

# Serving Two Masters; Understanding Texas and EPA Permitting Programs

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AWMA Gulf Coast Chapter  
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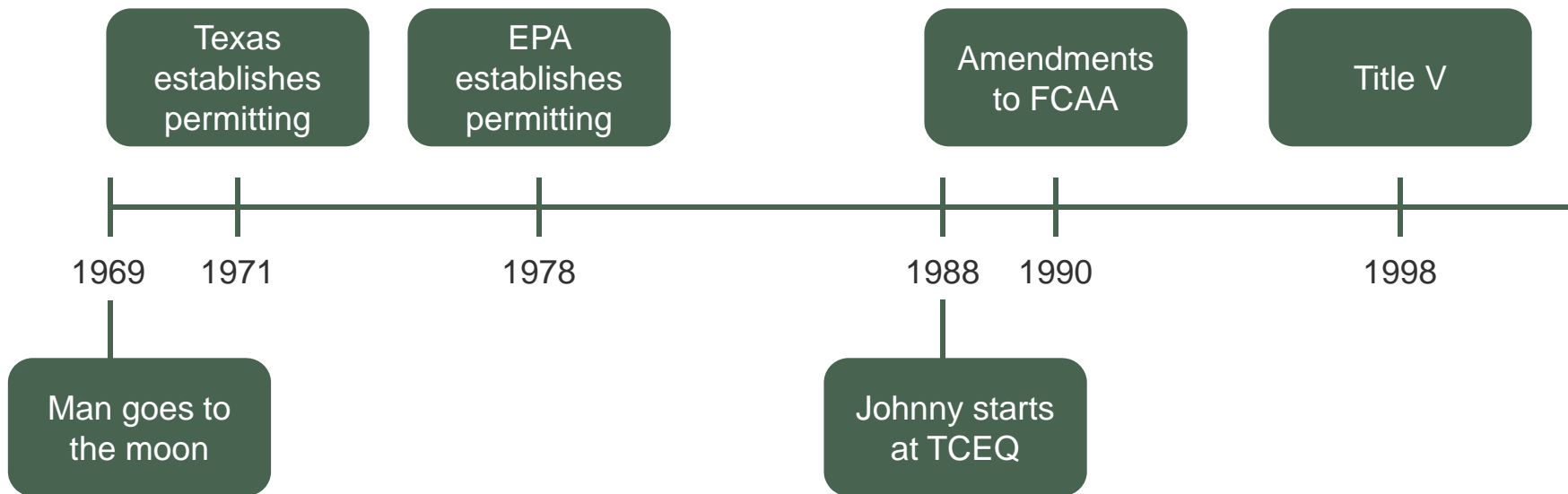


**SPIRIT**  
ENVIRONMENTAL

# Texas and EPA Permitting Programs

# Texas and EPA Permitting Programs

## Quick History of Air Permitting



# — Texas and EPA Permitting Programs

## Rule Landscape

<b>State Agencies (TCEQ)</b>	<b>EPA</b>
<b>Minor NSR</b>	<b>Major NSR</b>
<b>Chapter 106</b>	<b>PSD</b>
<b>Chapter 116</b>	<b>Nonattainment</b>
<b>(State Minor NSR Air Programs)</b>	

# Texas and EPA Permitting Programs

## Rule Landscape

<b>State Implementation Plan SIP</b>	<b>EPA Control Rules</b>
<b>Chapters</b>	<b>40 CFR</b>
<b>111</b>	<b>60 – NSPS</b>
<b>112</b>	<b>61 – NESHAP</b>
<b>115</b>	<b>63 – NESHAP</b>
<b>117</b>	<b>(MACT Standards)</b>

# Texas and EPA Permitting Programs

## Rule Landscape



## — Texas and EPA Permitting Programs

# National Ambient Air Quality Standards (“NAAQS”)

- Primary NAAQS – Protects Public Health
- Secondary NAAQS – Protects Public Welfare
- Federal Clean Air Act (“FCAA”) –
  - In compliance with the NAAQS - Attainment
  - Out of compliance with the NAAQS - Nonattainment

## — Texas and EPA Permitting Programs

### What is New Source Review (“NSR”)?

NSR is an air permitting program which authorizes:

- The construction or modification of facilities (Texas) or sources (Environmental Protection Agency (EPA))
- Air emissions that result from the operation of the authorized facilities or sources

*What is a “facility” and what is a “source”?*



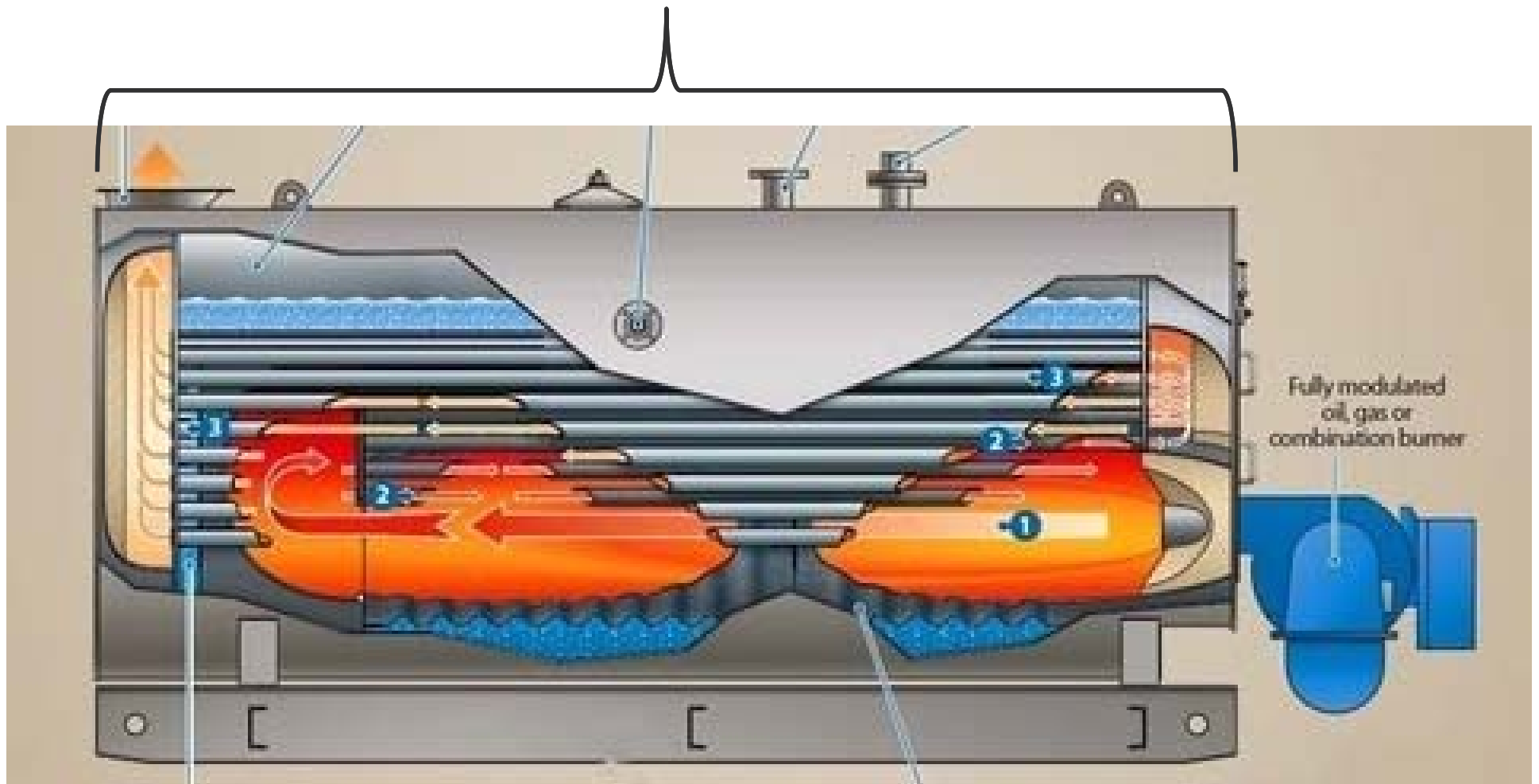
## — Texas and EPA Permitting Programs

### Facility – 30 TAC §101.1(4)

“A discrete or identifiable structure, device, item, equipment, or enclosure that constitutes or contains a stationary source, including appurtenances other than emission control equipment. A mine, quarry, well test, or road is not a facility.” – TCEQ

# TCEQ Facility

Facility



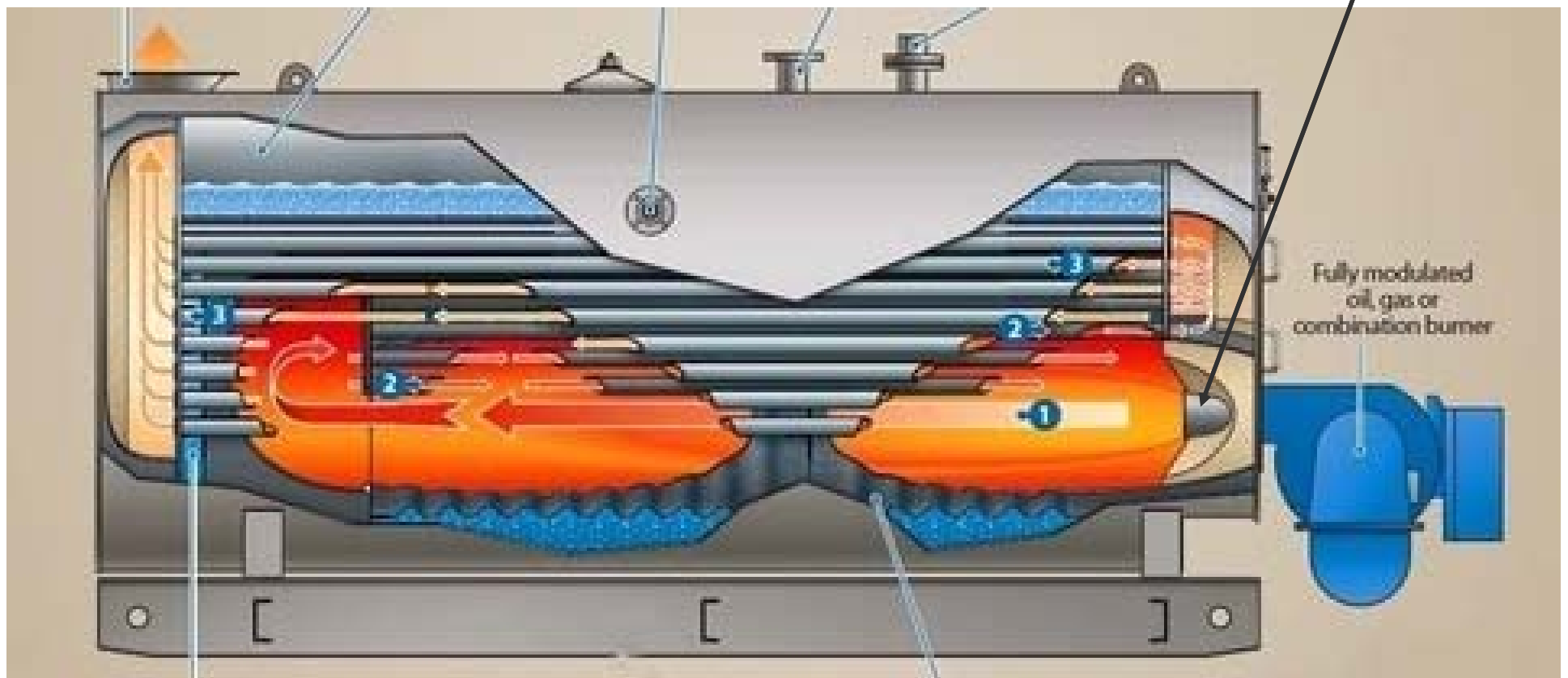
## — Texas and EPA Permitting Programs

**Source – 30 TAC §101.1(97)**

“**A point of origin of air contaminants**, whether privately or publicly owned or operated.....” - TCEQ

# TCEQ Source

Source



# — Texas and EPA Permitting Programs

## Source – EPA Definition

- Stationary source means any **building, structure, facility, or installation** which emits or may emit a regulated NSR pollutant.
- **Building, structure, facility, or installation means all of the pollutant-emitting activities which belong to the same industrial grouping, are located on one or more contiguous or adjacent properties, and are under the control of the same person (or persons under common control).....**

# — EPA Source

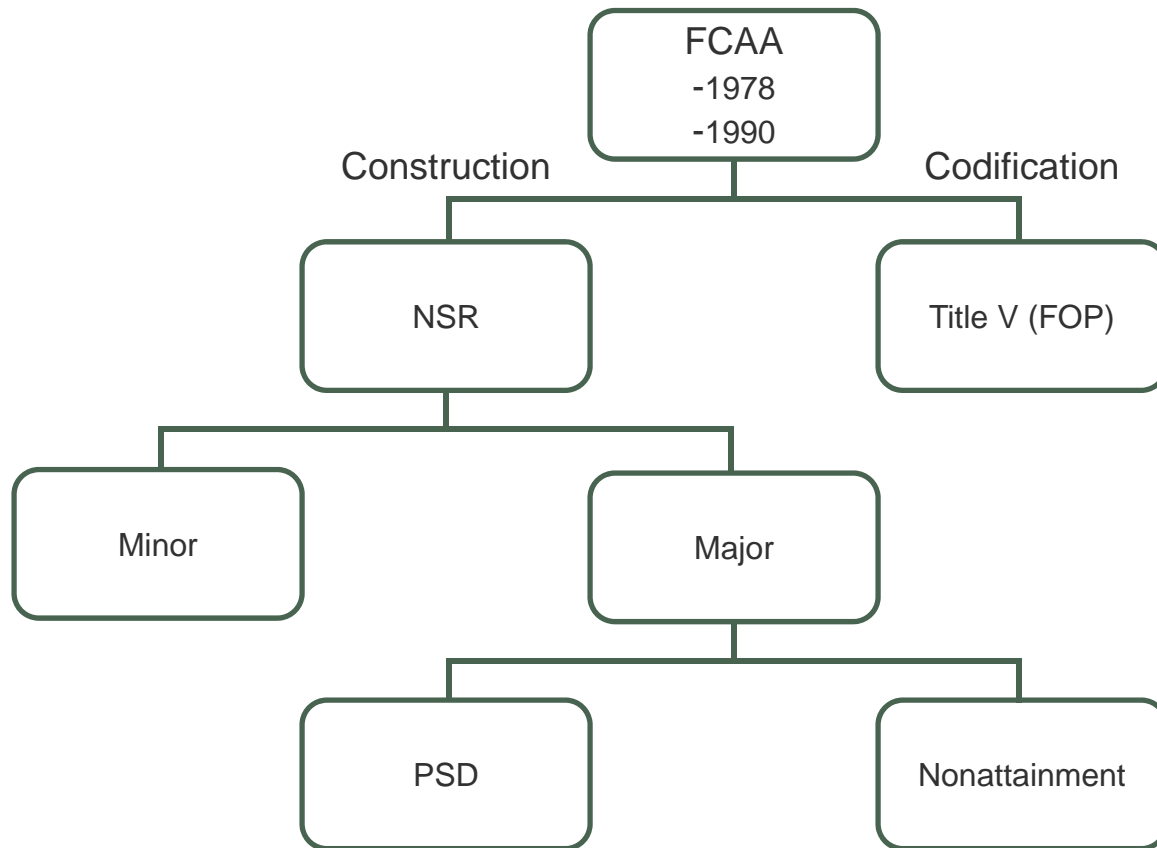


# — Texas and EPA Permitting Programs

## Air permitting programs

- TCEQ Minor NSR (authorizes individual pieces of equipment, or individual points/origins of air contaminants [tank, flare, loading rack, stock pile, etc.] )
- EPA Major NSR (authorizes entire sites)
- Both programs require that emissions from the authorized facilities or sources are protective of public health and welfare

# Overview of Air Permitting





# — Texas and EPA Permitting Programs

## What is Title V?

- A Federal Operating Permit required by Title V of the Federal Clean Air Act:
  - Does not authorize the construction of facilities or sources
  - Codifies all rules, regulations, and requirements under which a facility or source must operate in one document
  - Is required for major sources of air pollutants and certain other sources (area sources or minor-sources)

# — Texas and EPA Permitting Programs

## What is Title V?

- Texas has a “split” NSR and Title V permit program. Each type of permit is reviewed independently of each other (but Title V permits do include NSR permits within their applicable requirements).
- Some states have a “combined” NSR and Title V program. In these programs, there is one permit document that contains both NSR and Title V language.

# — Texas and EPA Permitting Programs

## NSR Authorizations

The NSR program was developed to authorize the following:

- Air Pollutants (EPA)
- Air Contaminants (TCEQ)

But what are they?

## — Texas and EPA Permitting Programs

The Texas Clean Air Act defines an **air contaminant** as:

“particulate matter, radioactive material, dust, fumes, gas, mist, smoke, vapor, or odor, including any combination of those items, produced by processes other than natural” - Texas Health and Safety Code 382.003(2)

## — Texas and EPA Permitting Programs

The TCEQ further clarifies air contaminant in 30 TAC §101(108):

“Unauthorized emissions--Emissions of any **air contaminant except water, nitrogen, ethane, noble gases, hydrogen, and oxygen** that exceed any air emission limitation in a permit, rule, or order of the commission or as authorized by Texas Health and Safety Code, 382.0518(g).”

## — Texas and EPA Permitting Programs

The EPA defines regulated **air pollutants** as:

- Criteria Pollutants
- Certain Non-Criteria Pollutants

# Texas and EPA Permitting Programs

## Criteria Pollutant – A pollutant with a National Ambient Air Quality Standards (“NAAQS”)

NO <sub>x</sub> as NO <sub>2</sub>	CO
SO <sub>2</sub>	Pb
Ozone, Regulated through precursors VOC and NO <sub>x</sub>	
PM, Regulated through indicators of PM <sub>10</sub> and PM <sub>2.5</sub> - includes condensable emissions	

## Regulated Non-Criteria Pollutant

H <sub>2</sub> S	H <sub>2</sub> SO <sub>4</sub> Mist
Total Reduced Sulfur (“TRS”)*	Fluoride**
Greenhouse Gases (“GHG”)	

\*Includes H<sub>2</sub>S

\*\*Excludes HF

# — Texas and EPA Permitting Programs

## Regulated Non-Criteria Pollutant

- Any pollutant that is subject to any standard promulgated under Section 111 of the Act, where Section 111 is the New Source Performance Standard implemented through 40 CFR 60 rules
- Any Class I or II substance subject to a standard promulgated or established under Title VI, where Title VI is “Stratospheric Ozone Protection”, primarily made up of CFCs and HCFCs



# Texas and EPA Permitting Programs

## Regulated Non-Criteria Pollutant

Note: The EPA has a category called “Subject to Regulation”

Subject to Regulation	
Carbon Dioxide	Nitrous Oxide
Methane	Hydrofluorocarbons
Perfluorocarbons	Sulfur Hexafluoride
Greenhouse Gases (“GHG”)	

## — Texas and EPA Permitting Programs

The TCEQ defines **regulated air pollutants** as:

“For purposes of this section, the term ‘regulated pollutant’ includes any volatile organic compound, any pollutant subject to Federal Clean Air Act (“FCAA”), §111, any pollutant listed as a hazardous air pollutant under FCAA, §112, each pollutant that a national primary ambient air quality standard has been promulgated (including carbon monoxide), and any other air pollutant subject to requirements under commission rules, regulations, permits, orders of the commission, or court orders. **For purposes of this section, the term ‘regulated pollutant’ does not include individual gases listed in the definition of greenhouse gases.**” - 30 TAC §101.27

## — Texas and EPA Permitting Programs

Language in Chapter 101 of the TCEQ's General Rules sets up the following **difference**:

- In General, EPA regulates GHGs while Texas does not.

(It is still possible to be an EPA major modification for GHG, and in these situations, Texas will permit GHG.)

NOTE: If a contaminant was regulated by the TCEQ before the concept of GHG entered the permitting arena, it may still be regulated by Texas as a contaminant even though “it now appears” on the EPA's GHG list.

# Best Available Control Technology (“BACT”)

## — BACT

Texas uses a “Three-Tiered” approach to evaluate BACT.

**Tier I)** Controls are compared to emission reduction performance levels accepted as BACT in recent NSR permit reviews for the same process and/or industry

**Tier II)** If BACT has not been established under Tier I, compare proposed controls to accepted BACT in recent NSR permit reviews for similar emission streams in a different process or industry type

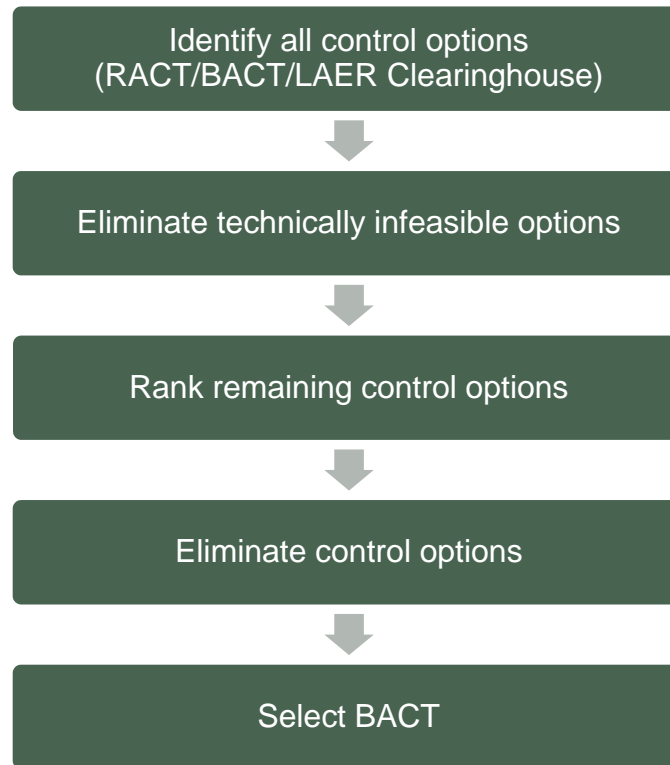
## — BACT

**Tier III) Economic Evaluation.** A BACT evaluation should only enter Tier III (Economics) if the first two Tiers have failed to identify emission reduction options that are technically practicable and economically reasonable.

(A Tier III economic evaluation is rarely necessary because technical practicability and economic reasonableness have usually been firmly established by industry practice in the first two tiers.)

# BACT

EPA uses a “Top-Down” approach to evaluate BACT.



# — BACT

## Off-Property Impacts

Keep in mind, that permit reviews contain two parallel reviews:

- Best Available Control Technology
- Public Protectiveness, ensured by off-property impacts

Control technologies can be influenced by off-property impacts.



## — BACT

If off-property impacts are not deemed to be acceptable (either because of air toxic effects, or predicted violations of a NAAQS), the company must:

- Reduce emissions through operational or design changes until an approvable off-property impact is obtained, or
- Increase the level of controls applied such that an approvable off property impact is obtained (even if the controls necessary to achieve approvable impacts means “better than BACT” must be applied)

**Thank You ! ! ! !**

**Questions ?????**