

# BLUE RIDGE ENVIRONMENTAL DEFENSE LEAGUE

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July 25, 2003  
1828 Brandon Ave. SW  
Roanoke, VA 24015

Robert G. Burnley  
Director  
Virginia Dept. of Environmental Quality  
629 East Main Street  
Richmond, Va. 23219

## **Re: W-L Construction and Paving, Inc., Registration No. 11119, Wythe County**

Dear Mr. Burnley:

I write on behalf of the Board of Directors of the Blue Ridge Environmental Defense League (BREDL) and Wythe Environmental Action Group (WEAG). BREDL is a regional, community-based, non-profit environmental organization. Our founding principles are earth stewardship, environmental democracy, social justice, and community empowerment. BREDL has chapters throughout the Southeast, including Virginia. WEAG is a BREDL chapter based in Wythe County.

As you know, permits to operate an air pollution source must assure compliance with state and federal regulatory requirements. Based on our analysis, the asphalt plant air pollution permit proposed for the Black Lick community in Wythe County is fatally flawed and does not protect Virginia's environment or the health and well-being of the citizens of the Commonwealth. Conditions of the permit as written are not sufficient to meet NAAQS or to protect public health. This letter will describe the inconsistencies, omissions, and errors which we have identified in the Virginia Department of Environmental Quality's air permitting process. Further, we request that the air permit for the asphalt plant proposed for Wythe County be re-opened for cause as allowed under state regulations (9 VAC 5-80-1300).

### **Relief requested**

Blue Ridge Environmental Defense League and Wythe Environmental Action Group hereby request:

- 1) That DEQ explain how determinations were made for each of the permit exemption provisions listed in 9 VAC 5-80-1320 A.1.c;
- 2) That Virginia DEQ halt any attempts to relocate this facility; and

3) That DEQ re-open and amend the permit. Further, we request a new public participation process to include a comment period, informational briefing and a public hearing.

**Overview**

On October 18, 1991 DEQ approved a permit for a 320 ton/hour, 200 thousand ton/year drum mix asphalt plant in Scott County under Registration No. 11119 and County-Plant No. 2840-0050. The emissions levels for the plant were listed as follows:

Pollutant	Pounds per hour	Tons per year
Total Suspended Particulate	10.2	1.2
PM-10	7.2	0.3
Sulfur dioxide	26.9	8.4
Volatile organic compounds	19.2	6.0
Nitrogen oxides	11.5	3.6
Carbon monoxide	11.5	3.6

In addition to these criteria pollutants, other toxins are emitted from asphalt plants. Hot mix asphalt contains gravel and sand mixed with asphalt cement obtained from crude oil. Hydrocarbons released into the air by the hot mix asphalt as it is loaded into trucks and hauled from the plant site include volatile organic compounds, polycyclic aromatic hydrocarbons, and condensed particulates. The known emissions from asphalt plants include benzene, formaldehyde, arsenic, and cadmium. These toxins can have very harmful impacts to health, even in small doses. Because fugitive emissions occur close to ground level, wind velocity is reduced and air pollution is not subject to the dispersion which occurs at smokestack levels. Stagnant air conditions and inversions increase the level of exposure to the local community.

**Facility Does Not Meet Requirements for Relocation**

DEQ has failed to determine that this plant has met permit exemption requirements for relocation. Part II, Article 6 of Virginia Regulations for the Control and Abatement of Air Pollution states:

9 VAC 5-80-1320 Permit exemption levels.

A. The general requirements for permit exemption levels are as follows:

1. The provisions of this article do not apply to the following stationary sources or emissions units:

c. The relocation of a portable emissions unit provided that:

(1) The new emissions from the portable emissions unit are secondary emissions;

(2) The portable emissions unit has previously been permitted or is subject to a general permit;

(3) The unit would not undergo modification or reconstruction;

(4) The unit is suitable to the area in which it is to be located;

and

(5) Reasonable notice is given to the board prior to the relocation identifying the proposed new location and the probable duration of operation at the new location. Such notice shall be given to the board not less than 15 days in advance of the proposed relocation unless a different time duration is previously approved by the board.

The Black Lick Road near Rural Retreat in Wythe County should not be exempted from permitting because the unit is unsuitable to the area in which it is to be located. DEQ granted authorization without properly considering state regulations for a permit exemption.

The impact of aging, malfunctioning equipment on air quality deterioration was not properly considered by DEQ. Specifically, with regard to 9 VAC 5-8-1320 A.1.c.(3), we contend that this unit has most likely undergone modification or reconstruction over the 12 years since it was first permitted in Scott County. We request DEQ to demonstrate how it was determined, via purchasing records and other appropriate documentation, that

this unit met the permit exemption based on the Virginia DEQ definitions of modification and reconstruction per 9 VAC 5-80-1110.

According to state regulation 9 VAC 5-8-1320 A.1.c.(4), the facility must be suitable to the area in which it is to be located. Virginia DEQ did not adhere to the intent of State Code of Virginia § 10.1-1307 E.3 nor did DEQ adhere to the State Air Pollution Control Board's Suitability Policy which states:

1. Air quality characteristics and performance requirements defined by SAPCB regulations; and
2. The health impact of air quality deterioration which might reasonably be expected to occur during the grace period allowed by SAPCB regulations or the permit conditions to fix malfunctioning air pollution control equipment;
3. Anticipated impact of odor on surrounding communities or violation of the SAPCB Odor Rule.

Per Suitability Policy requirement number 1, Virginia DEQ did not follow its own regulations when it granted approval to W-L Construction & Paving, Inc. to relocate an asphalt plant. For the relocation of a portable asphalt plant both a site map and documentation of site suitability must supplement the company's notification to DEQ. A site map was provided, but DEQ files do not contain any "documentation of site suitability" from the applicant nor did DEQ make a "determination of site suitability."

Per Suitability Policy requirement number 2, we can find no record of how the EPA-454/R-00-019 December 2000 assessment report on Hot Mix Asphalt Plants and EPA's findings on criteria and hazardous air pollutant emissions from asphalt plants was assessed by DEQ. The permit dates back twelve years. The SAPCB may propose new regulations to account for these emissions. But unless the permit is re-opened, air quality deterioration would likely result in Wythe County.

Per Suitability Policy requirement number 3, this same unit has had numerous odor complaints at a previous site in Smyth County. According to a Smyth County News and Messenger April 25, 2003 article based on Smyth County Circuit Court testimony,

"...citizens who live nearby began to complain about the asphalt plant's pollution and odor...Quarry neighbors exhibited photographs of a large column of smoke coming from W-L's operation. The citizens said that they spent the entire summer with windows closed at their houses due to odor resembling the scent of burning tires. One family said their child experienced medical problems with breathing as a result of W-L's actions."

Smyth County citizens had contacted the Smyth County Zoning Board, which ruled on Dec. 3, 2002 that the asphalt plant violated Smyth County zoning. W-L appealed the decision to the Smyth County Circuit Court, which held a hearing on March 11, 2003. In an April 11, 2003 letter to involved parties, Judge Charles B. Flannagan, II. declared that "W-L Construction must comply with the provisions of the Smyth County Zoning Ordinance before operating a portable asphalt mixing plant at the site in question."

Asphalt plants cause huge air pollution and odors problems. DEQ must follow Virginia's Odor Rule. The site is unsuitable based on the impact of odor on the surrounding community.

### **DEQ failed to Follow Notification and Duration of Operation Requirements**

9 VAC 5-8-1320 A.1.c.(5) requires that "Reasonable notice is given to the board prior to the relocation identifying the proposed new location and the probable duration of operation at the new location..." However, DEQ granted authorization to relocate the plant without obtaining the "probable duration of operation at the new location". In the April 17, 2003 W-L Construction and Paving, Inc. letter to DEQ, there is no mention from the permit holder of the probable duration of operation.

We request DEQ to fully explain how these determinations were made for each of the permit exemption provisions listed in 9 VAC 5-80-1320 A.1.c. 9 VAC 5 Chapter 80, In addition, it was determined that neither a public notification nor a public hearing was needed.

### **DEQ Failed to Ascertain the Black Lick Location is a Greenfield Site**

On April 18, 2003 DEQ approved the relocation of the asphalt plant to the Black Lick site. A preliminary site inspection by DEQ staff would have determined the location to be a "greenfield source" as defined by state regulations. A greenfield source is an air pollution emission unit constructed on or moved to a site which s previously had no emission units. The asphalt plant would be relocated to a greenfield where no facility currently exists. Virginia DEQ's New Source Review Permits Program Manual, Sept. 7, 2000 states:

"The term "greenfield source" is any new site (not previously designated as a stationary source) on which equipment undergoes initial construction, installation or relocation. ... For Greenfield sources which have no existing emission units at a location this law (Virginia Code § 10.1-1307 E.3.) requires that DEQ perform some preliminary inspection of the proposed location to ensure that there are no obvious threats to public health and safety, that the source can be built consistently with the legal and regulatory requirements for a new source, ...

...In addition to performing this inspection for greenfield sources, DEQ (must) determine, for a portable facility, that the portable unit to be relocated is suitable to the area in which it is to be located.” pp.21-22

Because DEQ failed to perform an on site inspection, as outlined in NSR Permit Program Manual Sept 2000, this asphalt plant:

- 1) Would be located on a site where no existing facility is located;
- 2) Would be located within 400 feet of at least 3 residences and within 1000 feet of several residences;
- 3) Would be located within approximately 1 mile of the recently opened elementary school and a popular day care center serving the community.
- 4) Would be located within approximately 2 miles of the Jefferson National Forest Crawfish Valley Roadless Area. A scenic area that is heavily used for its recreational benefits;
- 5) Would have runoff into Mill Creek which feeds into Reed Creek, which provides public drinking water for the town of Wytheville;
- 6) Would be located within 1/4 – 1/2 miles of several houses and structures that are eligible for inclusion in the National Historic Registry; and
- 7) Would be located within a mountainous community that is susceptible to meteorological temperature inversions, which will trap pollution. It will be located in an area where the topography has the plant sited in a lower elevation valley surrounded by rising hilltops in a 1/4 mile radial distance around the plant.

### **DEQ Did Not Provide Accurate or Timely Information to the Public**

BREDL and citizen contacts with Abingdon DEQ in May, June, & July indicated that the company had not sent a notification to relocate an asphalt plant. We were told on numerous occasions via telephone conversations and email correspondence (please see attachment) that W-L had not sent a notification to relocate any of its portable asphalt plants. It was not until BREDL sent a July 7, 2003 Freedom Of Information Act request for a copy of one of W-L's air permits, that DEQ “discovered” that the company had indeed faxed DEQ a notification and DEQ had indeed granted permission, albeit without proper consideration.

On the afternoon of April 17, 2003 at 2:00 PM, W-L Construction and Paving, Inc. faxed Virginia DEQ in Abingdon a notification to relocate an asphalt plant from Saltville to Rural Retreat.

Early the very next morning, on April 18, 2003 at 9:47 am (just a little over 3 1/2

business hours), Virginia DEQ faxed W-L Construction and Paving, Inc. authorizing temporary relocation and operation at Rural Retreat.

### **Facility Does Not Qualify for Permit Exemption**

Under state and federal regulations, emissions of air pollutants must fall below certain benchmarks to escape more stringent regulatory oversight. The DEQ's permit fails to meet the emission rates for several criteria and hazardous air pollutants. Permit exemption limits stipulated in 9 VAC 5-80-1320 are 25 tons/year for particulate matter, 15 tons/year for PM-10, and 25 tons/year for volatile organic compounds. Based on the annual production limit of 200 thousand tons of asphalt, we estimate that the DEQ permit would allow 31 tons of VOC and 76 tons of particulates to be emitted into the air.

Asphalt cement comprises 5% (0.05) of the total hot mix plant production. Fugitive air emissions equal 1.07% (0.0107) of the consumed asphalt cement (data from Dr. R.M. Nadkarni). For an asphalt plant producing 200,000 tons of hot mix asphalt per year:

$$200,000 \text{ tons hot mix} \times 0.05 = 10,000 \text{ tons/year of asphalt cement consumed.}$$

Fugitive air emissions equal 1.07% (0.0107) of the consumed asphalt.

$$10,000 \times 0.0107 = 107 \text{ tons per year of asphalt vapor fugitive emissions}$$

The bulk of these fugitive emissions are condensed particulates. Volatile organic compounds (VOC) emissions are about 29% of the this total. Therefore, about 15 tons of VOC and 38 tons of particulates would be emitted by a 200,000 ton/year asphalt plant as fugitive emissions. To this must be added the total emitted from the smokestack itself.

The US Department of Health and Human Services has determined that PAHs (Polycyclic aromatic hydrocarbons) may be carcinogenic to humans. Animal studies show that PAHs affect reproduction, cause birth defects, and cause harmful effects on skin, body fluids, and the immune system. Similar effects could occur in humans.

We request that the DEQ take steps to correct these the inconsistencies, omissions, and errors. We hereby request that the air permit for the asphalt plant proposed for Wythe County be re-opened for cause. Please reply to me at the address below. Feel free to contact me with any questions or requests for information.

Respectfully,

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