

Texas Commission on Environmental Quality (TCEQ)
Office of Air
Tax Relief for Pollution Control Property Advisory Committee
September 26, 2019
9:00 A.M. – 10:43 A.M.

Minutes

Opening Remarks

- a. Mr. Bob Adair called the meeting to order at 9:00 A.M.
- b. The following committee members were present: Mr. Bob Adair, Mr. Gregory Maxim, Mr. Michael Nasi, Mr. Michael Ford, Mr. Roland Bieber, Mr. Daryl Attaway, Mr. Don Lee, Dr. Cyrus Reed, and Mr. Charles Allred.
- c. Mr. Bob Adair re-stated the public comment policy. No action was taken.
- d. General comments from committee members and the public were solicited. No comments were made by committee members. Mr. John Kennedy with the Texas Taxpayers and Research Association provided background information and history of the Tax Relief for Pollution Control Program. He stated that the Texas Constitution and the implementing legislation contains language that requires use determinations be made based on the use of the property. He also stated that the statute does not require only one formula to determine the use percentage for property used partially for pollution control for all applications. He asked the committee to focus on how heat recovery steam generators (HRSGs) are used, not their cost or value, in providing how to advise the commission on the determining the use percentage for HRSGs.

Consideration of advice regarding how to determine use percentages for future use determinations for applications that include heat recovery steam generators (HRSGs)

Mr. Adair requested an overview of the information provided to the committee by the TCEQ. The TCEQ provided information about [Best Available Control Technology \(BACT\) Standards](#) and emission limits from [Simple Cycle Turbines](#) and [Combined Cycle Turbines](#). Mr. Vincent Meiller from the TCEQ Air Quality Division gave an overview. He described the approach the TCEQ took in gathering data. Data were pulled from the Energy Information Administration of the Department of Energy. From that data, entirely new simple and natural gas combined cycle facilities with startup dates of 2009 or later and were selected. The data for simple cycle facilities and combined cycle were presented on separate tables.

The NO_x controls and NO_x emission limits at each facility were included on the tables. Federal applicability standards (New Source Performance Standards Subpart KKKK) are also included. For the Simple Cycle table, some NO_x limits are in units of parts per million (ppm) and some are in pounds per megawatt-hour (lb/MWh). These values are the actual permit limits as found in the air permits. To convert the limits to the same units, the TCEQ would have to make assumptions that would affect the outcome of the conversions that staff did not feel comfortable making. The simple cycle facilities with NO_x emission limits in units of lb/MWh are covered under the Electric Generating Unit (EGU) Standard Permit. Other limits are from site-specific New Source Review (NSR) permits. The KKKK limits are expressed in both ppm and as output based standard (lb/MWh). Other information included on the tables are maximum allowed emissions, turbine capacity, and the maximum hourly heat input rates in Million British Thermal Units per hour (MMBtu/hr). Names of specific facilities were not identified. Mr. Meiller also mentioned that some combined cycle facilities have special conditions in their permits that apply depending on when the facilities are run in simple or combined cycle mode. The BACT Standards document provided current and historical BACT limits. Due

to the varying startup dates of the facilities included on the tables, some would have been subject to older BACT standards. Dr. Reed asked when the BACT stringency changed between the 2006 and current (2018) standards. Mr. Meiller said he would confirm that with the TCEQ Air Permits Division.

Mr. Attaway commented that a simple cycle facility could meet environmental limits without a HRSG. Mr. Attaway continued by stating that the use of the HRSG is to increase production and efficiency and is not necessary to control emissions. Mr. Attaway stated there are environmental benefits associated with the HRSG but the environmental benefits are not why a HRSG is installed. Mr. Lee asked about the environmental benefits.

Mr. Nasi stated that the Texas Supreme Court said the purpose of the HRSG and that the purpose of the equipment has been established by statute. Mr. Nasi further stated that the charge of the committee is to evaluate how to assess the positive use determination methodology for HRSGs. He stated that HRSGs have pollution control benefits. The committee is looking at real world data and regulatory processing of the applications to discern how much environmental benefit is achieved. The TCEQ assesses how regulatory requirements are applied to units and whether regulatory requirements are being met but does not tell applicants what specific control technology to use to meet the requirements. Mr. Nasi stated the committee should determine how much of an environmental benefit comes from HRSGs. Mr. Meiller stated he could not comment on that issue since the commission is looking into the issue and has asked the committee to provide guidance. Mr. Meiller said that the TCEQ would have to come to a decision based on what statute and rules require and the advice provided by the committee. Mr. Adair said he appreciates Mr. Meiller's position and stated that the committee will use the TCEQ as a resource.

Mr. Attaway stated that new HRSGs have selective catalyst reduction (SCR) and other controls that create some environmental benefit. HRSGs have minimal environmental benefit but the biggest benefit from a HRSG is when an SCR and other equipment is added. Mr. Nasi responded that the benefits depend on which pollutant(s) one looks at and that the efficiency gain is a big deal and is in accordance with the intent of the statute and best way to improve performance for some pollutants.

Mr. Lee asked Mr. Nasi to clarify whether the Texas Supreme Court's decision said that HRSGs have an environmental benefit. The Texas Supreme Court said that TCEQ cannot deny a positive use determination so long as HRSGs are on the k-list (found at §11.31(k) of the Texas Tax Code and at 30 TAC §17.17(b)) and that TCEQ has the option to remove HRSGs from the k-list if it finds compelling evidence that there is no environmental benefit. Mr. Nasi responded that the legislature determined that HRSGs are pollution control equipment and agreed that TCEQ could remove HRSGs from the list only if compelling evidence is found that they do not provide an environmental benefit.

Mr. Lee said HRSGs can't be 100% exempt since they have productive value but he would like to know what is environmental benefit of a HRSG. Mr. Nasi said the information provided by TCEQ does that and the committee should look at the data to determine the benefit. He went on to say that the fact that the federal standards differentiate between simple and combined cycle configurations, that the BACT standards evaluate simple and combined cycle emissions, and that facilities with both simple and combined cycle configurations show an improvement in NO_x performance demonstrate there is an environmental benefit of HRSGs.

Mr. Maxim asked for heat rates for the facilities included in the tables. Mr. Meiller and Mr. Javier Galvan with the Air Quality Planning Section said that the information may

not be available.

Mr. Lee asked someone to lay out the environmental benefit of HRSGs and suggested Mr. Nasi might be that person.

Mr. Kennedy addressed the committee and commented that HRSGs allow the same amount of power to be generated for less fuel and less fuel usage means less pollutants. Mr. Lee asked Mr. Kennedy if his view is that if equipment that is more productively efficient is pollution control equipment. Mr. Kennedy indicated that it is.

Mr. Nasi said that in the case of HRSGs, the EPA and the KKKK standards regulate NO_x on an output basis, which is consistent with the statute's recognition that increasing efficiency is a way to control pollution.

Mr. Lee provided a couple of examples for clarification. He asked if bigger dry-cleaning equipment that emits less pollutants per number of shirts cleaned is pollution control equipment. Mr. Kennedy responded that yes, in part. Discussion followed about the inclusion of cost to determine the use determination percentage and Mr. Kennedy reiterated his comments from earlier in the meeting.

Mr. Adair stated that the committee is not obligated to apply the notion that improved efficiency is pollution control to all Tier III applications. Mr. Nasi agreed and stated the committee's job is to determine the environmental benefit associated with HRSGs.

Dr. Reed suggested there are four things the committee could look at: ppm (permitted concentration of NO_x emissions in parts per million), lbs/MWh (permitted NO_x emissions in lb/MWh), total capacity versus total yearly tons (NO_x emission permit limits in tons per year), and heat rate or heat input efficiency. He said the based on the ppm numbers, it appears at first glance there is a 40% NO_x reduction for combined cycle facilities. Dr. Reed said it appears the NO_x reduction is roughly 25% when looking at total NO_x emissions in tons per year for combined cycle facilities. He thinks the range appears to be 25%-40%, but a more careful review of the numbers is needed to make a recommendation. Discussion about the comparing the BACT limits of 2-9 ppm followed.

The committee discussed that pollution control equipment would affect the permit limits and that careful consideration to the controls at each facility should be given when comparing emissions limits.

The committee discussed its goal to make a recommendation and that the recommendation may be a formula or a percentage for HRSGs to be included on the Tier I Table. Dr. Reed asked for clarification on the possibility that if the recommendation is that HRSGs be included on the Tier I Table at a fixed percentage, that doesn't prevent an applicant from applying for a different use percentage under a Tier III application. Mr. Adair said that was his interpretation and he added that an applicant could go for a Tier II application. Mr. Maxim and Dr. Reed clarified that TCEQ has the discretion to redirect applicant to another tier.

Mr. Nasi suggested that looking at facilities that repowered to a combined cycle configuration would be relevant. He and Mr. Maxim said they will look at facilities that have completed repowers to compare NO_x limits.

The committee agreed to review the data supplied by TCEQ and to present compelling evidence to support a recommendation in preparation for the next committee meeting.

Mr. Adair asked the committee if additional data was needed.

Dr. Reed said he would provide data on the tons per year NO_x emissions limits for the committee.

The committee discussed treating HRSGs at new facilities and HRSGs that were added to an existing facility differently.

Mr. Adair suggested that the committee have a semblance of recommendations or calculations to support a recommendation by the next scheduled meeting and that ideally the committee would vote on November 8th to provide advice to the TCEQ.

Note: The Advisory Committee plans to submit advice to TCEQ Commissioners before Thanksgiving. Additional public meetings regarding this item are scheduled for 10/17 and 11/8.

Other

a. Old Business

No old business.

b. New Business

No new business.

c. Other General Comments from the Public

None.

Action Items

TCEQ staff to respond to Dr. Reed's question about when the BACT stringency changed between the 2006 and current (2018) standards.

Dr. Reed said he would to provide data on the tons per year NO_x emissions limits for the committee.

Mr. Nasi and Mr. Maxim will look at facilities that repowered to a combined cycle configuration.

Adjourn

The meeting adjourned at 10:43 A.M.