

Written Testimony of

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Before the

U.S. House of Representatives Committee on Energy and Commerce
Environment and Climate Change Subcommittee

On

“Mismanaging Chemical Risks: EPA’s Failure to Protect Workers”

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Dear Chairman Tonko, Ranking Member Shimkus, and Members of the Subcommittee,

Thank you for holding this crucial hearing on the Environmental Protection Agency's (EPA) failure to protect workers from chemicals risks. I serve as the worker health and safety advocate for Public Citizen, a national consumer advocacy and public interest organization with more than 500,000 members and supporters. Since 1971, Public Citizen has advocated for stronger health, safety and consumer protection measures, as well as curbs on corporate wrongdoing.

I previously worked as an investigator for the Government Accountability Project, a whistleblower protection and advocacy organization, where I led a multiyear dispersant whistleblower investigation. The investigation, which I understand is ongoing, examined worker health impacts from chemical exposure during the Deepwater Horizon disaster.ⁱ I worked firsthand with whistleblowers, and this testimony incorporates lessons learned by those brave individuals, who should be the pioneer witnesses providing a foundation for dispersant oversight.

EPA's failure to adequately regulate dispersants – toxic chemicals used in an unprecedented manner in response to the BP Deepwater Horizon disaster – is a tragic example of the agency's failure to protect workers under its implementation of the Frank R. Lautenberg Chemical Safety Act, which made significant amendments to the Toxic Substances Control Act (TSCA). While this is by no means the only chemical that EPA has failed to protect workers from, several unique factors make it particularly timely for congressional oversight.

The 2010 Deepwater Horizon disaster was the largest U.S. oil spill, the second largest in world history, and the worst environmental disaster we've seen in America. A growing body of evidence suggests that the use of the dispersant Corexit to "clean up" the spill was more destructive to workers, human health and the environment than the spill itself.ⁱⁱ When this product is mixed with oil, a deadly synergy occurs that poses greater threats than oil alone. The only so-called advantage of Corexit is the false impression that the oil disappears – in reality, the more toxic chemical mixture spreads throughout the environment, exposing workers and communities, or settles on the seafloor.ⁱⁱⁱ The whistleblowers involved in the dispersant investigation showed how they had provided clear warnings and practical solutions that could have greatly reduced the negative impact caused by the disaster "clean-up" from the toxic dispersant brew. They began by *warning not to treat chemicals with chemicals*, a premise that was ignored.

As we approach the 9th anniversary of the BP Deepwater Horizon disaster, the worst environmental disaster in U.S. history, the Trump administration has aggressively worked to expand offshore drilling while simultaneously rolling back related safety regulations.^{iv} It is both unfortunate and inevitable that future major offshore oil disasters will occur, triggering bipartisan opposition to the current efforts to expand of offshore drilling.^v These circumstances, compounded by extensive evidence documenting the health impacts of dispersants on workers, intensifies the urgency for the EPA to protect workers from exposure to dispersants.

I. EPA Failure to Adequately Regulate Dispersants

Two million gallons of Corexit were used during the BP disaster response through surface and subsurface application. When this product is mixed with oil, a deadly synergy occurs that becomes 52 times more toxic than the oil alone.^{vi} During the response, the environmental law firm Earthjustice reported that five of the ingredients found in dispersants are linked to cancer.^{vii} Safety Data Sheets for Corexit warned that the dispersant posed high and immediate human health hazards.^{viii} Further, two months into the disaster, BP test results found that 2-butoxyethanol was detected in more than 20 percent of offshore workers and 15 percent of near shore workers at levels two times greater than National Institute and Occupational Safety and Health

worker safety standards.^{ix} 2-butoxyethanol, categorized as a possible human carcinogen, makes up 30 to 60 percent of Corexit 9527, one of the two forms of Corexit used during the response.^x

Notwithstanding grave warnings from Corexit's earlier use during the Exxon Valdez disaster and lessons learned from the BP disaster, Corexit remains a listed dispersant on the National Contingency Plan (NCP) – the federal government's blueprint for responding to oil spills and hazardous substance releases. Under the Obama administration, the EPA was in the process of updating outdated and inadequate dispersant regulations to incorporate painful lessons learned from the BP response, but the proposed rule has come to a standstill under the Trump administration.^{xi}

Under current regulations, EPA relies solely on the manufacturer's testing, and does not independently assess human health and environmental impacts of the dispersant before it is approved. Dated dispersant policy makes the public vulnerable to industry determinations of supposed "safety" of a product that would be unacceptable in other contexts. The Food and Drug Administration is required to independently test pharmaceutical drugs before approving them for commerce, and the United States Department of Agriculture does not take a slaughterhouse owner's word that meat is free of contamination. However, there is no requirement for independent data or government testing in the case of dispersants.

According to EPA's own data, Corexit is more toxic and less effective on Louisiana Sweet Crude – the type of oil released during the BP spill – than other NCP approved dispersants.^{xii} After protests by the environmental and public health community around the toxic nature of Corexit, EPA issued a directive in May 2010 that required BP to use a less toxic dispersant.^{xiii} By that point, BP had already been required to switch from Corexit 9527 to the slightly less toxic Corexit 9500.^{xiv} When BP claimed it was unable to identify an alternative dispersant in sufficient quantities, EPA required BP to dramatically scale back the use of Corexit and limit it to novel subsurface application at the wellhead. However, BP was able to skirt the directive to limit Corexit use by requesting exemptions from the Coast Guard as the Federal On-Scene Coordinator for surface application, and aerial and vessel spraying continued throughout the BP spill, often through the use of military C-130 planes.^{xv}

Shortly before the BP Deepwater well was capped to stop the gushing of oil into the Gulf of Mexico, EPA reported that Corexit was comparable in toxicity to other dispersants, sending mixed signals to the public about its safety.^{xvi} Even government workers sought clarification. In an internal memo at the Centers for Disease Control an employee inquired, "In regards to the issue of using the Corexit dispersants, is it true that the UK and other countries have banned their use because of their toxicity and because other dispersants have been shown to be more effective and less toxic?"^{xvii}

Hugh Kauffman, the lone public EPA whistleblower on Corexit use during the Deepwater Horizon response, publicly inquired, "I would be grateful ... if someone could explain why millions of lbs. of useless toxic dispersant is being dumped into the Gulf, to add to the toxic loading?"^{xviii} Publicly, then-EPA Administrator Lisa Jackson shared, "I can honestly say I don't think I've made a tougher decision than the one regarding use of chemical dispersant[.]"^{xix} In a Senate oversight hearing on Corexit use, then-Senator Barbara Mikulski (D-MD) asked, "Are dispersants the DDT or Agent Orange of the oil spill?" During that same hearing Administrator Jackson conceded, "As we emerge from this response, I believe we need to revisit the contingency plans and the product schedules that preauthorize dispersant use ... We need more information on all dispersants, and that is not only a B.P. problem."^{xx} Nearly a decade after the BP disaster, we have mounting evidence on the health impacts of dispersants on workers and exposed communities, and yet no action by the government to ban their use in U.S. disaster responses.

I. Worker Health Impacts

The cleanup's health impact may have been a greater disaster than the BP spill itself, creating an epidemic of chemical-related illnesses across the Gulf. During the response, workers and residents frequently reported coming into contact with Corexit through aerial and vessel spraying, diving or even near shore and inshore use of Corexit. BP's own testing found that workers were exposed to a possible human carcinogen from the dispersant. BP and government medical monitoring programs, however, denied any significant chemical exposures, and dismissed *every* worker complaint that Corexit exposure resulted in hospitalization, or deserved compensation for its effects.^{xxi}

Independent monitoring by the Louisiana Environmental Action Network (LEAN), a community based nonprofit organization and local partner for the whistleblower investigation into dispersant health impacts – working in partnership with a local Louisiana physician and pioneer whistleblower for the investigation, Dr. Michael Robichaux – validated concerns and educated the public on the real human impact of the disaster, as it identified the nightmarish list of symptoms that can result from chemical exposure to dispersants and oil. Eventually coined the “BP Syndrome” and at times “Gulf Coast Syndrome,” it often took months, and in some cases years, before workers and residents connected their sudden health problems with the BP spill.

During the investigation workers reported symptoms that include, but are not limited to: blood in urine and rectal bleeding; seizures; hyper-allergies to processed foods; violent vomiting episodes that last for hours and result in rapid weight loss; weakness and fatigue, at times leading to depression; migraines; abdominal pain attacks; skin irritation, burning and widespread lesions; rashes; inability to withstand exposure to sun; Multiple Chemical Sensitivity, resulting in new sensitivities to everyday household cleaning products or petroleum based products (plastic water bottles); neurological damage resulting in memory loss and severe IQ drop; impotence; heart palpitations; and hypertension. Whistleblowers also reported long-term health effects, including reproductive damage (such as genetic mutations), endocrine disruption, and cancer.^{xxii}

According to the investigation's findings,^{xxiii}

- BP and the government misrepresented known risks by asserting that Corexit was low in toxicity (routinely comparing it to Dawn dishwasher soap). Nearly 47 percent of workers reported that their employers told them Corexit did not pose a health risk.
- BP and the federal government each identified heat stress as the greatest occupational safety hazard for cleanup workers, leaving workers almost defenseless against chemical exposure. All workers interviewed reported that they were provided minimal or no personal protective equipment on the job.
- Federally required worker resource manuals detailing Corexit health hazards were not delivered or were removed (according to an anonymous whistleblower) from BP worksites early in the cleanup, as health problems began. After investigators and whistleblowers confronted BP, the company stated that manuals were removed as worksites shut down and after the cleanup operation was no longer using dispersants in the Gulf. But nearly 85 percent of interviewed cleanup workers reported that they were never informed of or aware of *any* available safety literature at the job site.
- BP and the federal government, through their own medical monitoring programs, each publicly denied that any significant chemical exposure to humans existed. Of the workers interviewed, 87

percent reported contact with Corexit while on the job, and of all respondents, 57 percent reported that they and/or someone in their family was exposed to Corexit outside of the cleanup zone. More than 70 percent of witnesses took a blood test to identify chemicals from Corexit and oil. Of those, 100 percent tested positive for high levels of such chemicals, which included known carcinogens.

II. Research on Dispersant Dangers

Past and recent scientific research has substantiated the health concerns surrounding worker exposure to dispersants, validating the health impacts documented by exposed workers and communities. In 2005 the National Academy of Sciences issued a comprehensive report analyzing the use of dispersants in oil spill responses. The report, “Understanding Oil Spill Dispersants: Efficacy and Effects,” warned that “the current understanding of key processes and mechanisms is inadequate to confidently support a decision to apply dispersants.”^{xxiv} Further, it reported that exposure to Corexit 9527 caused adverse health effects to some responders dating as far back as the 1980s, resulting in the creation of the slightly less toxic Corexit 9500.^{xxv} Toxicologist Dr. Riki Ott systematically investigated the devastating impacts of Corexit use on the Exxon Valdez oil spill in the book Sound Truth and Corporate Myth\$: The Legacy of the Exxon Valdez Oil.^{xxvi}

As recent as 2018, research conducted by the Uniformed Services University found that Coast Guard responders who reported exposure to dispersants suffered a range of health impacts at higher rates than individuals not exposed to the dispersants or exposed to the oil alone.^{xxvii} In related news coverage, Rear Admiral Erica Schwartz, the Coast Guard’s director of health and safety, stated, “I can tell you Coast Guard members were terrified of the concept of dispersants”.^{xxviii} And in 2017, the National Institute of Environmental Health Sciences reported that workers exposed to dispersants were more likely to experience health symptoms than unexposed workers.^{xxix} Despite these warnings, toxic dispersants remain the industry’s tool of choice for spill response efforts, continuing to put federal first responders directly at risk of exposure to toxic chemicals.

A study conducted by the University Cancer and Diagnostic Centers and published in the American Journal of Medicine found Deepwater Horizon disaster cleanup workers are at an increased risk for blood-related disorders, including cancer, as a result of their exposure to dispersants and oil.^{xxx} The study acknowledged that, “COREXIT used as a dispersant is currently banned in the United Kingdom because of its potential health risks to clean-up workers.”^{xxxi} Similar to the methodology employed by LEAN, the study examined the blood tests of more than 100 spill workers in Louisiana who were exposed to oil and dispersant with to the blood test results of 130 unexposed individuals. Based on high levels of chemical exposure in the test results for the former group, it concluded, “This oil spill and use of massive amounts of dispersant has the potential to affect human health” and concluded that “clean- up workers exposed to the oil spill and dispersant experienced significantly altered blood profiles, liver enzymes, and somatic symptoms.”^{xxxii}

In 2015 the University of Alabama conducted a study that found Corexit can cause serious damage to human lungs as well as marine life. It found that Corexit exposure can damage tissue, and ultimately result in an “obstruction of the airways in humans with exacerbation of pre-existing respiratory diseases such as asthma.” Senior author Dr. Veena Antony stated “There were some 48,000 workers involved in the cleanup operations, and it is possible that workers were exposed to Corexit via inhalation.” Similarly, the study reported “Cough, shortness of breath and sputum production” among symptoms reported by spill workers. Dr. Antony concluded, “Unfortunately, the likelihood of another oil spill is high, and the need to use dispersal agents [dispersants] will remain.”^{xxxiii}

It has taken an oil spill of a catastrophic proportion, the health and livelihoods of countless workers and whole Gulf communities, and mounting scientific evidence for the topic of health and safety to even enter the public debate on dispersant use. However, EPA is in a position to protect workers from dispersant risks moving forward, and Congress should be urging it to finalize protections from dispersants as soon as possible.

III. Policy Reforms

The government must reform dispersant policy so that we are not faced with the same public health dilemma during the next oil disaster. It can take immediate action by banning the use of toxic dispersants, including Corexit. The more fundamental reform is to control and prevent future damage until the research on dispersants has been fully developed. For now, the 2016 TSCA amendments, named in honor of late Senator Frank Lautenberg, position EPA to begin to rectify its past failures on Corexit by protecting future workers from dispersants.

Under the TSCA amendments, EPA must establish a risk-based process to determine which chemicals it will prioritize for assessment, identifying them as either “high” or “low” priority substances. According to EPA’s website, “In order to qualify as a high priority chemical, the chemical may present an unreasonable risk of injury to health or the environment due to potential hazard and route of exposure, including to susceptible subpopulations”^{xxxiv} Further, high priority designation triggers a requirement and deadline for EPA to complete a risk evaluation on the chemical to determine its safety. Following documentation from the BP response, there is ample evidence to prioritize dispersants as a “high” priority substance and to regulate them accordingly.

The existing congressional record also supports further legislative action to limit the harmful impacts of dispersants. Concluding a 2010 Senate hearing on dispersant use, the late Senator Lautenberg stated “[I]t’s very obvious ... that the law ought to be changed to give the public the right to know about health and environmental effects of chemicals in the dispersants.”^{xxxv} He proceeded to introduce the Safe Dispersants Act, which would require more robust testing, approval, and disclosure of the health and environmental effects of dispersants used under the National Contingency Plan.^{xxxvi} Representative Jerrold Nadler (D-NY) introduced companion legislation, the Ban Toxic Dispersants Act, which would require a temporary moratorium on the use of dispersants until rulemaking and a study to ensure their safety is complete. In honor of Earth Day in 2015, Congressman Jerrold Nadler (D-NY) reintroduced the legislation and cautioned, “Recent studies have shown that exposure to Corexit may have been worse than the oil itself. We must follow the lead of Britain, and ban the use of dispersants that threaten the health of people, fisheries, marine mammals and their habitats.”^{xxxvii}

In addition to EPA using its expanded authority under TSCA to protect workers from dispersants, the federal government and BP should take corrective action to mitigate ongoing suffering of workers and to prevent the future use of this toxic substance.^{xxxviii} Immediate measures should include:

- A federal ban on the use of Corexit, which is already banned in the United Kingdom and Sweden
- Immediate reintroduction and passage of the Ban Toxic Dispersants Act
- Congressional hearings on the link between the current public health crisis in the Gulf and dispersants
- Immediate reform of EPA dispersant policy, specifically requiring the agency to independently determine whether such products are safe for humans and the environment *prior* to granting approval under the National Contingency Plan

- Insofar as dispersants continue to be used, immediately implement a public notification policy for dispersant use
- Establish effective medical treatment programs, by medical experts specializing in chemical exposure, for both Gulf residents and workers
- Provide federal government funding for third-party, independent assessments of both the spill's health impact on Gulf residents and workers, and such treatment programs when established

IV. Conclusion

The BP spill was the worst environmental disaster in American history, but EPA's failure to regulate dispersants has caused long-term human and ecological tragedies that may be worse. As deepwater drilling is slated to expand off U.S. coasts, it is sadly inevitable that other incidents will occur. Renewed reliance on dispersants is planned as the tool of choice for future oil spills. If this vision becomes reality, long-term destruction to our health and environment will expand exponentially.

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- ^{xxxviii} This is not intended to be a comprehensive list of proposed reforms. The ALERT Project and the Prince William Sound Regional Citizen’s Advisory Council have developed comprehensive technical comments for immediate action by the EPA, derived from lessons learned the use of dispersants during the Exxon Valdez response, and from the BP disaster response. The ALERT Project (a Project of Earth Island Institute) Home Page, <http://alertproject.org/>.