

*IF YOU ARE CONCERNED
FOR THE HEALTH AND
WELFARE OF FAMILY,
FRIENDS AND COMMUNITY
AT LARGE PLEASE READ ALL
THIS INFORMATION AND
FORWARD IT TO EVERYONE
AND ANYONE.*

*IT IS A MATTER OF LIFE AND
DEATH*

IS SCIENTIFIC DATA VALID?

Is Scientific Evidence Valid?

Questions and answers have long held a very important place in the process of discovery. Without questions we will not search out answers. Wrong questions will lead to wrong answers. All scientific inquiry is born of a question. In this information age we have a problem. An overload of both questions and answers. Through technology we have access to trillions of facts and opinions. Somewhere in this process we have become overloaded and can no longer seem to sort through those facts to come to a conclusion we deem as relevant and truthful.

The technology of media has trained our thought processes to be like worker bees collecting pollen. We take a little here and a little there and fly quickly from information source to information source. We tend then to accept the truth that is most convenient to our life situation and move on. This tendency has steered us away from diligent due process in research to define a substantial evidential truth. Scientific process has been replaced by quick spin doctoring with words designed to attract my personal consciousness to feed a minute on the information and move on. Unfortunately in this milieu of information we have found truth suffers a deadly blow more often than not. Valid scientific evidence should be the restorer of truthful information by the process of diligent and provable research based on clear and observable evidence. But in the information war for our attention we are again trained to not trust our sources as they may be unduly influenced by such things as politics and money.

But let's ask the first question: Is scientific evidence still a valid means of coming to factual information? Much of that answer depends on how I view the scientific source. One of the largest sources we receive scientific data from is the United States Government. The Government funds and validates or invalidates the largest amount of scientific data we have access to. We have in this

country large scientific communities and institutions federally backed and funded. Simply, do we trust CDC, EPA, FDA, DEP, WHO, or any other 3 to 4 letter institutions who provide scientific data? If we do not trust their evidence and data we have a large problem that needs to be considered. Allegedly we as a collective people have empowered our Government to fund and institute these government entities to care for, police, and provide information to us the people. By means of taxation we the people pay the scientist and lab technicians to do the scientific work to provide us data. Research into any scientific data provided to the people at large will show the United States Government has in some way set the standard of scientific evidence and provided the funds (MONEY) to do the research. This includes all major studies done by Universities and otherwise independent research laboratories. If we do not trust these studies and the validity of their scientific data it is a serious matter. Because we have empowered these institutions to protect the necessities of our health, welfare, and life environment. No one should argue that such things as air, food, water, and all that revolves around that are basic needs for human survival. So we are literally trusting the Government with our life and the lives of everyone we know. If such is the case and we do not trust their findings we should by all means righteously commit the highest acts of Civil Disobedience and demand factual evidence.

I have belabored this point because without this understanding you will refuse to believe the statements I am about to share with you. Statements fully backed by factual evidence supplied by those we have entrusted to protect our health and welfare. I will give the benefit of the doubt and state the reason these evidential facts have not been forwarded and the alarm has not been sounded is simply mismanagement and information overload. I will write the simplicity of this statement in big bright bold letters so your mind does not just skim over it.

WARNING: EXTREME HEALTH ADVISORY

THIS ADVISORY IS ISSUED TO ALL RESIDENTS OF THE GULF OF MEXICO SPECIFICALLY, TO ALL COASTAL AND NON-COASTAL RESIDENTS OF NORTH AND SOUTH AMERICA, TO ALL RESIDENTS OF THE PLANET EARTH IN ALL REGIONS OF EARTH.

WARNING: EXTREME ENVIRONMENTAL HAZARD

IN THE WATERS OF THE GULF OF MEXICO AT DEPTHS OF 700 TO 1,500 METERS 104.1 MILLION GALLONS OF CONCENTRATED CRUDE OIL MIXED WITH SPECIFIED AND UNSPECIFIED TOXIC AND HAZARDOUS MATERIALS IS COVERING 60 PLUS SQUARE MILES OF OCEAN FLOOR. THIS TOXIC OIL MAT HAS CREATED LARGE AREAS OF DEAD ZONES AND IS CURRENTLY RESPONSIBLE FOR THE DEATH OF MILLIONS OR BILLIONS OF FORMS OF MARINE AND AQUATIC LIFE.

WARNING: IMMINENT ENVIRONMENTAL DANGER. INCREASED TOXICITY AND EXPOSURE TO ALL MARINE LIFE TO LIFE THREATENING POISONOUS TOXINS AND BIOHAZARDS. IMMINENT DANGER OF INCREASED TOXICITY AND AIR BORNE AND WATER BORNE EXPOSURE TO ALL

HUMAN LIFE AND LIVING SPECIES
COASTAL AND NON-COASTAL.

**WARNING: EXTREME HUMAN HEALTH
HAZZARD.**

DUE TO THE EMISSION OF TOXIC
MATERIALS AND GASES CONVEYED
LANDWARD BY AIRBORNE TRANSPORT,
WATER TRANSPORT, AND RAIN TRANSPORT
THE FOLLOWING HUMAN HEALTH
HAZZARDS ARE POTENTIAL EFFECTS ON
THE GENERAL POPULACE AND
SPECIFICALLY THOSE WITH PRE-EXISTENT
HEALTH CONDITIONS OR IMMUNE
DEFICENCIES.

**RAPID DISTRIBUTION OF TOXINS TO ALL
TISSUES OF THE BODY VIA THE
BLOODSTREAM**

**RAPID DISTRIBUTION VIA ABSORPTION
THROUGH THE SKIN TO DERMAL LEVELS**

Hemolytic Effects -DUE TO TISSUE AND SKIN ABSORPTION:

The most critical direct effect as the result of exposure will be impact on red blood cells. It causes hemolysis (breakdown of red blood cells) by dissolving the fat in the cell membrane and causing the membrane to break down.

Exposure can cause hematuria (blood in the urine) and blood in the feces. Blood appears in the urine as a result of kidney damage which can eventually lead to kidney failure. It is especially toxic to the spleen, the bones in the spinal column, and bone marrow (where new blood cells are formed) and the liver, where chemicals are detoxified (broken down for easy excretion from the body). Chronic exposure can cause anemia, and lead to insufficient blood supply, cold extremities, and necrosis (a condition basically akin to flesh rot.)

Females may exhibit more sensitivity to fore-stomach necrosis, ulceration, and inflammation occurring at half the dose required to cause the same problems in males. Female fertility may also be significantly reduced due to embryo mortality.

Exposure can cause severe damage to the eye such as retinal detachment, photoreceptor degeneration and occlusion resulting from multiple thrombosis of the blood vessels in the eye. Females are also considered more susceptible to ocular damage.

With few exceptions most of the evidence mentioned above was derived from inhalation studies. All of the studies used standard, high-dose testing protocols to detect obvious birth defects and organ damage, cancer, mutations, convulsions, and skin and eye irritation. No long-term, multigenerational, chronic oral studies at environmentally relevant concentrations are available that could rule out prenatal damage.

Other potential effects:

“Defatting and drying of the skin and possibly dermatitis, as a result of prolonged exposure.

Repeated or excessive exposure may cause central nervous system depression, nausea, vomiting, anesthetic or narcotic effects, injury to red blood cells (hemolysis), kidney or the liver, and a metallic taste.

As temperature in Gulf Waters increase the rate and concentration of toxic and hazardous transport will increase as will toxicity of the chemical itself. It is advised that all precautions be taken to guard against exposure and severe toxic poisoning.

IF this warning and advisory had been released via public health institutions and the 3 to 4 letter Government Agencies would you be concerned? How much would you question the advisory? What would you expect these agencies to do in response to your health and welfare concerning the advisory? BUT—the big question is: **IS THIS ADVISORY BASED IN FACTS THAT ARE PROVABLE?**

HOW WOULD YOU DETERMINE THE TRUTH?

Back to the original question: Is scientific data valid? _
Whose Scientific Data is valid? If at this point I show you _
valid scientific evidence from Public Health Institutions and _
Government Agency and Agency funded studies will you _
believe the science?

If I may guess your primary question at the end of this advisory will be : **IF THIS ADVISORY IS TRUTH WHY DO THOSE RESPONSIBLE NOT ISSUE THIS WARNING TO THE PUBLIC?** IT IS A QUESTION THAT SHOULD BE ANSWERED! But it is not mine here to answer that. It is mine to present scientific data from our valid government source.

The Questions Concerning This Advisory Warning

Does valid scientific data place oil/dispersant mix in large quantities suspended at the ocean floor?

Credentials:

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Professor

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Dr. Joye is researching underwater oil plumes in the Gulf oil spill. Please visit the [Gulf Oil Blog](#) for details.

Education:

Ph.D. 1993, University of North Carolina, Chapel Hill, NC

B.Sc. 1987, University of North Carolina, Chapel Hill, NC

Research Emphasis:

Biogeochemical cycling of nutrients, metals, and organic materials in coastal environments; biogeochemistry of methane hydrate and chemosynthetic habitats; ecosystem and geochemical modeling; microbial ecology, metabolism and physiology; molecular biology; global nitrogen cycle, global methane cycle.

STATEMENTS:

[University of Georgia](#) researcher [Samantha Joye](#) (JOY) says she and her colleagues have found oil as much as 80 miles from the Deepwater Horizons well. She says the latest sample was taken early Monday and the oil covered newly dead creatures, such as shrimp and deep-sea worms.

The scientists have collected at least 10 samples from the sea floor, about a mile down. Testing is needed to confirm it is BP oil. But [Joye](#) says it has the appearance of recent oil from the busted well, not old oil.

Reporting her results from a fifth Gulf of Mexico expedition ending this past December, University of Georgia marine scientist Samantha Joye has been to the bottom and back, and her findings are anything but optimistic.

Her team has found numerous expanses of oil and soot covered sea floor that were “chemically finger-printed” as deriving from the BP Macondo deep sea well. The soot was the result, she believes, of the burning of oil, which then settled to the bottom with its load of toxic by-products. And, scattered throughout the **toxic** blanket: large numbers of dead brittle stars, crabs, and even suffocated tube worms.

Other studies (NOAA, DOE) asserted that “magic microbes” — petro-chemical digesting marine bacteria — had effectively eliminated most of the oil (note: the DOE study was funded through a BP grant). But Joye and her colleagues counter-claim that, in fact, barely 10% of the spilled oil had been “digested”, and that the remainder was still in the Gulf. Her team’s study was also more widespread (covering 2600 sq. miles) than the others and they took

more core samples. This current study relied on 250 samples taken within a radius of the Macondo well.

A Microbe Mystery

Joye believes that something else is disrupting the oil decomposition process. That something maybe methane (CH₄, a hydrocarbon gas) or the consequence of its injection into the water column and bottom ecosystem. Joye's team also [recently published a paper in *Nature Geoscience*](#), asserting that previous studies had completely overlooked the volume and impact of the methane that also spilled into the Gulf following the explosion. Their study estimated that "up to 500,000 t[ons] of gaseous hydrocarbons [spilled] into the deep ocean and that these gaseous emissions comprised 40% of the total hydrocarbon discharge."

Report published in 1999 by the Alaskan Department of Environmental Conservation entitled: "[Biodegradation of Dispersed Oil Using COREXIT 9500](#)" the dispersant was shown to inhibit the biodegradation of less soluble hydrocarbons by marine bacteria, while accelerating the breakdown of the more soluble hydrocarbons. The authors state:

"Thus, while adding dispersant may increase microbial oil degradation activity as a whole, this increase may be restricted to only some components of the crude oil, resulting in selective enrichment of other components in the residual oil. This could result in either an increase or a decrease in the toxicity of the residual oil." (pg. 2)

In addition, experts warn, much of the toxic oil from [the worst spill in U.S. history](#) may be trapped under Gulf beaches—where it could linger for years—or still migrating into the ocean depths, where it's a "3-D catastrophe," one scientist said.

The U.S. government estimated Monday that the *Deepwater Horizon* spill had yielded about 4.9 million barrels' worth of crude.

On Wednesday a [National Oceanic and Atmospheric Administration \(NOAA\)](#) report said that about 33 percent of the spilled oil in the water has been burned, skimmed, dispersed, or directly recovered by cleanup operations. (See "[Gulf Oil Cleanup Crews Trample Nesting Birds.](#)")

Another 25 percent has evaporated into the atmosphere or dissolved in the ocean, and 16 percent has been dispersed via natural breakup of the oil into microscopic droplets, the study says. (Read more about how [nature is fighting the oil spill.](#))

The remaining 26 percent, the report says, is still either on or just below the surface, has washed ashore or been collected from shores, or is buried along the coasts.

Oil Spill Report "Almost Comical"?

For all their specificity, such figures are "notorious" for being uncertain, said [Robert Carney](#), a biological oceanographer at Louisiana State University (LSU) in Baton Rouge.

That's in part because the fluid nature of the ocean means that it's "exceedingly hard" to track oil.

"Water is always moving—if I go out to the spill site tomorrow and look for hydrocarbons, I might not find much, because the oiled water is already gone."

But to accurately figure out how much oil is left, you need to know how much went into the Gulf to begin with, he said.

"Once you start off with that fundamental measure"—the total amount of oil spilled—"being an educated guess, then things aren't that great."

To University of South Florida chemical oceanographer [David Hollander](#), the NOAA estimates are "ludicrous."

"It's almost comical."

According to Hollander, the government can account for only about 25 percent of the spilled Gulf oil—the portion that's been skimmed, burned off, directly collected, and so on.

The remaining 75 percent is still unaccounted for, he said.

For instance, the report considers all submerged oil to be dispersed and therefore not harmful, Hollander said. But, given the unknown effects of oil and dispersants at great depths, that's not necessarily the case, he added.

"There are enormous blanket assumptions."

Oil Trapped Deep in Gulf Beaches

The new report comes after days of speculation about where the Gulf oil has gone. After the damaged well had been capped July 19, U.S. Coast Guard flyovers didn't spot any big patches of crude on the water.

But oil cleanup is mostly getting rid of what's on the surface, Carney said. There's a common perception that "as long as you keep it off the beach, everything's hunky dory," he added.

Dr. Chris D'Elia, Dean of the School of the Coast & Environment at LSU, is quoted in this article saying, "This is like trying to do forensic work on a very old crime scene — the murder occurred months ago, the body's decayed and animals walked off with the rest."

Credentials:

Jan 10, 2011 - Christopher F. D'Elia, Dean of Louisiana State University's School of the Coast and Environment, recently joined the NGI community as the LSU Fellow. Dr. D'Elia earned his A.B. in Biology from Middlebury College, his Ph.D. in Zoology from the University of Georgia, and conducted postdoctoral research at the University of California at Los Angeles and at Woods Hole Oceanographic Institution.

Prior to joining LSU, Dr. D'Elia was Associate Vice Chancellor for Academic Affairs for Research and Graduate Studies and Professor of Environmental Science and Policy and Marine Science at the University of South Florida St. Petersburg. He directed the International Ocean Institute-USA and the Center for Science and Policy Applications for the Coastal Environment.

Dr. Robert Carney, Professor in the Department of Oceanography and Coastal Sciences in the School of the Coast & Environment at LSU, had this to say on the subject, "Deep-sea animals, in general, tend to produce fewer offspring than shallower water animals, so if they are going to have a population impact, it may be more sensitive in deep water. There is also some evidence that deep-sea animals live longer than shallower water species, so the impact may stay around longer." [Health News Digest](#) (10-2-10)

David Hollander

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Chemical Oceanography

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[Visit Lab Website](#)

Research Interests

Isotopic biogeochemistry and organic geochemistry; Paleoenvironmental reconstructions; Origin of organic-rich deposits, Chemical Sedimentology, Archeometry

My research program focuses on evaluating the influence that anthropogenic and natural climate and environmental change have on the biogeochemical cycling of carbon, nitrogen, and other biolimiting elements in both modern and ancient lacustrine and marine settings.

And oil has been found on the Gulf's bottom - the furthest east it's been found. The expedition found oil in the DeSoto Canyon, a fissure that leads from the Deepwater Horizon site to just 40 miles from Panama City Beach. Hollander says that could mean Florida's panhandle could see more oil if large storms or hurricanes pass through the area.

"The conduit aspect," says Hollander, "that there may be a mechanism to bring subsurface oils with dispersants potentially to the continental margin seems to be potentially reality."

The news comes as Escambia County officials say levels of oil in their waters are within safe standards. Just two weeks ago, the head of the National Oceanic and Atmospheric Administration said three-quarters of the spilled oil had essentially disappeared.

But the USF researchers and another research team from the University of Georgia beg to differ. Hollander estimates only 25 to 30 percent of the oil has been skimmed, burned or collected.

"That leaves about 70-75 percent that is not accountable," Hollander says. "The question is, is all unaccountable oil not dangerous, is all unaccountable subsurface or sedimentary oils or oils on the beaches not dangerous? Those are good questions. So considerations of budgets of where the oil is dispersed does not mean "gone," and it certainly doesn't mean that it's healthy water."

Paul says USF researchers are looking at how much oil is present in

larger organisms, such as fish larvae. That analysis isn't expected for several weeks. The Weatherbird II is set for another trip into the Gulf in September.

More detail of the research results is presented below, courtesy of USF:

Water and sediment samples from east of the Deepwater Horizon wellhead (stations DSH 8, DSH9, DSH10) and at the edge of the DeSoto Canyon (station PCB-03) on the outer continental shelf are emitting visible fluorescence when examined under UV light, resulting in signals that match BP's MC252 oil.

Excitation Emission Matrix Fluorescence Spectroscopy (EEMS) of these water samples also indicated the presence of oil-like hydrocarbons. The UV-induced fluorescence, which has been digitally photographed, resembles a dense constellation of microscopic blue stars on the sediment surface and in the filter pads.

Fluorescence continued after five hours of freezing, suggesting that the fluorescence was not caused by living organisms. Minerals or other non-oil materials may also fluoresce in this manner, requiring the samples undergo further testing through molecular organic geochemical and compound-specific isotope analyses. Those tests will allow scientists to verify whether the fluorescence was due to the presence of petroleum hydrocarbons and whether the hydrocarbons are associated with BP's oil.

**VALID SCIENTIFIC EVIDENCE SAYS NEAR
IMMEASURABLE QUANTITIES OF OIL ARE AT THE GULF
WATERS BOTTOM.**

Apparently the government assumed all the oil was on or near the surface but independent scientists began looking deeper. Lo and behold, last fall they discovered immense oil plumes, some reportedly the size of Manhattan, far below the surface. Layers of oil residue several inches thick covered the ocean bottom extending 50 to 80 miles out from the offending well site. Underneath this layer all the bottom dwellers such as crabs and shrimp lay dead.

IS THE DISPERSANT COREXIT A HIGHLY TOXIC AND VOLATILE CHEMICAL THAT CAN AFFECT HUMAN HEALTH?

Bo Liu

B.S., Shanghai Fisheries University, 1998

December 2003

The objective of this study was to evaluate the acute toxicity of one oil dispersant, Exxon COREXIT 9500 (9500), two crude oils, South Louisiana crude oil (SLC) and Alaskan north slope crude oil (ANSC), and two dispersed oils, dispersed South Louisiana crude oil (SLC+9500) and dispersed Alaskan north slope crude oil (ANSC+9500) to three commercially and ecologically important species indigenous to the Gulf of Mexico: Gulf killifish *Fundulus grandis*, Eastern oyster *Crassostrea virginica* and white shrimp

Dispersed oils were more toxic than crude oils ($p < 0.0001$) based on nominal concentrations (NC) (Tables 2.1 – 2.2).

In this study, the toxicity of dispersant to Eastern oysters increased with higher water temperature and similar effects

have been found in other molluskan species. Ordzie and Garofalo (1981) reported that the LC50 for the dispersant COREXIT 9527 was 200 ppm at 20 oC, 1,800 ppm at 10 oC, and 2,500 ppm at 2 oC. Concentrations of dispersant that were not lethal to scallops during the winter caused greater than 50% mortality at summer temperatures.

Our data indicate that dispersant may inhibit biodegradation of some components of the crude oil. At this point no data currently exist allowing evaluation of the effects of Corexit 9500 on biodegradation of the more acutely and chronically toxic components of crude oil. Following dispersant use, if the residual oil is selectively enriched in components of greater toxicity than those components biodegraded, the toxicity of the resulting oil residue (on an oil mass basis) may be increased." (pg. 25)

Pubmed

Abstract Author(s):

Alan Scarlett, Emma L Smith, Johanna Nilsson, Martin Canty, Steven J Rowland, Tamara S Galloway

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School of Earth, Ocean, and Environmental Sciences, University of Plymouth, Drake Circus, Plymouth, PL4 8AA United Kingdom.

Use of chemical dispersants as oil spill clean-up agents may alter the normal behavior of petroleum hydrocarbons (PH) by increasing their functional water solubility, resulting in increased bioavailability and altered interactions between dispersant, oil, and biological membranes. The objective of this research was to determine the impact of dispersing agents on PH bioavailability and trophic transfer to larval fish from primary levels of a marine food chain. Uptake, bioaccumulation, depuration, and metabolic transformation of a model PH, [14C]naphthalene, were measured and compared for Prudhoe Bay crude oil (PBCO) dispersed with Corexit 9527(R) (DO) and undispersed preparations of the water-accommodated fraction (WAF) of PBCO. The model food chain consisted of a primary producer, *Isochrysis galbana*; and a primary consumer, the rotifer, *Brachionus plicatilis*; and larval topsmelt, *Atherinops affinis*. Direct aqueous (AQ) exposure was compared with combined aqueous and dietary (AQ&D) exposure. ***Dispersants altered the uptake and depuration processes of naphthalene, independent of aqueous concentrations, in primary trophic species of a marine food chain. The amount of naphthalene taken up by topsmelt was initially significantly ($P_{or} = 72\%$) of naphthalene-derived radioactivity from fish tissue following all exposures was in the parent form, with smaller quantities of alpha- and beta-naphthols, alpha- and beta-naphthyl sulfates, and an unidentified derivative.***

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*The use of chemical oil dispersants to minimize spill impacts **causes a transient increase in hydrocarbon concentrations in water, which increases the risk to aquatic species if toxic components become more bioavailable.** The risk of effects depends on the extent to which dispersants enhance the exposure to toxic components, such as polycyclic aromatic hydrocarbons (PAH). Increased salinities can reduce the solubility of PAH and the efficiency of oil dispersants. This study measured changes in the induction of CYP1A enzymes of fish to demonstrate the effect of salinity on PAH availability. Freshwater rainbow trout and euryhaline mummichog were exposed to water accommodated fractions (WAF), and chemically-enhanced water accommodated fractions (CEWAF) at 0 per thousand, 15 per thousand, and 30 per thousand salinity. For both species, PAH exposure decreased as salinity increased whereas dispersant effectiveness decreased only at the highest salinity. Hence, risks to fish of PAH from dispersed oil will be greatest in coastal waters where salinities are low.*

[Holdway DA.](#)

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Abstract

The biliary levels of naphthalene-type metabolites were over 15 times higher in fish exposed to dispersed crude oil relative to fish exposed to the WAF of Bass Strait crude oil. BaP-type metabolites appeared only in the bile of the fish exposed to the WAF, possibly due to BaP-type compounds remaining associated with the dispersant in the water column or to an inhibition of Phase II detoxification enzymes by the dispersant. Bile metabolites as determined by fixed-wavelength fluorescence and EROD induction appear to be sensitive and complementary biomarkers of exposure to PAH.

PMID: 10556373 [PubMed - indexed for MEDLINE]

COREXIT IS TOXIC TO ALL AQUATIC MARINE LIFE AND ADDED TO CRUDE OIL MAKES THE CRUDE OIL MORE TOXIC!~

IS COREXIT/OIL TOXIC TO HUMANS?

THE EPA WARNING FOR CRUDE OIL

epa.gov/emergencies/docs/oil/ncp/notebook.pdf

Exposure

Exposure can occur through skin contact, inhalation of contaminated air or soil, and ingestion of contaminated water or food. These can occur simultaneously. Exposure pathways may result in localized toxicity (e.g., irritation of the skin following contact), but most health effects are systemic because ingredients can move throughout the body. Exposure varies based on the duration and concentrations in contaminated media. Differences may result from location, work and personal activities, age, diet, use of protective equipment, and other factors. Concurrent exposure to other toxic chemicals must be considered when evaluating toxic effects. Some chemicals in crude oil are volatile, moving into air easily, and these can often be detectable by smell.

Basic Physiological Effects

Crude oil is a complex mixture of chemicals that have varying abilities to be absorbed into the body through the skin, lungs, and during digestion of food and water. Most components of crude oil enter the bloodstream rapidly when they are inhaled or swallowed. Crude oil contains chemicals that readily penetrate cell walls, damage cell structures, including DNA, and alter the function of the cells and the organs where they are located.

Crude oil is toxic, and ingredients can damage every system in the body:

1. respiratory nervous system, including the brain;
2. liver reproductive/urogenital system;
3. kidneys endocrine system;
4. circulatory system gastrointestinal system;
5. immune system sensory systems; and
6. the musculoskeletal system.

Damaging or altering these systems causes a wide range of diseases and conditions. In addition, interference with normal growth and development through endocrine disruption and direct damage to fetal tissue is caused by many crude oil ingredients (CDC, 1999).

DNA damage can cause cancer and multi-generational birth defects.

Acute Exposure Hazards – brief exposure at relatively high levels[1]

Crude oil contains many chemicals that can irritate the skin and mucous membranes on contact. Irritant effects can range from slight reddening to burning, swelling (edema), pain, and permanent skin damage. Commonly reported effects of acute exposure to crude oil through inhalation or ingestion include difficulty breathing, headaches, dizziness, nausea, confusion, and other central nervous system effects. These are more likely to be noticed than potentially more serious effects that don't have obvious signs and symptoms: lung, liver and kidney damage, infertility, immune system suppression, disruption of hormone levels, blood disorders, mutations, and cancer.

Chronic Exposure Hazards – long-term exposure at relatively low levels

This type of exposure should be avoided, if at all possible, because the potential for serious health damage is substantial. Chronic health effects are typically evaluated for specific crude oil components (see CDC, 1999), and vary from cancer to permanent neurological damage. They cover a range of diseases affecting all the organ systems listed above.

Susceptible Subgroups

Children are vulnerable to toxic chemicals in crude oil that disrupt normal growth and development. Their brains are highly susceptible to many neurotoxic ingredients. Endocrine disruptors in crude oil can cause abnormal growth, infertility, and other health conditions. Children's exposures may be higher than adults and can include contaminated soil or sand. Newborns are especially vulnerable due to incompletely formed immune and detoxification systems.

Many people with medical conditions are more susceptible to crude oil toxicity because chemical ingredients can damage organ systems that are already impaired. Specific susceptibilities depend on the medical condition (e.g., inhalation poses risks for those with asthma and other respiratory conditions).

People taking medications that reduce their detoxification ability, and those taking acetaminophen, aspirin, haloperidol, who have nutritional deficiencies or **who concurrently drink alcohol** may be more susceptible. Some inherited enzyme deficiencies also increase susceptibility (listed in CDC, 1999).

People exposed to other toxic chemicals at work or home may be at higher risk.

Pregnancy places increased stress on many organ systems, including the liver, kidneys, and cardiovascular system. Chemicals in crude oil that are toxic to these same systems can pose serious health risks. Pregnancy also requires a careful balance of hormones to maintain a healthy pregnancy and healthy baby. Endocrine disruptors in crude oil can jeopardize the hormone balance.

The developing fetus is susceptible to the toxic effects of many chemicals in crude oil. Many cause mutations, endocrine disruption, skeletal deformities, and other types of birth defects.

Personal and Public Protection

It is critical that people who work with or around crude oil wear appropriate personal protective equipment such as gloves, masks, respirators, and water repellent clothing, to minimize exposure. The necessary equipment will depend on the kind of exposure that can occur (dermal, inhalation, ingestion). Susceptible members of the public require notice when exposure may occur (e.g., when contaminated air masses move inland) so they can take protective actions"

See OSHA guidance at OSHA 2010 link at the Sciencecorps web site (see above).

REMEMBER WITH THE ADDITION OF COREXIT DISPERSANT CRUDE OIL HAS BEEN SHOWN TO BECOME 15 TIMES MORE TOXIC.

PRIMARY CHEMICAL COMPOSITION OF COREXIT

Propanediol- A primary ingredient in aircraft antifreeze and automotive anti-freeze. Mixture with heavy metals greatly increases toxicity. Potential Acute Health Effects:

Hazardous in case of skin contact (irritant), of eye contact (irritant). Slightly hazardous in case of skin contact (sensitizer, permeator).

Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: Not available. **MUTAGENIC EFFECTS:** Not available. **TERATOGENIC EFFECTS:** Not available. **DEVELOPMENTAL TOXICITY:** Not available. Repeated or prolonged exposure is not known to aggravate medical condition

Ethanol, 2-butoxy-

<http://nj.gov/health/eoh/rtkweb/documents/fs/0275.pdf>

▢ **2-Butoxy Ethanol** may damage the developing fetus.

▢ There is limited evidence that **2-Butoxy Ethanol** may damage the male reproductive system (including decreasing the sperm count) in animals and may affect female fertility in animals.

Other Effects

▢ **2-Butoxy Ethanol** may damage the liver and kidneys.

2-Butoxy Ethanol is a colorless liquid with a mild odor. It is used as a solvent for resins, lacquers, varnishes, and enamels, and is found in many hard surface cleaning products.

2-Butoxy Ethanol can affect you by ingestion and may be absorbed through the skin.

▢ **2-Butoxy Ethanol** should be handled as a **CARCINOGEN--**
WITH EXTREME CAUTION.

▢ Contact can irritate the skin and eyes with possible eye damage.

▢ Inhaling **2-Butoxy Ethanol** can irritate the nose and throat.

▢ **2-Butoxy Ethanol** can cause nausea, vomiting, diarrhea

and abdominal pain.

□ Exposure can cause headache, dizziness, lightheadedness, and passing out.

□ **2-Butoxy Ethanol** may damage the liver and kidneys.

Workplace Exposure Limits

OSHA: The legal airborne permissible exposure limit (PEL) is **50 ppm** averaged over an 8-hour workshift.

NIOSH: The recommended airborne exposure limit (REL) is **5 ppm** averaged over a 10-hour workshift.

ACGIH: The threshold limit value (TLV) is **20 ppm** averaged over an 8-hour workshift.

□ **2-Butoxy Ethanol** may be a CARCINOGEN in humans.

There may be no safe level of exposure to a carcinogen, so all contact should be reduced to the lowest possible level.

□ The above exposure limits are for air levels only. When skin contact also occurs, you may be overexposed, even though air levels are less than the limits listed above.

THESE ARE ONLY TWO OF THE KNOWN
CHEMICALS IN COREXIT

**MATERIAL SAFETY DATA SHEET****PRODUCT****COREXIT® 9500****EMERGENCY TELEPHONE NUMBER(S)**

(800) 424-8300 (24 Hours) CHEMTREC

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: COREXIT® 9500

APPLICATION: OIL SPILL DISPERSANT

COMPANY IDENTIFICATION: Nalco Energy Services, L.P.
P.O. Box 87
Sugar Land, Texas
77487-0087

EMERGENCY TELEPHONE NUMBER(S): (800) 424-8300 (24 Hours) CHEMTREC

NFPA 704/MH/MIS RATINGHEALTH: 1/1 FLAMMABILITY: 1/1 INSTABILITY: 0/0 OTHER:
0 = Insignificant 1 = Slight 2 = Moderate 3 = High 4 = Extreme**2. COMPOSITION/INFORMATION ON INGREDIENTS**

Our hazard evaluation has identified the following chemical substance(s) as hazardous. Consult Section 15 for the nature of the hazard(s).

Hazardous Substance(s)	CAS NO	% (w/w)
Distillates, petroleum, hydrotreated light	64742-47-8	10.0 - 30.0
Propylene Glycol -	57-55-6	1.0 - 5.0
Organic sulfonic acid salt	Proprietary	10.0 - 30.0

3. HAZARDS IDENTIFICATION**"EMERGENCY OVERVIEW"****WARNING**

Combustible.

Keep away from heat. Keep away from sources of ignition - No smoking. Keep container tightly closed. Do not get in eyes, on skin, on clothing. Do not take internally. Avoid breathing vapor. Use with adequate ventilation. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. After contact with skin, wash immediately with plenty of soap and water.

Wear suitable protective clothing.

Low Fire Hazard; liquids may burn upon heating to temperatures at or above the flash point. May evolve oxides of carbon (COx) under fire conditions. May evolve oxides of sulfur (SOx) under fire conditions.

PRIMARY ROUTES OF EXPOSURE:

Eye, Skin

HUMAN HEALTH HAZARDS - ACUTE:**EYE CONTACT:**

May cause irritation with prolonged contact.

Nalco Energy Services, L.P. P.O. Box 87 • Sugar Land, Texas 77487-0087 • (281) 263-7000

For additional copies of an MSDS visit www.nalco.com and request access

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COREXIT IS A COMBUSTIBLE MATERIAL

May 20, 2010

Rear Admiral Mary Landry
Commander, Eighth Coast Guard District
Hale Boggs Federal Building
500 Poydras Street
New Orleans, LA 70130

Samuel Coleman, P.E.
Director, Superfund Division
U.S. EPA Region 6
Dallas, TX 75202

Re: May 19, 2010 Addendum 2 to Dispersant Monitoring and Assessment
Directive ("Addendum 2")

Dear Admiral Landry and Mr. Coleman:

This letter is the response to the directive in Addendum 2 for BP Exploration & Production Inc. ("BP") to identify within 24 hours of issuance of Addendum 2 one or more approved dispersant products from the National Contingency Plan Product Schedule that are "available in sufficient quantities, are as effective at dispersing the oil plume, and have a toxicity value less than

Based on the information that is available today, BP continues to believe that COREXIT was the best and most appropriate choice at the time when the incident occurred, and that COREXIT remains the best option for subsea application.

Before the Coast Guard and EPA issue further directives requiring a change in dispersant products or monitoring, we would appreciate the opportunity to meet with you to discuss the options and their efficacy and potential impacts, in view of the circumstances at the spill site, and the proposed methods of usage.

After you have the opportunity to review the attached information, please let me know the earliest time when you might be available to meet with our team to discuss these issues.

Sincerely,

Douglas J. Suttles

G. Behavior in the Environment

The behavior of dispersants in the environment may affect both its effectiveness and its long term impacts. One factor determining the behavior of dispersants after application is the tendency of a dispersant to rise or sink in the water column which, in turn, depends on whether the dispersants contain significant quantities of petroleum-based solvents that are less dense than water. Two other factors are the biodegradation of the dispersant and its tendency to bioaccumulate and bioconcentrate.

H. Quantities Currently Available and Reliability of Supply

An important consideration in identifying and selecting possible alternative dispersants is the commercial availability of those products in quantities sufficient to meet current and anticipated needs. Approximately 75,000 gallons of dispersant is used each day for surface

³ We have learned that COREXIT 9527 and COREXIT 9500 were removed from the list of approved dispersants in the UK. Our understanding is that these two products were removed due to a new test added by the UK regulators. The test, known as the “rocky shores test,” is designed to evaluate the toxicity of the dispersants when sprayed in the tidal zone, and the mortality of limpets exposed to the dispersant. The test was added because of concerns that dispersants may cause more significant ecological impacts on rocky shores than they do on sandy or pebble beaches (primarily seaweed overgrowth due to increased mortality in the harvester species). The UK regulators continue to allow the use of existing stockpiles of these COREXIT products away from rocky shorelines, with approval. We have not been informed by the On Scene Coordinator that the “rocky shores test” is applicable to the conditions in the Gulf, as most tidal areas near the release are not rocky, and again US EPA and Coast Guard have approved both products for use in this response.

For frequent or potentially high exposure (half the TLV or greater), the following are recommended before beginning work and at regular times after that:

☐ Liver and kidney function tests

Any evaluation should include a careful history of past and present symptoms with an exam. Medical tests that look for damage already done are not a substitute for controlling exposure.

Request copies of your medical testing. You have a legal right to this information under the OSHA Access to Employee Exposure and Medical Records Standard (29 CFR 1910.1020).

Mixed Exposures

☐ More than light alcohol consumption can cause liver damage. Drinking alcohol may increase the liver damage caused by **2-Butoxy Ethano**

Crude Oil and Your Health

Crude oil contains highly toxic chemicals that can evaporate and blow in from the ocean, across neighborhoods and towns.

You may smell the odor of these chemicals.

Children and the Elderly are Especially Vulnerable

Exposure to crude oil in the air can cause difficulty breathing, headaches, dizziness, nausea, and confusion. Even brief exposure can cause health problems for people with asthma, COPD, and other respiratory problems. Direct contact with contaminated water can cause skin damage.

Delayed effects of crude oil exposure can include liver, kidney, respiratory, reproductive, blood, immune system and nervous system damage, cancer and birth defects. The occurrence and nature of harm will depend on exposure and individual factors, but some people are more susceptible:

Children are at higher risk for many reasons.

Pregnant women are also at higher risk, and so are their babies.

Elderly & those with health problems may be at higher risk.

Protection

Preventing exposure is the best way to prevent health problems.

Be aware of odors and pollution alerts that warn of air pollution. Avoid contact with oily sand, soil, animals, plants or other materials. Vulnerable people in high pollution areas can consult their health care providers about ways to reduce their exposure and remain healthy.

For additional information and resources see:

www.sciencecorps.org/crudeoilhazards.htm

www.waterkeeper.org

This handout does not provide medical advice. If you are experiencing any health problems, obtain local medical care as soon as possible.

Michael Harbut, MD, Karmanos Cancer Institute, Detroit, MI Kathleen Burns, PhD Sciencecorps, Lexington

Steven and Stephanie Aguinaga vacationed last July in Florida With another couple. After Swimming in the Gulf, All Four People Became Sickened and in Four Weeks Merrick Vallian, Steven's Best Friend, Died. Steven's Health Continues to Deteriorate. STEVEN WAS AT THE LAST MOMENT DIAGNOSED WITH SEVERE CHEMICAL POISONING.

Lisa Nelson of Orange Beach, AL is one of a growing number of people sickened and dying as a result of the BP disaster. Local physicians have no idea how to diagnose or treat patients who have been exposed to highly toxic crude/dispersant combination. Local, State, and federal agencies continue to cover-up and offer zero assistance.

Very sad; Lisa Nelson passed away today 3.7.11. She was an inspiration to all who were fortunate enough to know her and will be dearly missed. God bless her beautiful soul.

Oil Spill Health Issues, KLFY, January 27, 2011: <http://www.klfy.com/Global/story.asp?...> [A] new report just out has revealed some very disturbing findings. ... A blood study that was conducted on four males ages 3 to 43 and one female age 38 in December of last year. Subra says the results of those tests have revealed elevated levels of six toxic and potentially life threatening chemicals associated with crude oil, most notably Ethyl-benzene which has been linked to kidney damage and cancer. ... UL Lafayette Professor Paul Klerks is an expert in the environmental toxicology and he says the high levels of ethyl benzene found in human patients is alarming but he doesn't believe its reason to panic just yet. "This is potentially cause for concern, but it's a very small sample size of five so it's really hard to tell with just a small sample size what it means as whole." ... [Their] problems included everything from trouble breathing, and bleeding from the ears, to swelling of the limbs and blood in the stool. Some of the more unusual cases include a commercial diver who is plagued by mysterious rash and the three year son of a fisherman who is suffering from kidney stones.

<http://www.youtube.com/watch?v=6drasiXNFaw&feature=related>

Uploaded by [ProjectGulfImpact](#) on Sep 5, 2010

READ THE ARTICLE HERE:

<http://tinyurl.com/3xdp2oj>

Blood Tests Can Be Seen Here

<http://theintelhub.com/wp-content/uploads/2010/09/Blood-Test-Results.pdf>

<http://theintelhub.com/wp-content/uploads/2010/09/Blood-Test-Results-2.pdf>

Several volatile hydrocarbons found in crude oil were detected in the blood of several residents from the Orange Beach, AL area. Among the hydrocarbons tested, several were detected at abnormally high levels including ethylbenzene, xylene, hexane. These individuals were not directly involved in BP's clean-up operations, nor had they been exposed to any industrial environment where the presence of these compounds would be of concern. Therefore, it can be assumed that residents living near the Gulf of Mexico shoreline are at risk of exposure to aerosolized VOC's moving inland from the Deepwater Horizon oil spill.

<http://theintelhub.com/2010/09/05/from-the-gulf-stream-to-the-bloodstream/> Project Gulf Impacts
Exclusive Article

The blood test performed on these individuals is called the Volatile Solvents Profile (Metametrix.com). The test can be obtained and administered by any physician with the ability to perform a simple blood draw. The test will be shipped to a laboratory for analysis and returned to your doctor for interpretation and treatment.

The Gulf of Mexico is facing a significant threat to human health, which needs to be documented in a stringent and concrete manner. A multitude of symptoms have been reported ranging from subtle to severe; these include skin rashes and infections, upper respiratory burning, congestion and cough, headaches, nausea, vomiting, and neurological symptoms such as short-term loss of memory and coordination.

"David, Kindra Arniesen and their neighbors have been there from Day 1. And still the onslaught continues. Every day, the oil comes in with the tide. It spreads up into the marsh grass, coating it. Then heated by the sun, it melts and drips back down into the marsh. At night, they still spray their toxic dispersants. No, things are not OK in Plaquemine's Parish. And they won't be for a very long time.

In this recent video, Kindra gives us the latest on public health (or the lack of it) in the Gulf. Kindra and her friends Joanie and Vicky of the Coastal Heritage Society of Louisiana are running ongoing fund drives for Gulf families. Imagine you're a Gulf fisherman and your entire livelihood is gone. Many of these families have had no income since April. Now, they're faced with having their electricity turned off, and making decisions as to whether they should be food or medicine for their kids."

<http://www.youtube.com/watch?v=GjtWxXgtJo4&feature=related>

http://www.youtube.com/user/TrishaSpringstead#p/u/39/_EODNebkCkQ

- **Studies have shown a direct correlation between water temperature and wildlife's sensitivity to oil dispersants. The warmer the water is, the more toxic the oil dispersants are to aquatic life. In studies, both grass shrimp and scallops were able to withstand significantly higher concentrations of oil dispersants in water at lower temperatures. A 10 to 20C degree increase in water temperature dramatically increased their sensitivity to oil dispersants (George-Ares 2000).**
- **[Current Gulf of Mexico Water Temperatures from NOAA](#)**

Concentration of Dispersant

- **The higher the concentration of oil dispersants in water, measured in parts per million (ppm), the more likely it is for the dispersants to affect wildlife. Certain species can withstand very high concentrations of oil dispersants, while others show negative impacts at very low concentrations. Negative effects on particular aquatic species have been shown to be reversible at low concentrations, but the higher the concentration, the more likely that the effects will be irreversible (Scarlett et al., 2005).**
- **The maximum recorded concentration of oil dispersants in open water is 13ppm (Scarlett et al., 2005). Studies have shown that in many cases the oil dispersant concentrations are less than 1 ppm within hours of application (George-Ares 2000).**

Geography and Type of Water Body

- **Areas where water is more stagnant or protected, such as estuaries, enclosed bays, and reefs, are more susceptible to high concentrations of oil dispersants than more open or large bodies of water.**
- *Without wave action and turbidity, oil dispersants have a lower rate of dissipation (Scarlett et al., 2005).*

IS SCIENTIFIC EVIDENCE VALID?

1) THERE IS BY VALID EVIDENCE AN EXTREMELY LARGE MAT OF HIGHLY TOXIC OIL DISPERSANT IS SUSPENDED ON THE OCEAN FLOOR OF THE GULF OF MEXICO.

2) BY VALID CHEMICAL EVIDENCE THE MIXTURE OF OIL/COREXIT IS NOW KILLING MARINE AQUATIC LIFE AND POSES DANGERS TO HUMAN EXPOSURE THROUGH THE BIO-ACCUMULATION IN THE FOOD CHAIN.

3) VALID CHEMICAL AND BIOLOGICAL TEST PROVE THAT COREXIT CHEMICALS AND CRUDE OIL ARE REACTIVE TO WARM TEMPERATURES AND CAN RISE AND BECOME TOXIC GAS DELIVERED TO THE ATMOSPHERE AND BROUGHT LANDWARD

4) *HIGHER TEMPERATURES AND ANY STORM ACTIVITY IN THE GULF WILL ACTIVATE AND MOVE THE OIL/COREXIT MAT LANDWARD AND UPWARD TO THE ATMOSPHERE. BY THAT MEANS HIGH LEVELS OF MARINE AQUATIC LIFE AND HUMANS WILL BE EXPOSED TO A HIGHLY TOXIC AND CARCINOGENIC CHEMICAL MIX.*

YOU DECIDE-IS SCIENTIFIC DATA STILL VALID?

IF SO THIS WARNING AND ADVISORY IS WARRANTED AND NEEDS TO BE DISTRIBUTED AS A PUBLIC SERVICE DOING WHAT OUR GOVERNMENT HAS FAILED TO DO.

THE PUBLIC MUST BE WARNED---

ALREADY IN THE GULF OF MEXICO LARGE AMOUNTS OF MARINE LIFE HAVE DIED

ALREADY PEOPLE UNASSOCIATED WITH CLEAN UP HAVE FALLEN SICK TO TOXIC POISONING,

ALREADY PEOPLE HAVE DIED FROM TOXIC POISONING FROM OIL/COREXIT EXPOSURE

A PROTOCOL FOR THOSE ALREADY AFFECTED AND PREVENTIVE MEASURES FOR THOSE NOT YET AFFECTED IS BEING PREPARED BY MEDICAL EXPERTS WHO HAVE DARED TO BELIEVE THE TRUTH AND TREAT CHEMICAL POISONING FOR WHAT IT IS

SHOULD YOU FALL ILL WITH THESE SYMPTOMS DEMAND A FULL CHEMICAL TOXOLOGY AND STRESS YOU HAVE BEEN

EXPOSED TO UNKNOWN CHEMICALS.

The Gulf has 3 to 4 months of 90 degree or higher temperatures pretty much every day and a blazing sun that stand directly over head at noon. Anything volatile will become toxic gas as soon as it hits the surface air and direct sun.

It helps to remember that the walls of the blood vessels, filtering tissues and tubules of liver and kidney, lungs, intestine etc. are living cells that can themselves be poisoned or disabled by a toxin. **So bleeding from the rectum could indicate a break down in both capillary integrity and in intestinal wall lining integrity. Most likely the same thing is happening in the liver, kidney, and lungs since we are looking at a systemic toxin, spread throughout the body.**

The EPA and BP are blocking scientists from studying just these types of issues, knowledge that could be available now and for the next such event.

CONTACTS:

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