Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table of Contents</td>
<td>i</td>
</tr>
<tr>
<td>Signature Letter</td>
<td>iv</td>
</tr>
<tr>
<td>Letter from Senator Zaffirini</td>
<td>v</td>
</tr>
<tr>
<td>Letter from Senator Burton</td>
<td>ix</td>
</tr>
<tr>
<td>Letter from Senator Miles</td>
<td>x</td>
</tr>
<tr>
<td>Interim Charges</td>
<td>xii</td>
</tr>
<tr>
<td>Interim Hearings Held</td>
<td>xiii</td>
</tr>
<tr>
<td>Interim Charge Discussion and Recommendations</td>
<td>1</td>
</tr>
</tbody>
</table>

**Charge No. 1**

*Hotel Occupancy Taxes: Study and make recommendations regarding the collection and use of hotel occupancy taxes to increase transparency in the imposition, rate, and use of such taxes* ........................................ 2

1. Introduction........................................................................................................ 2
2. State Hotel Occupancy Tax ........................................................................... 2
3. Local Hotel Occupancy Tax ........................................................................... 3
4. Revenue Use and Allocation for Local Hotel Occupancy Taxes ..................... 7
5. Transparency and S.B. 1221 ........................................................................ 11
6. Summary ........................................................................................................... 13

**Charge No. 2**

*Regulatory Barriers: Identify options to maintain our state’s competitive advantage and make recommendations to remove or reduce administrative or regulatory barriers hindering economic growth, including permitting or registration requirements and fees* ........................................ 14

1. Introduction........................................................................................................ 14
2. Air Quality: Overview .................................................................................... 14
3. Federal Clean Air Act ..................................................................................... 14
4. Air Permits: Generally .................................................................................... 16
5. Permits Without a Public Participation Element for Individual Facilities ...... 17
6. Permits Containing a Public Participation Element: Some Standard Permits .... 17
7. Permits Containing a Public Participation Element: Most Case-by-Case New Source Review Permits ........................................................................... 18
8. Overview of Public Participation in NSR Permits Requiring Such Participation .. 19
9. Permit Challenges: Contested Cases .............................................................. 20
10. Expedited Permitting: Establishment and Overview ...................................... 21
11. Expedited Permitting: Challenges Within the Expedited Permitting Process ... 24
12. Regulatory Relief Tools to Reduce Regulatory Barriers: Air Quality ............ 25
   A. Exceptional Events ....................................................................................... 25
   B. Foreign Emissions ....................................................................................... 27
13. General Regulator Barriers: Small Business ................................................................. 29
14. Oil and Gas Industry Regulation .................................................................................. 31
15. Summary ........................................................................................................................ 31

Charge No. 3

Environmental Safety: Study the strategies and best practices for ensuring environmental safety during maintenance, startup, and shutdown activities due to emergencies. Recommend actions to improve safety without compromising compliance or penalizing good actors ............................................. 33
1. Introduction ...................................................................................................................... 33
2. MSS Briefly Explained .................................................................................................. 34
3. Affirmative Defense ........................................................................................................ 34
4. MSS Testimony from Industry ...................................................................................... 35
5. Controlled Startups and Shutdowns ............................................................................. 36
6. Releases .......................................................................................................................... 38
7. Tank Failures .................................................................................................................. 38
8. Monitoring Network ...................................................................................................... 39
9. TCEQ Communication ................................................................................................. 40
10. Notification of Local Jurisdictions .............................................................................. 41
11. Rule Suspension .......................................................................................................... 42
12. Summary ....................................................................................................................... 43

Charge No. 4

Waste Disposal Regulation: Study the permitting and compliance processes for waste disposal and processing, including evaluating the criteria for approval, denial, and application return. Make recommendations for improving and streamlining the permitting and compliance processes while maximizing public participation for effective outreach and education. Review the allocation of the Municipal Solid Waste disposal fees and make recommendations regarding allocation methods to adequately support existing programs .................................................................................. 44
1. Introduction ...................................................................................................................... 44
2. Overview of MSW Facility Categories ........................................................................ 44
3. Overview: Landfills ....................................................................................................... 45
4. Current State: Landfills ................................................................................................. 45
5. Necessity and Location of Landfills ............................................................................ 46
6. Siting Requirements for Landfills ................................................................................ 47
7. Floodplains .................................................................................................................... 47
8. Special Conditions in Permitting Process ...................................................................... 50
10. Notice of Deficiency Process ...................................................................................... 52
11. TCEQ Initiated Changes to the Permitting Process .................................................... 55
14. Regional Solid Waste Management Plan and Conformance Reviews .......................57
15. Municipal Solid Waste Disposal Fee ........................................................................58
16. Summary ....................................................................................................................61

Charge No. 5
Conduct legislative oversight and monitoring of the agencies and programs under the committee's
jurisdiction and the implementation of relevant legislation passed by the 85th Legislature,
including Texas Railroad Commission Sunset and funding; Environmental Regulatory and Legal
Primacy; and the effectiveness of emission reductions recognized from the Texas Emissions
Reduction Program (TERP) and grant flexibility ......................................................62
Texas Railroad Commission Sunset and Funding .........................................................62
  1. Sunset Implementation .........................................................................................62
  2. Funding .............................................................................................................64
Environmental Regulatory and Legal Primacy ..............................................................64
The effectiveness of emission reductions recognized from the Texas Emissions Reduction
Program (TERP) and grant flexibility ............................................................................64
  1. Introduction .........................................................................................................64
  2. Program Overview .............................................................................................64
  3. Emission Reductions .......................................................................................66
  4. Program Effectiveness and Grant Flexibility .....................................................68

Appendix A ....................................................................................................................70

Appendix B ....................................................................................................................72
The Texas Senate Committee on
Natural Resources and Economic Development

December 3, 2018

The Honorable Dan Patrick
Lieutenant Governor of Texas
Room 2E.13
Texas State Capitol
Austin, Texas 78701

Dear Lieutenant Governor Patrick:

The Senate Committee on Natural Resources and Economic Development of the Eighty-Fifth Texas Legislature hereby submits its interim report to the Eighty-Sixth Texas Legislature.

We thank you for the opportunity to address these important issues.

Respectfully Submitted,

Senator Brian Birdwell, Chair
Senator Judith Zaffirini, Vice Chair
Senator Konni Burton
Senator Sylvia Garcia
Senator Kelly Hancock
Senator Juan "Chuy" Hinojosa
Senator Don Huffines

Senator Borris Miles
Senator José Rodríguez
Senator Kel Seliger
Senator Van Taylor
The Honorable
Brian Birdwell, Chair
Senate Natural Resources and
Economic Development Committee
P.O. Box 12068
Austin, Texas 78711

Dear Chair Birdwell:

Thank you for your effective leadership as Chair of the Senate Natural Resources and Economic Development Committee. Serving with you is a privilege and honor, and I appreciate the opportunity to share my perspective regarding the Committee's Interim Report to the 86th Legislature. I am signing the report because it includes numerous good recommendations concerning a wide variety of issues. This is to express some of my many concerns regarding the section of the report pertaining to waste disposal, particularly its lack of an evaluation of the current solid waste permitting process' effectiveness and of proposals to ensure the Texas Commission on Environmental Quality (TCEQ) fulfills its statutory obligations and objectives.

First, the report's suggestion that the review of solid waste applications by an independent hydrologist is unnecessary overlooks the benefits this position would bring to TCEQ's process. Although local authorities and the Federal Emergency Management Agency (FEMA) are responsible for evaluating floodplain impacts, when landfills are proposed in an area FEMA staff has not analyzed, the floodplain boundary is determined based on modeling completed by the permit applicant. In such cases a TCEQ hydrologist should be required to verify that the proposed siting of the facility will not impact nearby floodplains. What's more, in situations in which an applicant's modeling has indicated the presence of floodplains in the area of a proposed landfill site and FEMA has not mapped the area, a permit applicant should be required to submit to FEMA a Letter of Map Revision (LOMR). This would allow FEMA the opportunity to review the applicant's modeling and determine the boundaries of the existing floodplains in the area of the proposed landfill site. Even if a proposed landfill is not sited in a floodplain,
applicants still must submit a surface water management plan, which also should be reviewed by a TCEQ hydrologist to ensure its reliability and accuracy.

Regarding special conditions that allow applicants to obtain local floodplain authorizations after a permit has been issued, this practice is both irresponsible and not supported by current TCEQ rules. The report notes that special conditions are not limited to floodplain approvals, but also should stress that other authorizations and approvals are distinct from local floodplain authorizations in a number of respects. First, TCEQ rules unambiguously state that local floodplain authorizations must be obtained before an application is submitted. What's more, permit applicants are required to demonstrate they at least have commenced the process for seeking necessary authorizations (e.g. from the relevant Council of Governments) or have attempted to coordinate with other agencies (e.g. the Army Corps of Engineers) before submitting their permit applications to TCEQ. Special conditions allowing an applicant to obtain local floodplain authorizations at a later date, however, allow the applicant to avoid any coordination with local floodplain administrators until after TCEQ has issued a permit.

Testimony revealed that, in at least one landfill permitting matter in my senatorial district, the applicant never initiated the process to obtain local authorizations throughout the entire TCEQ permit proceeding—even after TCEQ staff repeatedly reminded the permit applicant such local authorization was required by TCEQ rules. If, after TCEQ has issued a landfill permit, a local floodplain administrator were to require landfill design changes to comply with local floodplain development regulations, the landfill permittee would have to revise the landfill design and submit those revisions to TCEQ staff for approval—adding time and resources that could have been avoided, if TCEQ were to enforce its rules requiring local floodplain authorizations at the time a landfill permit application initially is submitted. Such a practice should not be allowed to continue.

Regarding the bifurcated process, the report fails to acknowledge Mr. Lott's testimony that in his experience, no permit applicant has followed through with the entire process. This undoubtedly has resulted in unnecessary expenditures of TCEQ efforts because its personnel expend time and resources reviewing the initial submission (Parts I and II), sometimes going through a number of NODs with the applicant, only to have the applicant abandon the bifurcated process and submit a complete application. The complete application may (and reportedly often does) include revisions to Parts I and II—even after TCEQ staff already reviewed those portions. There was no testimony presented demonstrating that the bifurcated
process has been used as intended, or that nearby affected communities have benefitted from the bifurcated process. Rather, the testimony revealed the potential abuse of the process and that TCEQ expends unnecessary resources because of it, leaving no justification for continuing bifurcation.

Regarding the Notice of Deficiency (NOD) process, while distinguishing substantive deficiencies from clerical or editorial errors appears reasonable, the recommendation does not address the concerns raised during the hearings. The problem is not the number of deficiencies issued addressing simple, clerical, or editorial errors, but, rather, the number of deficiencies issued regarding substantive issues. What's more, as noted in expert testimony, there are occasions when the same deficiency is identified repeatedly because the permit applicant simply refuses to address the issue. The current process represents an enormous waste of state resources to the benefit of the applicant and the detriment of others. Accordingly, limiting the number of substantive NODs that may be issued by TCEQ staff before an application is returned would alleviate this concern and place responsibility for an application's propriety where it belongs: on the applicant.

Concerning the Council of Governments' (COGs) authority to determine whether proposed solid waste activities conform with regional plans, the draft report summarizes current practice, but fails to evaluate its effectiveness to determine whether it should be revised. Indeed, determinations by COGs should be given much more credence than they are currently. COGs have the ability to address some of the concerns regarding landfill capacity issues, speculative permits, and floodplain issues based on first-hand knowledge of local conditions. TCEQ staff review permit applications from their offices in Austin, relying on information submitted by the permit applicant and agency rules. COGs, however, often possess crucial data regarding local conditions—information that TCEQ staff and landfill permitting consultants may not possess.

Furthermore, COGs are composed of local elected officials, making them directly accountable to their constituents. They also are more likely to be familiar with unique circumstances and site conditions that may impact the suitability of a particular site for purposes of solid waste disposal. Testimony revealed, for example, that two proposed landfills in my district were to be sited adjacent to unique features: One was near a high-hazard dam, and the other, was close to Randolph Air Force Base. TCEQ rules do not specifically require an analysis of the impacts on such features. Accordingly, TCEQ staff may not have possessed the requisite experience or information to conduct such analyses, while COGs, with
their local expertise, could provide crucial insight regarding a proposed landfill's effects. Providing an avenue, such as a rebuttable presumption or \textit{prima facie} determination regarding a proposed landfill site's suitability, for COGs to consider unique local conditions would be enormously beneficial not only to affected communities, but also to TCEQ itself.

Thank you for your dedication to the many important issues we examined during the 85\textsuperscript{th} Interim. I truly enjoy working with you and look forward to continuing to collaborate with you and other committee members during the next legislative session.

May God bless you.

Very truly yours,

Judith Zaffirini

Z/kk
Dear Chairman Birdwell,

Thank you for your leadership and work on this report. I am in agreement with most of the recommendations presented, however, I would like to highlight the issue I have with the Hotel Occupancy Tax (HOT).

I cannot agree with the recommendation on Charge 1 that seeks “...to demonstrate the positive economic impact of the tax.” This is because I am fundamentally opposed to the tax and would support its complete abolishment.

Far from a tax that funds core functions of state and local government, the HOT is statutorily dedicated to a specific set of purposes that are outside the scope of what a local government and the state should do. This includes items such as tourism promotion, convention centers, and sports stadiums.

I cannot support any recommendation that attempts to ascribe any legitimacy to a tax that spends tax dollars in this way.

Thank you again for your work on this report and for providing me the opportunity to voice my concern.

In Liberty,

Senator Konni Burton
November 28, 2018

The Honorable Brian Birdwell  
Chairman  
Senate Committee on Natural Resources & Economic Development  
Capitol Extension, Room E1.706  
Austin, TX 78701

Dear Chairman Birdwell,

Congratulations to you and your staff for your hard work as new chairman of the Senate Natural Resources & Economic Development Committee. I am proud to serve as a member of the committee and hope we can continue to work together in the coming session.

As a member, it is incumbent on me to express my concern regarding your draft interim report, particularly the first proposed recommendation for Charge No. 2, related to environmental permitting: "The possible allocation of additional resources to, and/or the provision of additional flexibility in administering, the expedited air permitting program."

Respectfully, and on behalf of the people of Senate District 13, I disagree.

My concern stems specifically from the inference that the current air permitting process is somehow burdensome and that it is in the public benefit to "expedite," not regulate, the proliferation of industries such as concrete crushing and concrete batching plants.

Senate District 13 has been a target for concrete crushers and concrete batch plants for years. According to the Texas Commission on Environmental Quality, nearly four dozen such facilities are currently located in the Harris County portion of SD 13 alone. Fine silicate dust from these facilities carry potentially debilitating and fatal illnesses. Inhalation may cause respiratory distress/disease, increase coronary disease, stroke rates, eye irritation and swelling of legs and feet, anxiety and skin irritation in affected communities.
While these facilities tend to be located in poorer areas with high concentrations of minorities, they may be found in virtually every corner of our state. In addition to Houston, concrete crushing and batch plant problems have been reported in Dallas, Gunter, Burnet, Fort Worth, Euless and Comal County.

In the last session, I worked with the committee, advocates and the industry to craft legislation (Senate Bill 793) to provide protections for playgrounds and sporting events located within a quarter mile of crushing facilities. Though that bill passed the committee and fell short in the full Senate, I plan to send similar legislation to the Governor in the 86th session. I would be honored to have your support.

I would suggest the committee revise its recommendations with respect to Charge No. 2 to better incorporate the Office of Public Interest Counsel legislative recommendations calling for "minimizing the effects" of concrete manufacturing on "neighboring communities," "limiting operating hours," increased inspections of such facilities and enhanced monitoring, buffer zones, and better methods for public participation in their permitting process.

I therefore request that, without this change, this letter be included in the body of your report. I believe it is important to the committee and my constituents to be clear as to my position on this matter. Of course, I stand by to further discuss my concerns at your convenience.

Very Respectfully,

[Signature]

Boris L. Miles
Senator, District 13
Interim Charges

In the fall of 2017, the Senate Committee on Natural Resources and Economic Development was charged with conducting a detailed study of the following issues and preparing recommendations to address problems or issues that were identified in the process:

1. **Hotel Occupancy Taxes:** Study and make recommendations regarding the collection and use of hotel occupancy taxes to increase transparency in the imposition, rate, and use of such taxes.

2. **Regulatory Barriers:** Identify options to maintain our state's competitive advantage and make recommendations to remove or reduce administrative or regulatory barriers hindering economic growth, including permitting or registration requirements and fees.

3. **Environmental Safety:** Study the strategies and best practices for ensuring environmental safety during maintenance, startup, and shutdown activities due to emergencies. Recommend actions to improve safety without compromising compliance or penalizing good actors.

4. **Waste Disposal Regulation:** Study the permitting and compliance processes for waste disposal and processing, including evaluating the criteria for approval, denial, and application return. Make recommendations for improving and streamlining the permitting and compliance processes while maximizing public participation for effective outreach and education. Review the allocation of the Municipal Solid Waste disposal fees and make recommendations regarding allocation methods to adequately support existing programs.

5. **Monitoring:** Conduct legislative oversight and monitoring of the agencies and programs under the committee's jurisdiction and the implementation of relevant legislation passed by the 85th Legislature, including: Texas Railroad Commission Sunset and funding; Environmental Regulatory and Legal Primacy; and the effectiveness of emission reductions recognized from the Texas Emissions Reduction Program (TERP) and grant flexibility.
Interim Hearings Held

February 1, 2018, Houston City Council Chamber
The Committee heard invited and public testimony on Charge Nos. 1 and 2.

September 5, 2018 Capitol Extension Rm. E1.012
The Committee heard invited and public testimony on Charge Nos. 3, 4, and 5.
Interim Charge Discussion and Recommendations
Charge No. 1

Hotel Occupancy Taxes: Study and make recommendations regarding the collection and use of hotel occupancy taxes to increase transparency in the imposition, rate, and use of such taxes.

1. Introduction

In its first interim hearing on February 1st, 2018, the Senate Committee on Natural Resources and Economic Development (the Committee) examined the hotel occupancy tax (HOT) imposed at both the state and local level. This section of the report will explore the history and uses of the state hotel occupancy tax, the history of the local hotel occupancy tax, various allowable uses for HOT revenue at the municipal and county level, transparency in collection and use of HOT revenue, and discussion on these issues that took place during the hearing.

2. State Hotel Occupancy Tax

According to testimony offered by the Office of the Comptroller at the hearing on February 1st, the state hotel occupancy tax was first imposed by the legislature in 1959 during the 56th Regular Legislative Session at 3% of the cost of a room – two years before a sales tax was imposed.¹ There were two subsequent rate hikes by lawmakers in the 1980s that brought the state hotel occupancy tax to its current rate of 6%. The first hike took place in 1984 during the 68th Legislature, 2nd Called Session, bringing the rate to 4%.² The second hike took place in 1987 during the 70th Legislature, 2nd Called Session, and brought the tax from a rate of 4% to its current rate of 6%.³

Authorization for the state hotel occupancy tax can be found today in chapter 156 of the Tax Code, which states that "[a] tax is imposed on a person who, under a lease, concession, permit, right of access, license, contract, or agreement, pays for the use or possession or for the right to the use or possession of a room or space in a hotel costing $15 or more each day."⁴ It further states that "the rate of the tax imposed by this chapter is six percent of the price paid for a room in a hotel,"⁵ and defines a hotel as including “a hotel, motel, tourist home, tourist house, tourist court, lodging house, inn, rooming house, or bed and breakfast."⁶ In 2015, the legislature amended section 156.001(b) to clarify that “for purposes of the imposition of a hotel occupancy tax under this chapter, Chapter 351 or 352, or other law, 'hotel' includes a short-term rental," and that a short-term rental "means the rental of all or part of a residential property to a person who is not a permanent resident under Section 156.101."⁷ The 6% state hotel tax applies to charges for sleeping accommodations, meeting rooms, and banquet rooms.⁸ There are a number of exempted parties when it comes to the state hotel occupancy tax. Those exempt from paying it include the

³ Tex. Tax Code § 156.052.
⁴ Tex. Tax Code § 156.051(a).
⁵ Tex. Tax Code § 156.052.
⁶ Tex. Tax Code § 156.001(a).
⁷ Tex. Tax Code § 156.001(b).
U.S. government and its employees while traveling on official business, certain foreign diplomats, certain Texas state officials, some nonprofit entities and their employees while traveling on official business, permanent residents who occupy a room for at least 30 consecutive days, and certain religious, charitable, and educational organizations that have received a letter of exemption from the Office of the Comptroller.9

The state hotel occupancy tax is distinct from the local hotel tax in that it is administered by the Office of the Comptroller and not by local governments. There is also a distinction in how state HOT revenue may be used. Oral testimony offered by the Office of the Comptroller indicated that collected state hotel occupancy tax revenue is deposited in the general revenue fund, with .5% statutorily earmarked for tourism advertising by the Texas Economic Development & Tourism Office within the Office of the Governor.10 Additionally, 2% of state hotel occupancy tax revenue collected in certain coastal cities is remitted back to those communities to clean and maintain public beaches and shorelines. This remittance has been authorized by the legislature for a number of coastal communities, including Corpus Christi, Galveston, Port Aransas, Quintana, South Padre Island, and Surfside.11 The revenue the state HOT generates for these purposes is not insignificant. In 2015 the Office of the Comptroller reported that the state collected $526 million in hotel occupancy tax revenue.12 In 2016 the state saw a nearly 1% reduction in collection from the previous year, totaling just over $521 million.13 In 2017 the state experienced an almost 2% increase when it collected more than $530 million in hotel tax revenue.14

3. Local Hotel Occupancy Tax

According to testimony provided by the Office of the Comptroller, the municipal hotel occupancy tax was first authorized in 1971.15 Municipalities were the first local taxing unit authorized to impose the HOT. In 1971 during the 62nd Regular Legislative Session, the legislature authorized certain municipalities to levy the tax by ordinance at a rate of up to 3%, and in doing so validated a number of ordinances that had already been passed by various municipalities imposing the tax at or below 3%. Initially the tax was only available to cities with a population exceeding 8,500 and "limited the use of hotel tax revenue to funding the construction and maintenance of civic centers, coliseums and the like, in addition to tourist advertising. The revenue could also be pledged as security for revenue bonds issued to construct tourist improvements."16 Today chapter 351 of the Tax Code, which governs municipal hotel occupancy taxes, states that a “municipality by ordinance may impose a tax on a person who, 

---

9 Id.
12 Id.
under a lease, concession, permit, right of access, license, contract, or agreement, pays for the use or possession or for the right to the use or possession of a room that is in a hotel, costs $2 or more each day, and is ordinarily used for sleeping.” According to analysis by the Texas Municipal League in their 2017 Economic Development Handbook, general law and home rule cities are able to adopt the hotel occupancy tax within city limits by ordinance in an open meeting with a simple majority of the members of the local governing body. A municipality with a population of less than 35,000 may also impose the municipal hotel occupancy tax in its extraterritorial jurisdiction as long as "if as a result of the adoption the combined rate of state, county, and municipal hotel occupancy taxes in the extraterritorial jurisdiction" does not exceed "15 percent of the price paid for a room in a hotel.”

Municipal hotel occupancy tax rates are generally levied at up to 7% of the cost of a room — although the legislature has allowed some cities to levy the tax at rates as high as 9%, such as Fort Worth, Corpus Christi, Galveston, Jamaica Beach, San Antonio, Snyder, Tyler, and Lakewood Village. However, an unknown number of cities levy the hotel occupancy tax. No comprehensive database of all municipalities (or counties) imposing the tax and their respective rates has been kept. In December of 2002 in their Interim Report to the 78th Legislature, the House Committee on Ways and Means determined that 22 counties and over 500 cities levied the hotel occupancy tax, and that the tax generated over $18.2 million for counties and over $247 million for cities in the preceding fiscal year. Presumably those numbers have grown considerably over the last sixteen years – both in terms of the number of local HOTs imposed and the amount of revenue collected annually. In an attempt to address this lack of information and increase transparency around the imposition of local HOTs, legislation passed in 2017 now requires municipalities imposing a hotel occupancy tax to submit certain information annually to the Office of the Comptroller. Municipalities are required to report the HOT rate they impose, the amount of HOT revenue collected in the preceding fiscal year, as well as the various amounts allocated for certain authorized expenditures. This data, however, is currently self-reported and is not necessarily comprehensive, as evidenced by the fact that in the inaugural year of the requirement only 407 Texas cities reported imposing a municipal HOT. The submissions required by the new legislation have nevertheless proven useful, and will play a significant role in illustrating the extent of the use of local hotel occupancy taxes across the state.

---

17 Tex. Tax Code § 351.002(a).
19 Tex. Tax Code § 351.0025.
25 Id.
The Office of the Comptroller testified that certain counties were first authorized to begin levying the hotel occupancy tax in 1981. Though all municipalities are authorized to impose a municipal hotel occupancy tax by ordinance, only certain counties have been legislatively authorized to impose the tax. Those counties that have received authorization are individually defined in the Tax Code. In 1981 during the 67th Regular Legislative Session, Harris County sought to impose the hotel occupancy tax as a way to raise revenue for repairs to the Astrodome (which it had purchased in the 1960s) with S.B. 1237 by Senator Jack Ogg. Background information included as a part of the bill analysis stated that the Astrodome was responsible at that time for bringing in roughly 44% of convention dollars to the Harris County area. The county argued that it financially supported renovations and maintenance of the facility, but did not "realize any benefits from convention and tourism-related taxes," despite all the business the facility drew to the area. The bill that ultimately passed allowed for the tax to be imposed by order of a commissioners court for a number of specified counties, with initial rates ranging from 3% for the first three years for hotels in incorporated cities with a population of 1,200,000 or more, and up to 7% for hotels within the specified county but outside a bracketed city. Since 1981, the number of counties that have been individually authorized to levy the hotel occupancy tax has risen dramatically. According to analysis by the Texas Hotel and Lodging Association, the legislature has authorized 75 Texas counties to impose a hotel occupancy tax. Today, authorization for counties to impose the hotel occupancy tax can be found in chapter 352 of the Tax Code. Authorized counties may impose the HOT by the adoption of an order or resolution, and "may impose a tax on a person who, under a lease, concession, permit, right of access, license, contract, or agreement, pays for the use or possession or for the right to the use or possession of a room that is in a hotel, costs $2 or more each day, and is ordinarily used for sleeping." Hearing testimony indicated that counties, like municipalities, are generally limited or capped individually in terms of the rate at which they may impose the HOT, ranging from 2% to 9%. However, most county HOT rates do not exceed 7%.

One final way for local governments to collect hotel occupancy tax revenue is through a sports and community venue project, as authorized under chapters 334 and 335 of the Local Government Code. Originally enacted in 1997 during the 75th Regular Legislative Session, chapters 334 and 335 of the Local Government Code allow for the hotel occupancy tax to be adopted as a source of revenue, by voter approval, for sports and community venue projects. 

---

28 Id.
29 Id.
This section of code enables cities, counties, or some combination thereof (as in the case of the Harris County-Houston Sports Authority, a joint city-county venture)\textsuperscript{36} to build venues – such as convention centers or facilities used or planned for use for one or more professional or amateur sports events, community events, rodeos, livestock shows, agricultural expositions, and various other types of events\textsuperscript{37} – and levy certain taxes (including the hotel occupancy tax) to finance or support the repayment of bonds for the venues. Local governments can impose a hotel occupancy tax in support of a sports or community venue project at a rate of up to 2\%, with the exception of Dallas County, which may impose a rate of up to 3\%.\textsuperscript{38} A key aspect of adopting the use of the local hotel occupancy tax in support of a sports or community venue project is that it must be voter approved. One requirement of the voter approval process is that the proposition ballot must include language indicating what the new maximum combined hotel occupancy rate will be "from all sources at any location in the municipality or county, as applicable, if the rate proposed in the ballot proposition is adopted."\textsuperscript{39} If the proposition is approved, a new requirement is also imposed on hotel owners subject to collection of the tax. Anyone collecting this additional local hotel occupancy tax under chapter 334 must provide their guests with a bill or receipt that indicates the collection of a hotel occupancy tax in support of a sports or community venue project, the state hotel occupancy tax, any other applicable hotel occupancy tax being collected, and the imposing authority.\textsuperscript{40} In 2017, five cities reported levying the sports and community venue tax to the Office of the Comptroller – Austin, El Paso, Irving, Laredo, and Round Rock.\textsuperscript{41}

Several members of the Committee expressed concern during the hearing regarding a lack of transparency in how the tax is presented to consumers – both before and after they have booked a hotel room, and thus been subjected to state and local hotel occupancy taxes. Members of the Committee expressed a desire that consumers be able to readily see and understand what state, county, and local hotel occupancy taxes are being applied in addition to the rate of a room they are attempting to reserve or for which they are paying.\textsuperscript{42} The Committee expressed interest in consumers receiving a receipt or bill upon checking out of a hotel that includes an itemized breakdown of each individual hotel occupancy tax applied to their room charge.\textsuperscript{43} The Office of the Comptroller explained that no such itemization is currently required by state law, outside of the requirements in chapter 334 as presented above.\textsuperscript{44} Members of the Committee likewise

\footnotesize{
\textsuperscript{38} \url{https://comptroller.texas.gov/taxes/hotel/faq.php} (last visited Oct. 11, 2018). \textit{See also} Tex. Loc. Gov’t. Code § 334.254
\textsuperscript{39} Tex. Loc. Gov’t. Code § 334.254(b)(2).
\textsuperscript{40} Tex. Loc. Gov’t. Code § 334.256.
\textsuperscript{42} See \textit{Interim Hearing: Hearing on Hotel Occupancy Taxes Interim Charge Before the S. Comm. on Natural Res. & Eco. Dev.}, 85th Leg., (Texas 2018).
\textsuperscript{43} See \textit{Interim Hearing: Hearing on Hotel Occupancy Taxes Interim Charge Before the S. Comm. on Natural Res. & Eco. Dev.}, 85th Leg., (Texas 2018).
\textsuperscript{44} See \textit{Interim Hearing: Hearing on Hotel Occupancy Taxes Interim Charge Before the S. Comm. on Natural Res. & Eco. Dev.}, 85th Leg., (Texas 2018) (testimony of Office of Comptroller).
}
inquired as to the existence of state or federal laws requiring the explicit disclosure of hotel occupancy tax rates to consumers. In oral testimony, the Texas Hotel and Lodging Association indicated that the Federal Trade Commission has examined this issue of disclosure in recent years but declined to make any additional rules or impose further requirements at the federal level, determining that consumers currently receive adequate disclosure. Committee members questioned whether current federal or state law would prevent the legislature from requiring this type of itemization or explicit disclosure for hotel occupancy taxes. In response to these questions, the Texas Hotel and Lodging Association commented that it did not believe current state or federal law would prevent the legislature from pursuing such changes.45

The Office of the Comptroller testified that all hotel occupancy tax rates – state, municipal, and county – may not, in combination, exceed 17% in a municipality or county.46 This combined rate cap was implemented in 2013 during the 83rd Regular Legislative Session through the passage of H.B. 1908.47 At the time, supporters of the bill argued that Texas’s hotel occupancy rates were some of the highest in the country, and that this was damaging the state’s ability to attract tourism and convention center business. In an effort to avoid ever-increasing local hotel occupancy tax rates, the bill was passed and the cap thus enacted.48 The only Texas city that exceeds this cap is El Paso. The city’s local hotel occupancy taxes were authorized prior to the establishment of the cap in 2013 and presently total 17.5%.49

4. Revenue Use and Allocation for Local Hotel Occupancy Taxes

As with the state hotel occupancy tax, local HOT revenue may only be used for certain designated purposes governed by chapters 351 and 352 of the Tax Code. According to oral and written testimony offered by the Texas Hotel and Lodging Association, state law provides a basic standard that each expenditure of local hotel tax must meet.50 First, every expenditure of local hotel tax must directly enhance and promote tourism and the convention and hotel industry.51 Second, each expenditure of local hotel occupancy tax revenue must fit into at least one authorized category for use of these funds as laid out in chapters 351 and 352.52 This two part “test” is also referenced in an Attorney General Opinion authored January of 2017, regarding a proposed use of hotel occupancy tax revenue by the City of Lakeway. The Opinion states “subsection 351.101(a) imposes two primary limits on the use of the resulting tax revenue…First, an expenditure of hotel occupancy tax revenue must directly ‘promote tourism and the convention and hotel industry.’…Second, the expenditure must be for the specified

permissible uses in subsection 351.101(a).” 53 Section 351.101(a) of the Tax Code directs the use of local HOT revenue and allows municipalities, with some limitations (given that certain uses are limited to municipalities of specific population sizes and geographies), to utilize hotel occupancy tax revenue for certain generally allowable uses. According to analysis by the Office of the Comptroller’s Data Analysis & Transparency Division 54, as well as written testimony prepared by the Texas Hotel and Lodging Association and submitted to the Committee, 55 these generally allowable uses may be said to include:

- the construction, maintenance and operation of a convention or visitor center; 56
- facilities and personnel for the registration of convention delegates; 57
- advertising and promotional programs to attract tourists; 58
- encouragement and promotion of the arts; 59
- historical restoration and preservation projects; 60
- advertising to encourage tourists to visit historic sites and museums; 61
- signage directing the public to sights and attractions frequently visited by tourists; 62
- certain transportation systems serving tourists and hotel guests; 63

and, for certain cities,

- sporting events for which the majority of participants come from out of town; 64
- qualifying sports facilities that routinely host regional or national tournaments. 65

Additional uses of local hotel occupancy tax revenue that are authorized for certain municipalities include the construction, improvement, enlarging, equipping, repairing, operation, and maintenance of a coliseum, multiuse facility, and related infrastructure, 66 or the payment of principal of or interest on bonds and other obligations for one or more of the purposes laid out in section 351.101 or for certain costs related to convention center hotels. 67

Despite the numerous uses explored above, this list is not exhaustive. There are still further uses for municipal hotel occupancy tax revenue which are only authorized for specific municipalities based on population size and geography, such as airport renovations, beach cleaning and

---

60 Tex. Tax Code § 351.101(a)(5).
61 Id.
63 Tex. Tax Code § 351.110.
64 Tex. Tax Code § 351.101(a)(6).
maintenance, recreational facilities, and rodeo arenas. However, as stated in oral testimony offered by the Texas Hotel and Lodging Association and the Office of the Comptroller, all authorized uses for local hotel occupancy tax revenue still must be found “to promote tourism and the convention and hotel industry.”

Chapter 352 of the Tax Code, governing county hotel occupancy taxes, offers further direction in determining how local HOT revenue may be utilized by a county. Uses for HOT revenue collected by counties are still submitted to the same two part “test” referenced in 351.101, but the individual authorizations of counties to impose the HOT further define how they may utilize revenue. Given that they are individually identified and authorized to impose the tax, a county may only spend hotel occupancy tax revenue on those categories of expenditure for which it has been specifically authorized in code. However, as with the municipal hotel occupancy tax, counties are required to use hotel occupancy tax revenue to promote tourism and the convention and hotel industry. As noted in testimony provided by the Texas Hotel and Lodging Association and explicitly stated in statute, counties may only use hotel occupancy tax revenue “for the purposes stated in Section 351.101” of chapter 351 and may not use HOT revenue “for the general revenue purposes or general governmental operations of a county.”

Although determining which uses of HOT revenue are permissible can be complex, a number of useful and clarifying examples were shared with the Committee at the hearing. Representatives from Texans for the Arts, the City of Sugar Land, the City of Galveston, the City of Brenham, and Houston First Corporation offered testimony describing their experiences with the hotel occupancy tax. Texans for the Arts shared that the municipal HOT is the "most economically significant source for public funding for the arts in Texas," along with appropriations to the Texas Commission on the Arts. With some exceptions, municipalities may allocate up to 15% of their collected HOT revenues towards the encouragement, promotion, improvement, and application of the arts, as laid out in Sec. 351.101(a)(4) of chapter 351. Texans for the Arts emphasized the value and economic impact of that allocation, noting that strong support of the arts encourages tourism, draws larger groups that stay longer and spend more, and is broadly key to building a strong tourist economy. Texans for the Arts likewise emphasized the need for research that demonstrates the economic impact of tourism in Texas, and cited a study recently performed by Americans for the Arts in the Greater Houston Area which revealed that for every $2.00 a local individual might pay to attend the theater or the opera or some artistic event, a

---

70 Id. See also Tex. Tax Code § 351.101(a).
71 Tex. Tax Code § 352.1031(a).
73 Tex. Tax Code § 352.1031.
74 Texans for the Arts, Senate Natural Resources & Economic Development Committee Hearing, p. 1, (February 2018).
75 Tex. Tax Code § 351.103(c).
76 Texans for the Arts, Senate Natural Resources & Economic Development Committee Hearing, p. 1, (February 2018).
visitor will spend $7.00. The City of Sugar Land shared that it levies a municipal hotel occupancy tax at a rate of 7%, with a large percentage of the HOT revenue it collects going towards debt service payments on bonds, as authorized under chapter 351. The City testified that these bonds were issued to finance several important projects, all of which have spurred economic growth and tourism. The City indicated that HOT revenues were more than sufficient to cover these debt service payments and that remaining HOT revenues were allocated to marketing, advertising, and staff for tourism programs, events, cultural and public art projects, and staffing and operations for a museum and visitor center. The City of Galveston emphasized in its testimony that tourism is the lifeblood of Galveston's economy, and accounted for 34.8% of all jobs on the island in 2016. The City indicated that it utilizes HOT revenue for advertising and promotion of major events on the island, beach patrol and maintenance, and to pay off debt on a conference center facility. The City of Brenham testified that tourism is its fourth largest industry, and that HOT revenues are dedicated toward signage, area historical attractions, festivals, area chambers, and historical societies. The Houston First Corporation (HFC) offered testimony on behalf of the City of Houston, indicating that it serves as the City's agent in collecting and expending local hotel occupancy tax revenue. According to written testimony, HFC is a local government corporation formed from the Convention Center Hotel Corporation and the City's Convention and Entertainment Facilities Department, and was later aligned with the Greater Houston Convention & Visitors Bureau to create a single unified voice that speaks for the City of Houston in sales and marketing efforts. HFC emphasized that the expansions of its available hotel inventory and downtown amenities were financed in part by local HOT revenues, and have played a key role in the success Houston has had in drawing convention business and visitors. HFC noted that convention business, premier performing arts facilities, and a rich tourist economy have attracted further development and acted as a true economic engine for the City of Houston.

Several Committee members expressed concern with the lack of analysis around the uses of HOT revenue and the tax more broadly. Committee members expressed a desire for an increased use of tools to evaluate the true value of different uses for HOT revenue, such as including threshold-for-impact or return-on-investment criteria in future HOT legislation (similar to those that currently exist for the use of HOT revenue for sporting event facilities), and the need for

---

77 See Interim Hearing: Hearing on Hotel Occupancy Taxes Interim Charge Before the S. Comm. on Natural Res. & Eco. Dev., 85th Leg., (Texas 2018) (testimony of Texans for the Arts).
78 See Interim Hearing: Hearing on Hotel Occupancy Taxes Interim Charge Before the S. Comm. on Natural Res. & Eco. Dev., 85th Leg., (Texas 2018) (testimony of City of Sugar Land).
79 Id.
80 See Interim Hearing: Hearing on Hotel Occupancy Taxes Interim Charge Before the S. Comm. on Natural Res. & Eco. Dev., 85th Leg., (Texas 2018) (testimony of City of Galveston).
81 Id.
82 Id.
83 Houston First Corporation, Information for the Senate Committee on Natural Resources & Economic Development, p. 1, (February 2018).
84 Id.
85 Id.
other mechanisms by which the effectiveness of the tax and its permissible uses may be evaluated.\textsuperscript{87}

5. **Transparency and S.B. 1221**

Until the passage of legislation in the 85\textsuperscript{th} Regular Legislative Session\textsuperscript{88}, there has been no comprehensive collection of data regarding which Texas cities and counties levy the hotel occupancy tax and the rates they impose. As identified in a publication by the Office of the Comptroller, "due to the piecemeal implementation of hotel occupancy taxes across Texas, there is no comprehensive list of local rates, or even of jurisdictions levying the tax."\textsuperscript{89} In an attempt to address this lack of information, and what many perceive to be a lack of transparency in the collection and use of the tax, the Office of the Comptroller performed a survey in early 2016 of Texas municipalities and counties on their use of local hotel occupancy taxes.\textsuperscript{90} Ultimately 358 cities and 57 counties responded, offering information on whether or not they levied a hotel occupancy tax, at what rate, and how much revenue they accrued from the tax.\textsuperscript{91} Given the lack of response from many cities and counties, there remained a major gap in the broader picture of the tax statewide.

During the 85th Regular Legislative Session the legislature passed S.B. 1221.\textsuperscript{92} The concept and language of S.B. 1221 sought to develop transparency and knowledge at the state level regarding where the hotel occupancy tax was being imposed at the local level, at what rates, and for what uses. The bill in its final iteration requires municipalities (though not counties) that levy a hotel occupancy tax under chapter 351 of the Tax Code to report the following information annually to the Comptroller:

- the percentage rate of the HOT imposed by the municipality under the authority of Tax Code Chapter 351, Subchapter A,
- the dollar amount of revenue collected during the preceding fiscal year from the HOT imposed by the municipality under the authority of Tax Code Chapter 351, Subchapter A,
- and the amount and percentage of revenue allocated from the HOT for the preceding fiscal year to certain non-population bracketed beneficiaries.\textsuperscript{93}

To clarify, the third bullet above requires that municipalities must report the total amount of hotel occupancy tax revenue they expend on the generally authorized uses of HOT revenue. In other words, municipalities must disclose what percentage of total municipal HOT revenue collected was expended on the generally allowable uses open to all municipalities. Specifically,

\begin{itemize}
  \item \textsuperscript{87} See Interim Hearing: Hearing on Hotel Occupancy Taxes Interim Charge Before the S. Comm. on Natural Res. & Eco. Dev., 85th Leg., (Texas 2018).
  \item \textsuperscript{88} Tex. S.B. 1221, 85th Leg., R.S. (2017).
  \item \textsuperscript{90} Id.
  \item \textsuperscript{91} Id.
  \item \textsuperscript{92} Tex. S.B. 1221, 85th Leg., R.S. (2017).
  \item \textsuperscript{93} [https://comptroller.texas.gov/transparency/local/hotel-receipts/](https://comptroller.texas.gov/transparency/local/hotel-receipts/) (last visited Oct. 11, 2018). 
\end{itemize}
municipalities must report expenditures under the uses authorized in Sec. 351(a)1, (a)2, (a)3, (a)4, (a)5, and (a)9 of chapter 351.94 The bill also requires municipalities to report annually if they:

- levy a sports and community venue tax under the authority of Chapter 334, Subchapter H of the Local Government Code,
- the rate they use for that tax,
- and revenue collected during the preceding fiscal year from the sports and community venue tax imposed by the municipality under the authority of Local Govt. Code Ch. 334, Subchapter H.95

Various Committee members and witnesses expressed strong support at the hearing for the requirements imposed by S.B.1221, and the many benefits that would be associated with increased transparency in the collection and expenditure of the tax.96 The Texas Hotel and Lodging Association and Texans for the Arts both voiced support for expanding the requirements of the new legislation to include all authorized uses of HOT revenue, and to require reporting by counties.97 HFC testified that it supported the passage of S.B. 1221, and expressed hope that information obtained through the new reporting requirements would demonstrate the importance of the hotel occupancy tax and reinforce that revenues are being used in line with the original intent of the tax.98 The Committee generally agreed that an expansion of the new reporting requirements would be valuable in developing a state-wide picture of the tax.

In the inaugural year of the bill’s requirements, all information had to be submitted by municipalities levying the hotel occupancy tax to the Office of the Comptroller by February 20th, 2018. In an article published in August of 2018, the Comptroller demonstrated the value of obtaining this data from municipalities across the state. The article notes that the data is self-reported and thus not necessarily complete, highlighting that only 407 Texas cities submitted information to the Office of the Comptroller and reported levying the municipal hotel occupancy tax.99 Submissions did reveal, however, that total HOT revenues from Texas’s ten largest cities totaled $370,696,397 in FY 2017,100 and that at least five Texas cities impose a sports and community venue tax at a rate of up to 2%, totaling close to $30.5 million in revenue for FY 2017.101 Data from the report may also be extracted to determine how much HOT revenue different municipalities are allocating to various categories of use, and which of these categories receives the greatest percentage of allocation from the municipalities that submitted data.

96 See Interim Hearing: Hearing on Hotel Occupancy Taxes Interim Charge Before the S. Comm. on Natural Res. & Eco. Dev., 85th Leg., (Texas 2018).
99 Id.
100 Id.
101 Id.
6. **Summary**

The hearing and subsequent study of hotel occupancy taxes at the state and local level by the Committee yielded a great deal of useful information and raised a number of important concerns. The primary issues that may merit further consideration by the Committee and the legislature as a whole during the upcoming 86th Legislative Session include:

- Requiring disclosure and itemization of all hotel occupancy tax rates that would be imposed on a room charge in the reservation process and on finalized bills or receipts in order to increase transparency around HOT rates in advertising and billing.
- Expanding the reporting requirements of S.B. 1221, passed during the 85th Regular Legislative Session, to all counties imposing the tax and for all allowable uses of local HOT revenue in order to increase transparency in collection and expenditure of hotel occupancy tax revenue.
- Explore increasing the use of return-on-investment criteria, impact thresholds, or enforcement mechanisms in HOT legislation going forward in order to demonstrate the positive economic impact of the tax.
Regulatory Barriers: Identify options to maintain our state's competitive advantage and make recommendations to remove or reduce administrative or regulatory barriers hindering economic growth, including permitting or registration requirements and fees.

1. Introduction

The Senate Natural Resources and Economic Development Committee (Committee) was tasked with identifying options to maintain Texas' competitive advantage and reduce regulatory barriers hindering economic growth, namely, permitting or registration requirements. Significant contributors to the Texas economy are subject to major federal pollution control acts that directly impact Texas's environmental permitting programs. The Committee reviewed the Federal Clean Air Act (FCAA), the common permits issued under the FCAA, and the processes associated with obtaining those permits pursuant to Texas' delegated authority under the FCAA. The Committee also reviewed Texas' expedited permitting program and identified several regulatory relief mechanisms provided under the FCAA. Further, the Committee also reviewed general regulatory barriers that exist in Texas, with a primary focus on regulatory barriers that impact small business and the oil and gas industry. A discussion of the Committee's findings is provided below.

2. Air Quality: Overview

There are several major federal pollution control acts that directly affect Texas' environmental permitting programs, all of which are administered by the U.S. Environmental Protection Agency (EPA). The federal acts are the: 1) Federal Clean Air Act (FCAA); 2) Clean Water Act (CWA); 3) Safe Drinking Water Act (SDWA); 4) Resource Conservation and Recovery Act (RCRA); 5) Comprehensive Environmental Response, Compensation and Liability Act (CERCLA); and 6) Atomic Energy Act of 1954. Each act sets minimum national standards for permitting, but authorizes EPA to delegate authority to the states to create, administer, and enforce their own permitting programs based upon their own unique circumstances and needs. The interim charge, and thus this report, will focus on the Federal Clean Air Act and common permits that Texas issues pursuant to its federally approved programs authorized under the Federal Clean Air Act.

3. Federal Clean Air Act

The Federal Clean Air Act (FCAA) is designed to control air pollution. Two methods for controlling air pollution granted to EPA under the FCAA are: 1) setting limits on the concentration of air pollutants that can be present at a given time anywhere in the United States and 2) imposing limits on air pollutants emitted from individual stationary sources. A stationary source means any building, structure, facility, or installation which emits or may emit any air pollutant. Examples of a stationary source include chemical processing plants, petroleum refineries, primary copper smelters, and pulp mills. When the methods of regulation are

---

combined, the EPA is able to limit the quantity of pollutants present in the air by limiting both the quantity and concentration of pollutants emitted from stationary sources.\textsuperscript{104}

The EPA set limits on six specific air pollutants that can be found in the air at any given time anywhere in the United States. These six pollutants are called "criteria pollutants" and are subject to the National Ambient Air Quality Standards (NAAQS) issued by the EPA.\textsuperscript{105} The six criteria pollutants are: 1) particulate matter (PM), which includes PM with diameters of 10 microns or less (PM\textsubscript{10}) and 2.5 microns or less (PM\textsubscript{2.5}); 2) ozone (O\textsubscript{3}); 3) lead (Pb); 4) carbon monoxide (CO); 5) sulfur dioxide (SO\textsubscript{2}); and 6) nitrogen dioxide (NO & NO\textsubscript{2}). If an area within a state is found to have air that exceeds the allowable limits of one or more of the six criteria pollutants, then the area is designated "non-attainment" with respect to the pollutants that exceed the NAAQS. At the time of this publication, there are 25 counties in Texas designated as non-attainment with respect to one or more of the criteria pollutants.\textsuperscript{106} Of the 25 counties in non-attainment, 16 are non-attainment for the 2015 Eight-Hour ozone NAAQS, which is .070 parts per million, more commonly referred to as 70 parts per billion (ppb).\textsuperscript{107}

The FCAA requires states to develop a plan which provides for the implementation, maintenance and enforcement of the NAAQS, this plan is called a State Implementation Plan (SIP). Generally speaking, a SIP is a combination of laws, regulations, programs, and policies that the state will use to reduce pollution in non-attainment areas and bring the levels of criteria pollutants to allowable limits, and also to enforce the FCAA generally.\textsuperscript{108} The plan must be approved by the EPA.

The Texas Emissions Reduction Plan (TERP) has become increasingly vital to reducing emissions in Texas as large industrial sources, or point sources, have significantly (up to 80%) reduced nitrogen oxides (NO\textsubscript{X}) emissions in the Texas nonattainment areas, and further reductions will be very costly with nearly each investment in emissions reductions for these sources resulting in a diminishing return. This is not to say that further emissions reductions from these sources is not feasible, only that reducing emissions from other sources, namely, mobile sources, has a large impact on achieving the NAAQS for ozone. TERP is designed to reduce emissions from mobile sources that cannot be directly regulated by states and is central to achieving NAAQS for ozone. Reducing emissions from mobile sources in an effort to attain NAAQS is pivotal to Texas’ continued economic vitality.\textsuperscript{109}

Failure to submit adequate and approvable plans to bring nonattainment areas into compliance with NAAQS can result in the EPA issuing a Federal Implementation Plan (FIP), which the state would be required to adhere, in effect, eliminating all self-determination for the state and

\textsuperscript{105} See 40 C.F.R. Part 50.
\textsuperscript{106} See 40 C.F.R. § 81.344.
\textsuperscript{107} Id.
\textsuperscript{108} See 42 U.S.C. § 7410.
significantly impacting the economy. The cost of non-attainment for NAAQS can be significant. For example, the Austin and San Antonio areas estimated the potential cost of an ozone nonattainment designation to have an impact as high as $41 billion and $36 billion respectively for each of the areas. In a FIP, the EPA would lay out additional controls required for non-attainment areas to bring them into compliance. Such controls would vary by area and could include limitations on both point source emissions and mobile emissions. Unlike the state, the federal government has the ability to regulate tailpipe emissions -- which make up a significant percentage of ozone precursors in nonattainment areas. As such, if a FIP were issued, it is conceivable that the requirements could include no-drive days, construction equipment time bans, and other similar measures that are onerous and unpalatable for Texans. Committee members suggested that other federal sanctions can include the loss of federal highway funds and increased emission offset requirements for new source review permitting. Either possibility--additional controls and permit offset adjustment--would drastically impact the economy.

Not only does a non-attainment designation require a state to develop an approvable SIP, such a designation also impacts the permitting process for some permits, namely major new source permits (discussed below). In a non-attainment area there is increased complexity and cost for the air permits associated with large new facilities or major modifications to existing sources that emit criteria or precursor pollutants. Unlike a major new source permit in an attainment area, sources in non-attainment areas must always provide for, or alternatively purchase, "offsets" to create a decrease in emissions to compensate for the increases in emissions from the new source or modification. These offsets can be costly and directly impact the economy.

4. Air Permits: Generally

Before construction can begin on a new facility, or certain modifications can be made to an existing facility pursuant to TCEQ rules, that will emit any contaminants into the atmosphere, the facility must obtain authorization from the TCEQ. The scope of review and degree of public participation varies by the type and nature of the permit. The list of potential air quality authorizations are as follows: 1) Permits By Rule (PBR); 2) Standard Permits; 3) Minor NSR Permits, which include Flexible Permits; 4) Major New Source Review (NSR) Permits, which includes Non-Attainment NSR (NNSR) and Prevention of Significant Deterioration (PSD). Also, major stationary sources and some minor stationary sources are also required to obtain a

---

103 Id.
106 Id.
Title V Federal Operating Permit, which have different requirements, including public participation. This report is limited to establishing which permits have a public participation element and how the contested case hearing process in Texas operates within the context of the permits with a public participation element; thus Title V permits are not within the scope of this discussion.

5. **Permits Without a Public Participation Element for Individual Facilities**

*De minimis* sources are authorized by operation of law--i.e. they satisfy the criteria for a *de minimis* source--and need not apply for or receive permits as the emissions from these sources are at a level, and of a type, that no adverse impacts are expected to occur off-property.\(^{119}\) Examples include laundromats (excluding dry cleaning), fireplaces, barbecues, taxidermists, and auto detailing shops.

Permits By Rule (PBRs) are authorizations for facilities that are not expected to significantly contribute air contaminants to the atmosphere if they are constructed and operated under the conditions of the PBR. A facility seeking a PBR must meet all the established PBR requirement pursuant to TCEQ rules to claim the PBR.\(^{120}\) Individual PBR authorizations do not contain a public participation element as no individual case-by-case permit is required. However, it should be noted that public participation (public notice and comment) is part of the development of the PBR itself.

6. **Permits Containing a Public Participation Element: Some Standard Permits**

A standard permit is a type of New Source Review pre-construction authorization developed pursuant to TCEQ Rules.\(^{121}\) Standard permits have been developed for specific industry types as a mechanism to efficiently obtain an authorization to construct a new facility or modify an existing facility. During the development of a standard permit the public is provided an opportunity to review and comment on the proposed standard permit. General and specific conditions as well as other requirements are written into standard permits to ensure protectiveness of human health and the environment.\(^{122}\)

Most standard permits require the submittal of information and representations for the facility, emission calculations, and other supplemental technical information. This information is evaluated to ensure compliance with all of the applicable requirements of the particular standard permit.\(^{123}\) Certain standard permits, such as those for various types of agricultural facilities, do not require the submittal of any registration or notification information to TCEQ. In addition to the specific technical and operational requirements, some standard permits also require public notice to be published in a local newspaper. Those three standard permits that require public notice, but do not provide the opportunity to request a contested case are as follows: 1) Animal Carcass Incinerators; 2) Concrete batch plants with Enhanced Controls; and 3) Permanent Rock

---


\(^{122}\) Id.

\(^{123}\) Id.
and Concrete Crushers.\textsuperscript{124} Depending on the specific standard permit, the public may have the opportunity to submit comments, request a public meeting, or request a contested case hearing. For example, the standard permit for concrete batch plants requires public notice and provides the opportunity to request a public meeting and/or a contested case hearing.\textsuperscript{125}

7. **Permits Containing a Public Participation Element: Most Case-by-Case New Source Review Permits**

Owners and operators with facilities that do not qualify for PBRs or standard permits can submit a New Source Review (NSR) permit application pursuant to TCEQ rules.\textsuperscript{126} Texas’s NSR permitting program is fully approved by EPA, but EPA retains the right to comment on NSR permits that require public participation. EPA, however, cannot technically review, dispute, or challenge the permit’s terms unless a state agency action is not based on a reasoned analysis.\textsuperscript{127} The EPA sets the minimum public participation requirements for such permits, but Texas goes beyond the EPA requirements and has a very robust public participation process.

New Source Review permits that are reviewed on a case-by-case basis can be subdivided into three categories: 1) Minor New Source Review; 2) Major New Source Review for attainment counties, referred to as Prevention of Significant Deterioration or PSD; and 3) Major New Source Review for non-attainment counties, referred to as Non-Attainment New Source Review (NNSR). All three categories contain a public participation element and are subject to the contested case hearing process, which is discussed in detail below.

In Texas, a minor case-by-case new source permit is required for any source that has the potential to emit regulated pollutants below the thresholds of a "major" source; however, many minor sources may instead be authorized as \textit{de minimis}, or by PBR or standard permit depending on the emissions of the facility.\textsuperscript{128}

As mentioned above, the NSR permit program for major sources has two categories: one for attainment areas and one for non-attainment areas. For attainment areas, major new sources are "named" or "unnamed" sources. "Named" sources are those that are explicitly listed in the Code of Federal Regulations that emit or have the potential to emit 100 tons per year (tpy) or more of a regulated NSR pollutant--this can include criteria or non-criteria pollutants.\textsuperscript{129} Conversely, "unnamed" sources are any sources \textit{other than} those "named" that emit or have the potential to emit 250 tpy of a regulated pollutant, which can also include criteria or non-criteria pollutants. A key difference between a major new source in a nonattainment area is that the tons per year thresholds are between 10 tpy and 100 tpy depending on the level on nonattainment status, which

\textsuperscript{124} Id.

\textsuperscript{125} Id.


\textsuperscript{129} See 40 C.F.R. § 51.166(b)(1).
is a significantly lower threshold to trigger a major NSR review than in attainment counties. There are additional nuances that are beyond the scope of this report.

8. **Overview of Public Participation in NSR Permits Requiring Such Participation**

Generally, the permitting requirements consist of an administrative review and technical review. The administrative review will take less than 30 days and determines whether the applicant has submitted information necessary to identify the applicant, the type of facility and its activities that are the subject of the application. Once deemed administratively complete, the TCEQ Executive Director (ED) issues Notice of Receipt of Application and Intent to Obtain Permit (NORI). The applicant then has 30 days to publish notice in a local newspaper and post signs around the proposed location. Publication triggers the start of a 30 day comment period. During this comment period an individual may submit comments, request that they be added to the mailing list to receive communications regarding the application, request a public meeting, and/or request a contested case hearing.131

Once an application is administratively complete, the ED staff reviews the application to determine whether it satisfies state and federal regulatory requirements. This is called the technical review. This can take between two and eighteen months, depending on the type of permit. If the application meets all the requirements, the ED issues a preliminary decision and a second notice called the Notice of Application and Preliminary Decision (NAPD). Once an NAPD is issued, the applicant is compelled to publish a second public notice similar to the one required after administrative review. For most air permits,132 this second publication starts a second 30-day comment period and provides an additional opportunity to submit comments, request a public meeting, and/or request a contested case hearing.133 However, for minor sources, if a hearing request is not submitted during NORI comment period, there is no further opportunity to request a contested case hearing.

After the public comment period closes, the ED considers all timely filed comments to determine whether issues that were raised require changes to the preliminary decision or the proposed permit, and prepares a written response to all relevant comments. This response provides a final 30-day period to request a contested case hearing. If the TCEQ receives no requests for a hearing on an application and it meets all the applicable requirements, once the ED’s response to comment is filed, the ED may issue the permit.134

---

132 Some air applications have an abbreviated comment period, but most air applications have at least a 30-day comment period.
134 *Id.*
9. Permit Challenges: Contested Cases

Texas is one of the only states in the nation, and the only state in a major industrial setting, with a contested case process that exists separate and apart from the permitting process, which can add a significant amount of time to the permit process.135 Some industry representatives have criticized the contested case process for environmental permits as a barrier to competition.136

The contested case process has a long and extensive history in Texas. Texas began establishing air, waste, and water quality permitting processes in the 1960s and since the outset, affected persons have had an opportunity to request an evidentiary, or contested case hearing, for certain categories of permit applications.137 In 1975, the Legislature enacted the Administrative Procedure and Texas Register Act, which formalized and made uniform the administrative procedures applicable to contested case hearings.138 In 1995, the Legislature transferred the contested case hearing process for environmental permitting to the State Office of Administrative Hearings (SOAH) and adopted a specific definition of "affected person."139 As such, the contested case hearing process has been available to affected persons for certain categories of permit applications and was very likely contemplated in the drafting of the Administrative Procedures Act (APA) when the administrative procedures applicable to contested case hearings were formalized in statute. Removal of the contested case process would be a significant shift in long established state policy.

The contested case process for environmental permitting has undergone a number of statutory changes since being formalized in the APA. Fundamental to the contested case process is a limitation in who may participate in a contested case hearing by requiring that one must be "affected" by the permit application. Just as the contested case hearing process has evolved, the definition of an affected person has likewise evolved throughout the years into its current form. In 1999, House Bill 801 made substantial changes to the TCEQ permitting procedures, including the contested case hearing process. One change was the revision of the definition of an "affected person" who is entitled to a contested case hearing.140 An "affected person" or "person affected" or a "person who may be affected" is "a person who has a personal justiciable interest related to a legal right, duty, privilege, power, or economic interest affected by the administrative hearing." An interest common to members of the general public does not qualify as a personal justiciable interest.141 The bill further required the TCEQ (Commission) to adopt rules specifying factors which must be considered in determining whether a person is an affected person in any contested case.142 These requirements are now contained in 30 Texas Administrative Code Section 55.203.143 In addition to determining whether or not a hearing requestor is an affected person, the bill mandated that the Commission limit the number and scope of the issues to be referred to

136 Id.
137 See S. Comm. on Natural Res. & Eco. Dev Interim Report to the 85th Leg. (Nov. 2016).
138 See S.B. 41, 64th Leg., R.S. (1975). The statute was amended and renamed the Administrative Procedures Act in 1993.
142 See Id. at (a-1).
SOAH and prohibited the Commission from referring an issue to SOAH unless the Commission determined that the request for a contested case hearing: 1) involves a disputed question of fact, 2) that was raised during the public comment period, and 3) is relevant and material to the decision in the application. Industry told the Committee that this was an easy standard to meet and TCEQ denied very few persons “affected person” status and thus contested case hearings. It was further stated that the processes established under H.B. 801 led to abuses of the contested case hearing process that delayed permits up to two years in certain circumstances.

In 2015, the Legislature passed Senate Bill 709, which made further substantive changes to the contested case hearing process for permits for air quality, underground injection control, municipal solid waste, industrial and hazardous waste, and water quality. The changes applied to all permit applications filed on or after September 1, 2015 and the Committee heard testimony that the changes resulted in a quicker turnaround for permits overall, especially those that are the subject of a contested case. Testimony further stated that the changes have provided a level of predictability for industry that is much appreciated. A complete analysis of the changes made by S.B. 709 are beyond the scope of this report, but the bill limited the length of a contested case hearing by requiring a SOAH judge to complete the proceeding and provide a proposal for decision to the Commission not later than the earlier of: 1) the 180th day after the date of the preliminary hearing; or 2) the date specified by the commission. This deadline can, however, be extended by: 1) agreement of the parties with the approval of the administrative law judge; or 2) by the SOAH judge if the judge determines that failure to extend the deadline would unduly deprive a party of due process or another constitutional right. S.B. 709 also established that when the Commission files the application, draft permit and preliminary decision, and other documentation with SOAH as the administrative record, the record establishes a prima facie demonstration that the draft permit meets all state and federal legal and technical requirements, and, the permit, if issued, would protect human health and safety, the environment, and physical property. The prima facie case may be rebutted by presentation of evidence that demonstrates that at least part of the draft permit violates a specifically applicable state or federal requirement. If there is such a rebuttal, the applicant and the executive director may present additional evidence to support the draft permit.

10. Expedited Permitting: Establishment and Overview

The expedited permitting program was established in 2015 after passage of legislation during the 83rd Legislative Session and is designed to expedite the processing of an air permit application for a permit required under the Federal Clean Air Act. The program has been utilized extensively by industry for the processing of major NSR permits with the number of expedited

---

144 Id.
148 Id.
150 Id.
permit applications received by TCEQ increasing year over year since the program was established. Despite the increase in number of applications received, the amount of resources dedicated to the program has remained the same, which has led to a steady increase in processing times for the expedited permit program. Without adjustments in resources dedicated to the program, the program may approach diminishing returns.

Senate Bill 1756 was introduced in the 83rd Legislative Session and was signed into law on June 14, 2013. The bill authorized a new program for the expedited processing of an air permit application for a permit required under the Federal Clean Air Act. It provided the TCEQ with the authority to accept a surcharge with an air permit application and to use that surcharge to expedite the processing of that application using additional resources such as employee overtime and contractors. Surcharges range from $500 to $20,000 depending on the application type. Use of the additional resources has resulted in most of the expedited applications being processed in timeframes shorter than non-expedited applications. However, testimony to the Committee stated that this program is not a “front of the line” or “fast pass” process, as all applications are processed in accordance with all State and Federal rules and regulations, including being subject to the contested case process.

Initially, the program was appropriated $995,000 in spending authority for FY14 and $897,000 for FY15, bringing the total to approximately $1.85M in spending authority for the biennium. The program began accepting applications in FY15, specifically November 2014, and in that eight month period, staff received overtime at their normal hourly wage and the program expended just under $115,000. During the 84th Legislative Session, Rider 30 authorized TCEQ to pay staff double time for overtime hours worked and authorized $1M in spending authority for the program. Additionally, TCEQ made internal adjustments to the program and began using contractors as additional resources in December 2015. In FY 16/17 just over $980,000 was expended. The 85th Legislature authorized $1.25M in spending authority for FY18/19; and based off the current workload, staff overtime, and contractor time, it is projected that the full appropriated authority will be expended by mid FY 2019.

The program has become increasingly popular since its inception and has received an increase of approximately 100 applications per year since 2015. The TCEQ has received 1,162 expedited permit applications over the life of the program and has issued between 990 and 1,000 of those permits as of February 1, 2018. In FY 2015, 226 applications were received and 115 were issued. In FY 2016, 340 expedited permit applications were received and 303 were issued.

---

152 Id.
154 Id.
155 Id.
156 Id.
157 Id.
158 Id.
159 Id.
160 Id.
FY 2017, 429 were received and 399 issued. As of June 2018, TCEQ has received 475 expedited permit applications for the year.\textsuperscript{161}

Overall, there has been a reduction in processing times for permit applicants that choose to participate in the expedited permitting program as compared to those that do not utilize in the program. For new construction\textsuperscript{162} applicants opting to use the expedited program, there was a reduction of 66 days for FY 2016 and 55 days FY 2017, as compared to those in the non-expedited program.\textsuperscript{163} The average processing time for standard permits that require public notice was reduced by 19 days for FY 2016 and 5 days for FY 2017. For those standard permits not requiring public notice, the processing time was reduced by 19 days for FY 2016 and 12 days for FY 2017. Finally, for permits-by-rule, the processing time was reduced by 37 days for FY 2016 and 10 days for FY 2017.\textsuperscript{164}

The expedited permitting program is particularly popular among the case-by-case NSR permits, especially major case-by-case NSR permits. In FY 2015 the TCEQ received 80 major NSR permit applications, both expedited and non-expedited, and 50\% of those applications received were expedited. In FY 2016 the TCEQ received 56 major NSR applications, both expedited and non-expedited, and 48\% of those applications received were expedited.\textsuperscript{165} This trend continues for FY 2017 and 2018. In FY 2017 the TCEQ received 42 major NSR applications, both expedited and non-expedited, and 60\% of those applications received were expedited. As of June 2018, the TCEQ received 40 major NSR applications, both expedited and non-expedited, and 75\% of those applications received were expedited.\textsuperscript{166} Based on the available data, it is clear that industry has taken advantage of the expedited permitting program and embraced paying the surcharge associated, with particular interest in using the program for major NSR permits, which are highly complex and take the most amount of time to review.

A case-by-case NSR permit, regardless of whether it is expedited and whether it is a major or minor NSR permit, has a public participation element that directly impacts the turnaround timeframe. Within the existing statutory timeline and relevant administrative code provisions, there is a minimum (emphasis added) 90 to 100 day period involving public commentary and processes.\textsuperscript{167} Nonetheless, for applicants who choose to participate in the expedited permit program, the processing times are generally much quicker when compared to non-expedited applications, particularly for major case-by-case NSR applications.


\textsuperscript{162} "New" includes all permit types - including those with and without a public participation element.


\textsuperscript{164} Id.


\textsuperscript{166} Id.

\textsuperscript{167} See Tex. Health & Safety Code §382.056; See also Tex. Water Code § 5.5553(b).
For major case-by-case applicants that participate in the expedited permitting program, the average processing times were 324, 475 and 378 days for fiscal years 2016, 2017, and 2018, respectively.\(^{168}\) Whereas, those major case-by-case NSR applicants that did not utilize the expedited program had average processing times of 435, 621 and 561 days for fiscal years 2016, 2017, and 2018, respectively.\(^{169}\) While there are processing time reductions for minor case-by-case applicants, they are not as significant when compared to major case-by-case NSR applications. The average processing time for minor case-by-case permits that participated in the expedited program was reduced by 16, 24 and 83 days for fiscal years 2016, 2017 and 2018, respectively.\(^{170}\)

When the processing times, the total number of expedited applications received, and percentage of major case-by-case NSR applicants received are analyzed in tandem, it is clear that the program has become increasingly popular since its inception. This increased popularity is particularly noticeable in the highly complex major case-by-case NSR permit applications. While the processing times are shorter and the turnaround is quicker for those that participate in the expedited permitting program, it is still taking over a year from receipt of the application by TCEQ to process an application. Further, there has been a steady increase in processing times for the expedited permitting program since its inception, which has led to frustration among applicants that utilize the program.\(^{171}\) Without some adjustments in resources dedicated to the program, the program may approach diminishing returns.\(^{172}\)

11. Expedited Permitting: Challenges Within the Expedited Permitting Process

While the expedited permitting program has largely been successful since its implementation in 2015, delays in the permitting process still exist and some adjustments can be made to help realize the program's potential and ensure Texas remains competitive on the global market. Two such adjustments are: (1) the removal of the current requirement that the applicant demonstrate an economic benefit to the state on initial permit review and (2) an increase in resources allocated to the program.\(^{173}\)

The idea of establishing an expedited permitting program was borrowed from Louisiana, but Texas has slightly different requirements. When the program was created by Senate Bill 1756 during the 83rd Legislative Session, it contained a provision that authorized applicants to request TCEQ to expedite the processing of an air emission permit, provided that the applicant can demonstrate that the application would benefit the economy of the state or an area of the state.\(^{174}\) No such requirement exists in Louisiana's expedited permitting program; there the applicant need

\(^{168}\) Communication from TCEQ staff.

\(^{169}\) Id.

\(^{170}\) Id.


\(^{172}\) The permit applications cannot be viewed in vacuum as all applications are unique and vary in quality. Major factors impacting the processing time are the quality of the application, public comment, whether a hearing is requested, and the technical challenges and complexity of the permit application.


only pay the additional fee.\textsuperscript{175} No permit application has been denied access to the expedited program for lack of sufficiently demonstrating an economic benefit to the state, thus the necessity of this requirements can be questioned.\textsuperscript{176}

Another challenge associated with the program is the fact that the TCEQ has limited resources available to run the program. Currently, TCEQ has one part-time and one full-time contractor working within the program.\textsuperscript{177} While the use of one full-time contractor has been highly effective, there has not been an increase in resources allocated to the program despite the steady increase in the number of expedited applications received.\textsuperscript{178} As mentioned above, this has led to an increase in processing times for expedited permit applications. TCEQ is currently limited by the authorized spending authority provided in the budget. For the 2018-2019 biennium, it is projected that the TCEQ will exhaust the $1.25M in appropriated spending authority by mid FY 2019.\textsuperscript{179} Industry testified that limiting the spending authority for the program when the program is funded by the applicants' surcharge fees reduces flexibility for TCEQ to allocate resources to the program. This increases the administrative burden of managing the program, which has impacted the ability of the agency to meet industry demand.\textsuperscript{180}

12. Regulatory Relief Tools to Reduce Regulatory Barriers: Air Quality

The FCAA has identified six "criteria pollutants"\textsuperscript{181} that are subject to NAAQS. If one of the six criteria pollutants exceeds allowable limits, then the area is designated "non-attainment" with respect to the pollutants that exceed the NAAQS. At the time of this publication, there are 25 counties in Texas designated as non-attainment with respect to one or more of the criteria pollutants.\textsuperscript{182} Of the 25 counties in non-attainment, 16 are non-attainment for the 2015 Eight-Hour ozone NAAQS, which is .070 parts per million, more commonly referred to as 70 parts per billion (ppb).\textsuperscript{183} The FCAA provides regulatory relief mechanisms, that if proven, are factored into the decision making process when determining whether an area meets NAAQS. The regulatory relief mechanisms are: exceptional events and foreign emissions.

A. Exceptional Events

An exceptional event is a regulatory relief mechanism provided in the FCAA that allows any data associated with an approved exceptional event to be excluded when determining compliance with the NAAQS.\textsuperscript{184} An exceptional event is defined as an event that: 1) affects air quality; 2) is

\textsuperscript{175} See Interim Hearing: Hearing on Regulatory Barriers Interim Charge Before the S. Comm. on Natural Res. & Eco. Dev., 85th Leg., (Tex. 2018) (testimony of Texas Chemical Council).
\textsuperscript{176} Id.
\textsuperscript{177} See Interim Hearing: Hearing on Regulatory Barriers Interim Charge Before the S. Comm. on Natural Res. & Eco. Dev., 85th Leg., (Tex. 2018) (testimony of TCEQ).
\textsuperscript{178} Id.
\textsuperscript{179} Id.
\textsuperscript{180} See Interim Hearing: Hearing on Regulatory Barriers Interim Charge Before the S. Comm. on Natural Res. & Eco. Dev., 85th Leg., (Tex. 2018) (testimony of Texas Chemical Council).
\textsuperscript{181} See 40 C.F.R. Part 50.
\textsuperscript{182} See 40 C.F.R. § 81.344.
\textsuperscript{183} Id.
not reasonably controllable or preventable; 3) is an event caused by human activity that is unlikely to recur at a particular location or a natural event; and 4) meets the process established by EPA.\footnote{See 42 U.S.C. § 7619(b).} There must be a clear causal relationship between the measured exceedances of a NAAQS and exceptional event.\footnote{See Interim Hearing: Hearing on Regulatory Barriers Interim Charge Before the S. Comm. on Natural Res. & Eco. Dev., 85th Leg., (Tex. 2018) (testimony of TCEQ); See also 40 C.F.R. Part 50.} Further, the exceptional event cannot be caused by source non-compliance, stagnation of air masses, or meteorological inversions.\footnote{See Interim Hearing: Hearing on Regulatory Barriers Interim Charge Before the S. Comm. on Natural Res. & Eco. Dev., 85th Leg., (Tex. 2018) (testimony of TCEQ).} Examples of an exceptional event include a volcanic eruption the results in a sulfur dioxide violation or Saharan dust storms that result in a particulate matter violation.\footnote{See Interim Hearing: Hearing on Regulatory Barriers Interim Charge Before the S. Comm. on Natural Res. & Eco. Dev., 85th Leg., (Tex. 2018) (testimony of Public Citizen); See also Interim Hearing: Hearing on Regulatory Barriers Interim Charge Before the S. Comm. on Natural Res. & Eco. Dev., 85th Leg., (Tex. 2018) (testimony of Sierra Club).} As it relates to Saharan dust, some advocacy groups assert that it is a natural recurring phenomenon and categorizing it as an exceptional event has the potential to improperly or artificially place a non-attainment area into attainment.\footnote{See Interim Hearing: Hearing on Regulatory Barriers Interim Charge Before the S. Comm. on Natural Res. & Eco. Dev., 85th Leg., (Tex. 2018) (testimony of TCEQ).}

While an exceptional event demonstration is a useful regulatory relief mechanism, it is also exceptionally difficult to prove and has yielded mixed responses from the EPA. In 2013 the TCEQ submitted four exceptional event demonstrations for particulate matter violations resulting from windblown dust for the El Paso area, and African dust and transported smoke for the Houston area. The EPA approved one of the exceptional event demonstrations for Houston and partially approved another demonstration submitted by TCEQ, which have helped keep the Houston area in attainment for the particulate matter NAAQS standard.\footnote{See Interim Hearing: Hearing on Regulatory Barriers Interim Charge Before the S. Comm. on Natural Res. & Eco. Dev., 85th Leg., (Tex. 2018) (testimony of TCEQ).} The EPA also approved the 2013 demonstration for El Paso. More recently, EPA approved an exceptional event concerning contribution to ozone formation from wildfires for the El Paso area resulting in the El Paso area being designated “attainment” for the 2015 Eight-Hour Ozone NAAQS. However, the TCEQ has also been unsuccessful in exceptional event demonstrations submitted to the EPA. In 2011, the TCEQ submitted an exceptional event demonstration asserting that the Houston area was impacted by US wildfire emissions originating outside the state of Texas and those emissions resulted in elevated ozone measurements. EPA did not approve this submittal despite a thorough technical analysis by TCEQ that demonstrated that the emissions would have traveled from the geographic area near the fires to the Houston area based on data from a federally funded satellite sensor and other corroborating data.\footnote{Id.} The EPA also did not approve the exceptional event demonstration, asserting that Houston was impacted by non-U.S. smoke and that those emissions resulted in elevated PM measurements.

The mixed results in EPA concurring with or denying an exceptional event demonstration is rooted in the difficulty of proving the exceptional event, specifically the requirement that the TCEQ demonstrate a clear causal relationship between the measured exceedances of NAAQS
and the exceptional event. This is a high burden and it is difficult to provide sufficient evidence to prove to EPA that an exception should be approved. TCEQ asserts that it can be difficult to build accurate models demonstrating that emissions that occur outside the U.S., or that travel or migrate to Texas, impact certain areas with a specified amount of emissions on specific dates. 192 As an exceptional event demonstration is a federal regulatory relief mechanism authorized by the FCAA, there is little that the state can do to directly reduce the burden of proof in demonstrating an exceptional event. That being said, the state could provide additional resources to the TCEQ to allow the agency to continue to research and identify elevated ozone levels that may have been significantly impacted by qualifying exceptional events, so that additional submittals may be developed as warranted. 193 The Committee was told that this could not only save millions of dollars for industry, but also save money for the state by way of assisting in potentially avoiding non-attainment designations. 194

B. Foreign Emissions

Another mechanism within the FCAA to provide regulatory relief for emissions beyond an area’s control is the concept of foreign emissions. The FCAA provides regulatory relief if a state can prove that an area would have attained the ozone NAAQS but for emissions emanated from outside the United States. 195 If it is proven that but for foreign emissions, an area would have attained the ozone NAAQS, the area would still be designated as non-attainment and would be required to implement the FCAA requirements, but would not be subject to sanctions, including reclassification, increased emissions offsets, and § 185 fee obligations for failure to meet attainment dates. 196 This mechanism was used in 1994 to prove that the El Paso area would have obtained the one hour (120 ppb) ozone NAAQS but for emissions from Mexico.

There has been an increase in research dedicated to this area that has suggested foreign emissions are having a much greater impact in Texas, and the U.S., than previously understood. 197 Industry testified that the research might suggest that areas in non-attainment may be in that category erroneously, or by no fault of local emission sources, because they may be experiencing greater foreign emissions than regulators currently suspect. 198 According to TCEQ, studies have shown that some western states are increasingly and significantly impacted by Asian emissions of up to 8-15 ppb ozone at elevated sites. There have been studies that Asian emissions may impact Texas by 0-5 ppb with the highest impact predicted in far west Texas during the spring, when

192 Id.
193 A Rider proposed during the 85th Legislative Session authorized $5M from TERP to be used to look into the utility of research focused on exceptional events. The Rider ultimately was not approved in the final appropriations bill.
195 See 42 U.S.C. § 7509a(b).
ozone levels are not at their peak levels. The impact on ozone levels in the Houston area were estimated to be 0-2 ppb.

Related to foreign emissions, but slightly different is the concept of background ozone. The EPA currently defines US background ozone as ozone "formed from sources or processes other than U.S. manmade emissions of nitrogen oxides (NOx), volatile organic compounds (VOC), methane (CH4), and carbon monoxide (CO)." This definition would include naturally occurring ozone and ozone from foreign emissions. TCEQ's most recent modeling analysis indicates that 22% of the ozone at the highest regulatory monitor in the Houston region is associated with either natural biogenic emissions or the modeling boundary. As of February 1, 2018, the EPA has held listening sessions on background ozone but has not yet proposed any solutions on how to account for US background ozone in the SIP process. The TCEQ has been working to better understand US background levels in Texas by realigning its modeling boundary, evaluating available literature, and studying the issue.

Similar to exceptional event demonstrations, foreign emissions demonstrations are not only difficult to prove, but are also a federal regulatory relief mechanism, which again means the state can do little to adjust the burden of proof required to obtain foreign emission regulatory relief. Much like the difficulty in proving exceptional events, TCEQ has asserted that one of the difficulties in proving foreign emissions is the limited ability of global emission models to accurately track and transfer foreign emissions over long distances, and predict an impact on a specific day or month. Industry has asserted that dedicating additional resources to TCEQ to focus on reviewing foreign emissions data would again not only help save industry money, but also save the state millions of dollars by potentially avoiding non-attainment status. Dedication of additional resources to TCEQ to review foreign emissions data and research may also improve TCEQ's ability to continue to make adjustments to modeling domains to more effectively account for the impact of emissions from Mexico and evaluate ways to improve global modeling inputs.

203 Id. Note: The modeling boundary can be used to estimate emissions from outside the US as the boundary is outside the contiguous US border. However, it is possible that some portion of the emissions outside this boundary originated in the US and moved beyond our borders.
204 Id.
205 Id.

During the 85th Regular Session, the Legislature passed House Bill 1290 and the bill was signed into law on June 15, 2017. House Bill 1290 amends the Government Code to prohibit a state agency from adopting a proposed rule with a fiscal note that states that the rule imposes a cost on regulated persons unless on or before the proposed rule's effective date, the agency either: (1) repeals a rule that imposes a total cost on regulated persons that is equal to or greater than the total cost imposed on regulated persons by the proposed rule; or (2) the agency amends a rule to decrease the total cost imposed on regulated persons by an amount that is equal to or greater than the cost imposed on the persons by the proposed rule. The bill provided for several exceptions to the repeal to replace proposition. The bill explicitly excepted any rule proposed by TCEQ, due to the implication of losing federal funds and its delegated authority under federal law.

Unrelated to the repeal to replace provisions of the bill is a portion of the legislation that requires a state agency to prepare a government growth impact statement each time a rule is proposed. The government growth impact statement must describe, whether in the first five years the proposed rule would be in effect, the rule would: (1) create or eliminate a government program; (2) require the creation of new employee positions or elimination of existing employee positions after implementation; (3) require an increase or decrease in future legislative appropriations to the agency; (4) require an increase or decrease in fees paid to the agency; (5) create a new regulation; (6) expand, limit, or repeal an existing regulation; (7) increase or decrease the number of individuals subject to the rule; and (8) positively or adversely affect the state's economy.

Some groups, especially groups that advocate for small businesses, contend that the bill that passed and became law was a significant departure from the original intent of the bill as filed, which was to keep new agency rules at bay by prohibiting the adoption of a proposed rule unless an existing rule was repealed. As such, those same organizations suggest that Texas should mirror the federal Small Business Regulatory Flexibility Improvements Act of 2017 ("Reg Flex Act") to more effectively reduce regulation on small businesses. The most current filed bill at the federal level is H.R. 33. According the National Federation of Independent Business (NFIB), H.R. 33 expands the scope of the original Regulatory Flexibility Improvements Act (RFA) by forcing agencies to include not only the direct impact of a proposed regulation in the regulatory impact assessment, but also the indirect impact of such a regulation on a small business. The federal H.R. 33 also creates a small business advocacy review panel process that applies to all agencies, designed to help agencies understand how their rules affect small businesses and in doing so identify less costly alternatives to regulations before proposing new rules.

---

209 Id.
210 Id.
211 Id.
214 Id.
As mentioned above, H.B. 1290 required that a fiscal impact analysis be done for any proposed rule, but it did not specify that the rule specifically consider the impact on small business, it merely required a general fiscal impact analysis. Committee members recognized that while small business centric organizations view this as a shortcoming, the general fiscal impact analysis of a proposed rules does provide a baseline understanding of the impact of a proposed rule that instructs not only the public, but also elected officials, who can then use that information to better inform their decisions and influence other policymakers.216 The government growth impact analysis also provides guidance and context to better understand the impact of a proposed regulation on business. It should be noted that Texas Government Code Section 2006.002 currently requires "[a] state agency considering adoption of a rule that...would have an adverse economic effect on small businesses, micro-businesses, or rural communities shall reduce that effect if doing so is legal and feasible considering the purpose of the statute under which the rule is to be adopted." The statute further requires a state agency to prepare "an economic impact statement that estimates the number of small businesses or rural communities subject to the proposed rule, projects the economic impact of the rule on small businesses or rural communities, and describes alternative methods of achieving the purpose of the proposed rule" prior to adopting a rule that may have an adverse effect on small businesses or rural communities.217

There were several other general regulatory barriers that were briefly mentioned and discussed at the interim hearing. It was suggested that due to the complexity of some regulations, it might be beneficial to the regulated entities for agencies to dedicate additional resources to compliance assistance, which will help reduce costs to those businesses.218 Also, it was suggested that there is arbitrary and duplicative legislation proposed every session that, while well-intentioned, could result in being both economically and operationally burdensome to small business.219 One issue that was specifically mentioned and discussed at some length was the issue of inconsistent labor standards across the state as a result of local ordinances being proposed at the municipal level, which are overly burdensome to business owners. The municipal ordinances of concern were mandated paid leave, predictive scheduling, and minimum wage requirements. While the specifics of the issues mentioned were not discussed, the general discussion centered around the fact that small businesses lack an in-house compliance officer, and thus the ordinances disproportionately affect them as larger corporations have the resources to deal with compliance issues that may arise.220 It was indicated that NFIB is interested in a discussion on how to mitigate, or scale back, the inconsistent labor standards being created due to action at the municipal level.221

219 Id.
220 Id.
221 Id.
14. Oil and Gas Industry Regulation

As a general rule of thumb, the oil and gas industry in Texas is satisfied with the current state regulatory environment, but has encountered challenges and barriers to entry at the federal level. During the 85th Regular Legislative Session, the Legislature passed Senate Concurrent Resolution 26, which urged Congress to work with the State of Texas to determine which federal regulations needed to be revised, delegated to the State, or altogether eliminated. The oil and gas industry was very supportive of this effort and will continue to remain active in pursuing this effort.

While the oil and gas industry is generally very satisfied with the current regulatory climate in Texas, it has identified circumstances in which a fair amount of overlap, or duplication, exists between the federal and state agencies that regulate the industry (i.e. EPA, Texas Railroad Commission and TCEQ). A circumstance in which duplicative effort exists is Hydrostatic Discharge Permits. With regard to Hydrostatic Discharge Permits, the EPA has not yet delegated to the State of Texas the authority to issue the permit. Therefore, the industry must obtain both a state and federal hydrostatic discharge permit simultaneously to do the same thing.

Another example of a challenge faced by the oil and gas industry concerns the National Pollution Discharge Elimination System Permits (NPDES). NPDES permits allow industry to discharge treated water back into the ecosystem after the removal of pollutants. TCEQ has federal regulatory authority over discharges of pollutants to Texas surface water and issues permits for the same, however an exception exists with regard to discharges associated with oil, gas, and geothermal exploration and development activities, which are regulated by the Railroad Commission, an agency which has not received program delegation from the EPA. Testimony revealed that NPDES permits are very rarely issued by federal regulators, especially in Region 6. As a result, it was suggested by industry representatives that there is little opportunity for the water recycling industry, as it relates to oil and gas activities, to succeed in Texas. Industry representatives also asserted that because NPDES permits are rarely issued to oil and gas facilities by EPA, Texas is more or less foreclosed from taking advantage of a water conservation opportunity. It was further asserted by testimony that because NPDES permits are rarely issued to their industry sector, there is additional pressure imposed on the disposal sector of the industry.

15. Summary

The Committee's interim hearing and study of regulatory barriers that may impact Texas' economic growth highlighted the complexities involved in obtaining an air permit issued under the FCAA pursuant to Texas' delegated authority. The Committee explored the current TCEQ

---

224 Id.
225 Id.
226 Id.
227 Id.
228 Id.
program which allows an applicant to expedite the issuance of an air permit and reviewed other regulatory barriers that impact small business and the oil and gas industry. The Committee found several issues that may merit further oversight or direction from the Committee and legislature during the upcoming 86th Legislative Session, including:

- The possible allocation of additional resources to, and/or the provision of additional flexibility in administering, the expedited air permitting program.
- The possible allocation of additional resources to fund research focused on the regulatory relief mechanisms currently present in the FCAA.
**Charge No. 3**

*Environmental Safety*: Study the strategies and best practices for ensuring environmental safety during maintenance, startup, and shutdown activities due to emergencies. Recommend actions to improve safety without compromising compliance or penalizing good actors.

1. **Introduction**

Maintenance Startup and Shutdown (MSS) is an often used phrase that refers to a facility shutting down operations due to permitted maintenance, or alternatively an emergency; and the subsequent startup of the operations which were permitted. Hearing testimony utilizes both the terms authorized and permitted, but they are essentially synonymous, in that we are discussing facilities that are required to be permitted to emit regulated air pollutants. These facilities are considered regulated entities because they are required to obtain a permit from the state to emit certain regulated pollutants. The Committee’s interim hearing, and this report, are focused on the scenario in which a regulated entity must shutdown all, or a portion, of its permitted activities due to an emergency. The focus on emergency shutdowns of regulated entities arose out of the need to examine the impacts that Hurricane Harvey had on our state, its communities, and its industry; and a desire to understand and improve the responses to this catastrophic event.

Hurricane Harvey made landfall on August 25, 2017 at 10:00 p.m. CT, as a Category 4 storm near Rockport, Texas and stalled over the southeastern part of the state. Due to the storm’s slow movement and week-long period of onshore flow, more than 19 trillion gallons of rainwater fell on parts of Texas, causing catastrophic flooding. The National Weather Service has indicated that in both scope and peak rainfall amounts, this was the largest rainfall event since reliable rainfall records began around the 1880s.

The Committee primarily reviewed two emergency responses driven by the impacts of Hurricane Harvey: the response of the regulated entities and the state environmental regulator’s response. The regulated entities responded by shutting down operations for a variety of reasons they deemed necessary, including risk to human health and safety and the environment and the preservation of assets or operations. The state's environmental regulator, the Texas Commission on Environmental Quality (TCEQ), responded with subsequent monitoring, investigation, and enforcement in carrying out its duty to protect human health safety, and the environment.

---

229 The Federal Clean Air Act (FCAA) law authorizes EPA to establish National Ambient Air Quality Standards (NAAQS) to protect public health and public welfare and to regulate emissions of hazardous air pollutants. Specifically it directs the U.S. Environmental Protection Agency (EPA) to develop primary and secondary national ambient air quality standards (NAAQS) for “criteria pollutants.” The primary standards are necessary to protect public health with what EPA calls “an ample margin of safety,” while secondary standards are intended to protect against environmental and property damage. The FCAA has a set list of standards for six “criteria pollutants”: sulfur dioxide (SO2), carbon monoxide (CO), particulate matter (PM10 and PM2.5), nitrogen dioxide (NO2), ozone (O3) and lead (Pb); but the EPA can set standards for other pollutants of concern as well.

230 See *Interim Hearing: Hearing on Environmental Safety Interim Charge Before the S. Comm. on Natural Res. & Eco. Dev.*, 85th Leg., (Tex. 2018) (testimony of TCEQ)
2. MSS Briefly Explained

Prior to examining TCEQ's emergency response, it is helpful to briefly review TCEQ's role as the state's permitting authority for air emissions. In Texas regulated emissions must be authorized by TCEQ prior to the construction of a facility. The authorizations for large stationary sources like the refineries and chemical plants that were affected by the hurricane are very detailed and complex, and cover both routine operations along with Maintenance, Startup and Shutdown (MSS) activities that are commonly performed; these are known or planned activities. TCEQ’s rules allow permit holders to reduce or increase emissions from routine and planned MSS activities if the permit holder can demonstrate that all applicable rules and regulations are met. Specific requirements may include, but are not limited to, emission limitations, control technology requirements, monitoring, recordkeeping, and operational limitations.

In addition to authorized MSS, TCEQ also regulates unplanned, or unauthorized emissions, from MSS activities. When a permitted facility must shutdown due to an emergency, that shutdown cannot be expected or planned, and thus cannot be included in a permit. The unplanned emissions are however still regulated by TCEQ, even though the emissions were not permitted. When an emergency occurs, and a facility needs to shutdown all or part of their operations, there may be excess emissions which exceed a limit authorized by a TCEQ permit, rule, or order. These unplanned emissions are still subject to the applicable rules and regulations, which include reporting requirements and penalties for rule violations.

Unplanned emergency shutdowns can be scheduled or unscheduled, and different sets of rules govern scheduled and unscheduled emissions events. If the regulated entity files a report before the emissions event, it is considered scheduled. If the regulated entity files a report with TCEQ after the unplanned shutdown, it is considered unscheduled. Although the above MSS event classifications are vital to TCEQ's permitting and enforcement scheme, it is sufficient to simply remember that this report is focused solely on unplanned emissions events that were necessitated by an emergency.

3. Affirmative Defense

One witness at the hearing summarized the law guiding MSS, stating "Environmental health and safety rules apply at all times, even during disasters and emergencies. Absent impossibilities,

\[\text{\textsuperscript{231} Id.}\]
\[\text{\textsuperscript{233} Interim Hearing: Hearing on Environmental Safety Interim Charge Before the S. Comm. on Natural Res. & Eco. Dev., 85th Leg., (Tex. 2018) (testimony of TCEQ)}\]
\[\text{\textsuperscript{234} Id.}\]
\[\text{\textsuperscript{235} Id.}\]
\[\text{\textsuperscript{237} Interim Hearing: Hearing on Environmental Safety Interim Charge Before the S. Comm. on Natural Res. & Eco. Dev., 85th Leg., (Tex. 2018) (testimony of TCEQ)}\]
\[\text{\textsuperscript{238} Id.}\]
regulated entities must comply with those rules.\textsuperscript{239} One set of rules that contemplates the impossibility of compliance are the affirmative defense rules.\textsuperscript{240} When excess emissions occur due to unplanned MSS activities or upsets, TCEQ reviews these events against the affirmative defense criteria in the rules to determine if the event was avoidable, and assesses whether operators took measures to minimize emissions. If the owner or operator complied with the requirements in the rule, then the emissions event is not subject to monetary penalties, but may be subject to administrative technical orders or actions for injunctive relief.\textsuperscript{241} The rules require that (1) the unauthorized emissions could not have been prevented through planning and design; (2) the emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance; (3) if the emissions were caused by a bypass of control equipment, the bypass must have been to prevent loss of life, personal injury, or severe property damage; (4) the facility and pollution control equipment must have been operated in a manner consistent with good practices for minimizing emissions; (5) unauthorized emissions must have been minimized and all possible steps must have been taken to minimize the impact of the unauthorized emissions on ambient air quality; (6) all emissions monitoring systems must have been kept in operation if possible; (7) actions must have been documented, unless it can be shown that this was not reasonably possible; (8) and the unauthorized emissions must not have caused or contributed to an exceedance of the National Ambient Air Quality Standards (NAAQS), Prevention of Significant Deterioration (PSD) increments, or a condition of air pollution.\textsuperscript{242}

4. MSS Testimony from Industry

An industry representative testified at the hearing that the management of all permitted industrial facilities across the state is subject to a multilevel regulatory environment consisting of both state and federal regulations, which include procedures for MSS, especially during emergencies. The regulations include U.S. Environmental Protection Agency (EPA) and U.S. Occupational Safety and Health Administration (OSHA) reporting requirements for all hazardous material inventories, and requires the development of risk management plans and emergency response plans, along with the establishment of local emergency planning committees.\textsuperscript{243} The complexity of the facilities themselves is further complicated by the fact that many of the facilities are interlinked throughout the supply chain, as they share resources across facilities. One industry representative testified that affected manufacturing facilities are designed and engineered to withstand major weather events, including hurricanes and flooding.\textsuperscript{244} Industry highlighted that Hurricane Harvey impacted every industrial facility along the Texas coast.\textsuperscript{245} The Committee was told that preparation was key to the way the affected facilities managed and mitigated the risks, while ensuring the safety and protection of the facilities' employees and the surrounding communities. Extensive rehearsal plans with the goals of protecting employees and surrounding

\textsuperscript{239} Interim Hearing: Hearing on Environmental Safety Interim Charge Before the S. Comm. on Natural Res. & Eco. Dev., 85th Leg., (Tex. 2018) (testimony of Environmental Integrity Project)


\textsuperscript{242} Id.

\textsuperscript{243} Id.

\textsuperscript{244} Interim Hearing: Hearing on Environmental Safety Interim Charge Before the S. Comm. on Natural Res. & Eco. Dev., 85th Leg., (Tex. 2018) (testimony of Texas Chemical Council)

\textsuperscript{245} Id.
communities, preventing environmental impacts and the safe restoration of operations were credited, along with risk management plans and other emergency planning and coordination. Another industry witness discussed the impact of the storm on the state's critical infrastructure, including ports, pipelines, and refining capacity. The witness testified that the petroleum refineries in Texas account for 30% of total U.S. refining capacity, and that the entire nation felt the impact of the hurricane as it disrupted refining capacity and fuel supplies. Industry testified to the sufficiency of the current MSS rules, and stated that facility operators are in the best position to make decisions regarding when to shutdown operations as an emergency unfolds. According to testimony, minimization of potential storm damage and asset preservation are some of the considerations that an operator must weigh when shutting down facility operations. Testimony indicated that the decision to shut down all or part of a facility requires balancing two goals: maintaining the public fuel supply and protecting facility operations. These two priorities are interlinked and have a trickledown effect on the supply chain. Industry agreed that a facility operator is in the best position to make the decision as an emergency is unfolding.

5. Controlled Startups & Shutdowns

It is important to note that although TCEQ regulates unplanned shutdowns by requiring reporting, conducting investigations, and pursuing enforcement, TCEQ does not control the methods by which a facility shuts down or starts back up. TCEQ also does not control the scheduling or timing of any shutdowns or startups. One panelist at the hearing suggested that an industry working group should be established by TCEQ to determine best practices for facilities that must shut down due to an emergency. Best practices were suggested to be time-based scenarios that contemplate a series of timeframes in which facilities have to complete

---

246 Id.
247 See Interim Hearing: Hearing on Environmental Safety Interim Charge Before the S. Comm. on Natural Res. & Eco. Dev., 85th Leg., (Tex. 2018) (testimony of Texas Oil and Gas Association). As of January 2017, the 29 petroleum refineries in Texas were able to process more than 5.6 million barrels of crude oil per day and accounted for 30% of total U.S. refining capacity. [https://www.eia.gov/state/?sid=TX](https://www.eia.gov/state/?sid=TX)
249 Hurricane Harvey caused substantial disruptions to crude oil and petroleum product supply chains and increased petroleum product prices. For the week ending September 1, 2017, gross inputs to refineries in the U.S. Gulf Coast fell by 3.2 million b/d, or 34%, from the previous week, the largest drop since Hurricanes Gustav and Ike in 2008. Weekly refinery utilization in the region fell from 96% to 63%, while other areas of the country remained virtually unchanged. [https://www.eia.gov/todayinenergy/detail.php?id=32852](https://www.eia.gov/todayinenergy/detail.php?id=32852)
250 Interim Hearing: Hearing on Environmental Safety Interim Charge Before the S. Comm. on Natural Res. & Eco. Dev., 85th Leg., (Tex. 2018) (testimony of Texas Oil and Gas Association).
251 Id.
252 Interim Hearing: Hearing on Environmental Safety Interim Charge Before the S. Comm. on Natural Res. & Eco. Dev., 85th Leg., (Tex. 2018) (testimony of Texas Oil and Gas Association).
253 See Interim Hearing: Hearing on Environmental Safety Interim Charge Before the S. Comm. on Natural Res. & Eco. Dev., 85th Leg., (Tex. 2018) (testimony of Texas Oil and Gas Association); See also Interim Hearing: Hearing on Environmental Safety Interim Charge Before the S. Comm. on Natural Res. & Eco. Dev., 85th Leg., (Tex. 2018) (testimony of Texas Chemical Council)
254 Interim Hearing: Hearing on Environmental Safety Interim Charge Before the S. Comm. on Natural Res. & Eco. Dev., 85th Leg., (Tex. 2018) (testimony of TCEQ)
255 Id.
A second recommendation was to have TCEQ control startups by staggering them to prevent any possible cumulative health and environmental impacts that may occur due to multiple facilities starting up around the same time period. Discussion during the hearing acknowledged that having the state control emergency shutdowns would be unworkable due to the nature of an emergency situation, however the panelist testified that there may be more flexibility for state control with regard to startups. As such, the legislature was asked to study the feasibility of having TCEQ control startup activity after an event which causes multiple shutdowns in a community or geographic region.

TCEQ told the Committee that MSS is scheduled and orchestrated by the regulated entities due to the complex nature of the facilities themselves, along with the integrated nature of the facilities and their products. The agency stated that it would be very difficult and challenging to develop rules that could contemplate the dynamics of each facility's complex system of operations, coupled with the extraordinary nature of an emergency like Hurricane Harvey. In written testimony the agency stated "[b]ecause every event is unique, and every plant is unique, development of a 'one size fits all' enforceable protocol or rules specifying measures for each plant, unit or facility to minimize adverse impacts of shutdown emissions due to a hurricane or similar event while ensuring safety of workers and surrounding areas would be a virtually impossible task." TCEQ, in supplemental testimony submitted subsequent to the hearing, explained that it does not have authority to obtain information that companies utilize to make decisions about how and when to startup, indicating that such information does not relate to environmental authorization or compliance. Such information would include financial and other business considerations; market conditions; contracts and interconnections with other industries (including availability of utilities and support facilities); availability of workers and raw material suppliers; and compliance with other laws, such as those regarding worker safety.

An industry panelist testified that government-led mandatory shutdowns would be the most irresponsible policy directive the state could choose; as only the industry experts and facility staff, familiar with the equipment, the facility, the products, the interrelation of power grid and interrelation of other facilities have the information that must be considered in making a decision to shut down and subsequently start up operations. According to testimony, facility shutdowns need to be orchestrated in a manner that ensures startup is stable and safe. In testimony, the Committee was told that facility operators base their decisions to shutdown on the safety of employees, the safety of the community and the preservation of assets. Placing the state in the position to mandate facility shutdowns and startups would add a tremendous amount of potential

256 Interim Hearing: Hearing on Environmental Safety Interim Charge Before the S. Comm. on Natural Res. & Eco. Dev., 85th Leg., (Tex. 2018) (testimony of Public Citizen)

257 Id.

258 Interim Hearing: Hearing on Environmental Safety Interim Charge Before the S. Comm. on Natural Res. & Eco. Dev., 85th Leg., (Tex. 2018) (testimony of TCEQ)

259 Id.

260 Id.

261 Interim Hearing: Hearing on Environmental Safety Interim Charge Before the S. Comm. on Natural Res. & Eco. Dev., 85th Leg., (Tex. 2018) (testimony of Texas Chemical Council)

262 Interim Hearing: Hearing on Environmental Safety Interim Charge Before the S. Comm. on Natural Res. & Eco. Dev., 85th Leg., (Tex. 2018) (testimony of Texas Oil and Gas Association).

263 Interim Hearing: Hearing on Environmental Safety Interim Charge Before the S. Comm. on Natural Res. & Eco. Dev., 85th Leg., (Tex. 2018) (testimony of Texas Chemical Council)
This sentiment was echoed by another panelist, who stated that plant personnel know the technical processes best, and warned of the possible domino effects that could occur if something is inadvertently shut down the wrong way. The panelist further testified that he relies on plant personnel as subject matter experts in making such decisions. Industry further testified that the current rigorous regulatory scheme under which facilities operate takes into account best practices, and that regulated entities continue to implement best practices, learn from best practices, and share them amongst others in the industry.

6. Releases

Although Hurricane Harvey made landfall on August 25th, 2017, the storm was unpredictable from the start. It transformed into a tropical depression on August 23rd, became a Category 1 hurricane on the afternoon of the 24th, and then rapidly intensified to a Category 4 hurricane by August 25th when it made landfall around 10:00 p.m. With the impact location constantly shifting and prediction models differing widely, companies began taking precautions and shutting down operations. These steps were taken based on the judgments of experienced operators, and in observance of risk management practices and procedures. In an effort to assess the concentration of events, TCEQ reviewed data from reports with a start date between August 25 and September 25, 2017. The data on releases by regulated entities showed that reported emissions from unplanned or scheduled MSS events were distributed both over time and geographically. During this time, most events occurred between August 21 and September 10, 2017. August 27, 2017 was the day with the highest number of emission events. The events occurred over nine counties, with the City of Baytown having the highest concentration of emissions. In Baytown, nearly half of the emissions were products of combustion, carbon monoxide and nitrogen oxide, which can occur as pollution control devices combust other types of pollutants.

7. Tank Failures

The Committee heard specific testimony on storm-related storage tank failures that resulted in the release of pollutants. Written testimony stated that more than 15 storage tanks holding crude oil, gasoline, and other hydrocarbons failed during the storm and that at least 400 storage tanks in
the Houston regions have floating roofs, which were the cause of those failures. Although the failure rate cited above was only 3.75%, the written testimony also cited an article that said these 15 tank failures resulted in a combined 3.1 million pounds of pollutants into the atmosphere. The Committee was told that one possible option to eliminate roof failures in severe flooding events would be to retrofit all existing external floating-roof tanks with geodesic dome covers.

TCEQ has provided follow-up information to the committee which confirms that this option is possible, however TCEQ lacks the regulatory or statutory authority to require external floating-roof tanks to be retrofitted with geodesic dome covers. TCEQ found that the number of existing external floating roof tanks reported at major sources (i.e. sites that are subject to the TCEQ federal operating permits program) in counties within 50 miles of the Gulf Coast is approximately 1,500, with cost estimates to retrofit the tanks with geodesic dome covers at approximately $500,000 to $1,600,000 per tank. Thus, the cost is far from de minimis and the geodesic dome covers are not required under TCEQ’s current permitting scheme. Other options could also be explored, such as requiring internal floating roofs (versus external floating roofs) for all new tank installations in locations that may be affected by a hurricane, or requiring a certain drain pipe size to be utilized on floating roof tanks, as was suggested at the hearing.

It is vital to recall that Hurricane Harvey was an extreme rain event, in fact, the largest in the nation since reliable records have been kept. Inevitably a storm-event of this magnitude will cause failures in equipment that was not engineered and designed to withstand such an act of God.

8. Monitoring Network

In preparation for the hurricane's landfall, and in accordance with TCEQ’s Hurricane Preparedness Plan, air monitoring stations in areas threatened by Hurricane Harvey were taken offline and secured prior to landfall. TCEQ air monitoring stations were taken offline in San Antonio, Corpus Christi, Houston, and Beaumont. Twelve stations in Corpus Christi and San Antonio were taken offline on August 23rd and an additional 40 stations were taken offline in Beaumont and Houston the following day. Efforts to bring the monitors online began on August 28th and continued until September 8th, when all monitors not damaged by the storm were fully operational. The total value of the monitoring assets in the areas of impact was approximately

272 Ari Phillips, Preparing for the Next Storm: Learning from the Man-Made Environmental Disasters that Followed Hurricane Harvey, pgs. 3 and 13, Environmental Integrity Project & Environmental Defense Fund, August 16, 2018; See also Interim Hearing: Hearing on Environmental Safety Interim Charge Before the S. Comm. on Natural Res. & Eco. Dev., 85th Leg., (Tex. 2018) (testimony of Public Citizen)
273 See Ari Phillips, Preparing for the Next Storm: Learning from the Man-Made Environmental Disasters that Followed Hurricane Harvey, pg. 13, Environmental Integrity Project & Environmental Defense Fund, August 16, 2018; See also Jordan Blum, Failures of floating-roof oil tanks during Harvey raise concerns, Houston Chronicle, October 11, 2017.
277 Interim Hearing: Hearing on Environmental Safety Interim Charge Before the S. Comm. on Natural Res. & Eco. Dev., 85th Leg., (Tex. 2018) (testimony of TCEQ)
278 Id.
$5.2 million, while $170,000 in damages to monitoring assets resulted due to the storm. The monitoring stations that were damaged were all repaired or replaced and the monitoring network was 100% operational on September 29th.

During the period in which no TCEQ air monitors were available due to state asset preservation, the TCEQ and the EPA utilized multiple air monitoring assets to monitor air quality. TCEQ states that both TCEQ and EPA investigators spent numerous hours, both day and night, monitoring neighborhoods and industrial fence lines with handheld instruments, such as optical gas imaging cameras (OGIC), toxic vapor analyzers, summa canisters, and portable multi-gas monitors. Monitoring assessments of specific targets as well as broad areas of storm-impacted areas were conducted using optical gas imaging camera aerial surveys, EPA’s Trace Atmospheric Gas Analyzer mobile monitoring system, and EPA’s Airborne Spectral Photometric Environmental Collection Technology aircraft. In addition TCEQ states that aerial surveys were conducted in the Houston and Beaumont areas using a helicopter equipped with an OGIC that can image VOCs and other hydrocarbons invisible to the eye, and investigators followed up with facilities to address potential sources of air emissions identified during the surveys.

TCEQ written testimony states that "[f]rom the available air monitoring data collected August 24th through September 24th, all measured air toxics concentrations were well below levels of health concern." The Committee did, however, hear testimony that TCEQ was unaware that monitoring was being conducted right after the storm by the City of Houston and nonprofit groups in the area. Hearing testimony revealed that there has not been a comprehensive study on the health impacts due to MSS emissions that took place due to Hurricane Harvey as the task would be daunting, if not impossible, in part due to the fact that many health effects would be chronic as a result of a lifetime of exposure. The Committee was told that there are statistically measurable impacts, such as the effect that high-ozone-days have on health, and that September 1 was the highest ozone-day of the year for the Houston Bayland Park C53/A146 monitor, which was likely attributable to MSS emissions as a result of Harvey.

9. TCEQ Communication

One witness told the Committee that there was a lack of open and full communication from TCEQ during and immediately after Hurricane Harvey which lead to some negative public perception that "no one was minding the store." This sentiment was also contained in an article submitted as written testimony which stated that "[d]uring and after the storm, federal and state regulators provided overly broad statements about air pollution levels, repeatedly telling people that they had no reason to worry despite known releases of benzene and other dangerous

---

279 Id.
280 Id.
281 Id.
282 Id.
283 Id.
284 *Interim Hearing: Hearing on Environmental Safety Interim Charge Before the S. Comm. on Natural Res. & Eco. Dev.,* 85th Leg., (Tex. 2018) (testimony of Public Citizen)
285 Id.
286 Id.
287 Id.
pollutants. An example was proffered in which TCEQ put out a press release on September 3rd that stated "[o]f the available air monitoring data collected from Aug. 24–Sept. 2, all measured concentrations were well below levels of health concern." This was characterized as misleading because, as detailed above, two days prior on September 1st one area had the highest ozone-day of the year.

The witness also testified regarding a TCEQ press release dated August 31st, titled "TCEQ part of Arkema plant response in Crosby" which informed the public that "[a]s with all smoke, people can limit the potential for adverse health effects by limiting their exposure." The witness pointed out that 21 people were injured and 7 people were hospitalized due to the event, and that the smoke produced by the Arkema fire was not similar to smoke from a simple campfire. While hindsight allows for actions to be weighed against all facts and opinions, it is critical that TCEQ appropriately alert both emergency personnel and the public of threats to human health and safety and the environment. Recognizing that a balance exists between disseminating information about potential threats quickly, and verifying the nature of the threats; the Committee asks TCEQ to alert all appropriate emergency personnel as soon as a potential threat is discovered, and to also disseminate public information in a timely and forthright manner.

10. Notification of Local Jurisdictions

The Committee received testimony that there is room for improvement in coordinating with local jurisdictions during emergency situations. During Hurricane Harvey a number of companies notified the National Response Center (NRC) regarding releases of pollutants. The NRC serves as an emergency call center that fields initial reports regarding pollution and railroad incidents and forwards that information to the appropriate federal and/or state agencies for response. These notifications went to the appropriate state authorities, but were not sent to the local authorities in the affected areas. The witness gave an example of a tank failure that resulted in a release. The responsible party reported the release to the NRC who relayed the information to the State Operations Center and TCEQ, but the information was not relayed to Harris County, the local jurisdiction in which the release occurred. The local emergency planning committees are now notified, but the Committee was made aware that it would be beneficial if pertinent release information was conveyed by the responsible party directly to the applicable local jurisdictions and authorities. The Committee was told that TCEQ and industry are now aware

288 See generally Ari Phillips, Preparing for the Next Storm: Learning from the Man-Made Environmental Disasters that Followed Hurricane Harvey, Environmental Integrity Project & Environmental Defense Fund, August 16, 2018
289 Interim Hearing: Hearing on Environmental Safety Interim Charge Before the S. Comm. on Natural Res. & Eco. Dev., 85th Leg., (Tex. 2018) (testimony of Public Citizen)
290 Interim Hearing: Hearing on Environmental Safety Interim Charge Before the S. Comm. on Natural Res. & Eco. Dev., 85th Leg., (Tex. 2018) (testimony of Harris County Fire Marshall's Office)
291 See http://www.nrc.uscg.mil/; The Comprehensive Environmental Response, Compensation, and Liability Act (CRCLA) requires that all releases of hazardous substances (including radionuclides) exceeding reportable quantities, be reported by the responsible party to the National Response Center. Title 40 of the Code of Federal Regulations Part 302 promulgates reportable quantities and reporting criteria.
293 Interim Hearing: Hearing on Environmental Safety Interim Charge Before the S. Comm. on Natural Res. & Eco. Dev., 85th Leg., (Tex. 2018) (testimony of Harris County Fire Marshall’s Office)
of the issue and are investigating remedies. In the event a statutory change is necessary to effectuate the distribution of this crucial information the Committee will evaluate the best methodology to do so.

11. Rule Suspension

On August 28, 2017, consistent with the Governor's original disaster declaration for the 60 Texas counties affected by Hurricane Harvey, the TCEQ asked Governor Abbott to suspend a number of TCEQ rules ranging from air pollution reporting and control, to vehicle fuel standards, to solid waste and wastewater. The rule suspension was requested "only to the extent the rules actually do prevent, hinder or delay necessary action in coping with this disaster." Furthermore the suspension read that "[i]t should be noted that some of these rules may have federal counterparts in statute or regulation and this suspension would not apply to such federal counterparts." This language in the rule suspension negates the questions regarding the Governor's authority to waive federal requirements that were raised at the hearing. On April 5th, 2018 TCEQ asked the Governor's office to lift the suspension and the Governor's office granted the request. Although the suspension was granted with the above limitations, some witnesses told the Committee that the rule suspension was overly broad and in place for an unnecessarily long period of time.

One witness testified that the rule suspension was altogether unnecessary because of the availability of the aforementioned affirmative defense provisions in TCEQ rules and the ability of the Executive Director to utilize enforcement authority. It was said that the suspension only served to cause confusion and to reward bad actors. Although the same witness testified that it was unknown as to whether the confusion lead to any problems, and stated that the vast majority of companies do not deserve to be penalized for the emissions that were a result of an emergency, the witness told Committee that some enforcement actions are going forward and that the rule suspensions may allow for an argument that rule violations should not be penalized.

The argument that enforcement is hindered by the rule suspension is negated by the fact that the suspensions were only in place to the extent that they actually prevented, hindered or delayed necessary action to cope with this disaster, and by the fact an entity would be able to avail themselves of an affirmative defense in such a case. TCEQ testified that if a regulated entity had delayed reporting, or some other activity, when there was no reason related to the hurricane to do so, that an investigation would reveal that, and appropriate enforcement actions would be taken. Further testimony from TCEQ stated that ultimately a report was required for all MSS activities that occurred due to the hurricane and TCEQ is still in the process of reviewing the

294 Id.
295 TCEQ's Request for Suspension of TCEQ Rules, Date: August 28, 2017.
296 See Interim Hearing: Hearing on Environmental Safety Interim Charge Before the S. Comm. on Natural Res. & Eco. Dev., 85th Leg., (Tex. 2018) (testimony of Public Citizen); See also Interim Hearing: Hearing on Environmental Safety Interim Charge Before the S. Comm. on Natural Res. & Eco. Dev., 85th Leg., (Tex. 2018) (testimony of Environmental Integrity Project)
297 Interim Hearing: Hearing on Environmental Safety Interim Charge Before the S. Comm. on Natural Res. & Eco. Dev., 85th Leg., (Tex. 2018) (testimony of Environmental Integrity Project)
298 Id.
299 Id.
300 Interim Hearing: Hearing on Environmental Safety Interim Charge Before the S. Comm. on Natural Res. & Eco. Dev., 85th Leg., (Tex. 2018) (testimony of TCEQ)
reports. Although testimony did not reveal any examples in which the rule suspension caused substantive problems, or particularized abuses, the Committee does recognize that an emergency suspension of environmental rules should only be in place for so long as necessary to allow for an orderly recovery from a disaster and that any noncompliance with environmental rules should be demonstrated to have been necessitated by the disaster or emergency.

12. Summary

The interim hearing and study of strategies and best practices for ensuring environmental safety during emergency maintenance, startup, and shutdown activities by the Committee revealed the complexities involved in shutting down a permitted facility and the integrated nature of both the facilities and their products along the coast. The affected regulated entities, emergency responders, and TCEQ all have many success stories in the face of an unprecedented storm. The Committee found several issues that may merit further oversight or direction from the Committee and the legislature as a whole during the upcoming 86th Legislative Session, including:

- Ensuring that storage tank designs along the Texas coast are protective of human health and safety and the environment.
- Instructing TCEQ to alert all appropriate emergency personnel as soon as a threat is discovered, and to disseminate information to the public in a timely and forthright manner.
- Ensuring that information regarding releases of pollutants is conveyed to the applicable local jurisdictions and authorities.

---

301 See Interim Hearing: Hearing on Environmental Safety Interim Charge Before the S. Comm. on Natural Res. & Eco. Dev., 85th Leg., (Tex. 2018) (testimony of TCEQ); See also 30 Tex. Admin. Code §§ 101.222(b)(1), (c)(1), (d)(1), and (e)(1) (Tex. Comm’n, on Envtl. Quality Rules and Procedures Concerning Operational Requirements, Demonstrations, and Actions to Reduce Excessive Emissions)
Charge No. 4

Waste Disposal Regulation: Study the permitting and compliance processes for waste disposal and processing, including evaluating the criteria for approval, denial, and application return. Make recommendations for improving and streamlining the permitting and compliance processes while maximizing public participation for effective outreach and education. Review the allocation of the Municipal Solid Waste disposal fees and make recommendations regarding allocation methods to adequately support existing programs.

1. Introduction

Most people throw away their trash without giving a second thought to its final disposition. That is, until one of two things happens -- 1) there is an application filed to build a new Municipal Solid Waste (MSW) facility or expand an existing one, or 2) a MSW facility's existence is perceived to negatively impact an individual or other entity. It is then that debate ensues regarding the sufficiency of the laws and regulations that govern MSW facility permitting and operations, and the proper enforcement of these laws and regulations. This debate is healthy and serves to ensure that any problems are properly addressed and that waste disposal in the state continues to meet the needs of an ever-growing population. Although this debate has been ongoing, a number of topics have garnered recent attention with regard to MSW facilities, but prior to exploring these topics it is worthwhile to gain some perspective on the types of facilities that we are discussing.

2. Overview of MSW Facility Categories

In Texas MSW facilities are classified according to the method of disposal or processing, as contained in 30 Texas Administrative Code Section 330.5. There are two basic types of MSW facilities: 1) disposal facilities, or landfills, and 2) processing facilities. Processing facilities simply store and process MSW and authorized nonhazardous industrial wastes for later disposal; or alternatively, for later reuse and recycling. Although facilities that recover landfill gas and compost facilities are considered processing facilities for the purposes of reporting to the Texas Commission on Environmental Quality (TCEQ), generally processing facilities can be thought of as Type V processing facilities. Type V facilities engage in activities such as the transfer, incineration, shredding, grinding, baling, salvaging, separation, dewatering, or reclamation of MSW. TCEQ records show that for 2017 there were 207 active MSW processing facilities in Texas, all of which submitted annual reports which show that Type V facilities processed about 8.2 million tons of MSW in 2017. Although processing facilities receive public scrutiny due to proposed siting locations, much of the public discourse and opposition occurs with regard to landfill applications, inspections and enforcement.

---

3. **Overview: Landfills**

There are four different types of disposal facilities, or landfills; two of which account for nearly all of the total MSW disposed of in 2017. A Type I landfill is the standard for disposal of MSW in Texas and can accept all types of MSW. Type I landfills are by far the most common type of landfill in Texas and accounted for approximately 89% of all waste disposed of in 2017. Type IV landfills only accept brush, construction or demolition waste, and other similar non-putrescible waste and accounted for almost 10% of the total waste disposed of in Texas. If a Type I or Type IV landfill is located in a dry part of the state, it may be permitted as an Arid-Exempt Landfill, which are exempt from certain requirements but also have limited acceptance rates. These Arid-Exempt Landfills account for only 1% of the total waste disposed of in Texas. The fourth type of landfill is a Monofill, which is only authorized to dispose of demolition waste from properties with nuisance or abandoned buildings. This type of landfill accounts for less than 1% of the waste disposed in the state. Thus, for practical purposes, when discussing activity and capacity at MSW disposal facilities, we are referring to Type I and Type IV landfills. As of year end 2017 there were 120 Type I and Type IV landfills, which accounted for approximately 99% of the waste disposed in the state. Of the 196 active MSW landfills, 128 (65%) were publicly owned. These publicly owned facilities accepted 35% of the state’s reported waste and accounted for 42% of the state’s total remaining cubic yard capacity.

4. **Current State: Landfills**

In 2017 approximately 35.31 million tons of waste was deposited into MSW landfills in the state. This equates to 6.84 pounds of waste per person per day being deposited in landfills last year. Assuming that the disposal rate of 35.31 tons per year will continue, that no new landfills or landfill expansions will be authorized, and that the 2017 population and disposal amounts will remain constant; TCEQ estimates that the state has a remaining capacity of 1.93 billion tons that will serve for 55 years. Although this figure is helpful in gaining insight into the state’s current capacity, and shows that the state’s disposal needs are currently adequate, the assumptions made...
to compute the 55 year figure do not take population growth into account. Further this figure may give the impression that all landfills are operating with enough capacity to last well into the future, which is not the case. Although some newer landfills have over 200 years of remaining capacity, 38 landfills have 10 or fewer years of remaining capacity, and 15 have less than 5 years. In addition, 125 counties do not have a landfill at all.

One thing, however, is certain, the population of Texas is growing and expected to continue to do so. According to the United States Census Bureau, for each year between 2010 and 2016, Texas has had the nation's largest annual population growth. During this period, the state added about 211,000 people per year through natural increase, which does not account for migration. 318 Texas's 2017 population estimate of 28,059,337 319 is projected to grow to a population of up to 54,369,297 by 2050 under one growth scenario recently compiled by the University of Houston, Hobby School of Public Affairs. 320

5. Necessity and Location of Landfills

When a new landfill application or an application for an expansion is filed, those opposed to the landfill often question whether or not there is a need for additional capacity in the area. It is clear that some local governments see a need for increased landfill capacity, as evidenced by the fact that they continue to file applications for new landfills and permit amendments to increase capacity. The fact that landfills in some areas have more than enough capacity for the foreseeable future does not necessarily mitigate need in other areas of the state. There are many factors that go into a decision to construct or expand a landfill. A city or county must weigh the costs of constructing new capacity as compared to the cost of contracting with another entity. A public or privately owned entity must consider profitability in its decision to construct or modify a facility, and need is inherent in that consideration. The State of Texas has, thus far, imposed restrictions on the location of a landfill only when evaluating compliance with rules and regulations that are established to protect human health and safety and the environment.

Some written testimony criticized TCEQ for permitting in areas where there is no market for a new landfill by applicants who simply wish to sell a landfill or to lure waste from other states. 321 Although there is no restriction in statute or rule on the amount of waste that can be accepted from out-of-state or from another country, TCEQ reports that in 2017 less than 1% of waste disposed in the state's MSW landfills was generated from outside of the state. Two landfills accepted waste from Mexico, representing a total of 2,530 tons. Seven landfills accepted waste imported from either Arkansas, Louisiana, New Mexico, or Oklahoma, representing a total of 175,731 tons. TCEQ does not require the reporting of MSW that is exported from Texas, but

---

generally the amounts imported and exported will be limited due to transportation costs. Along with the siting requirements below, an applicant who wishes to construct a MSW facility must also ensure that facilities are placed in locations that are proximate to the sources of wastes and appropriate transportation corridors.\textsuperscript{322} It is clear that there are differing opinions with regard to whether and how need should be evaluated in permitting landfills. The differing opinions are often influenced by the location an applicant chooses. However, it is also clear that a current need is perceived to exist by some cities, counties and private landfill owners and operators as evidenced by their ongoing pursuit of permits.

6. Siting Requirements for Landfills

The location of a landfill is generally dictated by restrictions contained in 30 Texas Administrative Code Section 330, Subchapter M, along with various other parts of the rules and the general prohibitions contained in Subchapter A. An exhaustive review of all landfill siting rules and requirements is beyond the scope of this report; however, considerations include, but are not limited to, airport safety, floodplains, groundwater, endangered or threatened species, wetlands, fault areas, seismic impact zones, unstable areas that may impair the integrity of the landfill, and certain coastal area protections. The intent of the TCEQ rules is made clear in Subchapter A with general prohibitions against discharging MSW into waters in the state, the creation of a nuisance, and the endangerment of human health and welfare and the environment.\textsuperscript{323}

7. Floodplains

One MSW facility location restriction that has garnered the attention of both legislators and the public at large relates to whether or not a landfill can be located in a floodplain. TCEQ rules prohibit waste disposal operations to be permitted in areas that are located in a 100-year floodway as defined by the Federal Emergency Management Administration (FEMA), unless an owner or operator can demonstrate: (1) that the facility is designed and will operate to prevent washout during a 100-year storm event; or (2) obtains a conditional letter of map amendment from the Federal Emergency Management Administration administrator.\textsuperscript{324} Additionally, MSW facilities are prohibited from restricting the flow of the 100-year flood, reducing the temporary water storage capacity of the floodplain, and cannot result in washout of solid waste so as to pose a hazard to human health and the environment.\textsuperscript{325} TCEQ rules further require that an applicant provide information detailing the specific flooding levels and other events that impact the flood


\textsuperscript{323} See 30 TAC § 330.15(a) (Tex. Com'n. on Env. Quality Municipal Solid Waste Procedures). The section states "a person may not cause, suffer, allow, or permit the collection, storage, transportation, processing, or disposal of municipal solid waste (MSW), or the use or operation of a solid waste facility to store, process, or dispose of solid waste, or to extract materials under Texas Health and Safety Code, §361.092, in violation of the Texas Health and Safety Code, or any regulations, rules, permit, license, order of the commission, or in such a manner that causes: (1) the discharge or imminent threat of discharge of MSW into or adjacent to the waters in the state without obtaining specific authorization for the discharge from the commission; (2) the creation and maintenance of a nuisance; or (3) the endangerment of the human health and welfare or the environment.


\textsuperscript{325} See 30 Tex. Admin Code § 330.547(c) (Tex. Com'n. on Env. Quality Municipal Solid Waste Procedures).
protection of the facility" if a site is located within a 100-year floodplain. Thus, the rules clearly allow for a MSW facility to be located in a floodplain provided that the applicable requirements are met.

In demonstrating whether a site is located in a 100-year floodplain, an applicant is required to provide source data and include a copy of the relevant FEMA flood map, or alternatively, the calculations and other maps used if a FEMA map is not used. Thus, although TCEQ rules state that a FEMA map is prima facie evidence of the location of a floodplain, other information can rebut the presumption that a FEMA map correctly identifies the location of the 100-year floodplain. Additional information which identifies whether the site location is in a 100-year floodplain is required if a FEMA map is not available. During the interim hearing, there was concern expressed about TCEQ's use of "Zone A" maps to delineate and define a floodplain boundary, as Zone A maps were categorized as not definitive. Zone A is defined by FEMA as "[a]reas subject to inundation by the 1-percent-annual-chance flood event generally determined using approximate methodologies. Because detailed hydraulic analyses have not been performed, no Base Flood Elevations or flood depths are shown." A 1-percent annual chance flood is also referred to as the base flood, or 100-year flood. Thus, if an applicant submits a FEMA map to TCEQ that identifies the site as being in a Zone A area, the site is, by definition, in a 100-year floodplain and TCEQ rules require further information and demonstration. The question becomes whether Base Flood Elevations or flood depths are necessary for FEMA to determine the effects of a proposed MSW facility to be built in a flood plain. A look at further TCEQ requirements reveals FEMA, along with the input of the local floodplain administrator, can still make this evaluation, which TCEQ then relies on for permitting purposes.

To construct a MSW facility in a floodplain TCEQ rules also require an applicant to submit, where applicable: (1) an approval from the governmental entity with jurisdiction over levees; (2) a floodplain development permit from the city, county, or other agency with jurisdiction over the proposed improvements; (3) a Conditional Letter of Map Revision (CLOMR) from FEMA, and (4) a U.S. Army Corps of Engineers Section 404 permit for construction of all necessary improvements. A CLOMR documents that an applicant has obtained appropriate authorization from FEMA to modify the floodplain and that, upon completion as presented in the CLOMR, the FEMA floodplain map will be revised to indicate that the construction is no longer in the floodplain. A CLOMR does not actually revise or modify the FEMA map, rather a CLOMR is FEMA's comment on a proposed project that would, upon construction, affect the hydrologic or hydraulic characteristics of a flooding source and thus

---

328 Id.
329 Id; See also Interim Hearing: Hearing on Waste Disposal Regulation Interim Charge Before the S. Comm. on Natural Res. & Eco. Dev., 85th Leg., (Tex. 2018) (testimony of TCEQ).
331 See https://www.fema.gov/zone (last visited October 14, 2018).
332 See https://www.fema.gov/flood-zones (last visited October 14, 2018).
result in the modification of the existing regulatory floodway, the effective Base Flood Elevations, or the Special Flood Hazard Area.\textsuperscript{335}

A CLOMR must be approved\textsuperscript{336} by a local floodplain administrator prior to receiving approval from FEMA.\textsuperscript{337} As such, local approval of the planned construction and land modification is obtained by an applicant through the CLOMR process required by the TCEQ rules. It would not be possible for the state to require a Letter of Map Revision (LOMR) from FEMA for the issuance of a MSW facility permit, as a LOMR is FEMA's modification to an effective Flood Insurance Rate Map or Flood Boundary and Floodway Map based on the implementation of physical measures that affect the hydrologic or hydraulic characteristics of a flooding source.\textsuperscript{338} As such, for FEMA to issue a LOMR, the facility would have to already be constructed, which logically occurs after permit issuance from TCEQ. Further, as MSW facilities are built out over time to accommodate need, it is possible that there would be no actual impact to a floodplain for some period of time and a map revision would not be necessary when the facility is first constructed. There is no current requirement that a LOMR be submitted to TCEQ once it is issued by FEMA. One possible procedural improvement would be to require that an applicant submit the LOMR to the TCEQ after issuance by FEMA and further require the applicant to maintain the LOMR and present it as part of an inspection by TCEQ.

One panelist at the hearing stated that if TCEQ wishes to have an applicant present evidence that there is no impact to the floodplain, they really need to get a letter from the local floodplain administrator.\textsuperscript{339} This is effectively accomplished by having the local floodplain administrator sign off on the CLOMR utilizing a Community Acknowledgment (MT-1) form which must be submitted to FEMA along with a CLOMR.\textsuperscript{340} A signed Community Acknowledgement of fill placement form provides written assurance that the participating community has complied with the appropriate minimum floodplain management requirements. Specifically, any existing or proposed structures within the area to be removed from the Special Flood Hazard Area are (or will be) reasonably safe from flooding, as required under the current minimum floodplain management regulations under Subparagraph 60.3(a)(3) of the National Flood Insurance Program regulations.\textsuperscript{341}

Requiring a CLOMR from FEMA and, if applicable, a floodplain development permit from a city or county for an applicant to construct a MSW facility in a 100-year floodplain, allows a local government to participate in the process. This effectively serves as an opportunity for both

\textsuperscript{335} See Interim Hearing: Hearing on Waste Disposal Regulation Interim Charge Before the S. Comm. on Natural Res. & Eco. Dev., 85th Leg., (Tex. 2018) (testimony of Webb County Floodplain Administrator); See also \url{https://www.fema.gov/conditional-letter-map-revision} (last visited October 14, 2018).

\textsuperscript{336} See Interim Hearing: Hearing on Waste Disposal Regulation Interim Charge Before the S. Comm. on Natural Res. & Eco. Dev., 85th Leg., (Tex. 2018) (testimony of Harris County Public Infrastructure Coordination).

\textsuperscript{337} See Interim Hearing: Hearing on Waste Disposal Regulation Interim Charge Before the S. Comm. on Natural Res. & Eco. Dev., 85th Leg., (Tex. 2018) (testimony of Harris County Public Infrastructure Coordination); See also Interim Hearing: Hearing on Waste Disposal Regulation Interim Charge Before the S. Comm. on Natural Res. & Eco. Dev., 85th Leg., (Tex. 2018) (testimony of TCEQ).

\textsuperscript{338} See \url{https://www.fema.gov/letter-map-revision} (last visited October 14, 2018).

\textsuperscript{339} See Interim Hearing: Hearing on Waste Disposal Regulation Interim Charge Before the S. Comm. on Natural Res. & Eco. Dev., 85th Leg., (Tex. 2018) (testimony of Harris County Public Infrastructure Coordination).

\textsuperscript{340} Id.

\textsuperscript{341} See \url{https://www.fema.gov/floodplain-managers-frequently-asked-questions} (last visited October 14, 2018)
the local floodplain administrator and the city or county to stop the permitting process from moving forward if applicable rules and regulations are not complied with by an applicant who wishes to develop a MSW facility in a 100-year flood plain. As this is current practice, the question becomes what procedural improvements are warranted in the floodplain evaluation. By requiring these local approvals, TCEQ has essentially removed itself from the floodplain evaluation process and relies on FEMA and local government. TCEQ does not have a hydrologist on staff in the MSW permitting section and does not evaluate floodplain issues independently. 342 One hearing panelist stated that TCEQ should have a hydrologist on staff to perform an independent floodplain evaluation. 343 As conditional map revisions (CLOMRs) and the actual post-construction map revisions (LOMRs) are ultimately certified by FEMA, the value addition in having TCEQ perform an independent review would essentially equate to another expert opinion in addition to that of the local floodplain administrator and FEMA, which are currently required. Another suggestion at the hearing was to encourage regional floodplain management coordination by funding community impact studies. 344 Suggested goals for the studies include evaluating the differences in local floodplain regulations in the state and ensuring that communities do not impact each other with floodplain management.

8. Special Conditions in Permitting Process

It is notable that testimony from TCEQ stated that when an applicant proposes to construct in a floodplain but has not obtained all necessary floodplain authorizations, TCEQ has previously, on a case-by-case basis, included special provisions in the landfill permit that require such approvals be submitted to TCEQ prior to construction. 345 These special conditions are not limited to floodplain approvals, but extend to other authorizations and approvals that are required by entities other than TCEQ. TCEQ's rationale for these special provisions is to allow for the time needed to obtain applicable authorizations while still meeting the intent of the rule. 346 This agency practice seems to be a response to the recognition that requirements for coordination with other agencies and entities are outside of the TCEQ's control, while still ensuring that all applicable approvals and documentations are in place prior to any potential impact on human health and safety and the environment. Testimony during the hearing revealed some opposition to this practice as being a clear violation of the rules and not properly allowing for any required changes by another entity to be incorporated into the TCEQ permit, without further revision. 347 Generally, approvals and letters that are required to be submitted in a permit application should be submitted prior to approval of the application.

344 Id.
346 Id.
However, statutory construction does construe some rules as directory versus mandatory. An evaluation of the nature of each requirement in MSW permitting is beyond the scope of this report, but it is important to practically consider which authorizations from entities other than TCEQ should be obtained prior to applying for a permit from TCEQ, and which authorizations (that are beyond TCEQ's ability to control) should simply be required prior to construction or operation.


TCEQ testimony states that "[a]ll municipal solid waste (MSW) permit applications follow a standard review process that includes an administrative and technical review, two public notices with the potential for a public meeting, and an opportunity for a contested case hearing. The purpose of this review is to ensure the application meets all prescribed rules and that the landfill operation will not adversely impact human health and the environment." This process is detailed in Appendix A - chart Overview of MSW Process. One aspect of the MSW permitting process that differs from other types of permits issued by TCEQ is the availability of a bifurcated application process, which an applicant can elect to utilize. A MSW landfill permit application consists of four parts. Part I includes general information about the application and the owner and/or operator. Part II contains the existing conditions and characteristics of the facility and surrounding area, land use compatibility information, traffic information, and location restrictions. Part III is the Site Development Plan which contains the engineering designs of the facility, including design drawings, groundwater monitoring, landfill gas monitoring, and closure and post-closure plans and cost estimates. Part IV is the Site Operating Plan and contains procedures for facility operation, special waste handling, landfill cover, and leachate management.

The Texas Health and Safety Code and the TCEQ rules allow an applicant to submit only Parts I and II to receive a land-use compatibility determination from TCEQ. The MSW permitting staff conducts a full administrative and technical review of the bifurcated application, including two public notices and a potential contested case hearing, and makes a land-use compatibility determination. If approved, the applicant then prepares and submits the technical portions of the application, Parts III and IV, so that the MSW permitting staff has one complete application. Again, MSW staff conduct a full review of the entire application, including public notices and a potential contested case hearing, and makes a final determination on the entire application. TCEQ's testimony recognizes that the bifurcated application process is resource intensive, as it

348 See Chisholm v. Bewley Mills, 287 S.W.2d 943, 945 (Tex. 1956); See also Schepps v. Presbyterian Hosp. of Dallas, 652 S.W.2d 934, 936 (Tex. 1983).
349 Some MSW transfer stations, separation facilities and processing facilities only require a registration with TCEQ and thus a contested case hearing is not available and protestants must avail themselves to the Motion to Overturn process.
involves two application reviews which allow for two sets of public notice and two public meetings and contested case hearings if requested.\textsuperscript{353} The rationale of allowing an applicant to avail itself of the bifurcated process was to save applicants the costly and time-intensive process of preparing the technical portions of an application if there were potential issues with land-use compatibility.\textsuperscript{354} The same would be true for any protestants, as they too would not need to hire engineers and geologists if they could simply prove the application was not compatible with surrounding land uses.\textsuperscript{355} The preparation of Parts 3 and 4 of a permit application involves various consultants that may include geotechnical experts, hydrogeologists, transportation experts and environmental specialists. Parts 3 and 4 of an application generally contain thousands of pages of work that involve multiple areas of expertise.\textsuperscript{356} Some panelists called for an end to this bifurcated application process, calling the process complicated and more costly for both the applicants and protestants.\textsuperscript{357} Abuse of the process by some applicants was alleged, with testimony stating that the process is often used to simply submit Parts I and II of the application TCEQ in order to be "grandfathered from any subsequent siting ordinances" by a city or county that may prevent a landfill at that location.\textsuperscript{358} The applicant then abandons the bifurcated permitting process and submits the rest of the application before a land use determination is made.\textsuperscript{359} This alleged abuse of the bifurcated process was cited as support for eliminating the bifurcated process, but an argument can also be made that abandoning the pursuit of a separate land use determination also eliminates the possibility of two separate public notices, public meetings and contested case hearing opportunities, and thus the associated extra costs and complexity for both applicants and protestants.

10. Notice Of Deficiency Process

Any permit application that is deficient due to a lack of information or nonconformance with applicable rules and regulations may receive a Notice of Deficiency (NOD). TCEQ may send a NOD during either the administrative review\textsuperscript{360} or the technical review process.\textsuperscript{361} A NOD is

\begin{footnotesize}
353 Id.
354 Id.
359 Id.
360 When the TCEQ receives a permit application, its staff reviews it to determine whether the applicant has submitted information necessary to identify the applicant and the type of facility and its activities that are the subject of the application. This process is called administrative review.
361 After an application is administratively complete, the ED’s staff reviews the application to determine whether it satisfies state and federal regulatory requirements. This process is called the technical review.
\end{footnotesize}
formal correspondence from TCEQ which details the deficiencies found in the application and requests that application revisions be submitted within 30 day of receipt of the letter. The letter also informs an applicant that failure to submit a satisfactory response to each of the noted deficiencies by the response due date may result in a recommendation to return or deny the application. During administrative review the Executive Director of TCEQ (ED) is required to notify the applicant of any deficiencies within 10 working days and has 8 working days to review the responsive information and declare the application administratively complete, or alternatively, issue another NOD. During the technical review period the ED is required to complete processing of the application within the technical review period. If the necessary additional information is not received by the ED prior to expiration of the technical review period, the ED may return the application. In no event, however, will the applicant have less than 30 days to provide the technical data before an application is returned. Decisions to return an application during the technical review period are made on a case-by-case basis.

No limitation exists, in statute or by rule, on the number of NODs an applicant may receive during either the administrative or technical review period. During the period from July 2011 to July 2017, TCEQ reviewed applications for seven new landfills (five bifurcated applications and two non-bifurcated) and 18 major amendments for landfills. TCEQ states that during this time period it issued an average of 6 NOD letters for new landfills with bifurcated applications and an average of 2.7 NOD letters for non-bifurcated new landfills and major amendments, which includes both administrative and technical NOD letters. Although these numbers are averages, and do not detail the number of deficiencies in each letter, it does show that the NOD process is utilized in the permitting of MSW landfills.

Interim hearing testimony from some panelists called for a finite limitation on the number of NODs an applicant may receive before an application is returned or denied, effectively arguing that the permitting process should serve to prevent landfills from being permitted if the application does not contain sufficient information or present the information in an effective manner. This argument categorizes the NOD process, and the information exchange that occurs between the applicant and the permitting authority, as TCEQ staff serving as tax-payer

---

362 See 30 Tex. Admin. Code § 281.18(a) (Tex. Com'n. on Env. Quality Returned Application Procedures). The section states that if the required information is not received from the applicant within 30 days of the date of receipt of the deficiency notice, the executive director shall return the incomplete application to the applicant.

363 See 30 Tex. Admin. Code § 281.3(a) (Tex. Com'n. on Env. Quality Returned Application Procedures). This section allows staff ten working days from receipt of the application to review an application for administrative completeness, while 30 TAC § 281.3(b) allows a 15 working day review for applications made under 30 TAC § 335.43 or 30 TAC § 331.7.


367 Id.

funded consultants for the applicants.\textsuperscript{369} Examples were offered of occasions in which TCEQ staff met with applicants on multiple occasions to discuss application deficiencies and NODs were issued for a lack of basic and essential information about a proposed site.\textsuperscript{370} Testimony stated that in some instances TCEQ staff has conducted simple research for applicants and in one instance edited a draft document for an applicant.\textsuperscript{371}

In evaluating the propriety of the current NOD process and determining whether there should be a limitation on the number of NODs an applicant may receive, we must first evaluate the proper role of the state in permitting generally. The legislature has given the TCEQ general jurisdiction over the state’s responsibilities relating to regional waste disposal, and has found that the problems of solid waste management have become a matter of state concern. As such, state financial assistance is required to plan and implement solid waste management practices that encourage the safe disposal of solid waste.\textsuperscript{372} The MSW permitting process is unquestionably part of this coordinated planning effort, and interim hearing testimony from industry revealed that the permitting process typically requires a considerable exchange of information between applicant and agency.\textsuperscript{373} It was stated that "[t]echnical review involves an evaluation of an application by agency staff and communication with the applicant to resolve any questions, uncertainties or perceived inconsistencies between the application and the staff’s interpretation of applicable requirements. These communications by agency staff are defined as Notices of Deficiency, a title which often results in undeserved criticism of the process and ignores the simple fact that the process is intended to guarantee to all interested parties that the review of an application is as thorough and accurate as possible."\textsuperscript{374}

Undoubtedly some applications are of a lesser quality than others, be it due to the inexperience of an applicant or consultant, an oversight, a timing issue, or even neglect; but the basic question policy remains - should this exchange of information between TCEQ staff and an applicant be limited in statute or rule? A numerical limitation on the number of NODs\textsuperscript{375} may negatively impact good actors even if the intent is to penalize good actors. It is undeniable that the rules governing MSW permitting are complex and numerous. Testimony was had that it has been estimated that a technically complete MSW landfill application must demonstrate compliance with as many as 1,700 individual technical requirements.\textsuperscript{376} Demonstrating compliance with technical requirements necessitates experts, such as engineers, geologists, hydrologists, and others, on the part of both the applicant and TCEQ. These experts must discuss and evaluate data. The Committee was also told that it is imperative that the permitting process allow the parties to address differing professional opinions and interpretations.\textsuperscript{377} Although opinions on the

\textsuperscript{369} Id.
\textsuperscript{371} Id.
\textsuperscript{372} See Tex. Water Code § 5.013(a)(10); See also Tex. Health & Safety Code § 363.003(11).
\textsuperscript{374} Id.
\textsuperscript{375} Testimony at the hearing suggest the limitation should be two NODs before an application is returned
\textsuperscript{377} Id.
current NOD process differed, it is certain that it is the state's obligation to ensure that communications are effective, and that information is exchanged which allows TCEQ to ensure that human health and safety and the environment are protected.

11. TCEQ Initiated Changes to the Permitting Process

TCEQ has implemented some changes to the MSW permitting process with the goal of improving this exchange of information. The agency is now offering pre-application meetings which provide an opportunity to establish program requirements and expectations prior to application preparation. TCEQ stated that this has resulted in higher-quality applications. The meetings are optional, but TCEQ reports positive responses from applicants. The MSW program also created checklists tailored to individual authorization and facility types, which reduce the amount of unnecessary or inapplicable information that staff must review. These checklists are available on the TCEQ website. The checklists became mandatory on September 1, 2018. From internal trials at the agency, the use of the checklist is expected to reduce the number of NOD items by approximately 40%. Requiring the use of standardized application forms has also reportedly improved efficiency. TCEQ states that an overhaul of the Part I MSW application form has reduced the number of NOD items by about 65%.

TCEQ has also encouraged staff to resolve issues and questions via email, phone, and meetings during the administrative or technical review rather than waiting on an applicant to respond to a NOD. Although some panelists testified that it was not TCEQ staffs’ job to help applicants with applications, it is clear that TCEQ believes that more communication and agency feedback results in better applications and reduces the amount of time staff spend creating NOD letters, reduces the amount of time the applicant takes to respond, and alleviates potential confusion between both parties. TCEQ is also providing guidance documents to applicants that work in concert with applications, and testified that by using the guidance documents, an applicant has clear and relevant information to prepare better applications and reduce the number of NOD items. Lastly, TCEQ now performs several steps concurrently to shorten the overall application review times, including concurrent administrative and technical reviews that have resulted in review reductions of up to 54 days.

12. Current Application Return Process

Although there is currently no limitation to the number of NODs an applicant can receive, the current TCEQ rules allow the Executive Director (ED) the discretion to return an application on a case-by-case basis, a process which has been utilized by the agency. The application processing

---

379 Id.
380 Id.
383 Id.
384 Id.
rules state that the ED shall return an application during administrative review if the additional information requested in an NOD is not received within the 30 day period the applicant has to respond.385 During technical review the ED can return an application if any necessary additional information requested by the ED is not received prior to expiration of the technical review period and the information is considered essential by the ED to make recommendations to the commission on a particular matter. 386 The applicant then has the option of having the question of the sufficiency of the necessary technical data referred to the commission for a decision. 387

Thus the current rules allow the ED to stop the processing of a landfill application by returning it for an untimely response (or no response at all) to a data request, or NOD, from the ED. The return of an application, means an applicant would need to restart the application process from the beginning if the applicant wishes to ultimately permit a landfill. In some instances, the landfill is effectively permanently blocked from being located where it was proposed in the returned application. This scenario would occur when a city or county has passed an ordinance which prohibits a landfill in the proposed location after the application was submitted to the TCEQ.388 When the application is returned by the ED, the ordinance, if proper, would then go into effect and the proposed landfill could be prohibited. In such a case, returning the application would mean that any land acquisition costs and the costs of compiling technical data and evaluating the location would be lost. TCEQ states that out of 152 applications for new landfills and processing facilities received since 2008, eight applications were returned. 389


Although the rules for returning an application differ during the administrative and technical review periods, currently there is no formal distinction in the NOD process between non-substantive, or clerical deficiencies, and substantive technical deficiencies. Testimony revealed support for creating such a distinction in statute or rule.390 One witness stated that many of the notices to applicants are regarding things as innocuous as page numbering or organization of the application and have nothing whatsoever to do with technical merit of the proposal.391 The testimony further asserted that NODs should address only those items that are truly deficient and

387 Id.
388 See Tex. Heath & Safety Code § 363.112(a). This section states that a municipality or county may prohibit the processing or disposal of municipal or industrial solid waste in certain areas by specifically designating, through ordinance or order, the areas “in which the disposal of municipal or industrial solid waste will not be prohibited” (i.e., where the disposal of waste may occur).
substantive in a permit application. Labeling clerical errors and other non-substantive oversights as NODs may result in an unnecessarily negative public perception of the NOD process. An alternative notification letter, or other approach to resolving non-substantive deficiencies, may improve the process by ensuring that all who participate in the process are aware that deficiencies contained in a NOD are either technical or substantive deficiencies in the application. There were no objections to modifying the NOD process to separate out non-substantive deficiencies, however the Committee was asked to be precise in defining what constitutes a substantive deficiency if changes are made to the process.

14. Regional Solid Waste Management Plans and Conformance Reviews

Each Regional Council of Governments (GOG) has the primary responsibility for regional waste planning and must develop a regional solid waste management plan (RSWMP) that comports with state statutes and TCEQ MSW rules. A regional plan identifies the overriding concerns, goals, objectives, and recommended actions for solid waste management over a long-range period for the entire planning region. The regional plans were authorized by the agency in 2007 for a 20-year period and TCEQ anticipates the plans will be updated in the next five years. The Texas Health and Safety Code states that solid waste management activities must conform with a regional or local solid waste management plan that has been adopted by TCEQ. To comply with the statute, TCEQ created a process that allows the applicable COG to review pending permit and registration applications, determine conformance with the goals and objectives of their RSWMP, and create a “review letter” that contains their determination. As part of the RSWMP, each COG has included in its procedures a review of pending applications to determine conformance. In the event that a COG determines a pending application does not conform to their RSWMP goals and objectives, TCEQ evaluates the COG’s rationale contained in the review letter and responds, in writing, to each issue raised. If TCEQ determines that an issue within the agency’s jurisdiction has not been adequately addressed in the application, staff will issue a NOD asking the applicant to address and revise the application, as necessary. TCEQ’s stated that the conformance review process does not give the COGs the ability to approve or deny pending applications, rather, it provides a means for the MSW program to obtain qualified opinions from local governments in the affected region.

---

399 Id.
400 Id
The conformance review process described above was characterized in the testimony of one panelist as "an irrelevant waste of time" due to the fact that some MSW permits have been found to be incompatible with a RSWMP by a GOG and, notwithstanding, the TCEQ ultimately approves the permit.\textsuperscript{401} The panelist testified that one solution could be delegating final conformance determination authority to the COGS.\textsuperscript{402} As COGs do not have uniform RSWMPs and may have differing conformance review procedures, this delegation of authority to the COGs would diminish the regulatory certainty currently provided by the legislatively authorized statewide permitting authority, in this case TCEQ.\textsuperscript{403} TCEQ has previously stated that "[n]either the legislature nor the Commission have delegated the authority to make final decisions on MSW applications to CAPCOG. The Commission’s practice is to consider determinations from Council of Governments (COGs) as advisory, for the Commission to evaluate in making a final decision on an application" and has cited a court decision confirming the TCEQ's authority in making its case.\textsuperscript{404} Thus, it is clear that current law does not give COGs the authority to determine whether solid waste management activities and regulatory activities conform with a regional plan, and it is equally clear that the legislature has given TCEQ its current authorization.\textsuperscript{405}

15. Municipal Solid Waste Disposal Fee

The Municipal Solid Waste Disposal Fee, also referred to as the "tipping fee," is charged on all solid waste that is disposed of within the state. Detailed rules about this fee appear in Title 30, Texas Administrative Code (30 TAC), Sections 330.673 and 326.87. Authority for the fee appears in the Solid Waste Disposal Act, Texas Health and Safety Code, Chapter 361, which gives TCEQ the authority to not only assess the fee, but to also adjust the fee in accordance with commission spending levels established by the legislature.\textsuperscript{406} Statute directs the use of the fee and dedicates 66.7% of the fee revenue to fund the Commission’s municipal solid waste permitting programs, enforcement programs, site remediation programs, and to pay for activities that will enhance the state’s solid waste management program.\textsuperscript{407} The remaining 33.3% of the fee is dedicated to local and regional solid waste projects consistent with regional plans approved by the commission, and to update and maintain those plans.\textsuperscript{408} This current statutory allocation was put in place by House Bill 7 of the 83rd Legislative Session, but the allocation was equally divided prior to that. H.B. 7 (83rd) also reduced the Municipal Solid Waste Disposal Fee by 25%. The current fee structure is contained in the following chart.\textsuperscript{409}

\textsuperscript{402} Id.
\textsuperscript{403} The TCEQ is authorized to regulate solid waste and issue permits by Tex. Health & Safety Code (THSC) §§ 361.011, 361.061, and 361.089.
\textsuperscript{405} Id.
\textsuperscript{408} See Tex. Health & Safety Code § 361.014(b).
<table>
<thead>
<tr>
<th>Assessment Units of Measure</th>
<th>Activities</th>
<th>Landfilling</th>
<th>Processing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ton, measured by weight</td>
<td>$0.94/ton</td>
<td>$0.47/ton</td>
<td></td>
</tr>
<tr>
<td>Cubic yard, compacted</td>
<td>$0.30/C.Y.</td>
<td>$0.15/C.Y.</td>
<td></td>
</tr>
<tr>
<td>Cubic yard, uncompacted</td>
<td>$0.19/C.Y.</td>
<td>$0.095/C.Y.</td>
<td></td>
</tr>
</tbody>
</table>

The 66.7% allocation is deposited into the Waste Management Account (Account 0549), while the 33.3% allocation is deposited into the Solid Waste Disposal Account (Account 5000). The tipping fee is the largest individual revenue source for both Account 0549 and 5000.\(^{410}\)

The Waste Management Account (Account 0549) collects approximately $36 million in revenue per year and the agency was appropriated $32.7 million in FY2018. In addition to the providing funds to support the agency as directed by statute above, the account supported other for employee benefits and the Statewide Cost Allocation Plan (SWCAP), at $6.2 million for FY2017.\(^{411}\) The total obligation of the account in FY18 was $39 million.\(^{412}\) The fund balance in Account 0549 grew from 2012 to 2015, but beginning in 2016 TCEQ was required to pay insurance costs for retired employees from the various general revenue dedicated accounts and cost began to exceed revenues that same year.\(^{413}\) Since 2016, TCEQ has funded $3.7 million in retiree insurance costs from Account 0549.\(^{414}\) This obligation, along with increases in expenses for fringe benefits has resulted in a declining fund balance. TCEQ states that expenditures will continue to grow while revenues are expected to remain stagnant, and that if the trend continues the account is expected to be negative by the end of FY2025.\(^{415}\)

On the other hand, the Solid Waste Disposal Account (Account 5000) collects approximately $11 million in revenue per year with expenditures totaling $5.5 million per year.\(^{416}\) The appropriations are allocated to the state’s 24 Councils of Government (COGs) based on a formula that considers population, area, solid waste fee generation, and public health needs to accomplish the statutory directive of funding local and regional solid waste projects.\(^{417}\) TCEQ testified that this fund balance is on an upward trend, which is estimated to double by FY2026 as the revenues are double the current account costs.\(^{418}\)

---

\(^{410}\) Id.
\(^{411}\) Id.
\(^{412}\) SWCAP expenses are costs passed on from support agencies, such as the Comptroller of Public Accounts and the Governor’s Office. These costs are paid by all state agencies and applied to the General Revenue Dedicated (GRD) accounts by their proportion of agency appropriations. Unlike fringe benefits or retiree insurance, there are no excluded appropriations for SWCAP.
\(^{413}\) The TCEQ is 84% funded by GRD, 12% by federal funds, and only 4% by General Revenue. GRD accounts are required to fund the cost of employee benefits, State of Texas Statewide Cost Allocation Plan (SWCAP), and retiree insurance from available fund cash balance which is separate from appropriations. GRD agencies were not required to fund retiree benefits until 2016 when these costs were passed to the agencies from ERS.
\(^{415}\) Id.
\(^{416}\) Id.
\(^{417}\) Id.
\(^{418}\) Id.
One solution to the declining fund balance for Account 0549 would be to simply adjust the statutory fund allocations of the Municipal Solid Waste Disposal Fee. Directing 83% of the fee to Account 0549, to fund the agency's MSW programs, and decreasing the allocation to Account 5000 to 17% was suggested at the hearing. Based on FY2018 revenues of approximately $33 million, the proposed change would result in $27.4 million deposited to Account 0549, which would see an annual revenue increase of $5.3 million. This would stabilize the fund balance through 2030. Account 5000 would receive $5.6 million based on FY2018 collected revenue, which TCEQ states would provide the revenue necessary to support the annual cost of the programs and limit the growth of the fund balance for the account. This proposed change in allocation would not have an impact on fee payers as fee rates remained the same for the calculations.

The Committee also heard testimony expressing concern that the state collects more from industry in Municipal Solid Waste Disposal Fees than it appropriates to solid waste regulatory programs. Account 5000 was projected to have an unobligated balance of over $140 million at the end of FY2019. This balance allowed the state to provide $90 million in matching funds for local governments to utilize for debris removal following Hurricane Harvey and has thus been reduced, but the point made was that money paid into state coffers by the MSW industry should be spent to support MSW programs. Industry told the Committee that it recognized how important disaster recovery was in the aftermath of the hurricane, yet highlighted that they are supportive of the legislature fully allocating the funds paid by industry to ensure programs are properly funded, including increased inspections from TCEQ and the hiring of additional TCEQ employees to provide more permitting and enforcement resources.

Other panelists also revealed a desire to see more resources given to TCEQ. Specifically, the Committee was told that the TCEQ rules are very robust in many cases, but there is a lack of resources to provide for the recruiting and retention of staff with the necessary expertise to evaluate MSW permit applications and verify the information presented. Another panelist testified that the MSW application fees need to be increased to cover the costs of permitting. Although increasing application fees is an option that can be used to supplement the decreasing fund balance in Fund 0549, testimony also pointed out that industry pays the total cost of the MSW regulatory program through the MSW Disposal Fee, and that the general taxpayer is not asked to contribute anything toward it.

---

419 Id.
420 Id.
421 Id.
423 Id.
424 Id.
16. **Summary**

The interim hearing and study of the permitting and compliance processes for waste disposal and a review the allocation of the Municipal Solid Waste disposal fees provided valuable insight into several aspects of municipal solid waste regulation in the state. The Committee found several issues that may merit further oversight or direction from the legislature during the upcoming 86th Legislative Session, including:

- Requiring a MSW facility to submit a Letter of Map Revision to TCEQ once it is obtained from FEMA, and/or requiring a MSW facility to keep the Letter of Map Revision on file at the site once it is obtained by FEMA and to present it to TCEQ upon inspection.
- Instructing the appropriate entity or entities to evaluate the differences in local floodplain regulations across the state and encouraging regional floodplain management coordination.
- Modify the current Notice of Deficiency process to separate out non-substantive application decencies and require TCEQ to employ an alternative notification to applicants of non-substantive flaws identified in an application.
- Address the declining fund balance in Waste Management Account 0549 by adjusting the statutory fund allocations of the Municipal Solid Waste Disposal Fee.
- Evaluate possible methods to allocate additional resources to TCEQ for MSW facility permitting, investigations, and enforcement.
Charge No. 5

Monitoring: Conduct legislative oversight and monitoring of the agencies and programs under the committee's jurisdiction and the implementation of relevant legislation passed by the 85th Legislature, including:

- Texas Railroad Commission Sunset and funding;
- Environmental Regulatory and Legal Primacy; and
- The effectiveness of emission reductions recognized from the Texas Emissions Reduction Program (TERP) and grant flexibility.

Texas Railroad Commission Sunset and Funding

1. Sunset Implementation

The Committee heard testimony regarding the Texas Railroad Commission's implementation of its Sunset legislation and funding status from the Railroad Commission's Executive Director (ED). House Bill 1818, 85th Legislature, continued the Railroad Commission (RRC) for 12 years and amended statute in several ways which were addressed at the hearing. The RRC reported to the Committee that all provisions of the Sunset legislation have been fully implemented by the agency.

One requirement contained in the legislation was for the RRC to develop and implement a policy to encourage the use of alternative dispute resolution (ADR) procedures to assist in the resolution of both internal and external disputes under its jurisdiction. In August 2017, the Railroad Commission's General Counsel's Office updated the agency's policies to reflect the requirement, and the ED informed the Committee that one case was recently resolved utilizing the new process.

The RRC was also required to develop and annually publish an Oil and Gas Monitoring and Enforcement Strategic Plan to strategically utilize the agency's resources and to ensure public safety and the protection of the environment. The RRC was directed to collect and maintain information that accurately shows the RRC's oil and gas monitoring and enforcement activities, including the number, type and severity of the violations that occurred, the violations that were referred to enforcement and the violations for which the agency imposed a penalty or took other enforcement action. The agency was further directed to identify the number of major violations in which a penalty was imposed or enforcement action taken, along with the number

429 Tex. Nat. Rec. Code § 81.01001(a) was amended to read "[u]nless continued in existence as provided by that chapter, the commission is abolished September 1, 2029 [2017].
434 Id.
of repeat major violations categorized by individual oil or gas lease, if applicable.\textsuperscript{435} Stakeholder input in developing the plan was required, and in March 2018, the RRC sought public comment.\textsuperscript{436} The plan was approved by the Commissioners on June 5th, 2018 and made available on the RRC website prior to the July 1st deadline.\textsuperscript{437}

H.B. 1818 allowed the RRC to establish fees for pipelines under the agency's jurisdiction to fund the RRC's pipeline safety programs. The fees are assessed annually on permits and registrations for pipelines in amounts that are sufficient to support program costs, including permitting and registration costs, administrative costs and the costs of employee salaries and benefits.\textsuperscript{438} Implementing this part of the legislation required an agency rulemaking. A workshop was held in November of 2017.\textsuperscript{439} The Pipeline Safety and Regulatory Fee structure was posted in March 2018 and revised due to public comments. The revised rules were approved by the Commissioners in June 2018.\textsuperscript{440}

The bill further directed the RRC to develop procedures for the administration of an E-verify program,\textsuperscript{441} and prohibited the RRC from awarding contracts for goods and services in the state to a contractor unless the contractor, and any subcontractors, are registered with and participate in the E-verify program to confirm employee information for the term of the contract.\textsuperscript{442} The ED told the Committee that the RRC had procedures in place that required contractors to certify their use of E-verify prior to the effective date of the Sunset legislation, and that a violation of the requirement may result in contract termination and ineligibility to enter into a contract with the agency.\textsuperscript{443}

The RRC was also given damage prevention authority over interstate pipelines, in addition to their existing authority over intrastate pipelines.\textsuperscript{444} This required the agency to amend its rules to prescribe safety standards and best practices related to the prevention of damage to the interstate pipelines now under the RRC's jurisdiction.\textsuperscript{445} The rule revisions were approved by the agency and became effective February 12, 2018.\textsuperscript{446}

\textsuperscript{435} Id.
\textsuperscript{436} Id.; See also\textsuperscript{436} Interim Hearing: Hearing on Texas Railroad Commission Monitoring Charge Before the S. Comm. on Natural Res. & Eco. Dev., 85th Leg., (Tex. 2018) (testimony of Texas Railroad Commission).
\textsuperscript{440} Id.
\textsuperscript{441} See Tex. Gov’t. Code § 673.001.
\textsuperscript{446} See Tex. Nat. Rec. Code § 117.012; See also Tex. Health & Safety Code § 756.126; See also Tex. Utilities Code § 121.201(a).
2. **Funding**

Prior to the 85th Legislative Session, the Railroad Commission (RRC) faced several funding challenges due to the industry downturn, which necessitated a deferral of capital investment and employee hiring.\(^{447}\) RRC FTE's dropped from approximately 760 to 659 during FY 2016-17. Some of the deferred investments included consolidating servers into State Data Center and transitioning out of Mainframe Technology.\(^{448}\) Funding received during the 85th Legislature enabled the agency to begin making the needed expenditures, which included the hiring of additional inspectors and making the needed technology upgrades.\(^{449}\) Supplemental information regarding funding was provided to the Committee by the RRC and is incorporated into the report as *Appendix B*.

**Environmental Regulatory and Legal Primacy**

The Committee did not independently hear testimony on this charge. Instead, an evaluation of regulatory and legal primacy was incorporated into Interim Charge No. 4, Waste Disposal Regulation by evaluating state and local waste permitting authority.

**The effectiveness of emission reductions recognized from the Texas Emissions Reduction Program (TERP) and grant flexibility**

1. **Introduction**

The Committee was asked to evaluate the effectiveness of emissions reductions recognized from the Texas Emissions Reduction Plan (TERP) and to further evaluate the effectiveness of grant flexibility within the program. This narrow charge does not call for recommendations regarding revenue or funding for the program, but a brief background is helpful to provide perspective for the Committee's evaluation.

2. **Program Overview**

The Texas Emissions Reduction Plan (TERP) was established by the legislature in Senate Bill (S.B.) 5, 77th Texas Legislature, 2001, Regular Session, to create monetary incentives for projects to reduce nitrogen oxide (NO\(_X\)) emissions and other pollutants from mobile sources in order to improve air quality in the areas of the state designated as nonattainment by the United States Environmental Protection Agency (EPA), due to a failure to meet the National Ambient Air Quality Standards (NAAQS) for ground-level ozone.\(^{450}\) Ozone is not directly emitted, but is formed when oxides of nitrogen (NO\(_X\)) and volatile organic compounds (VOCs) react in the presence of sunlight.\(^{451}\) Therefore, to reduce ozone we must reduce NO\(_X\) and/or VOCs. Out of \(^{447}\) Id.  
\(^{448}\) Id.  
\(^{449}\) Id.  
\(^{450}\) *Interim Hearing: Hearing on TERP Monitoring Charge Before the S. Comm. on Natural Res. & Eco. Dev.,* 85th Leg., (Tex. 2018) (testimony of TCEQ); NOTE: Other counties in the state where ozone levels may be of concern were identified by the legislature as Affected Counties and projects in those counties are also eligible for funding.  
the two, NOx is the pollutant that has the largest impact on ground level ozone concentrations in Texas nonattainment areas.  

Large industrial sources, or point sources, have significantly (up to 80%) reduced NO\textsubscript{X} emissions in the Texas nonattainment areas. Further reductions will be very costly, and each investment in emissions reductions for these sources has a diminishing return.\textsuperscript{453} This is not to say that further emissions reductions from these sources are not feasible, only that reducing emissions from other sources, namely mobile sources, has a large impact on achieving the National Ambient Air Quality Standards (NAAQS) for ozone.

Mobile sources represent over half of the NO\textsubscript{X} emissions in the state, and in some areas, such as Dallas-Fort Worth and El Paso, they can represent 75% or more of the NO\textsubscript{X} emissions. For the Houston and Dallas-Fort Worth ozone nonattainment areas, 67% and 78% of NO\textsubscript{X} emissions were from mobile sources based on recently available emissions inventory estimates.\textsuperscript{454} Emission standards for current model heavy-duty diesel and natural gas engines emit over 90% less NO\textsubscript{X} than those sold 10-20 years ago. This is an important consideration as many heavy-duty engines are used for 30 or more years.\textsuperscript{455} In contrast to federally encouraged state control over stationary sources of air emissions, the Federal Clean Air Act (FCAA) empowers the federal government to regulate mobile source emission or "tailpipe" emissions.\textsuperscript{456} The law generally bars states from regulating vehicle emissions, with the exception of California which was granted an exemption to this federal preemption, and is therefore allowed to craft more stringent emissions standards.\textsuperscript{457} States do, however, have other ways to reduce this large mobile source of NO\textsubscript{X} emissions. One solution developed by Texas in S.B. 5 was the Texas Emissions Reduction Program (TERP).\textsuperscript{458}

The cost of not attaining the ozone NAAQS can be significant. For example, the San Antonio area, which was recently designated as nonattainment for the 2015 ozone standard,\textsuperscript{459} estimated the cost of the nonattainment designation to have an impact as high as $36 billion, while the Austin area, which is currently in attainment for the standard, has estimated the potential costs of a nonattainment designation to be as much as $41 billion.\textsuperscript{460} Not adequately addressing the

\textsuperscript{452} See Interim Hearing: Hearing on TERP Interim Charge Before the S. Comm. on Fin., 85th Leg., (Tex. 2018). (testimony of TCEQ).  
\textsuperscript{453} Id.  
\textsuperscript{455} See Interim Hearing: Hearing on TERP Interim Charge Before the S. Comm. on Fin., 85th Leg., (Tex. 2018) (testimony of TCEQ).  
\textsuperscript{456} See Engine Mfrs. Ass’n v. EPA, 88 F.3d 1075, 1080 (D.C. Cir. 1996).  
\textsuperscript{457} Id. The 1977 FCAA amendments permitted other states to "opt in" to the California standards by adopting identical standards as their own.  
\textsuperscript{459} On July 17, 2018, the U.S. Environmental Protection Agency (EPA) completed area designations for the 2015 ozone standards by designating eight counties in the San Antonio, Texas metropolitan area. EPA has designated seven of the eight counties in the San Antonio area, including Atascosa, Bandera, Comal, Guadalupe, Kendall, Medina, and Wilson, as attainment/unclassifiable for the 2015 standard. Based on data from EPA-approved air quality monitors, EPA has designated Bexar County as nonattainment.  
NAAQS can also result in a federal implementation plan (FIP)\textsuperscript{461} which entails a loss of state control, and thus self-determination, over emissions reduction planning. It can also result in a higher permitting offset ratio that impacts economic growth, highway funding sanctions (except safety and mass transit projects), and withholding of federal air grant funds to the state.\textsuperscript{462}

The NO\textsubscript{X} emissions reductions achieved through projects funded under the TERP grant programs are considered in the “Weight of Evidence” sections of the Texas state implementation plan (SIP).\textsuperscript{463} These sections include programs and strategies for which specific emissions reduction commitments are not determined, but implementation of the programs provides further assurance to EPA that the attainment deadlines will be met. Because the TERP grant programs are voluntary and the funding levels vary every two years, it is not possible to identify specific NO\textsubscript{X} emissions reduction commitments for each nonattainment area to include in the SIP.\textsuperscript{465}

3. Emission Reductions

Although it is not possible to identify specific NO\textsubscript{X} reduction commitments when submitting the SIP to EPA, TCEQ does calculate NO\textsubscript{X} emissions reductions from some of the grant programs funded under the TERP. From the establishment of TERP in 2001 through August 31, 2017, the commission has awarded funding of approximately $1.2 billion to programs which are projected to reduce NO\textsubscript{X} emissions in targeted areas by 181,937 tons.\textsuperscript{466} In addition, over 20,790 vehicles and pieces of equipment have been replaced, repowered, or upgraded by these projects.\textsuperscript{467}

The overall average cost-per-ton of NO\textsubscript{x} reduced from projects funded since 2001 is $6,567.\textsuperscript{468} The TCEQ calculates NO\textsubscript{X} reductions for four of the grant programs funded under TERP. These programs are the Diesel Emissions Reduction Incentive Program, the Texas Clean Fleet Program, the Texas Natural Gas Vehicle Grant Program, and the Seaport and Rail Yard Areas Emissions Reduction Program (previously named the Drayage Truck Incentive Program). Of those projects, the Diesel Emissions Reduction Incentive (DERI) Program is the most cost-effective, with a cost-per-ton of NO\textsubscript{X} reduced of $6,066.\textsuperscript{469} TCEQ does note that the cost-effectiveness of the DERI program has decreased over time as the most cost-effective projects have been funded. As such, the TCEQ has increased the maximum cost-per-ton of NO\textsubscript{X} allowed to encourage continued participation in the program. However, the program does continue to

\textsuperscript{461} Should a state fail to prepare a SIP or SIP revision that satisfies EPA, then EPA prepares one for it, called a Federal Implementation Plan (FIP). A FIP is allowed because the FCAA grants powers of enforcement to the EPA.


\textsuperscript{463} Note: EPA sets the NAAQS, but the task of how to achieve these standards is delegated to the individual states. The FCAA requires states to prepare and regularly update a State Implementation Plan (SIP) that ensures that each region within the state will come into compliance with the NAAQS. It is a demonstration to the federal government. The FCAA requires that SIPs include a description of control strategies, or measures to deal with pollution, for areas that fail to achieve national ambient air quality standards (NAAQS). A state is free, within bounds established by EPA, to develop its own SIP and choose its own regulatory requirements in order to attain the national standards.

\textsuperscript{464} Interim Hearing: Hearing on TERP Monitoring Charge Before the S. Comm. on Natural Res. & Eco. Dev., 85th Leg., (Tex. 2018) (testimony of TCEQ).


\textsuperscript{466} Id.

\textsuperscript{467} Id.

\textsuperscript{468} Id.

\textsuperscript{469} Id.
provide significant measurable results. As an example, the average cost-per-ton of NOX reduced by the DERI program for the FY 2015 to FY 2017 grant rounds averaged $9,300, while the TCEQ anticipates the average cost-per-ton to average close to $13,000 for FY 2018 to 2019.\footnote{Id.} Other TERP programs have a higher cost-per-ton to achieve the needed NOX reductions. The grant amounts and the reductions from the four programs since TERP's inception in 2001 are summarized in the chart below.

<table>
<thead>
<tr>
<th>Grant Program</th>
<th>Amount</th>
<th>Reduced</th>
<th>Cost Per Ton of NOX Reduced</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diesel Emissions Reduction Incentive Program\footnote{471}</td>
<td>$1,088,390,866</td>
<td>179,427</td>
<td>$6,0662</td>
</tr>
<tr>
<td>Texas Clean Fleet Program</td>
<td>$58,160,503</td>
<td>660</td>
<td>$88,140</td>
</tr>
<tr>
<td>Texas Natural Gas Vehicle Grant Program</td>
<td>$41,968,970</td>
<td>1,493</td>
<td>$28,119</td>
</tr>
<tr>
<td>Seaport and Rail Yard Areas Emissions Reduction Program (\textit{previously named the Drayage Truck Incentive Program})</td>
<td>$6,209,424</td>
<td>358</td>
<td>$17,367</td>
</tr>
<tr>
<td>\textbf{Totals}</td>
<td>\textbf{$1,194,729,762} }</td>
<td>\textbf{181,937}</td>
<td>\textbf{$6,567}</td>
</tr>
</tbody>
</table>

Four other TERP programs serve to reduce mobile emissions and thus reduce NOX, but TCEQ cannot calculate NOX reductions for the programs listed in the chart below.

<table>
<thead>
<tr>
<th>Grant Program</th>
<th>Grant Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternative Fueling Facilities Program\footnote{472}</td>
<td>$28,617,898</td>
</tr>
<tr>
<td>Light-Duty Motor Vehicle Purchase or Lease Incentive Program\footnote{473}</td>
<td>$4,656,250</td>
</tr>
<tr>
<td>Texas Clean School Bus Program\footnote{474}</td>
<td>$34,558,623</td>
</tr>
<tr>
<td>New Technology Implementation Grants Program</td>
<td>$15,775,751</td>
</tr>
<tr>
<td>\textbf{Totals}</td>
<td>\textbf{$83,608,522}</td>
</tr>
</tbody>
</table>

\footnote{470}{Id.}
\footnote{471}{The grant amount for the DERI Program includes $12.4 million in federal American Recovery and Reinvestment Act (ARRA) funding in FY 2010-2011.}
\footnote{472}{Includes funding provided under the Clean Transportation Triangle (CTT) Program that was combined with the Alternative Fueling Facilities Program in 2017 (S.B. 1731).}
\footnote{473}{The grant amount for the Light-Duty Purchase or Lease Incentive Program only includes funding provided in FY 2014-2015. The program ended in FY 2015 and then was re-established by the legislature in 2017 (S.B. 1731). Funding under the re-established program did not start until Spring 2018 and is not included in these numbers.}
\footnote{474}{The grant amount for the Texas Clean School Bus Program includes $4.3 million in federal ARRA funds and EPA funding.}
The Alternative Fueling Facilities Program has funded over 119 electric charging and alternative fuel fueling stations statewide as of August 31, 2017.475 The emissions reductions attributable to this program result from the lower emissions vehicles that are fueled from these stations, and is not quantified as actual vehicle usage and thus is not tracked. The Light-Duty Motor Vehicle Purchase or Lease Incentive Program provides rebates for the purchase of an alternative fuel or electric vehicle. Any NO\textsubscript{X} emissions reductions would depend upon whether the purchaser would have otherwise purchased a conventionally fueled vehicle if the rebate were not available and the difference in emissions of both vehicles.476 Although the Texas Clean School Bus Program potentially reduces NO\textsubscript{X}, it is a statewide program that was intended to protect school children from pollutants in diesel exhaust by retrofitting school busses. In 2017 the program was expanded to allow for the replacement of a pre-2007 model year school bus with a new, lower emitting school bus, but the program is still implemented with the intent to protect school children and not reduce NO\textsubscript{X} in nonattainment areas or effected counties.477 As the new school bus replacement projects take place, TCEQ should attempt to quantify the reductions attributable to the replacements. The New Technology Implementation Grants Program is also a statewide program that funds projects to assist in the implementation of new technologies to reduce emissions from facilities and other stationary sources in this state.478 As emission reductions are a goal of the program, NO\textsubscript{X} emissions may be reduced by the program; however, there is no requirement to monitor emission reductions from any project that is funded by the program. Other programs that are appropriated funds under TERP do not generate emissions reductions, and are therefore beyond the scope of the Committee's interim monitoring charge.

4. Program Effectiveness and Grant Flexibility

The importance of mitigating mobile source emissions to achieve attainment with the ozone standard in areas that are currently designated nonattainment, and to maintain attainment with the standard in other areas that are near nonattainment, was a common theme in the testimony heard by the Committee.479 Testimony indicated that the state still has days in which ozone levels exceed the 2015 ozone standard of 70 parts per billion (ppb), which not only poses a future risk to attaining the standard, but also presents a current risk to vulnerable populations such as individuals with lung ailments, children, and the elderly.480 Interim hearing testimony from both industry and advocacy groups was supportive of the program across the board. The Committee

476 Id.
was told that TERP is a rare program in that it enjoys almost universal support, and is the most
cost effective program to reduce NO\textsubscript{X} from mobile sources available in the state.\textsuperscript{481}

Although the Committee did not hear any testimony that compared the quantifiable emissions
reductions achieved by TERP to other methods of reducing mobile emissions, interim hearing
testimony to the Senate Committee on Finance stated that to achieve reductions from mobile
sources in the absence of TERP would require changes in the use or types of mobile sources
through such limitations as frequency of vehicle operation, speed limits, or other life style
changes that could include significant investments in public transportation infrastructure.\textsuperscript{482} The
same testimony compared the cost of the TERP programs to the market cost of discrete emission
reduction credits (DERCs) that are used by large stationary sources in current ozone
nonattainment areas to offset emissions from new construction or capacity in the area. The
DERCs in the Houston area averaged a pollution offset cost of $7,451 per ton of NO\textsubscript{X} over the
last five years, which is comparable to the total average cost-per-ton of NO\textsubscript{X} reduced by the
TERP programs which was $6,567 over the life of the program.\textsuperscript{483}

The Committee heard testimony that changes made by S.B. 1731, 85th Texas Legislature,\textsuperscript{484}
helped make the TERP programs more effective and easier to implement, such as removing
statutory restrictions on TCEQ's ability to move funds among the eligible programs, thus giving
the agency the flexibility it needed to provide funding for those programs with greater demand
than others.\textsuperscript{485}

\begin{footnotesize}
\begin{enumerate}
\item See \emph{Interim Hearing: Hearing on TERP Monitoring Charge Before the S. Comm. on Natural Res. & Eco. Dev.,}
85th Leg., (Tex. 2018) (testimony of Public Citizen); See also \emph{Interim Hearing: Hearing on TERP Monitoring Charge Before the S. Comm. on Natural Res. & Eco. Dev.,}
85th Leg., (Tex. 2018) (testimony of Lone Star Chapter of the Sierra Club).
\item See \emph{Interim Hearing: Hearing on Texas Emission Reduction Plan Before the S. Comm. on Finance, 85th Leg.,}
\item Id.
\item \emph{Interim Hearing: Hearing on TERP Monitoring Charge Before the S. Comm. on Natural Res. & Eco. Dev.,}
\end{enumerate}
\end{footnotesize}
Appendix A
Overview of the Process to Issue a MSW Permit

Application Received

Administrative Review (initial 14 days, subsequent 10)

NOD Response (Applicant; 30 days)

Admin. Complete?

No

Admin. NOD Sent

Concurrent

NORI Publication (Applicant; Concurrent with Technical Review)

Technical Review (initial 54 days, subsequent 27)

NOD Response (Applicant; Initial 54 days; subsequent 27)

Start of Comment Period (Ends at NAPD Comment Period)

No

Technically Complete?

Yes

Technical NOD Sent

SB 709 Notice (30 days)

NAPD Publication (45 days)

Comment Period (30 days)

Public Meeting (Varies)

Formal RTC Process (60 days)

MTO Process (varies)

Contested Case Hearing Process (120+ days)

Issue Permit

Acronyms

NOD – Notice of Deficiency
NORI – Notice of Receipt of Application and Intent to Obtain a Permit
NAPD – Notice of Application and Preliminary Decision
RTC – Response to Comments
MTO – Motion to Overturn (the Executive Director’s Decision)

Notes

All days are calendar days
A: For applications received after 9/1/2015
B: If requested
C: If comments are received during the comment period
D: If the Commission grants the hearing request
E: Assumes the permit moves to issuance through these processes
RRC Funding and Future Plans – 85th Legislature

Prior to the 85th Legislative Session, the Railroad Commission (RRC) faced several funding challenges due to the industry downturn. As a result, the Commission deferred several critical investments including:

- Filling vacancies. RRC headcounts dropped from approximately 760 to 659 during FY 2016-17.
- Replacing inspector vehicles and laptops.
- Consolidating servers into State Data Center and transitioning out of Mainframe Technology. RRC’s Data Center Services budget was cut by approximately $6.7 million for FY 18-19 from the previous biennium. (In FY 16-17, approximately $5 million was lapsed)

The Legislature recognized these challenges and provided operational stability through additional funding sources:

- The Gas Utility Pipeline Tax: RRC has administered this tax since its creation in 1920. Its revenue was deposited into RRC’s operating fund to offset those costs until 1981, when the revenue was no longer appropriated to RRC. The 85th Legislature appropriated part of this funding ($19.825 million per year) back to the Commission for 2018-19. This has provided much-needed revenue certainty, allowing the Commission to adequately plan for the future. Approximately $15.6 million of this funding is used to pay for employee salaries and benefits, including filling positions that were left vacant during the industry downturn. The funding is also used for operating expenses throughout the Commission (travel, training, postage, vehicles, etc).

- Economic Stabilization Fund (ESF): The 85th Legislature appropriated $38.2 million from the ESF in the 2018-19 biennium to plug abandoned wells. Using a combination of these funds and other fees paid to RRC by operators, the Commissioners physically plugged 1,440 wells in Fiscal Year 2018. Among these, 1,364 have been invoiced, exceeding RRC’s Performance Measure target of 979 wells set by the Legislative Budget Board. We plan to continue this effort and reduce the existing abandoned well population by another 1,500 in FY19.

- Exceptional item – IT modernization: The Commission is investing $3 million this biennium on IT infrastructure with the implementation of an inspection platform and a new docket management system. The Commission has also completed server consolidation, which was deferred last biennium due to funding restraints. To enhance transparency, the Commission is also working on a public searchable database for violations and enforcement actions, which should be complete this Fiscal Year.

Future plans:

- IT Upgrades: RRC is working to further modernize and will begin reducing its dependence on legacy mainframe technology, which is an outdated technology and poses the highest risk for maintenance and security. This effort ultimately will take 10 to 12 years to move all applications off of that outdated system. The Commission will also continue to work with the Department of Information Resources to incorporate cloud storage capabilities as well as maintain current services in the next biennium.

- Well Plugging: In general, when oil and gas activity is high, the average cost to plug a well increases. The costs have gone up from $12,500 per well to close to $18,000 per well (inland wells). The Commission also anticipates plugging more bay/offshore wells and wells at deeper depth in the next biennium, which are much more expensive.