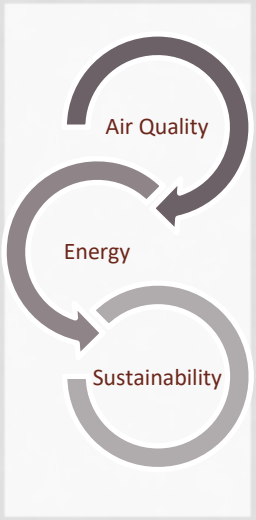
STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF AIR QUALITY

AIR QUALITY, ENERGY, AND SUSTAINABILITY

USE OF AIR SCREENS AT ENCLOSED FLARES

JOEL LEON – 6/4/21 ISG MEETING



USE OF AIR SCREENS AT ENCLOSED FLARES

Stack testing event in January, 2021 was being conducted on an enclosed flare at a New Jersey landfill

- Frequent high wind gusts caused CO to spike over reference method analyzer span and measurement range (most likely resulting in out of compliance air contaminant emission rates)
- Air screens:
  - Installed at the base of flare installed to block direct wind gusts
  - Limited frequency and duration of CO spikes
  - Remained in place during the stack testing

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- Types of information the Department would like to generate on the operation of Enclosed Flares with regard to the installation of air screens:
  - Are there Impacts on combustion efficiency or flare performance from varying wind speeds?
  - Does the existing design of air intake locations to address varying wind speeds?
  - Is there a benefit of flow regulators before or at the flare's combustion zone that would equalize the combustion air flowrate?
  - Is there an impact of the permanent installation, i.e. would air screens inhibit combustion under any scenarios such as when there is no wind present?
  - Any other input that could be provided