



DEPARTMENT OF TRANSPORTATION AND ENVIRONMENTAL SERVICES

Office of Environmental Quality

P.O. Box 178 – City Hall

Alexandria, Virginia 22314

<http://alexandriava.gov/>

August 22, 2008

Ali Khalilzadeh
Virginia Department of Environmental Quality
13901 Crown Court
Woodbridge, Virginia 22193

**Re: Draft Permit for Virginia Paving Company, Alexandria, Virginia
Registration No. 70579**

Dear Mr. Khalilzadeh:

The City of Alexandria (“Alexandria”) appreciates the opportunity to provide comments on the draft permit prepared by Virginia Department of Environmental Quality (“VDEQ”) for Virginia Paving Company to modify and operate its asphalt plant located in Alexandria, Virginia. The comments outlined in this letter are partly based on a comparison of VDEQ’s draft permit and the Special Use Permit (“SUP”) issued to Virginia Paving Company by Alexandria in November 2006. The comments are also based on a review of the facility’s current permit that will be superseded upon final issuance of the draft permit.

Introduction

On November 28, 2006, Alexandria approved an SUP for the asphalt plant. The SUP approval was based on a detailed analysis of the facility’s emissions and the associated ambient air quality impacts of both criteria and toxic air pollutants, as well as an analysis of state-of-the-art air pollution controls that are currently in use at asphalt plants across the U.S. and that have been demonstrated in practice to be highly effective in controlling emissions. The SUP requires several operational restrictions and environmental improvements, including production limitations, fuel use restrictions, installation of air pollution controls, stack testing and recordkeeping requirements, and best management practices for minimizing air pollution. Virginia Paving Company has implemented a majority of these requirements at the facility: therefore, Alexandria requests VDEQ to incorporate these requirements in the permit to reflect the manner in which the facility currently operates and to ensure continued protection of health and environment. Further, the City would like to state its supports and encouragement for the use of natural gas at the facility for drum dryer heaters in both Plants 1 and 2, as well as in both asphalt heaters. Natural gas is a cleaner burning fuel as compared to both distillate oil and recycled oil, and will result in further reduction of emissions from this facility.

The comments presented below identify, where applicable, the specific condition in the draft permit where these requirements should be included:

Emission Limits

1. Asphalt Dryers – The SUP requires the asphalt Plants 1 and 2 to meet a PM limit of 0.03 gr/dscf and demonstrate compliance via stack tests once every two years. The current limit in the draft permit should be lowered from 0.04 gr/dscf to 0.03 gr/dscf and the above stack test frequency should be specified. (VDEQ Conditions 16 and 28)
2. Asphalt Dryers – The NO_x short term emission rates (lb/ton) in the draft permit are considerably greater than the corresponding limits in the facility’s current permit. Similarly, the CO emission rates (lb/ton) in the draft permit are considerably different, with CO emission rate for Plant 1 being higher and for Plant 2 being lower, as compared to the corresponding limits in the current permit. The NO_x and CO limits in both the current as well as the proposed draft permit are based on the results of one stack test conducted prior to the issuance of each permit. The significant difference between the two stack test results likely indicates that the emissions of these two pollutants from Plants 1 and 2 are very variable. Alexandria recommends that a series of performance stack tests be conducted for both of these pollutants to quantify this variability and establish emission limits with a greater degree of confidence. (VDEQ Conditions 17 and 24)
3. Asphalt Dryers – The draft permit issued by VDEQ does not contain any limit on PM-2.5 emissions from the facility. PM-2.5 is a criteria pollutant regulated under both EPA and VDEQ regulations; therefore, emissions limits for this pollutant should be specified. Control of PM-2.5 emissions is also critical from this source because the City of Alexandria is a part of the Metropolitan Washington PM-2.5 nonattainment area. (VDEQ Conditions 17 and 18)
4. Asphalt Dryers – The facility’s current permit specifies a tons/year limit on the emissions of quinone from Plants 1 and 2, while draft permit issued by VDEQ does not specify any quinone limit. Quinone (SIC 106-51-4) is a hazardous air pollutant (“HAP”) regulated under the Clean Air Act, Section 112, and Alexandria requests that an emissions limit for quinone be specified in the permit. (VDEQ Condition 18)
5. Asphalt Heaters – The facility’s current permit specifies a tons/year limit on the emissions of PM-10 from the asphalt heaters, while draft permit issued by VDEQ does not specify such a limit. Based on the short term emission rates and the fuel limits listed in the draft permit, Alexandria calculates the PM-10 emissions from the asphalt heaters to be 0.06 tons/year. Alexandria requests that this limit for PM-10 emissions be specified in the permit. (VDEQ Condition 20)

6. Visible Emissions (RAP Crusher) – The SUP limits the visible emissions from the RAP crusher to 10% opacity. The current limit in the draft permit should be lowered from 15% opacity to 10% opacity. (VDEQ Condition 22)

Production Limitations

7. Asphalt Production – The facility operates under a combined asphalt production limit of 1,000 tons/hour from Plants 1 and 2. The draft permit only limits Plant 2 production to 275 tons/hour. The Plant 1 production should also be limited to its rated capacity of 600 tons/hour. In addition, the daily production at the facility is limited to 8,000 tons/day, which should also be specified in the permit. (VDEQ Condition 6)
8. Asphalt Production – The daily asphalt production from the facility is limited on worse air quality days as follows: 4,000 tons/day on any day for which the Air Quality Index (“AQI”) is forecast from 150 to 200 (Code Red) and no production on any day when AQI is forecast greater than 200 (Codes Purple and Maroon). For purposes of this requirement, the AQI forecast is as identified on the Metropolitan Washington Council of Governments (“MWCOG”) website. These restrictions should be specified in the permit.
9. Asphalt Production – The asphalt production from the facility is limited to a maximum of 980,000 tons per year. Alexandria agrees with the annual production limits in the draft permit for Plants 1 and 2, which add up to a total of 980,000 tons per year. (VDEQ Condition 7)
10. Nighttime Production – The nighttime operations at the facility are limited to a maximum of 110 nighttime shifts per year, 4,000 tons of asphalt production in any one nighttime shift, and 275,000 tons of annual nighttime production. For purposes of this requirement, nighttime is defined as any production between the hours of 8:00 pm and 5:00 am. These nighttime requirements should be specified in the permit.

Operational Restriction

11. Asphalt Plants – During nighttime operations, the facility is restricted to operating only one of the two asphalt plants, either Plant 1 or Plant 2, at a time. The permit should reflect this operational restriction.
12. Asphalt Heaters – At any given time, the facility is restricted to operating only one of the two asphalt storage tank heaters. The permit should reflect this operational restriction.

Fuel Limitations

13. Fuel – As specified in the draft permit, Alexandria supports the use of natural gas at the facility for combustion in both Plants 1 and 2, as well as in both asphalt heaters. (Conditions 8 and 9)
14. Fuel Specification (Distillate Oil) – The No. 2 fuel oil used at the facility is required to be the same as is approved for on-road diesel vehicles and is limited to a sulfur content of 0.05% by weight. This restriction should be specified in the permit and the sulfur content in the draft permit should be lowered from 0.5% to 0.05%. (VDEQ Condition 10)
15. Fuel Specification (Recycled Oil) – The recycled fuel oil used at the facility is limited to more stringent fuel specifications for the following constituents. The corresponding specifications in the draft permit should be lowered to the following limits. (VDEQ Condition 10)

Arsenic	3 ppm
Chromium	7 ppm
Lead	50 ppm
PCB	2 ppm

16. Fuel Throughput – The No. 2 oil usage in the asphalt storage tank heaters is limited to 100,000 gallons per year. The corresponding throughput limit in the draft permit should be lowered from 120,000 gallons per year to 100,000 gallons per year. (VDEQ Condition 13)
17. Fuel Restriction – The use of recycled fuel oil in Plants 1 and 2 is prohibited on days when the AQI is forecast to be greater than 100 (Code Orange or worse). This requirement should be specified in the permit.

Emission Controls

18. Emission Controls (NOx) – Both the asphalt Plant 1 and 2 at the facility operate with low-NOx burners (“LNB”). However, the draft permit only specifies the LNB requirement for Plant 1. The permit must reflect the LNB requirement for Plant 2 as well. (VDEQ Condition 2)
19. Emission Controls (PM) – The facility has installed a six-stage filtration system, referred to as “Blue Smoke Control,” on the asphalt silos for both Plants 1 and 2. As required by the SUP, Virginia Paving Company has demonstrated that the system achieves 99% control efficiency for PM emissions. The draft permit should be revised to reflect this pollution control requirement. The permit should also require that the pressure drop across the filtration unit be monitored in the same manner as required for each fabric filter baghouse for Plants 1 and 2.

20. Emission Controls (Asphalt Storage Tanks) – The facility should be required to maintain the carbon system to control asphalt storage tank emissions.
21. Emission Controls (Fugitive) – The facility has installed fugitive emissions control systems to capture fugitive emissions from the hot mix asphalt conveyors and load out and route them to the six-stage filtration (Blue Smoke Control) units. This should be reflected in the permit.
22. Emission Controls (Fugitive Dust) – For the Recycled Asphalt Pavement (“RAP”) crusher, the SUP requires the facility to install enclosures at conveyor drop points. This requirement should be reflected in the permit. (VDEQ Condition 5)
23. Emission Controls (Fugitive Dust) – The facility is required to spray water at least twice daily on all paved roads, and wet-vacuum the paved roads at least once daily. This requirement should be reflected in the permit. (VDEQ Condition 5)

Compliance Demonstration

24. Stack Tests – The facility is required to conduct stack tests for PM-2.5, PM-10, NOx, SO₂ and CO initially every two years, i.e., once prior to August 31, 2008 and once prior to August 31, 2010, and thereafter once every five years. For PM emissions from the asphalt dryers, the facility is required to conduct stack tests every two years. This test frequency should be reflected in the permit. (VDEQ Condition 28)
25. Visible Emissions Monitoring – The facility is required to conduct visible emissions monitoring for each asphalt dryer baghouse on a monthly basis. This monthly schedule should be reflected in the permit. (VDEQ Condition 29)

Again, Alexandria appreciates the opportunity to present these comments on the draft permit for Virginia Paving Company. Should you have any questions, please do not hesitate to contact us at 703-519-3400, ext. 164.

Sincerely,



Lalit Sharma
Chief, Office of Environmental Quality
Department of Transportation & Environmental Services

cc: Honorable Mayor and Members of the City Council
VA Paving Liasion Committee
Richard Baier, Director of T&ES, City of Alexandria
William Skrabak, Director, Office of Environmental Quality, City of Alexandria
Rich Josephson, Deputy Director of Planning and Zoning, City of Alexandria
Erica Bannerman, Senior Air Pollution Control Specialist, City of Alexandria