

UNITED STATES DISTRICT COURT  
EASTERN DISTRICT OF LOUISIANA

CARLOS PATTON

CIVIL ACTION

VERSUS

NO. 17-4473

BP EXPLORATION &  
PRODUCTION, INC., ET AL.

SECTION "R" (5)

**ORDER AND REASONS**

Before the Court is BP Exploration & Production, Inc., BP America 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,<sup>1</sup> and their motion for summary judgment.<sup>2</sup> Plaintiff opposes both motions.<sup>3</sup>

For the following reasons, the Court grants defendants' motion to exclude the testimony of Dr. Cook. Without Dr. Cook's expert report, plaintiff cannot establish the general causation element of his claim at trial.

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<sup>1</sup> R. Doc. 44. 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. *Id.* at 1 n.1.

<sup>2</sup> R. Doc. 45. The remaining defendants also join the BP parties' motion for summary judgment. *Id.* at 1 n.1.

<sup>3</sup> R. Docs. 46 & 48.

Accordingly, the Court also grants defendants' motion for summary judgment.

## I. BACKGROUND

This case arises from plaintiff'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 beginning in May of 2010.<sup>4</sup> Plaintiff asserts that he experienced "[c]ontinuous exposure [to crude oil or dispersants] in and around Gulfport, Biloxi, Pascagoula, [and] Horn Island, Mississippi."<sup>5</sup> Plaintiff also represents that this exposure has resulted in the following conditions: syncope, blacking out, exacerbation of recurrent seizures, cough, sore throat, nasal congestion, ear infection, burning sensation in nose, dry sinuses, facial pain or sinus pain, nasal discharge, nosebleed, throat irritation, chest pain, headache, migraines, depression, insomnia, short-term memory loss, folliculitis, skin boils, crusting, dryness/flaking, inflammation, redness or swelling, itching, lesions, peeling, scaling, welts, abdominal cramps/pain, nausea, diarrhea, exacerbation of preexisting asthma, wheezing, and eye burning.<sup>6</sup>

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<sup>4</sup> R. Doc. 1-1 at 8.

<sup>5</sup> *Id.*

<sup>6</sup> R. Doc. 44-3 at 1-3.

Plaintiff'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.<sup>7</sup> Patton is a plaintiff who opted out of the settlement.<sup>8</sup> 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.<sup>9</sup>

To demonstrate that exposure to crude oil, weathered oil, and dispersants can cause the symptoms plaintiff alleges in his complaint, he offers the testimony of Dr. Jerald Cook, an occupational and environmental physician.<sup>10</sup> Dr. Cook is plaintiff's sole expert offering an opinion on general causation.<sup>11</sup> In his June 21, 2022 report, Dr. Cook utilizes a "general

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<sup>7</sup> *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).

<sup>8</sup> R. Doc. 1-1 at 6.

<sup>9</sup> R. Doc. 28 ¶¶ 19-49.

<sup>10</sup> R. Doc. 44-4 at 1 (Cook Report).

<sup>11</sup> 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. 45-5 at 4 (Jones Report).

causation approach to determine if some of the frequently reported health complaints are indeed from the result of exposures sustained in performing [oil spill] cleanup work.”<sup>12</sup> Dr. Cook concludes that “[g]eneral causation analysis indicates” that the following conditions, among others, “can occur in individuals exposed to crude oil, including weathered crude oil”: rhinosinusitis, chronic obstructive pulmonary disease (“COPD”), bronchitis, asthma, dermatitis, conjunctivitis, and dry eye disease.<sup>13</sup>

The BP parties contend that Dr. Cook’s expert report should be excluded on the grounds that that it is unreliable and unhelpful.<sup>14</sup> 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.<sup>15</sup> Plaintiff opposes both motions.<sup>16</sup> The Court considers the parties’ arguments below.

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<sup>12</sup> R. Doc. 44-4 at 16 (Cook Report).

<sup>13</sup> *Id.* at 103-133.

<sup>14</sup> R. Doc. 44.

<sup>15</sup> R. Doc. 45-1 at 1-2.

<sup>16</sup> R. Docs. 46 & 48.

## 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 “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**

Plaintiff 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 Patton, 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, which means 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 finds that 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 plaintiff alleges, he 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.”<sup>17</sup> More specifically, he states that his “causation

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<sup>17</sup> R. Doc. 44-4 at 8 (Cook Report).

analysis regarding health effects of oil spill exposures [] draw[s] on the process 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.”<sup>18</sup>

The Fifth Circuit has held that epidemiology provides the best evidence of causation in a toxic tort case. *See Brock v. Merrell Dow Pharms., Inc.*, 874 F.2d 307, 311 (5th Cir. 1989). 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.” *Id.* 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 chemical agent and development of disease) . . . occur more frequently

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<sup>18</sup> *Id.* at 20.

together than one would expect by chance.” Fed. Judicial Ctr., *Reference Manual on Scientific Evidence*, 552 n.7 (3d ed. 2011) [hereinafter *Reference Manual*]. 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.*

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 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 can 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.<sup>19</sup> The second chapter provides an overview of the *Deepwater Horizon* oil spill.<sup>20</sup> The third chapter describes Dr. Cook's methodology, the first step of which involved his "review and analy[sis]" of the "available scientific literature to determine the strength of an association between environmental exposure and a health effect."<sup>21</sup> After reviewing the literature, Dr. Cook asserts that he selected the

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<sup>19</sup> *Id.* at 8.

<sup>20</sup> *Id.* at 9-15.

<sup>21</sup> *Id.* at 21.

epidemiological studies cited in his causation analysis “based on the quality of the study and study design.”<sup>22</sup>

Chapter four of Dr. Cook’s report details prior studies on the health effects associated with oil spills.<sup>23</sup> 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.<sup>24</sup> 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, (2) the *Deepwater Horizon* oil spill Coast Guard cohort study, and (3) the Gulf Long-Term Follow-Up study (“GuLF STUDY”).<sup>25</sup> 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.<sup>26</sup> 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

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<sup>22</sup> *Id.* at 23.

<sup>23</sup> *Id.* at 62-102.

<sup>24</sup> *Id.* at 63.

<sup>25</sup> *Id.* at 66-102.

<sup>26</sup> *Id.* at 102.

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.*<sup>27</sup>

- 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 [dermal] conditions can occur in individuals exposed to crude oil, including weathered crude oil, during oil spill response and cleanup work.*<sup>28</sup>
- 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, 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.*<sup>29</sup>

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<sup>27</sup> *Id.* at 120-121 (emphasis added).

<sup>28</sup> *Id.* at 126-127 (emphasis added).

<sup>29</sup> *Id.* at 133-134 (emphasis added).

Based on Dr. Cook's report, defendants argue that Patton 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) identify the harmful dose of exposure of any particular chemical to which plaintiff was exposed that is necessary to cause the plaintiff's conditions; (2) identify which chemicals can cause which conditions; (3) verify Patton's diagnoses; and (4) follow the accepted methodology for analyzing epidemiology.<sup>30</sup> Defendants further argue that even if Dr. Cook's report were reliable, it is unhelpful because it addresses few of plaintiff's specific medical complaints.<sup>31</sup> Defendants also note that this Court and several others have excluded various versions of Dr. Cook's report for similar reasons,<sup>32</sup> including the version at issue in this case.<sup>33</sup> Plaintiffs contend that

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<sup>30</sup> R. Doc. 44-1 at 7-17.

<sup>31</sup> *Id.* at 16 n.27.

<sup>32</sup> This Court excluded the March 2022 version of Dr. Cook's report in several cases on the grounds that his opinion was unreliable and unhelpful. *See Dawkins v. BP Expl. & Prod., Inc.*, No. 17-3533, 2022 WL 2315846, at \*8-9 (E.D. La. June 28, 2022); *Coleman v. BP Expl. & Prod., Inc.*, No. 17-4158, 2022 WL 2314400, at \*8-9 (E.D. La. June 28, 2022); *Grant v. BP Expl. & Prod., Inc.*, No. 17-4334, 2022 WL 2467682, at \*7-9 (E.D. La. July 6, 2022); *Peairs v. BP Expl. & Prod., Inc.*, No. 17-3596, 2022 WL 2817852, at \*7-11 (E.D. La. July 19, 2022).

<sup>33</sup> 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 Judge Barry Ashe excluded the March 2022 version of Dr. Cook's report on the grounds that he failed "to identify the dose of the toxic chemicals necessary to cause any of the



the latest version of Dr. Cook’s report, version four, is “substantially improved,”<sup>34</sup> but it is undisputed that the only substantive change Dr. Cook made in version four is a revision to Section 3.4.1 of his report, which he updated to include tables stating the minimal risk levels of a handful of chemicals found in crude oil and dispersants on certain systems of the human body.<sup>35</sup>

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 to which plaintiff was exposed.<sup>36</sup> 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).

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complained-of health effects.” *Street*, 2022 WL 1811144, at \*6. Judge Susie Morgan excluded Dr. Cook’s March 2022 report on similar grounds. See *Harrison v. BP Expl. & Prod. Inc.*, No. 17-4346, 2022 WL 2390733, at \*7 (E.D. La. July 1, 2022) (“In sum, Cook did not identify the necessary dose of exposure for each of Plaintiff’s symptoms to manifest.”). Judge Barbier has excluded the same version of Dr. Cook’s report at issue here. *Cantillo v. BP Expl. & Prod.*, No. 17-3226, R. Doc. 35 (E.D. La. Aug. 5, 2022); *Seay v. BP Expl. & Prod.*, No. 17-4244, R. Doc. 53 (E.D. La. Aug. 5, 2022); *Yarbrough v. BP Expl. & Prod.*, No. 17-4292, R. Doc. 53 (E.D. La. Aug. 5, 2022).

<sup>34</sup> R. Doc. 48 at 1.

<sup>35</sup> R. Doc. 44-4 at 41-62 (Cook Report).

<sup>36</sup> R. Doc. 44-1 at 7-11.

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 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.”<sup>37</sup> Because of

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<sup>37</sup> R. Doc. 44-4 at 32 (Cook Report).

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 measuring the effect of interest.”<sup>38</sup> 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.”<sup>39</sup> It additionally cautions that “[i]f exposure-response and dose-response considerations are disregarded, then misinterpretations, misunderstandings, erroneous judgments, and inappropriate actions occur.”<sup>40</sup>

The closest Dr. Cook’s report comes to identifying a harmful level of exposure that can trigger specific health conditions is his consideration of the Bradford Hill factor of “dose-response.”<sup>41</sup> But even 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 plaintiff

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<sup>38</sup> *Id.*

<sup>39</sup> R. Doc. 44-7 at 6-7.

<sup>40</sup> *Id.* at 7.

<sup>41</sup> *See, e.g.*, 44-4 at 107.

was allegedly exposed. Further, he fails to even specify which 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.<sup>42</sup>

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.<sup>43</sup>

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, the respondents were “residents living in the Taean coastal area . . . [that] had *potential* exposures to the oil spill from the *Hebei Spirit* tanker.”<sup>44</sup> Given the ambiguity in whether residents were even exposed to oil, the study does

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<sup>42</sup> R. Doc. 44-4 at 107, 114, 124, 128 (Cook Report).

<sup>43</sup> *Id.* at 107.

<sup>44</sup> *Id.* at 65 (emphasis added).

not specify what level of exposure it concludes is associated with rhinosinusitis. And in the Rusiecki, *et al.*, 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.”<sup>45</sup> 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 [plaintiff]’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,” given the “[l]ikely low [level of] individual exposures.”<sup>46</sup> For example, he notes that the GuLF STUDY researchers represented that it was “difficult to obtain accurate and comprehensive exposure information on 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

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<sup>45</sup> *Id.* at 79.

<sup>46</sup> *Id.* at 93.

measurements may not be sufficient to fully assess total exposure.”<sup>47</sup> The report also mentions that the health hazard evaluations conducted by the National Institute of Occupational Safety and Health “primarily utilized qualitative assessment techniques rather than the traditional industrial hygiene exposure assessment and quantitative measurement methods.”<sup>48</sup> 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.

Given Dr. Cook’s failure to determine the relevant harmful level of exposure to chemicals to which plaintiff was exposed for plaintiff’s specific conditions, the Court finds that he lacks sufficient facts 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 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 v. Ashland Chem. Inc.*, 151 F.3d 269, 277-78 (5th Cir. 1998) (holding that the “district court was entitled to conclude” that an expert’s opinion was “inadequate under *Daubert*” when the expert

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<sup>47</sup> *Id.*

<sup>48</sup> *Id.* at 66.

“had no information on the level of exposure necessary for a person to sustain the [relevant] injuries”).

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 Patton was allegedly exposed to, at the level at 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 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 alleged by plaintiff.<sup>49</sup> As noted by

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<sup>49</sup> R. Doc. 44-3 at 121 (Cook Report).

plaintiff, he retained Dr. Cook to provide a general causation report that “identifies the medical conditions generally recognized in the literature on BP Oil Spill responders,” not the specific conditions alleged by plaintiff.<sup>50</sup>

Although Dr. Cook admits that there are thousands of chemicals in crude oil, and that the chemical composition of weathered oil is highly variable, he makes no attempt to identify which chemicals within crude oil plaintiff was allegedly exposed to. Indeed, the majority of the studies he cites similarly do not identify which 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.”<sup>51</sup> *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 plaintiff] w[as] exposed to can cause [her] particular injuries in the general population.” *Knight*, 482 F.3d at 355. Given that Dr. Cook’s report does not identify which specific chemicals

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<sup>50</sup> R. Doc. 48 at 4.

<sup>51</sup> R. Doc. 44-4 at 93 (Cook Report).



plaintiff was exposed to, nor does it address many of the injuries plaintiff alleges,<sup>52</sup> 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 Dr. Cook was unable to include data on a harmful level of exposure because “BP consciously, or in the most favorable light negligently, avoided recording data which would show the exposure doses of spill response workers.”<sup>53</sup> Regardless of the veracity<sup>54</sup> of this

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<sup>52</sup> For example, Cook’s report does not address syncope, blacking out, seizures, ear infection, nosebleeds, or folliculitis.

<sup>53</sup> R. Doc. 48 at 11.

<sup>54</sup> Notably, other Courts addressing the scope of data collected as part of the *Deepwater Horizon* oil spill have cast doubt on the assertion that there is a lack of monitoring data associated with the spill. *See, e.g., In re Deepwater Horizon Belo Cases*, No. 19-963, 2020 WL 6689212, at \*4 (N.D. Fla. Nov. 4, 2020), *aff’d sub nom. In re Deepwater Horizon BELO Cases*, No. 20-14544, 2022 WL 104243 (11th Cir. Jan. 11, 2022) (finding that following the *Deepwater Horizon* oil spill Unified Area Command, which was composed of several federal and state agencies, “engaged in extensive and coordinated data collection and environmental monitoring efforts, in what has been characterized as ‘the largest environmental investigation of an oil spill ever undertaken’”); *Harrison*, 2022 WL 2390733, at \*7 (noting that Dr. Cook “could have attempted to support an opinion as to the dose necessary to cause plaintiff’s symptoms by relying on the universe of

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 specific injuries 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.<sup>55</sup>

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 an adequate alternative to the traditional quantitative estimates of a dose-response relationship.<sup>56</sup> Specifically, plaintiff represents that because BP allegedly "squandered the opportunity to preserve evidence of dose," the scientific community publishing "peer reviewed science for the BP Oil Spill worker population" has turned to qualitative measures, such as the "ever/never" model, instead of the "traditional Bradford Hill dose-response relationship."<sup>57</sup> Plaintiff thus asserts that because Dr. Cook is "simply using the same methodology as the relevant scientific community" studying the BP

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relevant epidemiology and toxicology literature studying the spill or by relying on the work of Dr. Jones").

<sup>55</sup> R. Doc. 44-4 at 63-55 (Cook Report).

<sup>56</sup> R. Doc. 48 at 11-12.

<sup>57</sup> *Id.*

oil spill worker population, his general causation opinion should not be excluded based on his failure to identify a particular chemical or dose.<sup>58</sup>

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, Dr. Cook states in his report that researchers associated with the *Deepwater Horizon* oil spill studies that he relies on have expressed concerns about the “accur[acy] and comprehensive[ness]” of respondents’ qualitative exposure responses.<sup>59</sup> For example, the report notes that NIOSH investigators “disregarded the workers’ self-reports,” determining that the workers’ self-reported exposures had not been likely.<sup>60</sup> Moreover, as noted above, Dr. Cook was not limited to studies on the *Deepwater Horizon* oil spill in developing his general causation opinion.

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<sup>58</sup> *Id.* at 15.

<sup>59</sup> R. Doc. 44-4 at 93 (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”).

<sup>60</sup> *Id.* at 73.

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 are reliable.

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 727-28 (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").

### **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 they are entitled to summary judgment because plaintiff cannot establish either general or specific causation.<sup>61</sup> 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.<sup>62</sup> 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 a "general exposure assessment" expert,<sup>63</sup> she does not provide a general causation opinion, nor does she 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 plaintiff was allegedly exposed to that can cause the conditions he alleges. Although Dr. Jones summarizes reports that

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<sup>61</sup> R. Doc. 45.

<sup>62</sup> See R. Doc. 46 at 3 (asserting that "general causation evidence is sufficient to defeat summary judgment"); R. Doc. 45-1 at 9 ("Even though [plaintiff] is advocating that he does not need expert evidence of specific causation, that does not alter his obligation to introduce expert evidence of general causation.").

<sup>63</sup> R. Doc. 48 at 4.

measured the levels of a variety of toxic chemicals at different cleanup sites,<sup>64</sup> she does not address the issue of *causation*.

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"). Given that plaintiff 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 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

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<sup>64</sup> R. Doc. 45-5 (Jones Report).



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

New Orleans, Louisiana, this 8th day of September, 2022.

  
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SARAH S. VANCE  
UNITED STATES DISTRICT JUDGE