
Texas Natural Resource Conservation Commission
INTEROFFICE MEMORANDUM

To: Air Permit Engineers **Date:** March 23, 2001
From: John Steib, Director, Air Permits Division
Subject: Determination of Generally Achievable Control Technology (GACT)

The purpose of this memo is to describe the process to be used in the determination of GACT as it relates to the issuance of a Voluntary Emission Reduction Permit (VERP) in nonattainment and near nonattainment areas of the state and outline factors that should be considered.

The Texas Clean Air Act defines GACT as a control technology that the Commission has found to be generally achievable for facilities in the area of the same type, considering the age and remaining useful life of the facility. In general, we expect that GACT will fall somewhere between 10-year old Best Available Control Technology (BACT) and what is considered current tier one BACT.

Process for Determination of GACT

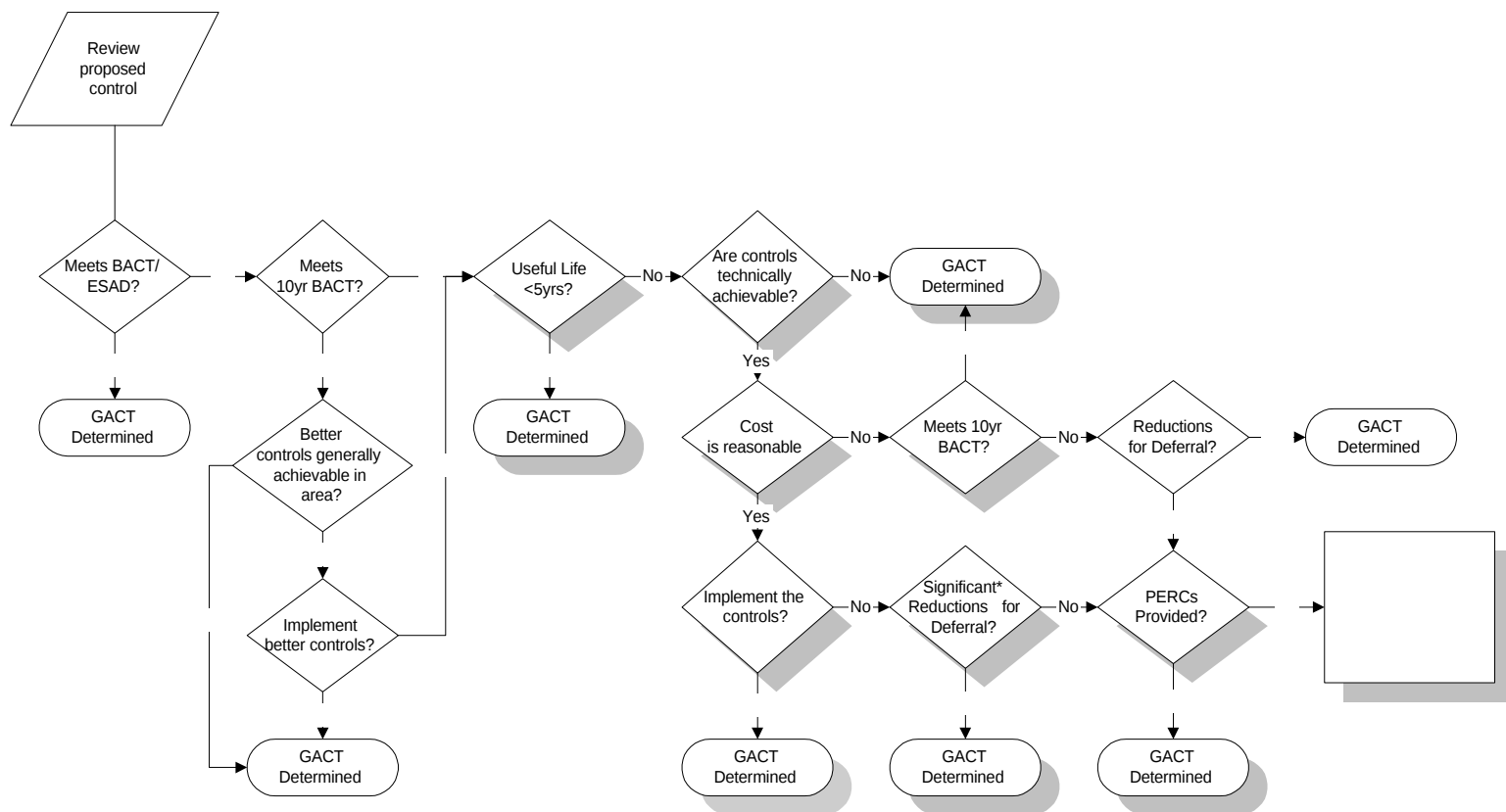
Attached is a GACT Determination flow chart that illustrates the process to be used in establishing GACT. The steps from the flow chart are further described below. It should be noted that many of the steps could apply to VERP negotiations of 10-year old BACT as well. They are delineated as shaded areas on the attached flow chart.

- Review the file for the proposed control specific to each facility to be permitted.
- Compare the proposed control (by pollutant) to the controls that currently meet tier one BACT for that facility type. If located in Houston/Galveston or Dallas/Fort Worth areas, (Beaumont/Port Arthur and East Texas Regional areas are not included), compare the proposed controls to the Emission Standards for Attainment Demonstration (ESAD) levels specific to nitrogen oxides (NO_x) for those areas or current BACT.
- If the controls proposed meet current BACT and/or will meet ESAD requirements for NO_x in the areas specified above, GACT is satisfied. The implementation schedule for GACT controls can be extended to match the 2002-2007 reduction time lines required by the State Implementation Plan (SIP).
- If the controls do not meet BACT or ESAD, compare the proposed controls to what is required under 10-year old BACT.
- If the controls proposed meet or exceed 10-year old BACT, determine if there is a better control level achievable by similar facilities in the area (the area to be looked at is considered the area associated with the nonattainment or near nonattainment status, e.g., Houston/Galveston, Dallas/Fort Worth, Austin, etc.) Achievable controls should be considered controls that have been most recently issued in permits for new or modified facilities in that area within the last five years. If no permits have been issued in the area for similar facility types, controls required by Reasonably Achievable Control Technology and SIP requirements should be considered.

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- If the controls proposed meet the better level of control that is generally achievable or if there is no higher level of control technology achievable in that area, GACT is satisfied
- If the controls do not meet a better level of control achievable in the area or if the proposed controls do not meet 10-year old BACT levels, assess the remaining useful life of the facility.
- If the remaining useful life is less than five years, a permit condition requiring the shut down of the facility must be included in the permit and GACT is satisfied.
- If the facility will continue to operate beyond five years, evaluate if there are controls that are technically achievable for that facility type. There must be a compelling technical reason not associated with cost for this step to be met. If it is determined that controls are not technically achievable, GACT is satisfied.
- If there are controls technically achievable, determine the cost of the proposed controls. Compare the cost of controls by pollutant to those considered reasonable. Reasonable cost for purposes of GACT determination will fall between current Tier 3 BACT costs and the cost of 10-year old BACT. If the cost of the proposed control is greater than what is considered reasonable on a dollar per ton of pollutant controlled, determine if the proposed control technology meets 10-year old BACT. If the controls, at a minimum, meet 10-year old BACT but the cost per ton is considered unreasonable, GACT is satisfied.
- If the proposed controls do not meet 10-year old BACT, which is considered the floor for GACT, and the cost of control is above that considered reasonable, the applicant can still satisfy GACT if they can make reductions elsewhere at their site and defer the emissions from the specific facility with other reductions that meet the requirements of 30 TAC §116.816. Note that the site wide reductions do not have to be criteria pollutant specific but must be considered surplus.
- If the applicant cannot generate reductions to satisfy the deferral, they may elect to use the Project Emission Reduction Credit (PERC) criteria found in 30 TAC §116.812. The amount of PERCs needed to satisfy GACT will depend on whether the cost of control was deemed reasonable. At a minimum, the amount of PERCS will be no less than the difference between the level of control established by 10-year old BACT and the level they are actually emitting. The earliest start date for generation of PERCs is on or after September 1, 1999. Meeting the PERC criteria will satisfy GACT on a pollutant by pollutant basis.
- If the cost of the proposed control is considered reasonable but the applicant does not choose to implement control on the specific facility, and can make reductions elsewhere at their site that amount to a significant reduction, controls can be deferred for the specific facility and GACT is satisfied.
- If the applicant cannot generate significant reductions, they may again, elect to use the PERCs as stated above to satisfy GACT.
- If the applicant cannot meet any of the above avenues to satisfy GACT, they will need to repropose in order to be issued a VERP or conversely appeal their specific case to TNRCC management for consideration.

GACT Determination



Note: Shaded areas of the flowchart indicate control negotiations generally available for Voluntary Emission Reduction Permits concerning 10-yr old BACT.

* The term "significant" relates specifically to the GACT determination.