



EARTHJUSTICE

ALASKA CALIFORNIA FLORIDA MID-PACIFIC NORTHEAST NORTHERN ROCKIES  
NORTHWEST ROCKY MOUNTAIN WASHINGTON, DC INTERNATIONAL

October 13, 2010

BY CERTIFIED MAIL

Lisa P. Jackson, Administrator  
U.S. Environmental Protection Agency  
Ariel Rios Building  
1200 Pennsylvania Avenue, NW  
Washington, D.C. 20460

**Re: Petition under the Clean Water Act to Establish Toxicity Criteria and Require Toxicity Testing and Public Disclosure of Ingredients for Products on the National Contingency Plan Product Schedule**

Dear Administrator Jackson:

The Clean Water Act requires the U.S. Environmental Protection Agency (EPA) to prepare a schedule that identifies dispersants and other chemicals that may be used to remove oil and hazardous substances under the National Contingency Plan (NCP), the waters in which such chemicals may be used, and the quantities of the chemicals that can be used safely in such waters. Federal Water Pollution Control Act, 33 U.S.C. § 1321(d)(2)(G) (2006) (Clean Water Act). Pursuant to this authority, EPA promulgated regulations that establish a standard of effectiveness that each dispersant must attain in order to be listed on the schedule, but set no criteria for safety, require only minimal toxicity testing, and permit claims of confidential business information (CBI) that limit public disclosure of a product's ingredients.<sup>1</sup> See 40 C.F.R. §§ 300.900-300.920 (2010).

Alaska Community Action on Toxics, Cook Inletkeeper, Florida Wildlife Federation, Gulf Restoration Network, Louisiana Shrimp Association, Sierra Club, and Waterkeeper Alliance hereby petition EPA, pursuant to the Clean Water Act, 33 U.S.C. § 1321(d)(2)(G), and the Administrative Procedure Act, 5 U.S.C. § 553(e) (2006) ("Each agency shall give an interested person the right to petition for the issuance, amendment, or repeal of a rule."), to promulgate regulations that establish toxicity criteria for the use of chemicals on the NCP Product Schedule, require additional toxicity testing of a chemical prior to listing on the Product

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<sup>1</sup> This petition addresses the addition of dispersants, surface washing agents, surface collecting agents, miscellaneous oil spill control agents, and mixed products to the NCP Product Schedule. This petition does not address bioremediation agents, burning agents, and sorbents, which are either not on the Product Schedule or may raise distinct safety and environmental concerns.

Schedule, and require public disclosure of a product's ingredients as a condition of placement on the Product Schedule.<sup>2</sup>

The country's recent experience with the Deepwater Horizon oil disaster demonstrates the inadequacy of current regulations. Approximately 1.84 million gallons of dispersants were applied – 1.07 million gallons on the surface and 771,000 gallons subsea,<sup>3</sup> with scant knowledge of their toxicity and the potential hazards of using this unprecedented volume and subsea method of application. The Federal On-Scene Coordinator (FOSC) authorized the near-daily release of dispersants into the marine environment without knowledge of how long these dispersants persist, whether they bio-accumulate in organisms, whether they have chronic sub-lethal impacts, or whether they behave differently when applied below the ocean surface as opposed to on the surface.

As you suggested in remarks in May, "Toxicity testing and review is not something that can be done quickly and on the fly." Lisa Jackson, Administrator, Env'tl. Prot. Agency, Remarks at Press Briefing (May 12, 2010), <http://www.restorethegulf.gov/release/2010/05/18/transcript-press-briefing-may-12>. Yet, in the Gulf, the FOSC and EPA were forced to act on the fly – making decisions without adequate information and scrambling to pull together toxicity testing – because of the paucity of toxicity data and ingredient information and the lack of criteria delineating safe use of chemicals on the Product Schedule. EPA has both the authority and the duty to ensure a greater level of preparedness.

**I. Current regulations fail to establish toxicity criteria, fail to require adequate toxicity testing, and do not require public disclosure of ingredients for products on the NCP Product Schedule.**

Section 311(d)(2)(G) of the Clean Water Act requires the President to prepare and publish a National Contingency Plan that includes, among other things, a schedule identifying (1) "dispersants, other chemicals, and other spill mitigating devices and substances, if any, that may be used in carrying out the Plan," (2) "the waters in which such dispersants, other chemicals, and other spill mitigating devices and substances may be used," and (3) "the quantities of such dispersant, other chemicals, or other spill mitigating device or substance *which can be used safely* in such waters." 33 U.S.C. § 1321(d)(2)(G) (emphasis added). Responsibility for the schedule was delegated to EPA. Exec. Order No. 12,777, 56 Fed. Reg. 54,757 (Oct. 18, 1991). EPA promulgated regulations to "make[] provisions for such a schedule" in Subpart J of the NCP. 40 C.F.R. § 300.900(a).

Under Subpart J, dispersants are required to meet a certain level of effectiveness to be listed on the Product Schedule, and non-dispersant chemicals need not demonstrate any effectiveness. None of the chemicals have to meet any toxicity criteria to be listed. This

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<sup>2</sup> The signatories are non-profit public interest advocacy organizations that seek to improve contingency planning for dispersant use. Please find a brief description of the undersigned organizations in the Appendix.

<sup>3</sup> *Operations and Ongoing Response July 22, 2010*, RESTORETHEGULF.GOV, <http://www.restorethegulf.gov/release/2010/07/22/operations-and-ongoing-response-july-22-2010> (last visited Oct. 12, 2010).

regulatory approach merely seeks “to provide baseline data for comparison of products on a national basis.” National Oil and Hazardous Substances Pollution Contingency Plan, 59 Fed. Reg. 47,384, 47,411 (Sept. 15, 1994) (codified at 40 C.F.R. pts. 9,300). EPA even emphasizes that “[t]he listing of a product on the Product Schedule does not mean that EPA approves . . . the use of that product . . . rather, the listing of a product means only that data have been submitted to EPA as required by Subpart J of the NCP.” *Id.* at 47,407. This approach led to the recent scenario in which EPA found itself scrambling to conduct toxicity tests after dispersants were already being applied in near record amounts.<sup>4</sup>

In accordance with Subpart J, “[a] dispersant must attain an effectiveness value of 45 percent or greater to be added to the NCP Product Schedule.” 40 C.F.R. § 300.915(a)(7). The regulations describe the Swirling Flask Dispersant Effectiveness Test that manufacturers must perform to ascertain a product’s effectiveness value. *See* 40 C.F.R. Pt. 300 App. C § 2.0. Only dispersants that have an effectiveness value of 45 percent or greater are then tested for toxicity.<sup>5</sup> In contrast to the effectiveness threshold, however, the regulations establish no criteria for toxicity and require only the submission of documentation that certain toxicity tests were performed:

*Dispersant Toxicity.* For those dispersants that meet the effectiveness threshold . . . , use the standard toxicity test methods described in appendix C to part 300. Manufacturers shall submit test results and supporting data, along with a certification signed by responsible corporate officials of the manufacturer and laboratory stating that the test was conducted on a representative product sample, the testing was conducted using generally accepted laboratory practices, and they believe the results to be accurate.

*Id.* § 300.915(a)(8). The Revised Standard Dispersant Toxicity Test described in Appendix C, applicable to dispersants and other products, involves exposing two species, silversides and mysid shrimp, to varying concentrations of the test product, both by itself and mixed with oil, to determine mortality rates at the end of 96 hours for silversides and 48 hours for mysid shrimp. *Id.* App. C § 3.1.<sup>6</sup> EPA reserves the right to verify test results; *id.* § 300.920(a)(2), but ultimately the level of toxicity is irrelevant to EPA’s decision to add a chemical to the Product Schedule.

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<sup>4</sup> *See* Lisa Jackson, Administrator, Env’tl. Prot. Agency, Remarks at Press Conference 3-5 (May 24, 2010) [hereinafter Lisa Jackson May 24 Remarks], <http://www.epa.gov/bpspill/dispersants/transcript-may24.pdf> (concerns about unknowns led EPA to direct BP to examine alternative dispersants and to reduce the amount of dispersants being applied, and ultimately led EPA to perform its own scientific studies of the dispersant being used and alternatives).

<sup>5</sup> The regulations establish a standard of effectiveness for dispersants but set no such threshold for the listing of non-dispersant chemicals, such as surface washing agents, surface collecting agents, miscellaneous oil spill control agents, or mixed products. *Compare* 40 C.F.R. § 300.915(a), *with id.* §§ 300.915(b), (c), (f), (h). These chemicals therefore are tested for toxicity, but not effectiveness, as a requirement for listing on the schedule.

<sup>6</sup> Appendix C’s summary of the test method states: “The standard toxicity test for dispersants and other products involves exposing two species (*Menidia beryllina* (silversides) and *Mysidopsis bahia* (mysid shrimp)) to five concentrations of the test product and No. 2 fuel oil alone and in a 1:10 mixture of product to oil. To aid in comparing results from assays performed by different workers, reference toxicity tests are conducted using dodecyl sodium sulfate (DSS) as a reference toxicant. The test length is 96 hours for *Menidia* and 48 hours for *Mysidopsis*. LC<sub>50</sub>s are calculated based on mortality data at the end of the exposure period . . . .” 40 C.F.R. Pt. 300 App. C § 3.1. A product’s LC<sub>50</sub> value denotes the concentration at which the product is lethal to 50% of the test population.

In addition to meeting the 45% effectiveness standard and submitting results from the Appendix C toxicity testing, manufacturers are required to provide technical product data. Slightly different data requirements are mandated for dispersants (§ 300.915(a)), surface washing agents (§ 300.915(b)), surface collecting agents (§ 300.915(c)), other miscellaneous oil spill control agents (§ 300.915(f)), and mixed products (§ 300.915(h)), but generally the required product data include the contact information of the manufacturer, vendor, and primary distributors; special handling and worker precautions for storage and application; shelf life; recommended application procedures, concentrations and conditions for use; and components.<sup>7</sup>

The submission of a product's "components" requires the manufacturer to "[i]temize by chemical name and percentage by weight each component of the total formulation" and to "identify the major components in at least the following categories: surface active agents, solvents, and additives." *Id.* § 300.915(a)(10), (b)(9), (c)(10), (f)(10). Significantly, however, "[t]he submitter may assert that certain information in the technical product data submissions . . . is confidential business information." *Id.* § 300.920(c). Fifteen of the 18 dispersants currently listed on the schedule fail to disclose at least some ingredients on the basis of a claim that the ingredients are CBI. *See* NAT'L CONTINGENCY PLAN PRODUCT SCHEDULE, [http://www.epa.gov/osweroe1/content/ncp/product\\_schedule.htm](http://www.epa.gov/osweroe1/content/ncp/product_schedule.htm) (last visited Oct. 11, 2010).<sup>8</sup>

Given the limited nature of the toxicity testing and information required by EPA and the lack of any toxicity criteria for placement on the schedule, the Product Schedule is of limited utility in guiding decision-makers and informing the public. EPA publishes the Product Schedule online, in both a web and PDF version. The web version identifies each product and its type (dispersant, bioremediation agent, surface washing agent, or miscellaneous oil spill control agent). *Id.* The name of each product is then linked to a page that contains the data submitted for listing of that product, including contact information of the manufacturer, special handling precautions, shelf life, recommended application procedures, and so on. The toxicity information consists of the LC<sub>50</sub> values for silversides and mysid shrimp for the product alone, for No. 2 fuel oil alone, for a mixture of the product and No.2 fuel oil, and for a control toxicant. The PDF format of the Product Schedule is comprised of a table that identifies the bulletin number, product type, product name, submitter, and dates listed or relisted, and does not contain the submitted product information. EPA, *National Contingency Plan Product Schedule* (Oct. 2010), <http://www.epa.gov/osweroe1/docs/oil/ncp/schedule.pdf>. A separate PDF contains a compilation of product bulletins that include the data submissions and test results for each listed chemical. EPA, *NCP Product Schedule Technical Notebook* (Oct. 2010), <http://www.epa.gov/osweroe1/docs/oil/ncp/notebook.pdf>. Neither the web nor PDF version of the Product Schedule provide information about the quantities of each product that can be used

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<sup>7</sup> To add non-dispersant chemicals, specifically surface washing agents, surface collecting agents, and miscellaneous oil spill control agents to the Product Schedule, a manufacturer is required to submit results from the Appendix C toxicity testing, *see id.* §§ 300.915(b)(7), (c)(7), (f)(8), as well as the technical product data specified in § 300.915. For these chemicals for which an effectiveness threshold does not apply, "[i]f EPA determines that the required data were submitted, EPA will add the product to the Schedule." *Id.* § 300.920(b)(1).

<sup>8</sup> These figures are based on the web version of the Product Schedule. The PDF version of the Product Schedule identifies only 14 dispersants. *See* EPA, *National Contingency Plan Product Schedule* (Oct. 2010), <http://www.epa.gov/osweroe1/docs/oil/ncp/schedule.pdf>.

safely or data about potential risks to health and the environment associated with use of the chemicals.

The Product Schedule's failure to provide such information has serious ramifications because once on the schedule, a chemical can be selected for use without further toxicity testing or knowledge of its effects. Under Subpart J, regional response teams (RRTs) and Area Committees are required to design "preauthorization plans" as appropriate, which address the contexts in which products on the schedule "should and should not be used." 40 C.F.R. § 300.910(a). Preauthorization plans approved by EPA representatives to the RRT, states with jurisdiction over the relevant waters, and the Department of Commerce and Department of Interior natural resource trustees, become incorporated into regional and area contingency plans, and use of dispersants in accordance with the plan proceeds without further approval when an oil spill occurs. *Id.* For spill situations not addressed by a preauthorization plan, the FOSC is required to seek concurrence from the EPA representative to the RRT and the RRT representatives from states with jurisdiction over the relevant waters before authorizing the use of any chemical on the Product Schedule, and such consultation occurs on a very short timetable. *Id.* § 300.910(b). Products *not* on the schedule can be used only where a threat to human life exists. *Id.* § 300.910(d).

In short, under the current regulatory framework, the Product Schedule conveys little or no information about a product's ingredients, potential toxic effects, or criteria for safe use. Despite this lack of information and guidance, any chemical on the schedule can be preauthorized or approved for use.

## **II. EPA has the authority to promulgate regulations that establish toxicity criteria, require more toxicity testing, and require public disclosure of ingredients for products on the NCP Product Schedule.**

The President's delegation to the EPA of the authority to prepare the Product Schedule as part of the National Contingency Plan is complete and unfettered. Exec. Order No. 12,777 § 8(b), 56 Fed. Reg. 54,757, 54,768 (Oct. 18, 1991). The Clean Water Act explicitly calls for a safety determination, mandating that the Product Schedule identify "the quantities of such dispersant, other chemical, or other spill mitigating device or substance *which can be used safely*" in identified waters. 33 U.S.C. 1321(d)(2)(G)(iii) (emphasis added). This statutory language requires safety criteria, and, by necessity, toxicity testing and product information to make the safety determination.

Congress intended for EPA to exercise judgment in listing products on the schedule to minimize the potential harmful effects of such products on health and the environment. The conference report leading to the Oil Pollution Act of 1990 indicated: "In preparing the schedule found in paragraph (G) the President should consider the *long- and short-term effects on the environment* of spill mitigating devices and substances, and select those *which are least harmful to the environment.*" H.R. CONF. REP. NO. 101-653, at 45 (1990), *reprinted in* 1990 U.S.C.C.A.N. 779, 826 (emphasis added). This congressional intent precisely aligns with Petitioners' request – that EPA require toxicity testing and ingredient disclosure to help

determine the impacts of the dispersants and that EPA establish criteria for safe use based on this information.

Additionally, the Oil Pollution Act required the establishment of an oil pollution research and development program that would include “research, development, and demonstration of new or improved systems of mechanical, chemical, biological, and other methods (including the use of dispersants, solvents, and bioremediation) . . . , including evaluation of the environmental effects of the use of such systems.” 33 U.S.C. § 2761(c)(2)(C). Significantly, the conference report on the bill noted with respect to this provision that “[r]esearch conducted under subsection (c)(2)(C) to evaluate the environmental effects of the use of dispersants should include comparisons among different types of dispersants . . . . The Conferees intend that the results of these comparisons *should be considered in the development of schedules as required in the National Contingency Plan.*” H.R. CONF. REP. NO. 101-653, 1990 U.S.C.C.A.N. at 845 (emphasis added). EPA’s authority to establish toxicity criteria to protect safety and to require toxicity testing as part of the listing process is therefore consistent with statutory purpose and well-supported by the legislative history.

In fact, this interpretation of EPA’s mandate is consistent with EPA’s own understanding of its authority to require testing and to set criteria for products on the schedule. In promulgating Subpart J, EPA cited as its authority § 311(d) of the Clean Water Act and the executive order delegating authority to the EPA. *See* 59 Fed. Reg. at 47,384. Under this authority, EPA developed the test methods described in Appendix C to Part 300. For instance, “[t]he Agency [] believe[d] that testing the oil alone, as well as the oil and dispersant mixture, w[ould] provide useful data,” so EPA designed the toxicity test method to require both testing of No. 2 fuel oil alone and an oil-dispersant mixture. *Id.* at 47,412. Additionally, EPA interprets its authority to extend beyond the power to establish the limited test methods mandated by current regulations. In response to a comment on the proposed rule, for instance, EPA acknowledged that “the development and use of an alternate dispersant toxicity test for freshwater environments is a valid consideration,” and noted that it was “currently considering the development of a complementary dispersant toxicity test for freshwater environments.” *Id.* at 47,411. Despite its shortcomings, then, the current regulations requiring limited toxicity testing demonstrate EPA’s understanding of its broad authority to determine which tests must be performed.

Current regulations also are consistent with the position that EPA has authority to establish listing criterion – an authority it exercised to establish the 45% effectiveness threshold for dispersants. EPA’s decision to establish a threshold for effectiveness but not toxicity was based on a substantive determination made in 1994, not a limitation on its delegated jurisdiction. *See id.* at 47,414 (noting that EPA’s decision to establish a threshold for effectiveness but not toxicity reflected its belief that “establishing the 50 percent (plus or minus 5 percent) effectiveness criterion is the best approach for listing dispersants on the Product Schedule”). In other words, EPA has the authority to establish acceptability criterion for toxicity, but previously chose not to do so when promulgating the Subpart J regulations.<sup>9</sup>

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<sup>9</sup> EPA not only has the authority but also the non-discretionary duty to identify the waters in which dispersants can be used and the quantities that can be used safely. *See* 33 U.S.C. § 1321(d)(2)(G). Petitioners are simultaneously filing a 60-day notice of their intent to sue under the Clean Water Act, seeking EPA compliance with its obligation to set safety criteria.

### III. EPA should exercise its full authority in preparing the NCP Product Schedule to guide the safe use of dispersants and other chemicals.

EPA acknowledges “that Congress’ primary intent in regulating products under the NCP Product Schedule is to *protect the environment* from possible deleterious effects caused by the application or use of these products.” *Id.* at 47,406-07 (emphasis added). Yet, Subpart J, far from ensuring protection of the environment, has perpetuated shocking gaps of information about the chemicals on the Product Schedule. In promulgating Subpart J, EPA responded to comments raising concerns about the inadequacy of the test methods by pointing to § 300.910(f), which authorizes RRTs to “require the performance of supplementary toxicity and effectiveness testing of products.” 40 C.F.R. § 300.910(f); *see* 59 Fed. Reg. at 47,409. EPA noted that RRTs “might require,” for instance, testing of a type of oil not specified in Appendix C or testing of “an invertebrate species other than that specified in Appendix C.” 59 Fed. Reg. at 47,409. EPA also decided not to establish toxicity criteria so as to provide flexibility for on-the-ground decisions, noting its belief “that providing the acute toxicity data specified by Appendix C to OSCs, RRTs, and Area Committees is sufficient to allow for environmentally protective authorization and preauthorization decisions on product use.” *Id.* at 47,411.

Unfortunately, recent experience in the Gulf has proven EPA’s belief tragically unfounded and its approach grossly inadequate. First, there is no evidence that RRTs require supplementary toxicity testing when developing dispersant preauthorization plans. Second, where preauthorization plans do not address a particular spill situation and on-scene coordinators must make quick decisions to authorize the use of dispersants, chemicals listed on the Product Schedule are selected for use without further testing. In short, reliance on down-the-pipe supplemental testing of products listed on the schedule amounts to little or no additional toxicity testing before these products are used. Given the limited testing required in the first place, EPA consequently fails to have safeguards in place to ensure that dispersants will not be authorized for use that are more toxic than oil alone or that are less effective and more toxic when used subsea.

The National Research Council, which has issued multiple calls for more research on dispersants,<sup>10</sup> has noted that dispersants do not reduce the amount of oil entering the environment but instead disperse the oil into the water column. *See* NAT’L RESEARCH COUNCIL, OIL SPILL DISPERSANTS: EFFICACY AND EFFECTS 2 (2005). The use of dispersants therefore “requir[es] risk-based decisionmaking,” *id.* at 10, and it is crucial for decision-makers to understand the trade-offs:

Dispersant application . . . represents a conscious decision to increase the hydrocarbon load (resulting from a spill) on one component of the ecosystem (e.g., the water column) while reducing the load on another (e.g., coastal wetland). Decisions to use dispersants, therefore, involve trade-offs between decreasing the risk to water surface and shoreline habitats while increasing the potential risk to organisms in the water column and on the seafloor.

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<sup>10</sup> NAT’L RESEARCH COUNCIL, OIL SPILL DISPERSANTS: EFFICACY AND EFFECTS (2005); NAT’L RESEARCH COUNCIL, USING OIL SPILL DISPERSANTS ON THE SEA (1989).

*Id.* at 2. Congress intended for the Product Schedule to guide decision-making and consideration of these trade-offs by requiring the schedule to set forth the quantities at which dispersants and other chemicals can be used safely, *see* 33 U.S.C. § 1321(d)(2)(G)(iii). Without these safety determinations for chemicals on the schedule, and the toxicity testing and product information that necessarily underlie such determinations, RRTs and FOSCs lack critical information on which to plan and make decisions.

In the Gulf oil disaster, the minimal information derived from Subpart J's toxicity test methods and data requirements and the presence on the Product Schedule of chemicals with acute toxicity demonstrated only under extremely limited test conditions, translated into a host of environmental unknowns.<sup>11</sup> Dispersants were used in the midst of tremendous uncertainty. For instance, the behavior of the dispersed oil mixture at depth is unknown. The subsequent discovery of "a shocking amount of oil in the deep water" is only one example of the many unknowns now being played out in the aftermath of dispersant use. Justin Gillis, *Giant Plumes of Oil Forming Under the Gulf*, N.Y. TIMES, May 15, 2010, <http://www.nytimes.com/2010/05/16/us/16oil.html>. Studies also have found large swathes of oil droplets settled on the ocean floor as far east as 40 miles of the Florida Panhandle, where organisms are showing a "strong toxic response," which may have been caused by dispersants. Ed Lavandera & Rich Phillips, *Gulf Oil Traces Spread East On Sea Floor, Researchers Say*, CNN, Aug. 16, 2010, [http://articles.cnn.com/2010-08-16/us/gulf.oil.environment\\_1\\_dispersants-deepwater-horizon-spill-oil?\\_s=PM:US](http://articles.cnn.com/2010-08-16/us/gulf.oil.environment_1_dispersants-deepwater-horizon-spill-oil?_s=PM:US). Further discoveries confirm that a "substantial layer of oily sediment" cover the floor of the Gulf for dozens of miles. Richard Harris, *Scientists Find Thick Layer of Oil on Seafloor*, NPR, Sept. 10, 2010, <http://www.npr.org/templates/story/story.php?storyId=129782098>.

Moreover, the dispersants' suspension of oil droplets in the water column has unknown effects on marine organisms. Scientists suspect that such submerged oil may lead to lethal impacts on generations of filter-feeding organisms in the Gulf. *See* Ryan Dezember, *Experts: Submerged Oil Threatens Organisms*, PRESS-REGISTER, Aug. 28, 2010, [http://blog.al.com/live/2010/08/experts\\_submerged\\_oil\\_threaten.html](http://blog.al.com/live/2010/08/experts_submerged_oil_threaten.html). The dispersant-oil mixture also may have triggered fish kills affecting organisms throughout the water column. *See* Dahr Jamail, *Fish Kills Worry Gulf Scientists, Fishers, Environmentalists*, INTER PRESS SERV., Aug. 26, 2010, <http://www.ipsnews.net/news.asp?idnews=52627>. Additionally, the extent of the dispersants' effect on organisms in the food chain is unknown. Preliminary studies show signs of hydrocarbons in the larvae of blue crabs, a key plankton, that may be the result of dispersed oil – a "worrying sign that the spill is affecting the reproductive cycles of a number of plankton species at the base of the Gulf's food web." Bill Sasser, *Gulf Oil Spill to Blame for Oily Blobs in Vital Gulf Sea Life?*, CHRISTIAN SCI. MONITOR, Aug. 24, 2010, <http://www.csmonitor.com/Environment/2010/0824/Gulf-oil-spill-to-blame-for-oily-blobs-in-vital-Gulf-sea-life>. The lack of transparency about the ingredients of dispersants also has caused tremendous uncertainty. Medical personnel treating cleanup workers for symptoms that might have been caused by dispersant exposure were hindered by this lack of knowledge. *See* Elana Schor, *Ingredients to Controversial Dispersants Used on Gulf Spill Are Secrets No More*, N.Y.

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<sup>11</sup> *See* Lisa Jackson May 24 Remarks 3 ("We are still deeply concerned about the things we don't know. The long-term effects on aquatic life are still unknown, and we must make sure that the dispersants that are used are as non-toxic as possible.").



TIMES, June 9, 2010, <http://www.nytimes.com/gwire/2010/06/09/09greenwire-ingredients-of-controversial-dispersants-used-42891.html>. Moreover, without knowledge of the ingredients, researchers were unable to ascertain fully the potential safety and health effects of the dispersants. *See id.*

These unknowns prompted EPA to release the full list of ingredients for the two dispersants used in the Gulf, *id.*, and to conduct belated and limited testing “to determine the least toxic, most effective dispersant available,” Lisa Jackson May 24 Remarks 4.<sup>12</sup> The public disclosure of ingredients and additional toxicity testing provided some of the information that the Product Schedule should have made available in advance of the disaster. Instead, EPA disclosed the ingredients of the dispersants, COREXIT EC9500A and COREXIT EC9527A, after more than 1 million gallons had been sprayed in the Gulf, results from the first phase of EPA testing were released two months after dispersant use had already begun, and results from the second phase of testing were published weeks after dispersant use had largely halted. Quite clearly, contrary to EPA’s belief in promulgating Subpart J, “providing the acute toxicity data specified by Appendix C to OSCs, RRTs, and Area Committees” was *not* “sufficient to allow for environmentally protective authorization and preauthorization decisions on product use.” *See* 59 Fed. Reg. at 47,411.

#### **IV. Petitioners request that EPA promulgate regulations that establish toxicity criteria, require more toxicity testing, and require public disclosure of ingredients for products on the NCP Product Schedule.**

Current requirements for acute toxicity testing and data submission do not begin to capture essential data for dispersants and other chemicals on the Product Schedule, such as how long they persist, whether they bio-accumulates in organisms, whether they have chronic sub-lethal impacts, whether their toxicity varies with temperature, type of oil, or water pressure, or even their chemical ingredients. EPA should require a more robust suite of toxicity tests to determine their effects, and should use information obtained from these tests to establish toxicity criteria that delineate their safe use.<sup>13</sup> EPA should further require that a product’s ingredients be fully disclosed to the public as a condition of listing on the Product Schedule.

<sup>12</sup> In its supplemental testing, EPA performed the Subpart J acute toxicity tests using Louisiana Sweet Crude rather than the No. 2 fuel oil tested under Subpart J, determined potential endocrine disruption effects, and used *in vitro* assays to assess the cytotoxicity of various dispersants. *See EPA’s Toxicity Testing of Dispersants*, EPA RESPONSE TO BP SPILL IN THE GULF OF MEXICO, <http://www.epa.gov/bpspill/dispersants-testing.html> (last visited Oct. 12, 2010).

<sup>13</sup> Petitioners applaud the Administration’s efforts to seek funds that will support research regarding “the short and long term implications to the environment and public health associated with the spill and the application, surface and undersea, of dispersants.” *Hearing on Use of Dispersants in Response to the Oil Spill Before the Subcomm. on Commerce, Justice, Sci., and Related Agencies of the S. Comm. on Appropriations*, 111th Cong. (2010) (statement of Lisa Jackson, Administrator, Env’tl. Prot. Agency), <http://yosemite.epa.gov/opa/admpress.nsf/0/571400992A5345A58525776100509550>. EPA’s intent to “pursue an aggressive research agenda over time which will address the mechanisms of environmental fate, effects, and transport of the application of dispersants,” “assess[] the risks to human health from exposure to chemical dispersants and chemically-dispersed oil mixtures,” and “increas[e] our understanding of chemical dispersants and dispersed oil, including its toxicity over a broad range of aquatic and terrestrial ecosystems and species” is commendable. *Id.* However, such a research program, the long-term goal of which should be the development of

The whole effluent toxicity (WET) test methods that EPA implements under the Clean Water Act's National Pollution Discharge Elimination System to measure the effects of wastewater on organisms are a helpful model and starting point for designing enhanced toxicity testing under NCP Subpart J. The WET methods estimate chronic toxicity to organisms through six tests that last from one hour to nine days. *See* 40 C.F.R. § 136.3 (2010); *see also Short-Term Methods For Estimating the Chronic Toxicity of Effluents and Receiving Water to Marine and Estuarine Organisms*, EPA WHOLE EFFLUENT TOXICITY, [http://water.epa.gov/scitech/swguidance/methods/wet/disk1\\_index.cfm](http://water.epa.gov/scitech/swguidance/methods/wet/disk1_index.cfm) (last visited Oct. 12, 2010). These tests for chronic effects observe larval survival and growth, embryo-larval survival and teratogenicity, growth and fecundity, and fertilization. *See id.* The additional testing that EPA performed after the Gulf Coast disaster – to determine endocrine disruption and cytotoxicity – are also indicative of important information that should be known in advance of dispersant use and should be included in the required suite of testing for manufacturers seeking to list products on the Product Schedule.

These additional test methods and the existing Subpart J test method should be performed using a greater variety of inputs, including testing of additional species, different types of oil, and varying concentrations, temperatures, and pressures of seawater. Tests should provide sufficient information to ensure that dispersants are used only when the oil-dispersant mix would be less toxic than oil alone. Testing therefore should be performed on a representative sample of species and the full range of conditions under which dispersants and other products might be used. For instance, while the WET method tests plants, vertebrates, and invertebrates, Subpart J currently tests only vertebrates (silversides) and invertebrates (mysid shrimp). Revised regulations should require testing of an algal species as well. Particularly sensitive, at-risk organisms, such as coral, also should be tested because a dispersant's effects on these organisms must inform the trade-off that decision-makers consider. *See Hearing on Deepwater Horizon: Oil Spill Prevention and Response Measures, and Natural Resource Impacts Before the H. Comm. on Transp. and Infrastructure*, 111th Cong. (2010) (testimony of Carys L. Mitchelmore, Ph.D., Assoc. Professor, Univ. of MD Ctr. For Env'tl. Sci.), [http://www.umces.edu/sites/default/files/cbl/mitchelmore\\_testimony\\_051910.pdf](http://www.umces.edu/sites/default/files/cbl/mitchelmore_testimony_051910.pdf). Given that dispersants may be applied subsea, species residing at various levels of the water column should be tested as well. Additionally, as BP and EPA's rushed testing of dispersants on Louisiana Sweet Crude Oil demonstrates, toxicity tests need to be performed using a variety of oils besides the No. 2 fuel oil currently tested. A particular dispersant's interaction with a specific type of oil is the type of information that can and should be determined in advance of a spill response.<sup>14</sup> These tests also should be performed using varying concentrations, temperatures, and pressures of seawater to mimic real-world conditions to the extent possible. The additional testing of sublethal impacts and additional inputs will produce a matrix of numerous data points for each

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non-toxic or minimally toxic dispersants, is merely complementary to, and no substitute for the rulemaking requested in this Petition. Although research is necessary to increase our understanding of the impacts of these chemicals, the establishment of criteria for safe use of individual products, careful testing of these products, and public disclosure of individual product ingredients are critical for ensuring the safe use envisioned by the National Contingency Plan.

<sup>14</sup> The effectiveness testing outlined in Appendix C to Subpart J uses two test oils, Prudhoe Bay and South Louisiana crude, in contrast to the No. 2 fuel oil used in the toxicity testing. *See* 40 C.F.R. Pt. 300 App. C § 2.3.2.

chemical product, which can then inform EPA's establishment of toxicity criteria to guide the safe use of the chemical.<sup>15</sup>

Additionally, EPA should require manufacturers to agree to make public a chemical's complete ingredient list as a condition of placement on the Product Schedule. Oil spill responders, medical personnel, affected communities, and independent scientists have a right to know the ingredients of the chemicals with which they come into contact and the potential health and safety risks associated with the chemical ingredients. Under current regulations, EPA has permitted manufacturers seeking listing on the Product Schedule to assert claims of CBI, *see* 40 C.F.R. § 300.920(c), thereby shielding critical product information from the public eye. This regulatory approach withholds valuable information from the public and consequently jeopardizes medical response efforts and scientific research. Subpart J should be amended to provide notice that public disclosure is a condition for placement on the Product Schedule. Going forward, manufacturers seeking to obtain the benefit of listing on the NCP Product Schedule must agree to make public a complete list of the ingredients of their product.<sup>16</sup>

## V. Conclusion

The damage in the Gulf has already been done. Nearly two million gallons of dispersants with essentially unknown environmental effects have been released into the waters. In remarks to the Senate Subcommittee on Commerce, Justice, Science and Related Agencies in July, you acknowledged that “[a]s we emerge from this response, . . . we need to revisit the contingency plans and the product schedule that preauthorize dispersant use.” *Webcast of Hearing on Use of Dispersants in Response to the Oil Spill Before the Subcomm. on Commerce, Justice, Sci., and Related Agencies of the S. Comm. on Appropriations*, U.S. SENATE COMM. ON APPROPRIATIONS HEARINGS AND TESTIMONY (July 15, 2010), <http://appropriations.senate.gov/ht-commerce.cfm?method=hearings.view&id=6a4c1492-802a-4df7-bfae-0c42c031bdf9> (at approximately 35:30 minutes). Petitioners request that EPA do just this.

A regulatory system that permits the application of chemical products in the ocean *before* it is known how they will affect the ocean environment clearly needs to be addressed, and EPA has the authority to repair this dysfunction. Petitioners request that EPA exercise this authority and prevent future situations like the one faced in the Deepwater Horizon disaster – by requiring additional and expanded toxicity testing, by establishing toxicity criteria for the safe use of

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<sup>15</sup> Where all data obtained from toxicity testing demonstrates greater toxicity than oil alone, EPA should of course consider not listing the chemical on the Product Schedule at all or placing restrictions on its use.

<sup>16</sup> Strong policy considerations favor disclosure of health and safety information about chemicals, including chemical identity. *See, e.g.*, 15 U.S.C. § 2613(b) (2006) (excluding health and safety studies of chemicals from restrictions on disclosure under the Toxic Substances Control Act, with only narrow exceptions). Indeed, information obtained by EPA that otherwise is exempt from disclosure under the Toxic Substances Control Act “shall be disclosed if the Administrator determines it necessary to protect health or the environment against an unreasonable risk of injury to health or the environment.” *Id.* § 2613(a)(3). To ensure the availability of timely information, Petitioners propose that EPA make disclosure of the ingredients a condition of placement on the Product Schedule rather than allowing claims of CBI and carrying the burden of reviewing such claims on a case-by-case basis.

dispersants and other chemicals on the NCP Product Schedule, and by requiring full public disclosure of a chemical's ingredients as a condition for listing on the NCP Product Schedule.

Respectfully submitted,



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On behalf of Signatory Organizations

## Appendix Signatory Organizations

### **Alaska Community Action on Toxics**

505 West Northern Lights Blvd, Suite 205  
Anchorage, Alaska 99503  
(907) 222-7714

Alaska Community Action on Toxics (ACAT) is a statewide non-profit environmental health research and advocacy organization dedicated to protecting environmental health and achieving environmental justice. *See* <http://www.akaction.org/>. The mission of ACAT is to assure justice by advocating for environmental and community health. ACAT protects the rights to clean air, clean water, and toxic-free food, and works to ensure the community's right-to-know, to achieve policies based on the precautionary principle, and to eliminate the release of toxic chemicals that may harm human health or the environment, including dispersants.

### **Cook Inletkeeper**

P.O. Box 3269  
Homer, AK 99603  
(907) 235-4068 x22

Cook Inletkeeper is a community-based non-profit public interest organization that combines advocacy, education and science toward its mission to protect Alaska's Cook Inlet watershed and the life it sustains. *See* <http://www.inletkeeper.org/>. Cook Inletkeeper's monitoring and science work, together with its education and advocacy efforts, are directed to ensure a vibrant and healthy Cook Inlet watershed necessary to support abundant fish and wildlife and strong local communities. After the use of dispersants in the Exxon Valdez oil spill response, Cook Inletkeeper has a deep interest in ensuring careful and safe use of dispersants going forward.

### **Florida Wildlife Federation**

P.O. Box 6870  
Tallahassee, FL 32314  
(850) 656-7113

Florida Wildlife Federation, Inc. is a statewide non-profit conservation and education organization with approximately 13,000 members throughout Florida. *See* <http://www.fwfonline.org/Index.htm>. The organization's mission includes the preservation, management, and improvement of Florida's marine resources, and the Federation acts on behalf of its members to protect Florida's water resources and the animals that use those waters as habitat. Members of the Federation use and enjoy Gulf Coast waters for commercial fishing and recreation and have a strong interest in protecting these waters to ensure continued safe use.

### **Gulf Restoration Network**

P.O. Box 2245  
New Orleans, LA 70176  
(504) 525-1528

Gulf Restoration Network, Inc. (GRN) is a non-profit network of local, regional, and national groups and individuals dedicated to protecting and restoring the natural resources of the Gulf of

Mexico. See <http://healthygulf.org/>. GRN has been actively involved in monitoring and educating the public about the environmental effects of the BP Deepwater Horizon oil spill and cleanup efforts. As a part of this work, GRN seeks to ensure that cleanup workers, citizens, and officials have information on the ingredients and human health and environmental impacts of the dispersants that were used and are available for use in the Gulf of Mexico.

### **Louisiana Shrimp Association**

P.O. Box 1088  
Grand Isle, LA 70358  
(504) 952-4368

Louisiana Shrimp Association (LSA) is a statewide non-profit trade association of commercial shrimp fishermen and related businesses dedicated to protecting and promoting the Louisiana and domestic commercial shrimp industry and Louisiana's historic fishing community culture and heritage. See <http://www.louisianashrimp.org/>. LSA's members earn a living from the Gulf of Mexico and coastal inland waters and depend on the Gulf's marine ecosystem and shrimp populations. Having been severely impacted by the BP oil disaster, LSA's members have a strong interest in ensuring the safe use of chemical dispersants in response to future oil disasters.

### **Sierra Club**

85 Second Street, 2nd Floor  
San Francisco, CA 94105  
(415) 977-5500

Sierra Club is a non-profit, environmental grassroots membership organization comprised of 1.3 million members and supporters. See <http://www.sierraclub.org/>. It is dedicated to protecting wild places, promoting responsible use of ecosystems and resources, and educating communities to protect and restore the quality of the natural and human environment. In the aftermath of the Gulf oil spill disaster, Sierra Club has been actively working to ensure speedy and efficient cleanup and to ensure greater preparedness for and prevention of future oil disasters.

### **Waterkeeper Alliance**

50 S. Buckhout, Suite 302  
Irvington, NY 10533  
(914) 674-0622

Waterkeeper Alliance is a non-profit international coalition of grassroots environmental advocates comprised of nearly 200 local Waterkeeper organizations, including a significant presence in the Gulf of Mexico where seven programs fight daily for a clean and healthy Gulf. See <http://www.waterkeeper.org/>. These programs include the Apalachicola Riverkeeper, Atchafalaya Basinkeeper, Emerald Coastkeeper, Galveston Baykeeper, Louisiana Bayoukeeper, Lower Mississippi Riverkeeper and Mobile Baykeeper. With its commitment to local communities' right to clean water and vision of fishable, swimmable, and drinkable waterways, Waterkeeper has a strong interest in ensuring the careful and safe use of dispersants.