



fact sheet

# el segundo refinery flares

human energy\*



## what is a flare?

A flare is a safety relief device used throughout the petroleum industry. It is used to ensure that equipment does not exceed the limits set for maintaining the safety and integrity of a process unit. The refinery has a total of five elevated flares.

## why does the refinery need flares?

Occasionally as part of the refining process, more fuel gas (e.g., propane, butane) is produced than needed by the plants. The flare's function is to eliminate this excess process gas by burning it off rather than venting potentially damaging hydrocarbons to the atmosphere. A pilot light at the top of each flare burns all the time (like some home furnaces), so the flare is ready when needed.

## why are the flare stacks so tall?

Most flares are elevated because of the heat involved in the process. By operating flares high about the ground, the potential for igniting other equipment and endangering personnel is eliminated.

## why do flares periodically make noise?

Steam is an important component of the flare process. It is used as a coolant and promotes a clean burning flame. Sometimes the steam makes a hissing noise when it is introduced into the flare. That just means it's doing its job to cool the system and significantly reduce smoke.

## why does the flame vary in size?

There are infrequent instances when the refinery experiences a process interruption, such as a power outage or an earthquake. For safety reasons, equipment automatically shuts down when they happens. The excess process gas is then consumed in the flare system. In addition, starting up plants after maintenance work can increase flare activity. As a result, the refinery has adopted a plan not to introduce feed to plants being restarted after 7 p.m. in the summer and after 5 p.m. in the winter. This procedure results in economic penalties to our business; however, the refinery will continue to limit potentially excess flaring at night in keeping with our good neighbor policy.

## is there any concern when the flares are operating?

Flare systems are specifically designed to handle and eliminate excess heat and fuel gas. Be assured that flaring is a controlled operation which provides the safest and most environmentally effective method to burn off excess process gasses and to reduce hydrocarbon emissions.

For further information about flares or other refinery processes, contact the refinery's Policy, Government and Public Affairs office at 310.615.5254. Off-hour needs can be addressed by calling the 24-Hour Community Response Hotline at 310.615.5342.