court to assess whether the expert's reasoning and methodology underlying the testimony are valid. *See Daubert*, 509 U.S. at 593. The aim is to exclude expert testimony based merely on subjective belief or unsupported speculation. *See id.* at 590. "[F]undamentally unsupported" opinions "offer[] no expert assistance to the [trier of fact]" and should be excluded. *Guile v. United States*, 422 F.3d 221, 227 (5th Cir. 2005). The Court may consider several nonexclusive factors in determining reliability, including: (1) whether the technique has been tested, (2) whether the technique has been subject to peer review and publication, (3) the technique's potential error rate, (4) the existence and maintenance of standards controlling the technique's operation, and (5) whether the technique is generally accepted in the relevant scientific community. *Burleson v. Tex. Dep't of Crim. Just.*, 393 F.3d 577, 584 (5th Cir. 2004). The

Supreme Court has emphasized that these factors “do not constitute a ‘definitive checklist or test.’” *Kumho*, 526 U.S. at 150 (quoting *Daubert*, 509 U.S. at 593). Rather, courts “must have considerable leeway in deciding in a particular case how to go about determining whether particular expert testimony is reliable.” *Id.* at 152.

“The reliability analysis applies to all aspects of an expert’s testimony: the methodology, the facts underlying the expert’s opinion, the link between the facts and the conclusion, et alia.” *Knight v. Kirby Inland Marine Inc.*, 482 F.3d 347, 355 (5th Cir. 2007) (internal quotation marks omitted). “Where the expert’s opinion is based on insufficient information, the analysis is unreliable.” *Paz v. Brush Engineered Materials, Inc.*, 555 F.3d 383, 388 (5th Cir. 2009). Further, the Supreme Court has explained that “nothing in either *Daubert* or the Federal Rules of Evidence requires a district court to admit opinion evidence that is connected to existing data only by the *ipse dixit* of the expert.” *Joiner*, 522 U.S. at 146. Rather, “[a] court may conclude that there is simply too great an analytical gap between the data and the opinion proffered.” *Id.*

Second, the Court must determine whether the expert’s reasoning or methodology “fits” the facts of the case, and whether it will thereby assist the trier of fact to understand the evidence. In other words, it must determine

whether it is relevant. *See Daubert*, 509 U.S. at 591. “Expert testimony which does not relate to any issue in the case is not relevant and, ergo, non-helpful.” *Id.* (quoting 3 J. Weinstein & M. Berger, *Weinstein’s Evidence* ¶ 702[02] (1988)).

A district court’s gatekeeper function does not replace the traditional adversary system or the role of the jury within this system. *See id.* at 596. As noted in *Daubert*, “[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.” *Id.* Thus, in determining the admissibility of expert testimony, the district court must accord the proper deference to “the jury’s role as the proper arbiter of disputes between conflicting opinions.” *United States v. 14.38 Acres of Land, More or Less Situated in Leflore Cnty., Miss.*, 80 F.3d 1074, 1077 (5th Cir. 1996).

B. Discussion

Coleman has the burden of “prov[ing] that the legal cause of [his] claimed injury or illness is exposure to oil or other chemicals used during the response.” *In re Oil Spill by Oil Rig “Deepwater Horizon” in Gulf of Mex., on Apr. 20, 2010*, No. MDL 2179, 2021 WL 6053613, at *11 (E.D. La. Apr. 1, 2021) (noting that B3 plaintiffs, such as Coleman, must prove that their

alleged personal injuries were “due to exposure to oil or other chemicals used during the oil spill response”). The Fifth Circuit has developed a “two-step process in examining the admissibility of causation evidence in toxic tort cases.” *Knight*, 482 F.3d at 351. First, plaintiff must show general causation, meaning that he must show that “a substance is capable of causing a particular injury or condition in the general population.” *Id.* Second, if the Court concludes that plaintiff has produced admissible evidence on general causation, it must then determine whether plaintiff has shown specific causation, in other words, that “a substance caused [that] particular [plaintiff’s] injury.” *Id.* If the Court holds there is no admissible general causation evidence, there is “no need to consider” specific causation. *Id.* (citing *Miller v. Pfizer, Inc.*, 356 F.3d 1326, 1329 (10th Cir. 2004)).

At issue here is whether plaintiff has produced admissible general causation evidence. To prove that exposure to the chemicals in oil and dispersants can cause the medical conditions Coleman alleges, plaintiff offers the testimony of an environmental toxicologist, Dr. Cook. Dr. Cook asserts that his report is “based on the scientific methods used in the field of environmental toxicology.”¹⁸ More specifically, he states that his “causation analysis regarding health effects of oil spill exposures draw[s] on the process

¹⁸ R. Doc. 45-5 at 5 (Cook Report).

of evaluating epidemiology studies and the work from established expert groups similar to the Surgeon General’s Advisory Committee to make a more likely than not conclusion.”¹⁹

The Fifth Circuit has held that epidemiology provides the best evidence of causation in a toxic tort case. *See Brock*, 874 F.2d at 311; *Norris v. Baxter Healthcare Corp.*, 397 F.3d 878, 882 (10th Cir. 2005) (noting “that epidemiology is the best evidence of general causation in a toxic tort case”). That is not to say that epidemiologic evidence “is a necessary element in all toxic tort cases,” but “it is certainly a very important element.” *Brock*, 874 F.2d at 313. As explained by the Fifth Circuit:

Epidemiology attempts to define a relationship between a disease and a factor suspected of causing it To define that relationship, the epidemiologist examines the general population, comparing the incidence of the disease among those people exposed to the factor in question to those not exposed. The epidemiologist then uses statistical methods and reasoning to allow her to draw a biological inference between the factor being studied and the disease’s etiology.

Id. at 311.

When, as here, a review of epidemiological studies forms the basis of an expert opinion, the essential first step requires the expert to identify an association. An association occurs when “two events (*e.g.*, exposure to a

¹⁹ *Id.* at 16.

chemical agent and development of disease) . . . occur more frequently together than one would expect by chance.” Fed. Judicial Ctr., *Reference Manual on Scientific Evidence* 552 n.7 (3d ed. 2011) [hereinafter *Reference Manual*].²⁰ An association, by itself, is not equivalent to a finding of causation. *Id.* at 552. Unlike an association, “[c]ausation is used to describe the association between two events when one event is a necessary link in a chain of events that results in the effect.” *Id.* at 552 n.7. The Reference Manual indicates that “[a]ssessing whether an association is causal requires an understanding of the strengths and weaknesses of a study’s design and implementation, as well as a judgment about how the study’s findings fit with other scientific knowledge.” *Id.* at 553. Because “all studies have ‘flaws’ in the sense of limitations that add uncertainty about the proper interpretation of results,” the key questions in evaluating epidemiologic evidence “are the extent to which a study’s limitations compromise its findings and permit inferences about causation.” *Id.* at 553.

Once an association is found, “researchers consider whether the association reflects a true cause-effect relationship,” that is, whether “an increase in the incidence of disease among the exposed subjects would not

²⁰ Dr. Cook testified in his deposition that he has reviewed the AMA Guide’s “sections on causation,” and has used it “for purposes of [his] work.” R. Doc. 48-8 (Dr. Cook Deposition at 60:21-61:3).

have occurred had they not been exposed to the agent.” *Id.* at 597-98. Alternative explanations, “such as bias or confounding factors,” should first be considered. *Id.* at 598. If alternative explanations are not present, researchers apply the Bradford Hill criteria to evaluate whether an agent could be a cause of a disease. *Id.* at 597; *Wagoner v. Exxon Mobil Corp.*, 813 F. Supp. 2d 771, 803 (E.D. La. 2011) (“[T]he set of criteria known as the Bradford Hill criteria has been widely acknowledged as providing an appropriate framework for assessing whether a causal relationship underlies a statistically significant association between an agent and a disease.”). The Bradford Hill factors include: (1) temporal relationship; (2) strength of the association; (3) dose-response relationship; (4) replication of findings; (5) biological plausibility; (6) consideration of alternative explanations; (7) cessation of exposure; (8) specificity of the association; and (9) consistency with other knowledge. *Reference Manual* at 600. These factors are not rigidly applied in a general causation analysis, but instead provide guidance for an expert “[d]rawing causal inferences after finding an association.” *Id.*

Under *Daubert*, “courts must carefully analyze the studies on which experts rely for their opinions before admitting their testimony.” *Knight*, 482 F.3d at 355; *Wagoner*, 813 F. Supp. 2d at 799 (“Whether epidemiological studies support an expert’s opinion on the question of general causation in a

toxic tort case is critical to determining the reliability of the opinion.”). Courts “may exclude expert testimony based on epidemiological studies where the studies are insufficient, whether considered individually or collectively, to support the expert’s causation opinion.” *Baker v. Chevron USA, Inc.*, 680 F. Supp. 2d 865, 875 (S.D. Ohio 2010) (citing *Joiner*, 522 U.S. at 156-57). But a court cannot exclude expert testimony just because it disagrees with the expert’s conclusions, although the Supreme Court has recognized that “conclusions and methodology are not entirely distinct from one another.” *Joiner*, 522 U.S. at 146.

With the above standards in mind, the Court examines Dr. Cook’s general causation report. As noted by another section of this Court, “Cook issued an omnibus, non-case specific general causation expert report that has been used by many B3 plaintiffs.” *Street v. BP Expl. & Prod. Inc.*, No. 17-3619, 2022 WL 1811144, at *2 (E.D. La. June 2, 2022). Dr. Cook’s report is divided into five chapters. The first chapter outlines Dr. Cook’s qualifications, which are not challenged in this case.²¹ The second chapter provides an overview of the *Deepwater Horizon* oil spill.²² The third chapter describes Dr. Cook’s methodology, the first step of which involved his

²¹ R. Doc. 45-5 at 5 (Cook Report).

²² *Id.* at 7-13.

“review and analys[is]” of the “available scientific literature to determine the strength of an association between environmental exposure and a health effect.”²³ After reviewing the literature, Dr. Cook asserts that he selected the epidemiological studies cited in his causation analysis “based on the quality of the study and study design.”²⁴ Finally, Dr. Cook considered the studies that found an association between a toxic agent and a disease in light of the Bradford Hill criteria “to determine whether or not a cause-and-effect relationship exists or not.”²⁵

Chapter four of Dr. Cook’s report details prior studies on the health effects associated with oil spills.²⁶ This section first provides “summaries of studies that evaluate health effects that may be associated with exposures from oil spill response and cleanup work” in past oil spills.²⁷ It then discusses the findings and shortcomings of three studies on the *Deepwater Horizon* oil spill: (1) the National Institute for Occupational Safety and Health’s (“NIOSH”) Health Hazard Evaluations (“HHEs”), (2) the *Deepwater Horizon* oil spill Coast Guard cohort study, and (3) the Gulf Long-Term

²³ *Id.* at 17.

²⁴ *Id.* at 19.

²⁵ *Id.* at 24.

²⁶ *Id.* at 32-64.

²⁷ *Id.* at 33.

Follow-Up study (“GuLF STUDY”).²⁸ Chapter five presents Dr. Cook’s conclusions on general causation for four categories of health conditions: (1) respiratory conditions, (2) dermal conditions, (3) ocular conditions, and (4) cancers.²⁹ Specifically, he reaches the following conclusions:

- Oil response and cleanup workers have reported acute symptoms of coughing; shortness of breath; wheezing; tightness in chest; and burning in nose, throat, and lungs. Some individuals have prolonged effects from these exposures, and can develop chronic respiratory conditions These conditions include chronic rhinitis, chronic sinusitis, allergic rhinitis, chronic obstructive pulmonary disease (COPD), bronchitis, asthma or reactive airway disease *General causation analysis indicates that these acute and chronic respiratory conditions can occur in individuals exposed to crude oil, including weathered crude oil, during oil spill response and cleanup work.*³⁰
- Chemical irritation would be the most common problem with workers, particularly for acute symptoms that occur during or shortly after exposure. These can be described as skin irritation, skin rash, or skin itching. Dermatitis may also occur following exposure to chemicals, such as crude oil, weathered crude oil, or dispersants. *General causation analysis indicates that these acute and chronic ocular conditions can occur in individuals exposed to crude oil, including weathered crude oil, during oil spill response and cleanup work.*³¹
- Chemical irritation would be the most common problem with workers, particularly for acute symptoms These can be described as acute eye burning, acute eye irritation,

²⁸ *Id.* at 35-64.

²⁹ *Id.* at 70.

³⁰ *Id.* at 86-87 (emphasis added).

³¹ *Id.* at 92 (emphasis added).

and acute conjunctivitis. Chronic conditions following exposure can occur in a smaller subset of individuals who experience chronic inflammation affecting their eyes. The evidence available at this time does indicate that exposure to crude oil, including weathered crude oil, can result in acute and chronic eye symptoms. The medical problems most likely from these exposures are acute conjunctivitis, chronic conjunctivitis, and dry eye disease. *General causation analysis indicates that these acute and chronic ocular conditions can occur in individuals exposed to crude oil, including weathered crude oil, during oil spill response and cleanup work.*³²

Based on Dr. Cook's report, defendants argue that Coleman is unable to prove general causation with relevant and reliable expert testimony. They contend that Dr. Cook's general causation report is unreliable because he failed to: (1) verify Coleman's diagnoses; (2) follow the accepted methodology for analyzing epidemiology and adequately evaluate the scientific literature; and (3) identify the harmful level of exposure to any chemical that can cause any of plaintiff's alleged medical conditions.³³ Defendants further argue that even if Dr. Cook's report were reliable, it is unhelpful because it addresses "few if any" of Coleman's medical complaints, and fails to specify what particular toxins can cause which particular

³² *Id.* at 106 (emphasis added).

³³ R. Doc. 45-1 at 9-17.

conditions.³⁴ Defendants also note that two other sections of this Court have excluded Dr. Cook's report for similar reasons.³⁵

The Court first addresses defendants' contention that Dr. Cook's report is unreliable and cannot establish general causation because it does not identify a harmful level of exposure to a specific chemical.³⁶ The Court begins with this objection because "[s]cientific knowledge of the harmful level of exposure to a chemical" is considered "a minimum fact[] necessary to sustain the plaintiff's burden in a toxic tort case." *Allen v. Pa. Eng'g Corp.*, 102 F.3d 194, 199 (5th Cir. 1996). Accordingly, if the Court finds that plaintiff cannot "prove, at [a] minimum, that exposure to a certain level of a certain substance for a certain period of time can cause a particular condition in the general population," then the Court's inquiry into general causation is

³⁴ *Id.* at 12, 17-18.

³⁵ Judge Lance Africk excluded an earlier version of Dr. Cook's report. *See Novelo v. BP Expl. & Prod.*, No. 13-1033, 2022 WL 1460103, at *7 (E.D. La. May 9, 2022) and *Murphy v. BP Expl. & Prod.*, No. 13-1031, 2022 WL 1460093 at *7 (E.D. La. May 9, 2022). And Judge Barry Ashe excluded the same version of Dr. Cook's report involved in this case on the grounds that he failed "to identify the dose of the toxic chemicals necessary to cause any of the complained-of health effects." *Street*, 2022 WL 1811144, at *6; *see also Johns v. BP Expl. & Prod.*, No. 17-3304, 2022 WL 1811088 (E.D. La. June 2, 2022); *Johnson v. BP Expl. & Prod. Inc.*, No. 17-3308, 2022 WL 1811090 (E.D. La. June 2, 2022); *Macon v. BP Expl. & Prod. Inc.*, No. 17-3548, 2022 WL 1811135 (E.D. La. June 2, 2022); *Murray v. BP Expl. & Prod. Inc.*, No. 17-3582, 2022 WL 1811138 (E.D. La. June 2, 2022).

³⁶ R. Doc. 45-1 at 15-17.

complete. *Williams v. BP Expl. & Prod., Inc.*, No. 18-9753, 2019 WL 6615504, at *8 (E.D. La. Dec. 5, 2019) (citing *Knight*, 482 F.3d at 351); *Lee v. BP Expl. & Prod., Inc.*, No. 18-10381, 2020 WL 6106889, at *4 (E.D. La. Sept. 29, 2020) (“[D]istrict courts within the Fifth Circuit have likewise required toxic tort plaintiffs to define ‘the level of exposure necessary to produce effects’ in order to establish general causation.”); *see also Seaman v. Seacor Marine L.L.C.*, 326 F. App’x 721, 726-27 (5th Cir. 2009) (per curiam) (holding that “[w]ithout any facts that would establish the allegedly harmful level of exposure . . . Dr. Prellop’s opinion regarding diesel exhaust does not establish general causation”).

Here, the Court finds that Dr. Cook’s failure to identify the level of exposure to a relevant chemical that can cause the conditions asserted in plaintiff’s complaint renders his opinion unreliable, unhelpful, and incapable of establishing general causation.

Turning first to reliability, Dr. Cook makes clear in his report that a foundation of toxicology is that “dose determines the poison.”³⁷ Because of this maxim, Dr. Cook explains that “[t]oxicologists study chemicals for the lowest levels that can cause adverse health effects . . . [which] requires sophisticated studies that can control the low dose while accurately

³⁷ R. Doc. 45-5 at 27 (Cook Report).

measuring the effect of interest.”³⁸ Further, in his deposition, Dr. Cook agreed that “without some quantitative understanding of the magnitude of an individual’s exposure and the duration of time over which the exposure occurred, it’s difficult to reach . . . meaningful conclusions about health risks.”³⁹

Dr. Cook also testified that he regularly consults the American Medical Association’s (“AMA”) *Guide to the Evaluation of Disease and Injury Causation* (“AMA Guide”).⁴⁰ The AMA Guide, attached to defendants’ motion, also emphasizes the importance of determining the dose-response relationship. Specifically, the AMA Guide states that “the most critical phase of the hazard evaluation process” is to “determine whether the estimated dose was sufficient to explain observed clinical effects known to be associated with the agent in question.”⁴¹ It additionally cautions that “[i]f exposure-response and dose-response considerations are disregarded, then misinterpretations, misunderstandings, erroneous judgments, and inappropriate actions occur.”⁴²

³⁸ *Id.*

³⁹ R. Doc. 45-8 (Cook Deposition at 124:16-22).

⁴⁰ *Id.* (Cook Deposition at 59:22-60:13).

⁴¹ R. Doc. 45-7 at 6-7.

⁴² *Id.* at 7.

Despite the acknowledged importance of determining the dose-response relationship, Dr. Cook's report fails to identify what level of exposure is necessary to be capable of producing the adverse health effects that he analyzes. In his deposition, Dr. Cook testified as follows:

Q. If the legal test for general causation is that a review of scientific and medical literature demonstrates that exposure to a harmful level of a substance can cause a particular disease, have you given us that opinion?

...

A. I did not quantify that, no.

...

Q. . . . [D]oes your report give a level of exposure to any substance necessary to produce chronic rhinosinusitis?

A. No, it does not.

Q. Same question for chronic conjunctivitis?

A. No.

Q. For chronic rhinitis?

A. No.

Q. For chronic dry eye syndrome?

A. No.⁴³

The closest Dr. Cook's report comes to identifying a harmful level of exposure is his consideration of the Bradford Hill factor of "dose-response." But even

⁴³ R. Doc. 45-8 (Cook Deposition at 146:16-22, 148:8-21).

in the sections of his report that are dedicated to the dose-response relationship and exposure, Dr. Cook still fails to identify a harmful dose of any chemical to which Coleman was allegedly exposed. Further, he fails to even specify what constituent chemicals within “crude oil” and “weathered oil” he is purportedly analyzing for a dose-response relationship. Instead, in the “dose-response relationship” sections of his report, Dr. Cook simply cites studies from both the *Deepwater Horizon* oil spill, as well as previous oil spills, which generally found a positive association between respondents who reported higher levels of exposure to crude oil and the prevalence of various medical conditions.⁴⁴

For example, Dr. Cook’s “dose-response relationship” analysis on rhinosinusitis states in full:

Kim et al. (2013) showed a dose-response by assigning residents to zones based on their distance from the oil spill. The researchers found a dose-response effect in all reported health effects, including rhinitis. Rusiecki et al. (2022) also found a dose-response by statistical analysis, with the responders who had higher reported exposures having a higher incidence of chronic sinusitis.⁴⁵

Notably, neither Dr. Cook, nor the two studies, specify a base level of exposure that is necessary to cause rhinosinusitis. In the Kim, *et al.* study,

⁴⁴ R. Doc. 45-5 at 74, 81-82, 89-90, 94 (Cook Report).

⁴⁵ *Id.* at 74.

the respondents were “residents living in the Taean coastal area . . . [that] had *potential* exposures to the oil spill from the *Hebei Spirit* tanker.”⁴⁶ Given the ambiguity in whether residents were even exposed to oil, the study does not specify what level of exposure it concludes is associated with rhinosinusitis. And in the Rusiecki 2022 study, whether a participant was a responder to the oil spill or not was used as a proxy for exposure, and “[o]ther exposure assessments were not used to classify the responders as exposed.”⁴⁷ Again, any assessment of actual exposure, let alone the level of exposure to a particular chemical, was not available. These studies, both of which are “silent on the *level of exposure* . . . that would be significant,” do not assist Dr. Cook in “meeting [Coleman]’s ‘minimal burden of establishing by [s]cientific knowledge . . . the harmful level of exposure to a chemical.’” *Seaman*, 326 F. App’x at 727 (quoting *Allen*, 102 F.3d at 199).

Dr. Cook’s report does acknowledge that one of the limitations of the studies he relies on is the “[l]imited availability of quantitative exposure measures,” and the “[l]ikely low [level of] individual exposures.”⁴⁸ For example, he notes that the GuLF STUDY researchers represented that it was “difficult to obtain accurate and comprehensive exposure information on

⁴⁶ *Id.* at 35 (emphasis added).

⁴⁷ *Id.* at 47.

⁴⁸ *Id.* at 57.

participants. . . because many of the assessments would have been made months after the workers were exposed,” and “many workers will have had multiple exposures during the oil spill, . . . such that single exposure measurements may not be sufficient to fully assess total exposure.”⁴⁹ The report also mentions that the health hazard evaluations conducted by the National Institute of Occupational Safety and Health “utilized primarily qualitative assessment techniques rather than the traditional industrial hygiene exposure assessment and quantitative measurement methods.”⁵⁰ Although Dr. Cook notes these limitations, he provides no explanation about the “extent to which [these] limitations compromise [his] findings . . . about causation.” *Reference Manual* at 553. Instead, Dr. Cook’s report appears to conclude that there is some unspecified dose-response relationship for each of the medical conditions that he analyzed for general causation.

In light of Dr. Cook’s failure to determine the relevant harmful level of exposure, the Court finds that he lacks sufficient facts on both the composition of the substances at issue and their toxicity to provide a reliable opinion on general causation. *See McGill v. BP Expl. & Produc., Inc.*, 830 F. App’x 430, 433 (5th Cir. 2020) (per curiam) (upholding the exclusion of an

⁴⁹ *Id.* at 57-58.

⁵⁰ *Id.* at 36.

expert's opinion that was "not based on sufficient facts" and relied on studies that failed to "provide conclusive findings on what exposure level of Corexit is hazardous to humans"); *Moore*, 151 F.3d at 277-78 (holding that the "district court was entitled to conclude" that an expert's opinion was "inadequate under *Daubert*" when the expert "had no information on the level of exposure necessary for a person to sustain the [relevant] injuries"). The Court further notes that Dr. Cook's lack of even an estimate of what level of exposure is enough to be able to cause plaintiff's alleged symptoms means that he "lack[s] the scientific knowledge necessary to engage in the accepted methodology employed by toxicologists to establish causation in a toxic tort case." *Zellars v. NexTech Ne., LLC*, 895 F. Supp. 2d 734, 741 (E.D. Va. 2012), *aff'd* 533 F. App'x 192 (2013); *see also McClain v. Metabolife Intern., Inc.*, 401 F.3d 1233, 1241-42 (11th Cir. 2005) (noting that an expert who could not provide an opinion on "the dose or level of exposure at which [the chemical] causes harm" did "not follow the basic methodology that scientists use to determine causation—the dose-response relationship").

In sum, because Dr. Cook has not identified the harmful level of exposure to the chemicals that Coleman was allegedly exposed to that can cause the conditions he alleges, Dr. Cook's report is unreliable, lacks sufficient factual support, and cannot establish general causation. *See*

Seaman, 326 F. App'x at 727 (“Without any facts that would establish the allegedly harmful level of exposure, . . . Dr. Prellop’s opinion regarding diesel exhaust does not establish general causation.”); *Becnel v. BP Expl. & Prod., Inc.*, No. 17-1758, 2021 WL 4444723, *2-3 (M.D. La. Sept. 28, 2021) (“The Court finds that without dose data, conclusions and opinions on causation are speculative and unreliable.”).

In addition to finding Dr. Cook’s general causation analysis unreliable, the Court also finds that Dr. Cook’s report is unhelpful to the factfinder for many of the same reasons. Rule 702 requires that an expert’s opinion must “help the trier of fact to understand the evidence or to determine a fact in issue.” Fed. R. Evid. 702(a). “To be ‘helpful’ under Rule 702, the evidence must possess validity when applied to the pertinent factual inquiry.” *United States v. Posado*, 57 F.3d 428, 433 (5th Cir. 1995). Courts should thus exclude testimony that “fail[s] to provide a ‘relevant’ link with the facts at issue.” *Knight*, 482 F.3d at 355.

Here, the Court finds that Dr. Cook’s opinion is unhelpful because of his inability to link any specific chemical that Coleman was allegedly exposed to, at the level to which he was exposed, to the conditions that he alleges in his complaint. Specifically, Dr. Cook’s conclusion that there is a cause-and-effect relationship between the respiratory, ocular, and dermal conditions he

analyzed—only some of which are applicable to plaintiff⁵¹—and “expos[ure] to crude oil, including weathered crude oil,” is unhelpful without identifying the specific chemicals and exposure levels capable of causing specific conditions.⁵² As emphasized by another section of this Court, “Cook[’s report] does not even identify any specific chemical or chemicals at issue” and instead “refers generally to oil, dispersants, and volatile organic compounds.” *Street*, 2022 WL 1811144, at *5.

This lack of specificity is concerning given that Dr. Cook testified that there are “thousands of chemicals” in crude oil, and acknowledged that the different constituent chemicals in crude oil vary depending on location and the impact of the “weathering process.”⁵³ In his testimony, Dr. Cook also compared the study of health effects related to oil spills to previous studies on lung cancer and cigarette smoke. He testified that like cigarette smoke, there are “a lot of chemicals” in oil, and explained that although there are

⁵¹ For example, although Dr. Cook found causation between exposure to crude oil and allergic rhinitis, chronic obstructive pulmonary disease, bronchitis, and dry eye disease, plaintiff does not purport to suffer from any of these conditions. *See* R. Doc. 45-4 at 1-4. Moreover, many of plaintiff’s alleged conditions are not discussed in Dr. Cook’s report. *See, e.g.*, R. Doc. 65 at 9 (Mood swings, chronic headaches, arthralgias/myalgias, joint pain, lightheadedness, dizziness, excessive hunger/thirst, abdominal cramps and pain, diarrhea, nausea, and vomiting).

⁵² R. Doc. 45-5 at 87 (Cook Report).

⁵³ R. Doc. 45-8 (Cook Deposition 63:17-22, 104:21-105:1).

“actually 6,000 known chemicals within tobacco smoke, . . . only a small handful of those are recognized carcinogens.”⁵⁴ Although Dr. Cook admits that there are thousands of chemicals in crude oil, and that the chemical composition of weathered oil is widely variable, he makes no attempt to identify what chemicals within crude oil Coleman was allegedly exposed to, or what amounts of these chemicals can cause harm to humans. Indeed, the majority of the studies he cites similarly do not identify what chemicals respondents were exposed to, and one study noted a concern about confounding variables, stating that some respondents likely had unknown “petrochemical and other exposures not due to their oil spill cleanup activities.”⁵⁵ See *Wagoner*, 813 F. Supp. 2d at 802 (“It is true that in *Joiner*, the Supreme Court indicated that an expert opinion on general causation should rely on studies that examine the *specific agent that is at issue*.” (citing *Joiner*, 522 U.S. at 145-46)).

In providing a general causation determination, Dr. Cook had to assess whether “the types of chemicals [that Coleman] w[as] exposed to can cause [his] particular injuries in the general population.” *Knight*, 482 F.3d at 355. Given that Dr. Cook’s report does not identify what specific chemicals

⁵⁴ *Id.* (Cook Deposition at 63:1-17).

⁵⁵ R. Doc. 45-5 at 57 (Cook Report).

Coleman was exposed to, nor does it address many of the injuries Coleman alleges, the Court finds his report is unhelpful to the factfinder. *See Knight*, 482 F.3d at 355 (upholding the district court’s exclusion of an expert because the expert relied on evidence that lacked “a ‘relevant’ link with the facts at issue”).

In reaching its decision, the Court rejects plaintiff’s efforts to defend Dr. Cook’s failure to identify a harmful level of exposure to a specific chemical. First, plaintiff asserts that the report was unable to include data on a harmful level of exposure “in part [because of] the lack of monitoring data, particularly dermal and biological monitoring data” and that “the evidence may show that BP actively prevented the recording of such data.”⁵⁶ Regardless of the veracity of this assertion, Dr. Cook was not prevented from consulting the relevant scientific and medical literature on the harmful effects of oil to determine whether a relevant chemical has the capacity to cause the harm alleged by plaintiff in the general population. Dr. Cook was not limited to data from the *Deepwater Horizon* oil spill, and in fact did rely on studies from previous oil spills.⁵⁷

⁵⁶ R. Doc. 55 at 8-9.

⁵⁷ R. Doc. 45-5 at 33-35 (Cook Report).

Plaintiff additionally asserts that Dr. Cook's reliance on studies that used an "ever/never" binary exposure model in which respondents were asked whether they had ever been exposed to crude oil, was adequate to determine dose.⁵⁸ Plaintiff represents that the "ever/never exposure model for the BP Oil Spill worker population is the peer reviewed exposure literature for the study population of which Plaintiff is a member."⁵⁹ Although the question of whether a study has been subjected to peer review and publication is relevant, it is "not dispositive" or the "*sine qua non* of admissibility." *Daubert*, 509 U.S. at 592. And even if the ever/never exposure model is used in some literature on the *Deepwater Horizon* oil spill, plaintiff's own expert agreed at his deposition that "without some quantitative understanding of the magnitude of an individual's exposure and the duration of time over which the exposure occurred, it's difficult to reach . . . meaningful conclusions about health risks."⁶⁰ More critically, Dr. Cook states in his report that researchers associated with the *Deepwater Horizon* oil spill studies that he relies on also expressed concerns about the "accur[acy] and comprehensive[ness]" of respondents' qualitative exposure

⁵⁸ R. Doc. 55 at 9.

⁵⁹ *Id.*

⁶⁰ R. Doc. 45-8 (Cook Deposition at 124:16-22).

responses.⁶¹ For example, the report notes that NIOSH investigators “disregarded the self-reports of the workers, determining that the workers’ self-reported exposures had not been likely.”⁶² Given the concerns about the accuracy of this model from both plaintiff’s expert as well as the investigators themselves, the Court does not find that, in this context, Dr. Cook’s conclusions were based on reliable methodology, or that he is otherwise excused from determining a harmful level of exposure.

In sum, plaintiff, as the party offering the testimony of Dr. Cook, has failed to meet his burden of establishing the reliability and relevance of Dr. Cook’s report. *Moore*, 151 F.3d at 276. Given that Dr. Cook’s report is unreliable and fails to provide the “minimal facts necessary” to establish general causation in this case, *see Allen*, 102 F.3d at 199, the Court grants defendants’ motion to exclude Dr. Cook’s testimony. *See Seaman*, 326 F. App’x at 728 (upholding the district court’s exclusion of an expert’s testimony that did “not come close to establishing either general or specific causation” and “provide[d] no clue regarding what would be a harmful level of Ferox exposure”).

⁶¹ R. Doc. 45-5 at 57 (Cook Report) (noting that “GuLF STUDY researchers also noted that it would be difficult to obtain accurate and comprehensive exposure information on participants in the GuLF STUDY”).

⁶² *Id.* at 42.

III. MOTION FOR SUMMARY JUDGMENT

A. Legal Standard

Summary judgment is warranted when “the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law.” Fed. R. Civ. P. 56(a); *see also Celotex Corp. v. Catrett*, 477 U.S. 317, 322-23 (1986); *Little v. Liquid Air Corp.*, 37 F.3d 1069, 1075 (5th Cir. 1994) (en banc) (per curiam). “When assessing whether a dispute to any material fact exists, [the Court] consider[s] all of the evidence in the record but refrain[s] from making credibility determinations or weighing the evidence.” *Delta & Pine Land Co. v. Nationwide Agribusiness Ins.*, 530 F.3d 395, 398-99 (5th Cir. 2008). All reasonable inferences are drawn in favor of the nonmoving party, but “unsupported allegations or affidavits setting forth ‘ultimate or conclusory facts and conclusions of law’ are insufficient to either support or defeat a motion for summary judgment.” *Galindo v. Precision Am. Corp.*, 754 F.2d 1212, 1216 (5th Cir. 1985) (quoting 10A Charles Alan Wright & Arthur R. Miller, *Federal Practice and Procedure* § 2738 (2d ed. 1983)); *see also Little*, 37 F.3d at 1075. “No genuine dispute of fact exists if the record taken as a whole could not lead a rational trier of

fact to find for the nonmoving party.” *EEOC v. Simbaki, Ltd.*, 767 F.3d 475, 481 (5th Cir. 2014).

If the dispositive issue is one on which the moving party will bear the burden of proof at trial, the moving party “must come forward with evidence which would ‘entitle it to a directed verdict if the evidence went uncontroverted at trial.’” *Int’l Shortstop, Inc. v. Rally’s, Inc.*, 939 F.2d 1257, 1264-65 (5th Cir. 1991) (quoting *Golden Rule Ins. v. Lease*, 755 F. Supp. 948, 951 (D. Colo. 1991)). “[T]he nonmoving party can defeat the motion” by either countering with evidence sufficient to demonstrate the “existence of a genuine dispute of material fact,” or by “showing that the moving party’s evidence is so sheer that it may not persuade the reasonable fact-finder to return a verdict in favor of the moving party.” *Id.* at 1265.

If the dispositive issue is one on which the nonmoving party will bear the burden of proof at trial, the moving party may satisfy its burden by pointing out that the evidence in the record is insufficient with respect to an essential element of the nonmoving party’s claim. *See Celotex*, 477 U.S. at 325. The burden then shifts to the nonmoving party, who must, by submitting or referring to evidence, set out specific facts showing that a genuine issue exists. *See id.* at 324. The nonmovant may not rest upon the pleadings, but must identify specific facts that establish a genuine issue for

resolution. *See, e.g., id.; Little*, 37 F.3d at 1075 (“Rule 56 ‘mandates the entry of summary judgment, after adequate time for discovery and upon motion, against a party who fails to make a showing sufficient to establish the existence of an element essential to that party’s case, and on which that party will bear the burden of proof at trial.’” (quoting *Celotex*, 477 U.S. at 322)).

B. Discussion

In their motion for summary judgment, defendants contend that plaintiff cannot establish either general or specific causation.⁶³ Although the parties dispute whether plaintiff is required to present admissible expert testimony to establish specific causation, neither party contests that expert testimony is necessary to establish general causation.⁶⁴ Here, the Court has excluded testimony from plaintiff’s only expert offering an opinion on general causation. Although plaintiff has also retained Dr. Rachel Jones as an “exposure assessment expert,”⁶⁵ she does not provide a general causation

⁶³ R. Doc. 46-1 at 10.

⁶⁴ *See* R. Doc. 55 (asserting that “it is not legally necessary to provide specific causation expert testimony on temporary pain and suffering . . . [and] [a]t most, a general causation opinion is needed”); R. Doc. 46-1 at 10-19 (“Coleman must prove both general and specific causation.”).

⁶⁵ R. Doc. 55 at 2-3. Plaintiff does not contend that Dr. Jones offers a general causation opinion, but instead asserts that Dr. Cook’s “general causation opinion relies on” Dr. Jones’s report. *Id.* at 5. Despite plaintiff’s assertion, it is notable that Dr. Cook’s report neither

opinion, and notably does not provide the information or analysis that Dr. Cook's report lacks. Specifically, she does not identify a harmful level of exposure to the chemicals that Coleman was allegedly exposed to that can cause the conditions he alleges. Although Dr. Jones summarizes reports that measured the levels of a variety of toxic chemicals at different cleanup sites,⁶⁶ she does not address the issue of *causation*. In other words, Dr. Jones's report does not identify the level of those toxins that is harmful and that can be associated with the symptoms at issue here.

Because the Court excludes Dr. Cook's opinion on general causation, and plaintiff has produced no other admissible general causation evidence in this case, the Court need not reach the question of specific causation. *See Knight*, 482 F.3d at 352 (noting that if "the district court properly determined that [an expert's] testimony regarding general causation was inadmissible, . . . then there would be no need to consider . . . specific causation"). Because Coleman cannot prove a necessary element of his claims against defendants, his claims must be dismissed. *See Williams*, 2019 WL 6615504, at *11 ("When a plaintiff has no expert testimony to prove his medical diagnosis or causation at trial, the plaintiff's suit may be dismissed

discusses Dr. Jones's report nor cites it as a reference. *See* R. Doc. 45-5 (Cook Report).

⁶⁶ R. Doc. 55-1 (Jones Report).

at the summary judgment stage.”); *see also McGill*, 830 F. App’x at 434 (upholding the district court’s grant of summary judgment given that the plaintiff did “not put forward any non-speculative evidence that Corexit and oil exposure cause the types of illnesses he suffer[ed] from”). Accordingly, the Court grants defendants’ motion for summary judgment.

IV. CONCLUSION

For the foregoing reasons, the BP parties’ motion to exclude the testimony of Dr. Cook is GRANTED. The Court also GRANTS the BP parties’ motion for summary judgment. Plaintiff’s claims are DISMISSED WITH PREJUDICE.

New Orleans, Louisiana, this 28th day of June, 2022.



SARAH S. VANCE
UNITED STATES DISTRICT JUDGE