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April 24, 2024

**VIA EMAIL AND CERTIFIED MAIL — RETURN RECEIPT REQUESTED**

RECEIVED  
MAY 15 2024  
AQD - KALAMAZOO

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Re: **Response to Violation Notice dated April 4, 2024**  
SRN: U391700037, Kalamazoo County

Dear Mr. Cox:

J. Rettenmaier USA LP (JRS) has reviewed the Violation Notice from Michigan’s Department of Environment, Great Lakes, and Energy Air Quality Division (AQD) on April 4, 2024. **JRS maintains that the observations and statements contained in the Violation Notice are inaccurate, and that they do not constitute violations of Rule 210 or Rule 1802.**

JRS has a right to consider the control efficiencies of its baghouses in calculating its potential to emit (PTE). Federal regulations under the Clean Air Act (CAA) and Michigan’s own Air Pollution Control Rules define a source’s *potential to emit* as its “maximum capacity” to emit air pollutants “under its physical and operational design.”<sup>1</sup> If any of the source’s equipment is “necessary for the proper or safe functioning of the process,” or qualifies as “material recovery equipment” installed and operated “primarily for purposes other than compliance with air pollution regulations,”<sup>2</sup> then the equipment is *inherent to the process* and considered part of its physical design. As such, the equipment’s effect on potential emissions can be taken into account when calculating the source’s PTE. The U.S. Environmental Protection Agency (US EPA) has established three criteria for determining whether equipment is inherent to a process.<sup>3</sup> JRS has consistently relied on those criteria and shown that:

- (1) the primary purpose of its baghouses is not to control air pollution, but (a) to operate a pneumatic conveyance system that allows JRS to move, store, and load its product efficiently and in a clean and controlled environment that ensures the high degree of product purity and quality required by its customers, (b) to minimize the health, safety, and fire hazards associated with fugitive dust that may otherwise be generated by its process or the movement, storage, and loading of its product,

<sup>1</sup> 40 CFR § 70.2; R 336.1116(n); R 336.2801(hh).

<sup>2</sup> 40 CFR § 64.1; see also R 336.1116(m) (“vital to production of the normal product of the source or to its normal operation”).

<sup>3</sup> US EPA, *Criteria for Determining Whether Equipment is Air Pollution Control Equipment or Process Equipment* (Nov. 27, 1995).

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and (c) for 26 of the plant's 27 total baghouses, to capture saleable product and prevent its loss to the atmosphere;

- (2) the cost savings associated with the recovery of its intermediate and finished product from these 26 baghouses is so considerable that JRS's cellulose production process would not be economically feasible without them; and
- (3) all of the plant's baghouses would have been installed even if no air quality regulations were in place to require their use as control devices.

Based on US EPA's criteria, all of the plant's 27 total baghouses are inherent to JRS's process. However, in light of the express preference for "material recovery equipment" under those criteria and the CAA, JRS took a more conservative approach in its email to AQD on September 8, 2023 [*Enclosure 1*], and identified only the 26 baghouses that recovered product as inherent. AQD accepted JRS's determination in its email back to JRS on September 15, 2023 [*Enclosure 2*], and acknowledged JRS's right to consider the effect of these baghouses on its potential emissions.

Unfortunately, AQD has now reversed course, and no longer seems willing to agree that any of the baghouses are inherent to JRS's process. In AQD's email to JRS on April 3, 2024 [*Enclosure 3*], AQD offered four reasons for its change in position. JRS maintains that all four of the reasons offered are without factual support, and without basis under the CAA or Michigan's Air Pollution Control Rules. We respond to each below:

**First, contrary to the statement in AQD's email, JRS has a history of operating its baghouses in an exemplary manner.** AQD's negative framing of the plant's 25-year history refers to only two events:

- (1) a fallout complaint on May 22, 2022, which was for fugitive emissions of material that had been blown free from the interior of a baghouse by high winds while a panel in the baghouse's cone was removed to allow JRS's personnel to make a repair, for which AQD alleged a single violation of Rule 901; and
- (2) an inspection on March 28, 2023, during which AQD (a) incorrectly identified condensing water vapor from a baghouse stack as visible emissions, and (b) wrongly attributed caked particulate on the roof and vents to improper baghouse operations, for which AQD alleged a single violation of Rule 910.

AQD has not confirmed either allegation. JRS disputed the Rule 901 violation in its response to AQD on July 26, 2022 [*Enclosure 4*]. Citing AQD's own testing results, JRS demonstrated that the fallout from its repair was effectively the same as particulate from surrounding farming operations, trees, and other natural sources, and did not cause an "unreasonable interference." JRS also contested the Rule 910 violation during the inspection [*Enclosure 5*], in its reply to AQD on May 8, 2023 [*Enclosure 6*], and again in its email to AQD on October 13, 2023 [*Enclosure 7*]. Each time, JRS explained that the stack where AQD claimed to have observed particulate emissions had been tied to a process where excess moisture was being driven from raw materials, and that the apparent emissions were only condensing water vapor. In every response, JRS has supported its position with descriptions of its process, materials, control systems, and business motivations. AQD has not addressed any of JRS's objections to its allegations, or offered any explanation

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as to how a 25-year history of operating baghouses as poorly as AQD has alleged could result in only one substantiated fallout event (which was associated with a repair and had negligible impacts).

**Second, despite the implication in AQD’s email, many facilities have processes similar to JRS where externally-vented baghouses are inherent to the process.** AQD has yet to identify which “other facilities” it is referring to, how their processes are similar to JRS, how it applied US EPA’s criteria to determine that baghouses were not vital to their operations, or whether the factors in those determinations apply to JRS. Further, there are many facilities that use exterior baghouses to capture product in a manner similar to JRS, like ethanol grain milling plants, where baghouses are inherent to the process. There are also many facilities that use pneumatic conveyance systems to move, store, and load fines, powder, and other particulate in a manner similar to JRS, including ready-mixed concrete plants and metal-based powder plants. Even in those cases, where the particulate may be less likely to be captured by a filter or pose a greater risk of pollution, US EPA has determined that exterior baghouses associated with their pneumatic conveyance systems are inherent to the process.<sup>4</sup>

**Third, JRS uses baghouse filters that achieve high control efficiencies as part of its normal process operations — not to comply with air pollution control requirements.** While equipment may not be inherent if it operates “at an efficiency higher than that achieved during normal process operations in order to comply with applicable requirements,”<sup>5</sup> this only applies to the extent that it operates at a higher efficiency than what would have been achieved “if product recovery or other process considerations were the only factors at work.”<sup>6</sup> In this case, JRS uses 16-ounce singed polyester filters in its baghouses. JRS has consistently maintained that these filters are essential for its baghouses and other process equipment to function properly and prevent the loss of its product. AQD seems to believe that these considerations do not require filters with such high control efficiencies, and that JRS is only using them to satisfy air pollution regulations. During a meeting between AQD and JRS on April 10, 2024, AQD seemed to suggest that the baghouses could be operated to achieve as low as 95% control efficiency to meet its operational objectives. However, when JRS contacted its vendors and requested pricing information and specifications on filters with lower control efficiencies:

- (1) Camcorp responded that JRS’s current filters were “our most standard filter bag, essentially the baseline for our dust collectors,” and that “there is not a less efficient bag we could offer”; and
- (2) IAC responded that filter media “below 98% efficient” would “instantly fail in a pulse-jet baghouse due to the high-pressure cleaning energy.”

Moreover, even if less efficient filters were commercially available, achieving only 95% control efficiency would mean 570 additional tons per year (TPY) of JRS’s product being lost to the atmosphere, and almost \$1,500,000 per year in lost revenue from that product. Since less efficient filters could not be cleaned as effectively by the baghouses’ pulse jets, filters that achieve only 95% control efficiency (again, if they were commercially available) would also need to be replaced more often and require more frequent baghouse maintenance, increasing the downtime and loss in revenue associated with those activities. Therefore, by

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<sup>4</sup> E.g., US EPA, Letter to OMG Americas Apex Operations (Jan. 31, 2002); see also US EPA, Letter to National Ready Mixed Concrete Association (July 10, 2002).

<sup>5</sup> 40 CFR § 64.1.

<sup>6</sup> US EPA, Letter to National Ready Mixed Concrete Association (July 10, 2002).

using standard filters, JRS is not operating its baghouses at an efficiency higher than that achieved during its normal process operations. Normal process considerations alone demand them.

**Fourth, neither “JRS facility in Iowa” is under the same regulatory scheme as JRS’s plant in Michigan.** There are two different facilities in Iowa: one is operated by JRS, and the other is operated by JRS Pharma LP. While the facility operated by JRS has some processes that are similar to those in JRS’s Schoolcraft plant, the facility operated by JRS Pharma uses different processes, with additional materials, for different end products (i.e., microcrystalline cellulose for pharmaceuticals). It is not clear which facility AQD is looking to as an example, whether the facility has the same process considerations as JRS’s plant here, whether the facility has other equipment that requires a permit under Iowa’s regulatory scheme, or whether the facility had other reasons for accepting a permit for its baghouses. In either case, AQD claims that the baghouses were not inherent because they were “at the very end of the process, which indicates that the baghouses are being used for pollution control.” But whether equipment is inherent to a process or used for pollution control is determined on a case-by-case basis.<sup>7</sup> None of US EPA’s criteria depend on where equipment is located in a process, or prevent baghouses at the end of a process from being inherent to it.<sup>8</sup>

JRS has also never claimed an Air Pollution Control Tax Exemption for any of its baghouse under Part 59 of Michigan’s Natural Resources and Environmental Protection Act (NREPA).<sup>9</sup> While a partial Air Pollution Control Tax Exemption may be used for material recovery equipment (in which case, the exemption is reduced by up to 50% for the “commercial or productive value” of the materials recovered), the exemption is only available when that equipment is installed “for the primary purpose of controlling or disposing of air pollution.”<sup>10</sup> The exemption does not apply to any equipment that is installed primarily “for the benefit of ... a business,”<sup>11</sup> which Michigan’s Department of the Treasury has determined to include:

- (1) equipment used to “handle, convey, transport, transfer or store raw materials or finished products,” since it is “necessary to the operation of the process,” or
- (2) equipment used to “prepare and return collected contaminants for the process,” because it “serves a process function.”<sup>12</sup>

Since all of the plant’s baghouses were installed to handle, convey, transport, transfer, and store its product, none of them would qualify for the Air Pollution Control Tax Exemption. Even the 26 baghouses that serve

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<sup>7</sup> US EPA, *Criteria for Determining Whether Equipment is Air Pollution Control Equipment or Process Equipment* (Nov. 27, 1995).

<sup>8</sup> US EPA, *Letter to OMG Americas Apex Operations* (Jan. 31, 2002) (This decision does not expressly refer to the location of the baghouses, but the equipment inherent to the process included baghouses collecting finished “product,” which would have been at the end of the process line.).

<sup>9</sup> MCL 324.5902.

<sup>10</sup> MCL 324.5901 (emphasis added).

<sup>11</sup> MCL 324.5901; see also Michigan Department of Treasury, *Application for Air Pollution Control Tax Exemption Certificate (Form 3828) (Rev. 02-23)* (“If either calculation is less than 50% (0-49) then the equipment/component is not considered to be primarily for air pollution control ...”).

<sup>12</sup> Michigan Department of the Treasury, *Frequently Asked Questions: Air Pollution Control Tax Exemption* (Feb. 14, 2023).

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a material recovery purpose would not qualify for a partial exemption. This only further support JRS's position that the baghouses are vital to its normal process operations.

Because the baghouses are inherent process equipment, JRS can factor the efficiencies of the baghouses' filters into its calculation for PTE. AQD claims that JRS cannot claim an efficiency higher than 99.9% for baghouses older than 20 years of age, citing to a fact sheet published by US EPA.<sup>13</sup> However, as demonstrated in JRS's email to AQD on February 9, 2024 [*Enclosure 8*], the fact sheet does not stand for what AQD claims, and AQD has yet to offer any further defense of its position. Further, in estimating its actual and potential emissions of PM<sub>10</sub> and PM<sub>2.5</sub>, JRS has only taken credit for a control efficiency of 99%, even though Camcorp (one of its filter vendors) maintains that the filters would achieve 99.9% control efficiency or higher for JRS's process. This high control efficiency for cellulosic material has been substantiated by stack test results from one of the Iowa facilities discussed above, which ranged from 0.0004 grains/ft<sup>3</sup> to 0.0026 grains/ft<sup>3</sup>, which are equivalent to 0.00076 lbs/1,000 lbs and 0.005 lbs/1,000 lbs, respectively. JRS, therefore, maintains that AQD's position is again without factual support, and without basis under the CAA or Michigan's Air Pollution Control Rules.

**The only policies, procedures, and guidance published by US EPA and EGLE for calculating the effect of baghouses on a source's PTE focus on the control efficiencies of the baghouses' filters.** If the control efficiency of a baghouse must be discounted on the basis of the equipment's age, then there would either be air quality regulations to that effect, or decisions and instructions on how the equipment's depreciation should be calculated and incorporated into the source's PTE. But no such regulations, decisions, or instruction exist. Instead, US EPA published an air pollution manual, which discusses the control efficiency of baghouses almost exclusively in relation to the control efficiency of their filters,<sup>14</sup> and a regulatory impact analysis, which contemplates that control efficiencies of baghouses may increase over time based on filter replacements and improvements.<sup>15</sup> JRS has a right to rely on these materials, and to use its filters to determine the control efficiencies of its baghouses.

**The plant's system design and operation also support JRS's use of filters to determine the control efficiencies of its baghouses.** The only apparent rationale for AQD's position is that baghouses (like all equipment) may gradually deteriorate over time. But wear and tear of a baghouse's structure would not change where the baghouse vents its emissions. If a baghouse is venting its emissions through filters, and those filters are being appropriately monitored and replaced (as JRS has done), then the age of the baghouse does not matter. The emissions are controlled by its filters, and the filters' control efficiencies are what apply. If the baghouse were to leak emissions from any other point prior to the filters, then those fugitive emissions would be uncontrolled. But there is no evidence of such leaks from JRS's baghouses. The same business considerations that make the baghouses inherent to JRS's process also ensure that any leaks from those baghouses are promptly identified and addressed. JRS has a high financial incentive to fit all of its filters properly, to monitor all of its baghouses for ventilation issues, and to regularly check the seals and containment of its systems, since any leak could change the temperature, humidity, and other environmental factors in its process line, which in turn would affect the quality and marketability of its

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<sup>13</sup> US EPA, Air Pollution Control Technology Fact Sheet: Fabric Filter – Pulse-Jet Cleaned Type, EPA-452/F-03-025.

<sup>14</sup> US EPA, Air Pollution Control Cost Manual, § 6, ch. 1 (EPA/452/B-02-001).

<sup>15</sup> US EPA, Regulatory Impact Analysis of the Proposed Revisions to the National Ambient Air Quality Standards for Lead (Oct. 2008).

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finished product, hamper the operation of its other equipment, and risk damage to other system components. If there were enough leaks in its baghouses to warrant discounting their control efficiencies by even 1%, then that would mean JRS is losing almost 900 pounds of product from those leaks per day. Such a large and consistent amount of fugitive emissions and their associated fallout would have been readily visible during AQD's 2023 inspection, or during AQD's on-site visit on April 10, 2024, but none were observed. In the absence of any confirmed leaks, AQD has no grounds to reject JRS's use of filters to determine the efficiencies of its baghouses.

Although JRS continues to defend the basis for its PTE demonstration — that its baghouses are inherent to its process, and that the control efficiencies of its filters can be used to calculate its baghouses' effect on potential emissions — JRS previously updated its PTE demonstration to only take credit for a more conservative control efficiency of 99%, and JRS is updating its PTE demonstration again [*Enclosure 9*] to respond to requests for information made by AQD during its recent on-site visit. In requesting the information, AQD indicated that JRS had failed to submit an exemption analysis to AQD at the time that its baghouses were installed, or to retain a copy of that analysis and the records supporting. However, there is nothing in Michigan's Air Pollution Control Rules that required JRS to submit an exemption analysis to AQD at the time that its baghouses were installed. AQD's own PTI guidebook advises: "If an activity is exempt, there is no need to notify the AQD about the activity."<sup>16</sup> The Rules only required JRS to submit an exemption analysis within 30 days after AQD made a written request for one,<sup>17</sup> which JRS complied with here. There is also nothing that required JRS to keep a copy of its original exemption analysis and supporting records indefinitely. Where exemptions do require recordkeeping, the Rules often limit the obligation to the most recent 2-year or 5-year period. Therefore, JRS strongly objects to any implication that JRS is somehow "at fault" for the absence of any record, or that AQD somehow has the right to assume, from the absence of a record, that the facts are contrary to JRS's position. Such negative inferences would be not only inappropriate, but arbitrary and capricious. JRS has reviewed the records in its possession, the recollection of key plant personnel, and contacted its previous environmental engineer to request its historic exemption analysis (which it was unable to retrieve), and revised the demonstration to reflect JRS's good-faith determination for the information requested, including: (1) the months and years that each emission unit was installed, and (2) whether each unit was dependent on the installation or modification of another unit at the plant. Even with these updates, the PTE for the plant as a whole and each project group is below the significant modification threshold and, therefore, substantially below Title V's Major Source thresholds for PM<sub>10</sub> and PM<sub>2.5</sub>, and the Prevention of Significant Deterioration (PSD) thresholds for PM.

**Since JRS's PTE demonstration shows that its plant is not a Major Source or subject to PSD requirements, JRS continues to maintain that Rule 285 exempts its equipment from the requirement to obtain a permit to install (PTI). Under Rule 285(2)(l)(vi), any equipment for "carving, cutting, routing, turning, drilling, machining, sawing, surface grinding, sanding, planing, buffing, sand blast cleaning, shot blasting, shot peening, or polishing ... paper board, wood, [or] wood products" is exempt if it has "externally vented emissions controlled by an appropriately designed and operated fabric filter collector."<sup>18</sup>**

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<sup>16</sup> EGLE, PERMIT TO INSTALL GUIDEBOOK (Nov. 2021).

<sup>17</sup> R 336.1278a(2).

<sup>18</sup> R 336.1285(2)(l)(vi).

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Contrary to the position taken by AQD, JRS's cellulose production process does fall within the categories covered by this exemption, since the process:

- (1) primarily uses mechanical processes to shred its raw materials (i.e., its "pre-grind" process), which is the same as the "cutting," "carving," and "sawing" activities covered by Rule 285(2)(l)(vi),
- (2) uses mechanical processes to further mill its raw materials, which is a type of "machining" activity covered by Rule 285(2)(l)(vi),<sup>19</sup> and which is functionally the same as the other "surface grinding," "sanding," "planing," and "buffing" activities covered by Rule 285(2)(l)(vi), as evidenced by the fact that Rule 285 provides an identical exemption with an identical control for equipment used in the "milling" of grain-based food products,<sup>20</sup>
- (3) involves "paper board," "wood," and "wood products," all of which are expressly covered by Rule 285(2)(l)(vi), and
- (4) controls "externally vented emissions" by a "fabric filter collector," as expressly required by Rule 285(2)(l)(vi).

Also contrary to AQD's position, JRS's operations do not produce PM that is any smaller or "more finely ground" (or, more importantly, less likely to be controlled by a fabric filter collector) than the PM that could be produced by many other activities and materials covered by this exemption. There is also nothing in Rule 285(2)(l)(vi) that purports to limit or prevent the application of this exemption on the basis of PM size. Therefore, JRS's operations are exempt under Rule 285.

**JRS also continues to maintain that it could currently rely on Rule 291 to exempt its equipment from the requirement to obtain a PTI.** Contrary to the position taken by AQD, there is nothing in Rule 291, or any of Michigan's other Air Pollution Control Rules, or even AQD's own PTI guidebook<sup>21</sup> that limits the applicability of Rule 291 to equipment installed after its adoption in 2016. It is also JRS's understanding that AQD often allows equipment installed under a PTI or Rule 290 prior to 2016 to claim an exemption under Rule 291 in order to avoid requirements associated with them moving forward. Allowing exemptions to be claimed under Rule 291 in these cases, based only on the equipment's current operations, shows that there is no longer any rational basis for denying the exemption to other equipment installed prior to the Rule's adoption.

Since AQD has not been willing to accept JRS's claims for its baghouses' control efficiencies, JRS is in the process of obtaining quotes for a stack test at its Schoolcraft facility. The test is proposed to analyze emissions for total PM using Method 5 and Method 202, if deemed applicable, from three different processes:

- (1) the Line 2 baghouse, which was installed in 1999 and is the oldest baghouse;

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<sup>19</sup> See, e.g., Merriam Webster, *machine* ("to reduce by or as if by turning, shaping, planning, or milling by machine-operated tools" (emphasis added)); 3ERP, *What is Milling: Definition, Process & Operations* (Jul. 10, 2023) ("Milling is a type of machining process ... ." (emphasis added)).

<sup>20</sup> See R 336.1285(2)(dd).

<sup>21</sup> EGLE, PERMIT TO INSTALL GUIDEBOOK (Nov. 2021).

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- (2) the Line 5 baghouse, which was installed in 2010, and is part of the process that results in the finest particulate; and
  - (3) the Pre-Grind 3 baghouse, which was installed in 2011, and is part of the process with the highest air flow.

JRS plans to have the selected vendor submit a stack test protocol to AQD's Source Emission Testing group to ensure that the testing will be conducted in accordance with generally accepted procedures. AQD will be notified in advance of the proposed stack testing event, and will be invited to have representatives witness the test, should it desire to do so.

Sincerely,

MILLER JOHNSON

By



Grant E. Schertzing

GES

Enclosures

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