

Jefferson County Foundation, Inc.

January 10, 2020

Thornton E. Martin, Jr.
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street, SE
Charleston, WV 25304

Re: Public Comment on Temporary Regulation 13 Permit Application Portable Crushing and Screening Systems at

Millville Quarry (Bardon, Inc.)
(DAQ Plant ID No. 037-00015)
57 Blair Road
Harper's Ferry, WV 25425

Dear Mr. Martin:

Please accept the following comments in regards to Permit Application R13-3428T. This Permit Application is for the construction and installation of three (3) portable crushers (Cedar Rapids MVP450 Portable Cone Crusher, Hazemag APSE 1315 Impact Crusher and Cobra 230 Impact Crusher) and one (1) portable screen (Cedar Rapids 8x20 3 Deck Portable Screen) at the Millville Quarry (Bardon, Inc), DAQ Plant ID No.037-00015, located in Jefferson County, West Virginia. The equipment is scheduled to begin operations on or about January 15, 2020.

After careful research into the details of this application, it is clear that this permit should be denied. As a bare minimum, the Director of the Division of Air Quality (DAQ) should require the permittee Bardon, Inc. to conduct Air Dispersion Modelling to determine if any of the United States National Ambient Air Quality Standards (NAAQS) could be violated. This must be done before any new permits are allowed. The Director should require ambient air monitoring for Particulate Matter and NOx downwind of the plant.

Multiple Temporary Permits – Permit Avoidance

There are already two R13 Temporary Permits for crushing, screening, and other “temporary” aggregate processing activities at Millville (R13-3434T and R13-3428T). These permits were granted on 2/19/2019 and 12/10/2018, respectively. Both permits were extended the full 18 months to 8/19/2020 and 6/10/2020, respectively. “Work to be completed has not been

accomplished due to unforeseen operational circumstances and unusual weather patterns.” This was the reason given for extension of both of these permits.

Temporary permits are supposed to be just that, temporary. The concept is that they cover activities of short, finite duration. However, when one examines the Millville Quarry’s permit records back to the first U.S. Environmental Protection Administration’s (EPA) New Source Review (NSR) permit in 2000, we find a series of extended temporary permits in addition to the general air permit.

The Millville Quarry is currently classified as a Minor Air Source. However, the sum of the emission of the current air permits and this third concurrent temporary permit may be greater than that necessary to be classified as a Major Air Source. In effect, the Millville Quarry has been able to avoid such a classification, and in doing so, has avoided EPA’s Prevention of Significant Deterioration (PSD) permitting, modeling, and approval. This is permit avoidance.

By requesting this new temporary permit, the permittee Bardon, Inc., seems to be attempting to continue this history of avoiding proper permitting procedure and accountability. Serial temporary permitting should not be allowed in a manner that avoids consideration and regulation of total emissions from the facility, i.e., the entire quarry.

Minor Air Source Consequences

There are several consequences of the classification of the Millville Quarry as a Minor Air Source. First, as mentioned above, no PSD modeling is required or completed for a Minor Air Source. Therefore, the cumulative effect of these emissions on the air quality of Jefferson County and the region cannot be known. This is not acceptable.

A second, serious consequence is that as a Minor Air Source, the air emissions from the Millville Quarry are not included in the PSD modeling of other Major Air Sources in the area. Therefore, Major Air Sources like Rockwool never factor in the cumulative pollutant effects of the Millville Quarry into their own PSD modelling. This results in an inaccurate interpretation of the air quality in Jefferson County and the surrounding region. In fact, had the emissions from the Millville Quarry been properly accounted for, WVDEP may not have been able to grant Rockwool’s construction air permit. Moreover, these significant emissions from Millville Quarry will have detrimental effects on the health of local people, and the vitality of our tourism, equine, and agricultural industries. These emissions have never been properly accounted for and therefore the effects of this air permit are not known. This is unacceptable.

Large Amount of Particulate Matter Emissions

This newest temporary air permit would add an additional burden of particulate matter to Jefferson County air. This is unacceptable. The proposed six-month PTE numbers (Total Facility, Controlled) are shown in the Table below (new R13). Over the six-month timeframe (Jan. - June 2020) when all three temporary R13 permits would be in effect, the cumulative impact for particulates, if this permit is approved, would be as listed under total in the below table.

	PM (tons/yr.)	PM-10 (tons/yr.)	PM-2.5 (tons/yr.)
New R13	97.83	35.48	5.93
R13-3434T	131.28	44.65	5.68
R13-3428T	19.35	7.29	0.94
Totals:	248.46	87.42	12.55

Again, the key is that these are six-month values.

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New R13	97.83	35.48	5.93
R13-3434T	131.28	44.65	5.68
R13-3428T	19.35	7.29	0.94
Temp Permit Totals	248.46	87.42	12.55
x2 (6m x 2 = 12m)	496.92	174.84	25.1
General permit G40-C003I	404.22	151.61	19.38
Total permitted PM	901.14	326.45	44.48

These numbers in the bottom of the second table are accounting for 12 months of emissions. This demonstrates that if all three temporary permits, and the general permit were to be in effect at the same time, the effective rate of particulate matter (PM) emission allowed at this location would be in excess of 901 tons/yr. Therefore, the temporary permits have the effect of doubling the particulate matter emissions profile of the Millville Quarry. This is an unacceptably high PM emission, especially without PSD modeling.

Another way to look at it is total PM emission allowed by the temporary permits. The potential to emit (PTE) numbers for the existing temporary permits are six-month estimates. Now that the permits have been/will be operating a full 18 months, the numbers must be multiplied by 3 to get the total amount of emission. So, not even considering the current proposed “temporary” permit for crushing and screening, additional particulate matter (Total Facility, Controlled) of: 451.89 tons of PM, 153.82 tons of PM-10 and 19.86 tons of PM-2.5 will have been emitted into the Jefferson County airshed by the end of those two “temporary” permits.

Again, this is in addition to the particulate emissions already permitted under Millville Quarry’s General Permit G40-C003I (Total Facility, Controlled) of 404.22 tons per year PM, 151.61 tons per year PM-10, and 19.38 tons per year PM-2.5 (as seen in the table above). Therefore, the existing R13 Temporary Permits will have added the equivalent of a full year of additional particulate emissions to the airshed over 18 months.

Essentially, no matter how you look at it, this is a massive amount of PM being emitted into the airshed of Jefferson County. This is unacceptable and this permit should be denied.

Oxides of Nitrogen Emissions

Oxides of Nitrogen (NO_x) emissions from the proposed new R13 permit are high, over a single year (Jan. 2020 to Jan. 2021). If the temporary permit gets extended, NO_x will be (41.33 x 2 = 82.66 tons/yr). The Millville Quarry is only 2.5 miles upwind and west of the Loudoun County, Virginia line, a county that has been in nonattainment for the 8-hour Ozone standard for the past two years. NO_x is a significant contributor to ground level ozone. As Loudoun County struggles to get to attainment, they might be interested to know that West Virginia has approved a NO_x emissions source to spew 82.66 tons/yr. into the Loudoun County airshed.

Because PSD modeling was not done for this site, the effect of this on the air quality of Jefferson County and the surrounding region cannot be known. This is unacceptable and this permit should therefore be denied.

No Engineering Evaluation/Fact Sheet

An Engineering Evaluation/Fact Sheet was not done for this permit, making it difficult for the commenting public to understand the implications of the permit. Moreover, the dates in the permit application on the DEP website are out of date and do not correspond to the Public Notice. These should be corrected and the permit re-noticed so the public can fully participate and understand what is being proposed by Bardon, Inc. Until this is done the permit should be denied.

No Reasoning for Temporary Nature of Permit

It is a requirement of 45CSR13 and 45CSR30 that temporary permit requests give a reason why the activity will be temporary. This permit application makes no statement about why the crushing and screening activities it is seeking permitting for are going to be temporary. The permit should be denied until this is fully justified. If the activities are in fact not temporary, then the temporary permit should be denied and a new general permit with appropriate PSD modeling should be required.

Incorrect Dates

The dates in the permit application are incorrect. Due to this, some of the emission factors, which are seasonally-indexed, are also incorrect. This must be corrected and the permit application must be revised with the correct information.

Unique Effect of Local Air Quality

In Jefferson County, the largest sectors of the economy are the tourism and the equine industries. This Quarry is directly next to the Shenandoah River and tourists passing on the river engaged in recreational activity can see the dust plume.

It is known from a recently completed and accepted study published in the journal of Veterinary Internal Medicine that horses are 15 times more sensitive to inhaled particulate matter than humans. Inhaled particulate matter can cause inflammation in horses that negatively affects performance even at subclinical levels (not overtly noticed without advanced diagnostics). Inhaled particulate matter is also a known contributor to the development of inflammatory airway disease (IAD)¹.

The risk is that this increased pollution in the air will cause increased inflammation in the horse's lungs. Even small subclinical amounts of inflammation in the lungs of horses negatively affect performance.² This inflammation can also cause increased recovery times following racing (id). Reduced performance and training interruptions can lead to higher risk of injury, reduced winning average, fewer yearly starts, lower yearly earnings, shortened career length, fewer lifetime starts, reduced lifetime earnings, and reduced quality of life.³ This will lead to decreased return on investment, decreased cash flow, and decreased overall earnings for owners, trainers, and breeders with horses at this track and in this area. It would also mean that horses that are trained elsewhere and shipped in to race may be at an advantage over the local horses sending the money from our track out of state.

The local equine industry supplies thousands of jobs, and millions of dollars in state and local taxes and tens of millions of dollars in the local economy.⁴

¹ Couëtil LL, Cardwell JM, Gerber V, Lavoie JP, Léguillette R, Richard EA. Inflammatory airway disease of horses—revised consensus statement. *Journal of veterinary internal medicine*. 2016 Mar;30(2):503-15.

² Richard EA, Fortier GD, Pitel PH, Dupuis MC, Valette JP, Art T, Denoix JM, Lekeux PM, Van Erck E. Sub-clinical diseases affecting performance in Standardbred trotters: diagnostic methods and predictive parameters. *The Veterinary Journal*. 2010 Jun 1;184(3):282-9.
Holcombe SJ, Robinson NE, Derksen FJ, Bertold B, Genovese R, Miller R, Rupp HD, Carr EA, Eberhart SW, Boruta D, Kaneene JB. Effect of tracheal mucus and tracheal cytology on racing performance in Thoroughbred racehorses. *Equine veterinary journal*. 2006 Jul 1;38(4):300-4.
Sanchez A, Couetil LL, Ward MP, Clark SP. Effect of airway disease on blood gas exchange in racehorses. *Journal of veterinary internal medicine*. 2005 Jan;19(1):87-92.
Anderson JO, Thundiyil JG, Stolbach A. Clearing the air: a review of the effects of particulate matter air pollution on human health. *Journal of Medical Toxicology*. 2012 Jun 1;8(2):166-75.

³ Hernandez J, Hawkins DL, Scollay MC. Race-start characteristics and risk of catastrophic musculoskeletal injury in Thoroughbred racehorses. *Journal of the American Veterinary Medical Association*. 2001 Jan 1;218(1):83-6.
Auer JA, Stick JA. *Equine Surgery* 4th edn, Saunders, 2012.

⁴ The Economic Impact of the Charles Town Thoroughbred Horse Racing Industry on the Jefferson County and West Virginia Economies 2010.
<http://www.harnesstracks.com/docdatabase/alice/5364.pdf>

For these reasons, effective air modeling in Jefferson County is particularly consequential and necessary.

WVDEP DAQ should deny this temporary air permit because the cumulative emissions from the existing General Permit, the two current Temporary Regulation 13 permits, and this new proposed Temporary Regulation 13 permit may cause or contribute to an exceedance of primary and secondary National Ambient Air Quality Standards (NAAQS) in the ambient air near the Millville Quarry. The Director should require Bardon, Inc. to conduct Air Dispersion Modeling to determine if the NAAQS will be violated. This must be done before any new permits are allowed. The Director should require ambient air monitoring for Particulate Matter and NOx downwind of the plant.

Best regards,

A handwritten signature in cursive script that reads "Christine L. Wimer".

Christine L. Wimer
President
Jefferson County Foundation