

NPL Site Narrative for Imperial Refining Company

IMPERIAL REFINING COMPANY Ardmore, Oklahoma

Conditions at Proposal (May 11, 2000): Imperial Refining Company is an inactive and abandoned crude oil refinery located on the east and the west side of State Highway 142 in the northeast portion of Ardmore, Carter County, Oklahoma. The property covers 55 acres of land bordered by undeveloped land to the south and east, a small residential area and industry to the north, and lagoons from an active local refinery to the west. The area surrounding the site is mainly undeveloped. The site is being proposed to the NPL because hazardous substances have migrated and/or could migrate to wetlands and other sensitive environments on or near the property. Hazardous substances detected at the site include benzene, toluene, ethylbenzene, and xylenes (BTEX compounds), polycyclic aromatic hydrocarbons (PAHs), and metals including lead, arsenic, chromium, nickel, selenium, and zinc.

Imperial Refinery purchased the property in 1917 and began petroleum refining operations. The refinery declared bankruptcy in 1934, ceased operations, and dismantled all tanks and storage equipment by 1948. During tank dismantling, tank bottom material was dumped onto the ground throughout the property. There is no evidence to indicate that any activity has occurred on the property since the Imperial Refinery closed.

In 1998, Oklahoma Department of Environmental Quality (ODEQ) conducted a Site Inspection (SI), and referred the facility to EPA. EPA initiated a removal assessment at Imperial Refining. During the SI and removal assessment, investigators noted twelve waste piles containing discarded tank bottom material scattered throughout the property, in the approximate locations where the storage tanks once stood. These dry, asphalt-like tar mats range in size from approximately 2,224 square feet to 58,028 square feet. Soil, sediment, waste pile, and surface water samples were collected during the SI and removal assessment. Chemical analyses of waste pile samples revealed elevated concentrations of hazardous substances including BTEX compounds, PAHs, lead, arsenic, chromium, nickel, selenium, and zinc.

Surface water runoff from the waste piles drains toward wetlands in the southern part of the property. Chemical analyses of wetland sediment and water samples revealed elevated concentrations of PAHs (benzo(a)anthracene, benzo(a)pyrene, chrysene, and pyrene), chromium, and zinc. These wetlands are a unique biotic community and habitat for the alligator snapping turtle, an Oklahoma Species of Special Concern.

Status (July 2000): EPA is considering various alternatives for this site.

For more information about the hazardous substances identified in this narrative summary, including general information regarding the effects of exposure to these substances on human health, please see the Agency for Toxic Substances and Disease Registry (ATSDR) ToxFAQs. ATSDR ToxFAQs can be found on the Internet at [ATSDR - ToxFAQs](http://www.atsdr.cdc.gov/toxfaq/index.asp) (<http://www.atsdr.cdc.gov/toxfaq/index.asp>) or by telephone at 1-888-42-ATSDR or 1-888-422-8737.