

STATE OF VERMONT

SUPERIOR COURT
Environmental Division Unit

ENVIRONMENTAL DIVISION
Docket No. 35-3-13 Vtec

N.E. Materials Group Amended A250
Permit

DECISION ON THE MERITS
(ALTERED)

Twenty-six citizens, collectively known as “Neighbors for Healthy Communities” (Appellants), appeal a District 5 Environmental Commission (District Commission) decision approving the application of North East Materials Group, LLC (NEMG) and Rock of Ages Corporation (ROA) (collectively, Applicants) for a hot-mix asphalt plant at the ROA quarry in the Town of Barre, Vermont. NEMG and ROA cross-appeal.¹

On May 4, 5, and 6, 2015, the Court held a three-day merits hearing at the Vermont Superior Court, Civil Division, Washington Unit in Montpelier, Vermont. During the final pre-trial conference in this matter all parties agreed that the Court need not conduct a site visit, as the Court had already performed a site visit in the related matter noted in footnote 1 below. Appearing at the merits hearing were Alan P. Biederman, Esq. and James P.W. Goss, Esq. representing the Applicants; Douglas A. Ruley, Esq.² and Laura B. Murphy, Esq. representing the Appellants; Gregory J. Boulbol, Esq. representing the Natural Resources Board; and Elizabeth Lord, Esq. and Megan O’Toole, Esq. representing the Agency of Natural Resources (ANR).

At the start of trial all parties provided a stipulation limiting the issues for trial to the following:

¹ Appellants and NEMG are also parties to separate but related litigation over whether NEMG’s rock crushing operations on ROA’s quarry tract are subject to Act 250 jurisdiction. See In re N.E. Materials Grp. LLC A250 JO #5-21, No. 143-10-12 Vtec. In April 2014, this Court held that NEMG’s rock crusher was part of ROA’s grandfathered preexisting development, and not subject to Act 250 jurisdiction. In re N.E. Materials Grp. LLC A250 JO #5-21, No. 143-10-12 Vtec, slip op. at 14–15 (Vt. Super. Ct. Envtl. Div. Apr. 28, 2014) (Walsh, J.). Appellants appealed that decision, and the Vermont Supreme Court reversed and remanded for further findings. In re N.E. Materials Grp. LLC Act 250 JO #5-21, 2015 VT 79, ¶ 35. On remand we again held that the rock crusher was not a substantial change to NEMG’s preexisting development, and therefore that it was not subject to Act 250 jurisdiction. In re N.E. Materials Grp. LLC A250 JO #5-21, No. 143-10-12 Vtec, slip op. at 20–21 (Vt. Super. Ct. Envtl. Div. Dec. 23, 2015) (Walsh, J.). Appellants have again appealed that determination to the Vermont Supreme Court.

² In a December 21, 2015 Notice of Withdrawal, attorney Ruley withdrew from this matter. Attorney Murphy continues to represent Appellants.

- a. Air pollution under Criterion 1.
- b. Traffic under Criteria 5 and 9(k).
- c. Aesthetics under Criterion 8, with the understanding that “noise” as listed in Appellants’ Amended Statement of Questions includes only noise from trucks.

The stipulation also provides:

With respect to all other criteria under Act 250 not set forth [above], and all other provisions and requirements of Act 250, the parties agree as a matter of law and as a matter of fact that the decision(s) of the District Commission below may be incorporated into this Court’s decision and final order.

Thus, all other issues presented in Appellants’ Statements of Questions are outside the scope of our review.

Based upon the evidence presented at trial, which was put into context by the site visit conducted in the related appeal, No. 143-10-12 Vtec, the Court renders the following findings of fact and conclusions of law.

Findings of Fact

I. The Project

1. NEMG and ROA seek Act 250 approval for construction and operation of a hot-mix asphalt plant and related fixtures and equipment (the Project).
2. The Project is to be located on the ROA quarry tract.
3. ROA is a quarrying operation comprised of several smaller individual quarries active from the late 1800s to current times, now all aggregated as a single parcel under ROA ownership and operation.
4. All total, ROA comprises approximately 930 acres in Barre, Vermont and 230 acres in Williamstown, Vermont. Several roads transect the ROA property, including Graniteville Road. Roads also connect work areas throughout the ROA property.
5. Graniteville Road runs northwest/southeast, and bisects the ROA tract into northern and southern portions.
6. The Project is on 3.46 acres on the south side of Graniteville Road in the Town of Barre, Vermont. The Project site is located in the interior of the ROA quarrying operation.

7. Graniteville Road connects the villages of Upper and Lower Graniteville (both part of Barre Town). Lower Graniteville is located northwest of and at a lower elevation than Upper Graniteville.
8. Lower Graniteville has a general store, senior center, playground, post office, church, school bus stop, and residences.
9. Upper Graniteville is mostly residential.
10. The zoning district for the Project location is “Industrial” pursuant to the Town of Barre Zoning Regulations.
11. The approved maximum operating capacity of the Project is 180 tons of asphalt per hour, while the maximum design operating capacity is 250 tons per hour. The land use permit approved by the District Commission included a rolling average production limit of 4,500 tons per week during any given 45-day period.³
12. The Project will operate from May 1 through mid-November, Monday through Saturday, from 6:00 a.m. to 4:00 p.m.
13. The Project is a batch-type plant, meaning that hot-mix asphalt is manufactured on an as-needed, per-truck-load basis. Prepared hot-mix is not stored for extended periods.
14. The District Commission originally approved the Project on January 24, 2013 and then issued an Altered Land Use Permit on February 26, 2013.
15. The Project was constructed in the summer of 2013 and has been operating since that time (two operating seasons).

II. Air Impacts

16. The Project has several points of potential air emissions. A smokestack emits steam and exhaust gases; temporary storage tanks are equipped with filtered vents; and loading and unloading asphalt trucks may cause fugitive emissions.
17. Trucks carrying asphalt may also emit diesel and asphalt fumes.

³ The permit authorized NEMG to seek permission from the District Coordinator to exceed this rolling average limit “as appropriate . . . to address particular projects or circumstances.”

18. The Project has an air pollution control permit issued by ANR on June 15, 2012 (Air Permit).
19. The Air Permit allows NEMG to emit the following quantities of pollutants:
 - a. Particulate matter larger than 10 micrometers in size: 3.2 tons per year (tpy)
 - b. Particulate matter of 10 micrometers or smaller: 2.1 tpy
 - c. Sulphur dioxide: 0.4 tpy
 - d. Oxides of nitrogen: 1.9 tpy
 - e. Carbon monoxide: 9.8 tpy
 - f. Volatile organic compounds: 1.0 tpy
 - g. Criteria Pollutants: 10 tpy
 - h. Hazardous air pollutants: 10 tpy each and 25 tpy total
20. Because each of these emission levels is below 50 tons per year, the Project is not a Major Air Pollution Source under Vermont's Air Pollution Control Regulations (Regulations), and is not subject to review under Subchapter V of the Regulations. It is still subject to review under Subchapter II.
21. The Air Permit includes the following design requirements and emission limits to reduce air pollution:
 - a. A bag house to control particulate emissions from the Project,
 - b. Mandatory production limits and combustion efficiency of the rotary dryer,
 - c. A clean fuel source—liquid petroleum gas—to fire the Project.
22. The Air Permit also imposes the following operational controls to protect against air pollution:
 - a. The first 500 feet of the access road must be paved and regular water application and sweeping is required to reduce dust,
 - b. All trucks exiting the Project must be covered,
 - c. Active aggregate storage piles must be kept moist to reduce dust,
 - d. NEMG must use non-petroleum-based asphalt release agent on truck beds.

23. The Air Permit requires comprehensive testing and monitoring including:
 - a. Annual inspection of the baghouse filter bags,
 - b. Stack testing for CO and particulate matter,
 - c. Combustion efficiency testing of the dryer (CO and CO₂),
 - d. Implementation of an operational and maintenance plan for the rotary dryer burner and bag house fabric filter to control dust.
24. The Air Permit requires record keeping and reporting to ANR.
25. In the Air Permit, ANR determined that the Project had expected emissions of benzene, formaldehyde, cadmium, nickel, and arsenic above their respective Action Levels (emission levels triggering hazardous most stringent emission rates (HMSER) under Section 5-261 of the Regulations).
26. Instead of establishing direct HMSER limits for these hazardous air contaminants, ANR set limits on certain surrogate emissions, which are intended to serve as proxies for emissions of the hazardous air contaminants themselves.
27. To control emissions of the two organic compounds (benzene and formaldehyde), ANR imposed limits on combustion efficiency and carbon monoxide emissions (99.0% and 0.13 lbs./ton, respectively). Its reasoning was that “[c]ombustion efficiency and carbon monoxide are both direct indicators of good combustion” and “[t]he two organics are products of incomplete combustion and ensuring good combustion will minimize these emissions.” Ex. G (Air Permit) at 7.
28. To control emissions of cadmium, nickel, and arsenic, ANR imposed a general limit on particulate matter emissions (0.020 grains per dry standard cubic foot of exhaust air from the fabric filter). Its reasoning was that “[t]he metal emissions are directly associated with overall particulate emissions and the emissions rate achieved by the fabric filter.” Ex. G at 7.
29. ANR interprets the Regulations to allow use of surrogates.
30. Use of surrogates is a common and accepted practice in ANR and the federal EPA.
31. The Air Permit also includes the following condition:

The Permittee shall not discharge, cause, suffer, allow, or permit from any source whatsoever such quantities of air contaminants or other material which will cause injury, detriment, nuisance or annoyance to any considerable number of people or to

the public or which endangers the comfort, repose, health or safety of any such persons or the public or which causes or has a natural tendency to cause injury of damage to business or property. The Permittee shall not discharge, cause, suffer, allow, or permit any emissions of objectionable odors beyond the property line of the premises.

32. NEMG introduced expert testimony of John Hinckley, director of the stationary source air permit practice at Resource Systems Group, Inc. (RSG), the consultant who prepared Applicants' original Air Permit application.

33. Mr. Hinckley credibly testified that, based on the analysis underlying NEMG's original permit application and additional analysis of wind speed, direction, molecular mass of emissions, and temperature, the Project is designed with adequate measures to prevent undue air pollution.

34. Appellants introduced no scientific or expert testimony regarding air emissions from the Project.

35. Seven individual Appellants testified that they have smelled asphalt fumes from the Project on their properties. Some Appellants testified that they have smelled fumes in their homes as well.

36. Appellants testified that these fumes make them unwilling to spend time outside.

37. These Appellants testified to a range of health effects from the asphalt odors, ranging from headaches to vomiting.

38. Some of the Appellants are hyper-sensitive to smells.

39. The Appellants introduced logs of days they perceived asphalt fumes.

40. Some of the days Appellants logged do not correspond with days the Project operated.

41. Appellants raised their complaints about fumes with enforcement agents at ANR.

42. ANR enforcement agents visited the site. No enforcement actions by ANR have been initiated.

43. While the Court questions the credibility of some of the more extreme accounts of off-site odors, the Court finds that the Project has caused perceptible asphalt odors on the Appellants' properties and inside their homes if they leave the windows open; that the asphalt odors can be eye-watering and throat-stinging; and that the odors have caused several Appellants to reduce their outdoor recreation to avoid the smells.

III. Truck Traffic

44. Hot-mix asphalt will be sold to purchasers and transported off the Project site by haul trucks that are not owned or operated by NEMG.

45. Aside from the internal quarry roads, all transport roads are town- or state-maintained public highways.

46. Trucks that transport asphalt from the Project site are of two general types. Large dump trucks are the typical transport truck. Less common are long, gondola-type trucks similar in length to tractor-trailer trucks.

47. There are two access points for the Project. To the south, trucks can enter the ROA tract on Pirie Road, and then continue up internal roads to the Project site. To the north, trucks can access the site through the main ROA entrance on Graniteville Road, between Upper and Lower Graniteville.

48. Trucks leaving from the northern access must turn left (northwest) onto Graniteville Road and follow Graniteville Road through Lower Graniteville if they intend to connect to Vermont Route 14, U.S. Route 302, or Vermont Route 110. This route has been designated a truck route by the Town of Barre.

49. In Lower Graniteville, Baptist Street (a north-south road) joins with Graniteville Road as Graniteville road curves relatively sharply to the north.

50. Trucks leaving from the southern access will turn left (south) on Pirie Road and continue onto Vermont Routes 14 or 64.

51. Trucks leaving from the southern access could also turn right (north) onto Pirie Road. Pirie Road eventually turns into Baptist Street, and Baptist Street joins with Graniteville Road in Lower Graniteville.

52. At this junction, traffic coming from the southwest via Graniteville Road must turn relatively sharply to the north to continue on Graniteville Road. Traffic coming from the south via Baptist Street would head straight to continue on Graniteville Road. Thus, though exiting via Pirie Road would be a less direct way of reaching Lower Graniteville, it would allow trucks to avoid the sharp turn in Graniteville Road where it joins with Baptist Street.

53. Since the Project began operating, truck traffic has only been able to use the existing designated truck route along Graniteville Road because the Pirie Road exit is not yet open.
54. For the periods 2003–2007 and 2008–2012, the Vermont Agency of Transportation (VTrans) has designated the 0.3-mile curve in Graniteville Road (from the Graniteville General Store to the Quarry Hill Senior Apartments) near the junction with Baptist Street a high crash location (HCL).
55. An HCL is a location having an actual crash rate exceeding the “critical crash rate,” meaning the area must have experienced five or more accidents over a five-year period in a 0.3 mile stretch of road.
56. An HCL designation does not definitively determine that the section of roadway is unsafe. Rather, the designation is a screening device transportation agencies use to identify road sections that may be suitable for further analysis.
57. There are over 600 sections of road in Vermont designated as HCLs.
58. Currently, in addition to trucks transporting asphalt from the Project, other similarly sized trucks serving ROA quarry operations and other businesses use this section of roadway.
59. Graniteville Road in the HCL section is two paved lanes with narrow shoulders and a roadside telephone pole limiting vehicle use of the shoulder.
60. There are no sidewalks along Graniteville Road in the HCL section.
61. Appellants introduced evidence that, when traveling on the sharp curve area of the HCL on Graniteville road, tractor-trailer-sized trucks fail to keep to the right and that they go over the double yellow centerline in order to negotiate the curve. There is no evidence before the Court indicating that dump-truck-sized trucks must cross the yellow centerline to safely negotiate the sharp curve in the HCL section of Graniteville Road.
62. There are other similarly configured and heavily traveled roads in Vermont, such as Route 4 in Woodstock, Route 15 in Jericho, and Route 5 in Norwich. In these sections of roadways, trucks must briefly cross over the centerline to negotiate the curves.
63. Sight distances at the sharp curve within the HCL in Graniteville Road allow approaching vehicles to observe oncoming traffic in time to stop. These sight distances comply with the

American Association of State Highway and Transportation Officials (AASHTO) Green Book standards for roadway designs.

64. 15 million vehicles traveled through the HCL section of Graniteville Road since 2003.

65. Dating back to 2003, there is no record of any truck being involved in an accident within the HCL section of Graniteville Road.

66. There were five accidents within the Graniteville Road HCL between 2008 and 2012.

67. Two accidents were located off Graniteville Road near the general store, and one was located at the crosswalk at the intersection with Crest Street. These three accidents were not related to the sharp curve.

68. The remaining two accidents were located near Graniteville Road's intersection with Orchard Terrace, within the area of influence of the sharp curve. Neither of these accidents involved a truck.

69. Trucks associated with the Project (whether operated by NEMG or by its customers) will not travel the HCL section between November 15 and May 1, as the Project will not operate during that period.

70. The central thrust of Appellants' expert testimony was that adding traffic to an HCL *per se* exacerbates an already unsafe condition.

IV. Area Aesthetics

a. *Visual Impacts*

71. The Project is sited in the middle of ROA's well-developed quarry.

72. The Project's surroundings include heavy industry, equipment, and trucks; blasting and earth moving; and rock processing, sawing, and crushing.

73. The closest residence is approximately 1,800 feet away from the Project.

74. The area within 500 feet of the Project includes several waste quarry rock piles. The piles are steep-sided and light-colored.

75. The Project building is light in color and can be described as stone-gray.

76. The physical Project is approximately 100 feet long by 30 feet wide.

77. The plant has a single smoke stack that extends from ground elevation to 35 feet above ground elevation.

- 78. The Project entails a few pieces of heavy equipment, tanks and aggregate piles.
- 79. The Project has minimal exterior lighting.
- 80. The Project and its smokestack are visible from portions of the Appellants' properties and from the town forest, where some of the Appellants hike and enjoy the outdoors. These views are limited.
- 81. There are also very limited views of the Project from public roads in the area. For the most part, one needs to enter the site to see that the Project is there.
- 82. The heavy quarrying industry on the ROA property that has been present for over a hundred years is also visible from these same vantage points.
- 83. The Project's smokestack is the first smokestack to appear on the ROA property.
- 84. The smokestack emits fumes and steam that can appear bluish and hazy at times.
- 85. The Project complies with applicable setback and height restrictions.
- 86. The Project has floor elevations and roof lines designed to integrate into the area.
- 87. The Project does not disrupt the overall natural land use patterns or the overall environmental setting of the area.

b. *Truck Noise*

- 88. Trucks associated with the Project use Graniteville Road to travel to and from the Project.
- 89. Applicants expect at least some of these trucks to carry asphalt interstate.
- 90. Based on the Project's maximum hourly output limit of 180 tons per hour, the Project could theoretically produce 8 truckloads of asphalt per hour, which would yield 16 one-way truck trips per hour. Assuming a fuel delivery happened in the same hour, the Project could theoretically generate up to 18 truck trips per hour.
- 91. In practice, the average number of one-way truck trips per day the Project was operated was 12.5 in 2013 and 9.8 in 2014. The maximum number of one-way truck trips per day was 58 in 2013 and 60 in 2014.
- 92. At peak operation, asphalt trucks represent a 5–11% increase in traffic volume along Graniteville Road.

93. These trucks emit engine noise, and downshifting and “Jake” breaking can also be noisy.

94. Neighbors can hear this noise from their homes, from the town bike path, and from the village.

95. Applicants retained a noise expert, Edward Duncan, a director at RSG, to analyze noise.

96. Mr. Duncan studied background noise in the Project area, predicted Project noise through modeling, and measured existing truck noise.

97. Mr. Duncan conducted background noise monitoring on Graniteville Road, a designated truck route, on two days: March 31, 2015 and April 14, 2015. The Project was not operating on these dates; however, other ROA operations were active.

98. Mr. Duncan measured instantaneous noise levels from heavy trucks 65 feet from the road edge. This distance approximates the distance of the closest residence to the edge of Graniteville Road.

99. These instantaneous readings ranged from 58 to 73 dBA Lmax on March 31, and 64 to 79 Lmax on April 14. The loudest recorded sound from a heavy truck during the monitoring period was 79 dBA Lmax.

100. The Lmax readings for the NEMG trucks are no different than Lmax readings for non-Project large trucks currently using Graniteville Road.

101. Mr. Duncan also measured hourly average sound levels at the ROA entrance to Graniteville Road. These ranged from 56 to 58 dBA Leq(1-hr) on March 31 and 59 to 62 dBA Leq(1-hr) on April 14.

102. Mr. Duncan used the Federal Highway Administration’s traffic noise model along with the CADNA computer model to model Project truck noise. This modeling accounted for surrounding terrain, vegetation, topography, and other influences on sound.

103. Mr. Duncan’s model predicts that adding 18 trucks per hour to Graniteville road will increase the hourly average sound level 65 feet from the road’s edge from 59 to 63 dBA Leq.

104. Traffic serving the Project will cause an increase in noise; however, truck traffic on Graniteville Road, a designated truck route, will not alter the character of the noise, i.e., the noise will still sound like traffic and truck noise.

105. Graniteville Road already experiences significant truck traffic, since Graniteville road is the designated route for trucks to access the ROA quarry.

c. *Odors*

106. The Project is a batch hot-mix Project and only operated when hot-mix is demanded.

107. Liquid asphalt is stored in a sealed tank at a temperature below vaporization level.

108. There is a small vent on the asphalt storage tank equipped with a carbon activated filter to eliminate offsite odors.

109. Appellants testified that they have smelled asphalt fumes coming from the Project on their properties. They have also smelled fumes in their homes if they leave their windows open or operate their air conditioners.

110. Appellants suggested that siting the Project at lower elevations would mitigate the effects of fumes, but offered no explanation of how a lower elevation would mitigate the effects or why that it would be a feasible and reasonable alternative.

Conclusions of Law

The parties stipulate that the issues in this Act 250 appeal are whether the Project will produce undue air pollution under Criterion 1; whether the Project will cause unsafe traffic conditions under Criteria 5 and 9(K); and whether the Project will have undue adverse aesthetic impacts under Criterion 8. Pursuant to the Parties' stipulation, noise impacts under Criterion 8 are limited to noise from trucks associated with the Project.

I. Air Pollution (Criterion 1)

Act 250 Criterion 1 requires applicants to show that their project will not cause "undue water or air pollution." 10 V.S.A. § 6086(1). Whether pollution is "undue" is highly fact-specific; it depends on "the nature and amount of the pollution, the character of the surrounding area, whether the pollutant complies with certain standards or recommended levels, and whether effective measures will be taken to mitigate the pollution." *Id.* Compliance with government air quality standards is an important factor in whether air pollution is "undue," but it is neither necessary nor sufficient to show compliance with Criterion 1. See Re: David and Joyce Gonyon, No. 5W1025-EB, Findings of Fact, Conclusions of Law, and Order at 7 (Vt. Env'tl. Bd. July 17, 1991) (not necessary); In re Rivers Dev. Conditional Use Appeal, Nos. 7-1-

05 and 68-3-07 Vtec, slip op. at 14 (Vt. Envtl. Ct. Mar. 25, 2010) (Durkin, J.) (not sufficient). While “[t]here is no clear definition of what constitutes ‘undue’ pollution,” it is clear that “undue” means something more than mere annoyance. See Russell, No. 1R0849-EB at 43–44.

Applicants bear the burden of showing that they satisfy Criterion 1 of Act 250. 10 V.S.A. § 6088(a). Under Act 250 Rule 19(E)(2) an air pollution control permit from ANR creates a presumption that no undue air pollution will result from a project. This presumption is rebuttable. In re Hawk Mountain Corp, 149 Vt. 179, 186 (1988); see also Act 250 Rules, Rule 19(F). To rebut the presumption, opponents must introduce admissible evidence that allows a “rational inference to be drawn” that the development will likely cause undue pollution. In re Hawk Mountain, 149 Vt. at 186. Once the presumption is rebutted, “the applicant shall have the burden of proof under the relevant criteria and the permit . . . shall serve only as evidence of compliance.” Act 250 Rules, Rule 19(F).

Applicants introduced a valid air pollution control permit from ANR (Air Permit), which creates a presumption that the Project will not cause undue pollution. In response, Appellants offered three arguments as to why the permit does not ensure compliance with the Vermont Air Pollution Control Regulations (Regulations): (1) the permit should have included an air quality impact evaluation under Section 5-261(3) of the Regulations; (2) the permit does not ensure compliance with hazardous most stringent emission rates (HMSERs) because ANR capped chemical “surrogates” instead of the hazardous contaminant emissions themselves; and (3) the Project does in fact emit objectionable and offensive odors beyond the property lines, violating Section 5-241 of the Regulations and causing undue impacts on neighbors.

a. *Air Quality Impact Evaluation*

Appellants first argue that the permit “failed to ensure compliance with § 5-261(3) of the Regulations” because the permit did not include an air quality impact evaluation, and therefore failed to consider emissions from other nearby sources. Appellants’ Proposed Findings of Fact and Conclusions of Law at 33, filed June 8, 2015. Section 5-261(3) of the Regulations provides that ANR “may require” applicants to submit an air quality impact evaluation analyzing a source’s impact on ambient air quality. See Regulations § 5-261(3), Code of Vt. Rules 16-3-100:5-261 (2011) (WL), available at <http://www.anr.state.vt.us/air/docs/>

APCR%202011.pdf (emphasis added).⁴ This evaluation is therefore plainly discretionary, not mandatory. There was no evidence or argument that ANR exercised this discretion arbitrarily or capriciously, see In re Cent. Vt. Medical Ctr., 174 Ct. 607, 610 (2002), and we therefore conclude that the absence of an air impact quality evaluation does not violate Section 5-261(3).

b. *Use of Surrogates*

Under Section 5-261 of the Regulations, unless a stationary source's actual emission rate of certain hazardous air contaminants is below a specified "Action Level" for that contaminant, the stationary source must "apply control technology, production processes or other techniques adequate to achieve the hazardous most stringent emission rate (HMSER)" for each hazardous air contaminant. "Hazardous most stringent emission rate" is defined as "a rate of emissions, including a visible emissions standard, which the Secretary, on a case-by-case basis, determines is achievable for a stationary source based on the lowest emission rate achieved in practice by such category of source." Regulations § 5-101.

In the Air Permit, ANR determined that the Project must meet HMSERs for benzene, formaldehyde, cadmium, nickel, and arsenic. Rather than capping these hazardous air contaminants directly, ANR chose to cap certain surrogate indicators. For benzene and formaldehyde, ANR required a certain level of combustion efficiency and capped carbon monoxide emissions. For cadmium, nickel, and arsenic, ANR capped particulate emissions generally. ANR determined that these surrogates are easier to measure and that they accurately reflect emissions of the hazardous air contaminants themselves.

Appellants argue that use of surrogates is not allowed under the Regulations. In response, ANR argues that its Regulations allow use of surrogates and that its interpretation of its own regulations is entitled to deference. It also points out that use of surrogates to control hazardous air contaminants is common and well-established practice in both ANR and the federal EPA.

⁴ A copy of the Regulations was not admitted at trial. We refer to these Regulations on the authority of Vermont Rule of Civil Procedure 44.1, which allows a court to consider "any relevant material or source . . . whether or not submitted by a party or admissible under the Vermont Rules of Evidence" in determining administrative regulations. The Court relies on the version of the Regulations adopted in September of 2011, because those were the rules in effect at the time this application was filed in April of 2012.

We give substantial deference to an agency's interpretation of its own regulations, especially where the determination involves highly complicated methodologies within the agency's area of expertise, and where the statute under which the regulations are issued gives substantial deference to the agency. In re ANR Permits in Lowell Mountain Wind Project, 2014 VT 50, ¶¶ 15–16, 196 Vt. 467.

ANR has interpreted the Regulations to allow use of surrogates, and has concluded that use of surrogates is a more efficient method of monitoring hazardous air emissions. This is certainly an area involving technical agency expertise. Furthermore, the authorizing statute, 10 V.S.A. § 558, grants broad deference to ANR to carry out its own plan for pollution control. *Id.* (“The secretary may establish such emission control requirements, by rule, as in his judgment may be necessary to prevent, abate, or control air pollution.”). We conclude therefore that ANR's use of surrogates in this application is entitled to substantial deference.

Given this deferential standard, we conclude that Appellants have not rebutted the presumption of no undue air pollution created by the Air Permit. Furthermore, even if we were to agree with Appellants and conclude that the use of surrogates is impermissible under the Regulations, we would still find that Appellants have not rebutted the presumption in this regard. Act 250 Rule 19(F)(2) provides that “technical non-compliance with . . . Agency of Natural Resources' rules shall be insufficient to rebut the presumption without a showing that the non-compliance will likely result in, or substantially increase the risk of . . . undue air pollution.” The only evidence Appellants introduced at trial was individual Appellants' testimony regarding the alleged impacts from the Project's emissions. Appellants introduced no evidence showing that use of surrogates will actually cause the Project to exceed HMSERs or cause undue air pollution. Therefore, even if we accepted their legal argument that the Regulations do not allow use of surrogates, this would be technical non-compliance only, and would not in itself rebut the presumption of compliance with Criterion 1 created by the Air Permit.

c. *Objectionable Odors and Undue Impacts*

Finally, Appellants introduced evidence that they have smelled asphalt fumes from the Project on their properties and even in their homes. Appellants testified that these fumes

make them unwilling to spend time outside. Some Appellants testified that the fumes caused nausea, dizziness, and vomiting.

This evidence varies in credibility. Some Appellants testified that they were hypersensitive to smells. Others claimed to smell fumes on days the Project was not operating. But, even assuming Appellants rebutted the presumption, we still find that NEMG has satisfied Criterion 1 for the following reasons.

A rebutted permit still serves as evidence of compliance with Criterion 1. See Act 250 Rules, Rule 19(F). Expert testimony explaining the analysis underlying a permit can also support compliance once a permit is rebutted. See Re: Juster Dev. Co., No. 1R0048-8-EB, Findings of Fact, Conclusions of Law, and Order at 24 (Vt. Env'tl. Bd. Dec. 19, 1988). Here, the credibility and accuracy of NEMG's permit was bolstered by supporting expert testimony. NEMG's expert testified that, based on the analysis underlying NEMG's original permit application and additional analysis of wind speed, direction, molecular mass of emissions, and temperature, the Project is designed with adequate measures to prevent undue air pollution.

Furthermore, Appellants introduced no scientific expert testimony regarding air pollution, only testimony of the neighboring Appellants, some of whom are admittedly hypersensitive to smells. Additionally, NEMG persuasively demonstrated that some of Appellants' complaints of fumes are not reliably linked to dates the plant is operating. Finally, Appellants reported their concerns to enforcement authorities at ANR, but ANR has not initiated any enforcement action under the permit. Because we question the credibility of some of the more extreme accounts of off-site odors, we find that, though some odors from the plant may be perceptible off-site, the Project complies with the Regulations, and any off-site odors are not substantially more than "mere annoyance." Thus, all of this evidence leads us to conclude that these odors do not rise to the level of undue air pollution under Criterion 1 (though they do represent aesthetic concerns under Criterion 8, see Part IV.c, infra).⁵ Thus, even if Appellants have rebutted the presumption created by NEMG's Air Permit, NEMG has still demonstrated compliance with Criterion 1.

⁵ We do find that off-site odors are undue under Criterion 8, but the "undue" standard under Criterion 1 and 8 are not identical.

While we find compliance with Criterion 1, in response to Appellants' concerns with potential air pollution impacts, we note that we incorporate Condition 22 of Applicants' Air Permit into NEMG's Act 250 permit under Criterion 8 (see Part IV.c, infra). Condition 22 reads:

The Permittee shall not discharge, cause, suffer, allow, or permit from any source whatsoever such quantities of air contaminants or other material which will cause injury, detriment, nuisance or annoyance to any considerable number of people or to the public or which endangers the comfort, repose, health or safety of any such persons or the public or which causes or has a natural tendency to cause injury of damage to business or property. The Permittee shall not discharge, cause, suffer, allow, or permit any emissions of objectionable odors beyond the property line of the premises.

Thus, if, in fact, asphalt fumes from the Project permeate local properties, Appellants may pursue enforcement of the Air Permit or the land use permit, either through ANR or the Natural Resources Board's Act 250 enforcement authority.

II. Traffic (Criterion 5)

Act 250 Criterion 5 requires that a development "[w]ill not cause unreasonable congestion or unsafe conditions with respect to use of the highways, waterways, railways, airports and airways, and other means of transportation existing or proposed." 10 V.S.A. § 6086(a)(5). For a project to cause unsafe road conditions it need not be the principal or only cause; exacerbating already unsafe traffic conditions is a traffic impact under Criterion 5. In re Pilgrim P'ship, 153 Vt. 594, 596–97 (1990). The Court may not deny a permit based on non-compliance with Criterion 5, but it may impose conditions designed to bring the project into compliance. 10 V.S.A. § 6087(b). Opponents to a proposed development carry the burden of proof under Criterion 5. 10 V.S.A. § 6088(b). The applicant, however, must still produce sufficient evidence for us to make positive findings. See In re Route 103 Quarry, No. 205-10-05 Vtec, slip op. at 8 (Vt. Envtl. Ct. Nov. 22, 2006) (Durkin, J.).

Appellants argue that the Project will cause unsafe road conditions because (1) any project that increases traffic on an HCL per se exacerbates an existing unsafe condition under In re Pilgrim Partnership, 153 Vt. 594, 596–97 (1990) and (2) large tractor-trailer trucks carrying asphalt cannot negotiate the sharp curve on Graniteville Road near the intersection with Baptist Street without crossing the centerline of the road.

We reject Appellants' first argument. The Vermont Agency of Transportation has designated the sharp curve on Graniteville Road near the intersection with Baptist Street a high crash location (HCL). An HCL is a 0.3 mile stretch of road having an actual crash rate exceeding the "critical crash rate," i.e., that has experienced five or more accidents over a five-year period. But an HCL designation does not mean a section of road is *per se* unreasonably dangerous. Rather, the designation is a screening device transportation agencies use to identify road sections that may be suitable for further analysis. Furthermore, In re Pilgrim Partnership held that adding traffic to a road that was already unreasonably unsafe *due to traffic congestion* would exacerbate that unsafe condition and violate Criterion 5. 153 Vt. at 595–96. Here, no one is suggesting that congestion is the underlying cause of the HCL designation—if anything, the road geometry is the most likely cause of the heightened crash rate. Because the underlying problem is not traffic congestion, adding cars to the HCL will not "exacerbate" the underlying problem (in the words of Pilgrim Partnership) or "cause . . . unsafe conditions" (in the words of Criterion 5). Adding vehicles to the HCL merely increases exposure to the problem; it does not *per se* "exacerbate" the existing safety concern. We therefore turn to the particulars of this project to determine whether it will cause unsafe traffic conditions.

Neighbors introduced video evidence that tractor-trailer-sized trucks similar to some trucks NEMG's customers will use must cross over the yellow centerline, sometimes by four or five feet, in order to negotiate the HCL curve on Graniteville Road, and that this behavior endangers the safety of other motorists, bicyclists, and pedestrians using the roadway. NEMG argues that a majority of the haul trucks transporting asphalt from the Project are smaller dump trucks, which successfully negotiate the sharp curve without crossing the yellow centerline; that the sight distances at the HCL are sufficient to allow oncoming traffic to avoid any potential collision; and that, going back as far as 2003, there have been no accidents involving trucks in the HCL area and that this is the best evidence of safety.

We find Appellants' video evidence credible, and find that tractor-trailer sized trucks have crossed the yellow line to negotiate the HCL curve. While NEMG may be correct that sight distances are sufficient to avoid crashes, we still find that crossing over the centerline of the road may pose a danger to other motorists, bicyclists, and pedestrians.

We are mindful of Vermont state law requiring vehicles to always drive on the right side of a roadway without crossing the center line. See 23 V.S.A. § 1031; *United States v. Williams*, No. 5:13-cr-50, 2014 WL 412526, at *5 (D. Vt. Feb. 3, 2014) (“Under Vermont law, crossing the center line to any degree is prohibited by 23 V.S.A. § 1031 unless the vehicle is turning.”). Because it is a law applicable to vehicle operation on all roadways, and because failing to follow this law presents a safety concern in this matter, especially at the sharp curve along Graniteville Road, we impose the condition that all trucks traveling to and from the Project must stay in their lane of travel on public roads at all times, including the sharp curve on Graniteville Road. By including this condition, any truck crossing the center line will be in violation of state law and the Act 250 Permit for the Project. To aid enforcement of this condition, we also require that the NEMG pay to have the centerline of the HCL section of Graniteville Road painted each spring, to make it clear to drivers and observers where the centerline of the road is.

With these conditions we conclude that the Project complies with Criterion 5.

III. Public Investment (Criterion 9)

Pursuant to the Parties’ stipulation, issues under Criterion 9(K) are limited to impacts on use of highways from Project traffic. Act 250 Criterion 9(K) requires that a developments “adjacent to governmental and public utility facilities, services, and lands, including highways . . . not unnecessarily . . . materially jeopardize or interfere with the function, efficiency, or safety of . . . the facility, service, or lands.” 10 V.S.A. § 6086(a)(9)(K). Applicants bear the burden of proof under Criterion 9. 10 V.S.A. § 6088.

Criteria 5 and 9(K) are often considered together because both apply to traffic generated by new development. Cf. *In re Pittsford Enters.*, No. 1R0877-EB, Findings of Fact, Conclusions of Law and Order, at 36 (Vt. Env’tl. Bd. Dec. 31, 2002). But, while a permit cannot be denied under Criterion 5, it can be under 9(K). *Id.* at 36. Accordingly, the standard for “materially jeopardiz[ing]” the safety of public roads under Criterion 9(K) is higher than the Criterion 5 standard. *Id.* Thus, if a project will cause unreasonable congestion or unsafe conditions, but if those conditions do not rise to the level of “materially jeopardiz[ing]” public investment, the project may not be denied, but may be conditioned to help mitigate the objectionable traffic impacts. See *id.* at 36–37.

Given the condition imposed under Criterion 5, we find that the Project will not materially jeopardize the safety of Graniteville Road. As discussed above, the majority of vehicles coming to and from the Project will be dump trucks, not tractor trailers. And, over the last four years, there have been no accidents in the HCL area of Graniteville Road involving trucks, likely because adequate sight distances near the curve allow traffic to stop and allow large trucks to pass. As conditioned, the permit will require all trucks, including large tractor-trailer trucks, to stay within their lane of travel on the curve. We therefore find that the Project satisfies Criterion 9(K) of Act 250.

IV. Aesthetics (Criterion 8)

Finally, Appellants argue that the Project will have an undue adverse impact on aesthetics under Act 250 Criterion 8, 10 V.S.A. § 6086(a)(8), pointing to (1) the appearance of a smoke stack and its visible emissions, (2) fumes from the Project and from trucks carrying asphalt, and (3) noise from trucks transporting asphalt.

Criterion 8 requires that development “will not have an undue adverse effect on the scenic or natural beauty of the area, aesthetics, historic sites or rare and irreplaceable natural areas.” Id. “Aesthetics” under Criterion 8 is broad:

[It] involves all the senses, including sounds, smell, and overall perception. Aesthetics involves the sense of a place and the quality of life that a place affords. The aesthetics of a Vermont village environment include all of the qualities that make it attractive and desirable to live in and visit.

In re OMYA, Inc., No. 9A0107-2-EB, Findings of Fact, Conclusions of Law, and Order, at 22 (Vt. Env'tl. Bd. May 25, 1999). Opponents of a project bear the burden of persuasion under Criterion 8, though applicants still bear the burden of producing sufficient evidence to allow for findings in their favor. See In re Eastview at Middlebury, Inc., No. 256-11-06 Vtec, slip op. at 5 (Vt. Env'tl. Ct. Feb. 15, 2008) (Durkin, J.), aff'd, 2009 VT 98.

In assessing whether a development will have undue adverse impacts, we use the two-step “Quechee” analysis. See In re Quechee Lakes Corp., Nos. 3W0411-EB and 3W0439-EB, at 18 (Vt. Env'tl. Bd. Nov. 4, 1985). First, we consider whether a project will have adverse impacts. Id. Whether an impact is “adverse” depends on whether the development will “fit” its surroundings. Id. This depends as much on the character of the surrounding area as the

aesthetics of the project itself. See id. If we find a development will have adverse impacts, we consider whether those impacts are “undue.” Id. at 19–20. We will find that adverse impacts are undue if (1) the project violates a clear, written community standard; (2) the project offends the sensibilities of the average person; or (3) the applicants have failed to implement generally available mitigating measures that a reasonable person would take. Id.

a. *View of the Project and its smoke stack and emissions*

Appellants argue that the view of the Project’s smokestack and the steam and smoke it emits will have an undue adverse impact on the rural village character of Upper and Lower Graniteville.

Whether the smokestack is “adverse” under the Quechee test is a close question. The Project and smokestack will be visible from portions of some of the Appellants’ properties and from the town forest, where some of the Appellants hike and enjoy the outdoors. The smokestack itself is visible, and it emits fumes and steam that can appear bluish and hazy. This is the first smokestack to appear on the ROA property. The smokestack may nonetheless “fit” its environment because Upper and Lower Graniteville have co-existed with the ROA quarry for over a hundred years, and quarry development has shaped the character of the area and nearby villages. Extensive large equipment is common to the area, and the heavy quarrying industry on the ROA tract is visible from the same vantage points as the smokestack.

But, even assuming that the smokestack and its emissions are adverse, we find that they are not undue. Appellants have pointed to no “clear, written community standard” that would indicate a smokestack is not in keeping with local aesthetics. (The Project complies with the only potentially relevant standards: zoning setbacks and height restrictions). Nor have Appellants established that the smokestack “offend[s] the sensibilities of an average person,” especially in the context of a large, industrial quarry development. As to mitigation, while Appellants argue that NEMG should have sited the asphalt Project at a lower elevation, they only argue that this would mitigate the smell of fumes from the Project—they do not identify if and how a lower elevation site would affect visibility of the Project. Furthermore, we conclude that the applicants have included generally available mitigating measures that a reasonable person would take. For instance, the Project building is light in color and can be described as

stone-gray, which blends into its setting. The Project also has minimal exterior lighting, thereby reducing nighttime visual impacts. The Project has floor elevations and roof lines designed to integrate into the area. Lastly, we consider Appellants' suggestion of re-siting this project to a different unspecified location to represent such fundamental change to a project design that it is not really a mitigating measure, but a new project entirely.

Since Appellants bear the burden under Criterion 8 and have not introduced concrete arguments showing that the smokestack violates any part of the "undue" prong of the Quechee analysis, the Court concludes that the Project will not have undue adverse aesthetic effects under Criterion 8.

b. *Truck Noise*

Appellants argue that noise from trucks carrying asphalt to and from the Project will have undue adverse impacts on the area under Criterion 8. We use a benchmark known as the Barre Granite standard for measuring whether noise is adverse under the Quechee test: 70 decibels (dBA) (Lmax) at the property line of a project and 55 dBA (Lmax) outside an area of frequent human use. In re Barre Granite Quarries, LLC, No. 7C1079 (Revised)-EB, Findings Fact, Conclusions of Law, and Order, at 80 (Vt. Env'tl. Bd. Dec. 8, 2000); see also In re Application of Lathrop Ltd. P'ship, 2015 VT 49, ¶ 80 (holding that the decibel levels in the Barre Granite standard refer to peak decibel levels (Lmax), not average decibel levels (Leq)). Even with the benchmark, the question of whether noise is "adverse" ultimately depends on whether the noise suits the existing soundscape, considering the nature and volume of existing noise and the qualitative character of the noise that will be added. In re McLean Enters. Corp., No. 2S1147-1-EB, Findings of Fact, Conclusions of Law, and Order, at 53–54 (Vt. Env'tl. Bd. Nov. 24, 2004).

i. *Preemption*

NEMG argues that we may not use the Barre Granite standard in assessing truck noise under Criterion 8 because the Barre Granite standard is preempted by the federal Noise Control Act, which sets certain noise emission limits⁶ for trucks operating on public roads in interstate

⁶ In addition to these operating limits, the Act also imposes design and manufacturing limits, "which shall set limits on noise emissions from [certain motorized products]." 42 U.S.C. § 4905(a)(1)(C)(iii). NEMG cites to

commerce.⁷ 42 U.S.C. § 4917(a)(1). For the “medium-heavy” trucks NEMG proposes to use, that limit is 86 dBA Lmax for slower roads and 90 dBA Lmax for faster roads, see 40 C.F.R §§ 202.12(g), 202.20(a), which is less stringent than the Barre Granite benchmark.

The doctrine of preemption, which stems from the Supremacy Clause of the U.S. Constitution, dictates that where Congress intended federal law to preempt state law, state law must give way. See Altria Grp., Inc. v. Good, 555 U.S. 70, 76 (2008). Congress may express its intent to displace state law expressly, by including a preemption clause in a statute, or impliedly, through the structure and scope of regulation. See id. 76. When a statute includes an express preemption clause, courts must interpret the clause narrowly, because we presume that Congress does not intend to preempt the states’ historic police powers “unless that was the clear and manifest purpose of Congress.” Id. (quoting Rice v. Santa Fe Elevator Corp., 331 U.S. 218, 230 (1947)). This is particularly the case in areas (such as noise control) that traditionally fall within the states’ police power. City of Burbank v. Lockheed Air Terminal Inc., 411 U.S. 624, 639 (1973).

The federal Noise Control Act contains an express preemption clause:

[A]fter the effective date of a regulation under this section applicable to noise emissions resulting from the operation of any motor carrier engaged in interstate commerce, no State or political subdivision thereof may adopt or enforce any standard applicable to the same operation of such motor carrier, unless such standard is identical to a standard applicable to noise emissions resulting from such operation prescribed by any regulation under this section.⁸

regulations promulgated under this Section (C.F.R. 205.50 et seq.) in its brief, but does not claim that Criterion 8 regulates, directly or indirectly, truck manufacturing and design. We therefore consider only whether the noise emission limits in Section 4917 preempt consideration of truck noise under Criterion 8.

⁷ NEMG expects some of its customers to carry asphalt interstate.

⁸ Section 4917 also contains a savings clause:

Nothing in this section shall diminish or enhance the rights of any State or political subdivision thereof to establish and enforce standards or controls on levels of environmental noise, or to control, license, regulate, or restrict the use, operation, or movement of any product *if the Administrator, after consultation with the Secretary of Transportation, determines that such standard, control, license, regulation, or restriction is necessitated by special local conditions and is not in conflict with regulations promulgated under this section.*

42 U.S.C. § 4917(c)(2) (emphasis added). Because we ultimately conclude that the Criterion 8 and the Barre Granite standard do not fall within the scope of the preemption clause in the first instance, the savings clause does not apply in this case.

42 U.S.C. § 4917(c)(1). The purposes of the Noise Control Act are helpful in discerning the meaning of the Act’s preemptive scope. The purposes section of the Act provides, “[W]hile primary responsibility for control of noise rests with State and local governments, Federal action is essential to deal with major noise sources in commerce control of which [sic] require national uniformity of treatment.” 42 U.S.C. § 4901(a)(3). This last “uniformity of treatment” clause refers to the general purpose of federal supremacy, especially in the field of interstate commerce: avoiding the “patchwork” of conflicting state and local regulation that can burden interstate commerce. See Dan’s City Used Cars, Inc., v. Pelkey, 133 S. Ct. 1769, 1780 (2013).

Several federal and state courts have interpreted the scope of this preemption clause. See, e.g., N.H. Motor Transport Ass’n v. Town of Plaistow, 67 F.3d 326, 332 (1st Cir. 1995) (upholding local ordinance imposing a curfew on truck access to a trucking terminal); Bigler v. Oh. Valley Coal Co., No. 60848, 1192 WL 189550, at *13 (Oh. Ct. App. Aug. 6, 1992) (holding that an lower court order that imposed a truck curfew and other injunctive relief on a coal company on grounds that truck noise was a nuisance); Keck v. Commonwealth, 998 S.W.2d 13, 18 (Ky. Ct. App. 1999) (striking down a noise control ordinance that forbade truck noise); Balt. v. Oh. R. v. Oberly, 837 F.2d 108, 113–14 (3d Cir. 1988) (upholding Delaware’s “property line” statute, which placed state-wide decibel limits on noise emissions at property lines). These cases all examined ordinances that apply jurisdiction-wide: town-wide curfews on truck operation; state nuisance law; and general decibel caps on noise within the jurisdiction.

These jurisdiction-wide ordinances present the possibility of “patchwork” regulation that federal control of interstate commerce is designed to prevent, because as trucks move from jurisdiction to jurisdiction, they may find themselves moving in and out of compliance. Nonetheless, courts examining these generally applicable ordinances have reached disparate results. A land use permit, however, is not a generally applicable regulation—it only binds the permittee (or customers the permittee is able to control). Even where a land use permit imposes conditions that directly regulate a permittee’s federally compliant trucks, it does not burden interstate commerce generally because it has no bearing on the movement of other trucks. It would not create a “patchwork” of regulation because the permittee (and customers the permittee can control) has notice of the special restrictions applying to it. These kinds of

permits merely condition a land use permit on noise abatement. Controlling development because of concerns over the noise that development will bring is therefore simply not a subject “which require[s] national uniformity of treatment.” 42 U.S.C. § 4901(a)(3). Thus, while courts may differ as to whether generally applicable restrictions on truck noise are preempted, we conclude that restrictions on truck noise attached to particular permittees through the Act 250 land use process are not preempted by the federal Noise Control Act.

NEMG points to In re Request for Jurisdictional Opinion re: Changes in Physical Structures & Use at Burlington Int’l Airport for F-35A, 2015 VT 41 (In re F-35A) in support of its preemption argument. In that case, the Vermont Supreme Court held that increased noise from F-35A jets could not be a basis for finding a “material change” to Burlington Airport’s Act-250-permitted development because the Federal Aviation Act and the federal Noise Control Act preempt local regulation of airplane noise. Id. ¶¶ 30–31. We do not agree that this case undercuts our conclusion.

In City of Burbank v. Lockheed Terminal Inc., 411 U.S. 624 (1973), which is cited in In re F-35A and which is the foundational case in federal aviation preemption, the U.S. Supreme Court held that federal regulation of aviation occupies the entire field of aviation, and therefore preempts towns from imposing noise limits, curfews, and similar restraints on local airports, id. at 638 (though towns may still be able to condition land use permits to develop new airports on noise emissions, see id. at 653 (Rehnquist, J., dissenting)). This decision rested, in part, on the fact that aviation is a finely tuned, interdependent system where safety is the highest priority, and regulating noise at one airport necessarily impacts the entire aviation system. See id. *passim*.

In In re F-35A, appellants sought to control airport noise by regulating which airplanes—F-16s or F-35s—could use the Burlington airport. Id. ¶ 27. The Vermont Supreme Court held that “any action to regulate a change in use to the F-35A would amount to an attempt to regulate noise and be preempted.” Id. ¶ 30. Under the City of Burbank’s rationale, this kind of meddling in specific aspects of operations would necessarily affect the delicate scheme of national aviation, and is therefore preempted by the federal government’s comprehensive and exclusive control of national aviation.

Trucking is a different animal entirely. There is no delicately balanced federal oversight of when and how trucks move in interstate commerce. A permit denial based on truck noise or even a permit condition directly limiting a specific permittee's truck noise does not affect other truckers, or burden interstate commerce beyond the permittee and its customers. Furthermore, courts have routinely held that, unlike aviation, federal regulation does not preempt the entire field of trucking. See, e.g., Balt. & Oh. R. v. Oberly, 837 F.2d 108, 114 (1988). This case is therefore entirely distinguishable from In re F-35A.

We conclude that we are not preempted from considering truck noise under Criterion 8, that we can use the Barre Granite benchmark under this criterion, and that we may consider imposing any necessary conditions to control truck noise.

ii. Criterion 8 Analysis

Applying traditional Criterion 8 analysis and the Barre Granite standard to NEMG's truck noise, we conclude that trucks associated with the Project will not have adverse impacts.

NEMG's uses two types of trucks: large gondola-style trucks and dump trucks. These trucks use Graniteville Road to travel to and from the Project. In practice, the average number of one-way truck trips per day the Project was operated was 12.5 in 2013 and 9.8 in 2014. The maximum number of one-way truck trips per day was 58 in 2013 and 60 in 2014. During peak operation times, the Project could theoretically produce 8 truckloads of asphalt per hour. At peak operation, asphalt trucks represent a 5–11% increase in traffic volume along Graniteville Road.

These trucks emit engine noise, and downshifting and "Jake" breaking can also be noisy. Neighbors can hear this noise from their homes, from the town bike path, and from the village. The loudest recorded sound from trucks currently using area roads was 79 dBA Lmax, as measured 65 feet from the side of the road (the approximate distance the nearest Appellant residence is to Graniteville Road). Trucks NEMG's customers use will likely be similar and emit similar noise.

Applicants' sound study showed that hourly average background sound levels near the Project ranged from 56 to 58 dBA Leq(1-hr) on March 31 and 59 to 62 dBA Leq(1-hr) on April 14. Mr. Duncan, NEMG's sound expert, predicted that adding 18 trucks per hour to Graniteville

Road will increase the hourly average sound level 65 feet from the road's edge from 59 to 63 dBA Leq.

There is no question that a large truck could be heard over background noise from 65 feet away from the roadside edge. Furthermore, NEMG's trucks would violate the Barre Granite standard, since some of Appellants' houses are 65 feet from the road and NEMG trucks would cause Lmax noise levels above the 55 dBA benchmark for "areas of frequent human use." But we nevertheless conclude that the noise from trucks associated with the Project will not be out of character with the existing noise context of Graniteville Road. The Project adds, on average, 9.8–12.5 one-way truck trips per day. In practice, the maximum number of one-way truck trips per day has been 60. In the context of Graniteville Road, a designated truck route that already experiences significant truck traffic due to the ROA quarry, this increase in truck noise is not significant, and is in keeping with the existing soundscape. See In re Chaves A250 Permit Reconsider, 2014 VT 5, ¶¶ 26–27 (holding that an increase in number of trucks traveling on a busy state route with significant existing truck traffic would not cause adverse noise under Criterion 8, even though the truck noise violated the Barre Granite standard). We therefore conclude that noise from truck traffic associated with the Project is not adverse. We do not reach the issue of whether the noise from the Project's truck traffic is undue.

c. *Asphalt Fumes*

Appellants offer that odors from the plant escape the Project site and cause offensive odors to permeate Appellants' properties. They also offer that diesel exhaust and asphalt fumes from trucks carrying asphalt are perceptible from local roads. Appellants assert that because of the offensive odors, the Project fails to comply with Criterion 8.

With regard to asphalt and diesel smells from trucks, we find Appellants' testimony credible, but we do not consider these fumes to be adverse. The road NEMG's trucks use is designated by the Town of Barre as a truck route. Diesel fumes are a common and everyday part of the "smell-scape" of the designated truck route. Asphalt smells also fits in this context. We cannot conclude that passing diesel and asphalt smells from trucks are "adverse" under Criterion 8.

We do find, however, that odors and fumes from the asphalt plant itself may be adverse and undue. While the Court questions the credibility of some of the more extreme accounts of off-site odors, the Court finds that the Project has caused perceptible asphalt odors on the Appellants' properties and inside their homes if they leave the windows open or air conditioners running. While the industrial ROA quarry is a prominent feature in the area, this quarry operation has not included petrochemical manufacture, and chemical odors from the Project itself do not fit the area's context even considering the history of quarrying. These smells are therefore "adverse."

As to whether the Project's fumes are "undue," there is no clear written community standard intended to preserve the aesthetic smells of the Project area. Applicants have designed the Project with generally available mitigating steps that a reasonable person would take to improve the harmony of the proposed Project with its surroundings, including the Project operating as a batch mix plant, with reasonably limited hours and months of operation, and storing liquid asphalt in a sealed tank at a temperature below vaporization level. We are not convinced that Appellants' suggested mitigation measure—siting the Project at a lower elevation—would have been generally available, since Appellants introduced no explanation as to the feasibility of that alternative. See In re Rinkers, Inc., No. 302-12-08 Vtec, slip op. at 4 (Vt. Super. Ct. Envtl. Div. Oct. 20, 2010) (Wright, J.), aff'd, 2011 VT 78 ("For a mitigating step to be considered "generally available" it must be reasonably feasible and cannot frustrate either the purpose of the project or the goals of Act 250."). As concluded above, we consider Appellants' suggestion of re-siting this project to a different unspecified location to represent such fundamental change to a project design that it is not really a mitigating measure, but a new project entirely.

We do find, however, that odors from the Project may be shocking or offensive to the average person. Even though we question the credibility of some of the more extreme accounts of asphalt fumes (because some Appellants testified that they are hyper-sensitive to odors⁹ and some smelled odors on days the Project was not operating), some of the Appellants

⁹ Under the second "undue" prong of the Quechee test, we only consider whether impacts are shocking or offensive to the average person, not the hyper-sensitive person. See In re Goddard College Conditional Use, Nos. 175-12-11 Vtec and 173-12-12 Vtec, slip op. at 14 (Vt. Super. Ct. Envtl. Div. Jan. 6, 2014) ("While neighboring

who are not hyper-sensitive credibly testified that they experience pungent, eye-watering, and throat-stinging odors from the Project that permeate their properties in the summer time, and cause Appellants to forgo outdoor recreation. We find that these smells may be “shocking or offensive to the average person,” and therefore that they may be “undue.”

To address these effects, we incorporate Condition 22 from NEMG’s ANR Air Permit into this Act 250 permit. Again, Condition 22 of NEMG’s Air Permit provides:

The Permittee shall not discharge, cause, suffer, allow, or permit from any source whatsoever such quantities of air contaminants or other material which will cause injury, detriment, nuisance or annoyance to any considerable number of people or to the public or which endangers the comfort, repose, health or safety of any such persons or the public or which causes or has a natural tendency to cause injury of damage to business or property. The Permittee shall not discharge, cause, suffer, allow, or permit any emissions of objectionable odors beyond the property line of the premises.

NEMG testified that it can and does comply with this condition. We conclude that this condition, if complied with, will adequately address Appellants’ concerns over the odors from the hot-mix Project under Criterion 8, because it forbids the impacts Appellants complain of. As conditioned, we conclude that the sensibilities of the average person will not be offended or shocked by the addition of the Project.

We clarify here, however, that this condition applies to NEMG’s asphalt facility only—we do not incorporate it as to the trucks hauling asphalt from the Project, since we find that odors from those trucks are not adverse. By incorporating the language of Condition 22 into this permit, we therefore mean the language “any source whatsoever” to mean “any source associated with NEMG’s asphalt production *except for trucks*.”¹⁰ The Project therefore complies with Criterion 8 because we conclude that the appearance of a smoke stack and its visible emissions are not undue, that the noise from the Project’s truck traffic is not adverse, that passing diesel and asphalt odors from trucks are not adverse, and that, although odors from the

Appellants testified as to how they expect the Project to be offensive and how potential views from specific locations may shock them, we must consider the Project’s impacts from the perspective of an average person.”).

¹⁰ We do not express any opinion as to the meaning of Condition 22 *in the air permit*, nor do we express an opinion about ANR’s jurisdiction to issue that condition. Interpretation of the air permit is a separate matter and is not before the Court here. We incorporate Condition 22 into this Act 250 permit using our independent Act 250 jurisdiction, and note that, *with regard to the Act 250 permit*, the condition applies to NEMG’s asphalt facility, but not to NEMG’s trucks.

hot mix Project itself would be adverse, as conditioned, odors from the asphalt facility will not have an undue adverse impact on the area.

V. Rolling Average Production Limit

Finally, in their Statement of Questions, NEMG challenges a condition the District Commission imposed in its Act 250 permit limiting asphalt production to an average of 4,500 tons per week during any given 45-day period (a “rolling average production limit”). NEMG argues that the limit is unnecessary because all of its modeling evidence, which is based on an assumed limit of 180 tons per hour (a less restrictive limit), shows that the Project complies with Act 250.

We disagree. If the rolling average production limit were removed, the Project would likely still comply with Criterion 1, since NEMG’s air permit and the expert testimony supporting it at trial assumed a less restrictive limit of 180 tons per hour, and we found this evidence showed compliance with Criterion 1. The Project would also comply with Criteria 5 and 9(K) without the rolling average production limit, since our condition requiring trucks to remain in their lane of travel addresses safety concerns from truck traffic regardless of traffic volume.

But the Court cannot say with confidence that the Project would comply with Criterion 8 without the rolling average production limit, since removing the limit would potentially increase the frequency of loud truck noises on and near Graniteville Road. A large truck traveling down Graniteville Road emits anywhere from 53 to 79 dBA (Lmax) at 65 feet from the road’s edge. Neighbors can hear trucks passing while they are outdoors and in their homes. With the production limit in place, the actual, observed average number of one-way truck trips per day was 12.5 in 2013 and 9.8 in 2014. The maximum number of daily one-way truck trips was 58 in 2013 and 60 in 2014. At this volume of truck traffic, noise from trucks is consistent with acoustic character of Graniteville Road, and is not adverse under Criterion 8. But if the Project were subject only to a 180 ton per hour limit, the Project could theoretically produce up to 16 one-way truck trips per hour, or 128 one-way truck trips per day. This would translate to a truck trip every 3.75 minutes. This volume of truck trips would have an adverse aesthetic effect even in the context of Graniteville Road, and this aesthetic impact would also be offensive to the average person. We therefore conclude that the rolling average production limit is a

necessary and reasonable condition for addressing aesthetic impacts from truck noise under Criterion 8, and we affirm the District Commission's issuance of this condition.

Conclusion

We find that NEMG's asphalt Project satisfies Criterion 1. We conclude that the asphalt Project will comply with Criteria 5 and 9(K) as conditioned. We also find that it satisfies Criterion 8 as to the visual impacts of the Project and the sound of its trucks, and that it will comply with Criterion 8 with regard to odors and fumes if we impose limiting conditions in the permit. We therefore **AFFIRM** the District Commission's Finding of Fact and Conclusions of Law and Land Use Permit #5W0966-6 as modified by this decision, including the addition of the following three conditions:

1. When using public roads, trucks associated with the Project will remain in their lane of travel at all times, including when traveling on the sharp curve in Graniteville Road at the intersection of Graniteville Road and Baptist Street.
2. Applicants must pay to have the centerline of the HCL section of Graniteville Road painted each spring, to make it clear to drivers and observers where the centerline of the road is.
3. Applicants shall not discharge, cause, suffer, allow, or permit from any source whatsoever such quantities of air contaminants or other material which will cause injury, detriment, nuisance or annoyance to any considerable number of people or to the public or which endangers the comfort, repose, health or safety of any such persons or the public or which causes or has a natural tendency to cause injury or damage to business or property. Applicants shall not discharge, cause, suffer, allow, or permit any emissions of objectionable odors beyond the property line of the premises.¹¹

We **REMAND** this matter to the District 5 Environmental Commission, solely to perform the ministerial act of issuing a land use permit that conforms with this decision and that incorporates the findings of fact, conclusions of law, and permit terms of Applicants' Land Use

¹¹ This condition mirrors the language in Condition 22 of Applicants' air pollution control permit from ANR. We do not express any opinion as to the meaning of Condition 22 in the air permit. With regard to the Act 250 permit, the condition applies to NEMG's asphalt facility, but not to trucks associated with the Project.

Permit No. 5W0966-6 (Altered) (issued February 26, 2013) that are not affected by this decision.

A Judgment Order accompanies this Merits Decision. This completes the current proceedings before this Court.

Electronically signed on April 18, 2016 at 10:55 AM pursuant to V.R.E.F. 7(d).

A handwritten signature in black ink that reads "Tom Walsh". The signature is stylized with a large, looping "W" and a cursive "H".

Thomas G. Walsh, Judge
Superior Court, Environmental Division