



Deer Park Community Advisory Council

Monday, May 20, 2024

Flaring 101

Rafael Mendez and Fran Falcon from Dow gave a presentation titled "Flaring 101 – A View Inside the Plant." Flaring is the process of burning flammable or toxic gases at a controlled and safe location. Typically employed during the startup or shutdown of a plant, or in the event of a malfunction, this method is used when gases generated cannot be safely managed within the plant processes. For safety reasons, these gases are often best managed by a flare. While alternative technologies such as thermal oxidizers can also handle flammable or toxic gases, they are generally suitable only for small quantities.

Various types of flares are used to burn these gases. The two major types of flares are elevated flares and ground flares. Most flares in east Harris County are elevated assisted flares, or flares with mechanisms that enhance the combustion process such as the injection of steam, primarily because ground flares have a much larger footprint. Most flares are designed to achieve 98% destruction efficiency for Volatile Organic Compounds (VOCs), although flare efficiency is based on several factors. Regardless of the type of flare in use, the "pilot" flame should always be ignited, even if the flare itself is not visible.

Routine flaring and safety flaring are two different operational practices in industrial processes, where excess gases are combusted using flare systems. Each serves a distinct purpose and has different implications for plant operations and environmental impact. Routine flaring occurs as part of the standard operational procedures and involves the burning of gas that is produced as a byproduct of production or processing but cannot be utilized or transported. Safety flaring, also known as emergency flaring, is used primarily as a safety mechanism to protect personnel and equipment.

Visitors are invited to attend DPCAC's meeting on August 26th, where we will learn about Air Monitoring. For an invitation, contact info@deerparkcac.org.

Read about DPCAC meetings and see summaries of our most recent presentations at www.deerparkcac.org.