### OIL SPILL INFORMATION FACT SHEET FOR HEALTH CARE PROVIDERS IN ALABAMA

On April 20, 2010 the Deepwater Horizon Platform exploded and sank 2 days later into the Gulf of Mexico. Oil has been leaking from this site since the disaster. The spill, gushing as much as 60,000 barrels of oil per day, is about 50 miles from the mouth of the Mississippi River. On July 15, the flow was temporally stopped and efforts to achieve a permanent solution continue.

At this time, the effects of the oil spill are more likely having a greater ecological impact than adversely affecting human health. The ecological effects are widespread and include contamination of wetlands and ill effects on marine life and coastal birds. However, there may be risk for human health effects associated with exposure to oil via inhalation, skin/mucous membrane contact and/or ingestion. Health care providers are encouraged to treat anyone suspected of oil spill exposures as appropriate based on established medical practice. It is not possible to provide specific treatment guidance in this document due to the variation in individual cases. For guidance regarding medical management, providers are encouraged to utilize local Poison Control Centers (described below) as well as medical experts at the University of South Alabama and the University of Alabama at Birmingham.

Poison Control Centers in the Gulf region are taking health-related calls about the oil spill. These centers, through the AAPCC's National Poison Data System (NPDS), track all calls related to the spill, including inhalation of fumes, ingestion of oil and exposure to chemical dispersants. Providers can contact the Poison Control Center at 1-800 222-1222. For more information, visit the <u>AAPCC website</u>.

The type of oil leaking from this well is a light sweet crude oil which is lighter than other types of oils and contains a large amount of gas with few heavy hydrocarbons. Total Petroleum Hydrocarbons (TPH) is a term used to describe a broad family of several hundred chemical compounds that originally come from crude oil. In this sense, TPH is really a mixture of chemicals. They are called hydrocarbons because almost all of them are made entirely from hydrogen and carbon. Crude oils can vary in how much of each chemical they contain, and so can the petroleum products that are made from crude oils. It should be noted that crude oil can contain substances known to have very low odor detection thresholds; therefore crude oil can have an odor even when these substances are not detected in air samples. Some people may be able to smell several of these chemicals at levels well below those that would cause short-term health problems. For the individuals who do experience short-term effects, the common symptoms include irritation, headache, and nausea which improve when the person is removed from exposure. For more information on the effects of petroleum hydrocarbons, visit <u>CDC – Gulf Oil Spill 2010: Total Petroleum Hydrocarbons</u>.

Once the oil reaches the water's surface, it changes. The high winds and seas will mix and "weather" the oil which can help accelerate the biodegradation process causing the smaller molecular weight compounds to breakdown. Weathered oil is thicker and more solid in the form of mousse or tar balls. A very light layer of oil or sheen may also be seen floating on the water. Advisories with signs will be posted for specific bodies of water, but people should not swim, ski, or paddle a surfboard in any waters visibly affected by oil, or touch solid forms such as mousse or tar balls.

# MEASURES TO CLEAN UP THE OIL

- **Booms** Floating barriers called booms are being strategically placed in an effort to contain the spill and protect sensitive areas of coastline.
- **Burning** Controlled burning destroys the oil so less reaches shore. These measures are provided off shore and not along the coast.
- Skimming involves the process of separating the oil from the water.

 Dispersants – Oil spill dispersants, which work like dishwashing detergent, are applied to break an oil slick into small droplets and prevent the oil from coming back together. This process, along with the summer time heat, aid in the further decomposition of oil by bacteria in the water. It is unlikely that coastal residents will come into contact with undiluted dispersants, which are used out in the Gulf. It is possible that diluted dispersants could reach the coast in the air or the water. EPA is monitoring the air and water along the shore for dispersants and has not detected any at levels that could be a threat to the community. For more information, visit <u>EPA Response to BP Spill in the Gulf of Mexico - Dispersants</u>.

Available information indicates that the dispersants being used to combat the oil spill do not accumulate in seafood, and therefore there is no public health concern from them due to seafood consumption. FDA will continue to monitor the use of dispersants and evaluate any changes in their use or composition.

### HEALTH CONCERNS ASSOCIATED WITH THE OIL SPILL

- People can be exposed to hazardous substances related to the spill by breathing them (air), by swallowing them (food, water), or by touching them (skin). People should avoid close contact to the spill and fumes from any burning oil. For more information, visit <u>CDC – What to Expect from</u> <u>the Oil Spill and How to Protect Your Health</u>. For current conditions on Alabama beaches, visit <u>ADPH – Current Conditions of Alabama Beaches</u>.
- Symptoms reported from excessive exposure to crude oil or dispersants commonly include the following:
  - eye, nose, and throat irritation
  - headache
  - dizziness
  - upset stomach
  - cough or shortness of breath
- Skin contamination crude oil can generally be cleaned off without any lingering effects. The affected skin should be washed with soap and water. Clothing should be laundered in the usual manner. Harsh detergents, solvents, or other chemicals to wash oil from skin or clothing should not be used as they may promote absorption of the oil through the skin.
- Ingestion swallowing crude oil may result in nausea, vomiting and gastrointestinal tract disturbances, particularly in young children. Dangers involve vomiting, then subsequent aspiration into the lungs causing chemical pneumonia. To treat patients with crude oil ingestion exposure, do not induce vomiting.
- Ocular exposure slight stinging and temporary redness of the eyes can result from exposure to crude oil, however, no permanent damage should occur. The eye should be flushed with water immediately after exposure for approximately 15 minutes.

#### Air quality:

Some people may be sensitive to any change in air quality, which could cause symptoms such as nausea, vomiting or headaches. If these symptoms occur, authorities recommend staying indoors, ventilating the home with air conditioning, and avoiding strenuous outdoor activity. Healthcare providers should treat patients with ongoing symptoms, particularly with pre-existing medical conditions, such as asthma or other respiratory illness.

Air quality is being monitored by the EPA. The results of EPA's sampling efforts are being posted at the <u>EPA Response to the BP Spill in the Gulf of Mexico</u>. In the event of contamination, air advisories

or warnings would be issued for people at higher risk of effects from it such as children with asthma, or people with respiratory disease.

For more information, visit EPA – Questions and Answers - Air Quality Concerns

#### Water quality:

Water quality is being monitored by the EPA. EPA is tracking the prevalence of potentially harmful chemicals in the water as a result of this spill to determine the level of risk posed to fish and other wildlife. While these chemicals can impact ecosystems, drinking water supplies are not expected to be affected.

For more information, visit EPA – Questions and Answers - Drinking Water.

### Food safety:

Fish and shellfish harvested from areas unaffected by the closures are considered safe to eat. NOAA is closely monitoring the surface and subsurface movement of petroleum and is expanding the closed area as needed. The states are also closing harvest waters under their jurisdiction as needed. There is no reason to believe that any contaminated product has made its way to the market. Closing harvest waters which could be exposed to the oil is the best way to protect the public from potentially contaminated seafood, because it keeps the product from entering the food supply. Harvest waters will not re-open until oil from the spill is no longer present and the seafood samples from the area successfully pass both sensory analysis by trained experts and a chemical analysis to ensure there are no harmful oil residues.

#### FDA's Role in Ensuring Seafood Safety:

FDA operates a mandatory safety program for all fish and fishery products under the provisions of the Federal Food, Drug and Cosmetic Act, the Public Health Service Act, and related regulations. The FDA program includes research, inspection, compliance, enforcement, outreach and the development of regulations and industry guidance. FDA works closely with NOAA and the states whenever commercial fishing waters are closed for public health reasons and again when they are reopened to harvest. Call 1-888-INFO-FDA with questions or concerns about seafood or to report any seafood purchased that may be suspect of being contaminated with oil. For more information, visit <u>FDA – Gulf of Mexico Oil Spill Update</u>.

#### Mental health issues:

The effects of any disaster can be long-lasting. During times of disaster, more reports of increased stress, domestic violence, suicide, post traumatic stress syndrome, alcohol related incidents and other medical incidents are common. Health care providers should be aware of the mental impact and possible long-term effects of stress such as hypertension, exacerbation of pre-existing conditions such as rheumatoid arthritis, etc. and treat appropriately. For more information from CDC related to coping with disaster, view <u>CDC – Coping with a Disaster or Traumatic Event</u>.

The Substance Abuse and Mental Health Services Administration (SAMHSA) has tip sheets available on dealing with the Gulf Oil Spill for the general public, parents, teachers, and response workers. Resources for drug and alcohol abuse treatment centers, mental health services and suicide prevention are available through their website. For more information, visit <u>SAMHSA Disaster</u> <u>Response</u>.

## SPECIAL POPULATIONS AFFECTED BY THE OIL SPILL

Pregnant women and small children should stay away from oil on beaches.

#### Pregnant women:

Although the oil may contain some chemicals that could cause harm to an unborn baby under some conditions, the CDC has reviewed sampling data from the EPA and feels that the levels of these chemicals are well below the level that could generally cause harm to pregnant women or

their unborn babies. The effects that chemicals might have on a pregnant woman and her unborn baby would depend on many things: how the mother came into contact with the oil, how long she was in contact with it, how often she came into contact with it, and the overall health of the mother and her baby. If possible, everyone, including pregnant women, should avoid the oil and spill-affected areas. Generally, a pregnant woman will see or smell the chemicals in oil before those chemicals can hurt her or the baby. The EPA and CDC are working together to continue monitoring the levels of oil in the environment and will notify the public if levels exceed a safe limit. For more information, visit <u>CDC – Gulf Oil Spill Information for Pregnant Women</u>.

#### Children:

AAP provides the following guidance. The oil spill may expose children to a number of hazards and concerns. This event is unprecedented in size, scope, and nature of the spill (very deep water), and there may be unpredictable levels of exposure. In addition, there is little published research on community exposure to spills. Therefore, parents and other caregivers should adopt a conservative approach and avoid exposures to children.

Based on the unknown risks or health effects from exposure to the oil or other toxic agents, health care providers should consider the following:

- Some children (for example, those with asthma) may be at increased risk or may develop respiratory symptoms even after one exposure to aerosolized agents or vapors.
- The potential for contamination of food and drinking water sources and supplies should be closely monitored.
- Children should not be involved in swimming, boating, or clean-up activities in areas impacted by the oil spill.
- For more information from AAP, visit <u>Children and Disasters</u>.

## **SURVEILLANCE**

The Alabama Department of Public Health has implemented a surveillance system in coastal area emergency departments, urgent care facilities and community health centers designed to detect cases among people in the impacted area (Baldwin and Mobile Counties) who seek health care because they have signs and symptoms that they believe are oil-related. Alabama is analyzing these data daily so that response decisions can be made with the most current information. For more information, view the <u>Number of Patients Reporting Possible, Suspected, or Know Exposure to Oil in Baldwin and Mobile Counties by Week</u>.

## WORKER SAFETY

According to Deep Water Horizon response information, thousands of people are currently responding to protect the shoreline and wildlife and cleanup vital coastlines. This includes workers onshore (cleaning up beaches and marshes, for instance) and workers at sea (skimming, conducting controlled burns, running subsea operations at the wellhead, etc). For more information, visit <u>Deepwater Horizon</u> <u>Reponse – Operations and Ongoing Response</u>.

Workers are the most likely group to be exposed to toxic components in oil. The exposure depends on their jobs, location, type of oil and duration. The requirement for respirators and protective clothing

depend on the type of exposure. Oil spill cleanup safety guides and fact sheets are available on OSHA's website: <u>OHSA's Efforts to Protect Workers</u>.

#### Heat Related Injury:

Heat related injury is a concern with the intense summer heat.

Warning signs of heat exhaustion include heavy sweating, paleness, muscle cramps, tiredness, weakness, dizziness, headache, nausea or vomiting, fainting. The skin may be cool and moist. The pulse rate will be fast and weak, and breathing will be fast and shallow.

Warning signs of heat stroke vary, but include the following: An extremely high body temperature (above 103 degrees F) Red, hot and dry skin (no sweating) Rapid, strong pulse Throbbing headache Dizziness Nausea Confusion Unconsciousness

For more information on heat related injury, visit NIOSH - Working in Hot Environments.

#### Cleaning and Caring for Wildlife:

People are urged not to attempt to help injured or oiled animals, but to report any sightings via the toll-free number. A toll-free number has been established to report oiled or injured wildlife: 1-800-557-1401.

For training volunteers, cleaning and caring for birds, turtles and other wildlife indicate that aerosols of water, crude oil, soap, ammonia and other chemicals are likely to be generated. Eye and face protection, in addition to skin protection is recommended. When irritating concentrations of ammonia are experienced, dilutional ventilation, for example, by means of fans and other means to increase air exchange, are recommended. Recommended PPE includes eye protection, i.e., safety glasses, goggles or face shields. Birds will peck under stress and may aim for the eyes. Eye protection is also necessary to protect against large droplet sprays from struggling birds. Oil-resistant outer protective clothing is recommended. An oil-resistant gown may provide sufficient upper body protection, avoiding the need for coveralls. Gloves (neoprene or nitrile rubber) that are oil resistant and provide protection against pecking and sharp talons are recommended. Non-skid footwear or boots that are oil-resistant and waterproof are also recommended. Respiratory protection is not generally recommended, unless wildlife is heavily coated with fresh crude oil. In such cases, a half mask respirator with an organic vapor cartridge is recommended. For more information, visit <u>CDC-Deepwater Horizon Response</u>: Key Safety and Health Topics.

## PUBLIC HEALTH ADVISORIES

ADPH issues advisories against swimming in the affected waters off Alabama shores. For the current listing of areas, visit <u>Information on Oil Spill Issued by ADPH</u>.

Healthcare providers should disseminate the following precautions.

#### **Protective Measures:**

- Tar balls should not be handled.
- Avoid direct skin contact with the oil.
- If one gets oil or tar balls on the skin, they are to wash with soap and water.

- If one gets oil on the clothing, they are to launder as usual. Do not use harsh detergents, solvents, or other chemicals to wash oil from skin or clothing; it may promote absorption of the oil through the skin.
- If the odor causes nausea, vomiting, headache or breathing problems, advise person to leave the affected area. Go indoors to a well ventilated air conditioned area. If symptoms persist, they should seek healthcare attention immediately.
- Fish with a smell or taste of oil should not be eaten.
- Hand washing should be done before eating.

### HURRICANE SEASON

Hurricane season began June 1 and ends November 30, 2010. Of primary concern with tropical storm and hurricane activity is the potential for storm surges which may carry oil into the coastline and inland as far as the surge reaches. Beyond the coastal storm surge, it is unlikely that a hurricane would bring oil further inland. Debris resulting from the storm may be contaminated by oil from the Deepwater Horizon incident. In addition, storm activity can cause delays in clean-up efforts already in progress.

The National Weather Service and other Emergency Management Agencies provide ongoing monitoring of all storm activity in the tropics and Gulf Region. Public advisories will be posted in the event of a storm.

For more information on hurricanes and the oil spill, view <u>NOAA's Oil Spill Response – Hurricanes and</u> the Oil Spill.

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