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Environmentalists Claim EPA Approves Oil Dispersants Without Knowing Their Effects

By SABRINA CANFIELD

SAN FRANCISCO (CN) - The Environmental Protection Agency and the Coast Guard violated the Clean Water Act by authorizing use of toxic oil dispersants on oil spills without knowing whether the chemicals will harm endangered species and habitats, the Center for Biological Diversity claims in Federal Court.

Joined as plaintiffs by the Surfrider Foundation and Pacific Environment, the groups call for the EPA to study immediately the effects of dispersants on endangered and threatened species, including whales, sea turtles, salmon and seabirds in the Pacific and polar bears and walruses in the Arctic.

"If chemical dispersants are going to be used after an oil spill, we have to know whether they'll hurt or kill whales, sea turtles and other wildlife. So far, the EPA has no idea," the Center for Biological Diversity's Deirdre McDonnell said in a statement.

"Unprecedented amounts of dispersants were dumped into the sea during the Deepwater Horizon disaster, and they're likely still affecting the Gulf of Mexico, where dead dolphins continue to wash ashore," McDonnell said.

Chemical dispersants break oil spills into tiny droplets. They work by breaking the outer membranes of cells: oil and organs alike. This theoretically allows the oil to be eaten by microorganisms and become diluted faster than if left untreated.



However, dispersants allow oil to enter the bodies of marine life more readily, adding the dispersant chemicals to the oil that can accumulate in the marine food web.

Though not mentioned in the lawsuit, at least one scientific study of the effects of the Corexit, a heavily used dispersant during the Deepwater Horizon oil spill, showed that the dispersant may cause serious harm on a microbial level, hindering the oil bioremediation process.

According to a March 2011 study by the Inter-Research Science Center, scientists studied the presence of Corexit in oil from the Deepwater Horizon explosion along the Louisiana coast and found that Corexit was toxic to two crucial, naturally occurring bacteria that aid the bioremediation process of breaking down oil so it becomes nontoxic to other life.

The study found that Corexit was nontoxic to a third bacteria prevalent in the Gulf of Mexico, which does not contribute to breaking down oil but is highly toxic to marine life, especially to marine and land mammals, including humans. This is the bacteria *Vibrio vulnificus*. *Vibrio vulnificus* has been found in high concentrations in tar balls along the Gulf Coast.

Several news stories this month have warned people not to touch the tar balls that have littered Gulf Coast beaches ever since the oil spill, because they contain bacteria that can cause severe illness or death.

According to the study from Auburn University, *Vibrio vulnificus* - which can kill and injure people who eat oysters contaminated by it - is found in tar balls along the Gulf with concentrations of the bacteria more than 100 times greater than the ambient water.

According to the Centers for Disease Control and Prevention: "*V. vulnificus* typically causes a severe and life-threatening illness characterized by fever and chills, decreased blood pressure (septic shock), and blood-tinged blistering skin lesions (hemorrhagic bullae). Overall, *V. vulnificus* infections are fatal about 40 percent of the time." (Parentheses in original.)

When chemical dispersants appear on an official EPA list, they can be used immediately in oil-spill responses in any U.S. waters. But the EPA has not taken steps to ensure that the chemicals will not jeopardize endangered wildlife, according to the Center for Biological Diversity.

"The EPA should determine the safety of a dispersant before it goes on the list, not afterward, as it did in the Deepwater Horizon oil spill," the center said in its statement.

More than 2 million gallons of dispersants were used to combat the 4.9 million barrels of oil that gushed into the Gulf of Mexico after the April 20, 2010 explosion of the Deepwater Horizon, the worst oil spill in U.S. history.

Since the oil spill, dead dolphins and sea turtles regularly wash up along Gulf Coast beaches, and fishermen and seafood processors report widespread and horrific mutations in shrimp and fish, including shrimp without eyes.

In addition to testing dispersants before adding them to the list of chemical dispersants approved for oil spills, the plaintiffs want the government to re-examine a regional response plan for the California coast, to determine whether the toxins would harm endangered wildlife.

“The Pacific Ocean encompasses some of the most unique marine ecosystems in the world, providing habitat for many endangered and threatened species,” the center said in its statement.

“In the Arctic, dispersants would not only affect these animals, but the indigenous peoples who have subsisted on marine resources for centuries,” Colleen Keane, Alaska program associate for Pacific Environment, said in the statement. “The EPA needs to take the precautionary approach in order to prevent future harm to the health of the environment and people.”

In their federal lawsuit, the environmental nonprofits ask that the EPA and Coast Guard be ordered to comply with the Endangered Species Act, examine the impacts of toxic dispersants on endangered wildlife and consult with the National Marine Fisheries Service and U.S. Fish and Wildlife Service.

“These chemical dispersants are dangerous to human health in addition to wildlife, and shouldn’t be allowed to threaten a family’s enjoyment of the beach. Surfrider members in Florida are so concerned about the aftereffects of the BP spill, they have taken it upon themselves to test the Gulf sand and coastal waters, and have found likely traces of Corexit attached to undissolved tar product in the coastal zone,” said Surfrider Foundation’s legal director Angela Howe.

“From Santa Barbara to the Exxon Valdez and the Deepwater Horizon, we’ve seen the destruction that oil spills leave in their wake,” McDonnell said. “We shouldn’t add insult to injury by using dispersants that could have long-term effects on species already fighting for survival.”

The EPA renewed its product schedule of approved dispersants in March.

According to the lawsuit, the “EPA has listed on the Product Schedule the two principal dispersants used in the Deepwater Horizon oil spill response - despite significant questions regarding their safety - and those dispersants remain listed today.” They are Corexit 9500 A and Corexit 9527 A.

“EPA’s Product Schedule Notebook indicates that Corexit 9500A and 9527 A are most appropriate for surface application and is most effectively applied by aircraft. The Corexit dispersants have average effectiveness rates around 50 percent,” the complaint states.

During the oil spill, Corexit was not just applied to the surface, but injected into the water as well: an unprecedented method not listed among Corexit’s intended uses for the U.S. Coast Guard or the EPA.

“Research shows that dispersants do not significantly biodegrade even 60 days after application ceases in response to an oil spill. Dispersants increase bioavailability of toxic oil constituents dissipated over a larger spatial area of water column and may inhibit natural degradation of oil,” the complaint states.

Studies have found that oil broken apart by Corexit 9527 damages the insulating properties of seabird feathers more than untreated oil, making the birds more susceptible to hypothermia and death.

Studies also have found that dispersed oil is toxic to fish eggs, larvae and adults, as well as to corals, and can harm sea turtles’ ability to breathe and digest food. Formulations of the dispersants being used by BP, Corexit 9500 and 9527, have been banned in the United Kingdom due to concerns about impact on the marine environment.

The plaintiffs’ lead counsel is Catherine Kilduff, with the Center for Biological Diversity’s San Francisco office.