



Clean Harbors InSite Services Increase Recovery and Recycling at Pine Bend Refinery

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Handles both Hazardous and Non-hazardous Wastes

Flint Hills Resources' Pine Bend Refinery in Rosemount, Minnesota is among the top processors of Canadian crude in the United States with a crude oil processing capacity of about 320,000 barrels per day. The refinery produces gasoline, diesel, propane and butane used throughout Minnesota and the Upper Midwest. The refinery, which has been in operation since 1955, also manufactures asphalt, heating fuels and sulfur for fertilizers.

Clean Harbors has provided waste management services for the refinery since 2002 with a full-time InSite Services staff of 11 who handle both hazardous and non-hazardous wastes. Services include container management (rentals, on-site relocations, maintenance and inventory management), waste disposal and recovery, as well as recycling operations.

Clean Harbors personnel manage an inventory of 200 roll-off containers, delivering them on site, monitoring their status and contents, tracking their locations using Clean Harbors' barcode tracking system, transporting them to on-site collection areas and to off-site disposal facilities. "Anything that's a hazardous waste generally goes to a Clean Harbors processing site," said Marvin Dietrich, Clean Harbors InSite Operations Manager. "Non-hazardous materials are sent to a local landfill or a local scrap metal recycling facility."

In addition, there is a "green team" that is responsible for hazardous and non-hazardous management of drum quantities and solid wastes throughout the facility. "The team manages satellite collection locations and container supplies, and performs recycling activities throughout the site ensuring that wastes are properly collected, labeled and moved to storage or recovery/recycling areas," explained Dietrich.

They also provide basic spill response services and consult with refinery personnel to help identify the waste chemicals that are produced during operations and to determine the correct disposal option for those materials.

Access to Specialized Services

The InSite Services program also serves as a convenient way for Pine Bend Refinery management to access other Clean Harbors company services. Project services, such as tank cleaning, bundle cleaning, catalyst work and major turnaround support services, have been provided. Additionally, the InSite team has assisted in managing turn around work and large scale projects by leveraging other lines of business and support teams throughout Clean Harbors' vast network.

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variety of services without issues and in compliance with Flint Hills Resources requirements. InSite Services also enables Pine Bend Refinery management to work with familiar Clean Harbors' management contacts as they bring in these specialized services.

Creative Approaches Increase Recycling

Over the years Clean Harbors has made a concerted effort to recover and recycle as much as possible of the waste materials generated by refinery operations. The company has several industry-leading processes to recover hazardous materials ranging from tolling to incineration for energy recovery.

Recently, the InSite Services green team introduced several innovations to recover and recycle both hazardous and non-hazardous materials. Examples include:

- An aerosol can depressurizing program – Canisters are depressurized and recycled as scrap metal. The gasses are captured and the liquids are collected in drums for reprocessing or disposal. This significantly reduces the amount of material that has to be sent off-site for processing and reduces cost.
- A used hose management program – The fittings are removed from hoses that are slated for disposal and the component parts are separated for recovery. Metal components are sent to scrap metal processors as are steel-braided hoses, while rubber-based hoses and other materials are incinerated for energy recovery rather than landfilled.
- A used metal furniture program – Metal furniture is now taken to a metal recycling facility for its metal value reducing waste and disposal costs.

The Clean Harbors InSite Services team at Pine Bend Refinery provides day-in, day-out waste management services that are continually enhanced to introduce new ways to reduce costs and recycle and recover more materials while consistently supporting refinery operations. Due to the success of the InSite program at Pine Bend, other Flint Hills Resources locations have begun using Clean Harbors InSite Services to support their operations.



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