



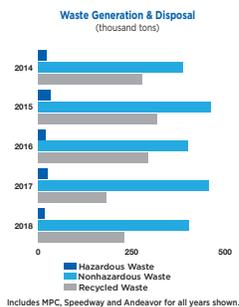
**M** Marathon Petroleum Corporation

# 2018 SUSTAINABILITY REPORT

## WASTE AND HAZARDOUS WASTE

In refining, transporting and marketing petroleum fuels, both nonhazardous and hazardous wastes are generated. MPC's environmental engineers work with our operations planners to focus on safely managing the wastes we generate. We carefully contain and label drums, boxes, bins and roll-off containers; work to minimize the waste we generate; and recycle or beneficially reuse as much of the waste as possible. We work to ensure that our waste materials are sent to properly permitted waste disposal and recycling facilities that we verify have a good track record of compliance with state and federal waste disposal regulations. The volume of waste generated in any given year varies significantly, as it is highly dependent on scheduled maintenance and remediation activity.

Reducing the amount of waste we produce carries both financial and environmental benefits. As such, we continually work to reduce the volume of waste generated, while seeking alternatives for disposal,



such as beneficial reuse, reclamation and recycling. One example is the installation of thermal desorption units (TDUs) at our Garyville, Louisiana, and Robinson, Illinois, refineries, with one in development at our Galveston Bay refinery in Texas City, Texas, as well. The process carried out by these units has three primary benefits: 1) hydrocarbons are recovered and returned to the refining process as feedstock; 2) the hazardous characteristics of the waste materials are removed; and 3) the total volume of waste material is reduced.

Another example of managing waste responsibly is our Waste Management Vendor Approval Program, a corporate program that requires hazardous and nonhazardous waste management vendors be approved by our corporate environmental department before our operating components may use the vendor. As part of the program, we use a structured vetting process to ascertain environmental compliance to ensure our waste materials are disposed of responsibly and in accordance with the law.

A similar example is our Business Partner Pre-Qualification Review Standard that sets forth procedures for identifying, assessing and mitigating risks and liabilities among business partners that are in a direct contract relationship with MPC and have custody and control over our product.

### Waste Management & Recycling

MPC sustainably manages hazardous refinery wastes from tank-cleaning projects and other recurring maintenance activities. As refinery tanks are cleaned, the residual material is removed and

placed in secure waste containers and then trucked to a cement kiln for processing into waste-derived fuel. Since 2014, more than 66,000 tons of waste from our refineries became an alternative-fuel source for the cement manufacturing industry.

The primary fuel firing cement kilns to heat raw materials and chemically transform them into cement has historically been coal. The waste-derived fuel blend from our waste reduces the amount of coal the cement manufacturer would otherwise need to use in their process. In addition, sand, sediment, iron scale or other material in the fuel blend becomes part of the cement product. By recycling the waste in this manner, we also avoid sending the material to landfills. By turning our wastes into fuel and cement, cement manufacturers have reduced coal use by over 33,000 tons. In 2018, 932,528 gallons of waste-derived fuel was sent to cement kilns, which kept 2,792 tons of waste out of landfills.

### WASTE MINIMIZATION TO REDUCE THE AMOUNT OF WASTE REQUIRING OFF-SITE DISPOSAL

We also actively manage waste on- and off-site to recover oil for reuse in the refining process and minimize the total amount of waste requiring other treatment or disposal. These waste management operations include a combination of 1) centrifuging to separate water, oil and solids to reduce the volume of material prior to disposal; 2) thermal separation to recapture oil vapors so that they can be condensed back to liquid phase; and 3) coker injection used to recover and recycle oil waste as feedstock and solid waste to become petroleum-coke product. In 2018, we recovered 160,700 barrels of oil, which were reintroduced into the refining process to be turned into transportation fuels.