

OKLAHOMA ROCKS! Energy

HUMAN & ENVIRONMENTAL HAZARDS

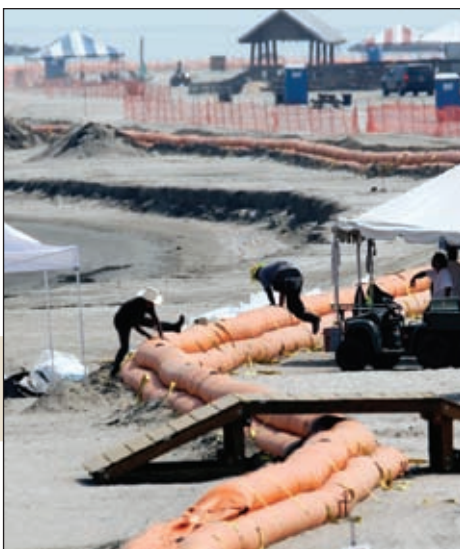
The human and environmental hazards of finding and harvesting energy resources have garnered front-page headlines lately. The Deepwater Horizon oil spill in the Gulf of Mexico and the recent rescue mission of 33 miners stuck underground in Chile for more than two months make questions about the hazards of these resources valid concerns.

One of the most well known oil spills in the U.S. is the Exxon Valdez spill in Prince William Sound, Alaska, in March of 1989. Between 250,000 and 750,000 barrels of oil were spilled, killing birds and other wildlife and causing extensive harm to the ecosystem. Cleanup tools like bioremediation (using nutrients and microbes to clear oil) helped remove much of the visible oil within weeks, and weathering helped clear much of the rest within about two years, although there are lingering effects.

Every year, about 700 million gallons of waste oil make their way into the ocean. The oil may evaporate, be eaten by deepwater microbes or sink and become incorporated into sediment on the ocean floor.

- 51%: Land waste like improperly disposed of motor oil
- 20%: Routine ship maintenance
- 13%: Hydrocarbon particles formed from air pollution
- 8%: Natural leakage from the sea floor
- 8%: Spills from offshore drilling and oil tankers

On June 21, 2010, workers climb over a boom after cleaning oil from the Deepwater Horizon spill on a beach, in Grand Isle, La.
(AP Photo/Charlie Neibergall)



ACTIVITIES:

1. Use *The Oklahoman* Archives to research the Exxon Valdez oil spill and recovery. Write an essay on what was learned about the environmental recovery and how it could be applied to the current recovery in the Gulf of Mexico.
2. All energy developments, not just oil and coal, carry some type of risk. Create a map showing disasters worldwide from multiple energy sectors. For a starting point, include Sea Island Oil Terminal, Kuwait (oil spill); Chongqing, China (gas blowout; Khakassia, Russia (hydropower plant disaster); and Chernobyl, Ukraine (nuclear power plant catastrophe). Then, evaluate how safety standards in foreign countries differ from those in the U.S. Did the disasters spark new safety recommendations or laws? Are there more stringent regulations in other countries that should be considered in the U.S.? See also <http://www.evostc.state.ak.us/>



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