



GROUP AGAINST SMOG & POLLUTION

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December 15, 2016

VIA U.S. Mail and e-Mail (jparihar@pa.gov)

Jesse S. Parihar, Air Quality Engineering Specialist
Department of Environmental Protection
Southwest Regional Office
400 Waterfront Drive
Pittsburgh, PA 15222

Re: Proposed State-Only Operating Permit No. 03-00185
Vista Metals, Inc./Kittanning Plant
East Franklin Township, Armstrong County

Dear Mr. Parihar:

The Group Against Smog and Pollution (“GASP”) offers the following comments regarding proposed State-Only Operating Permit No. 03-00185 (the “Permit”) for Vista Metals, Inc.’s Kittanning Plant (the “Facility”), located in East Franklin Township, Armstrong County. The Pennsylvania Department of Environmental Protection (the “Department”) published notice of the Permit in the November 19, 2016 Pennsylvania Bulletin. According to that notice, the Department will accept comments on the Permit for thirty days after the date of publication of notice, or through December 19, 2016.

GASP is a nonprofit organization that works to promote a healthy, sustainable environment with a particular focus on improving air quality in Pittsburgh and surrounding regions.

I. The Permit Should Limit the Amount of Heptane that May be Lost by the Facility in Terms of Gallons to Ensure That the Facility’s Annual Emission Limit for VOCs is Practically Enforceable

A facility that emits 50 tons per year or more of VOCs is a “major facility,”¹ subject to the requirements of Title V of the Clean Air Act and 25 Pa. Code Chapter 127 Subchapter G. A facility with the potential to emit 50 or more tons per year of VOC qualifies for a synthetic minor operating permit only if it takes a restriction that limits its potential to emit to an amount less than the threshold for major facilities, and that restriction is “enforceable as a practical matter.”² A restriction is “enforceable as a

¹ 25 Pa. Code § 121.1.

² 40 C.F.R. § 49.152(d).

practical matter” if it is contained in a permit that specifies the method to determine compliance with the restriction, “including appropriate monitoring, recordkeeping, reporting, and testing.”³

The Facility has the potential to emit more than 50 tons per year of VOCs, but the Permit limits such emissions to 49.9 tons per year.⁴ Heptane is essentially the only VOC that the Facility emits.⁵ The Facility’s emissions of heptane result from evaporation from its heptane storage tank and evaporation that occurs during its manufacturing process.⁶ The Permit requires that the Facility record the volume of heptane that is withdrawn from, and returned to, its heptane storage tank on a daily basis, and use those records to compile a monthly report of the volume of liquid heptane that is lost.⁷ Thus, although the Permit imposes a mass-based emission limit for VOCs on the Facility, it does not expressly require the Facility to determine the mass of heptane that is lost to evaporation (and thus emitted) on a daily, monthly, or annual basis. Nor does the Permit specify how the Facility is to calculate its emissions on a mass basis from its daily records of lost heptane.

It is not clear that the Permit’s emission limit for VOCs is practically enforceable because the Permit does not specify how the Facility is to determine its mass emissions of heptane, and thus its compliance with the emission limit, from volume-based records of heptane lost. The Permit should specify how the Facility is to determine VOC emissions on a mass basis from its daily records of lost heptane. According to USEPA’s Gallons to Pounds Converter,⁸ one gallon of heptane weighs 5.66 pounds. Thus, 17,632.50 gallons of heptane weigh 49.9 tons:

$$\begin{array}{r} 17,632.50 \text{ gallons} \\ \times 5.66 \text{ pounds per gallon} \\ \hline 99,800.00 \text{ pounds} \\ \div 2,000 \text{ pounds per ton} \\ \hline 49.90 \text{ tons} \end{array}$$

The Permit should be revised to limit the Facility’s losses of heptane, as measured pursuant to Section C, # 016, to 17,632.50 gallons in any period of twelve consecutive months, while keeping its annual VOC emissions limit of 49.9 tons.

³ *Id.*

⁴ Permit, at § C, # 009.

⁵ Review Memo for Air Quality Permit OP-03-00185 (Nov. 11, 2016) (the “Review Memo”), at 2. The Facility’s package boilers emit small quantities of VOCs (0.006 tons per year) from the combustion of natural gas. *Id.*, at 3-4.

⁶ *Id.*, at 2-3.

⁷ Permit, at § C, # 016.

⁸ See <https://www.epa.gov/sites/production/files/2014-01/gallonspoundsconversion.xls>.

II. The Permit Should Require That the Facility Operate its Condensers at All Times

The Facility uses condensers to recover heptane that would otherwise evaporate and be lost as emissions during its manufacturing process;⁹ without the condensers it appears likely that the Facility's emissions of VOCs would exceed the major source threshold.

As a general matter, an air quality permit should incorporate terms and conditions that are "necessary to assure the proper operation of the source."¹⁰ In this case, the Permit states how the condensers are to be operated, specifically, "per the manufacturer's specifications and maintained per the manufacturer's recommended maintenance schedule,"¹¹ but does not specify when the condensers are to be operated. The Permit should be revised to require that the condensers be operated at all times (except, perhaps, as may be required for maintenance and repairs) to help ensure that the Facility is properly operated and does not exceed the Permit's emission limit for VOCs or the major source threshold for VOCs.

III. The Permit Should Require that the Facility Continue Work Practices and Operate Controls that Improve the Recovery Efficiency of the Condensers

GASP has not obtained a copy of the Facility's last operating permit, but assumes that the last operating permit required that the condensers be operated and maintained "per the manufacturer's specifications," as the Permit would require.¹² If so, that requirement failed to ensure that the condensers operated as efficiently as needed – the Department's Review Memo states that the recovery efficiency of the condensers decreased over time, and that as a result, the Facility implemented several process improvements to improve the condensers' performance and reduce its VOC emissions. Specifically, the Facility reduced milling times, which reduced its evaporative losses of heptane, and reduced the temperature of its heptane slurry, which reduced the rate at which heptane would evaporate.¹³ The Facility has apparently committed to continuing such practices.¹⁴ To the extent that the practices have proven necessary to ensure the

⁹ Review Memo, at 2.

¹⁰ See 25 Pa. Code § 127.441(a).

¹¹ Permit, § C, # 024.

¹² *Id.*

¹³ Review Memo, at 3.

¹⁴ *Id.*

Facility's compliance with the Permit's emission limit for VOCs, they should be required by the Permit.¹⁵

The Department's Review Memo further states that the Facility installed de-misters that help reduce VOC emissions by capturing heptane mist for reuse by the Facility.¹⁶ If so, operation of the de-misters is "necessary to assure the proper operation"¹⁷ of the Facility; the de-misters should be identified as controls by the Permit, and the Facility should be required to operate them at all times and maintain them properly.

Thank you for your consideration of these comments. If you have any questions regarding them, please email (john@gasp-pgh.org) or call (412-924-0604 x 202) me.

Very truly yours,

/s

John K. Baillie
Staff Attorney

¹⁵ See 25 Pa. Code § 127.441(a).

¹⁶ Review Memo, at 3.

¹⁷ 25 Pa. Code §127.441(a).