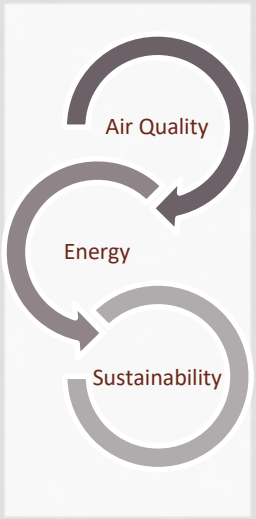
DIVISION OF AIR QUALITY

AIR QUALITY, ENERGY, AND SUSTAINABILITY

RISK SCREENING WORKSHEET UPDATE

INDUSTRIAL GROUP STAKEHOLDER MEETING
FEBRUARY 1, 2019



Presented by Joel Leon

OVERVIEW

- General Risk Screening Worksheet (RSW)
- Natural Gas Risk Screening Worksheet (NG-RSW)

DRAFT GENERAL RSW

- Revised General RSW will be issued for public comment
  - Draft General RSW and Fact Sheet will be posted
  - Fact Sheet will describe all proposed changes
- Methodology for risk determination
  - Based on recently issued Technical Manuals 1002 and 1003
  - Most current air quality model (AERMOD)
  - Most current meteorological data
  - Most current toxicology factors

RISK SCREENING WORKSHEET NATURAL GAS COMBUSTION

Development began to address additional contaminants subject to risk assessments

- Reporting thresholds lowered for HAPs which are emitted during natural gas combustion
  - Formaldehyde
    - Prior RT 400 lb/yr
    - Current RT 3.5 lb/yr
  - Benzo(a)pyrene
    - Prior RT 2 lb/yr
    - Current RT 0.04 lb/yr

RISK SCREENING WORKSHEET NATURAL GAS COMBUSTION

- Sufficient data to characterize discharge parameters for a Natural Gas Combustion Units
  - Large number of Units permitted
  - Stack flowrates generally above 1000 acfm
  - Discharge Temperature above 250^{O} F
- NG-RSW will provide more realistic risk potentials
  - **Two orders of magnitude** in risk levels between existing RSW and refined modeling conducted for:
    - 10.5 MMBTU/hr natural gas boiler
    - Stack height range 15 to 25 feet
    - Distance to the property line of 30 feet
  - **One order of magnitude** in risk levels between existing RSW and refined modeling conducted for:
    - 49.8 MMBTU/hr natural gas boiler
    - Stack height range 20 to 40 feet
    - Distance to the property line of 30 feet

RISK SCREENING WORKSHEET NATURAL GAS COMBUSTION

- NG-RSW will be structured to allow its usage for specific capacities which meet minimum:
  - Stack heights
  - Distances to the property line
  - Discharge temperature
  - Stack flowrate/exit velocity

RISK SCREENING WORKSHEET NATURAL GAS COMBUSTION

- NG-RSW will have meteorological data and terrain defaults
- Upon request, the Department will reevaluate the NG-RSW results to take into account unique site parameters
  - Urban vs. rural terrain
  - Use data from a different meteorological station