Cause No. D-1-GN-20-000941

FRIENDS OF DRY COMAL CREEK and STOP 3009 VULCAN QUARRY, *Plaintiffs*,	§	
v.	§	IN THE DISTRICT COURT OF
	§	TRAVIS COUNTY, TEXAS
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY, *Defendant*	§	353RD JUDICIAL DISTRICT
and	§	
VULCAN CONSTRUCTION MATERIALS, LLC, *Defendant-Intervenor*	§	

INITIAL BRIEF OF PLAINTIFFS
FRIENDS OF DRY COMAL CREEK and STOP 3009 VULCAN QUARRY

Respectively Submitted,

/s/

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Statement of the Case

This is an administrative appeal. On June 26, 2017, Vulcan Construction Materials, LLC ("Vulcan"), submitted an air permit application to the Texas Commission on Environmental Quality ("TCEQ") to construct and operate a rock crushing facility in Comal County between New Braunfels and Bulverde. [1] A large number of local citizens protested. On December 13, 2018, TCEQ issued an interim order referring nineteen issues to the State Office of Administrative Hearings for a contested case hearing on the application. [2] The hearing on the merits was held from June 10-11, 2019. In September, 2019, the administrative law judges issued a Proposal for Decision ("PFD") that was favorable to Vulcan.[3] The TCEQ Commissioners in November, 2019, considered the PFD and approved issuance of an air quality permit for the facility.[4] Plaintiffs timely filed a motion for rehearing that was overruled by operation of law.[5] This appeal timely followed on February 14, 2020.

Issues Presented

1. Consideration of emissions from non-permitted sources. TCEQ regulation requires any new facility to conduct an air quality impacts analysis. The proposed Vulcan rock crusher and quarry is located on the northern edge of a dense set of such operations. Thus, Defendant TCEQ determined Vulcan, in order to produce its air quality impacts analysis, needed to undertake air dispersion modeling. TCEQ, however, allowed Vulcan to exclude from the emissions with which

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1 Admin. R. Item 1.

2 Admin. R. Item 99.

3 Admin. R. Item 161.

4 Admin. R. Item 173.

5 Admin. R. Item 178.

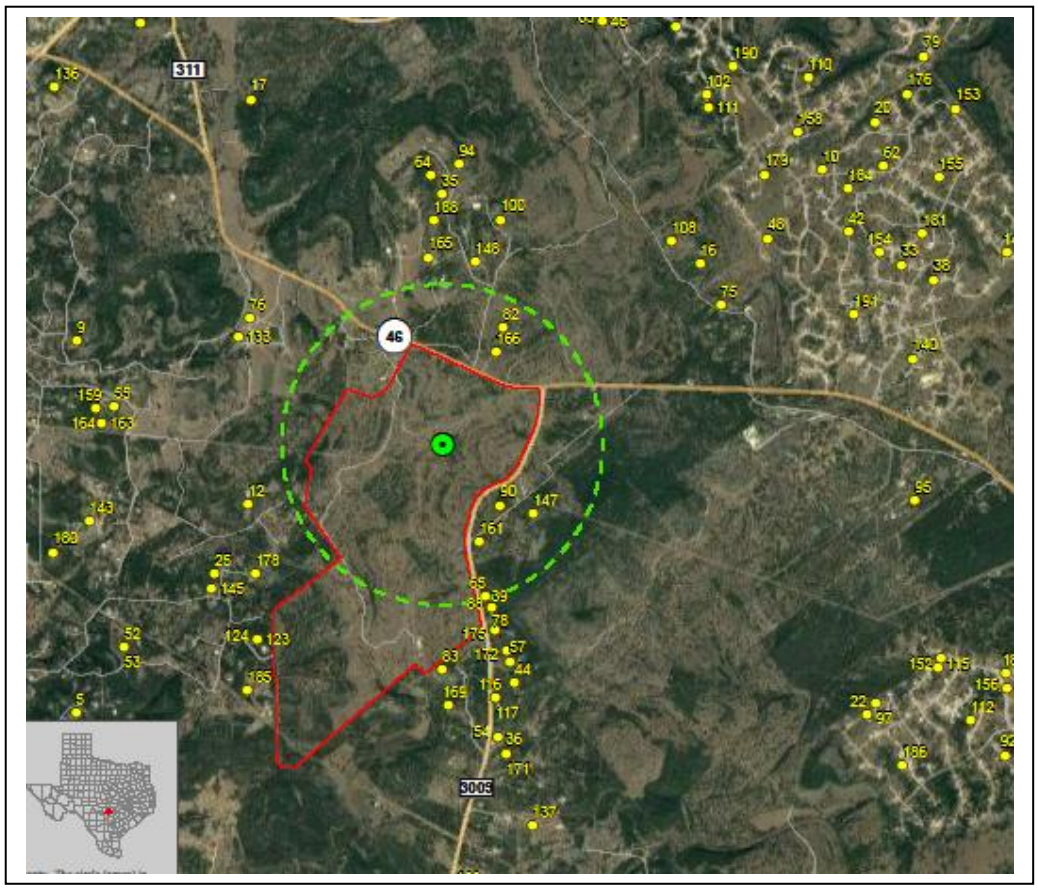
the Vulcan rock crusher emissions would be cumulated emissions from stationary sources for which the Defendant does not issue permits. Was this exclusion capricious and unlawful?

2. Forgoing case-by-case BACT analysis. State law requires a permit applicant present a case-by-case demonstration that emissions from its facility will not exceed "Best Available Control Technology" ("BACT") levels. BACT is a term of art. It encompasses a requirement that the control levels and technologies be economically reasonable and technically feasible. Instead of determining the BACT levels or technologies for this particular rock crusher at this particular location and in light of the present state of the emission control art, Vulcan merely turned to a 2013 (or earlier) matrix of control levels and technologies TCEQ had in the past accepted. Was TCEQ's allowance of this method of setting BACT levels and technologies capricious and unlawful?

3. Discovery and trial process errors related to crystalline silica in air emissions. Crystalline silica is a human carcinogen. Limestone contains crystalline silica. The particulate, i.e., dust, emissions from Vulcan's quarry, roadways and crusher will contain crystalline silica in the percentage of its presence in the limestone that is quarried and crushed. Plaintiffs timely sought, but were denied, discovery of the details of a limestone sampling effort by Vulcan that produced the crystalline silica percentage in limestone on which Vulcan relied for its impacts analyses. At hearing, the ALJ also restricted Plaintiffs' cross-examination on this issue. Were the ALJ's rulings on these discovery and cross-examination issues error that denied Plaintiffs the process rights they are due in an adjudicative proceeding?

Statement of Facts

Vulcan's proposed rock-crushing facility and associated emission sources would be located in Comal County. Immediately following is an excerpt from an exhibit[6] originating with the Commission staff and in the record that shows the area of the proposed rock crusher (green dot), a one-mile radius of the crusher (green intermittent circle) and the residences of some of the protesting neighbors (yellow dots). Bulverde is to the west. New Braunfels is to the east.



6 Admin. R. Item 257.

The facility would be co-located with a 1500-acre open-pit limestone quarry operated by Vulcan that would cover an almost 3-mile stretch of Edward Aquifer Recharge Zone and reach the southwest corner of SH-46 and FM 3009. [7]

The rock-crushing "facility" (a term of art explained, *infra*) will consist of (1) a funnel-like stone-input "hopper," (2) three stone-crushing devices arranged in series, (3) two screen- or grate-like structures that filter the crushed stone into different size categories, (4) seven conveyer belts that move the crushed or filtered stone from one location to another, and (5) four stockpiles where the crushed and sorted stone is stored. There are also three diesel engines and a diesel fuel tank associated with the facility. The appendix to this brief includes the Vulcan's facility schematic[8] from the administrative record.

The plant operations will generate various air contaminants. Particulate matter, i.e., limestone dust, will be the major contaminant of concern to area residents. The particulate emissions will be an aesthetic problem, of course, but they will also include some crystalline silica, and that is a regulated carcinogen.

In the discovery phase of the contested hearing, Friends served interrogatories and requests for production. Vulcan objected to items associated with subsurface investigations performed within the Facility Property. Friends filed a Motion to Compel these documents. Vulcan filed its response, asserting trade-secret privilege over all requested materials.[9] The ALJ issued Order 2 denying Friends' motion. The order also included an ambiguous restraint on Vulcan's ability to

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7 Admin. R. Item 173 (Commission Order), p. 2.

8 Admin. R. Item 180, Exh. 23, p. 27.

9 Admin. R. Item 161 (Proposal for Decision), p 2.

further use the allegedly trade-secret information in its pre-filed testimony or at the hearing on the merits.[10]

Protestants filed a Motion for Reconsideration and Motion for Protective Order, which was denied.[11]

Regarding, specifically, the "facilities" issue:

TCEQ has a regulation, 30 TAC § 116.111, that requires any new facility to produce an air quality impacts analysis.[12] TCEQ determined Vulcan, in order produce its air quality impacts analysis, needed to undertake air dispersion modeling.[13] TCEQ's modeling guidance document, *APDG-6232,* provides that, for the type of modeling Vulcan did, the would-be permittee must compile an emissions inventory consisting of "the emissions from facilities to be permitted, as well as other applicable on- and off-property emissions."[14] Vulcan and the TCEQ staff determined the applicable on- and off-property emissions were those originating within a 10km radius of the Vulcan crusher.[15]

There were a number of overlapping issues regarding Vulcan's air modelling:

- Whether cumulative impacts of existing sources were properly considered **(**PFD Issue C[16]);

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10 Admin. R. Item 161 (Proposal for Decision), p 3.

11 Admin. R. Item 150 (Friends Motion for Reconsideration and Motion for Protective Order).

12 Admin. R. Item 234 (*Air Quality Modeling Guidelines -- APDG 6232*), p. 11.

13 Admin. R. Item 10 ("We [i.e., TCEQ staff members] believe an air dispersion modeling analysis is necessary to show compliance with all applicable state and federal regulations.")

14 Admin. R. Item 234, p. 14.

15 Admin. R. Item 13 (Air Quality Modeling Protocol), p. 2, which is APP-000097.

16 Admin. R. Item 161.

- Whether the air quality modeling conducted as part of the application adequately incorporated the local prevailing winds (PFD Issue G);
- Whether emissions from on-site diesel engines were adequately calculated (PFD Issue J);
- Whether the background concentrations used in the air dispersion modeling were representative of those at the proposed location of the plant **(**PFD Issue L);
- Whether the permit application, and associated air dispersion modeling, included and properly evaluated all applicable emissions **(**PFD Issue Q**);** and
- Whether site specific monitoring data should have been used m the air dispersion modeling conducted for this application (PFD Issue R).[17]

The Texas Clean Air Act, ch. 382, Tex. Health & Safety Code, requires a person obtain a permit prior to beginning construction of a new "facility" or the modification of an existing "facility."[18] A facility is defined as "a discrete or identifiable structure, device, item, equipment, or enclosure that constitutes or contains a stationary source, including appurtenances other than emission control equipment. A mine, quarry, well test, or road is not a facility."[19] The Texas Clean Air Act, also, provides that a person may not allow, or permit the emission of any air contaminant or the performance of any activity that causes or contributes to, or that will cause or contribute to, air pollution."[20] Inasmuch as neither roads nor quarries are facilities, Vulcan and TCEQ drew the

17 Admin. R. Item 173 (Commission Order), p. 3.

18 Sec. 382.0518, Tex. Health & Safety Code.

19 Sec. 382.003(6), Tex. Health & Safety Code.

20 Sec. 382.085(a), Tex. Health & Safety Code.

conclusion that emissions from those types of sources, i.e., from non-facilities, need not be considered when determining whether to permit something else that is a facility.

Just south of the proposed Vulcan site there are a large number of quarries and rock crushers. Local citizens refer to this area as "quarry row."[21] An exhibit, an annotated Google Earth aerial photo, from the record of this case,[22] to which 10 and 20-kilometer radii have been added, is included in the appendix to this brief. It reflects density of quarries and rock crushers in the area; there are parts or all of 14 within a 20-km radius of the proposed Vulcan crusher.

Consistently with the conclusion that emissions from non-facility sources need not be included in air dispersion modeling, emissions from roads and quarries at the Vulcan site, with one exception, and at the nearby, i.e., within 10 km, Martin Marietta site were not reflected in the modeling.[23] The exception was that Vulcan included, when modeling annual $PM_{2.5}$ impacts, emissions from its proposed entrance drive – so, a roadway.[24] It did not model any emissions from its quarry, its other internal roadways, the Martin-Marietta quarry nor any of the Martin-Marietta roadways.

Friends' expert testified that the exclusion emissions from known and foreseeable roads and quarries is inconsistent with other jurisdictions' practices, and non-regulation of roads and

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21 Admin. R. Item 401 (Direct testimony of Don Everingham), at p. 8 ("Quarry Row is a stretch of road along the north side of I-35 and just south of our community that contains multiple quarries. Exhibits Friends-103 and Friends-104 describe Quarry Row in more detail, but the overview of it is that it is a corridor of limestone quarries and rock crushers that have, collectively, just ruined a place that was once-upon-a-time pretty and rural and tranquil.")

22 Admin. R. Item 403.

23 Admin. R. Item 178 (Friends Motion for Rehearing), p. 4.

24 Admin. R. Item 26 (Revised Air Quality Modeling Report), pp. APP-000252 and App-000291.

quarries "does not logically justify disregarding contaminants arising from those sources when describing air quality conditions or impacts."[25]

Regarding, specifically, the "BACT" issue:

Under TCEQ rules, an applicant for an air quality permit must include information demonstrating that emissions from the facility will meet the requirements for the best available control technology (BACT) with consideration given to the technical practicability and economic reasonableness of reducing or eliminating the emissions from the facility.[26] The applicant must also show that the proposed facility will achieve the performance specified in the permit application.[27]

TCEQ apparently acted in accord with the understanding of Vulcan that "a permit applicant, such as Vulcan, is not required to consider whether a emissions control would be BACT, when a different emissions control has previously been determined to be Tier I BACT, unless there has been a subsequent technical development that may indicate that a more stringent emission control is technically practicable and economically reasonable."[28]

Friends contended and contends that BACT is a case-by-case determination, and that the agency did not actually conduct a case-by-case analysis but, rather, just seized upon the levels of control or the technologies that had been approved for use at other unspecified sites at some unspecified time in the past. As Friends' engineer testified: "Vulcan and TCEQ have failed to

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25 Admin. R. Item 161 (Proposal for Decision), p 24.

26 Admin. R. Item 173 (Commission Order), p. 10.

27 Admin. R. Item 173 (Commission Order), p. 9.

28 Admin. R. Item 178 (Friends Motion for Rehearing), p. 7.

conduct a complete and proper BACT analysis by not taking into account important case-by-case factors which would lead to significant reductions in air pollutant emissions at Vulcan."[29]

Regarding, specifically, the "discovery" issue:

The crystalline silica is a known human carcinogen; exposure to crystalline silica can cause debilitating respiratory tract diseases such as silicosis, emphysema, obstructive airway disease, and lung cancer. TCEQ has established short-term and long-term air quality guideline levels for crystalline silica, and the Vulcan emissions must be evaluated against those levels.[30] The crystalline silica content of the rock to be quarried at Vulcan's site determines the amount of crystalline silica to which members of the public will be exposed in the particulate matter, i.e., dust, emitted from the quarry and roadways and crusher facility.

Friends served timely pre-trial production requests seeking all documents associated with any subsurface investigation performed within the facility property. This request specified that it covered boring logs, field notes, drillers notes, and all sampling results for any sample collected at the site. Friends also requested all documents related to any analysis or evaluation of the characteristics of the materials which Vulcan intended to process at the facility.[31] Further, the scheduling order for this matter also included a deadline by which Vulcan was required to disclose to the other parties all documents that had been provided to, reviewed by, or prepared by or for all testifying experts.[32]

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29 Admin. R. Item 240 (Direct testimony of Howard Gebhardt), p. 5.

30 Admin. R., Item 247 (Direct testimony of Dr. Dydek), p. 8; see, also, the TCEQ Fact Sheet re: Crystalline Silica, which is included in the appendix to this brief.

31 Admin. R. Item 178 (Friends Motion for Rehearing), p. 10.

32 Order No. 1, Admin. R. Item 106, internal p. 3; Tex. R. Civ P. 194.2(f)(4)(A).

In response to the production request, Vulcan asserted "trade secret" objection and refused to produce responsive material, even under a protective order.[33] Friends moved to compel production, but the ALJ ruled that withholding the "trade secret" information would not work as an injustice.[34] The order provided the following on the injustice issue:

> "[i]t does not appear that nondisclosure will work injustice. However, it would create an injustice if Applicant were allowed to use the privileged information in any way as part of the additional evidence in support of the permit. Applicant's additional evidence may not rely on any responsive information that was not produced, and Applicant may not cross-examine using that information, either."[35]

Subsequently, the Harrison Protestants commissioned a subsurface investigation to collect core samples from a nearby private property.[36] The Harrison samples' lab analysis revealed silica content decidedly higher than the silica content in Vulcan's representative sample.[37] Friends had some off-site samples of their own, and those samples and the Harrison samples supported the argument of Friends' expert witness that the silica content from the Vulcan's allegedly "representative" sample was too low to be considered reliable.

At hearing, Vulcan's witness regarding geology, Dr. Eversull, testified she had reviewed trade secret material and opined that the Vulcan sample was properly collected and consolidated.[38] Dr. Eversull also testified that her opinions were based partly on her reliance on the expertise of Ms. Cummings, a consulting expert.[39] Vulcan had previously claimed it no consulting experts'

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33 Admin. R. Item 178 (Friends Motion for Rehearing), p. 11.

34 Admin. R. Item 178 (Friends Motion for Rehearing), p. 11.

35 Admin. R. Item 178 (Friends Motion for Rehearing), p. 11.

36 Admin. R. Item 150 (Friends Motion for Reconsideration and Motion for Protective Order).

37 Admin. R. Item 150 (Friends Motion for Reconsideration and Motion for Protective Order).

38 Admin. R. Item 178 (Friends Motion for Rehearing), p. 11.

39 Admin. R. Item 178 (Friends Motion for Rehearing), p. 13.

opinions had been reviewed by its testifying experts. Friends moved for a continuance to obtain and review the trade secret material and the motion was denied.[40]

Summary of the Argument

Vulcan's quarry and rock crusher are proposed for an urbanizing area. As the aerial photo reproduced at the outset of the Statement of Facts reflects, there is a subdivision nearby to the northeast and another to the southeast, and there are another 40 or 50 residents scattered around the south and west of the site – and those, i.e., the yellow dots, are just the people who cared enough to comment and seek a contested case hearing. So, the number of people to be directly impacted by this permitting decision is not small. To protect their interests, these people rely, primarily, on TCEQ's diligent, pro-active investigation of an applicant's permit application and, secondarily, on an administrative trial process with safeguards that mirror those in civil judicial proceedings. The agency and the administrative trial process did not, here, meet the minimum standards on which people must, as a practical matter, rely. The civil courts of the State are, by judicial review, the backstops that make these people's reliance reasonable.

In this instance, TCEQ required Vulcan demonstrate, via air dispersion modeling, that the emissions from its rock crusher "facility," when combined with emissions from other nearby "sources" and when overlaid on a level of ambient air contaminants wafting around a much larger area, would not collectively adversely impact the health or welfare of people exposed to that air. TCEQ and Vulcan, however, decided not to include emissions from known sources, if the sources, themselves, were not within the definition of a "facility." Since neither haul roads nor quarries are "facilities," their emissions were never considered. The TCEQ and Vulcan rationale was that

[40] Admin. R. Item 178 (Friends Motion for Rehearing), p. 14.

emissions from non-facility sources could be discounted to zero, because non-facility sources are not subject to TCEQ regulation. But, this is illogical, and it is not required by law. It, thus, leads to a capricious decision about the concentration of air contaminants at all off-site locations near the Vulcan plant. The problem is particularly clear, here, where the record reflects that particulate emissions from the entrance roadway, alone, to the Vulcan site were 13 times greater than were the emissions from the rock crusher, itself.

TCEQ regulations, like federal regulations, require an emission unit, say, a stockpile of crushed stone, have its emissions reduced to the level achievable with or be reduce by "Best Available Control Technology" that is economically reasonable and technically feasible. Determining what is the best available control technology requires an emission-source specific inquiry, a "case-by-case analysis," in the vernacular. That is because the level of control that is economically reasonable and technically feasible can be affected by a host of factors, such as the scale of the operation of which the source is a part and the number of years over which the operator may recover capital costs. Here, Friends urged that controls such as and control levels attainable with the suction of emissions to a baghouse and the enclosure or partial enclosure of stockpiles should have been considered. They were not considered. Instead, TCEQ allowed Vulcan to rely on no pollution controls for the feed hopper on the rock crusher and to rely on water sprays for control of emissions at all other sources within the rock crusher plant. Baghouses are specifically noted on TCEQ's rock crusher form as a possible emission control option. Perhaps alternative (to water sprays) controls would not have costed out to be reasonable, but they were not even investigated, and the difference in emission control (70% for water sprays and 99% for a baghouse) is staggering.

Crystalline silica is a human carcinogen. Limestone contains crystalline silica. The amount of crystalline silica in the dust from Vulcan's quarry, roadways and crusher is largely determined by the amount of crystalline silica in the limestone that is crushed. In discovery, Vulcan asserted that the data underlying the claim Vulcan made for the percentage of crystalline silica in its limestone was a trade secret, and Vulcan refused to reveal it, even under a protective order. The administrative law judge upheld that claim and refusal. At hearing, Vulcan's witness on the issue of the percentage of crystalline silica in the limestone admitted reliance on the underlying data to which Friends had been denied access. Friends' motion for a continuance and for access to that data was denied. Absent access to the underlying data, Friends had no way to cross-examine the conclusions Vulcan and its witness drew from the data. Friends was denied the process it was due on the crystalline crystal issue, and that failure of process harmed substantial rights of Friends.

Argument

1. <u>Consideration of emissions from non-permitted sources.</u>

TCEQ regulation requires any new facility to conduct an air quality impacts analysis. The proposed Vulcan rock crusher and quarry is located on the northern edge of a dense set of such operations. Thus, Defendant TCEQ determined Vulcan, in order produce its air quality impacts analysis, needed to undertake air dispersion modeling. TCEQ, however, allowed Vulcan to exclude from the emissions with which the Vulcan rock crusher emissions would be cumulated emissions from stationary sources for which the Defendant does not issue permits. Was this exclusion capricious and unlawful?

This was point of error number 2 in Friends' Motion for Rehearing.

Vulcan's rock crusher will be located on a Vulcan property that will encompass a limestone quarry operation, which itself includes features such as internal roadways and material stockpiles.[41] There is also a known nearby crusher and quarry operation, Martin-Marietta Materials, for which crusher emissions were modeled but for which the quarry and roadway emissions are not considered.[42] But, the Commission erred in failing to consider the contributing air quality impacts of roads and quarry operations at the Vulcan quarry and the Martin Marietta quarry. The Commission excluded such emissions from consideration based on an interpretation of its rules that, for full air quality impacts analyses, it need only model emissions from other "facilities." That interpretation was unreasonable, resulting in a Commission decision that was arbitrary and capricious.

Sec. 382.0518(d), Tex. Health & Safety Code, provides that the Commission may not grant a permit, if the Commission finds that the permit would harm the public's health and physical property or would be contrary to the intent of the Texas Clean Air Act. TCEQ rules at 30 TAC § 116.111(a)(2)(A)(i) similarly provide that the permit application must include information demonstrating emissions from the proposed facility will comply with the TCEQ rules and the intent of the Texas Clean Air Act, including the protection of the health and the property of the public. In the agency proceedings, Vulcan bore the burden of proof to demonstrate that these requirements had been met.[43]

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41 New Air Quality Permit Application, Adm. R. Item 1, internal pp. 24; Friends Ex. 100 (Prefiled Testimony of Gebhart) Admin. R. Item 240, at 5: 11-13; Prefiled testimony of Gary Nichols, Applicant Ex. GN-1, Admin. R. Item 183, at 56.

42 Adm. R. Item 180, Tab D, Exh. 22 (the Air Quality Analysis, rev'd), p.9 (APP-000253).

43 30 TAC § 80.17(a).

The relevant statutory scheme provides a framework for the evaluation of whether emissions will be sufficiently low to be protective of public health. In particular, the United States EPA has adopted National Ambient Air Quality Standards ("NAAQS") pursuant to the federal Clean Air Act. The primary NAAQS are set at a level to protect public health.[44] The secondary NAAQS are set at a level to protect public welfare.[45] These standards are established as certain average concentrations of a contaminant in the air within a particular averaging period.

The determination of whether a proposed facility is protective of public health necessarily includes an evaluation of whether the emissions from a facility will result in the air near the facility exceeding one of the NAAQS.[46] That determination is made, first, by modeling the concentrations of the pollutant in the air resulting from the emissions of the pollutant from the source to be permitted.[47] The cumulative impact of a pollutant at a particular location is the sum of that first-modeled impact (the impact from the to-be-permitted source, alone), the impacts from other known "nearby" sources of emissions and the concentration of the pollutant in the ambient air.[48] The ambient air conditions are referenced as "background" concentrations.[49]

So, for a "full NAAQS analysis," the emissions from the to-be-permitted facility and from off-property sources must be evaluated.[50] TCEQ guidance provides that off-property sources

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44 42 U.S.C. § 7409(b)(1).

45 42 U.S.C. § 7409(b)(2).

46 *See, e.g.,* Air Quality Analysis Audit Memorandum, Ex. ED-12, Admin. R. Item 222, Internal p. 3.

47 *Id.*

48 Air Quality Analysis Audit Memorandum, Ex. ED-12, Admin. R. Item 222, Internal p. 3.30 TAC § 116.110(15) (defining "source" as "a point of origin of air contaminants, whether privately or publicly owned or operated").

49 Air Quality Analysis Audit Memorandum, Ex. ED-12, Admin. R. Item 222, Internal p. 3.

50 TCEQ Air Quality Modeling Guidelines (TCEQ – APDG6232V2, Rev. 4/15), Adm. R. Item 180, Internal p. 21.

within 50 km will be considered,[51] but the United States Environmental Protection Agency's Guideline on Air Quality Models in 40 C.F.R. Part 51, Appendix W, provides that "nearby" sources to be explicitly modeled, that is, those sources expected to create localized conditions not reflected in the generalized ambient or background concentrations, will generally be located within 10 to 20 km of the to-be-permitted source.[52] After incorporation of these off-property existing sources, TCEQ guidance provides that a full NAAQS analysis will also incorporate a, "representative monitored background concentration," which is intended to reflect pollutant concentrations more generally present in a large area.[53] In reliance on this guidance, the TCEQ Executive Director in this case considered explicit modeling of the permitted emissions from the rock crusher at the Martin-Marietta quarry in the "full NAAQS" modeling,[54] and for PM_{10} utilized historical monitored air quality from an air quality monitor near Selma, Texas, as well as for $PM_{2.5}$ utilized historical monitored air quality from an air quality monitor southeast of San Antonio.[55] The Selma monitor is surrounded by mostly residential areas with no significant emission sources in the immediate vicinity of the monitor site.[56] (The state does not have an adequate number of background monitoring stations, so approximations of this sort are not uncommon.)

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51 TCEQ Air Quality Modeling Guidelines (TCEQ – APDG6232V2, Rev. 4/15), Adm. R. Item 180, Internal p. 40.

52 40 C.F.R. Part 51, Appx. W, § 8.3.3(b)(iii).

53 TCEQ Air Quality Modeling Guidelines (TCEQ – APDG6232V2, Rev. 4/15), Adm. R. Item 180, Internal pp. 21 and 44.

54 Direct Testimony of David Knollhoff, Exh. App-DK1, Admin. R. Item 185, p. 17.

55 Executive Director's Construction Permit Source Analysis & Technical Review, Exh. ED-19, Adm. R. Item 229, Internal p. 6.

56 Exh. Friends – 100 (Direct Testimony of Howard Gebhart), Admin. R. Item 240, internal p. 8:21-24.

Particulate matter is a pollutant of special concern in this matter for which NAAQS have been established. Particulate matter can aggravate existing respiratory disease, produce acute reductions in lung function and increase the incidence of respiratory disease in children, and increase the risk of premature mortality in elderly and ill persons.[57] NAAQS have been established for two overlapping categories of particulate matter: particles less than 2.5 microns in diameter, and particles less than 10 microns in diameter. [58]

As discussed above, the permitted rock crusher in this case is to be situated within a larger rock quarrying operation. Because Texas law does not view the quarry as a "facility," no permit is required for the emission of particulates from the roads and operations at the quarry.[59] But, the quarry operations indeed result in the release of dust and particles into the air. In fact, Friends' expert witness Mr. Gebhart offered uncontroverted testimony that "these fugitive dust emissions [from the quarry], if properly quantified and analyzed, would likely dwarf the emissions from the rock crusher and other processing equipment that were analyzed …"[60] He continued:

> [T]he unregulated fugitive dust emissions released by [quarry] truck traffic and the quarry are indeed real and contribute to air quality impacts affecting the health and welfare of citizens living near the Vulcan site. *Any air quality modeling demonstration addressing NAAQS compliance is meaningless if significant emission sources contributing to air quality degradation are omitted from the emissions inventory [used for modeling]*.[61] (emphasis added)

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57 Analysis of Particulate Matter Reduction Benefits, 54 FR 43124-01 (Oct. 20, 1989).

58 40 C.F.R. 50.7.

59 *See* Tex. Health & Safety Code § 382.003(6) & 30 TAC § 116.10(4); Pre-Filed Testimony of Joel Stanford, Ex. ED-1, Admin. R. Item No. 211, Internal p. 24.

60 Exh. Friends – 100 (Direct testimony of Howard Gebhart), Admin. R. Item 240, internal p. 5:5-15.

61 Exh. Friends – 100 (Direct testimony of Howard Gebhart), Admin. R. Item 240, internal p. 5:15-20.

Yet, Vulcan did not include specific modeling of the particulate emissions from these sources in its application, and the Commission did not require or consider modeling that specifically accounted for these emissions. Vulcan did model emissions from certain internal roadways at its rock crusher site – those between the entry to the property and the first stockpile – for one of its model runs.[62] That modeling showed that the maximum modeled annual off-site ground-level concentration was 13 times higher when the limited roadways were included than was the case without the roadways.[63] Thus, the evidence is that the off-site impacts of rock crusher particulate emissions are rather trivial, when compared to the impacts of emissions from only some of the on-site roads.

The TCEQ staff asserted that exclusion of unpermitted emissions was mandated by 30 TAC § 116.111(a)(2)(J), claiming that this regulation "states that air quality impacts are to be determined from facilities. Therefore, [in-plant roads or quarries] are not subject to an impacts evaluation."[64] The cited regulation simply does not say what the Executive Director claimed. 30 TAC 116.111(a)(2)(J) states, in full:

> Air dispersion modeling. *Computerized air dispersion modeling may be required by the executive director to determine air quality impacts from a proposed new facility or source modification*. In determining whether to issue, or in conducting a review of, a permit application for a shipbuilding or ship repair operation, the commission will not require and may not consider air dispersion modeling results predicting ambient concentrations of non-criteria air contaminants over coastal waters of the state. The commission shall determine compliance with non-criteria ambient air contaminant standards and guidelines at land-based off-property locations. (emphasis added)

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62 Revised Air Quality Analysis, Admin. R. Item 180, Tab D, Exh. 22, Appx. A, Table 1 (APP-000291).

63 Revised Air Quality Analysis, Admin. R. Item 180, Tab D, Exh. 22, Appx. A, Table 1 (APP-000291).

64 Exh. ED-22 (Direct Testimony of Rachel N. Melton), Admin. R. Item 232, at p. 11:28 – 34.

This rule specifies that the impact of a *new* facility is to be evaluated in order to determine whether to issue a permit for that facility. But, the regulation places no limit on the types of sources, such as the Martin-Marietta crusher or quarry or internal roadways at any crusher, that should be considered in conjunction with the to-be-permitted facility in determining the total concentration of a contaminants at an off-site location. The regulation does not establish any limitation that localized concentrations are not allowed to include sources that are not, themselves, facilities.

In addition to arguing that emissions from roads and quarry operations were properly excluded as coming from non-facilities, the Executive Director argued that particulate matter emissions were *de minimis*, excusing the need for any health effects review of particulate matter emissions.[65] However, this determination itself turned on modeling that excluded explicit consideration of the particulate emissions from quarry roadways and quarry operations.[66] Furthermore, the Executive Director argued that while roads and quarry operations were not explicitly modeled, the emissions from these sources was reflected by the representative background ambient concentrations drawn from allegedly representative monitoring stations.[67] However, per the guiding federal regulations, the reliance on representative stations to substitute for explicit modeling of other sources is only appropriate where the source proposed to be permitted is "isolated." In discussing multi-source areas, Appendix W provides (also noting that nearby sources would "in most cases" be within 20 km):

> *Nearby sources:* All sources in the vicinity of the source(s) under consideration for emissions limits that are not adequately represented by ambient monitoring data should be explicitly modeled. Since an ambient monitor is limited to characterizing air quality at a fixed location, sources that cause a significant concentration gradient in the vicinity of the source(s) under consideration for emissions limits are not

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65 Executive Director's Reply to Closing Arguments, Admin. R. Item No. 159, at p. 3.

66 Quality Analysis Audit Memorandum, Ex. ED-12, Admin. R. Item 222, internal p. 3.

67 Executive Director's Reply to Closing Arguments, Admin. R. Item No. 159, at p. 6.

> likely to be adequately characterized by the monitored data due to the high degree of variability of the source's impact.
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> * * *
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> The number of nearby sources to be explicitly modeled in the air quality analysis is expected to be few except in unusual situations. In most cases, the few nearby sources will be located within the first 10 to 20 km from the source(s) under consideration.[68]

A "source," of course, unlike a "facility," may be a quarry or road. Per the State legislature: "'Source' means a point of origin of air contaminants, whether privately or publicly owned or operated."[69] It is undisputed that the quarry roadways and operations involved in this case constitute "sources," even if they do not qualify as "facilities." In this case, almost all internal quarry roads and operations will be operated within 3 km of the proposed rock crusher.[70] While the ED did not consider explicit modeling of these sources, the ED did consider explicit modeling of the permitted Martin-Marietta facility located approximately 9.3 km from the proposed rock crusher.[71] Considering that permitted emissions from the Martin-Marietta crusher, only, were explicitly modeled, while emissions from some roads and all the quarry operations at the Vulcan site were not explicitly modeled, the operative distinction in the selection of which sources within 20 km were explicitly modeled was the determination of whether or not the source was a "facility." This distinction is contrary to charge of 30 TAC 116.111(a)(2)(A)(i), which requires that an application demonstrate that the emissions from a proposed facility will be protective of human health. This governing rule contains no distinction allowing the exemption of contaminant sources merely because those sources are not "facilities," and it was improper for the Commission to apply

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68 EPA's Revisions to the Guidelines on Air Quality Models, Jan. 17,2017, Exh. ED-25, Admin. R. Item No. 235 (Appx. W to 40 CFR Part 51, at 82 Fed. Reg. 5221, col. 3 (Jan. 17, 2017)).

69 § 382.003(13), Texas Health & Safety Code.

70 App. Ex. 1 (Executive Director's Administrative Record), Admin. R. Item No. 180, Internal p. APP-000024.

71 Admin. R. Item 180, Tab D, Exh. 22 (the Air Quality Analysis, rev'd), p. 9 (APP-000253).

such an exemption that directly undermines the protection of public health intended to be furthered by this rule. Accordingly, the exclusion of emissions from these virtually adjacent sources simply because they are not "facilities" was contrary to the governing rules, and, thus, arbitrary and capricious.

2. <u>Forgoing case-by-case BACT analysis</u>. TCEQ failure to undertake or to require Vulcan to undertake a case-by-case "Best Available Control Technology ("BACT")" analysis of the emission sources that are concededly facilities

State law requires a permit applicant present a case-by-case demonstration that emissions from its facility will not exceed "Best Available Control Technology" ("BACT") levels. BACT is a term of art. It encompasses a requirement that the control levels and technologies be economically reasonable and technically feasible. Instead of determining the BACT levels or technologies for this particular rock crusher at this particular location and in light of the present state of the emission control art, Vulcan merely turned to a 2013 (or earlier) matrix of control levels and technologies TCEQ had in the past accepted. Was TCEQ's allowance of this method of setting BACT levels and technologies capricious and unlawful?

This was point of error number 4 in Friends' motion for rehearing.

The Vulcan rock crusher is a "minor" emissions source. Emissions from a minor emission source are governed by the Texas Clean Air Act. That act requires a permitted facility achieve BACT levels of emissions reduction. Tex. Health and Safety Code § 382.0518(b)(1), text set out, below.[72] Major sources are subject to minimum federal standards that TCEQ implements.

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[72] The commission shall grant within a reasonable time a permit or permit amendment to construct or modify a facility if, from the information available to the commission, including information presented at any hearing held under Section 382.056(k), the commission finds:

(1) the proposed facility for which a permit, permit amendment, or a special permit is sought will use at least the best available control technology, considering the technical practicability and economic reasonableness of reducing or eliminating the emissions resulting from the facility; and

Various air pollutants, such as particulate matter and sulfur dioxide and nitrogen dioxide, are subject to BACT-level controls. But, for purposes of this appeal and rock crushers more generally, particulate matter, i.e., dust, is the pollutant of interest.

BACT is not statutorily defined in Texas, but rather is defined in regulation:

> Best available control technology (BACT)--An air pollution control method for a new or modified facility that through experience and research, has proven to be operational, obtainable, and capable of reducing or eliminating emissions from the facility, and is considered technically practical and economically reasonable for the facility. The emissions reduction can be achieved through technology such as the use of add-on control equipment or by enforceable changes in production processes, systems, methods, or work practice.

30 Tex. Admin Code §116.10(1).

From this text, one would think BACT is a particular technology or control method. But, TCEQ has interpreted its regulation to call, actually, for a level of emissions or emission reduction, and the technology by which that level will be achieved is left up to the permit applicant. TCEQ's guidance document on this point is *APDG 6110, Air Pollution Control, How to Conduct a Pollution Control Evaluation*. Adm. R. Item 218 (Exh. ED-8). Per *APDG 6110*:

> [T]he agency does not dictate what specific controls are required to meet the requirement for BACT. Rather, the choice of control, or a combination of controls, is determined by the owner or operator of the facilities for which construction or modification authorization is sought. BACT may be expressed in terms of an emissions limit (e.g., as a pound per hour or ton per year number), or a performance criteria [sic] (e.g., a percentage destruction efficiency or pound per million British Thermal Units [lb/MMBtu]).

> (2) no indication that the emissions from the facility will contravene the intent of this chapter, including protection of the public's health and physical property."

Tex. Health and Safety Code § 382.0518(b); see also 30 TAC § 116.111(a)(2)(C) ("Best available control technology (BACT) must be evaluated for and applied to all facilities subject to the TCAA.").

APDG 6110, Adm. R. Item 218, internal p. 3. (This guidance document is reproduced in the appendix to this brief.)

As the term "best available control technology" indicates, the emission level sought is the lowest possible, consistent with technical practicability and economic reasonableness. This is consistent with the federal statutory BACT definition, which is "an emission limitation based on the maximum degree of reduction of each pollutant subject to regulation . . . taking into account [factors, including economics and feasibility]." 42 U.S.C. § 7479(3).

It is the applicant's responsibility to submit a complete BACT analysis for each pollutant from each facility subject to review. *APDG 6110,* internal p. 13. A "facility" is not an entire plant, for example, but is what a lay person might and EPA does call an "emission unit." 35 *Tex. Reg. 2979* (April 26, 2010). A "facility," under Texas law, is "each discrete or identifiable structure, device, item, equipment or enclosure." Tex. Health & Safety Code § 382.003(6). So, a crushed-stone stockpile or a point where crushed stone drops from one conveyer belt to another, for example, is a "facility" in Texas's parlance.

To determine if the emission level from a particular facility/emission unit within a minor source meets the BACT standard, *APDG 6110* recommends a three-tiered methodology. *APDG 6110,* internal pp. 11-12. *APDG 6110* provides, consistently with the BACT definition, that "[i]n each tier, *BACT is evaluated on a case-by-case basis* for technical practicability and economic reasonableness. *APDG 6110,* internal p. 11 (emphasis added). In addition, "the BACT evaluation should also take into consideration any new technical developments, which may indicate that additional emission reductions are economically or technically reasonable." *APDG,* internal p. 12.

APDG 6110 clearly places on the permit applicant and the TCEQ permit reviewer the burden of documenting the case-by-case BACT analysis:

> The permit reviewer must ensure that the administrative record provided by the applicant for the selected BACT is sound, comprehensive, and adequately supports the conclusions of the BACT review. *Failure to consider all potentially applicable control alternatives constitutes an incomplete BACT analysis.*

APDG 6110, internal p. 11 (emphasis added).

Vulcan proposes no control on dust at the hopper where the pay dozers drop large-sized stones on a screen that allows them to slide to the first crusher. After that, the plan is to use water sprays at emission points to control dust.[73] Allegedly, this will result in a 70% reduction in emissions of particulate matter.[74] Plaintiffs' witness, Mr. Gebhart, offered a couple of suggestions superior control technologies that should have been evaluated for a determination as to their cost reasonableness and technical practicality.[75]

First, he testified a case-by-case BACT evaluation would consider enclosure of the Vulcan crushing and screening equipment and routing emissions from these sources to a fabric filter baghouse. At a fabric filter baghouse, the standard emissions reduction for particulate matter (PM) emissions would be on the order of 99% or better, compared to 70% emissions reduction claimed for the water sprays that Vulcan has proposed as BACT. This increase in pollution control means that the PM emissions are reduced by about a factor of 30; the baghouse produces PM emissions that would be only about 3% of the emissions otherwise released with the water spray controls. As Mr. Gebhart noted,[76] under the applicable New Source Performance Standard (NSPS) at 40 CFR 60 Subpart OOO (Standards of Performance for Nonmetallic Mineral Processing Plants), there are monitoring, recordkeeping, and recording requirements listed for Subpart OOO units

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73 Admin. R. Item 27 (revised permit application), internal p. 37, which is also p. APP-000353.

74 Admin. R. Item 27, internal p. 22, which is also p. APP-000338.

75 Admin. R. Item 240, p. 20:13-22.

76 Admin. R. Item 240, p. 21:1-5.

controlled using water sprays and separate requirements listed for emission units controlled using a fabric filter baghouse. Likewise, TCEQ's Form 10185, Table 17 for Rock Crushers, which Vulcan completed for its permit application, includes among its checklist of equipment by which emissions from crushers, screens and conveyor belt transfers might controlled, "Suction to Baghouse."[77] These are certainly indications that the consideration of baghouse emissions control is not a wasted effort, that baghouses are not *ipso facto* unreasonable or infeasible for rock crushing facilities.

He also urged better controls on Vulcan's four proposed stockpiles. The stockpile PM emissions are, in fact, almost as large as the projected emissions for the crushing and screening equipment, combined.[78] Similarly, instead of outdoor storage for crushed aggregates, Vulcan could instead use enclosed storage bins, with the associated dust emissions controlled using a fabric filter baghouse. This control option should have been evaluated by Vulcan and TCEQ for potential application to achieve BACT-level reductions. Also, control options involving partial enclosure of the stockpiles, such as walls on three sides, would produce reductions in actual stockpile wind erosion emissions, and should have been considered as possible BACT options by TCEQ and Vulcan.

The over-arching deficiency with the Vulcan BACT analyses is that those were "analyses" in name only. They were not at all "case-by-case." Instead, the BACT analyses relied solely on past determinations for BACT at rock crushing facilities elsewhere in Texas. A case-by-case

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77 Admin. R. 27, internal p. 37, which is also p. APP-00353.

78 Admin. R. Item 219 (Exh. ED-9, the draft permit), Maximum Allowable Emission Rate Table "MAERT") at the end of the draft permit.

evaluation of BACT specific to the Vulcan site did not occur; there was only consideration of prior determinations of BACT.[79]

Vulcan's lead engineer, Gary Nichols, testified that case-by-case consideration is not required. In his view, enclosing crushers, screens and stockpiles and using a baghouse to cleanse emissions from some of those sources need not have been considered. Specifically, his position was:[80]

> The fact that TCEQ has determined that such emissions control [i.e., water spray] is Tier I BACT means that TCEQ has determined that it is technically practicable and economically reasonable for crushers, screens, and, stockpiles. Enclosing each crusher, screen, and stockpile and routing its PM_{10} and $PM_{2.5}$ emissions from them to a fabric filter baghouse would be emissions control that is beyond what TCEQ has determined to be Tier I BACT review for crushers, screens, and stockpiles at rock crushing plants. According to TCEQ's BACT Guidance [App. Ex. 43],[81] a permit applicant, such as Vulcan, is not required to consider whether a emissions control would be BACT when a different emissions control has previously been determined to be Tier I BACT, unless there has been a subsequent technical development that may indicate that a more stringent emission control is technically practicable and economically reasonable.

So, Mr. Nichols' view is that no case-by-case analysis is required. As a practical matter, were this the case, it would mean that "best" available control technology is just what some other rock crushers – regardless of whether they are in the Panhandle, in Dallas or in Del Rio – have used. The peculiarities of location, size of the quarry, cost of power or of labor, and the lifetime over which investments can be depreciated would make no difference.

In live testimony,[82] Mr. Stanford, the agency's permit engineer, initially testified that a baghouse on a rock crusher would not be technically feasible for most crushers, because of the

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79 Admin. R. Item 240, direct testimony of Richard Gebhart, internal p. 17:24-18:2.

80 Admin. R. Item 183, rebuttal testimony of Gary Nichols, internal p. 27:17-29.

81 Brackets in original. App. Ex. 43 is APDG 6110.

82 Tr. Vol. 2, pp. 258-259.

inherent design of the crusher. But, then, he acknowledged the design of the Vulcan crusher was at that stage unknown. Next, he testified that the similarity or otherwise of the Vulcan crusher to a crusher with a baghouse that arose from a settlement would be considered "irrelevant," "because one unit does not set BACT when you have thousands of crushers in the state of Texas and only one controlled by a baghouse." He finally testified that the economic reasonableness and technical feasibility of a baghouse on the Vulcan crusher would also be irrelevant, "because of what BACT is and how it is driven."[83]

First, as to Mr. Nichols' comment that water sprays are technically feasible and economically reasonable, that is not contested and does not address whether some other technically feasible and economically reasonable technologies would be the best (or, at least, better than water sprays) controls.

Mr. Nichols, kindly put, glossed over what the BACT guidance he cited actually says:[84]

> The permit reviewer must ensure that the administrative record provided by the applicant for the selected BACT is sound, comprehensive, and adequately supports the conclusions of the BACT review. *Failure to consider all potentially applicable control alternatives constitutes an incomplete BACT analysis*. (emphasis added.)

It also says,[85] in reference to the Texas BACT Tier 1 analysis:

> The TCEQ has established Tier I BACT requirements for a number of industry types. This information can be accessed at the TCEQ website. *However, these BACT requirements are subject to change through TCEQ case-by-case evaluation procedures*. (Emphasis added.)

Later, the document provides:[86]

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83 Tr. Vol. 2, p. 259:2-3.

84 APDG 6110, p. 11.

85 APDG 6110, p. 12.

86 APDG 6110, p. 16.

> BACT proposals are approved on a case-by-case basis. While a *specific BACT proposal may be different than those accepted as BACT in recent permit reviews*, the proposal must have an overall emission reduction performance that is at least equivalent to those previously accepted as BACT." (emphasis added.)

Mr. Stanford's testimony was, really, (1) he did not know the details peculiar to the Vulcan crusher and, perhaps, its environs, so he could not undertake a case-by-case analysis of what the "best" technically practicable and economically reasonable levels of emissions reductions might be, and (2) a level of emissions control obtained *via* use of a baghouse would not be relevant, since lots of non-settling rock crushers – permitted over who-knows-what period of time – do not use one. This is not logic. It is just capricious decision-making.

Certainly, *APDG 6110* indicates that a case-by-case review is always required, and the BACT selected need not be the same as in recently-issued permits, though the emission reduction achieved must be at least as good as that achieved by the recently-approved technologies. Plainly, neither Mr. Nichols nor Mr. Stanford saw it this way; they would look at a table of past BACT decisions and end the inquiry. While it is true that *APDG 6110* is only guidance,[87] its requirement for a case-by-case evaluation is unassailably logical: one cannot get the "best" level of control, subject to technical and economic considerations, if one does not evaluate the circumstances of the particular case at hand.

[87] There is no record evidence or other evidence, so far as Friends is aware, that the TCEQ Commissioners ever adopted APDG 6110 in any formal proceeding. So, the level of deference it is due is not commanding. *Fiess v. State Farm Lloyds*, 202 S.W.3d 744, 747 (Tex.2006) (noting that deference to agency interpretations applies "to formal opinions adopted after formal proceedings"). Nonetheless, it presumably reflects staff experience accumulated over many years and might, therefore, reflect useful insights.

APDG 6110 also notes[88] that, for a number of industry types, TCEQ has established Tier I BACT "requirements." The guidance goes on, however, to be explicit that "these BACT requirements are *subject to change* through TCEQ *case-by-case evaluation procedures."*

Finally, below, Vulcan sought to elicit testimony to the effect that EPA had approved the particular BACT evaluation process used in this case. Lest there be any confusion on this point, note that what EPA has said, as understood by TCEQ outside this particularly litigation is: "EPA accepts the TCEQ's three-tiered approach to BACT as equivalent to EPA's Top-Down BACT approach when the review also includes the following: recently issued/approved permits **w**ithin the state of Texas; recently issued/approved permits in other states; and control technologies contained within the EPA's RACT/BACT/LAER Clearinghouse (RBLC)."[89] EPA neither has to approve the BACT evaluations for minor NSR permits nor has it approved the BACT review for this particular permit. And, EPA thinks federal BACT and Texas BACT, while being exactly the same terms, are equivalent only in the situation where the BACT review encompasses much more than just looking at a table of emission controls at similar Texas facilities in 2013 or earlier.

3. <u>Discovery and trial process errors related to crystalline silica in air emissions</u>: The ALJ committed reversible error by the denial of discovery and limitations on cross-examination regarding Vulcan's Geologic Investigations.

Crystalline silica is a human carcinogen. Limestone contains crystalline silica. The particulate, i.e., dust, emissions from Vulcan's quarry, roadways and crusher will contain crystalline silica in the percentage of its presence in the limestone that is quarried and crushed. Plaintiffs timely sought, but were denied, discovery of the details a limestone sampling effort by Vulcan that produced the crystalline silica percentage in limestone on which Vulcan relied for its

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88 Admin. R. Item 240, p. 12.

89 *APDG 6110*, p. 51.

impacts analyses. At hearing, the ALJ also restricted Plaintiffs' cross-examination on this issue. Were the ALJ's rulings on these discovery and cross-examination issues error that denied Plaintiffs the process rights they are due in an adjudicative proceeding?

This point of error was error number 6 identified in Friends' motion for rehearing.

Applicable Standard

Where agency proceedings are subject to discovery rules, judicial review of discovery rulings is under an abuse of discretion standard. *See TransAmerican Natural Gas Corp. v. Powell,* 811 S.W.2d 913, 917 (Tex.1991). Abuse of discretion occurs, if the judge reaches a decision so arbitrary and unreasonable as to amount to a clear and prejudicial error of law. *Joe v. Two Thirty Nine Joint Venture,* 145 S.W.3d 150, 161 (Tex.2004). See, too, *Ford Motor Co. v. Castillo,* 279 S.W.3d 656, 661 (Tex. 2009).

A. Silica Emissions, which depend on the Silica content of the material mined, are critically important in evaluating Vulcan's Application.

In order to obtain the requested permit, Vulcan must demonstrate that the emissions from the proposed facility will be protective of health and the property of the public,[90] and will not emit contaminants in a manner that could harm human health or welfare, animal life, vegetation, or property, or interfere with the normal use and enjoyment of animal life, vegetation, or property. 30 TAC § 101.4. With regard to Vulcan's proposed facility, this demonstration requires consideration of the impacts of the emissions of crystalline silica, which will be emitted from the proposed facility. Crystalline silica is a known human carcinogen; exposure to crystalline silica can cause debilitating respiratory tract diseases such as silicosis, emphysema, obstructive airway disease, and lung cancer. In recognition of this, TCEQ has established short-term and long-term air quality

[90] 30 TAC § 116.111(a)(2)(A)(i).

guideline levels, known as an "effects screening levels" or "ESLs" for crystalline silica, and the Vulcan emissions must be evaluated against those ESLs.[91]

Vulcan's engineers performed modeling of predicted silica concentrations in an attempt to demonstrate compliance with these regulations.[92] If a draft permit allows the emission of silica of a concentration that endangers human health and welfare,[93] then Vulcan's requested permit should be denied. Accordingly, the silica emissions from the proposed facility are of crucial importance to this case, and any information that influences the level of those emissions is critically important to this case.

The concentration of silica within the material crushed influences the concentration of silica in the emissions from a plant– if you crush a rock, the remaining pieces of rock will be of similar composition as the rock prior to crushing absent other actions. Vulcan's own reports confirm this fact. Vulcan's Air Quality Analysis Modeling Report stated that the particulate matter, i.e., its makeup, emitted at the plant, "will be the limestone that will be processed and handled at the proposed crushing plant."[94] In fact, Vulcan's modeling of silica emissions assumed that the proportion of silica in the particulate emissions from the plant would be exactly the same as the proportion of silica contained in the subsurface samples.[95]

In order to characterize the silica content for the material to be mined and crushed, Vulcan's geology expert, Dr. Eversull, testified that Vulcan upon data from three holes drilled at unidentified

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91 Admin. R., Item 248 (Direct testimony of Dr. Dydek), p. 8; see, also, TCEQ Fact Sheet re: Crystalline Silica, which is included in the appendix to this brief.

92 Admin. R. Item 180, Tab D, Exhibit 22, p. APP-000254.

93 Modeled exceedance of an ESL does not, *ipso facto*, indicate a permit denial is in order. But, it does trigger an increased level of scrutiny and elevates the risk of permit denial.

94 Admin. R. Item 180, Tab D, Ex. 22, p. APP-000254.

95 Admin. R. Item 180, Tab D, Ex. 22, p. APP-000254.

locations within the 1500 acre site.[96] Dr. Eversull claimed that samples of one to three inches in thickness were taken from these undisclosed cores at undisclosed ten foot intervals, and she testified that an unidentified subset of this unidentified total number of these unidentified samples was mixed together into a single "composite" sample of unidentified volume.[97] Then, an unidentified smaller volume of that composite sample was tested to determine its silica content.[98] That final number (0.2% silica) was identified in the application as a "representative sample" of silica for the entire site, and utilized to characterize all of the material to be crushed at the facility for its entire life.[99] Notably, the cursory nature of this information stood in stark contrast to the geologic information gathered by Vulcan in evaluating the economic feasibility of the quarry site. For that evaluation, Vulcan considered information from *41* different cores performed at the site.[100]

B. Through discovery and cross-examination, Friends sought information regarding the basis of Vulcan's assumptions and expert opinions regarding silica but were rebuffed.

Considering the significant lack of information concerning the geological investigation at the site, Friends served timely pre-trial production requests seeking (request no. 4):

> all documents associated with any subsurface investigation performed within the Facility Property. This request includes, without limitation:
> a. All boring logs for any boring within the Facility Property;
> b. All field notes for ay boring within the Facility Property;
> c. All Drillers notes associated with any boring within the Facility Property; and
> d. All sampling results for any sample collected within the Facility Property.[101]

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96 Admin. R. Item 271, Tr. V. 1, 155.

97 Admin. R. Item 271, Tr. V. 1, 157-158.

98 Admin. R. Item 271, Tr. V. 1, 158.

99 Admin. R. Item 180, Tab D, Exhibit 22, pp. APP-000254, 317.

100 Admin. R. Item 271, Tr. V. 1, 156.

101 Admin. R. Item 111, Friends Motion to Compel, Attachment A, Friends Initial Interrogatories and Requests for Production, internal p. 6.

Request number 5 requested "all documents related to any analysis or evaluation of the characteristics of the materials which Vulcan intends to process at the Facility."[102]

Vulcan refused to provide any documents in response to Request number 4 and Request number 5, asserting the trade secret privilege, "with respect to all documents associated with subsurface investigations performed within the Facility Property."[103] In response, Friends filed a motion to compel seeking to require disclosure of the requested documents.[104] The ALJ denied that motion by Order No. 2.[105]

Subsequently, at the hearing on the merits, Friends' counsel sought to explore the basis of Vulcan's "representative sample" upon which the modeling of silica emissions entirely relied. Dr. Eversull testified that she had in fact "certainly" reviewed many of the materials which had been withheld as trade secret material,[106] and that there was "a lot of communication" between herself and the person who had created much of the material withheld as trade secret.[107]

Dr. Eversull said photographs of the drilled core material or drilling logs from those coring efforts were not the "sole basis" for her opinion that Vulcan's sampling of the material to be quarried was properly done and, thus, a she saw it, yielded "representative" crystalline silica values. Asked if the photographs or drilling logs provided some of the basis for her "representativeness" opinion, Dr. Eversull answered: "Do the core logs that I may or may not have looked at or the photographs that I may or may not -- I feel like you're asking me to say that

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102 *Id.*

103 Admin. R. Item 111, Friends Motion to Compel, Attachment B, Vulcan's objections and responses to Friends' initial interrogatories and requests for production, internal p. 11- 12.

104 Admin. R. Item 111, Friends Motion to Compel.

105 Admin. R. Item 132, Order No. 2 – Denying Motion to Compel and Motion for Continuance.

106 Admin. R. Item 271, Tr. V. 1, 163-164.

107 Admin. R. Item 271, Tr. V. 1, 165.

something I've said -- I can't remember if I saw every photo, and you're asking me if that was the basis for my opinion, and I -- I can't swear that I saw every photo or every page of the handwritten log."[108] As counsel for Friends sought to further explore the role of the withheld material in the formation of her opinion despite the witness' evasive answers, counsel for Vulcan objected, and the judge instructed Friends' legal counsel that, "I think we should move on."[109]

In light of Dr. Eversull's testimony that she had been provided the material for which the trade secret privilege was asserted, and in light of Dr. Eversull's testimony that this material formed a part of the basis for her opinions expressed at the hearing, Friends' counsel at the hearing moved for a continuance to inspect the documents at issue, asserting that the materials involved were properly responsive to the requests for disclosure filed by Friends', and noting that no trade secret privilege had been asserted in response to those Requests for Disclosure.[110] The ALJ denied that motion.[111]

C. The denial of Friends' discovery requests regarding Geology, limitation on Friends' cross-examination regarding geology, and denial of Friends Motion for Continuance to inspect documents was in error.

Under Texas law, the party resisting discovery by invocation of a trade secret claim must establish that the information is a trade secret.[112] The burden then shifts to the requesting party to establish that the information is necessary for a fair adjudication of its claims.[113] If the requesting

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108 Admin. R. Item 271, Tr. V. 1, 166-167,

109 Admin. R. Item 271, Tr. V. 1, 168.

110 Admin. R. Item 271, Tr. V. 1, 182-183.

111 Admin. R. Item 271, Tr. V. 1, 215,

112 *In re Cont'l Gen. Tire, Inc*., 979 S.W.2d 609, 613 (Tex. 1998) ("*Continental*").

113 *Id.*

party meets this burden, the trial court should ordinarily compel disclosure of the information, subject to an appropriate protective order.[114]

Determining whether material contains a trade secret involves weighing the six factors set forth in the Restatement of Torts in the context of the surrounding circumstances.[115] Important for this case, the *subject matter* of a trade secret *must be kept secret.*[116] As the Fifth Circuit Court of Appeals has noted, "[h]owever strong [a claimant's] case on the other indicia of trade secret status, it is elemental that [t]he subject matter of a trade secret must be secret."[117] Once a trade secret is made public all ownership is lost, and Texas courts have refused to give trade secret protection when the material sought to be protected has been publicly disclosed.[118]

Even if material is protected trade secret material, it still must be disclosed in the discovery process, if its nondisclosure would work an injustice.[119] In order to justify disclosure of trade secret material, the party seeking material must make a prima facie, particularized showing that the information sought is relevant and necessary to the proof of, or defense against, a material element of one or more causes of action presented in the case, and that it is reasonable to conclude that the information sought is essential to a fair resolution of the lawsuit.[120]

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114 *Id.*

115 *In re Union Pacific Railway Co.*, 294 S.W.3d 589, 592 (Tex. 2009).

116 *Luccous v. J.C. Kinley Co.*, 376 S.W.2d 336, 338 (Tex.1964).

117 *Carson Products Co. v. Califano*, 594 F.2d 453, 461 (5th Cir. 1979).

118 *Computer Assoc. Int'l, Inc. v. Altai, Inc.,* 918 S.W.2d 453, 457 (Tex.1996), *T-N-T Motorsports, Inc. v. Hennessey Motorsports, Inc.*, 965 S.W.2d 18, 22 (Tex.App. – Houston [1st Dist.] 1998, pet dism'd).

119 *Continental* at 610.

120 *Continental* at 610.

In considering Plaintiffs' motion to compel, the ALJ erred both in finding that the material at issue constituted "trade secrets" and erred in finding that nondisclosure of the information would not work an injustice.

Vulcan had abandoned the trade secret status of information characterizing the silica content of the subsurface at the site. Vulcan's publicly-available application to the TCEQ included a laboratory report purporting to characterize the total crystalline silica content of a composite sample from the site and the respirable silica content of samples from the site.[121] Vulcan repeatedly asserted that this sample was "representative" of the materials to be handled at the site.[122] By making this data and characterization of the data publicly known, Vulcan had abandoned the trade secret status of such sampling data. It was, thus, error for the ALJ to find that the geologic information regarding the silica content of the subsurface constituted a "trade secret."

Even if the geologic information at issue were properly considered trade secret material, nondisclosure of the material worked an injustice in this case. As a result of the ALJs' denial of Friends' motion to compel, Vulcan was able to selectively "declassify" geologic information in this case – placing limited geologic sampling data into the application, while withholding other data from any inspection at all. The only means by which Plaintiffs could have challenged Vulcan's claim that the sample provided in the application was "representative" of the geologic data gathered at the site would have been for the Friends to acquire that underlying geologic data, which is what they sought through their discovery requests and motion to compel. Without that data, it was impossible for Friends to challenge the relationship of the sampling data presented to the geologic data in the underlying investigation.

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121 Admin. R. Item 180, Administrative Record of ED's Preliminary Decision, 317.

122 *See, e.g.* Admin. R. Item 180, Administrative Record of ED's Preliminary Decision, 254.

The nondisclosure of the withheld information met the standard established by the ALJs for what would constitute an "injustice" under these circumstances. In the ALJ's May 10, 2019 Order No. 2, denying Friends' Motion to Compel, the ALJ stated, "it would create an injustice if Applicant were allowed to use the privileged information in any way as part of the additional evidence in support of the permit."[123] The Applicant subsequently filed the direct testimony of Dr. Eversull on June 10, 2019.[124] While Dr. Eversull claimed at hearing that the privileged information was not the *sole* basis of her opinion, it was clear that such information played a role in the formation of her opinion. In this manner, Vulcan was allowed to use the privileged information as part of the additional evidence that it used in support of the permit – the precise scenario which the ALJ had found would work an injustice.

Thus, denial of the information denied Friends the information necessary to present their case and, thereby, worked an injustice. It was error for the ALJ to find otherwise.

Additionally, an assertion of privilege must be asserted in response to a request, or else it is waived.[125] In addition to discovery served by Friends' upon Vulcan, the procedural schedule in the case included a deadline of April 12, 2019 by which Vulcan was required to provide Friends with materials responsive to Texas Rule of Civil Procedure 194.2(f), which includes "all documents, tangible things, reports, models, or data compilations that have been provided to, reviewed by, or prepared by or for the expert in anticipation of the expert's testimony."[126] While Vulcan asserted the trade secret privilege in response to Friends' Requests for Production, Vulcan

[123] Admin. R. Item 132, Order No. 2, Internal p. 4.

[124] Admin. R. Item 198, Direct Testimony of Lori Eversull, internal p. 1.

[125] Tex. R. Civ. P. 193.3(a), *Hobson v. Moore,* 734 S.W.2d 340, 341 (Tex. 1987) (noting waiver of law enforcement investigation privilege as a result of failure to timely assert privilege in response to discovery).

[126] Order No. 1, Admin. R. Item 106, internal p. 3; Tex. R. Civ P. 194.2(f)(4)(A).

did not assert this privilege in response to its obligation to provide materials encompassed within Texas Rule of Civil Procedure 194.2(f).[127] Furthermore, documents fall within the scope of material encompassed within a request for disclosure so long as they have been provided to an expert or reviewed by the expert in anticipation of litigation, even if the expert does not rely on the documents as a basis for their opinion expressed in the proceeding.[128] While the immediate purpose of the geologic investigation documents was the conduct of a due diligence examination, a contested case hearing on the application would have been reasonably anticipated at that time, and Dr. Eversull's potential role as an expert would have been reasonably anticipated at that time. Accordingly, the documents at issue should have been provided by Vulcan's deadline to provide materials responsive to Texas Rule of Civil Procedure 194.2(f), and it was error for the judge to deny Friends' motion for a continuance made at the hearing on the merits seeking to review the documents as responsive to Vulcan's responsibility to provide documents encompassed by Texas Rule of Civil Procedure 194.2(f).

Even if the documents were only reviewed or created by Ms. Cummings in the fall of 2017, they still should have been produced in response to Friends' request for that material, as asserted by Friends' counsel in the Motion for Continuance to inspect the responsive documents made during the hearing.[129] To the extent that this was the circumstance, it was still error for the judge to deny Friends motion for continuance and request for inspection of documents on this alternative basis.

D. The limitations on discovery and cross-examination prejudiced Friends' Substantial Rights

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127 Admin. R. Item 271, Tr. V. 1, 182.

128 *In re Christus Spohn Hosp. Kleberg*, 222 S.W.3d 434, 438 (Tex. 2007).

129 Admin. R. Item 271, Tr. V. 1, 183, referencing request number 1 set forth at Admin. R. Item 111, p. 6 of Attachment A (Friends' Initial Interrogatories and Requests for Production to Vulcan).

This Court must reverse the Commission if its abuse of discretion under section 2001.174 prejudiced Friends' substantial rights.[130] In a TCEQ contested case hearing, each party has the right to conduct discovery according to the Texas Rules of Civil Procedure,[131] and has the right to, "conduct cross-examination required for a full and true disclosure of the facts."[132] While administrative proceedings are not held to the same standard as judicial proceedings, even so, in administrative proceedings, due process requires that parties be accorded a full and fair hearing on disputed fact issues, [133] and requires that the "rudiments of fair play" be observed.[134]

Given that the only means by which Friends could reasonably challenge the "representative" nature of the data provided to the TCEQ would have been by examining the underlying data and questioning Vulcan's witnesses regarding any discrepancies, the ALJs' decision to deny Friends' Motion to Compel substantially prejudiced Friends' rights of cross-examination and right to present evidence assured by the Texas Administrative Procedures Act.[135] Friends' substantial rights were also harmed by the nondisclosure of the requested information because an adequate evaluation of the geology at the site was necessary in order to evaluate whether the proposed emissions would be protective of human health and the environment. Vulcan asserts that the Friends could not have been harmed, because the sample Vulcan claimed to be representative of the crystalline silica content in the material to be mined was only 0.2%,[136] while the modeling

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130 Tex. Gov't Code § 2001.174(2).

131 30 TAC § 80.151(a).

132 Tex. Gov't Code § 2001.087.

133 *Office of Pub. Util. Counsel v. Pub. Util. Com'n*, 185 S.W. 3d 555, 574 (Tex. App. – Austin, 2006, pet. denied).

134 *Id. at 576.*

135 Tex. Gov't Code §§ 2001.087, 2001.051(2).

136 Admin. R. Item 152 (Vulcan's Closing Argument), at 41.

performed by Vulcan allegedly showed that the material could consist of 27% silica and still not exceed the effects screening levels set by the TCEQ.[137] However, samples from nearby quarries had crystalline percentages ranging from 2% to 49%.[138] Without access to the site-specific geologic data, Friends were not able to evaluate whether the geology at the site more closely resembled areas towards the low end of this range or geologic characteristics consistent with the high end of this range. The silica-concentration opinions presented by Vulcan lacked any documented, objective basis in foundational geological data. Vulcan's claim of a "representative" sample was simply too conclusory to constitute competent evidence. Friends' ability to present expert witness testimony raising questions as to the accuracy of Vulcan's data did not cure this problem. Without access to the underlying data, Friends was unable to present any testimony regarding the comparison of the underlying data to the sample publicly presented as "representative."

E. <u>Conclusion.</u>

A meaningful evaluation of the potential for the Facility to emit crystalline silica was essential to the protection of public health and compliance of the permit with the rules of the TCEQ. Vulcan's analysis of this issue depended entirely on its characterization of the crystalline silica content of the material to be quarried based upon a single allegedly "representative" sample of the material present at the 1500 acres site. The ALJ's denial of any discovery regarding Vulcan's geologic investigation upon which this number was based, and the ALJ's limitation on the conduct of cross-examination on this issue prejudiced Friends' substantial rights by impairing their ability to present evidence and their ability to conduct cross-examination.

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137 Admin. R. Item 152 (Vulcan's Closing Argument), at 41.

138 Admin. R. Item 251 (Ex. Friends 300, the direct testimony of Joe Collins), at 10-11.

Prayer

Administrative appeals are tough for the judiciary. They are time-intensive. The environmental ones, at least, are often full of jargon, often involve regulations drafted by engineers, and almost never involve an individual injury on the order of those arising from a car crash, a business failure or a retirement nest-egg's disappearance. Still, decisions about altering the natural environment have very broad sweep; they affect lots of people. And, those decisions are very largely made at the administrative agency level. If logic breaks down or the application of law to facts breaks down at the agency level, the consequences affect the particular litigants involved, of course, but the breakdowns also have ripple effects for many other litigants; "agency practice," which is rotely honored, gets slightly deformed.

In the case at hand, an air impacts evaluation tool, air dispersion modeling, was misapplied. An analysis of options to better control air emissions was forgone. And, the right to really probe conclusions on an important potential health risk was unreasonably restrained. These failures demand that the agency's final order in this case be vacated and the case, itself, returned to the agency for a more deliberate decision.

Respectfully Submitted,

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CERTIFICATE OF SERVICE

By my signature below, I certify that on August 17, 2020, copy of the foregoing document was served upon counsel listed in the Identity of Parties and Counsel.

/s/ David Frederick
David Frederick