

BEFORE THE ENVIRONMENTAL REVIEW APPEALS COMMISSION

STATE OF OHIO

SHELLY MATERIALS, INC.,	:	Case No. ERAC 645916
	:	
Appellant,	:	
	:	
v.	:	
	:	
	:	
JOSEPH KONCELIK, DIRECTOR	:	
OF ENVIRONMENTAL PROTECTION,	:	
	:	
Appellee	:	

DECISION

Rendered on January 25, 2012

April Bott, Esq., and Sarah Herbert, Esq., for Appellant Shelly Materials Inc.

Mike DeWine, Attorney General, Nicole M. Candelora-Norman, Esq., and Gary Pashelich, Esq., for Appellee Director of Environmental Protection

ESCHLEMAN, COMMISSIONER

This matter comes before the Environmental Review Appeals Commission (“ERAC,” “Commission”) upon the June 28, 2006 Notice of Appeal filed by Appellant Shelly Materials, Inc. (“Shelly”). The action underlying the instant appeal is the Director of Ohio Environmental Protection Agency’s (“OEPA,” “Ohio EPA,” “Agency,” “Director”) June 1, 2006 issuance of a synthetic minor permit to install (“2006 PTI”) for a hot mix asphalt (“HMA”) plant, known as Plant No. 77 (“Plant 77”). A de novo hearing in this matter was held before the Commission from March 17-19, 2009.

Based upon a review of the evidence admitted at the de novo hearing¹ and applicable laws and regulations, the Commission makes the following Findings of Fact, Conclusions of Law, and Final Order.

FINDINGS OF FACT

OVERVIEW

{¶1} The primary purpose of the federal Clean Air Act (“CAA”) is “to protect and enhance the quality of the Nation’s air resources so as to promote the public health and welfare and the productive capacity of its population.” 42 U.S.C. §7401(B)(1). To achieve these goals, the CAA establishes a comprehensive framework for the protection of air quality standards and provides specific responsibilities for federal and state governments. The United States Environmental Protection Agency (“US EPA”) implements the federal component and is responsible, inter alia, for defining pollutants to be regulated and establishing uniform technology-based standards for significant new and modified emissions sources. State and local governments are given “primary responsibility” to regulate “air pollution control at its source.” CAA Section 101.

{¶2} The CAA requires states to develop State Implementation Plans (“SIP”) that provide for the implementation, maintenance, and enforcement of National Ambient Air Quality Standards (“NAAQS”), which are nationally uniform maximum “safe” concentrations of “criteria”² pollutants. US EPA has established

¹ No party moved the Certified Record (“CR”) into evidence and no stipulations regarding the CR were offered by the parties. Accordingly, Commission’s decision is based on evidence admitted at the hearing.

² “Criteria” pollutants are pollutants that, in the judgment of the US EPA Administrator, “cause or contribute to air pollution which may reasonably be anticipated to endanger public

NAAQS for six criteria pollutants: particulate matter (PM), sulfur dioxide (SO₂), nitrogen oxides (NO_x), carbon monoxide (CO), ozone (O₃), and lead. (Pb). See, 40. C.F.R. 50.

{¶3} The Ohio Air Pollution Control Act, Ohio Revised Code (“R.C.”) Chapter 3704, is a comprehensive program designed to meet requirements of the CAA. Rules promulgated pursuant to R.C. Chapter 3704 prescribe allowable emissions for specified sources or categories of sources of air emissions. A permit to install (“PTI”) is required before installation of a new source or modification of an existing source of emissions.

{¶4} Ohio EPA issues three types of PTIs: (1) federally enforceable major source permits, (2) federally enforceable synthetic minor permits, and (3) minor source permits. As required by US EPA, sources designated as “synthetic minor” accept certain federally enforceable permit terms and conditions that limit its potential to emit (“PTE”) regulated pollutants to below major source thresholds. US EPA issues guidance documents that explain how federally enforceable permit terms and conditions should be drafted. Testimony Hopkins.

{¶5} Ohio EPA uses two approaches to establish federally enforceable emissions limits. Using case-by-case permitting, Ohio EPA develops site-specific terms and conditions to restrict PTE below federal major source thresholds. For specific categories of emissions sources, Ohio EPA also develops Model General Permits (“General Permits”) that expedite issuance of frequently requested permits. Ohio EPA develops General Permits by calculating pollutant

health or welfare,” and “the presence of which in the ambient air results from numerous or diverse mobile or stationary sources.” 42 U.S. 7408.

emissions and performing rule analysis to establish qualifying criteria appropriate for each category of emissions sources. Once terms and conditions are developed, the proposed General Permit is published, open to public comment, and finalized. Thereafter, a permittee may submit an application to Ohio EPA requesting a General Permit. If the qualifying criteria are met, Ohio EPA issues a PTI identical to the General Permit on an expedited timeframe. Testimony Hodanbosi, Hopkins.

SHELLY FACILITIES AND OPERATION

{¶16} Shelly is an Ohio-based business with offices in Thornville, Ohio. Testimony Mowrey.

{¶17} Shelly's operations include HMA and concrete ready mix plants, quarry operations, and paving and road construction. Testimony Mowrey.

{¶18} Shelly and its subsidiaries operate approximately 50 stationary and portable HMA plants in Ohio. Portable HMA plants move to different locations to support asphalt paving projects for Shelly's customers. Testimony Mowrey.

{¶19} Shelly's HMA plants manufacture asphalt via the following process: (1) different size limestone, slag³ and/or recycled asphalt pavement ("RAP")⁴ (collectively "aggregate") are taken from on-site storage piles and placed into a

³ Slag, a by-product of the metals industry, is created when material floating on top of the liquid molten metal is poured off and cooled. Slag contains sulfur-bearing compounds that vary depending upon the facility from which it came. Testimony Hopkins.

⁴ RAP is the spoil from asphalt milling reintroduced as a constituent in manufacturing new asphalt. During the reclamation process, old asphalt pavement is removed from a road base, crushed and screened to the appropriate size, and mixed with other aggregates to produce asphalt that meets contract specifications. The term RAP was used by a number of witnesses as Recycled Asphalt Product, Reclaimed Asphalt Pavement, or Recycled Asphalt Pavement. All terms refer to the same product. Testimony Mowrey.

mixing drum; (2) the drum dries the aggregate using a liquid fuel combustion burner (“burner”); (3) when dry, the aggregate is mixed with a liquid asphalt product that binds the aggregate together; and (4) final asphalt product is conveyed into an adjoining silo and subsequently delivered to a construction site.

Testimony Mowrey.

{¶10} Shelly, through its subsidiary Allied Corp., owns and operates Plant 77, located at 4900 W. 150th Street, Cleveland, Ohio.⁵ Plant 77 includes a portable 300 tons per hour (“TPH”) maximum capacity HMA plant and associated roadways and storage piles. Built after 1974, Plant 77 is a new source for purposes of compliance under the CAA. Testimony Hopkins.

{¶11} Plant 77’s HMA plant burns predominately natural gas, No. 2 fuel oil, and on-spec used oil. Air emissions from Plant 77 include certain NAAQS criteria pollutants, such as VOC, SO₂, NO_x, CO, and PM. Air emissions are generated by the burner as it combusts liquid fuel and from on-site roads and storage piles. Testimony Mowrey.

{¶12} Plant 77 first obtained a PTI, No. 13-2832, from Ohio EPA on November 17, 1994 (“1994 PTI”). Shelly Exhibit S; Testimony Mowrey.

{¶13} In 2002, Ohio EPA issued PTI No. 13-03946 for Plant 77 (“2002 PTI”). Ohio EPA described the 2002 PTI as a “CH 31 modification of hot mix asphalt plant to include the use of alternative fuels P901.” Shelly Exhibit S.

⁵ Shelly acquired Plant 77 on July 27, 2003. Prior to Shelly’s purchase, Plant 77 was named Cuyahoga Road Products Plant and operated as Plant 2. Shelly Ex. S.

{¶14} Pursuant to Ohio's air permitting program, Plant 77 has been designated as a synthetic minor source since 1994. Testimony Mowrey.

2004 PTI APPLICATION

{¶15} On December 17, 2004, Shelly submitted to Ohio EPA a PTI Application for Plant 77 ("2004 Application"). The 2004 Application was prepared by Beth Mowrey, Manager of Environmental Permitting and Compliance for the Shelly Company. Shelly Exhibit S; Testimony Mowrey.

{¶16} The 2004 Application focused on revising emissions rates based on stack testing completed in August 2004 and also requested authorization to burn No. 4 and No. 6 fuel oils at Plant 77.⁶ The December 17, 2004 cover letter accompanying the 2004 Application described the reason for the submission, in relevant part, as follows:

In August of 2004, stack testing was conducted for emissions unit P901. Using the site-specific emissions information obtained during the stack testing, Shelly is requesting a PTI modification to accurately reflect the emissions rates associated with emissions unit P901. In conjunction with modifying the emissions limits to reflect stack tested levels, Shelly is also requesting to obtain approval of the use of alternative fuels (No. 4 fuel oil and No. 6 fuel oil) in addition to the fuels already permitted (natural gas, No. 2 fuel oil and on-spec used oil). *Please note there have not been and will not be any physical modification to the equipment of emissions unit P901 as a result of this submittal. * * **

*The stack test information has been used to re-evaluate and apply for increased emissions to carbon monoxide (CO), nitrogen oxide (NOx) and volatile organic compounds (VOC). Sulfur dioxide emissions have been re-evaluated based on a mass balance method of calculating emissions and in consideration of Shelly's request to use alternative fuels, i.e., based on worst-case sulfur content of the alternative fuels (1% Sulfur Content). * * * Overall,*

⁶ No. 4 and No. 6 fuel oils have higher sulfur content than No. 2 fuel oil. Testimony Hopkins.

Shelly believes the emissions limits requested in this submittal accurately reflect the plant operations for Allied Corporation Plant #77. CR Item 26; Shelly Exhibit S. Emphasis added.

{¶17} The 2004 Application encompassed three emission units and, among other items, included a pre-printed Ohio EPA form “Permit to Install Application,” an “Emissions Activity Category” (“EAC”) form, an “Emission Analysis” for each emissions unit, and a “Request for Federally Enforceable Emissions Limits.” Shelly Exhibit S.

{¶18} Emissions unit F001 was identified as “1 mile of paved roadway and 1 mile of unpaved roadway to be used by front-end loaders and haul trucks.” For paved roadways, the EAC indicated the “surface composition” was “asphalt and concrete” and the “control method” was “watering and good housekeeping.” The “application or usage frequency” was “as necessary” and foreign materials deposited on public roadways would be removed by “flushing with water” and “manual removal with broom and bucket.” Shelly Exhibit S.

{¶19} For unpaved roadways, the EAC indicated the “surface composition” was “gravel and dirt” and the “control method” was “watering.” “Combined controls” for unpaved roadways were stated as “speed limits (5 MPH), prompt spill clean up, watering if necessary.” Shelly Exhibit S.

{¶20} Emissions unit F002 was identified as “portable storage piles associated with Allied Corporation Plant #77” (“storage piles”). The “type of material stored” was stated as “aggregates.” Shelly Exhibit S.

{¶21} The third emission unit, P901, was identified as a “portable hot mix asphalt plant” (“HMA plant”) and “equipment that is part of the air containment

source” was stated as “(1) 300 TPH Counterflow Drum Plant; (5) cold feed storage bins; (1) bucket elevator; (4) HMA storage silos; (8) belt conveyors; (1) scalping screen.” Shelly Exhibit S.

{¶22} The HMA plant’s actual production rate was projected as 250 TPH and the annual production rate was projected as 500,000 TPY [tons per year] based on a maximum operating schedule of 12 hours per day, 300 days per year. Shelly Exhibit S.

{¶23} The PTI Application Section II (4) requested information regarding the type and amount of pollutants emitted from the HMA plant and provides in relevant part:

Pollutant	Emissions Before Controls (max) (lb/hr)	Actual Emissions (lb/hr)	Actual Emissions (ton/yr)	Requested Allowable (lb/yr)	Requested Allowable (ton/yr)
Particulate emissions (PE) * * *	NA	10.31	8.59	10.31	8.59
PM10	N/A	10.31	8.59	10.31	8.59
Sulfur Dioxide (SO ₂)	29.12	29.21	24.27	29.12	24.27
Nitrogen Oxides (NO _x)	26.77	26.77	22.31	26.77	22.31
Carbon Monoxide (CO)	105.94	105.94	88.28	105.94	88.28
Organic Compounds (OC)	41.36	41.36	34.47	41.36	34.47
Volatile Organic Compounds (VOC)	41.36	41.36	34.47	41.36	34.47
Total HAPs					
Highest Single HAP: Heptane	2.82	2.82	2.35	2.82	2.35
Air Toxics * * *	2.82	2.82	2.35	2.82	2.35

Shelly Exhibit S.

{¶24} The PTI Application Section II (8) required Shelly to provide information for “federally enforceable limits.” In particular, Shelly requested federally enforceable limits to avoid being a “major source” as specified in Ohio Administrative Code (“Ohio Adm.Code”) 3745-77-01(W). As a result, Shelly was required to include a facility-wide PTE analysis for each pollutant and a synthetic minor strategy. Shelly Exhibit S; Testimony Harter.

{¶25} The HMA plant EAC identified the type of aggregate used by checking the boxes for “limestone,” “sand,” “slag,” “gravel,” and “other.” “Other” was described as “Reclaimed Asphalt Pavements (RAP).” On behalf of Shelly, Ms. Mowery testified that the same types of aggregates have been used throughout the history of Plant 77 and nothing had changed in 2004 with respect to use of raw materials. Shelly Exhibit S; Testimony Mowrey.

{¶26} The HMA plant EAC also listed the percent of raw materials contained in each type of asphalt manufactured. Relevant to the issues herein, the HMA plant EAC stated that raw material feed mix would contain 50% RAP, 0-10% slag, and 0-15% shingles. Shelly Exhibit S; Testimony Mowrey.

{¶27} The HMA plant EAC identified the type of fuel burned by checking the boxes for “oil,” “natural gas,” “No. 2 oil,” “No. 4 oil,” “No. 6 oil,” and “used oil.” The sulfur content of each fuel was identified as follows: 0.5% for No. 2 fuel oil, 1.0% for No. 6 fuel oil, 1.0% for No. 4 fuel oil, and, .50% for used oil.⁷ Shelly Exhibit S.

⁷ The HMA plant emissions analysis identified the percent sulfur of No. 4 fuel oil as 0.8% and No. 6 fuel oil as 1.0%. Shelly Exhibit S.

{¶28} The baghouse stack is listed as the only emissions egress point, and no fugitive egress points were identified for the HMA plant. Shelly Exhibit S.

{¶29} The HMA plant emissions analysis “document[ed] the evaluation of air emissions associated with the operation * * * while using alternative fuels and in conjunction with recent stack testing information” and contained information pertaining to operating parameters, emissions generation, emissions quantification, and requested permit emissions limits regarding the “proposed modification.” It states, in relevant part:

Source Description:

* * *

The plant is capable of using natural gas, No. 2 fuel oil, No. 4 fuel oil, No. 6 fuel oil, and on-spec used oil to fuel the burner. *The oil types differ from each other in their viscosity and volatility. Specifically, No. 2 fuel oil is a light, moderately volatile oil, where No. 4 and No. 6 oils are heavy oils with little or no evaporation or dissolution. No. 4 fuel is a medium weight material that flows easily but has a low volatility and moderate flash point. No. 6 fuel oil * * * is a heavyweight material that is difficult to pump and requires preheating for use. * * ** Used oil, as defined in 40 CFR Part 279 is “any oil that has been refined from crude oil or any synthetic oil that is used, and as a result of such use, is contaminated by physical or chemical impurities. * * * The used oil that Shelly proposes to use is considered “on-specification” or “on-spec” used oil * * *

*The predominate fuel that likely will be used to fuel the asphalt plant burner is on-spec used oil at a maximum fuel usage rate of 600 gallons per hour. However, given the variability in fuel costs and market demands, Shelly is also requesting to be allowed to burn alternative fuels such as No. 4 and No. 6 in addition to the currently permitted No. 2, on-spec used oil and natural gas. * * **

Emissions Characteristics and Controls:

* * *

PM emissions are generated by the introduction of raw aggregate materials into the drum. * * *

CO emissions are created as the product of the combustion of fuels. Specifically, CO emissions result from the incomplete combustion of fuels. CO emissions are dependent on the combustion efficiency of the burner. Operation and maintenance of a correctly tuned burner is the means of controlling CO emissions.

NO_x emissions are formed by the oxidation of fuel-bound nitrogen and the thermal fixation of the nitrogen in combustion air. * * * Like CO, operation and maintenance of a correctly tuned burner is the means of controlling NO_x emissions.

SO₂ emissions are almost entirely dependent on the sulfur content of the fuel and not affected by burner size and design. The amount of emissions generated is linear to the sulfur content of the fuel and the amount of sulfur that is retained in the project. * * *

VOC emissions are created as the product of the combustion of fuels, and amounts may be generated during the heating and mixing of the liquid asphalt cement, RAP, slag, shredded tires and shingles in the drum. VOC emissions are dependent on the combustion efficiency of the burner, and as such, operation and maintenance of a correctly tuned burner is the means of controlling VOC emissions.

Emissions Calculations:

* * *

Sulfur Dioxide:

Evaluation of the available information for SO₂ emissions yielded a large range of emissions levels (based on No. 4 and No. 6 fuels). The following table indicates the short-term emissions value associated with each type of emission calculation. * * *

To quantify a maximum SO₂ emissions rate that is accurate and practically enforceable, Shelly determined that the use of the mass balance emission calculation is the most appropriate emissions calculation basis to derive a permit allowable emissions rate. The basis assumes that sulfur emissions are mostly dependent on the amount of sulfur present in the fuels combusted. The approach includes calculating emissions based on No. 6 fuel oil with a sulfur content of 1% by weight.

An important parameter included in the mass balance approach is the calculation of the sulfur retention rate of the sulfur during

production. The sulfur retention rate is the amount of the total sulfur emissions that remain within the hot mix asphalt product. For Plant #77, this rate is calculated using the stack tested emissions in conjunction with the predicted mass balance calculations using zero percent retention. Shelly Exhibit S. Emphasis added.

{¶30} The HMA plant emissions analysis included a “Summary of Requested Permit Allowable Emissions Limits” and “Request for Federally Enforceable Emissions Limits.” The Summary of Requested Permit Allowable Emissions Limits identified short-term (stated in lbs/hr) and long term (stated in tons/yr) emissions limits for each regulated pollutant emitted from the HMA Plant. Shelly Exhibit S.

{¶31} The Request for Federally Enforceable Emissions Limits also identified the same proposed short-term and long-term emissions limits for each criteria pollutant identified in the PTI Application Section II.4 and HMA plant emissions analysis. Shelly Exhibit S.

{¶32} As occurred in this instance, upon receipt of a PTI application, Ohio EPA makes a determination whether the modification requested is an “administrative modification” or modification as defined by Ohio Adm.Code Chapter 3745-31 (“Chapter 31 Modification”).

{¶33} Administrative modifications are relatively minor changes, including a change in language or a non-physical change to an emissions unit or its operation. When Ohio EPA grants an administrative modification, it does not issue a permit in draft form or provide public notice and comment. Generally, Ohio EPA’s review of an administrative modification focuses on language to be modified, typically does not update terms and conditions in the existing permit,

and does not set or re-set Best Available Technology (“BAT”). Testimony Windle, Hodanbosi, Hopkins.

{¶34} Conversely, a Chapter 31 Modification is “[a]ny physical change in, or change in the method of operation of [a]ny air contaminant source that: * * * results in an increase in the allowable emissions * * *” but expressly does not include “* * * use of an alternative fuel * * * that the source is capable of accommodating and is not expressly prohibited from using under any permit condition or applicable requirement of the federal Clean Air Act.” For Chapter 31 Modifications, the Director must update BAT for the air emissions source. Testimony Hopkins.

{¶35} The overall goal of BAT is to require companies to install state of the art emissions control equipment at the time an emissions source is installed or modified. Ohio EPA describes BAT in the terms and conditions of the PTI, including emissions limits and production and operational restrictions. BAT is set on a case-by-case basis, may vary based on site-specific information, evolves over time, and typically increases in stringency. Testimony Hopkins.

{¶36} On behalf of Ohio EPA, Sarah Harter,⁸ Division of Air Pollution Control (“DAPC”), Southeast District Office (“SEDO”) reviewed the 2004 Application and was responsible for drafting terms and conditions and making recommendations regarding the PTI issued to Plant 77. Testimony Harter.

⁸ Ms. Harter is an environmental supervisor and has been involved in developing permits for 30-40 asphalt plants. Among other duties, Ms. Harter supervises six staff members, reviews permit applications, drafts permit terms and conditions, and perform the final technical review of permits before recommendations are sent to Ohio EPA Central Office (“CO”). Testimony Harter.

{¶37} As more fully addressed below, Ohio EPA determined that Shelly's request to add No. 4 and No. 6 fuel oils triggered a Chapter 31 Modification, and therefore, although not requested by Shelly, Ohio EPA was required to evaluate and update BAT for the three emissions units identified in the 2004 Application. Testimony Hopkins.

{¶38} On January 6, 2005, Ohio EPA advised Shelly that the 2004 Application was found to be preliminarily complete and a technical review of the application would commence by Ohio EPA, SEDO. Testimony Harter.

Ohio EPA Technical Review

{¶39} In preparing Plant 77's PTI, Ohio EPA utilized a June 13, 1989 US EPA guidance document titled "Limiting Potential to Emit in New Source Permitting" ("1989 Guidance") to determine the federally enforceable limitations necessary to limit PTE below major source emissions thresholds. Testimony Hopkins.

{¶40} The 1989 Guidance specifically states that a PTI does not have to be a major source permit to legally restrict PTE and explains as follows:

Permit restrictions are very significant in determining whether a source is subject to major new source review. This is because they are the easiest and most common way for a source to obtain restrictions on its potential to emit. A permit does not have to be a major source permit to legally restrict potential to emit emissions. A minor source construction permit issued pursuant to a state program approved by EPA as meeting the requirements of 40 C.F.R. §51.60 [SIP legally enforceable] is federally enforceable. In fact, any permit limitation can legally restrict potential to emit if it meets two criteria: 1) it is federally enforceable as defined by 40 C.F.R. §§ 52.21(b)(17), 51.165(a)(1)(xiv), 51.166(b)(17), i.e., contained in a permit issued pursuant to an EPA-approved permitting program or a permit directly issued by EPA, or has been submitted directly issued by EPA, or has been submitted to EPA as

a revision to a State Implementation Plan and approved as such by EPA; and 2) it is enforceable as a practical matter. Ohio EPA Exhibit 3.

{¶41} The 1989 Guidance also addresses the type of limitations that restrict PTE and distinguishes between emissions, production, and operational limits as follows:

Emission limits are restrictions over a given period of time on the amount of pollution which may be emitted from a source into the outside air. Production limits are restrictions on the amount of final product which can be manufactured or otherwise produced at a source. Operational limits are all other restrictions on the manner in which a source is run, including hours of operation, amount of raw material consumed, fuel combusted, or conditions which specify that the source must install and maintain add-on controls that operate at a specified emission rate or efficiency. Ohio EPA Exhibit 3.

{¶42} The 1989 Guidance expressly states “[t]o appropriately limit potential to emit * * * all permits * * * must contain a production or operational limitation in addition to the emission limitation in cases where the emission limitation does not reflect the maximum emissions of the source operating at full design capacity without pollution control equipment.” The 1989 Guidance further provides that when permits contain production or operational limitations, “they should also have recordkeeping requirements that allow a permitting agency to verify a source’s compliance with its limits.” Ohio EPA Exhibit 3.

{¶43} Mr. Hopkins testified that although other US EPA guidance documents reference the 1989 Guidance, it has not been superseded and remains applicable for major source review.⁹ US EPA would comment adversely

⁹ Chuck Taylor, an expert witness admitted on behalf of Shelly, testified he was “surprised” that Ohio EPA used the 1989 Guidance and noted that since 1989, US EPA has issued a number of guidance documents that would expand on, elaborate, or possibly change

on a PTI that Ohio EPA did not properly restrict PTE using the 1989 Guidance. Testimony Hopkins.

{¶44} Upon completion of the technical review by Ohio EPA SEDO, Rodney Windle, Ohio EPA DAPC, CO conducted a review of Plant 77's draft PTI. Although Mr. Windle does not draft permits, his responsibilities include, among others, reviewing draft permits for quality assurance, including consistency with Ohio EPA policy and rule applicability. Ohio EPA does not verify consistency of proposed terms and conditions with other permits in its permit database, among Ohio EPA districts, or with other permits issued within a district office. Testimony Windle.

{¶45} As part of his review, Mr. Windle received a draft set of terms and conditions, calculations supporting the emissions limits, and a memorandum referred to as a "New Source Review Discussion" that provided factual information about Plant 77's PTI. Mr. Windle reviewed the emissions calculations for accuracy. Mr. Windle also compared applicable rules identified in the proposed Plant 77 PTI to rules posted on the STARS Library and Ohio EPA's website. Testimony Windle.

{¶46} On July 19, 2005, Ohio EPA issued a draft PTI for Plant 77 ("2005 Draft PTI"). Shelly Exhibit N.

provisions in the 1989 Guidance. However, Mr. Taylor further testified that he would "have to look at [the other guidance documents] in detail to reach judgment about that right now." Additionally, although Mr. Taylor testified that Ohio EPA Engineering Guide 61 is Ohio EPA's guidance on how to limit PTE for federal enforceability, Mr. Hopkins testified on behalf of the Director that the main purpose of Engineering Guide 61 is to set emissions limits to avoid Title V permitting requirements which do not necessarily apply to avoid New Source Review. Testimony Taylor, Hopkins.

{¶47} Shelly submitted comments to Ohio EPA on August 10, 2005. Shelly Exhibit O.

{¶48} In October 2005, Ohio EPA received a citizen inquiry suggesting the public notice for the 2005 Draft PTI was not proper. As a result, Ohio EPA reissued the public notice on October 18, 2005. Testimony Harter.

{¶49} Shelly submitted additional comments regarding the 2005 Draft PTI to Ohio EPA on December 21, 2005. Shelly Exhibit O.

{¶50} On June 1, 2006, Ohio EPA issued Final Permit to Install Application No: 06-07724 for Plant 77 (“2006 PTI”). The 2006 PTI is described as a “Chapter 31 modification of PTI 13-03946 issued 7/25/2002, as to include #4 and #6 fuel oil as allowable fuels.” The 2006 PTI is a synthetic minor permit and contains general and special terms and conditions governing Plant 77’s roadways, parking areas, and HMA plant. Shelly Exhibit K; Testimony Hopkins.

{¶51} Relevant to the issues in this appeal, the 2006 PTI Part I [General Terms and Conditions], Section B [Permit to Install Summary of Allowable Emissions] summarizes the “Total Permit to Install Allowable Emissions” by pollutant. In particular, Part 1.B states:

SUMMARY (for informational purposes only)
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS¹⁰

Pollutant	Tons Per Year
PE (stack)	8.3
PM (stack)	8.3

¹⁰ In comparison, the summary of “Total Permit to Install Allowable Emissions” in the 2002 PTI is stated in TPY, in relevant part, as PM 23.31, PM10 1.62; SO₂ 34.8, NO_x 33.0, VOC 19.2, CO 78.0, and Formaldehyde 1.86. Shelly Exhibit S.

SO2	24.0
VOC (stack)	35.0
NOx	22.3
CO (stack)	87.5

* * *

Shelly Exhibit K.

Shelly's Appeal

{¶52} On June 28, 2006, Shelly timely appealed the 2006 PTI. In its Notice of Appeal, Shelly sets forth fourteen Assignments of Error challenging specific terms and conditions in the 2006 PTI.¹¹ At the hearing, Shelly presented evidence in support of the following eleven Assignments of Error:

- The one minute per 60-minute period visible emission limit for paved roads and a three minutes per 60-minute period visible emission limit for unpaved roads are overly restrictive, not in concert with Ohio's visible emission regulations, unduly burdensome and inclusion of these limits is unreasonable and unlawful.
- The Best Available Control Measures and a one minute per 60-minute period visible emission limit for plant storage piles are overly restrictive, not in concert with Ohio's visible emission regulations, unduly burdensome, and inclusion of these limits is unreasonable and unlawful.
- The use of chemical stabilization, watering, or covering as the only allowed methods to ensure compliance with Best Available Control Measures for wind erosion is not mandated by Ohio, and such methods are not feasible, are damaging to raw material, and therefore, the control method restrictions are unreasonable and unlawful.

¹¹ Prior to the hearing, Shelly advised that three Assignments of Error, H, K, and L "are administrative or typographical errors that do not require any analysis by the Commission." Case File Item PPP.

- Multiple short-term emission limits for NO_x and SO₂ are duplicative requirements and are unreasonable and unlawful.
- There is no legal basis to limit the types of fuel that can be used at Plant 77 as long as Shelly agreed to comply with the appropriate, applicable emission limits and as such, the fuel limitation is unreasonable and unlawful.
- The separate emissions limits for each portion of the process associated with the HMA Plant emissions unit is unreasonable, unlawful, and not in concert with other permits issued for HMA Plants and for single emissions units in other industry sectors.
- The restriction on the sulfur content of fuels used at Plant 77 is unreasonable and unlawful.
- The limitation on the use of reclaimed asphalt pavement (“RAP”) to 50% or less of all aggregate materials used at Plant 77 is not required by Federal or Ohio law, is not consistent with operational restrictions contained in PTI’s for other HMA plants, and are unreasonable and unlawful.
- The limitation on the use of raw material feed mix at Plant 77 to only virgin aggregate and RAP is not required by federal or Ohio law, not necessary to protect human health and the environment, not in concert with requirements specified by the Ohio Department of Transportation, and is unreasonable and unlawful.
- The portable source relocation requirements are not in concert with Ohio law and are unreasonably restrictive, burdensome, unnecessary, unreasonable, and unlawful.
- The burner tuning requirements are not required by federal or Ohio law, not required in permits for other HMA plants in Ohio, are based on assumptions about burner tuning without any technical or scientific evidence to support the assumptions, are not required in permits for other industrial sources in Ohio that utilize burners to generate heat, steam, or product, and are unreasonable and unlawful. Case File Items A, PPP.

{¶53} Although not specifically identified as assignments of error, the Commission heard substantial testimony regarding two additional issues Shelly characterizes as “overarching” and “transcend over all individual assignments of

error:” (1) Ohio EPA unreasonably and unlawfully required Shelly to obtain a Chapter 31 modification to expressly add No. 4 and No. 6 fuel oils; and (2) Ohio EPA exceeded its authority by utilizing a draft general permit to create terms and conditions in the 2006 PTI.¹² The Commission will first address Shelly’s overarching issues.

DRAFT ASPHALT GENERAL PERMIT

{¶54} In 2003, Ohio EPA and representatives from the asphalt industry and Flexible Pavement Association formed the asphalt industry Permit Processing Efficiency Committee (“PPEC”) to develop a General Permit for asphalt plants. Among other activities, the asphalt industry PPEC reviewed proposed terms and conditions prepared by Ohio EPA, general permits from other states, and stack test data provided by asphalt manufacturers. Based upon the asphalt industry’s PPEC’s work, 10 to 12 draft asphalt General Permits were developed to accommodate requirements of different sized asphalt plants. Testimony Mowrey, Hopkins.

{¶55} Prior to public notice and comment, the asphalt industry decided the draft asphalt General Permit proposed by Ohio EPA was “becoming too specific,” and “just too restrictive for a General Permit process.” As a result, the asphalt industry “walked away” from efforts to develop an asphalt General Permit, and the asphalt industry PPEC dissolved. On behalf of Shelly, Ms. Mowrey explained that the asphalt industry believed it was “better off working with our local air agencies and local districts to get the best permit we could instead of going the General Permit route.” Testimony Mowrey, Hopkins.

¹² The Director raised no objection to either of these issues.

{¶56} At the time of the hearing, Ohio EPA had not issued a final asphalt General Permit. Testimony Hopkins.

{¶57} On April 6, 2005, Ms. Mowrey sent an email to Ohio EPA employee Sarah Harter requesting the PTI for Plant 77 include terms and conditions developed during the asphalt General Permit discussions between industry and Ohio EPA. In particular, the April 6 email states, in relevant part:

As you are aware, Central Office has posted the general permit terms and conditions-Shelly Materials is requesting that the permits reflect the GP language. After having conversations with Mike Hopkins this approach is acceptable. I would believe the permit writing would be simpler for the Districts.* * * Ohio EPA Exhibit 5; Testimony Mowrey.

{¶58} At the hearing, Ms. Mowrey testified that the April 6 email was sent prior to the asphalt industry walking away from the asphalt General Permit development process. Notably, Ms. Mowrey testified that she subsequently communicated to Ohio EPA that Shelly did not want to use the draft asphalt General Permit for Plant 77's PTI. Testimony Mowrey.

{¶59} In contrast, Ms. Harter testified that although Shelly may have commented on specific terms and conditions, she does not recall a blanket statement that Shelly did not want draft asphalt General Permit terms and conditions incorporated into Plant 77's PTI. Testimony Harter.

{¶60} On behalf of the Director, Mike Hopkins¹³ testified that in 2006, as Ohio EPA was processing the 2004 Application, he instructed his staff to use the

¹³ Mr. Hopkins has been the Assistant Chief in charge of the Permitting Section in the DAPC for 16 years and has overall responsibilities for Ohio's air permit program including permits to install, permits to operate, state operating permits for minor sources, and Title V permits. Mr. Hopkins also supervises staff in the air toxics group and permit guidance group. Testimony Hopkins.

draft asphalt General Permit as starting point and template for development of case-by-case permits. Mr. Hopkins advised his staff to adjust terms and conditions in the draft asphalt General Permit based on site-specific information. Mr. Hopkins explained that Ohio EPA continuously works to update permit terms and conditions to reflect current standards and the draft asphalt General Permit addressed many of the concerns regarding how emissions from asphalt plants should be permitted; therefore, Mr. Hopkins testified that the draft asphalt General Permit was the best set of terms and conditions for the asphalt plant industry going forward.

{¶61} Ms. Harter testified that the 2006 PTI contains provisions from the draft asphalt General Permit and also contains terms and conditions based on the 2004 Application and specific conditions at Plant 77. For example, the 2006 PTI includes terms specific to No. 6 fuel oil that were not included in draft asphalt General Permits. Mr. Windle testified that as instructed by Mike Hopkins, he compared terms and conditions in the proposed Plant 77 PTI to terms and conditions contained in the then-current draft asphalt General Permit. Testimony Harter, Windle.

Chapter 31 Modification

{¶62} Shelly challenges the Director's determination that the 2004 Application triggered a Chapter 31 Modification and contends that the request to add No. 4 and No. 6 fuel oils met the "use of an alternative fuel" exemption to the Chapter 31 Modification requirements. Accordingly, Shelly argues that the 2004 Application should have been processed by Ohio EPA as an administrative

modification. In particular, Shelly argues that Plant 77 was “capable of accommodating” No. 4 and No. 6 fuel oils and was not expressly prohibited from using these two fuels pursuant to any permit term, condition, or applicable CAA requirement. Shelly also contends that the addition of No. 4 and No. 6 fuel oils does not meet the definition of “modification” for purposes of a Chapter 31 Modification. Case File Items PPP, YYY.

{¶63} On behalf of Shelly, Ms. Mowrey testified that the HMA plant was designed and built to accommodate a range of fuels including natural gas, No. 2, No. 4, and No. 6 fuel oils, and on-spec used oil. She also explained that switching fuels is accomplished quickly and easily by turning off one pump and turning on another. Significantly, Ms. Mowrey testified that no additional equipment was needed to accommodate burning No. 4 or No. 6 fuel oil. Testimony Mowrey.

{¶64} Additionally, Shelly’s expert witness Chuck Taylor testified that the 2004 Application did not trigger a Chapter 31 Modification because addition of No. 4 and No. 6 fuel oils did not result in an increase in allowable emissions of either SO₂ or NO_x. In particular, Mr. Taylor testified that for purposes of federal enforceability, the rolling 12-month SO₂ emissions limit in the 2006 PTI decreased from the rolling 12-month SO₂ emissions limit specified in the 2002 PTI. Shelly Exhibits S, K; Testimony Taylor.

{¶65} Further, Ms. Mowrey testified that terms and conditions in Shelly’s 1994 and 2002 PTIs demonstrate that Ohio EPA has not expressly prohibited the use of No. 4 and No. 6 fuel oils at Plant 77. Ms. Mowrey believes the 1994 PTI

did not contain a fuel restriction and “Shelly had the ability to use any fuel it wanted at Plant 77.”¹⁴ The 2002 PTI contained a specific term addressing “fuel usage” that stated “[t]he permittee reserves the right to burn natural gas, No. 2 fuel oil, and on-specification used oil.” Shelly Exhibit S; Testimony Mowrey.

{¶66} Ohio EPA determined that Shelly’s request to add No. 4 and No. 6 fuel oils triggered a Chapter 31 Modification and did not meet the “use of alternative fuel” exemption. On behalf of the Director, Mike Hopkins testified that the request to add No. 4 and No. 6 fuel oils is a change in method of operation and often requires a physical change in equipment stating, as follows:

Based on my experience with all kinds of permits associated with fuel burning, and my knowledge through my training with combustion evaluation, or through engineering calculations, No. 6 fuel oil at ambient temperatures is a viscous, thick material, and it is difficult to pump. And that means typically a heated tank is needed and/or heated piping is needed so that that fuel can be heated enough in order to go into a burner.

So I would say that based on that knowledge, there would be some additional equipment that would need to be installed [to burn No. 6 fuel oil]. Testimony Hopkins.

{¶67} Ms. Harter testified regarding Ohio EPA’s determination that Shelly’s request triggered the Chapter 31 Modification due to an increase in emissions associated with burning No. 4 and No. 6 fuel oils as follows:

The application that they submitted they were requesting to use additional fuel types, No. 4 and No. 6 fuel oil. And the use of those materials would constitute an increase in their allowable emissions.
* * *

[W]hen you look at sulfur dioxide, they were previously permittee [sic] to use natural gas, No. 2 fuel oil and used oil. The previous permit was based on those fuels. And the emission limits in that permit were calculated based on those fuels. And the allowable

¹⁴ Paragraph F.2 of “Additional Special Terms and Conditions” in the 1994 PTI provides, “[t]his facility shall be fueled with only natural gas or propane.”

sulfur content for those particular fuels is .5 percent by weight. When you go and look at No. 4, No. 6 fuel oils, the sulfur content in those fuels is increased over used oil No. 2. You have to a point 8 percent sulfur by content by weight for No. 4 fuel oil, and a one percent by weight for No. 6 fuel oil. So there you can see there's an increase. When you go to No. 6 it's double the sulfur content. Sulfur content of the fuel essentially means you're gonna have increase, if you have an increase in sulfur content of the fuel, you're gonna have an increase in sulfur emissions coming out of the stack. So that shows you that there's going to be an increase in the sulfur dioxide emissions. Testimony Harter.

{¶68} In determining if a source is "capable of accommodating" a fuel Ohio EPA uses a "common sense evaluation including whether or not the source has the equipment in place that allows the use of the requested fuel." The "source" for purposes of determining if the "source is capable of accommodating" includes other potential ancillary equipment required to be installed. For an asphalt plant, the "source" is more than the burner. Testimony Hopkins, Hodanbosi.

{¶69} Mr. Hopkins testified that although the phrase "capable of accommodating" is not defined, the "use of an alternative fuel" exemption is designed for situations where multiple fuels have been authorized in an existing permit, stating, in relevant part:

* * * if you have fuels listed [in the permit] you can switch back and forth between those without having to get a new Permit to Install. That won't trip the modify definition just because you switched from number * * * No. 2 fuel oil to No. 6 fuel oil. And that essentially allows you to switch back and forth between allowed fuels without tripping the modify definition. Testimony Hopkins.

{¶70} Mr. Hopkins further testified that Plant 77 does not meet the "use of an alternative fuel" exemption because there is an existing permit prohibiting use of an alternative fuel. Specifically, Mr. Hopkins explained that because the 2002

PTI contained an operational restriction that limited fuel usage to natural gas, No. 2 fuel oil, and on-specification used oil, and did not include No. 4 and No. 6 fuel oils, the HMA plant was expressly prohibited from burning either of these fuels.

Specifically, Mr. Hopkins testified, in relevant part, as follows:

* * * I would say that [the 2002 PTI] has a term and condition that essentially says that- - in my opinion says that they are allowed to burn natural gas, No. 2 fuel oil, and on-spec used oil. And by that statement, I would say they are not allowed to burn any other fuels.

* * * [t]he [2002] permit * * * has a restriction that essentially describes which fuels you can use at this plant. And No. 4 and No. 6 are not listed. So I believe that [the 2002] permit restricts them. And for that reason, the company can't use those other fuels. It's specifically restricted in this particular permit. Testimony Hopkins.

{¶71} Mr. Hopkins also explained that Ohio EPA drafts permits to describe what fuels are authorized for use by a facility stating, in relevant part:

* * *

[w]hen we are writing permits today with multiple fuels, we will describe which fuels are allowed to be used to make it clear on what can and can't be used. * * * [w]e list the fuels that * * * would mean you can't use other fuels. There may be some arguments otherwise if, for instance, in [applications] had different fuels that weren't listed. But typically that if it [was] silent then we would rely on the application. If we described it specifically in the permit as which fuels they're using, then we would say those are the only fuels allowed.

* * *

What can happen with the less emitting pollutant is they may not trip the first part of the modify definition. If you have an existing fuel and you come to us and say you want to use a cleaner burning fuel, less emissions, then we would look at the first part of the definition that says any physical change or change in the method of operation because you're using a new fuel that increases emissions. * * * [i]f it doesn't increase emissions, then we would say you are not tripping the modify definition. Testimony Hopkins.

{¶72} Mr. Hopkins noted that it is important for Ohio EPA to know and approve the fuels a facility burns as part of the PTI application process. Accordingly, Mr. Hopkins believes Shelly's interpretation of the "use of alternative fuel" exception would lead to an absurd result:

* * * if you don't interpret that language the way that I have just described, you end up with an absurd result. And that is that if you argue that any fuel you could pump through a burner could be accommodated fuel, then you would be saying that it's ok to switch to say a No. 2 fuel oil that is contaminated with some material and that wouldn't trip the modify definition.

I think that is an absurd result. I think that it is important for Ohio EPA in order to do their job to know what fuels a company is going to use upfront as part of their application and to approve those fuels. And that's what we did in this particular case. Testimony Hopkins

{¶73} Finally, Mr. Hopkins testified that administrative modifications can adjust emission limits, even if emission limits increase stating, in relevant part:

Typically, this kind of situation where we're adjusting an emission factor occurs because we originally issued the permit based on certain emission factor. And then testing was done, and we found out that that emission factor was not appropriate for that source. And then we would say, well, we need to increase the emissions associated with that source and that emission factor.

That would be an administrative modification because under the [Chapter 31] modify definition there was no physical change or change in the method of operation between the original permit and the modified permit.

And so it's quite possible and actually quite often this occurs that emissions can go up and still be an administrative modification. Testimony Hopkins.

2006 PTI SPECIAL TERMS AND CONDITIONS

{¶74} The Commission will now address the specific 2006 PTI Special Terms and Conditions Shelly contends are unlawful and unreasonable.

Emissions Limits for Roadways, Parking Areas, Storage Piles

{¶75} The 2006 PTI specifies visual emissions limits for all paved and unpaved roadways and parking areas at Plant 77. The visual emissions limits for paved roadways and parking areas state “[n]o visible PE except for one minute during any 60-minute period.” The visual emissions limits for unpaved roadways and parking areas state “[n]o visible PE except for three minutes during any 60-minute period.”¹⁵ Shelly Exhibit K.

{¶76} The 2006 PTI also establishes visual emissions limits for storage piles stating, “[n]o visible PE except for one minute during any 60-minute period.” Shelly Exhibit K.¹⁶

{¶77} On behalf of Shelly, Ms. Mowrey testified that compliance with the visible emissions limits for roadways, parking areas, and storage piles are problematic because “it takes an extreme amount of water to comply with having no visible emissions” and extreme amounts of water infiltrate raw material storage piles and causes run-off problems. Ms. Mowrey also explained that the visible emissions limits for storage piles can be a challenge on very dry, very windy days. Finally, Ms. Mowrey testified that prior to issuance of the 2006 PTI,

¹⁵ The 1994 PTI specified emissions limits for paved roadways and parking areas stating, “no visible emissions except for a period of time not to exceed one minute during any sixty-minute observation period.” For unpaved roadway or parking areas the visible emissions limit was stated as “* * * there shall be no visible particulate emissions except for a period of time not to exceed 3 minutes during any 60-minute observation period.” Shelly Exhibit S.

¹⁶ The visual particulate emissions limits for material storage piles in the 1994 PTI was stated as “no visible emissions from any material storage pile except for a period of time not to exceed one minute during any 60 minute observation period.” The 2002 PTI did not specify visual emissions limits for roadways, parking areas, or storage piles. Shelly Exhibit S.

she communicated to Ohio EPA that standard visual emissions limits “[don’t] necessarily work for Shelly.” Testimony Mowrey.

{¶78} To determine BAT for Plant 77’s paved and unpaved roadways and storage piles, Ohio EPA employee Sarah Harter reviewed information contained in the 2004 Application and comments submitted by Shelly in response to the 2005 Draft PTI. Ms. Harter also relied upon a December 8, 1992 Ohio EPA memorandum from Robert Hodanbosi, Chief Ohio EPA, DAPC regarding BAT emissions limits for fugitive dust sources. The December 8 memorandum remains the guidance document used by Ohio EPA to establish BAT for fugitive sources and provides in relevant part:

In the past couple of months, several PTI recommendations for fugitive dust sources have come through this office with a variety of BAT determinations. This IOC is intended to clarify the current recommended BAT opacity standard for fugitive dust sources (specifically roadways, parking areas, and storage piles).

* * *

For unpaved roadways and parking areas PTI recommendations should include a statement which includes the following:

For the unpaved roadways and parking areas, there shall be no visible particulate emissions except for a period of time not to exceed three minutes during any sixty-minute observation period.

For paved roads and parking areas PTI recommendations should include a statement which includes the following:

For paved roadways and parking areas, there shall be no visible particulate emissions except for a period of time not to exceed one minute during any sixty-minute observation period.

For material storage piles, BAT should be as follows:

For material storage piles, there shall be no visible particulate emissions except for a period of time not to exceed one minute during any sixty-minute observation period.

These statements for BAT should be included in the special terms and conditions under "BAT Determination" for each fugitive dust source in these categories. * * * Ohio EPA Exhibit 2; Testimony Harter.

{¶179} Mike Hopkins, who prepared the December 8 Memorandum for Mr. Hodanbosi's signature, participated in discussions with Ohio EPA personnel regarding the type of emissions limits that would be appropriate for roadways, parking lots, and storage piles. Mr. Hopkins also reviewed permits for similar sources that included detailed analysis on the cost effectiveness of achieving the level of control at a number of steel facilities. Mr. Hopkins explained how one- and three-minute PE limits serve to describe BAT as follows:

Q: And how did you establish what these emissions limits were gonna be?

A: Well, I think we looked at various similar sources, looked at what we had established under BAT through permits that we had issued to that date. We also looked at various rules that were in place at the time. And we essentially settled in on a rule or some work that had been done for some steel facilities that ended up in our Chapter 17, Ohio Administrative Code Chapter 17.

And there was actually some detailed analysis done on the cost effectiveness of achieving this level of control at the various steel facilities that ended up in a rule. And we felt that there was sufficient justification to establish this for any facility that has paved or unpaved roadways or material stockpiles. So you'll find these same limits in Chapter 17-12 for the specific facilities if they still exist today. Testimony Hopkins.

{¶180} Ms. Harter testified that, based upon her review of the 2004 Application, the December 8 memorandum, and Ohio EPA's experience with

similar sources at other asphalt plants, she determined that the emissions limits set forth in the 2006 PTI are BAT and achievable for Plant 77. Testimony Harter.

{¶81} Based upon his experience in visiting and working with asphalt plants and his knowledge of available control technologies, Mr. Hopkins testified that the visible emissions limits contained in the 2006 PTI for roadways and storage piles are BAT and achievable by any asphalt plant. Although Mr. Hopkins acknowledged that plant operators have advised they do not like the operational restriction, he has not seen any supporting data demonstrating the restrictions are not cost effective or achievable. Testimony Hopkins.

Wind Erosion Control Methods for Storage Piles

{¶82} The 2006 PTI requires Shelly to provide Best Available Control Measures (“BACM”) for wind erosion from Plant 77’s storage piles. Specifically, the BACM for wind erosion is set forth in Part II.A.2.c as follows:

The permittee shall employ best available control measures for wind erosion to the surfaces of all storage piles for the purpose of ensuring compliance with the above mentioned applicable requirements. The permittee shall perform one or more of the following: (chemical stabilization, watering/sprinkling systems/hoses, covering the storage piles) to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance. Shelly Exhibit K.¹⁷

{¶83} On behalf of Shelly, Ms. Mowrey testified that it is her understanding that pursuant to Part II.A.2.c Shelly must use one of the three methods listed and cannot choose another option to control emissions from the

¹⁷ In comparison, the 1994 PTI provides that fugitive emissions resulting from wind disturbance of storage piles “shall be minimized or eliminated by one or more of the following methods: i) maintaining a sufficient moisture level in the stone; ii) use of a suitable dust suppressant; and iii) use of wind block/screens.” Shelly Exhibit S.

storage piles. Ms. Mowrey believes the language “nothing * * * shall prohibit permittee from employing other control methods” requires Shelly to first apply one of the three listed methods before another control measure could be applied “on top” to control emissions from the storage piles. Testimony Mowrey.

{¶84} Ms. Mowrey explained that due to the nature of Plant 77’s operations, Shelly controls emissions from storage piles by maintaining a low pile height and also prevents loaders from dropping aggregate at high levels. Ms. Mowrey further explained that the three listed methods to control storage pile emissions in the 2006 PTI are not feasible at Plant 77. Specifically, Ms. Mowrey noted that chemical stabilization and dust suppressants work as a “crust” over the storage piles, and because “we are constantly working our stockpiles getting our aggregate out,” Plant 77’s operations “would always break the crust.” Ms. Mowrey also noted that using water as a dust suppressant would cause greater air emissions because burners at the HMA plant would need to run longer to dry moisture from the aggregate. Finally, Ms. Mowrey testified that because space at Plant 77 is limited, covering storage piles would result in insufficient room for loaders and trucks to operate. Testimony Mowrey.

{¶85} On behalf of the Director, Sarah Harter explained that Part II.A.2.c. specifically states that Shelly is not prohibited from using another method to control emissions from storage piles if Shelly demonstrates compliance with the visible emissions limits. Notably, Ms. Harter testified that Shelly is not required to first use chemical stabilization, watering, or covering before another emissions control measure is used. Testimony Harter.

{¶86} Mr. Hopkins testified that the emissions limits for storage piles set forth in the 2006 PTI have been used since 1992 and are BAT for fugitive dust emissions. Mr. Hopkins also acknowledged that although additional costs may be incurred to dry aggregate, it is possible to use any permitted control method to comply with the visible emissions limits and not significantly impact cost. Testimony Hopkins.

Multiple short term emissions limits

{¶87} The HMA Plant 2006 PTI Part II.A.1 sets forth both “tons per rolling, 12-month period” and hourly short-term emissions limits for NO_x, SO₂, CO, VOC, PE, and PM-10. The rolling 12-month emissions limits for these pollutants are the same as the “Total Permit to Install Allowable Emissions” set forth in the 2006 PTI General Terms and Conditions, Part I.B. Pertinent to the issues on appeal, the rolling 12-month emissions limit for SO₂ is 24.0/TPY and 22.3/TPY for NO_x. Additionally, although 1 short-term emissions limit is specified for CO, VOC, PE, and PM-10, Part II. A.1 contains 3 short-term emissions limits for NO_x and 4 short-term emissions limits for SO₂ based upon the type of fuel burned (“fuel-specific short-term emissions limits”).¹⁸ Part II.A.1 states the applicable rule for the fuel-specific short-term and rolling 12-month emissions limits is Ohio Adm.Code 3745-31-05(A)(3) and the applicable short-term emissions limits state, in relevant part, as follows:

* * * NO_x emissions from burning natural gas shall not exceed 7.8 pounds per hour.

¹⁸ At Plant 77, No. 2 fuel oil and on-spec used oil emit the most NO_x and No. 6 fuel oil emits the most SO₂. Testimony Hopkins.

NO_x emissions from burning #2 fuel oil or on-spec used oil shall not exceed 26.7 pounds per hour.

NO_x emissions from burning #4 fuel oil or #6 fuel oil shall not exceed 16.5 pounds per hour.

* * * SO₂ emissions from burning natural gas shall not exceed 3.3 pounds per hour.

SO₂ emissions from burning #2 fuel oil or on-spec used oil shall not exceed 19.8 pounds per hour.

SO₂ emissions from burning #4 fuel oil shall not exceed 36.0 pounds per hour.

SO₂ emissions from burning #6 fuel oil shall not exceed 51.0 pounds per hour. Shelly Exhibit K.¹⁹

{¶88} Additionally, Part II.B.3 states that Shelly requested a “federally enforceable limitation on asphalt produced in order to restrict the federally enforceable potential to emit” and specifically provides that the amount of asphalt produced is restricted in two ways as follows

3. a. the total amount of asphalt produced using any fuel is limited to 500,000 tons per rolling 12-month period. To ensure enforceability during the first 12 calendar months of operation following issuance of this permit, the permittee shall not exceed the production levels specified in the following table; * * *

b. the amount of asphalt produced by fuel is restricted by the following equation.²⁰ * * *

¹⁹ The 2002 PTI contained 1 short-term emissions limit for NO_x and SO₂. Shelly Exhibit S.

²⁰ Due to a clerical error, the equation is misplaced and appears in Part II.C.1 [Monitoring and/or Recordkeeping Requirements]. Testimony Hopkins.

$$48,000 \geq 0.011w + 0.066x + 0.12y + 0.17z$$

where :

$$w = \frac{\text{Tons asphalt produced with natural gas}}{\text{year}}$$

$$x = \frac{\text{Tons asphalt produced with \#2 fuel oil}}{\text{year}}$$

$$y = \frac{\text{Tons asphalt produced with \#4 fuel oil}}{\text{year}}$$

$$z = \frac{\text{Tons asphalt produced with \#6 fuel oil}}{\text{year}}$$

Shelly Exhibit S.

{¶89} Ohio EPA calculated emissions limits for the HMA plant using emissions factors derived from stack test results, information contained in the 2004 Application, AP-42,²¹ and similar source stack test data. Additionally, Ms. Harter sought input from and participated in a number of discussions with Ohio EPA CO regarding the appropriate rolling 12-month and short-term emissions limits for the HMA plant. Testimony Mowrey.

{¶90} Shelly responded to Ohio EPA's determination that fuel-specific short-term emissions limits for NO_x and SO₂ are BAT under Ohio law and required as federally enforceable permit conditions to maintain PTE below major source thresholds. Specifically, Chuck Taylor, Shelly's expert witness, opined that short-term emissions limits are not US EPA requirements for federal enforceability to maintain PTE below major source thresholds. Mr. Taylor testified that a rolling 12-month emissions limit for each pollutant is the minimum federally enforceable requirement identified by US EPA and noted that for purposes of federal enforceability, US EPA "may couple the rolling 12-

²¹ AP-42 is a US EPA publication of emissions factors and includes all criteria pollutants from a variety of sources including HMA plants. Ohio EPA Exhibit 6; Testimony Harter, Taylor.

month limit with an operational feature that is consistent with [the] emissions rate” for the pollutant. To illustrate his point, Mr. Taylor referred to the 2006 PTI annual asphalt production limit of 500,000 TPY as the “operational feature that is consistent” with the emissions rate for the rolling 12-month emissions limit. Mr. Taylor further opined that other federally enforceable restrictions are “any that would be pertaining to a SIP-adopted regulation or a federal regulation that was applicable to the facility.” Notably, Mr. Taylor acknowledged that for purposes of federal enforceability, in addition to a restriction on asphalt production, sulfur content limitations also are coupled with emissions limits. Testimony Taylor.

{¶91} Mr. Taylor also responded to the Director’s determination that fuel-specific short-term emissions limits for SO₂ and NO_x are BAT under Ohio law and testified that the 2006 PTI is inconsistent with permits issued to other combustion sources, including Shelly’s competitors. Testimony Taylor.

{¶92} Mr. Taylor further opined that based upon this prior experience as Chief, Ohio EPA DAPC and in his capacity as principal at GT Environmental, Inc., Ohio EPA frequently establishes emissions limits based on the fuel with the highest emissions rate for a given pollutant (“worst case fuel”) and this approach has been used numerous times by Ohio EPA to establish a single short-term emissions limit as BAT. Testimony Taylor.

{¶93} For Plant 77, Mr. Taylor opined that No. 6 fuel oil is the worst case fuel for SO₂ and the emissions rate for this fuel should have been used to calculate a single short-term emissions limit for SO₂. For NO_x, Mr. Taylor testified

that he would perform emissions calculations for both natural gas and fuel oil, and the fuel with the higher emissions rate would be identified as the worst case fuel to establish a single short-term emissions limit. Mr. Taylor also opined that there is no negative public health impact related to one short-term emissions limit based on the worst case fuel. Testimony Taylor.

{¶194} In support of his opinions that Ohio EPA established BAT as a single short-term emissions limit based on the worst case fuel, Mr. Taylor reviewed 11 permits issued to asphalt companies by Ohio EPA in 2006,²² 2 permits for facilities with boilers as the combustion source, and Ohio EPA's Model General Permit for Natural Gas and No. 2 Fuel Oil Boilers ("boiler General Permit"). As part of his evaluation, Mr. Taylor prepared a spreadsheet summarizing Ohio EPA's methodology and identified permit characteristics relevant to the issues in the instant appeal, including information regarding the size of the HMA plant, tons per hour capacity, number and type of fuels, and number of short-term emissions limits for SO₂ and NO_x. Based upon his review, Mr. Taylor concluded that the permits contained only 1 short-term emissions limit for NO_x. In addition, with the exception of 2 permits issued to plants owned by Shelly's competitor, Mr. Taylor concluded that the permits contained 1 short-term emissions limit for SO₂.²³

²² Mr. Taylor also reviewed a Permit to Install and Operate ("PTIO") issued to Valley Asphalt on February 23, 2009 and acknowledged it was not an initial installation permit and thus lacked a basis for Ohio EPA to reevaluate BAT. Testimony Taylor.

²³ The PTI for Mar Zane Plant 27 contains two short term emissions limits for SO₂ based upon whether the asphalt mix contains slag. The PTI for Mar Zane Plant 28 is not identified as either a Chapter 31 or administrative modification but states that the "PTI was erroneously issued with incorrect limits last time" and the "correct files are attached this time." Shelly Exhibit W, W-1; Testimony Taylor.

{¶195} Mr. Taylor summarized his review as follows:

Q: To summarize this chart * * * with your analysis of sources in 2006, did Ohio EPA require other sources including Shelly's competitors to maintain different short-term SO₂ limits?

A: The permits that are summarized in this table other than Shelly and other than the slag difference, * * * they all have a single SO₂ short-term limit and single NO_x short-term limit.

Q: And some of those facilities are authorized to burn as many as five or six different types of fuels?

A: That's correct.

Q: With different emission factors?

A: Those fuels could lead to higher or lower emissions. * * * what Ohio EPA would have done for those were they have a single emission limit is to identify the emission rate associated with the fuel that's gonna cause the highest emission.

Q: So the worst-case fuel per pollutant.

A: Worst-case fuel for pollutant, yes.

Q: * * *and [the permits reviewed] * * * are all Synthetic Minor permits?

A: Yes * * *.

Testimony Taylor; Shelly Exhibit W-1.

{¶196} Mr. Taylor also reviewed the boiler General Permit and prepared a spreadsheet summarizing the methodology used by Ohio EPA to establish one short-term emissions limit for NO_x and SO₂.²⁴ In particular, Mr. Taylor concluded that the boiler General Permit authorizes SO₂ emissions up to the rate that would

²⁴ Mr. Taylor testified Plant 77's burners have no features that make them distinct from the boiler identified in the boiler General Permit when burning No. 2 fuel oil and natural gas. Testimony Taylor.

occur when burning No. 2 fuel oil and does not establish a separate emissions limit for natural gas, a lower emitting fuel. Shelly Exhibits P, Y; Testimony Taylor.

{¶197} Finally, Mr. Taylor testified that he agrees with Ms. Mowrey that fuel-specific short-term emissions limits make recordkeeping more difficult to administer, is more costly and time-consuming, and may put Shelly at a competitive disadvantage. Testimony Taylor.

{¶198} On behalf of the Director, Robert Hodanbosi explained generally that short-term emissions limits are necessary to protect air quality standards, comply with requirements of the CAA, and reduce emissions of regulated pollutants. Additionally, the Director sets short-term emissions limits as BAT, and the decision regarding the number of short-term emissions limits in a PTI is a policy decision made by Ohio EPA management. For asphalt plants, Ohio EPA determines the number of short-term emissions limits for SO₂ based on a permittee's request for fuel flexibility and limiting PTE below major source thresholds. Testimony Hodanbosi, Windle.

{¶199} Ohio EPA employee Mike Hopkins was questioned extensively regarding the Director's determination that both 12-month rolling and fuel-specific short-term emissions limits for SO₂ and NO_x were required to properly describe BAT under Ohio law and limit Plant 77's PTE below major source thresholds. Mr. Hopkins first explained that the difference in emissions of pollutants depending upon the type of fuel burned is important to Ohio EPA because the fundamental goal of the air pollution control program is to reduce emissions and employ BAT. In particular, reduction of NO_x emissions is important because NO_x contributes to

ozone generation, and Ohio EPA is required to bring non-attainment areas into attainment. Additionally, SO₂ is a NAAQS criteria pollutant, and reduction of SO₂ emissions is therefore important to protect public health. Further, Mr. Hopkins testified that different fuels result in different emissions of various pollutants. Specifically, SO₂ emissions are largely dependent on the sulfur content of the fuel, which varies significantly with fuel type.²⁵ Accordingly, differences in fuel types are important to Ohio EPA because it relates to Ohio EPA's overarching goal of reducing emissions. Testimony Hopkins.

{¶100} Significantly, Mr. Hopkins testified that fuel-specific short-term emissions limits are required when a source requests multiple operating scenarios, including use of multiple fuels, and when there are significant differences in emissions between fuels. For example, CO, VOC, and PM do not have significant differences in emissions when different fuels are burned, and therefore, Ohio EPA established one short-term emissions limit for each of these pollutants. However, because there are significant differences in emissions of SO₂ and NO_x depending upon the type of fuel burned, Ohio EPA determined that fuel-specific short-term emissions limits were required to properly describe BAT. Testimony Hopkins.

{¶101} Mr. Hopkins also explained that fuel-specific short-term emissions limits are important for Ohio EPA to ensure that permits are consistent from one facility to another. Ohio EPA wants to ensure that BAT for a plant that burns only natural gas is the same as a plant that burns both natural gas and other fuels. In

²⁵ Ms. Mowrey testified that burning fuels with higher percent of sulfur "doesn't always necessarily" result in higher emissions because in the asphalt production process, "some of our aggregates will absorb some of the sulfur that comes out of our fuels." Testimony Mowrey.

other words, a single short-term emissions limit for NO_x based on the worse case fuel would not require an emissions source to efficiently operate the burner while burning natural gas or other low NO_x fuel. For example, while burning natural gas, a burner could operate out-of-tune and still remain in compliance with an emissions limit based on a higher-emitting fuel, thereby resulting in higher emissions than are reasonably achievable for natural gas. Testimony Hopkins.

{¶102} Mr. Hopkins further testified that fuel-specific short-term emissions limits are operational limitations that, in addition to the rolling 12-month emissions limits, are required to comply with the 1989 Guidance to properly restrict PTE below major source thresholds. In particular, because fuels such as No. 4 and No. 6 fuel oils have higher sulfur contents and emit more sulfur on a short-term basis, burning higher sulfur-emitting fuels results in greater restrictions on annual asphalt production. For emissions sources that burn only one fuel, the annual asphalt production limit is calculated based on the emissions rate for the single fuel. However, for emissions sources burning multiple fuels, calculations based on the emissions rate for the highest-emitting fuel would result in more restrictive asphalt production limits. Testimony Hopkins.

{¶103} To address this issue and allow more flexibility, Mr. Hopkins explained that Ohio EPA developed a “flexible fuels approach” that calculates emissions against asphalt production based upon the individual fuels a facility seeks authorization to burn. The flexible fuels approach is advantageous because when a facility operates with a lower-emitting fuel and at a lower emissions rate, lower emissions result. The flexible fuels approach is also

advantageous because it allows a permittee to choose the fuels burned and in doing so, a facility can produce more asphalt using lower-emitting fuels than if asphalt production restrictions were calculated using the worst case fuel. Testimony Hopkins.

{¶104} On behalf of Shelly, Mr. Taylor disagreed with Ohio EPA's position that fuel-specific short-term emissions limits are necessary to prevent greater restrictions on annual asphalt production. In particular, Mr. Taylor testified that if the short-term emissions limit for SO₂ was based on No. 6 fuel oil as the worst case fuel, the 500,000 TPY production limit in the 2006 PTI would be higher, and Plant 77 would not be required to further restrict its asphalt production. Testimony Taylor.

{¶105} Ohio EPA has issued other PTIs that contain fuel-specific short-term emissions limits. In particular, Ohio EPA identified 20 PTIs containing fuel-specific short-term emissions limits. Ohio EPA also identified PTIs containing multiple short-term emissions limits for facilities that have multiple operating scenarios. Using a coating company as an example, Mr. Hopkins explained that because paints used for metal parts are higher-emitting than paints used for plastic parts, the PTI will contain one short-term emissions limit when using the higher emitting paint and a different short-term emissions limit when using the lower-emitting paint. Testimony Hopkins.

{¶106} Mr. Hopkins further commented on the permits reviewed by Mr. Taylor. Significantly, Mr. Hopkins testified that 8 PTIs were issued as administrative modifications, and because BAT was not reset, Ohio EPA would

not have changed the number of short-term emissions limits. Additionally, Mr. Hopkins does not believe Mr. Taylor's reliance on the boiler General Permit is applicable. Significantly, Mr. Hopkins testified that although the boiler General Permit contains one short-term limit for NO_x and SO₂, because each type of fuel combustion source requires different emissions factors, Ohio EPA evaluates whether fuel-specific short-term limits are required on a case-by-case basis. Mr. Hopkins noted that because boilers do not compete with asphalt plants, Ohio EPA does not have the same concern for consistency among facilities. Shelly Exhibit W, W-1; Testimony Hopkins.

{¶107} Finally, Mr. Hopkins disagreed with Shelly's position that fuel-specific short-term emissions limits result in significant additional recordkeeping, stating as follows:

* * * you would essentially do the same record keeping and reporting as you would do with one fuel as with multiple fuels. The only real difference is the emission factor that you use to calculate the emissions. You still have to do the same calculation. It's just a different emission factor for different fuels. You are also obligated to report your emissions for [air pollution control] fee purposes. And so you have to do those calculations anyhow. * * * [t]hose fees are based upon the amount of emissions over a given year or two-year period. And in order to do that, you have to do the same calculations. So in terms of the calculations whether it's one fuel or multiple fuels, you still have to keep track of the amount of fuel you use. * * * All of that calculation is the same calculation whether it's one fuel or more than one fuel. * * * So to me in terms of those calculations, there's really no difference in terms of the amount of work that you have to do to set up and keep those records. Testimony Hopkins.

Restrictions on the Types of Fuel

{¶108} The 2006 HMA Plant PTI Part II.B.6 states that Plant 77 "shall only burn natural gas, No.2 fuel oil, No. 4 fuel oil, No. 6 fuel oil, and/or on-spec

used oil.” Shelly contends that because Plant 77 can accommodate a range of fuels, the terms and conditions contained in Part II.B.6 unreasonably restrict the type of fuel that can be burned. Shelly also contends that Part II.B.6 contains new restrictions that were not in the 1994 or 2002 PTIs. Testimony Mowrey.

{¶109} At the hearing, Ms. Mowrey testified that prior to issuance of the 2006 PTI, Shelly had not used No. 4 or No. 6 fuel oil since it purchased the facility in 2003. Significantly, Ms. Mowrey testified that although the HMA plant could burn other fuels in addition to those authorized in the 2006 PTI, she “[did not] know what they are.” Shelly Exhibit S; Testimony Mowrey.

{¶110} Mr. Hopkins explained that the 2006 PTI authorizes all the fuels Shelly specifically requested in the 2004 Application. Mr. Hopkins noted that because permit terms and conditions are based on a permittee’s application and activity requested, if a PTI did not restrict fuels to those requested, Ohio EPA would have an impossible task to evaluate all fuels that potentially could be used. Testimony Hopkins.

Separate Emission Limits Per Process

{¶111} Part II.A.1 provides emissions limits for each portion of the production process of the HMA plant, including asphalt load out, asphalt silo filling, and cold end emissions²⁶ as follows:

Asphalt Load Out Emissions:

Fugitive emissions from load out operations shall not exceed 0.34 ton CO per rolling, 12-month period, 0.13 ton PE per rolling, 12-month period, and 0.97 ton of VOC per rolling, 12-month period.

²⁶ Neither the 1994 nor 2002 PTI limited emissions separately for each portion of the process associated with the HMA plant. Shelly Exhibit S.

Asphalt Silo Filling Emissions:

Fugitive emissions from silo filling operations shall not exceed 0.30 ton CO per rolling, 12-month period, 0.15 ton PE per rolling, 12-month period, and 3.0 tons VOC per rolling, 12-month period.

Cold End Emissions:

Fugitive emissions associated with the cold aggregate, sand, and RAP loading and transfer operations shall not exceed 1.25 tons of PE per rolling, 12-month period. Shelly Exhibit K.

{¶112} Mr. Hopkins testified that because compliance methods for the main asphalt stack and each part of the process are different, emissions limits were divided to simplify the compliance obligation for emissions from the HMA plant. Mr. Hopkins explained that, in theory, if an emissions point is not listed in the PTI, emissions from that point are not authorized. Accordingly, if emissions limits for each part of the production process are not listed separately, Mr. Hopkins believes there would be confusion as to whether or not emissions from these three points are authorized. Testimony Hopkins.

Restrictions on the Sulfur Content of Fuels

{¶113} The 2006 PTI also contains limits on the sulfur content of the fuels authorized to be burned at the HMA Plant. In particular, Part, II.A.2 provides in pertinent part:

2.b All #2 and on-spec used oil burned in this emissions unit shall have a sulfur content equal to or less than 0.5%, by weight.

2.c All #4 fuel oil burned in this emissions unit shall have a sulfur content equal to or less than 0.8%, by weight.

2.d All #6 fuel oil burned in this emissions unit shall have a sulfur content equal to or less than 1.0%, by weight.²⁷ Shelly Exhibit K.

²⁷ In comparison, the 1994 PTI did not contain a sulfur content restriction. The 2002 PTI contained a sulfur content restriction that stated, “[a]ll fuel shall contain no more than 0.50% sulfur content, by weight.” Shelly Exhibit S.

{¶1114} The 2006 PTI limits on the sulfur content of the fuels are the same limits requested by Shelly in the 2004 PTI Application. Mr. Hopkins testified that the sulfur content restriction in the 2006 PTI is standard in the industry. Testimony Harter, Hopkins.

{¶1115} Mr. Hopkins explained that sulfur content restrictions have two functions. First, Ohio EPA describes BAT by utilizing the percent of sulfur in each fuel to limit the amount of sulfur emitted by a source. Second, as noted by Mr. Taylor, restrictions on sulfur content of fuels are a component of the federal enforceability requirement used by US EPA to properly limit PTE below major source thresholds. Mr. Hopkins also explained that sulfur content is a critical piece of information used by Ohio EPA to calculate SO₂ emissions, and asphalt plants routinely obtain sulfur content information from suppliers and maintain records regarding the sulfur content contained in fuels purchased. Testimony Hopkins.

Limiting Use of RAP to 50%

{¶1116} Part II.B establishes the amount and nature of raw material feed mix authorized for use by the HMA plant. Relative to the instant appeal, Part II.B.5 and Part II.B.7 address the use of RAP and virgin aggregate as components of the raw material feed mix and provide, in relevant part:

5. The permittee may substitute reclaimed asphalt pavement (RAP) in the raw material feed mix in amounts not to exceed 50 percent. * * *

7. The permittee shall only use virgin aggregate and RAP in the raw material feed mix.²⁸ Shelly Exhibit K.

{¶117} In its 2004 PTI Application, Shelly requested authorization to use 0-50% RAP because it “knew through [Ohio EPA] it is standard practice to only have 50% RAP” and 50% RAP “is an ODOT [Ohio Department of Transportation] limitation.” On behalf of Shelly, Ms. Mowrey testified that if ODOT specifications changed in the future to increase the amount of RAP to 70%, Shelly would not be able to bid on the project and would be at a competitive disadvantage. Shelly Exhibit K; Testimony Mowrey.

{¶118} Gary Middleton, ODOT Administrator for the Office of Construction Administration,²⁹ testified regarding ODOT’s use of RAP in its construction projects. As a material recycled into new pavement, Mr. Middleton explained that RAP provides environmental benefits, is economically feasible to use, and provides skid/friction resistance needed during wet driving conditions. Accordingly, ODOT strongly recommends, and in some cases requires, RAP as a component of raw material feed mix used in its construction contracts. Testimony Middleton.

{¶119} Additionally, ODOT’s Construction Specifications contain standard specifications for RAP and plan notes identify the amount of RAP authorized for specific construction projects. Depending upon the application and type of aggregate used, ODOT limits the percent of RAP in the raw material feed mix to

²⁸ Neither the 1994 nor 2002 PTI contained any language restricting the use of raw materials to virgin aggregate and RAP. Shelly Exhibit S.

²⁹ In this capacity, Mr. Middleton supervises a staff of five engineers who write specifications for highway construction contracts and provide technical support to district staff regarding highway construction projects.

10 to 50%. Although increasing the percent of RAP may be a future option, ODOT's primary concern is that "it would be introducing a less durable finished product than * * * we should have by using a higher level of RAP." As technologies and control improves, ODOT may authorize a greater percent of RAP, but the 10 to 50% limit is the current specification in ODOT's Construction Specifications. Testimony Middleton.

{¶120} Ohio EPA has restricted the use of RAP for approximately 15-20 years and the 50% restriction is the agency's standard permit term. Mr. Hopkins explained that the 50% RAP limitation was developed as part of the work of the asphalt industry PPEC to address "blue smoke" caused by excess particulate and VOC emissions when RAP is used in the raw material feed mix. Mr. Hopkins noted that the 50% RAP limitation is part of the agency's description of BAT because Ohio EPA does not have information to determine if using a greater percent of RAP results in emissions increases. If a company sought to use more than 50% RAP, Ohio EPA would request stack testing, and if the results demonstrated no increase in emissions, Ohio EPA would issue an administrative modification to the PTI. Testimony Hopkins.

{¶121} In response to the Director's position that the 50% RAP limitation is necessary to address "blue smoke" emissions, Ms. Mowery testified, and Mr. Hopkins confirmed, that increased VOC emissions from using RAP has not been an issue for Shelly. Ms. Mowrey believes if raw material feed mix using more than 50% RAP resulted in increased emissions, a permittee would request a higher VOC emissions limit from Ohio EPA. Testimony Mowrey.

Virgin Aggregate Restriction

{¶122} Part II.B.7 further restricts the raw material feed mix for the HMA plant to “virgin aggregate.” The virgin aggregate restriction was intended to prevent Shelly from using slag as a component in the raw material feed mix. Although Ms. Mowrey believes Plant 77 was not previously prohibited from using slag at Plant 77, Ohio EPA employee Ron Windle testified that prior to the 2006 PTI, Ohio EPA had not “granted [Shelly] a permit consciously allowing them to use slag.” Shelly Exhibit K; Testimony Hopkins, Windle, Mowrey.

{¶123} The restriction on raw material feed mix to virgin aggregate was not included in the 2005 Draft PTI either when it was first issued on July 19, 2005, or when it was reissued on October 18, 2005. As a result, Shelly argues it was unable to comment on the restriction, and at the time the 2006 PTI was issued on June 1, 2006, it did not know that Ohio EPA intended to prohibit the use of slag as a component in the raw material feed mix. Ms. Mowrey testified that Shelly first learned of Ohio EPA’s definition of virgin aggregate through several meetings with Ohio EPA after the 2006 PTI was issued. Testimony Mowrey, Harter.

{¶124} On behalf of the Director, Ms. Harter testified that after the close of the first comment period and during the second comment period following reissuance of 2005 Draft PTI, she had a specific conversation with Ms. Mowrey on October 18, 2005, and advised that unless additional emissions data was provided, Plant 77’s PTI would contain a raw material feed mix restriction to

virgin aggregate and RAP. A telephone memorandum, prepared by Ms. Harter while talking with Ms. Mowrey, states, in pertinent part:

* * *

5. Regarding slag and other mix additives, we discussed Shelly's inclusion of these additives in the PTI applications for * * * Plant 77. I told Beth that this has come up as an issue because we believe there may be increased emissions associated with latex, shingles, slag, shredded tires in asphalt mixes. We would need additional emissions data collected before allowing these materials to be used. At this time we are inclined to restrict material usage to only RAP and virgin aggregate for * * * [Plant] 77 PTI unless Shelly can provide emission data for these materials. I inquired whether they would prefer to put these permits on hold pending receipt of that data or issue the permits with the RAP/virgin aggregate restriction. * * * Shelly Exhibit L; Testimony Harter.

{¶125} In contrast, Ms. Mowrey testified that she does not recall having a conversation with Ms. Harter in October 2005 regarding limiting the raw material feed mix to virgin aggregate. Ms. Mowrey further testified that prior to issuance of the 2006 PTI, Ohio EPA had not communicated with her in writing regarding the definition of virgin aggregate or requested that Shelly provide slag testing or emissions information. Testimony Mowrey.

{¶126} The term "virgin aggregate" is not defined in Ohio statutes or regulations. Additionally, at the time the 2006 PTI was issued, Ohio EPA had not prepared a written definition or guidance document defining the term "virgin aggregate." In 2005 or 2006, Ohio EPA internally developed the definition of virgin aggregate as "quarried uncontaminated material."³⁰

{¶127} Significantly, ODOT defines "virgin aggregate" to include slag. ODOT's long standing definition of virgin aggregate is contained in its Standard

³⁰ At the hearing, Ohio EPA witnesses defined virgin aggregate as "quarried unaltered material" and "quarried, clean rock." Testimony Windle, Hopkins.

Construction Materials Specifications and incorporated directly into the 600 construction contracts ODOT lets annually. Slag may be used in ODOT projects anywhere in Ohio. Notably, ODOT Districts 4 and 12 require the use of slag in its construction projects. Other than Shelly, Mr. Middleton was not aware of any other hot mix asphalt company advising ODOT that it could not use slag because it was not authorized by Ohio EPA. Mr. Middleton further testified that he was not aware of ODOT specifications or project specific contract documents that restrict the use of slag. Based upon his review of ODOT records during a three-year period, Mr. Middleton identified 70 projects that required the use of slag. Shelly Exhibit 8; Testimony Middleton.

{¶128} Although ODOT has a “change order” process to allow raw material changes after a contract is executed, Mr. Middleton explained that ODOT “would not look kindly” on a company seeking a contract in anticipation that a change order could modify the slag requirement. On cross examination, Mr. Middleton acknowledged that ODOT contract specifications and job proposals require contractors to comply with all local, state, and federal environmental laws. ODOT also does not consider environmental issues in creating job specifications and does not define emissions requirements for slag. Ohio EPA Exhibit 8; Testimony Middleton.

{¶129} The virgin aggregate restriction was included in the 2006 PTI because Ohio EPA was concerned that slag was a “potential material that could impact public health” and may cause an increase in SO₂ emissions. At the time the 2006 PTI was issued, Ohio EPA had not undertaken any health studies,

health impact studies, or modeling to demonstrate an adverse impact to the public when slag was used. Ohio EPA's belief that slag increased SO₂ emissions was based upon results of one stack test performed at an asphalt plant owned by Shelly's competitor.³¹ Ms. Harter explained that the stack test results indicated a correlation between the use of slag and increased SO₂ emissions, and as a result, Ohio EPA approved an increase in SO₂ emissions when slag was used in the raw material feed mix. Ohio EPA also received an odor complaint at another plant using slag as a raw material.³² Notably, Mr. Windle testified that the 2006 PTI does not contain a specific term or condition expressly prohibiting Shelly from using slag at Plant 77 "[b]ecause at that point we had realized that there could be other materials that weren't evaluated, * * * that could cause adverse impact to the public." Testimony Harter, Windle.

{¶130} Significantly, Ms. Mowrey testified that Plant 77 had been tested when slag was used and no exceedance of SO₂ emission limits was noted:

Q: In 2006 when this permit was issued had Shelly ever tested or violated its SO₂ based on slag usage?

A: We did test the plant, and it did run slag during the testing. We did not exceed our SO₂ emission limit. Testimony Mowrey.

{¶131} On behalf of the Director, Mr. Hopkins explained that ODOT specifications do not have a role in establishing Ohio EPA permit terms and conditions. Notably, Mr. Hopkins testified that if an ODOT specification conflicted

³¹ Although Ms. Harter testified that she also had discussions with others at Ohio EPA, no evidence was presented regarding either the substance or scope of the discussions. Testimony Harter.

³² No evidence was presented regarding the nature of the complaint, results of any investigation, or whether the odor complained of was, in fact, related to either the use of slag or increased SO₂ emissions.

with an EPA permit term or condition, Ohio EPA would “open up discussions” with ODOT to determine if the issue could be resolved. Testimony Hopkins.

Portable Source Relocation Restrictions

{¶132} Part II.D.11 “Relocation of Portable Sources” sets forth the circumstances under which the HMA plant may relocate without first obtaining a new PTI. Mirroring the requirements of Ohio Adm.Code 3745-03(A)(1)(p), Part II.D.11 provides, in relevant part:

Pursuant to OAC rule 3745-31-03(A)(1)(p), the permittee of a portable source may relocate within the State of Ohio without first obtaining a permit to install (PTI) providing certain criteria are met. The portable source shall meet one of the two following scenarios in order to qualify for this PTI exemption for the new location:

- a. The following determinations have been documented, pursuant to OAC rule 3745-31-03(A)(1)(p)(i): * * *
- b. In the alternative, pursuant to OAC rule 3745-31-03(A)(1)(p)(ii), the permittee of a portable source may relocate within the State of Ohio without first obtaining a PTI providing the criteria of OAC rule 3745-3-05(E) are met: * * * Shelly Exhibit K.

{¶133} Shelly contends that two additional provisions of Part II.D.11 make compliance confusing and difficult. In particular, Shelly argues that because the following provisions are not contained in Ohio Adm.Code 3745-31-03(A)(1)(p)(i) and (ii), Ohio EPA improperly expanded the requirements for portable sources:

Failure to submit said notification and to receive Ohio EPA approval prior to relocation of the portable source may result in civil fines and penalties.

Pursuant to OAC rule 3745-31-05(F), the director may modify the site approval to add or delete certain portable sources or add or delete certain terms and conditions as appropriate. Testimony Mowrey.

{¶134} In response, Mr. Hopkins testified that the two provisions to which Shelly objects “are just some additional language that clarifies some of the obligations for the company * * * under the case where they want to move one of their facilities.” Additionally, both Mr. Hopkins and Ms. Harter noted that the permit language is taken directly from Ohio Adm.Code 3745-31-03(A)(1)(p) and 3745-31-05(E), are standard practice for many portable sources, and are achievable for asphalt plants. Testimony Harter, Hopkins.

Burner Testing Requirements

{¶135} Part II.E addresses the methods by which Shelly is required to demonstrate compliance with the stated emissions limits for the HMA plant. In particular, Part II.E.2 requires Shelly to “conduct periodic tuning of the asphalt plant burner”³³ and sets forth specific testing requirements, including qualifications for technicians, operation and maintenance of monitoring devices, burner tuning procedures, and frequency of testing.³⁴ Shelly Exhibit K.

{¶136} Although no standard protocol exists, Shelly performs burner tuning as part of its routine maintenance procedures. Ms. Mowrey testified that burner tuning requirements in the 2006 PTI add additional record keeping obligations. In his expert opinion, Mr. Taylor testified that Shelly, like other operators of fuel combustion sources, focuses on efficiently operating burners and routine burner tuning maintenance is performed without any permit requirement from Ohio EPA. Testimony Mowrey, Taylor.

³³ Burner tuning balances the air and fuel ratios in a burner to assure that complete combustion occurs. Testimony Hopkins.

³⁴ Neither the 1994 nor 2002 PTI contained a burner tuning requirement. Testimony Mowrey; Shelly Exhibit S.

{¶137} Shelly also contends that Ohio EPA inconsistently applied burner tuning requirements in other asphalt plant PTIs. In particular, Mr. Taylor identified 12 PTIs issued to asphalt plants in 2006 and testified that 8 did not contain burner tuning requirements and 4 contained burner tuning requirements. Additionally, through her work with Shelly's consultants, Ms. Mowrey believes Ohio EPA has issued permits without burner tuning requirements for other industry sectors including power plants, steel mills, and industrial boilers but acknowledged that she did not review all of the permits issued to other industry sectors. Moreover, Mr. Taylor testified, "[n]one of the permits that I reviewed in [the 2006 timeframe] for fuel combustion sources included burner tuning requirements except for asphalt plants." Shelly Exhibit W-1; Testimony Mowrey, Taylor.

{¶138} On behalf of the Director, Mr. Hopkins explained that benefits of burner tuning include cost savings and "reduced unburned particles or compounds that are released to the atmosphere * * * from the incomplete combustion * * *." Mr. Hopkins noted that the burner tuning requirement was developed based on discussions with the asphalt industry PPEC and work done by Ohio EPA, including multiple stack tests from a number of asphalt plants. Mr. Hopkins believes that if a burner is properly tuned, it is more likely that the emissions source will comply with BAT. Testimony Hopkins.

{¶139} Ohio EPA employees Rod Windle and Sarah Harter testified that they are not aware of burner tuning requirements included in permits issued for other industry sectors that burn fossil fuels. Mr. Hopkins testified that although

rare, he is aware of burner tuning requirements in permits for other industry sectors. However, Mr. Hopkins was unable to identify either the emissions source or industry sector. Testimony Harter, Windle, Hopkins.

CONCLUSIONS OF LAW

{¶140} Ohio Revised Code 3745.05 sets forth the standard ERAC must employ when reviewing a final action of the Director. The statute provides, in relevant part, that “[i]f, upon completion of the hearing, the commission finds that the action appealed from was lawful and reasonable, it shall make a written order affirming the action, or if the commission finds that the action was unreasonable or unlawful, it shall make a written order vacating or modifying the action appealed from.”

{¶141} The term “unlawful” means “that which is not in accordance with law,” and the term “unreasonable” means “that which is not in accordance with reason, or that which has no factual foundation.” *Citizens Committee to Preserve Lake Logan v. Williams* (1977), 56 Ohio App.2d 61, 70. This standard does not permit ERAC to substitute its judgment for that of the Director as to factual issues. *CECOS Internatl., Inc. v. Shank* (1992), 79 Ohio App.3d 1, 6. “It is only where [ERAC] can properly find from the evidence that there is no valid factual foundation for the Director’s action that such action can be found to be unreasonable. Accordingly, the ultimate factual issue to be determined by [ERAC] upon the de novo hearing is whether there is a valid factual foundation for the Director’s action and not whether the Director’s action is the best or most

appropriate action, nor whether the board would have taken the same action.”
Id.

{¶142} The Commission is required to grant “due deference to the Director’s ‘reasonable interpretation of the legislative scheme governing his Agency.’” *Sandusky Dock Corp. v. Jones* (2005), 106 Ohio St.3d, 274, citing *Northwestern Ohio Bldg. & Constr. Trades Council v. Conrad* (2001), 92 Ohio St.3d 282; *State ex rel. Celebrezze v. National Lime & Stone Co.* (1994), 68 Ohio St. 3d 377; *North Sanitary Landfill, Inc. v. Nichols* (1984), 14 Ohio App. 3d. The deference is not, however, without limits. (See e.g., *B.P. Exploration and Oil, Inc., et al v. Jones*, Ruling on Motion for Summary Adjudication and Final Order, issued March 21, 2001, in which the Commission noted that such deference must be granted to the Director’s interpretation and application of his statutes and rules, “particularly if the Director’s interpretation is not at variance with the explicit language of the regulations.”)

{¶143} The Director’s authority to issue permits to regulate sources of air emissions is part of his broad powers to protect, enhance, and promote public health and welfare granted to him in R.C. 3704.03 and the relevant regulations are set out in Ohio Adm.Code Chapter 3745-31. Ohio Adm.Code 3745-31-02(A) prohibits the installation of a new or modifications to an existing source of air pollutants without first obtaining a permit to install from the Director. It states:

- (1) Except as provided in rule 3745-31-03 of the Administrative Code, no person shall cause, permit, or allow the installation of a new source of air pollutants or cause, permit, or allow the modification of an air containment source without first obtaining a permit to install from the director.

{¶144} The criteria for decision by the Director to issue a permit to install or modify an air containment source is set forth in Ohio Adm.Code 3745-31-05 and states, in relevant part:

(A) The director shall issue a permit to install, * * * if he determines that the installation or modification and operation of the air containment source will:

(1) Not prevent or interfere with the attainment or maintenance of applicable ambient air quality standards; and

(2) Not result in a violation of any applicable laws, including but not limited to:

(a) Emission standards adopted by the Ohio EPA;

(b) Federal standards of performance for new stationary sources adopted by the administrator of the United States Environmental Protection Agency pursuant to section 111 of the Clean Air Act and the regulations promulgated thereunder * * *

(3) Employ the best available technology, except when the only requirement to obtain a permit to install is due to a modification as described in rule 3745-31-01 and (A)(2) of rule 3745-31-02 of the Administrative Code.

* * *

(C) The director may impose such special terms and conditions as are appropriate or necessary to ensure compliance with the applicable laws and to ensure adequate protection of environmental quality. Special terms and conditions necessary to ensure compliance with requirements mandated by the federal Clean Air Act or regulations promulgated thereunder, including synthetic minor emissions unit conditions that restrict the stationary source's potential to emit below major size cutoffs, shall be federally enforceable and designated as such in the permit to install.

{¶145} At the time the 2006 PTI was issued, BAT was defined in R.C. 3704.03(T)³⁵ as:

Any combination of work practices, raw material specifications, throughput limitations, source design characteristics, an evaluation of the annualized cost per ton of air pollutant removed, and air pollution control devices that have been previously demonstrated to the director of environmental protection to operate satisfactorily in this state or other states with similar air quality on substantially similar air pollution sources.

{¶146} The determination of what constitutes BAT is within the discretion of the Director. *State Ex. Rel. Northeast Ohio Sewer Dist. v. Ohio Env'tl. Prot. Agency*, Cuyahoga App. No. 87928; 2007 Ohio 834.

{¶147} "Potential to emit" is defined in Ohio Adm.Code 3745-31-01 (UUUU) as:

* * * the maximum capacity of an emissions unit or stationary source to emit an air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the emissions unit or stationary source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable or legally and practicably enforceable by the state. Secondary emissions do not count in determining the potential to emit of a stationary source.

{¶148} The Commission will first address the Chapter 31 Modification and draft asphalt General Permit issues that Shelly contends are overarching and transcend all the specific assignments of error.

³⁵ Senate Bill 265 subsequently revised the definition of BAT.

Ohio EPA Unreasonably and Unlawfully Required Shelly to Obtain a Chapter 31 Modification to expressly add two fuels

{¶149} Shelly contends that the 2004 Application was not a Chapter 31 Modification because the addition of No. 4 and No. 6 fuel oils met the “use of an alternative fuel” exemption. Shelly also contends that its request to add 2 fuels does not meet the definition of “modification” set forth in Ohio Adm.Code Chapter 3745-31. As a result, Shelly argues the 2004 Application should have been processed as an administrative modification. The Commission will first consider Shelly’s contention that the use of an alternative fuel exemption is applicable to its request to add No. 4 and No. 6 fuel oils.

{¶150} Relative to the issues in this appeal, Ohio Adm.Code 3745-31-01 (PPP)(1)(a)(i)³⁶ defines “modify” or “modification” as “any physical change in, or change in the method of operation of” an air containment source that “results in an increase in allowable emissions.” Ohio Adm.Code 3745-31-01 (PPP)(1)(a)(v) sets forth an exemption to the definition of modification and provides, in relevant part:

(v) ‘Modify’ or ‘modification’ shall not include * * * use of an alternative fuel or raw material that the source is capable of accommodating and is not expressly prohibited from using under any permit condition or applicable requirement of the federal Clean Air Act; * * *

{¶151} “Administrative Modification” is defined as “a change to a [PTI] that does not meet the definition of modification under [Ohio Adm.Code 3745-31-01]”.

³⁶ This regulatory provision has been renumbered as Ohio Adm.Code 3745-31-01 (QQQ). Other than the citation change, the substance of the definition is unchanged. Ohio Adm.Code 3745-31-01 (PPP)(1)(a)(i) will be used herein.

{¶152} Statutes designed to promote the health, safety, and welfare of people should be broadly construed. *Pizza v. Sunset Fireworks Co., Inc.* (1986), 25 Ohio St.3d 1, 494 N.E.2d 1115. As such, any exception to regulations that promote health, safety, and welfare are narrowly construed, and generally the party asserting a statutory exception is required to prove the facts warranting application of the exception. See *Buckeye Forest Council v. Division of Mineral Resources* (June 14, 2002), 7th Dist. No. 01 BA18; *Red Hill Farm Trust v. Schregardus* (1995), 102 Ohio App.3d 90, 656 N.E.2d 1010 (requiring party asserting exception under air pollution statute to prove its application).

{¶153} To meet the use of an alternative fuel exemption, Ohio Adm.Code 3745-31-01(PPP)(1)(a)(v) requires that the emissions source is 1) capable of accommodating the alternative fuel, and 2) not expressly prohibited from using the alternative fuel under any permit condition or applicable requirement of the CAA.

{¶154} Shelly argues that addition of No. 4 and No. 6 fuel oils falls within the use of an alternative fuel exemption because the evidence established that the HMA plant was “capable of accommodating” both fuels and was not “expressly prohibited” from using either fuel by the 1994 or 2002 PTI. In contrast, the Director contends that the use of an alternative fuel exemption applies only to fuels authorized in a permit and is intended to allow a facility to switch between fuels without seeking a modification each time one of the permitted fuels is burned. The Director also contends that because preheating is required to burn No. 6 fuel oil, the HMA plant is not “capable of accommodating” the requested

fuels, and Shelly was “expressly prohibited” by the 2002 PTI from using either No. 4 or No. 6 fuel oils.

{¶155} The phrase “capable of accommodating” is not defined in Ohio Adm.Code Chapter 3745-31. Additionally, no evidence was presented that the Director has either published any written guidance that defines or otherwise describes the circumstances under which a source is capable of accommodating an alternative fuel pursuant to Ohio Adm.Code 3745-31-01(PPP)(1)(a)(v). On behalf of the Director, Mike Hopkins explained that Ohio EPA uses a “common sense approach” to determine whether a source is capable of accommodating an alternative fuel. This approach includes assessing whether the emissions source has equipment in place that allows it to use the alternative fuel. Ohio EPA employee Bob Hodanbosi further explained that the “source” for purposes of determining if the source is capable of accommodating an alternative fuel, includes other potential ancillary equipment required to be installed. Based upon his experience as an engineer and with reviewing other combustible fuel permits, Mr. Hopkins opined that the HMA plant was not capable of accommodating the addition of the two new fuels because No. 6 fuel, at ambient temperatures, would “typically” require preheating, and “there would be some additional equipment that would need to be installed.”

{¶156} Contrary to Ohio EPA’s position, even though No. 6 fuel oil requires preheating, no evidence was presented that any ancillary equipment must be installed to accommodate burning No. 4 and No. 6 fuel oils at the HMA

plant.³⁷ Rather, substantial evidence presented by Shelly establishes that the HMA plant has equipment in place that will allow it to burn No. 4 and No. 6 fuel oils. The HMA plant emissions analysis and December 17, 2002 cover letter accompanying the 2004 Application specifically stated that “there has not been and will not be any physical modifications to” the HMA plant. At the hearing, Ms. Mowrey again confirmed that no additional equipment will be installed to burn No. 4 or No. 6 fuel oil at the HMA plant.

{¶157} Based upon a totality of the evidence presented, the Commission finds that the Director lacked a valid factual foundation to conclude that the HMA plant was not capable of accommodating No. 4 and No. 6 fuel oils as contemplated by Ohio Adm.Code 3745-31-01(PPP)(1)(a)(v). However, this finding does not end the Commission’s inquiry. The use of an alternative fuel exemption also requires that the emissions source is not “expressly prohibited” from using No. 4 or No. 6 fuel oil by any permit condition or applicable requirement of the CAA.

{¶158} Shelly argues that for a fuel to be “expressly prohibited,” the Director must list every fuel that is not authorized. The Director responds to Shelly’s argument contending that the language in the 2002 PTI prohibited the use of any fuel not specifically listed in the operational limitations; because No. 4 and No. 6 fuel oils were not listed as allowed fuels, they were expressly prohibited.

{¶159} The phrase “expressly prohibited” is not defined in Ohio Adm.Code Chapter 3745-31. “Expressly” is generally defined as “in a plain and

³⁷ No evidence was presented that burning No. 4 fuel oil will require preheating.

definite way,” Webster’s New World Dictionary (3rd Ed.) and “fully and clearly expressed or demonstrated,” www.Dictionary.com.

{¶160} The Commission is required to narrowly construe the use of an alternative fuel exemption and finds evidence supports a finding that the Director had a valid factual foundation to conclude the 2002 PTI expressly prohibited the HMA plant from using No. 4 and No. 6 fuel oils. First, Shelly’s decision to seek a modification to “add two fuels” reflects its clear understanding that neither No. 4 nor No. 6 fuel oils were authorized by the 2002 PTI. Both the emissions analysis for the HMA plant and the December 17, 2004 cover letter accompanying the 2004 Application state, “Shelly is * * * requesting approval of the use of alternative fuels * * * *in addition to* the fuels already permitted (natural gas, No. 2 fuel oil and on-spec used oil).”

{¶161} Specific terms and conditions in the 2002 PTI further demonstrate that burning No. 4 and No. 6 fuel oils was expressly prohibited. The 2002 PTI “fuel usage” operational limitation specifically states, “[t]he permittee reserves the right to burn natural gas, No. 2 fuel oil, and on specification used oil.” No. 4 and No. 6 fuels are not listed as fuels the “permittee reserve[d] the right to burn.” It is clear that Shelly only contemplated burning natural gas, No. 2 fuel oil, and on-specification used oil because if it intended to burn fuels other than those listed, it would have “reserved the right” to do so.

{¶162} Moreover, the 2002 PTI expressly prohibited fuels based on sulfur content specifying that “all fuel shall contain no more than 0.50% sulfur content by weight.” Shelly’s HMA plant emissions analysis submitted with the 2004

Application provides that No. 4 fuel oil contains 0.8% sulfur by weight and No. 6 fuel oil contains 1.0% sulfur by weight. Although the HMA plant is capable of accommodating the addition both of these fuels, because the sulfur content is greater than 0.50%, the 2002 PTI expressly prohibited the use of No. 4 and No. 6 fuel oils.

{¶163} Finally, the Commission finds Shelly's interpretation of "expressly prohibited" would lead to impractical results and require Ohio EPA to identify, evaluate, and list as a prohibited fuel every conceivable fuel regardless of whether or not the fuel was requested or whether the emissions source was designed to burn it. Given that Shelly's own records demonstrate a clear understanding as to which fuels Plant 77 was and was not authorized to burn, the Commission finds the Director's practice of drafting permit conditions listing fuels authorized to be burned, not only plainly and clearly expresses that other fuels are prohibited, but also is a common sense and practical approach.

{¶164} Accordingly, the Commission finds the Director's determination that the use of an alternative fuel exemption was not applicable to Shelly's request to add No. 4 and No. 6 fuel oils at Plant 77 was lawful and reasonable.

{¶165} The Commission will next evaluate Shelly's contention that the request to add No. 4 and No. 6 fuel oils does not fall within the definition of a Chapter 31 Modification because it is not a change in the method of operation of the HMA plant and does not result in an increase in allowable emissions.

{¶166} Ohio Adm.Code 3745-31- 01(PPP) does not contain any language that defines or otherwise describes the circumstances that constitute a "change

in the method of operations” for purposes of a Chapter 31 Modification. However, because “modification” is defined to include “any” change in the method of operation of an emissions source, Chapter 31 Modifications are broadly defined, and the Commission is obligated to give these words their plain and ordinary meaning. Additionally, although an emissions source may be capable of accommodating additional fuels because no design change or additional equipment is required, such additions may still constitute a change in the method of operations. The Commission believes evidence presented supports a finding that addition of No. 4 and No. 6 fuel oils constitute a change in the method of operations of the HMA plant.

{¶167} Shelly acknowledges that No. 2, No. 4, and No. 6 fuel oils are distinct and “differ from each other in their viscosity and volatility.” Shelly also acknowledges that No. 4 and No. 6 fuel oils differ from other fuels by “variability in fuel costs and market demand.” Significantly, although the HMA plant was built and designed to use a variety of liquid fuels, on behalf of Shelly, Ms. Mowrey testified that prior to submission of the 2004 Application, Plant 77 had not previously burned No. 4 or No. 6 fuel oil. Further, the emissions analysis submitted with the 2004 Application and evidence presented at the hearing establishes, that because No. 6 fuel oil is a “heavyweight material that is difficult to pump,” preheating is required.

{¶168} Moreover, the percentage increase in the sulfur content of No. 4 and No. 6 fuel oils further demonstrates a change in the method of operations at Plant 77. As requested in the 2004 Application, No. 4 and No. 6 fuel oils have a

sulfur content of 0.8% and 1.0%, respectively, which is greater than the percentage of sulfur in fuels authorized by the 2002 PTI that restricted the use of fuels to those that “contain no more than 0.50% sulfur content by weight.” See, *Hawaiian Electric Company, Inc. v. United States Environmental Protection Agency* (C.A. 9, 1984), 723 F.2d 1440 (for purposes of major modification under CAA, an increase in sulfur content of fuel from a permit condition is a change in the method of operation and does not constitute use of an alternative fuel).

{¶169} The Commission also disagrees with Shelly that addition of No. 4 and No. 6 fuel oils will not result in an increase in allowable emissions required to trigger a Chapter 31 Modification.

{¶170} The phrase “allowable emissions” is defined in Ohio Adm.Code 3745-31-01(K), in relevant part, as follows:

* * * the emissions rate of an air contaminant source calculated using the maximum rated capacity of the air contaminant source (unless the air contaminant source is subject to limits that are federally enforceable by the state that restrict the operating rate or hours of operation, or both), and the most stringent of the following:

- (1) The applicable standards as set forth in 40 CFR parts 60, 61, and 63; or
- (2) The applicable state implementation plan emissions limitation, including those with a future compliance date; or
- (3) The emissions rate by a permit condition that is federally enforceable by the state, including those with a future compliance date.

{¶171} In support of its position that addition of No. 4 and No. 6 fuel oils did not increase Plant 77’s allowable emissions, Shelly relies upon a comparison

of rolling 12-month SO₂ and NO_x emissions limits in the 2002 PTI and 2006 PTI.³⁸ Shelly contends that such a comparison is proper, because for “purposes of federal enforceability,” US EPA only requires “a rolling 12-month emissions limit for each pollutant along with an operational limit” to limit PTE, and fuel-specific short-term emissions limits are not required to maintain Plant 77’s synthetic minor permit designation. In response, the Director argues that, for purposes of a Chapter 31 Modification, he compared the emissions limits authorized in the 2002 PTI with emissions calculations for Plant 77 for each fuel requested in the 2004 Application. The Commission finds evidence supports a finding that, for purposes of a Chapter 31 Modification, the addition of No. 4 and No. 6 fuel oils results in an increase in allowable emissions.

{¶172} Initially, the Commission notes that Shelly limits its comparison of the rolling 12-month emissions to only two pollutants, SO₂ and NO_x. This limited comparison is flawed in two ways. First, it fails to consider short-term emissions of SO₂ and NO_x. And second, it fails to consider any emissions of other pollutants, including VOC, PM, and CO.

{¶173} For purposes of a Chapter 31 Modification, Ohio Adm.Code 3745-31-01(PPP) neither describes “allowable emissions” by pollutant or by relevant time period, nor does it specify a method of calculation that the Director is required to employ. Notably, Ohio Adm.Code 3745-31-01(PPP) does not specify that the increase in allowable emissions must be based on the amount of

³⁸ Although the rolling 12-month emissions limits for SO₂ and NO_x decreased, the rolling 12-month emissions limits for VOC and CO increased in the 2006 PTI. The rolling 12-month emissions limit for VOC was 19.2 TPY in the 2002 PTI and 35 TPY in the 2006 PTI. The rolling 12-month emissions limit for CO was 78 TPY in the 2002 PTI and 88.28 TPY in the 2006 PTI.

pollutants emitted “annually,” over “rolling 12- month” periods, or on emissions limits calculated to limit PTE below major source thresholds.

{¶174} In the 2004 Application, Shelly’s request for federally enforceable emissions limits identified proposed short-term emissions limits for each pollutant associated with the HMA plant. These short-term emissions limits demonstrate that Shelly anticipated that addition of No. 4 and No. 6 fuel oils would result in increases of short-term emissions of SO₂ and NO_x. And therefore, Shelly’s 2004 Application demonstrates its “allowable emissions” would increase with respect to short-term emissions.

{¶175} Moreover, Appellant’s reliance on only SO₂ and NO_x is also at odds with its request for federally enforceable emissions limits submitted with the 2004 Application, which included emissions calculations for not only SO₂ and NO_x, but also VOC, PM, and CO. Significantly, Appellant’s request for federally enforceable emissions limits demonstrates that the rolling 12-month emissions of CO, PM, and VOC from the HMA plant would increase as a result of the proposed modification; therefore, that “allowable” emissions would increase with respect to those pollutants.

{¶176} On behalf of the Director, Ms. Harter testified that she determined whether the addition of No. 4 and No. 6 fuels would result in an increase in allowable emissions by comparing the emissions limits of the fuels authorized in the 2002 PTI with “what the emissions from the plant would be under the proposed operating scenario” requested in the 2004 Application. In particular, Ms. Harter testified that because the sulfur content of the fuel oils requested in

the 2004 Application was greater than the sulfur content of No. 2 fuel oil authorized in the 2002 PTI, she concluded that addition of No. 4 and No. 6 fuel oils would result in an increase in allowable emissions.

{¶177} Based on the foregoing, the Commission finds the Director's determination that Shelly's request to add No. 4 and No. 6 fuel was a change in the method of operation and would result in an increase of allowable emissions thus triggering a Chapter 31 Modification, was lawful and reasonable.

Ohio EPA Exceeded its authority by utilizing a draft general permit to create terms and conditions in the 2006 PTI

{¶178} In its second overarching issue, Shelly argues that the Director improperly issued the 2006 PTI as an asphalt General Permit. In particular, Shelly contends that Ohio EPA failed to advise that the draft asphalt General Permit was being used as a standard permit framework throughout the state, and because the draft asphalt General Permit had not been finalized and subject to public notice and comment, the Director exceeded his authority by utilizing a draft to create terms and conditions in the 2006 PTI. The Commission disagrees.

{¶179} The Commission finds the Director did not unlawfully issue the 2006 PTI as a General Permit as no proposed asphalt General Permit has been filed by the Director or published for public comment. The 2004 Application was not filed by Shelly as a request to be governed by a General Permit, and the 2006 PTI was not issued as a General Permit.

{¶180} Although Shelly may take issue with specific terms and conditions in the 2006 PTI, the Commission finds that the Director had a valid factual foundation to use the draft asphalt General Permit as a template, or starting point

for drafting site-specific terms and conditions for the 2006 PTI. For nearly three years, the asphalt industry PPEC, comprised of industry representatives and Ohio EPA personnel, reviewed industry stack test data, emissions calculations, rule analyses, and other information regarding air emissions specific to the asphalt industry. Based upon the work completed, the Director exercised his judgment and determined that the terms and conditions contained in the draft asphalt General Permit satisfactorily addressed many issues regarding how emissions from asphalt plants should be permitted.

{¶181} In this instance, the Director modified the draft Asphalt General Permit to meet site-specific conditions of Plant 77. On behalf of the Director, Ms. Harter testified that because the draft Asphalt General Permit did not encompass No. 6 fuel oil, she completed emissions calculations specific to the fuels Shelly requested authorization to use at Plant 77. Shelly had an opportunity to express its concerns and, on two occasions, submitted detailed comments regarding permit terms and conditions proposed for Plant 77. The Commission finds evidence supports a finding that the Director did not unlawfully or unreasonably use any terms or conditions developed by industry and Ohio EPA as part of the asphalt industry General Permit initiative to draft the 2006 PTI.

SPECIAL TERMS AND CONDITIONS

Assignment of Errors A and B

The one minute per 60-minute period visible emission limit for paved roads and a three minutes per 60-minute period visible emission limit for unpaved roads are overly restrictive, not in concert with Ohio's visible emission regulations, unduly burdensome and inclusion of these limits is unreasonable and unlawful.

The Best Available Control Measures and a one minute per 60-minute period visible emission limit for plant storage piles are overly restrictive, not in concert with Ohio's visible emission regulations, unduly burdensome, and inclusion of these limits is unreasonable and unlawful.

{¶182} Shelly contends that because short-term emissions limits are not specifically included in the definition of BAT in Ohio Adm.Code 3745-31-01(T), the short-term fugitive particulate emissions ("PE") limits for paved and unpaved roadways and storage piles are unlawful. Shelly also contends that based upon site-specific conditions, the fugitive PE short-term emissions limits are unreasonable because compliance would result in oversaturation of aggregate, increased fuel usage, and increased emissions from additional time required to dry wet aggregate. The Commission does not find these arguments persuasive.

{¶183} At the outset, the Commission notes that the exact fugitive PE limits at issue have been special permit terms and conditions for Plant 77 since 1994. Additionally, relying on Ohio Adm.Code 3745-17-07 (B)(4),(5), and (6)³⁹ Shelly's August 10, 2005 comments to the 2005 draft PTI specifically

³⁹ Ohio Adm.Code 3745-17-07(B) provides, in relevant part:

(B) visible particulate emission limitations for fugitive dust:

* * *

(4) * * * there shall be no visible particulate emissions from any paved roadway or parking area except for a period of time not to exceed six minutes during any sixty minute observation period, * * *.

(5) * * * there shall be no visible particulate emissions from any unpaved roadway or parking area except for a period of time not to exceed thirteen minutes during any sixty-minute period * * *.

(6) * * * there shall be no visible particulate emissions from any material storage pile except for a period of time not to exceed thirteen minutes during any sixty-minute period * * *.

acknowledged that a short-term hourly emissions limit for paved and unpaved roadways and storage piles are BAT.

{¶184} Although the definition of BAT pursuant to Ohio Adm.Code 3745-31-01(T) does not expressly include “emissions limitations,” the one- and three-minute fugitive PE limits here fall within the meaning of “work practices.” First, the one- and three-minute fugitive PE limits at issue do not exist in isolation. Instead, the 2006 PTI identifies specific methods to control PE emissions. For roadways, the 2006 PTI provides that fugitive PE shall be controlled by “chemical stabilization/dust suppressants and or watering,” and Shelly is not “prohibit[ed] from employing other control measures to ensure compliance.” For storage piles, the 2006 PTI provides that Shelly shall control fugitive PE by “maintain[ing] minimal drop heights * * *, use chemical stabilization/dust suppressants and/or watering/sprinkling systems * * *,” and Shelly is not “prohibit[ed] from employing other control measures to ensure compliance.”

{¶185} As set forth in Ohio EPA’s December 8, 1992 memorandum prepared by Mike Hopkins, the one- and three-minute PE limits serve to more fully describe the relevant work practices based upon Ohio EPA’s review of BAT for similar sources, other administrative rules, and detailed analysis of the cost effectiveness of achieving the level of control for paved and unpaved roadways and stockpiles.

{¶186} Thus, the one- and three-minute PE limits work in conjunction with the control method requirements in that they describe an achievable level of control when properly using watering, chemical stabilization, and/or covering.

The Commission finds that the one- and three-minute PE limits are necessary to fully describe the relevant work practice(s) because without this aspect of the description, any amount of water or chemical stabilizer would satisfy the permit condition.⁴⁰ Accordingly, the Commission finds evidence supports a finding that the one- and three- minute fugitive PE limits for paved and unpaved roadways and storage piles properly describe BAT.

{¶187} The Commission also finds evidence supports a finding that the specific terms of the one- and three-minute PE limits are reasonable and not unduly burdensome. First, as noted above, the exact terms at issue have been in the facility's permit since 1994. No evidence was presented that Shelly was unable to comply with the one- and three-minute PE limits since it acquired the facility in 2003. Additionally, although Ms. Mowrey testified that compliance with the one- and three-minute PE limits may be difficult, no evidence was presented that compliance with the 2006 PTI PE limits is unachievable.

{¶188} And further, on behalf of the Director, Mr. Hopkins' testimony establishes that identical limits have been used at other similar facilities since at least 1992 without any indication that the limits are either unachievable or not cost-effective. The Commission finds evidence supports a finding that the Director had a valid factual foundation to include one- and three-minute PE limits for the roadways and material storage piles. Accordingly, the Commission finds the Director acted reasonably and lawfully in imposing the one- and three-minute

⁴⁰ It was reasonable for the Director to specify a level of control to be achieved (rather than an amount of chemical stabilizer or water to be used) because PE is dependent on weather conditions, and thus the amount of stabilizer and/or water necessary to achieve a given level of control likely varies from day to day.

PE limitations contained in Appellant's 2006 Permit. Assignment of Errors A & B are not well-taken.

Assignment of Error C

The use of chemical stabilization, watering, or covering as the only allowed methods to ensure compliance with Best Available Control Measures for wind erosion is not mandated by Ohio, and such methods are not feasible, are damaging to raw material, and therefore, the control method restrictions are unreasonable and unlawful.

{¶189} Shelly argues that the express language contained in the 2006 HMA plant PTI Part II.A.2.a restricts Shelly to only one of the three delineated techniques to control emissions from the storage piles at Plant 77. Although Part II.A.2.a. also specifically contains language stating “[n]othing * * * shall prohibit the permittee from employing other control measures,” Shelly interprets the provision to require Shelly to first use one of the three control techniques before it may use another method to control emissions from the storage piles.

{¶190} On behalf of the Director, Mr. Hopkins testified that the proper interpretation of Part II.A.2.a authorizes Shelly to use any of the delineated techniques or any other measure that will adequately control emissions from Plant 77's storage piles.

{¶191} Based upon the evidence presented, Shelly concedes that no dispute exists with respect to Assignment of Error C but asks the Commission to order the Director to clarify Part II.A.2.a to “expressly provide that Shelly can use any control measure to control wind erosion from the storage piles.” Although the language may not be artfully drafted, the Director's interpretation is consistent with how the Commission would interpret this condition and thus, the

Commission declines to order the Director to revise any language of Part II.A.2.a regarding control of emissions from storage piles at Plant 77. Assignment of Error C is not well-taken.

Assignment of Error D

Multiple short-term emission limits for NO_x and SO₂ are duplicative requirements and are unreasonable and unlawful.

{¶192} Assignment of Error D focuses on the fundamental disagreement between the Director's and Shelly's views of Ohio's synthetic minor permitting process including the Director's authority to describe BAT under Ohio law and limit PTE at Plant 77 below major source thresholds. In particular, Shelly contends that for purposes of federal enforceability, BAT is properly described as one short-term emissions limit based on the worst-case fuel and does not require the Director to set fuel-specific short-term emissions limits. Shelly also contends that PTE at Plant 77 is properly limited by the rolling 12-month emissions limits for each pollutant and the annual asphalt production limit of 500,000 TPY.

{¶193} At the outset, it is important to recognize that short-term emissions limits have described BAT at Plant 77 since it was first permitted in 1994. In fact, in the instant appeal, Shelly does not dispute that short-term emissions limits may properly describe BAT for emissions of CO, VOC, PE, and PM-10 when Plant 77 burns No. 2, No. 4, or No. 6 fuel oils. Shelly's only challenge is to the Director's determination that fuel-specific short-term emissions limits for SO₂ and NO_x are necessary to describe BAT at Plant 77.

{¶194} The Commission also notes that the 2004 Application was the first time Shelly requested authorization to burn more than one type of fuel oil. Shelly

acknowledges that prior to issuance of the 2006 PTI, Plant 77 only burned No. 2 fuel oil, and neither No. 4 nor No. 6 fuel oils had been burned. As noted above, Shelly acknowledges that significant differences exist in the sulfur content of No. 2, No. 4, and No. 6 fuel oils and SO₂ emissions are almost entirely dependent on the sulfur content of the fuel and are largely unaffected by burner size and design.

{¶195} Shelly challenges Plant 77's fuel-specific short-term emissions limits on the basis that "Ohio EPA has a pattern of issuing synthetic minor PTIs with a single short-term emission limit" as BAT and "frequently" sets emissions limits based on the highest emitting fuel for SO₂ and NO_x. The Commission does not find this argument persuasive.

{¶196} Shelly primarily supports its position upon the testimony of its expert witness Chuck Taylor and his review of 11 permits issued to asphalt companies by Ohio EPA in 2006, 2 permits for facilities with boilers as the combustion source, and the boiler General Permit from which he concluded that the Director had established BAT with one short-term emissions limit for SO₂ and NO_x. However, on behalf of the Director, Mike Hopkins clarified that 8 of the PTIs reviewed by Mr. Taylor were issued as administrative modifications, and because BAT was not reset, Ohio EPA would not have established fuel-specific short-term emissions limits. Mr. Hopkins also testified that Mr. Taylor's reliance on the boiler General Permit is misplaced because each type of fuel combustion source requires different emissions factors, and the decision whether fuel-specific short-term limits are BAT is made based on site-specific information.

{¶197} The determination of what is the “best available technology” is left to the discretion of the Director. *Northeast Ohio Sewer District v. Ohio Environmental Protection Agency*, 8th Dist. No. 87929, 2007 Ohio 834. In this case, evidence supports a finding that fuel-specific short-term emissions limits for SO₂ and NO_x were necessary to properly describe BAT at Plant 77. Because No. 2, No. 4, and No. 6 fuel oils have significantly different sulfur contents and resulting SO₂ emissions, the Director determined it was possible to achieve lower SO₂ emissions when using, for example, No. 2 fuel oil as compared to No. 6 fuel oil. In other words, one short-term emissions limit based on a reasonably achievable SO₂ emissions rate for No. 6 fuel oil would not adequately describe a reasonably achievable short-term SO₂ emissions rate for No. 2 fuel oil.

{¶198} A similar analysis applies with respect to NO_x emissions at Plant 77. Mr. Hopkins’ testimony demonstrated it is, for example, possible to achieve significantly lower NO_x emissions when burning natural gas than when burning No. 2 fuel oil. Thus, a single short-term emissions limit based on a reasonably achievable NO_x emissions rate for No. 2 fuel oil would not adequately describe a reasonably achievable NO_x emissions rate for natural gas.

{¶199} Further, Ohio Adm.Code 3745-31-01(T) defined BAT to include “air pollution control devices that have been previously demonstrated to the [Director] to operate satisfactorily * * *.” Mr. Hopkins testified that reduced short-term NO_x emissions limits for natural gas, No. 4 fuel oil, and No. 6 fuel oil were necessary to ensure that Shelly would install low NO_x burners for those fuels. The Commission finds that such low NO_x burners fall within the meaning of an

“air pollution control device;” accordingly, fuel-specific short-term NO_x emissions limitations were necessary to adequately describe BAT with respect to NO_x.

{¶200} The Commission also disagrees with Shelly’s challenge to the Director’s determination that short-term emissions limits are required to limit PTE at Plant 77 below major source thresholds. At the hearing, Shelly’s expert witness, Mr. Taylor, opined that, to ensure that PTE does not exceed major source thresholds, US EPA only requires that an emissions source maintain a rolling 12-month emissions limit for each criteria pollutant along with a corresponding operational limit. For Plant 77, Mr. Taylor testified that Shelly satisfies US EPA requirements by complying with the rolling 12-month emissions limits for SO₂ and NO_x and an operational limitation that restricts asphalt production to 500,000 TPY.

{¶201} In contrast, as Assistant Chief of Air Permitting for Ohio EPA, Mr. Hopkins testified, in compliance with the 1989 Guidance, the fuel-specific short-term emissions limits are operational limitations that, in addition to the annual production limits, are required by US EPA to properly restrict PTE below major source thresholds.

{¶202} Mr. Hopkins also explained that for emissions sources burning multiple fuels, limiting PTE based on the highest emitting fuel would result in greater restrictions on a facility’s annual asphalt production limit. Mr. Hopkins specifically testified that the fuel-specific short-term emissions limits were developed to address this issue and provide greater flexibility for facilities using multiple fuels to produce more asphalt when burning lower-emitting fuels.

Although Mr. Taylor disagreed with Ohio EPA's position that fuel-specific short-term emissions limits allow greater annual asphalt production, the Commission is not persuaded that the factual foundation supporting the Director's determination is invalid or unreasonable.

{¶203} The Commission notes that the 2006 PTI restricts Shelly's asphalt production in two ways. First, total asphalt production must not exceed a total of 500,000 TPY. And second, Plant 77's annual production must also comply with the equation set forth in the HMA plant PTI Part II.A.B.3.b. This second restriction, in particular, serves to tie together Plant 77's annual asphalt production limit, its annual emissions limits, and its short-term emissions limits.⁴¹

⁴¹ HMA plant PTI Part II.A.B.3.b provides:

$$48,000 \geq 0.011w + 0.066x + 0.12y + 0.17z$$

where :

$$w = \frac{\text{Tons asphalt produced with natural gas}}{\text{year}}$$

$$x = \frac{\text{Tons asphalt produced with \#2 fuel oil}}{\text{year}}$$

$$y = \frac{\text{Tons asphalt produced with \#4 fuel oil}}{\text{year}}$$

$$z = \frac{\text{Tons asphalt produced with \#6 fuel oil}}{\text{year}}$$

First, "48,000" is equivalent to Shelly's annual SO₂ emissions limit:

$$48,000\text{lbs} \cdot \frac{1\text{ton}}{2000\text{lbs}} = 24\text{tons}$$

Second, each of the coefficients are based upon Shelly's short-term SO₂ emissions limits. For example, for #6 fuel oil:

$$51.0 \frac{\text{lb } SO_2}{\text{hr}} \cdot \frac{1\text{hr}}{300\text{tons}} = 0.17\text{lb } SO_2$$

And finally, w, x, y, and z refer to annual production of asphalt.

Thus, *in combination*, the 2006 PTI's annual emissions limits, short-term emissions limits, and production restrictions work together to limit Shelly's PTE below major source thresholds. Moreover, the restrictions allow Shelly to maintain flexibility in choosing which fuels to burn while ensuring that Plant 77 does not exceed its annual emissions limits.

{¶204} Further, the Commission finds that the fuel-specific short-term emissions limits were also authorized pursuant to Ohio Adm.Code 3745-31-05(C), which authorizes the Director to impose terms and conditions that are "appropriate or necessary to ensure compliance with the applicable laws and to ensure adequate protection of environmental quality." With respect to short-term SO₂ and NO_x emissions, the fuel-specific limits serve to reduce emissions during operational periods when Plant 77 burns "non-worst case fuels."

{¶205} For example, the 2006 Permit limits short-term SO₂ emissions as follows:

- 51.0 lbs SO₂/hr when using No. 6 fuel oil⁴²
- 36.0 lbs SO₂/hr when using No. 4 fuel oil
- 19.8 lbs SO₂/hr when using No. 2 fuel oil or on-spec used oil
- 3.3 lbs SO₂/hr when using natural gas

⁴² The Commission notes that the 2004 Application requests a short-term SO₂ emissions limit of 29.12 lbs/hr, which the Application states is based on No. 6 fuel oil (the worst case fuel for SO₂). However, the Director appears to have rejected this calculation and substituted his own calculation of 51.0 lbs/hr. The Commission finds that this was reasonable. In the 2004 Application, Shelly stated that its figure of 29.12 lbs SO₂/hr was based on a "Mass Balance" "Using No. 6 Fuel Oil with 1% Sulfur Content." However, the 2004 Application subsequently concludes that a "mass balance calculation" of SO₂ for No. 6 fuel oil would yield 44.82 lbs SO₂/hr. And even more confusingly, the equation cited in support of the 44.82 lbs SO₂/hr emissions limit appears to yield 97.08 lbs SO₂/hr. Because of the apparent inconsistency in Shelly's own calculations, the Commission finds that the Director was reasonable in conducting his own independent calculation.

Thus, the fuel-specific limits serve to reduce SO₂ when Plant 77 burns natural gas, No. 2 fuel oil, on-spec used oil, No. 4 fuel oil, or No. 6 fuel oil.

{¶206} Similarly, the fuel specific short-term NO_x emissions also serve to reduce short-term NO_x emissions during some operational periods. For NO_x, the 2006 Permit specified the following limitations:

- 7.8 lbs NO_x /hr when using natural gas
- 26.7 lbs NO_x /hr when using on-spec used oil or No. 2 fuel oil
- 16.5 lbs NO_x /hr when using No. 4 or No. 6 fuel oil

Accordingly, the fuel-specific limits result in reduced short-term NO_x emissions limits for periods when Plant 77 uses natural gas, No. 4 fuel oil, or No. 6 fuel oil.

{¶207} As a result, the Commission finds evidence supports a finding that the Director acted reasonably in imposing reduced short-term emissions limits for the non-worst-case fuels for SO₂, which thereby reduced short-term SO₂ and NO_x emissions during at least some operational periods. Although short-term emissions of 51.0 lbs SO₂/hr and 26.7 lbs NO_x/hr were apparently acceptable to the Director during some operational periods, it does not have to follow that continuous SO₂ and NO_x emissions at those levels must also have been acceptable. Periods of reduced emissions—even brief ones—may serve the valid purpose of protecting short-term air quality during those periods. And thus, the Commission finds the Director had a valid factual foundation for concluding that reducing short-term SO₂ and NO_x emissions during some operational periods was both appropriate and necessary to protect environmental quality.

{¶208} Accordingly, the Commission finds evidence supports a finding that the fuel-specific short-term emissions limits for SO₂ and NO_x are both reasonable and lawful. Assignment of Error D is not well-taken.

Assignment of Error E

There is no legal basis to limit the types of fuel that can be used at Plant 77 as long as Shelly agreed to comply with the appropriate, applicable emission limits and as such, the fuel limitation is unreasonable and unlawful.

{¶209} Shelly contends that because Plant 77 is designed to accommodate a range of liquid fuels, the HMA plant PTI Part II.B.6 effectively restricts the plant from operating if it cannot purchase the fuels listed. Shelly argues that no evidence was presented that Plant 77 would violate its allowable emissions if additional fuels were used, and as a result, the Director should not restrict fuel usage as long as Shelly meets its existing allowable emissions limits for each pollutant.

{¶210} In response, the Director argues that emissions limits are calculated based on the type of fuel requested, and if a permittee sought to use fuels beyond those listed in a PTI application, Ohio EPA would be placed in an impossible position of predicting potential emissions from an unknown number of unknown fuels. The Commission agrees.

{¶211} Initially, the Commission notes that the 2006 PTI authorizes Plant 77 to burn all fuels requested by Shelly in the 2004 Application. Additionally, although Ms. Mowrey testified that Plant 77 was designed to accommodate fuels other than those listed in the 2006 PTI, she did not know what they would be. Moreover, Plant 77's emissions limits are based on Shelly's specific request for

authorization to burn natural gas, on-spec used oil, and Nos. 2, 4, & 6 fuel oils. Depending upon applicable emissions factors, a change in the type of fuel burned may result in a change in appropriate emissions limits. The Commission finds Assignment of Error E is without merit.

Assignment of Error F

The separate emissions limits for each portion of the process associated within the HMA Plant emissions unit is unreasonable, unlawful, and not in concert with other permits issued for HMA Plants and for single emissions units in other industry sectors.

{¶212} As defined in Ohio Adm.Code 3745-31-01(I), Shelly contends that the entirety of its HMA plant is one air contaminant source and Part II.A.1 unlawfully and unreasonably sets separate rolling 12-month emissions limits for each portion of the HMA plant process. Relying on *State ex rel. Celebrezze v. Natl. Lime and Stone Co.* (1994) 68 Ohio St. 3d 377, 1994-Ohio-486 and *Washington Township Board of Trustees v. Jones* (November 10, 2004) Case No. ERAC 595551, Shelly argues that an air contaminant source refers to separate emissions units and not each individual section within an emissions unit. Shelly further contends that a separate fugitive emissions limit for each portion of the HMA Plant process adds regulatory burden, results in additional confusion, and is not consistent with PTIs issued to other asphalt plants.

{¶213} The Director responds that because different segments of the HMA plant produce emissions independent from one another, designation of emissions limits by each segment of the HMA plant process eliminates ambiguity regarding whether emissions from individual processes are authorized and simplifies compliance obligations for a facility. Based upon a careful review of the evidence

presented, the Commission does not believe the Director had a valid factual foundation to require separate rolling 12-month fugitive emissions limits for the asphalt load out, asphalt silo, and cold end operations as set forth in Part.II.A.1.

{¶214} First, the Director cites to no statutory or regulatory authority that authorizes or requires him to set fugitive emissions limits by each segment or individual process of the HMA plant. Although the asphalt load out, asphalt silo, and cold end operations at the HMA plant may be separate activities, the Director has consistently characterized all of these activities as part of a single emissions source identified as “emissions source P901.”

{¶215} Additionally, the only rationale the Director provides in support of the separate emissions limits for each of these three activities is to avoid confusion and remove any ambiguity whether emissions are authorized. Neither the 1994 nor 2002 PTI required separate rolling 12-month emissions limits for each segment of operations at the HMA plant. Additionally, no evidence was presented that operation of these activities in accordance with the prior permits led to either confusion or ambiguity. In fact, no evidence was presented that the Director or Shelly has ever been confused as to whether asphalt load out, asphalt silo, and cold end operations generate emissions or are subject to emissions limits.

{¶216} Further, the Process Flow Diagram submitted with the 2004 Application clearly identified fugitive emissions for the asphalt load out, asphalt silo, and cold end operations. The undisputed evidence presented at the hearing also established there has not been any change in these activities since Plant 77

was first permitted in 1994 that would either cause confusion or ambiguity as to whether fugitive emissions from the asphalt load out, asphalt silo, and cold end operations were authorized or subject to appropriate emissions limits.

{¶217} The Commission finds the Director's action in setting separate rolling 12-month emissions limits for the asphalt load out, asphalt silo, and cold end operations lacks a valid factual foundation and as such, was unreasonable. Accordingly, the Commission finds that Assignment of Error F is well-taken.

Assignment of Error G

The restriction on the sulfur content of fuels used at Plant 77 is unreasonable and unlawful.

{¶218} Shelly contends that the sulfur content restrictions by fuel type set forth in the HMA plant PTI Part II.A.2.b, c, and d are unlawful because such limitations are not required to properly describe BAT and maintain Plant 77's PTE below major source thresholds. Shelly again argues that limiting Plant 77's PTE below major source thresholds is properly set by the rolling 12-month emissions limits and the maximum asphalt production limit of 500,000 TPY. Shelly further contends that the sulfur content restrictions are unreasonable because they are predicated on an erroneous assumption that burning higher sulfur content fuels at Plant 77 results in higher SO₂ emissions.

{¶219} The Director argues that the percent of sulfur contained in fuels is a critical piece of information and serves as the basis to calculate SO₂ emissions limits necessary to limit Plant 77's PTE below major source thresholds. The Director also argues that the sulfur content restrictions identified in the 2006 PTI

are the same as requested by Shelly in the 2004 Application and are industry standards for the fuels requested to be burned at Plant 77.

{¶220} The Commission finds the Director's determination that sulfur content restrictions were necessary to properly describe BAT and limit Plant 77's PTE below major source thresholds is neither unlawful nor unreasonable.

{¶221} Shelly does not dispute that SO₂ emissions are almost entirely dependent on the sulfur content of the fuel and not affected by burner size and design. Although Shelly argues that sulfur content restrictions fail to account for inherent sulfur retention processes involved asphalt production, no evidence was presented regarding either the extent of such claimed retention or its impact on potential SO₂ emissions at Plant 77. Moreover, the Director previously used sulfur content restrictions to properly describe BAT and restrict the type of fuels authorized at Plant 77. Significantly, the 2002 PTI expressly prohibited Plant 77 from burning fuels containing more than 0.50% sulfur content by weight.

{¶222} Shelly also does not dispute that the sulfur content of No. 2, No. 4, and No. 6 fuel oils vary significantly and No. 4 and No. 6 fuel oils have higher sulfur contents than No. 2 fuel oil. Because of the differences in sulfur content of the fuels, the Director, in exercising his judgment, determined it was possible to achieve significantly lower SO₂ emissions when using, for example, No. 2 fuel oil as compared with No. 6 fuel oil. Assignment of Error G is not well-taken.

Assignment of Error I

The limitation on the use of reclaimed asphalt pavement ("RAP") to 50% or less of all aggregate materials used at Plant 77 is not required by Federal or Ohio law, is not consistent with operational

restrictions contained in PTI's for other HMA plants, and is unreasonable and unlawful.

{¶223} Shelly's appeal of the RAP restriction focuses on its contention that the Director lacked a valid factual foundation to impose a 50% RAP limitation as a component of the raw material feed mix and, in doing so, has placed Shelly at a competitive disadvantage. Shelly contends that to take advantage of cost savings and availability of environmentally beneficial technologies, it anticipates an "imminent" decision by ODOT to revise specifications to authorize contractors to use more than 50% RAP. Once these "imminent" revisions are made, Shelly argues that the 50% RAP restriction in the 2006 PTI will prohibit Shelly from bidding on ODOT contracts. A careful review of the evidence, including the testimony of ODOT employee Gary Middleton on which Shelly relies, does not support its contention.

{¶224} At the hearing, Mr. Middleton confirmed that depending upon the type of construction project and aggregate used, ODOT restricts the raw material feed mix to 10-50% RAP. Contrary to Shelly's contention, Mr. Middleton did not testify that ODOT has decided changes in contract specifications for RAP are necessary, let alone "imminent." According to Mr. Middleton, increasing the use of RAP for ODOT construction contracts may be "a future option," and ODOT's primary concern is that a greater percent of RAP "would be introducing a less durable finished product." Accordingly, Mr. Middleton concluded that until technologies and control of RAP improve, the 10 to 50% RAP limitation will continue as a standard specification in ODOT contracts.

{¶225} The record contains considerable testimony and evidence to support a finding that the 50% RAP restriction was both lawful and reasonable. On behalf of the Director, Mr. Hopkins testified that Ohio EPA has restricted the percent of RAP for 15-20 years. The 50% restriction is the Agency's standard permit term and condition. Mr. Hopkins also testified that the 50% restriction is necessary to properly describe BAT to address "blue smoke" caused by excess particulate and VOC emissions when RAP is used in the raw material feed mix. Additionally, through its work with the asphalt industry PPEC, Ohio EPA more recently considered the appropriateness of the RAP restriction for the asphalt industry. Based upon the data evaluated, Ohio EPA concluded a 50% RAP restriction was necessary because the Agency does not have information to determine if using a greater percent of RAP would result in an increase of air emissions.

{¶226} Moreover, the 50% RAP restriction has been BAT at Plant 77 since at least 2002. The 2002 PTI specifically limited RAP to "30 percent for surface mixes and 50% for base or intermediate mixes."

{¶227} Based on the foregoing the Commission finds evidence supports a finding that the 50% RAP restriction was lawful and reasonable. Assignment of Error I is not well-taken.

Assignment of Error J

The limitation on the use of raw material feed mix at Plant 77 to only virgin aggregate and RAP is not required by federal or Ohio law, not necessary to protect human health and the environment, not in concert with requirements specified by the Ohio Department of Transportation, and unreasonable and unlawful.

{¶228} Shelly contends that the virgin aggregate restriction in the HMA plant PTI Part II.B.7, which prohibits slag as a component of the raw material feed mix, is not required to describe BAT, lacks a valid factual foundation, and unlawfully prohibits Shelly from bidding on contracts with ODOT. The Director responds to Shelly's contention arguing that because he "could not know all the possible materials a facility might use," the virgin aggregate and RAP restrictions were intended to limit Plant 77 to materials that have been evaluated and deemed protective of public health.

{¶229} The Commission finds that if supported by a valid factual foundation, BAT lawfully authorizes the Director to limit "raw material specifications" to virgin aggregate and RAP. However, based upon a totality of the evidence presented, the Commission finds evidence does not support a finding that the Director had a valid factual foundation to exclude the use of slag as a component of the raw material feed mix at Plant 77.

{¶230} Contrary to the Director's contention, the Commission is satisfied that Shelly fully advised Ohio EPA regarding the materials used as components of the raw material feed mix at Plant 77. As requested in the EAC, the 2004 Application specifically advised Ohio EPA regarding the "type of aggregate used" and also "list[ed] materials in each mix" at Plant 77. In both instances, Shelly advised Ohio EPA that in addition to RAP, slag was used in the raw material feed mix at Plant 77.

{¶231} The term "virgin aggregate" is not defined by any Ohio statute or regulation nor is there a statute or regulation that prohibits slag as a component

of raw material feed mix for the asphalt industry. Significantly, at the time the 2006 PTI was issued, Ohio EPA did not have a written definition or guidance document that defined virgin aggregate or otherwise advised that virgin aggregate excluded slag as a component of raw material feed mix.

{¶232} The Director also does not dispute that the 2006 PTI virgin aggregate restriction, intended to prohibit the use of slag, was not included in the 2005 Draft PTI when it was first issued in July 2005 but rather was inserted by Ohio EPA after the draft PTI was reissued in October 2005. Neither the 1994 nor 2002 PTI contained a term or condition restricting the raw material feed mix to “virgin aggregate” and RAP. The undisputed evidence further establishes that neither the 1994 nor 2002 PTI contained a term or condition that prohibited the use of slag as part of the raw material feed mix.

{¶233} While the Commission recognizes that ODOT specifications do not govern the Director’s implementation of Ohio’s environmental statutes and regulations, the 2006 PTI prohibits Shelly from bidding on any ODOT contract that requires the use of slag. Such actions have the potential to unreasonably interfere with and restrict Shelly’s legitimate business operations.

{¶234} Finally, the Director’s contention that slag “increased sulfur dioxide emissions” is not supported by the evidence presented. Without data or analysis from stack tests, monitoring activities, or any emissions calculations, the Director argues that using slag increased SO₂ emissions at a plant operated by Shelly’s competitor. The Director did not contend nor present any evidence that slag caused an increase in SO₂ emissions at Plant 77. In fact, the only evidence

presented established that stack tests conducted at Plant 77 while using slag did not exceed SO₂ emissions limits. Additionally, while the Director further relies on “odor complaints” at an unrelated Shelly facility, no evidence was presented that the odors were, in fact, caused by using slag. The Director neither argued nor presented any evidence that Plant 77 has ever experienced any odor complaints while using slag. The Commission finds Assignment of Error J is well-taken.

Assignment of Error M

The portable source relocation requirements are not in concert with Ohio law and are unreasonably restrictive, burdensome, unnecessary, unreasonable, and unlawful.

{¶235} Shelly argues that the Director acted unlawfully by including the following language in Shelly’s 2006 Permit:

Failure to submit [a Notice of Intent to Relocate] and to receive Ohio EPA approval prior to relocation of the portable source may result in fines and civil penalties.

Pursuant to OAC rule 3745-31-05(F), the director may modify the site approval to add or delete certain portable sources or add or delete certain terms and conditions as appropriate.

Specifically, Shelly argues that this language exceeds the Director’s authority pursuant to Ohio Adm.Code 3745-31-03(A)(1)(p). The Commission disagrees.

{¶236} Ohio Adm. Code 3745-31-03 provides, in relevant part:

(A) A permit to install * * * must be obtained for the * * * modification of a new air containment source unless exempted from the requirements as follows:

(1) Permanent exemptions:

* * *

(p) The relocation of any portable source in the state of Ohio that meets either paragraph (A)(1)(p)(I) or paragraph (A)(1)(p)(ii) of the following:

- (i) The company has demonstrated the following:
 - (a) The portable source is equipped with the best available technology for such portable source; and
 - (b) The portable source is operating pursuant to a currently effective permit to install, permit to operate or registration status; and
 - (c) The applicant has provided proper notice of intent to relocate the portable source to the director within a minimum of thirty days prior to the scheduled relocation; and
 - (d) In the director's judgment, the proposed site is acceptable under rule 3745-15-07 of the Administrative Code, or
- (ii) The director has issued a site approval for the new location pursuant to rule 3745-31-05 of the Administrative Code.

{¶237} First, the Commission finds that both Ohio Adm.Code 3745-31-03(A)(1)(p)(i) and Ohio Adm.Code 3745-31-03(A)(p)(ii), which incorporate Ohio Adm.Code 3745-31-05(E) by reference, require a permit holder to submit a Notice of Intent to Relocate and to obtain Ohio EPA's approval prior to the relocation of a portable source. Thus, the language at issue simply reiterates the applicable provisions of the Administrative Code and does not impose any additional requirements with respect to notice or site approval.

{¶238} Further, R.C. 3704.03(S) and R.C. 3704.06(C) serve to establish civil liability for violations of the Clean Air Act. Thus, the Commission also finds that the 2006 Permit language does not exceed the Director's authority with respect to the imposition fines and civil penalties.

{¶239} And finally, the language regarding the modification of site approval simply restates Ohio Adm.Code 3745-31-05(F) verbatim. Therefore, the Commission finds that the Director acted lawfully and reasonably by including the above language in Shelly's 2006 Permit and Assignment of Error M is not well-taken.

Assignment of Error N

The burner tuning requirements are not required by federal or Ohio law, not required in permits for other HMA plants in Ohio, are based on assumptions about burner tuning without any technical or scientific evidence to support the assumptions, are not required in permits for other industrial sources in Ohio that utilize burners to generate heat, steam, or product, and are unreasonable and unlawful.

{¶240} Shelly contends that the HMA plant PTI Part II.E.2 that specifies the manner and frequency of burner tuning is unlawful and unreasonable as it has no demonstrated correlation to lowered air emissions or compliance, is not required of any other source category in Ohio, is not uniformly applied within the asphalt industry, and causes Shelly to incur additional cost and unnecessary regulatory burden.

{¶241} In contrast, the Director argues that the burner tuning requirements are lawful because terms and conditions that set forth the manner and frequency of burning tuning at Plant 77 are part of the description of BAT and there is no legal precedent that prohibits incorporation of such requirements into a PTI. The Director further contends that the burner tuning requirements are reasonable because burning tuning is beneficial to both the operator and environment, reduces costs, and decreases emissions of unburned particles or compounds.

{¶242} Based upon a careful review of the evidence, and in compliance with well-established case law, evidence supports a finding that the Director's determination that burning tuning was necessary to properly describe BAT at Plant 77 was lawful and reasonable.

{¶243} Shelly acknowledges that burner tuning is a work practice regularly performed by the asphalt industry. As a regular maintenance activity for asphalt plants, burning tuning ensures efficiency of fuel combustion and controls emissions. Shelly also acknowledges that well-tuned burners also minimize fuel usage providing a financial benefit.

{¶244} The Commission recognizes that even in the absence of a permit requirement, Plant 77 routinely participates in the long-standing industry practice and performs burner tuning as a routine and regular maintenance practice. However, where evidence demonstrates that the Director's action was lawful and reasonable, the Commission may not substitute its judgment for that of the Director and deference should be granted to the Director's "reasonable interpretation of the legislative scheme' governing his Agency." Having found the Director lawfully and reasonably set forth burning tuning requirements in the 2006 PTI, Assignment of Error N is not well-taken.

FINAL ORDER

Based on the foregoing, the Commission finds Appellee Director's actions in setting separate rolling 12-month emissions limits for the asphalt load out, asphalt silo, and cold end operations, as set forth in Part II.A.1, and setting limitations on the use of raw material feed mix to only virgin aggregate and RAP,

as set forth in Part II.B.7, of the HMA Plant 2006 PTI were unreasonable. Accordingly, the portions of the 2006 PTI relating to the separate rolling 12-month emissions limits for each portion of the HMA plant and the limitation on the use of raw material feed mix to only virgin aggregate and RAP are hereby VACATED AND REMANDED to the Director for further action consistent with the decision as issued herein. The Commission further finds that all other terms and conditions of the 2006 PTI are AFFIRMED.

The Commission, in accordance with Ohio Adm.Code 3746-13-01 informs the parties that:

Any party adversely affected by an order of the commission may appeal to the court of appeals of Franklin County, or, if the appeal arises from an alleged violation of a law or regulation, to the court of appeals of the district in which the violation was alleged to have occurred. The party so appealing shall file with the commission a notice of appeal designating the order from which an appeal is being taken. A copy of such notice shall also be filed by the appellant with the court, and a copy shall be sent by certified mail to the director or other statutory agency. Such notices shall be filed and mailed within thirty days after the date upon which appellant received notice from the commission of the issuance of the order. No appeal bond shall be required to make an appeal effective.

SHILLING AND PETERSEN, COMMISSIONERS, CONCUR

THE ENVIRONMENTAL REVIEW
APPEALS COMMISSION

Lisa L. Eschleman, Chair

Melissa M. Shilling, Vice-Chair

Shaun K. Petersen, Member

Entered into the Journal of the
Commission this _____
day of January 2012.

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