

UNREPORTED
IN THE COURT OF SPECIAL APPEALS
OF MARYLAND

No. 1660

September Term, 2014

MARYLAND DEPARTMENT OF THE
ENVIRONMENT

v.

SHIPLEY'S CHOICE HOMEOWNERS'
ASSOCIATION, INC, ET AL.

Woodward,
Friedman,
Thieme, Raymond G., Jr.
(Retired, Specially Assigned),

JJ.

Opinion by Friedman, J.

Filed: March 4, 2016

*This is an unreported opinion, and it may not be cited in any paper, brief, motion, or other document filed in this Court or any other Maryland Court as either precedent within the rule of stare decisis or as persuasive authority. Md. Rule 1-104.

This case presents the question of whether the Maryland Department of the Environment (“MDE”) followed the proper procedures and applied the correct standards when it issued a permit to construct a human crematory within an existing commercial park. Some of the commercial park’s nearby residential neighbors, neighborhood associations, and neighboring businesses (collectively “Shipley’s Choice”) argue that, during the permitting process, MDE used incorrect modeling inputs and interpreted certain terms incorrectly, causing MDE’s decision to grant the permit to be arbitrary or capricious. The Circuit Court for Anne Arundel County agreed. Because we conclude that MDE’s grant of the permit was legally correct and completely reasonable in light of the facts in the record, we reverse the Circuit Court for Anne Arundel County and remand.

CASE HISTORY

Maryland Crematory, LLC (“Maryland Crematory”) submitted an application to MDE in February of 2011 for the installation of a human crematory in a commercial park located on Headquarters Drive in Millersville. MDE made the permit application available to the public, held a general informational meeting, and received written comments.

In late 2011, MDE advised Maryland Crematory that its application did not “sufficiently quantify toxic air pollutant emissions from the crematory,” and that it did not contain the required demonstration that the crematory emissions would not unreasonably danger public health. As a result, Maryland Crematory revised its application and submitted a revised Toxic Air Pollutant Analysis.

MDE reviewed the application and performed its own modeling for the Toxic Air Pollutant Analysis. Several months later, MDE issued a tentative determination that it would issue the permit and conducted a public hearing on September 6, 2012. At the public hearing and during the public comment period that followed, Shipley’s Choice objected to issuance of the permit comments principally focused on the level of potential mercury emissions. Despite these objections, MDE approved the construction of the crematory, and issued the construction permit.

Shipley’s Choice filed a Petition for Judicial Review. Following a hearing, the Circuit Court for Anne Arundel County entered an order remanding the issue back to MDE for clarification. Rather than comply with the circuit court’s order, MDE filed a timely appeal.

DISCUSSION

A. Background

Air pollutants are classified into different groups. Many are regulated by the federal Environmental Protection Agency (“EPA”) but that agency does not regulate every group of air pollutants – some are left to the states to regulate. The federal Clean Air Act regulates “criteria pollutants,” which includes sulfur dioxide, carbon monoxide, ozone, nitrogen dioxide, and lead, through air quality standards called “National Air Quality Standards” or “NAAQS.” *Washington Envtl. Council v. Bellon*, 732 F.3d 1131, 1136 (9th Cir. 2013). The Clean Air Act also regulates hazardous air pollutants, or “HAPS,” which are pollutants

listed in the United States Code. 42 U.S.C.A. § 7412(b) (some examples of HAPs include: asbestos, benzene, chlorine, methanol, and phenol). A third category of pollutants called toxic air pollutants, or “TAPS,” are not regulated by the Clean Air Act. *See* 42 U.S.C.A. § 7412(b) (listing the regulated HAPs, which do not include TAPs); COMAR 26.11.15.01B(4)-(5); 26.11.16.06; 26.11.16.07.

States are required to regulate crematories for TAP emissions because crematories are not considered solid waste combustion units and are, therefore, not regulated by the EPA for HAP emissions. Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Other Solid Waste Incineration Units; Final Rule, 70 Fed. Reg. 241, 74881 (Dec. 16, 2005) available at <https://perma.cc/H3ER-CC28> (link captured Aug. 31, 2015) (noting that the EPA has concluded that the human body should not be labeled or considered “solid waste” and therefore does not regulate human crematories as solid waste combustion units); 40 C.F.R. § 258.2 (defining solid waste). Because crematories are not regulated as solid waste combustion units, they are not regulated under the Clean Air Act as a HAP source. *See generally* 40 C.F.R. § 63 (noting HAP sources); United States Environmental Protection Agency “National Emission Standards for Hazardous Air Pollutants (NESHAP),” available at <https://perma.cc/CUP9-XLAZ> (link captured Feb. 5, 2016). As a result, it is up to the States to regulate the TAP emissions of crematories.

In Maryland, “any installation or source that discharges a ... TAP into the ambient air is subject to the requirements” of the Code of Maryland Regulation’s chapter on Toxic Air Pollutants. COMAR 26.11.15.03 ; *see also* Md. Ann. Code, Envir. (“EN”) art., §§2-301 – 2-303. One requirement is that the operator of the source of pollution must obtain a permit to construct and operate the source of pollution. COMAR 26.11.15.03. Obtaining a permit requires three mandatory steps before MDE will issue a permit. The operator must:

- (1) quantify the emissions (COMAR § 26.11.15.04A);
- (2) find, install, and use the “best available control technology” (COMAR § 26.11.15.05A); and
- (3) demonstrate that the proposed emissions, controlled by the best available control technology, will not unreasonably endanger human health (COMAR § 26.11.15.06A).

The third requirement involves multiple sub-steps and is the most complicated of the three steps. The operator must show that the “TAP emissions do not create ground level concentrations that would exceed benchmark concentrations.” MDE, Fact Sheet, “Maryland’s Toxic Air Pollutant (TAP) regulations,” available at <https://perma.cc/REM9-6TU8> (link captured Oct. 30, 2015) (hereinafter “TAP Regulations Fact Sheet”). To do so, each pollutant that a source emits is analyzed separately through a series of steps. COMAR 26.11.15.06; MDE, Fact Sheet, “An Example of Demonstrating Compliance with Ambient Impact Requirement (COMAR 26.11.15.06),” available at <https://perma.cc/SFV8-Y6GH> (link captured Oct. 30, 2015) (hereinafter “Demonstrating Compliance Fact Sheet”). If the

pollutant meets the requirements of a step, the analysis ends. If not, the pollutant must be analyzed using the next step. The steps are:

- 1) **Small-emitter exception.** COMAR 26.11.15.03B(3)(a)-(b), (4). If a source emits so little of a pollutant that it meets the small-emitter exception, the source has satisfied that it will not unreasonably endanger human health for that pollutant.

If a pollutant does not meet the small-emitter exception the analysis of that pollutant continues to step 2.

- 2) **Chart of allowable emissions.** COMAR 26.11.16.02. If the source emits a quantity of the pollutant at or below the amount on the chart of allowable emissions, then the source has satisfied that it will not unreasonably endanger human health for that pollutant.

If a pollutant does not meet the requirements using the chart, the analysis of that pollutant continues to step 3.

- 3) **TM 86-02** (it is suggested that this step be skipped to go straight to the screening model step);¹
- 4) **Modeling.** Use of an EPA-approved simple screening model or air dispersion model such as the SCREEN3.² COMAR 26.11.15.06; Demonstrating Compliance Fact Sheet; TAP Regulations Fact Sheet

¹ The MDE suggested that Maryland Crematory skip this step. It followed that recommendation and we do too.

² The SCREEN3 model is a pollution modeling program recommended by the EPA that may be used by applicants. TAP Regulations Fact Sheet at ¶ 8; MDE, Fact Sheet, “Demonstrating Compliance with the Ambient Impact Requirement under the Toxic Air Pollutant (TAP) Regulations (COMAR 26.11.15.06),” available at <https://perma.cc/7DXH-TYTU> (link captured Feb. 11, 2016) (noting that screening models do not require actual meteorological data and that the use of actual meteorological data will predict lower concentrations).

at ¶ 8. If the screening model or air dispersion model predicts that the source will emit pollution at or below the screening level, then the source has satisfied the requirement that it will not unreasonably endanger human health for that pollutant.

If the screening model or air dispersion model predicts that the source will emit a pollutant above the allowable screening level, the analysis of that pollutant continues to step 5.

5) **Refined Modeling.** Refined modeling using real weather data.³

Our analysis requires us to focus on step 4, *above*, which requires the use of an EPA-approved simple screening model or air dispersion model. At Step 4, a separate air dispersion model is run for each TAP, using an emissions factor, which is simply an estimate of emissions:

An emissions factor is a representative value that attempts to relate the quantity of a pollutant released to the atmosphere with an activity associated with the release of the pollutant. These factors are usually expressed as the weight of pollutant divided by a unit weight, volume, distance, or duration of the activity emitting the pollutant.

EPA, Technology Transfer Network Clearinghouse for Inventories & Emissions Factors, “Emissions Factors & AP 42, Compilation of Air Pollutant Emission Factors,” available at <https://perma.cc/9U6L-XRGZ> (link captured Aug. 19, 2015); *see also* EPA, “Emissions Inventory,” available at <https://perma.cc/U8WF-849M> (link captured Aug. 19, 2015) (“In

³ The analysis for this permit did not extend to this fifth step. We note this step only for completeness.

most cases, these factors are simply averages of all available data of acceptable quality, and are generally assumed to be representative of long-term averages for all facilities in the source category.”). Project specifics such as the smoke stack height, gas temperature, other physical properties, and generic weather information must also be inputted into the model. Demonstrating Compliance Fact Sheet. The model is then run to calculate either the 1-hour or 8-hour emissions for the TAP. *Id.* The result is compared to the screening level found in the COMAR charts to determine if it is above or below the allowable emissions rate. *Id.* “The allowable emission rate for a TAP is the rate that would not create an exceedance of the applicable screening level(s) or the TAP emission rate at the maximum operating capacity of the facility, whichever is lower.” TAP Regulations Fact Sheet ¶ 12. “If the facility has emissions that are equal to or less than the allowable emissions, the facility is not creating off-site concentrations greater than the screening level.” *Id.* at ¶ 12-13 (explaining that screening levels are set at 1/100th of the acceptable worker exposure level). The emissions model is run for each pollutant using the emission factor for each TAP pollutant.

The applicant only satisfies the requirements to obtain a permit to construct and operate a source of pollution when it shows that, for each TAP pollutant it will emit, the facility is not creating off-site concentrations greater than the screening level and will not unreasonably endanger human health. The finding that each pollutant will not unreasonably endanger human health completes the three-step application process whereby the applicant

to construct a source of pollution must: (1) quantify the emissions; (2) use the best available control technology for toxics; and (3) establish that the premises-wide emissions will not unreasonably endanger human health through use of either the small emitter exemption, the charts of allowable emissions, or the air dispersion models.

B. Issues Under Review

MDE issued the permit to Maryland Crematory. The Circuit Court for Anne Arundel County reversed and remanded, finding that MDE needed to redo its analysis to account for emissions levels at the rooftops of the commercial park rather than at ground level. Thus, this appeal consists of three assertions by MDE: (1) that MDE’s decision of which TAP emissions factors to use is supported by substantial evidence; (2) that MDE correctly interpreted the term “premises” to include the entire commercial park; and (3) that MDE correctly determined, based on the modeling used, that the proposed crematory would not “unreasonably endanger human health.”

C. Standard of Review

When reviewing the decision of an administrative agency, this court “looks through the circuit court’s [decision] ... and evaluates the decision of the agency.” *People’s Counsel for Baltimore Cnty. v. Surina*, 400 Md. 662, 681 (2007) (hereinafter *Surina*). Thus, in the present case, we consider whether MDE, not the circuit court, erred.

State agencies perform both quasi-judicial and quasi-legislative functions and the standard of review is different for each of those functions. Although there was no contested

case hearing, the grant of this permit by MDE was a quasi-judicial function because the decision was reached on individual grounds and scrutinized a single property. *Maryland Bd. of Pub. Works v. K. Hovnanian's Four Seasons at Kent Island, LLC*, 425 Md. 482, 515 (2012) (hereinafter *Hovnanian's*) (explaining that an agency acts in a quasi-judicial function when the decision is made on individual grounds and scrutinizes a single property and consists of a deliberative fact-finding process); EN § 1-601(b) (mandating that a contested case hearing may not occur for air quality control permits to construct). Even though non-contested cases do not fall under the Administrative Procedure Act, the scope of the review is essentially the same as if it did. *Bowen v. City of Annapolis*, 402 Md. 587, 611 (2007) (explaining that “the basis of judicial review of an administrative decision may be by explicit statutory authorization or by a common law or equity writ ... regardless of the basis ... the standard of review is the same.”). Therefore, the scope of review is a multi-faceted review based on whether the review is of questions of fact, questions of law, or ultimate conclusions:

Whether by statute ... or by common law, courts look for three things when reviewing a *quasi-judicial* decision: (1) were the findings of fact made by the agency supported by substantial evidence in the record made before the agency; (2) did the agency commit any substantial error of procedural or substantive law in the proceeding or in formulating its decision; and (3) did the agency act arbitrarily or capriciously in applying the law to the facts—in essence, whether a reasoning mind could reasonably reach the conclusion reached by the agency from the facts in the record. With respect to the

findings of fact, judicial review is highly deferential. With respect to determining legal error, it is much less so.

Hovnanian's, 425 Md. at 514 n.15 (internal citations omitted). This case requires us to apply all three standards of review and ask: (1) were the factual findings made by MDE supported by substantial evidence, (2) did MDE commit any errors of law; and, finally, (3) did MDE act arbitrarily or capriciously when making its ultimate decision. We will proceed in the same order.

D. Analysis of this Permit

1. Choice of Mercury Modeling Inputs—Questions of Fact

A human crematorium releases mercury into the air when dental fillings made from silver amalgam are burned. The parties disagree about which emissions factors MDE should have used to quantify these mercury emissions.

To review, these emissions factors are used as part of the screening or air dispersion modeling process for each individual pollutant. Demonstrating Compliance Fact Sheet; Step 4, *supra*. The emissions factor is inputted into the air dispersion model. *Id.* The results produced by the model must meet the screening level requirements. TAP Regulations Fact Sheet at ¶ 12.

In assessing Maryland Crematorium’s permit application, MDE used the EPA’s WebFIRE⁴ emissions factor. The WebFIRE emissions factor for mercury is 1.3 grams. When 1.3 grams was inputted into the air dispersion model for this crematorium, the result satisfied the screening level requirements. Shipley’s Choice argues, however, that MDE should have used a higher emissions factor published by the Bay Area Air Quality Management District (“BAAQMD”). The mercury emissions factor from BAAQMD is 5.9 grams. When inputted into the air dispersion model, 5.9 grams would have resulted in the emissions of mercury being too high and not in compliance with the screening level requirements. Thus, the choice of mercury emission factor was outcome-determinative.

1. *There is substantial evidence to support the use of the WebFIRE emissions factor*

Our review is limited to whether there was “substantial evidence” to support MDE’s decision to use the WebFIRE emissions factor. *Bayly Crossing, LLC v. Consumer Protection Div., Office of the Att’y Gen.*, 417 Md. 128, 138 (2010). Substantial evidence is evidence that a “reasonable mind might accept as adequate to support a conclusion.” *Surina*, 400 Md. at 681 (internal quotation omitted). Our review, of findings of fact, is

⁴ “WebFIRE is EPA’s online emissions factors repository, retrieval, and development tool.” EPA, Technology Transfer Network Clearinghouse for Inventories & Emissions Factors, “WebFIRE,” available at <http://perma.cc/2XZ6-VW74> (link captured Oct. 30, 2015).

highly deferential. *Hovnanian's*, 425 Md. at 514 n.15. At the agency level, the arguments were focused on whether or not MDE should adopt BAAQMD as a substitute for WebFIRE and less on the benefits of using WebFIRE. Nevertheless, after reviewing the agency's findings, we conclude that there was substantial evidence to support MDE's use of the WebFIRE emissions factors.

It is important to understand exactly what WebFIRE is and why the EPA created and maintains it. The EPA is responsible for ensuring state compliance with the Clean Air Act. 40 CFR §§ 60, 63. "In response to the [Clean Air Act], the EPA needed a method with which to characterize and quantify air pollutant emissions from processes and activities on a nationwide basis." EPA, "Recommended Procedures for Development of Emissions Factors and Use of the WebFIRE Database," § 3-1 (Aug. 2013), available at <https://perma.cc/6XJS-P88Q> (link captured Aug. 19, 2015) (hereinafter "WebFIRE Recommended Procedures"). After using one system, the AP-42, for several years, the EPA began upgrading its emissions factor information system to WebFIRE to improve access to and utility of the data. Thomas A. Driscoll & Beth Friedman, "Improving EPA's Emissions Factors Program," at 3-5 (Sept. 14, 2010) available at <https://perma.cc/4QDS-LHY6> (link captured Jan. 12, 2016) (hereinafter "Improving Emissions Factors Program").

WebFIRE is now the EPA's main database for emissions factors:

WebFIRE is the EPA's online emissions factors repository, retrieval and development tool. The WebFIRE database contains the EPA's emissions factors for criteria and hazardous

air pollutants (HAP) for industrial and non-industrial processes. In addition, WebFIRE contains the individual test data values, where available, and supporting documentation used to develop the factors and other data submitted to the EPA by federal, state, tribal and local agencies; consultants; and industries. For each emissions factor and individual test data value, WebFIRE contains descriptive information such as industry and source category type, control device information, the pollutants emitted and supporting documentation.

* * *

The data storage, retrieval and emissions factor development capabilities of WebFIRE are available online to all public and private entities. Examples of WebFIRE users include, but are not limited to:

- Federal, state, local or tribal air pollution control and regulatory agency personnel (example uses include: emissions inventory development, preparation of emissions estimates for dispersion modeling, comparison of a site-specific emissions factor to an EPA emissions factor for a given process).
- Environmental staff at industrial facilities (example uses include: emissions and process data submittal; comparison of process emissions to an EPA emissions factor or other related data).
- Environmental action groups (example uses include: for air emissions and air permit oversight).
- Engineering consultants, university researchers and international air agencies.

Periodically, the EPA will use the test data and development tools contained in WebFIRE to revise existing and derive new emissions factors as discussed in Section 11.0. The EPA also plans to use the test data submitted to WebFIRE to inform our air rule development efforts under the Clean Air Act.

* * *

The emissions factor repository, retrieval and development tools in WebFIRE allow the EPA to progress towards our goal of developing an interactive emissions factors program that will incorporate new data as they become available and produce high-quality emissions factors in a timely manner. We also believe that the benefits of online data access and electronic data submittal provided by WebFIRE will allow for easier, more effective involvement by the public interested in developing and improving emissions factors.

WebFIRE will also allow the EPA to shift the role of [the Office of Air Quality Planning and Standards] from that of sole developer of emissions factors to that of a facilitator. This shift will allow us to focus more resources on overseeing the emissions factor program, ensuring that more high-quality emissions factors are developed and developing policies for the appropriate use of emissions factors in non-inventory applications where policies are not currently available, or where existing policies are inadequate.

WebFIRE Recommended Procedures, § 6-1 – § 6-5. WebFIRE is now the standard database used by governments and industry for emissions factors.⁵

⁵ This background information regarding WebFIRE is not part of the agency record but it is “capable of accurate and ready determination by resort to sources whose accuracy cannot reasonably be questioned,” and, therefore, we are entitled to and do take judicial notice of it. Md. Rule 5-201(b).

Beyond this, the record contains several facts supporting MDE's selection of the WebFIRE database and the emissions factors contained therein:

- MDE recommends that permit applicants use WebFIRE. The record reflects that Maryland Crematory used the EPA WebFIRE data at the specific direction of Nolan Penny, the Air Toxics Section Head of the Air Quality Permits Program of the Air and Radiation Management Administration of MDE. Penny wrote to Maryland Crematory that the “EPA maintains sets of emission factors for virtually every type of source of pollution ... AP-42 and the [Web]FIRE database being the most common.”
- The record of the public hearing also contains a report published by CANA, the Cremation Association of North America, which emphasizes the reliability of emissions data supplied by the EPA and the steps taken by the EPA to regulate crematories and mercury emissions. CANA reports that “[u]nder the Clean Air Act, the [EPA] reviewed and updated national air-quality standards for all types of possible pollutant sources, including crematories. This review considered all possible pollutants including [particulate matter] and mercury. As a result, crematories were not considered for any further federal regulation.” CANA, “The CANA Perspective on Particulate Emissions and Mercury: An In-Depth Look at a Global Controversy.” In the report, CANA goes on to discuss studies of crematories performed in the United Kingdom. The results of those studies “confirms that the [mercury] emissions information located in the [EPA] National Emissions database[, *i.e.*, WebFIRE] is accurate for determining the [mercury] impact of cremations; and based on significant and unbiased testing, [mercury] emissions from crematories are not deemed sufficient to be regulated.”
- Ironically, the BAAQMD handbook, championed by Shipley's Choice, also uses WebFIRE for most of its emissions factors. This confirms, as MDE asserts, that WebFIRE is the industry standard.
- Finally, Shipley's Choice commissioned its own report, which was produced by URS Corp. URS noted that although 1.3 grams of Mercury was the emissions factor used by Maryland Crematory and MDE, that “[t]here is growing support for using a 3 grams emission rate.” At the time, however, Shipley's Choice's report noted that the 3 gram emissions rate had still not

been officially adopted. Thus Shipley's Choice's own report supports the idea that the scientific consensus was in favor of WebFIRE's 1.3 gram emissions factor for mercury.

In conclusion, there is substantial evidence to support the use of the WebFIRE emissions factor for mercury. WebFIRE was created by the EPA to provide a nationwide standard repository for emissions factors. It is the industry standard. In fact, it would have been extraordinary for MDE to reject the use of WebFIRE, especially when it is the source of emissions factors that MDE itself recommends. The CANA report confirms that the EPA data for crematory emissions is accurate and used throughout the industry. Shipley's Choice's report confirms that the scientific consensus remained in favor of the 1.3 grams recommended by WebFIRE (although, to be fair, the report urged adoption of a new, higher standard). That concludes the matter.⁶

⁶ Shipley's Choice contends that MDE should have used a 5.9 gram emissions factor from the BAAQMD Mercury Office Memorandum instead. Our review, however, doesn't concern whether there is another, arguably better, emissions factor. Rather, our review is concerned only with whether there was substantial evidence to support the choice made. Despite this, Shipley's Choice still urges that the BAAQMD emissions factor is a better measure. We reject this contention too.

MDE reviewed the BAAQMD mercury emission factor and determined that it was too extreme. MDE found that the BAAQMD mercury data used multiple worst case scenarios, which resulted in an "artificially high level" of mercury. BAAQMD used a consistent 95th percentile approach "whereby it is assumed each individual has [dental] fillings at the 95% maximum amount of the population norm, that each filling is of the 95% maximum size, that each filling contains 95% of the maximum mercury content, etc." Also, MDE noted that the EPA had not accepted the BAAQMD emission factors (continued...)

2. Shipley's Choice's Counter Arguments: Dioxins and Furans

While MDE used WebFIRE for mercury emissions factors, it used another source for emissions factors for dioxin and furans. Shipley's Choice now argues that MDE's decision to use other emissions factors for dioxin and furans somehow undermines MDE's decision to use the WebFIRE emissions factor for mercury. Analytically, of course, this argument is irrelevant. Whether MDE used a different emissions factor source for dioxins and furan is simply not relevant to whether there is substantial evidence to support the use of the WebFIRE emissions factor for mercury. Nevertheless, for the sake of completeness, we explain and reject Shipley's Choice's theory.

MDE used the dioxin and furan emission factors from the 1997 WHO Toxic Equivalency Factors (TEFs). MDE used these because MDE found that the analysis submitted by Maryland Crematory "lacked substantiation" for its dioxin and furan analysis. MDE regulations require that all dioxin and furan emission factors be "considered together as one TAP and expressed as an equivalent emission of 2,3,7,8-tetrachlorodibenzo-p-dioxin based upon relative potency of the isomers." COMAR 26.11.15.04D(3). Maryland Crematory used toxic equivalency factors from the Code of Federal Regulations, 40 CFR § 60, Subpart Ec, Standards of Performance for Hospital/Medical/Infections Waste

nor incorporated the BAAQMD mercury emission factor into its own mercury emission factors. Thus, even if it was legally relevant, MDE was well within its rights to reject the BAAQMD mercury emissions factor.

Incinerators but did not perform the calculations in the manner required by COMAR. Although WebFIRE does contain emissions factors for dioxin and furans, MDE determined that the WHO Toxic Equivalency Factors were better suited to satisfy the COMAR requirements. We hold that this explanation makes sense (to the extent that we, non-scientists understand it) and it disproves Shipley's Choice's complaint that MDE was "picking and choosing" emissions factors that were convenient for Maryland Crematory. Rather, MDE specifically used the WHO Toxic Equivalency Factors because of the manner in which COMAR requires dioxin and furan calculations to be performed. Thus, there is nothing about the manner in which dioxin and furan emissions factors were used that undermines MDE's decision to use WebFIRE to supply mercury emissions factors.

Therefore, we conclude that it was reasonable for MDE to use the EPA WebFIRE emission factor for mercury. The record supports that the WebFIRE data is universally regarded as credible and reliable. While Shipley's Choice would have preferred that MDE use the BAAQMD data for mercury (and only because it would result in a rejection of the permit application), the decision to use the EPA WebFIRE emissions factor was reasonable and more than adequately supported by the record.⁷

⁷ Additionally, Shipley's Choice complains that MDE rejected the BAAQMD data simply because it was submitted after MDE's tentative approval of the permit. Shipley's Choice, however, misreads MDE's statement about the timing. MDE did note that it received the BAAQMD Mercury Office Memorandum after it issued (continued...)

2. Modeling Parameters—“Premises”

Regulations promulgated by MDE require that emissions from new installations must be “quantified in sufficient detail to determine whether the *premises* complies with the requirements of [the State’s Air Quality Regulations].” COMAR 26.11.15.04A(2) (emphasis added). Moreover, the regulations provide that “‘Premises’ means all the installations or other sources that are located on contiguous or adjacent properties and that are under the control of one person or under common control of a group of persons.” COMAR 26.11.01.01B(36). Despite that it is a defined term, the parties still disagree on the meaning of the word “premises” at least as it is applied to Maryland Crematory’s application. MDE interprets the word “premises” to encompass the entirety of the commercial park and, as a result, it required the applicant to quantify the emissions at the boundary of the commercial park. By contrast, Shipley’s Choice advocates an interpretation under which the “premises” is just the suite within which Maryland Crematory will be located, Suite 10 within the commercial park. The result of that proposed definition would require a completely different modeling of the emissions, this time to the edge of the suite.

the tentative determination, and because of that timing, MDE could not consider the BAAQMD data before it made its *tentative determination*. The record demonstrates conclusively, however, that before issuing the *final* permit, MDE reviewed and specifically chose not to rely on the BAAQMD data. Thus, the decision was not an arbitrary one, based on an accident of timing, but a substantive decision, based on MDE’s scientific judgment.

This is a legal question, which we review *de novo*. “When an agency makes ‘conclusions of law’ in a contested case, the court, on judicial review, decides the correctness of the agency’s conclusions and may substitute the court’s judgment for that of the agency’s.” *Spencer v. Maryland State Bd. of Pharmacy*, 380 Md. 515, 531 (2004). Although we are not completely deferential to MDE, our review does recognize that “‘a degree of deference should often be accorded the position of the administrative agency’ whose task it is to interpret the ordinances and regulations [that] the agency itself promulgated.” *Surina*, 400 Md. at 682 (quoting *Marzullo v. Kahl*, 366 Md. 158, 172 (2001)). Ultimately, we conclude that MDE’s interpretation was legally correct.

In the application process, MDE explained the definition of “premises” that it uses and how it would apply here:

Maryland Cremation is a tenant in the Headquarter Commercial Center []. The commercial park itself meets the definition of premises; therefore the emissions coming from the premises, *i.e.* the commercial park, are the emissions that must not unreasonably endanger public health. The Department’s air toxics regulations do not apply within the premises itself.

Moreover, there was no evidence in the record to suggest that MDE had ever applied—in connection with this application or any other—a different definition of premises. Thus, under MDE’s consistent interpretation of its own regulations, the commercial park was the “premises” and it was the emissions beyond the boundary of the commercial park that had to be measured to ensure that they did not unreasonably endanger public health.

Shipley's Choice rejects MDE's definition of premises and offers three arguments in support of its definition of "premises" as being limited to just the suite itself: (1) a textual argument based on the COMAR definition of premises itself; (2) an argument relying on the definition of ambient air provided in federal law; and (3) argument based on the language of Maryland Crematorium's application. We address each in turn.

First, Shipley's Choice's argues that the COMAR definition of "premises" references an area "under the control of one person or under common control of a group of persons." COMAR 26.11.15.01B(12). From this, Shipley's Choice argues that Suite 10 within the commercial park is the only part of the commercial park that will be under the direct control of Maryland Crematory and, therefore, it must be the entire "premises." By contrast, MDE argues that the entire commercial park is under the control of its landlord and, as a result, the term premises includes the whole commercial park.

We think that MDE is correct. Although the question of who controls is not dispositive, there are other textual clues. COMAR uses the term "premises" as synonymous with a "property line." COMAR 26.11.15.03B(4) ("If the total allowable emissions of a class II TAP *from a premises* will not create an 8-hour concentration of the TAP in the atmosphere that exceeds 0.02 micrograms/cubic meter *beyond the property line*, then emissions of that TAP from the premises are exempt from the requirements of Regulation .06 of this chapter") (emphasis added). *Compare, e.g.*, COMAR 26.11.06.08 ("An installation or *premises* may not be operated or maintained in such a manner that a nuisance

or air pollution is created) (emphasis added) *with* COMAR 26.11.06.09 (“A person may not cause or permit the discharge into the atmosphere of gases, vapors, or odors *beyond the property line* in such a manner that a nuisance or air pollution is created”) (emphasis added). Moreover, we are persuaded by MDE’s argument that it selected the screening levels that it has adopted, COMAR 26.11.16.06 and .07, based on, and implicitly reflecting, the definition of premises that it is using. COMAR 26.11.16.03 (spelling out the procedures to calculate screening levels; the Threshold Limit Values are divided by a safety factor of 100 for both the 1-hour and 8-hour screening levels.). According to MDE, it set the screening levels protectively on the assumption that there could be several sources within a single “premises.” TAP Regulations Fact Sheet ¶ 15 (Stating that: “The 1/100th factor was chosen to provide for the existence of multiple sources in an area and to protect segments of the population that may be more sensitive to a pollutant (e.g., small children).”). Using Shipley’s Choice’s proposed definition of “premises” would render COMAR’s screening levels more restrictive than MDE intended. COMAR § 26.11.15.03A (requiring sources that discharge TAPs into the ambient air to fulfill the permit requirements).

Second, Shipley’s Choice argues that federal law requires the estimation of air pollution as it is predicted to occur in the “ambient air,” a term which is defined to mean “that portion of the atmosphere external to buildings, to which the general public has access.” EPA Office of Air Quality Planning & Standards, “Interpretation of ‘Ambient Air’

in Situations Involving Leased Land Under the Regulations for Prevention of Significant Deterioration (PSD).” Shipley’s Choice argues that our interpretation of “premises” should be informed by the federal definition of ambient air, such that emission levels should be estimated in any place where the public may go, including throughout the commercial park and on the roofs of the buildings. Conversely, Shipley’s Choice argues, only where Maryland Crematorium has the power to exclude the general public, within Suite 10, should be considered the “premises.” Put another way, Shipley’s Choice believes the world is divided into exactly two exclusive provinces, the “premises” and the “ambient air” and everything that is not in one, is by definition in the other.

While we appreciate Shipley’s Choice’s analysis, we do not feel that MDE or this Court’s analysis is bound by it. Maryland air toxics regulations are not incorporated into the Maryland State Implementation Program (SIP), which means that those regulations are not subject to federal approval nor do federal regulations govern or control these state regulations. *See Mirant Potomac River, LLC v. U.S. E.P.A.*, 577 F.3d 223, 227-28 (4th Cir. 2009) (explaining that the Clean Air Act, through 42 U.S.C. § 7416, requires states to propose and implement State Implementation Programs). Moreover, there is nothing about the word “premises,” as used in COMAR, that requires, explicitly or implicitly, that it

reflect the federal definition of “ambient air.” It is quite possible and, in fact, occurred here that there exists ambient air within a premises.⁸

Third, Shipley’s Choice points to Maryland Crematory’s application for an “Air Construction/Operation Permit” as proof that the suite alone comprises the premises. On the application, Maryland Crematory completed the form as follows:

1. Owner of Installation or Company Name <i>Maryland Crematory, LLC</i>	Date of Application <i>2/17/11</i>	
Mailing Address <i>PO Box 1413</i>	Telephone <i>410-960-7225</i>	
City <i>Baltimore</i>	State <i>MD</i>	Zip Code <i>21203</i>
2A. Premises Name if Different from Above		
2B. Incinerator Location if Different from Above (give Street Address, City, County and Zip Code): <i>408 Headquarters Dr. Ste. 10</i>		

⁸ Shipley’s Choice complains that MDE contradicted itself by specifically stating during the application process that the federal definition of “ambient air” is not applicable to Maryland air toxics regulations and then using the federal definition of “ambient air” in its appellate brief. MDE did not contradict itself. MDE noted the federal definition of “ambient air” in its appellate brief only to emphasize that “ambient air” is air external to buildings to which the general public has access. MDE did so only to distinguish “ambient air” from air inside of buildings.

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ShIPLEY'S CHOICE argues that leaving 2A blank indicates that Maryland Crematory believes that the premises is only the suite within the commercial park. We, however, are not convinced that Maryland Crematory's decision to not fill in a blank on the application is conclusive evidence of how MDE should interpret the word "premises." In fact, on balance we think this fact cuts the other way: the fact that MDE asks question 2A at all implies that a suite is not considered the "premises."

In conclusion, we are persuaded that MDE correctly determined that the COMAR definition of "premises," including the references to under the control of one person or under common control of a group of persons, require the conclusion that the entire commercial park constitutes the "premises."

3. Application of Law to the Facts

Finally, the third layer of analysis requires us to determine whether MDE's ultimate decision to grant the permit was arbitrary or capricious. *Harvey v. Marshall*, 389 Md. 243, 296 (2005) (explaining that an even if an agency engages in proper fact-finding and applies the appropriate law, its decision may be reviewed to determine if it was arbitrary or capricious). "Arbitrary or capricious" is best understood as a reasonableness standard, and so as long as the administrative decision is reasonable or rationally motivated it will not be struck down as arbitrary or capricious. *Harvey*, 389 Md. at 297. Some examples of decisions that are arbitrary or capricious include if the agency acts in a way contrary to or

inconsistent with an enabling statute's language or policy goals, if an agency acts irrationally inconsistent with previous agency decisions, or if the agency treats similarly situated individuals differently without a rational basis for the deviation. *Harvey*, 389 Md. at 303-04; *Montgomery Cnty. v. Anastasi*, 77 Md. App. 126, 138-39 (1988). Arbitrary and capricious review must be performed on a case-by-case basis, as the outcome necessarily depends upon the specific facts of each case. *Travers v. Baltimore Police Dept.*, 115 Md. App. 395, 420 (1997) (explaining that great deference must be accorded to the agency); Arnold Rochvarg, Principles and Practice of Maryland Administrative Law 255 (2011) (explaining that arbitrary or capricious review “applies not only to the agency’s findings of fact, but also applies to *all components* of the agency decision.”).

MDE argues that its ultimate decision, that the permit should be granted because it satisfies all requirements, is valid and neither arbitrary nor capricious. MDE argues that it used the correct emissions factors, inputted them into the correct models with the correct parameters, and based on the positive results, issued the permit. Shipley’s Choice, on the other hand, claims that MDE was selective and inconsistent in its choice of inputs and, therefore, the ultimate decision to grant the permit was arbitrary and capricious.

Ultimately, MDE’s decision to grant the permit was reasonable because the modeling that the applicant performed showed that, at any distance, using a worst-case emissions scenario, the emissions from the crematory will not unreasonably endanger human health. In response to comments concerning adverse health effects, MDE wrote:

As part of the application review process the Department conducted an ambient impact analysis for each TAP. The analysis was based on projected worst-case hourly emissions of each TAP. The worst-case impact (i.e., highest concentration) of each TAP in the ambient air was projected using an EPA approved Screen-3 model. In each case the model projected that the highest concentration in the ambient air beyond the company's property line will be at a level *well below the screening level* (i.e., acceptable ambient level) for the TAP.

(emphasis added). MDE demonstrated that no matter from where the emissions were modeled (distance from the stack) the emissions never exceeded the allowable rates. The question is whether a reasoning mind reasonably could have concluded that emissions from Maryland Crematory would not unreasonably endanger human health. We believe that is so. In addition, MDE's legal interpretation of "premises" in this case is in line with MDE's literature and previous decisions. Demonstrating Compliance Fact Sheet (repeatedly referencing "premise-wide emissions" of a pollutant and describing the screening modeling as predicting "ground level concentrations"); TAP Regulations Factsheet (stating that MDE is looking for the "off-site impact of the premises-wide emissions" and that "ground level concentrations are calculated.") As a result, we hold that MDE's decision to issue the permit was not arbitrary or capricious.

In conclusion, we are persuaded that MDE's fact-finding is supported by substantial evidence, that MDE correctly stated the law, and, ultimately, that MDE correctly applied the law to the facts correctly resulting in a decision that is neither arbitrary nor capricious.

We, therefore, reverse the circuit court's decision and remand with instructions for the circuit court to enter an order affirming MDE's issuance of the permit.

**JUDGMENT OF THE CIRCUIT COURT
FOR ANNE ARUNDEL COUNTY
REVERSED AND REMANDED WITH
INSTRUCTIONS FOR THE CIRCUIT
COURT TO ENTER AN ORDER
AFFIRMING THE ISSUANCE OF THE
PERMIT. COSTS TO BE PAID BY
APPELLEE.**