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RRT III Fact Sheet

www.dot.gov/dotinfo/uscg/lantarea/rrt/rrtmain.htm

TAR BALLS
in the Coastal Environment

Tar Balls are fragments or lumps of oil weathered to a semi-solid or solid consistency, feel sticky, and are difficult to remove from contaminated surfaces. They are formed through the combining of viscous hydrocarbons with debris that is present in the water column. They range in size from a pinhead to approximately 30 centimeters in diameter.

Where Do They Come From?

The source is generally believed to originate from offshore petroleum production, drilling, onshore bulk oil storage or production facilities, marine transportation discharges which includes vessels pumping bilges and tank cleaning, and from sources such as improper disposal of automotive oil and runoff from storm sewers. However, natural seepage from the ocean floor is also considered a source.

In 1979, the National Oceanic and Atmospheric Administration (NOAA) focused on this issue in a report called "A Review of the Tar Ball Problem". Their findings showed that tar balls originate from three main sources:

- 40 percent from vessels pumping bilges or tank cleaning;

- 11 percent from natural seepage from ocean floors; and

- 49 percent from shore side facilities, including automotive oils deposited in storm sewers or washed into the sea by rainstorms.

The study further concluded that while in the water, oils undergo a weathering process during which lighter fractions evaporate. The remaining product is a heavy asphalt-like substance which washes up on beaches. This product normally does not pose a serious threat to public health and welfare and to the environment. However, it may create cosmetic, and at times, economic problems.

Why Do You See Them More Often On Some Coasts?

Pelagic Tar, commonly called beach tar or tar balls, is a phenomenon which plagues coastlines throughout the world, the United States included. Tar ball concentrations will vary widely from various coasts and shorelines and ten to decrease during the fall and winter months. The likelihood of weathered oil washing ashore on some shores is relatively low unless there is a significant oil spill within the region. Wind and predominately conducive current conditions control the

probability of shoreline impacts and tar balls generally sink to the sea bottom or drift.

Loop and eddy current waters along some coastal areas flow in close proximity to the shoreline. These currents can and do rapidly move high concentrations of weathered oil onshore.

Are they Harmful to You?

Tar Balls are a nuisance. If you walk barefoot on the beach in an impacted area, you may ultimately find tar residue on your feet. Normally there are no or minimal health concerns associated with tar balls. However, you should remove the tar as soon as practicable from your skin. As with some heavy oils, prolonged skin contact may cause an allergic reaction. Such a reaction is usually manifested as a skin rash (dermatitis) which is local in most cases.

How Do You Remove Tar From Your Skin?

Rinse the affected area with fresh water, scrape off the excess tar from your skin and apply a grease removing agent (e.g., hand cleaner pastes found in auto stores) or mineral oil. Rinse again with fresh water. In cases where fresh water or a removing agent is not available the bulk of the tar may be removed by rubbing the area with beach sand. DO NOT use gasoline, solvents, or other materials that may be worse to the skin than the existing tar.

Can They Be Removed From The Beaches?

Local governments that have designated clean up crews remove the tar balls when cleaning the beaches. Because of the recurring nature, it is thought that removal is best handled through these routine beach clean up programs.

It is the policy of the state and federal governments not to expend funds for cleaning up minimal amounts of tar balls from beaches. However, government clean up actions will be taken if tar balls threaten the public health and welfare or the action contemplated will clearly be productive in returning the environment to its former state if the pollution is in fact ecologically damaging.

Please contact our RRT Coordinator through the web site or at (757) 398-6620 for more information.