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**State of Louisiana**  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
ENVIRONMENTAL SERVICES

Certified Mail No. 7018 2290 0000 5825 6551

Agency Interest (AI) No. 183215  
Activity No. PER20170002

Mr. Patrick J. Anderson  
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c/o Powell Environmental Law  
315 W. Ponce de Leon Avenue, Suite 842  
Decatur, Georgia 30030

**RE: Response to Comments and Notification of Final Permit Action**  
Morehouse BioEnergy, LLC – Wood Pellet Manufacturing Facility  
Bastrop, Morehouse Parish, Louisiana  
Permit No. 1920-00018-V3

Dear Mr. Anderson:

Your comments dated May 14, 2018, and July 20, 2018,<sup>1,2</sup> submitted in response to the proposed renewal and modification of Permit No. 1920-00018-V2 for the referenced facility, have been received and evaluated. The Louisiana Department of Environmental Quality (LDEQ), Office of Environmental Services (OES), has decided to issue Permit No. 1920-00018-V3 in accordance with the Louisiana Environmental Quality Act (La. R.S. 30:2001 et seq.).

A notice requesting public comment on the proposed permit was published on the department's website<sup>3</sup> on April 10, 2018. On April 9, 2018, copies of the public notice were also mailed to the individuals who have requested to be placed on the mailing list maintained by the OES. The proposed permit was also submitted to the United States Environmental Protection Agency (EPA) on April 9, 2018. Due to the Electronic Document Management System (EDMS)<sup>4</sup> outage from May 11, 2018, to June 3, 2018, the comment period for the proposed permit was extended from May 15, 2018, to July 23, 2018. Notice of the extension was published on the department's website and in the *Bastrop Daily Enterprise* on June 20, 2018.<sup>5</sup>

During the comment period, the documents associated with this permit action were available for review at LDEQ's Public Records Center, 602 North 5th Street, Baton Rouge, Louisiana; and at the Morehouse Parish Library, 524 E. Madison Street, Bastrop, Louisiana. These documents were also accessible through EDMS except during the period noted above.

<sup>1</sup> EDMS Doc IDs 11126338 and 11231637, respectively

<sup>2</sup> On behalf of the Louisiana Environmental Action Network, Environmental Integrity Project, Dogwood Alliance, Partnership for Policy Integrity, Natural Resources Defense Council, Our Children's Earth, and the Delta Chapter of the Sierra Club

<sup>3</sup> <http://deq.louisiana.gov/public-notices>

<sup>4</sup> LDEQ's EDMS is the electronic repository of official records that have been created or received by LDEQ. Members of the public can view and download documents stored in EDMS via the internet at <http://edms.deq.louisiana.gov>.

<sup>5</sup> EDMS Doc ID 11166879

Pursuant to La. R.S. 30:2050.21, an aggrieved person may appeal a final permit action by filing a petition for review with the 19th Judicial District Court for the parish of East Baton Rouge, Louisiana. A petition for review must be filed in the district court within 30 days after notice of the action being appealed has been given.

Should you have any questions, please contact Dr. Hassan Ghosn of the Air Permits Division at (225) 219-3389.

Sincerely,



Elliott B. Vega  
Assistant Secretary

1/23/19  
Date

EBV:BDJ

### **Comment No. 1**

The statement of basis for the draft permit estimates Morehouse BioEnergy's VOC emissions at 249.3 tpy. This estimate includes either 20.23 tpy or 25.14 tpy of VOCs from the facility's pellet coolers, meaning the remainder of the units at Morehouse Energy are estimated to emit 224 to 229 tpy of VOCs.

\* \* \*

To compound Morehouse BioEnergy's already implausibly low emission estimates in its application, LDEQ estimates that the facility's pellet coolers can comply with an even lower emission factor. Whereas Morehouse BioEnergy's application yields a VOC emission factor of .086 pounds per oven dried ton (lb/ODT) for the facility's pellet coolers, draft permit Specific Requirement 26 limits these emissions to .07 lb/ODT. Neither the .086 nor the .07 lb/ODT emission factor is remotely plausible when compared to emission factors from legitimate tests at comparable wood pellet facilities.

### **LDEQ Response to Comment No. 1**

VOC emissions from the Pellet Cooler Pneumatic Systems are based on an emission factor of 0.087 pounds per ton of oven dried chips (lb/ODT).<sup>6</sup> The number eight (8) was inadvertently omitted from the limitation set forth in proposed Specific Requirement 26.<sup>7</sup> This discrepancy will be corrected in the final permit.

Regarding potential VOC emissions from the Pellet Cooler Pneumatic Systems, see LDEQ Response to Comment No. 2.

### **Comment No. 2**

#### **LDEQ Greatly Underestimates VOC Emissions from Morehouse BioEnergy's Pellet Coolers.**

When Morehouse BioEnergy first proposed to construct its pellet plant in Louisiana in 2012, industrial scale wood pellet manufacturing had existed for less than five years in the United States. At the time, Morehouse BioEnergy and other facilities assumed only the wood dryer emitted significant amounts of VOCs—in fact, Morehouse BioEnergy initially estimated its facility-wide VOC emissions would be just 33 tpy. Since then, stack testing at facilities in Georgia, Florida, Texas, South Carolina and more have revealed that post-dryer units emit massive amounts of VOCs. Even though most states and facilities have now recognized these emissions, LDEQ and Morehouse BioEnergy continue to vastly underestimate post-dryer emissions.

In its Part 70 renewal application, Morehouse BioEnergy claims that each of its six pellet coolers emit 4.19 tpy of VOCs, which the company states is “based on stack test results.” Morehouse BioEnergy in turn cites to “stack tests conducted at Morehouse BioEnergy LLC February 10-16, 2016.” The problem is these tests did not actually test the pellet coolers for VOC emissions, contrary to Morehouse BioEnergy's claims. The emission test

<sup>6</sup> EDMS Doc ID 11048577 (pp. 164-168 and 184 of 211)

<sup>7</sup> The ton per year limitations, as well as the average and maximum pound per hour limitations, as set forth in the “Emission Rates for Criteria Pollutants and CO<sub>2</sub>e” section of the permit are calculated correctly.



protocol and the test report submitted by the facility, as well as all of the LDEQ review material, contain references only to particulate matter testing on the pellet coolers. Further, according to LDEQ staff, Morehouse BioEnergy has never submitted stack tests for VOCs on its pellet coolers for agency review. This is likely because, bafflingly, LDEQ has exempted these units from VOC testing requirements despite requiring VOC testing for each of the other major units at the facility. While Morehouse BioEnergy may have conducted limited “engineering tests” for pellet cooler VOC emissions, these tests were not conducted pursuant to permit requirements, agency oversight or review, or prior notification requirements. Given these serious flaws, combined with the fact that the results of the “engineering tests” are vastly lower than the rates found when similar facilities conduct legitimate tests, LDEQ cannot rely on these tests to estimate Morehouse BioEnergy’s PTE.

\* \* \*

Table 1, below, shows emission factors from similar wood pellet plants that have conducted stack testing, as well as pellet cooler emissions at Morehouse BioEnergy’s production rate of 578,000 tpy. To the best of our knowledge, this table presents every emission factor available from wood pellet mills that have conducted stack testing in the Southeastern United States processing mostly softwood. Not a single facility has pellet cooler emissions anywhere near as low as what Morehouse BioEnergy claims for its pellet coolers.

**Table 1. Morehouse BioEnergy’s Proposed Emission Rate for VOC Emissions from its Pellet Coolers is an Extreme Outlier Compared to Similar Facilities.**

Facility	State	Facility Production Capacity (at the time of testing)	Uncontrolled Pellet Cooler VOC Emission Factor (lb/ODT)	Comparison	Pellet Cooler Emissions at 578,052 tpy
Morehouse BioEnergy	LA	578,000	.07	-	20 tpy
Enviva Amory	MS	99,000	1.6	23 times higher	462 tpy
Enviva Wiggins (Nov. 2012 test)	MS	185,000	1.59	23 times higher	459 tpy
German Pellets	TX	578,000	1.54	22 times higher	445 tpy
Enviva Cottondale	FL	610,000	1.5	21 times higher	433 tpy
Georgia Biomass (with steam injection)	GA	820,000	1.3	19 times higher	375 tpy
Enviva Greenwood	SC	550,000	1.27	18 times higher	367 tpy
Enviva Wiggins (Oct. 2013 test)	MS	185,000	1.1	15 times higher	317 tpy
Hazlehurst Wood Pellets	GA	525,000	.62	9.6 times higher	179 tpy
Enviva Sampson (75% softwood)	NC	535,000	.504	7.1 times higher	145 tpy
Georgia Biomass (without steam injection)	GA	820,000	.5	7.1 times higher	144 tpy
Average			1.15	16 times higher	332 tpy



At the lowest emission factor from stack testing at similar facilities, Morehouse BioEnergy's pellet coolers emit 144 tpy of VOCs. At the average emission factor, the facility's pellet coolers emit 332 tpy of VOCs. Finally, at the highest emission factor, the pellet coolers emit 462 tpy of VOCs. Given that these emission factors are based on legitimate stack testing conducted in accordance with EPA methods and approved by the relevant state permitting authorities, it is clear that Morehouse BioEnergy's supposed emission rate of 20 tpy, based at best on highly flawed and unreviewed engineering tests, is plainly not legitimate.

Most importantly, with any of the above emission factors, Morehouse BioEnergy's facility-wide VOC emissions exceed the 250 tpy PSD threshold by at least 100 tpy and may be as high as 690 tpy. As noted above, LDEQ estimates Morehouse BioEnergy's facility-wide VOC emissions are 249.3 tpy, with either 20.23 tpy or 25.14 tpy emitted from the pellet coolers. That means that LDEQ estimates the remainder of the facility emits between 224 and 229 tpy of VOCs. With these narrow margins, almost any emission factor higher than the .07 lb/ODT rate will push the facility's total VOC emissions past the major source threshold of 250 tpy. For instance, an emission factor of .09 lb/ODT—still implausibly low—would result in facility-wide VOC emissions surpassing the major source threshold.

The fact that Morehouse BioEnergy has massively higher emissions than it represents should not come as a surprise to LDEQ. Many similar mills built at the same time as Morehouse BioEnergy have had to either install additional controls on their pellet coolers to remain minor sources (Georgia Biomass in Georgia, Enviva Greenwood in South Carolina, Westervelt Pellets in Alabama) or apply for major source PSD permits (German Pellets in Texas and Enviva Cottondale in Florida). In fact, Louisiana is home to a very similar pellet plant to Morehouse BioEnergy with VOC emissions above 600 tpy. The LaSalle BioEnergy pellet plant in LaSalle Parrish [*sic*], now owned by Drax, operates at a very similar production rate to Morehouse BioEnergy, utilizes the same set of VOC controls, and processes trees from an extremely similar forest resource (the two plants are located just 70 miles apart). The LaSalle facility estimates its facility-wide VOC emissions are 611 tpy, due in large part to its uncontrolled pellet coolers and other post-dryer emissions.

Morehouse BioEnergy, along with its sister facility, Amite BioEnergy in Mississippi, have conspicuously evaded addressing excess VOC emissions because both Louisiana and Mississippi have not required emissions testing for VOCs on pellet coolers. These two facilities appear to be the only large pellet mills remaining in the nation that have not discovered the true rate of their post-dryer emissions.

## **LDEQ Response to Comment No. 2**

In the absence of site-specific test data, test data from other facilities in the wood products industry may be instructive for estimating potential VOC emissions from the pellet coolers at the Wood Pellet Manufacturing Facility. However, contrary to the assertion of the commenter, Morehouse BioEnergy did actually test Pellet Cooler 4 (EQT 0011) and Pellet Cooler 5 (EQT 0012) for VOC emissions using Method 18 (Measurement of Gaseous Organic Compound Emissions by Gas Chromatography) of 40 CFR 60, Appendix A on March 17, 2016. See the "Emission Engineering Test Report" dated April 2016.<sup>8</sup>

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<sup>8</sup> EDMS Doc ID 11202971

The commenter is correct in that the VOC stack tests were not required by the facility's permit or conducted under the oversight of LDEQ, but that does not necessarily make the results "illegitimate" or inaccurate. LDEQ recognizes, however, that the traverse points, stack gas velocity and volumetric flow rate, molecular weight, and moisture content of the stack gas (i.e., data derived using Methods 1, 2, 3, and 4, respectively) were obtained from the initial performance tests conducted on February 19, 2016.<sup>9</sup> Therefore, in order to confirm the test results, LDEQ will amend the proposed permit to require the performance tests to be repeated within 180 days after issuance of the permit and every 5 years, plus or minus 6 months, thereafter.<sup>10</sup>

Notwithstanding the aforementioned facts, at this juncture, based on the information provided by the commenter and after further discussions with Morehouse BioEnergy, LDEQ is persuaded that the Wood Pellet Manufacturing Facility is a major stationary source under the Prevention of Signification Deterioration (PSD) program. Permit No. 1920-00018-V3 will include a compliance schedule requiring Morehouse BioEnergy to submit an application for a PSD permit and install best available control technology (BACT) for those regulated NSR pollutants for which potential emissions equal or exceed a "significant" amount as defined in LAC 33:III.509.B.

### **Comment No. 3**

#### **To Limit Morehouse BioEnergy's PTE Below 250 TPY, LDEQ Must Restrict the Facility's Wood Pellet Production Rate to Less than 210,500 Tons Per Year.**

If Morehouse BioEnergy wishes to remain permitted as a synthetic minor source for PSD purposes, LDEQ must implement an enforceable production limit that actually reduces the facility's VOC PTE to below the major source threshold. Because Morehouse BioEnergy has not provided valid estimates for its pellet cooler emissions, LDEQ must utilize an emission factor that is at least as high as the most conservative emission factor from available stack tests performed at similar sources. Using the emission rate of 1.6 lb/ODT from the Enviva Amory testing, calculations show that Morehouse BioEnergy would emit 249.4 tpy of VOCs at a wood pellet production rate of 210,500 short tons per year. To ensure that the facility's emissions remain below the 250 tpy PSD threshold, LDEQ must limit Morehouse BioEnergy's production rate to less than 210,500 tpy—including a margin of safety due to the lack of source-specific emissions testing. Further, LDEQ must clarify in the permit that this limit is designed to enable the facility to avoid New Source Review.

### **LDEQ Response to Comment No. 3**

See LDEQ Response to Comment No. 2.

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<sup>9</sup> *Id.* (pp. 7-9 and 11 of 101)

<sup>10</sup> The need to conduct additional performance tests may be modified by Specific Requirement 131.

#### **Comment No. 4**

[T]o assure the facility's compliance with PSD avoidance, LDEQ must ensure the permit requires the facility to submit *[sic]* it *[sic]* monthly production rate as part of its semiannual monitoring reports. Currently, the permit only requires that the facility keep records of its production rate. The Clean Air Act and Louisiana's regulations require that facilities subject to Part 70 permitting "shall submit, at least semiannually, a report of any required monitoring." The reporting requirement is a key aspect of Title V permitting that provides crucial oversight allowing LDEQ and the public to verify that facilities are complying with all applicable requirements of the Clean Air Act.

#### **LDEQ Response to Comment No. 4**

Specific Requirement 138 directs Morehouse BioEnergy to comply with the Part 70 General Conditions as set forth in LAC 33:III.535. Part 70 General Condition K requires Morehouse BioEnergy to "submit, at least semiannually, a report of any required monitoring, clearly identifying all instances of deviations from permitted monitoring requirements" consistent with 40 CFR 70.6(a)(3)(iii)(A). LDEQ will require Morehouse BioEnergy to include monthly production data in the aforementioned reports (see Specific Requirement 133).

#### **Comment No. 5**

##### **In Addition to a Suitable Wood Pellet Production Limit, LDEQ Must Restrict Morehouse BioEnergy's Actual Emissions of VOCs to Below 250 Tons Per Year.**

In addition to the inadequate production limit, the draft permit is also insufficient to restrict the Morehouse BioEnergy facility's emissions below the PSD applicability threshold because the permit lacks enforceable, facility-wide annual emission limits for VOCs. EPA guidance explains that to appropriately limit PTE, a permit "must contain a production or operational limitation in addition to the emission limitation."

Though the draft permit's Specific Requirements contain a handful of emission limits for VOCs emitted from the hammermills and pellet coolers, these conditions fail to limit the facility's annual VOC emissions to below 250 tpy major source PSD threshold. Because the Specific Requirements do not include limits on VOC emissions from each source of VOCs, limits on the hammermills and pellet coolers alone do not restrict facility-wide VOC emissions. The draft permit must either incorporate a facility-wide VOC limit, or include limits on each source of VOCs, including the wood dryer, screened material return system, pellet loading system, emergency generator, and fire pump engine, which currently do not have VOC limits. Additionally, as explained below, the VOC limits on the hammermills and pellet coolers are not tied to sufficient periodic monitoring, rendering them unenforceable and therefore incapable of limiting the facility's PTE.

While the permit package does contain four pages titled "Emission Rates for Criteria Pollutants and CO<sub>2</sub>e," the draft permit does not clearly identify these pages as part of the permit nor that the rates contained in the tables are emissions limits. Only in the statement of basis—which itself is not part of the permit—does LDEQ state that the rates found on the "Emission Rates" pages are a part of the permit. For numerous reasons, these rates are not enforceable limits adequate to restrict Morehouse BioEnergy's PTE to minor source thresholds. First, no Specific Requirement in the permit requires adherence to these limits, and nowhere in the "Emission Rates" pages themselves are the rates identified as enforceable limits. Further, the rates, expressed as maximum pounds per hour and tons per

year, are fundamentally unenforceable. The hourly rates are unenforceable because there is no monitoring to demonstrate that the facility complies with those limits on an ongoing basis. The annual limits not only lack monitoring, but also lack a rolling averaging period that enables compliance to be determined on a periodic short-term basis (i.e., at least monthly). Longstanding EPA guidance is clear that an annual limit that lacks an averaging period rolled on a short-term basis is *per se* unenforceable.

To limit Morehouse BioEnergy's PTE and avoid New Source Review, LDEQ must incorporate enforceable, facility-wide emissions limits into the permit's Specific Requirements and clearly identify that they are necessary to avoid New Source Review. LDEQ must further require that Morehouse BioEnergy calculate and record its monthly and 12-month rolling emissions based on an equation and verified emission factors clearly stated in the permit.

### **LDEQ Response to Comment No. 5**

The permit establishes federally enforceable VOC emission limitations for *each* source of VOC at the Wood Pellet Manufacturing Facility. Specific Requirement 138 requires Morehouse BioEnergy to comply with the Louisiana General Conditions as set forth in LAC 33:III.537. Per General Condition III of LAC 33:III.537.A, the "Emission Rates for Criteria Pollutants, Emission Rates for TAP/HAP and Other Pollutants, and Specific Requirements sections of the permit establish the emission limitations and are a part of the permit."

LDEQ will amend the proposed permit to require records of hourly production data to be maintained. Further, LDEQ will specify compliance demonstration methodologies which will require Morehouse to calculate actual emissions on a monthly basis using actual production rates and, where applicable, the emission factors derived from the most recent stack tests.<sup>11</sup>

Finally, note that Specific Requirement 133 limits the facility's production of wood pellets to 578,052 ODT per any twelve consecutive month period.

### **Comment No. 6**

[T]he rates expressed in the "Emission Rates" pages conflict with limits expressed in the Specific Requirements. Specific Requirement 2 limits the primary hammermills to 63.58 tpy of VOCs, while the "Emission Rates" pages show the primary hammermills emitting 86.1 tpy; Specific Requirement 14 limits the secondary hammermills VOC emissions to 31.79 tpy, while the "Emission Rates" limit these units to 73.71 tpy of VOCs; Specific Requirement 26 limits the pellet coolers to 20.23 tpy while the "Emission Rates" allow 25.14 tpy of VOCs. LDEQ cites to LAC 33:III.501.C.6 as the basis for the stricter limits contained in Specific Requirements. That rule requires that "the permitting authority shall incorporate into each permit sufficient terms and conditions to ensure compliance with all state and federally applicable air quality requirements." LDEQ must therefore resolve these conflicting emissions limits in favor of the stricter limits.

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<sup>11</sup> VOC emissions attributed to upsets, malfunctions, or other non-routine operating conditions shall also be summed for purposes of determining compliance with applicable ton per year emission limits.



## **LDEQ Response to Comment No. 6**

Proposed Specific Requirements 2 and 14 were inadvertently carried forward from Permit Nos. 1920-00018-V1 and 1920-00018-V2. These emission limits will be updated to reflect the results of the stack tests conducted at the Wood Pellet Manufacturing Facility in February 2016.<sup>12</sup> VOC emissions from the Primary Hammermill Pneumatic Systems (CRG 0001) should be limited to 0.298 lb/ODT; VOC emissions from the Secondary Hammermill Pneumatic Systems (CRG 0002) should be limited to 0.255 lb/ODT.<sup>13</sup> These discrepancies will be corrected in the final permit.

Regarding the Pellet Cooler Pneumatic Systems, see LDEQ Response to Comment Nos. 1 and 2.

## **Comment No. 7**

### **LDEQ Fails to Explain How the Draft Permit's Authorized Production Increase of 52,425 tpy Results in Minimal Increases in VOC Emissions.**

Even assuming Morehouse BioEnergy's pellet coolers do not emit more VOCs than LDEQ believes, the draft permit's proposed increase in allowable production likely means the facility will exceed the 250 tpy major source threshold regardless. At a bare minimum, LDEQ has failed to provide an adequate rationale in the statement of basis explaining how the increase in production will not result in the facility's PTE exceeding the PSD threshold.

Morehouse BioEnergy's current Title V permit restricts wood pellet production to 525,600 tpy, while the proposed draft permit authorizes an increase to 578,052 tpy. The statement of basis for the draft permit estimates nearly no increase in VOC emissions, however, with a change from 249.21 to 249.3 tpy. The statement of basis provides no explanation for how this production increase of 52,458 tpy results in only .09 tpy of additional VOC emissions. This amounts to a 10% increase in production while VOC emissions increase only .04%.

Any increase in production should be accompanied by a commensurate increase in VOC emissions. VOCs are primarily released from the wood being processed rather than combustion or other factors, therefore VOC emissions are tied directly to the amount of wood processed at a wood pellet manufacturing facility. Even ignoring the excess VOC emissions from the pellet coolers discussed above, a 52,458 tpy increase in production should equate to at least 24 tpy of VOCs. Including excess pellet cooler VOC emissions, this increase results in an additional 62 tpy of VOC emissions.

The statement of basis fails to set forth any explanation or provide any evidence to support LDEQ's extremely low estimate of emissions increase, stating only that proposed modifications associated with this permit activity include "revisions to emission limitations to reflect current calculation methodologies and to correct inaccuracies." In fact, the statement of basis does not even mention the increase in allowed production. The Clean Air Act requires that permitting authorities "provide a statement that sets forth the legal and factual basis for the draft permit conditions." The draft permit is therefore also deficient because LDEQ has not provided any factual basis for the 578,052 tpy production limit or the 52,452 tpy increase.

<sup>12</sup> EDMS Doc ID 10163732

<sup>13</sup> The ton per year limitations, as well as the average and maximum pound per hour limitations, as set forth in the "Emission Rates for Criteria Pollutants and CO<sub>2</sub>e" section of the permit are calculated correctly.

Either LDEQ's previous emissions estimates were off by at least 24 tpy, or the current estimate fails to properly account for the increase in production. It is hard to fathom what new information could have been available to LDEQ between the issuance of the current permit on November 17, 2017 and the release of the draft permit on April 10, 2018—the facility has not conducted any recent stack testing to the best of our knowledge. Morehouse BioEnergy's application for the draft permit is silent on the production limit and does not discuss any large changes in VOC emissions. Further, a comparison between Morehouse BioEnergy's August 2016 application for the current permit and the company's application for the draft permit is also not helpful: both applications show essentially identical emission rates and production rates for each unit. LDEQ must resolve this issue either by providing a credible explanation in the statement of basis or acknowledging that the facility's PTE exceeds 250 tpy and take action to either reduce the production limit or permit the facility as a major source.

#### **LDEQ Response to Comment No. 7**

There will be *no* increase in actual production as a result of this permit modification. Specific Requirement 132 of Permit No. 1920-00018-V2 limited the annual production of the Wood Pellet Manufacturing Facility to 525,600 ODT/yr<sup>14</sup> based on technical data that reported the Chip Dryer's maximum output to be 60 wet tons per hour.<sup>15</sup> However, the unit's capacity was reported in metric tons (tonnes) (i.e., 2204.6 pounds), not short tons (i.e., 2000 pounds). Thus, Specific Requirement 132 was in error and was corrected in proposed Permit No. 1920-00018-V3 to reflect an equivalent rate in U.S. tons.

#### **Comment No. 8**

##### **In the Absence of Enforceable PTE Limits, LDEQ Must Require Morehouse BioEnergy to Comply with PSD Requirements, Including Use of Best Available Control Technology.**

As established above, Morehouse BioEnergy is a major source of VOC emissions requiring PSD permitting. If Morehouse BioEnergy wishes to produce up to 578,000 tpy of pellets, LDEQ must permit the facility as a major source and conduct a complete BACT analysis for each of the significant sources of VOC emissions at the facility, including the wood dryer, primary hammermills, secondary hammermills, and pellet coolers. It is well documented that control technology, specifically regenerative thermal and/or catalytic oxidizers (RTOs and RCOs respectively), is not only available, but is becoming industry-standard, and should therefore serve as BACT for Morehouse BioEnergy's hammermills and pellet coolers. Morehouse BioEnergy already uses an RTO to control its wood dryers, and LDEQ must require similar technology for the post-dryer units (including assessing the feasibility of routing post-dryer emissions to the existing RTO).

The Clean Air Act and Louisiana's federally-approved state implementation plan require that a major-source PSD permit include emission limits representing the level of pollution control achieved by the best available control technology for each emission unit at a facility. Control technology that greatly reduces VOC emissions from post-dryer units is

<sup>14</sup> EDMS Doc ID 10881044 (p. 44 of 45)

<sup>15</sup> LDEQ notes that this figure is conservatively based on the maximum output of the dryer, not the maximum *continuous* output rating.

readily available and in widespread use in the wood pellet industry. In particular, Georgia Biomass, a slightly larger pellet plant in Georgia, has installed two RCOs to fully control all of its post-dryer units (in addition to two RTOs controlling the wood dryers), including hammermills, pellet mills, and pellet coolers. Despite producing 820,000 tpy of pellets, Georgia Biomass emits just 130 tpy of VOCs. Under the Clean Air Act, Georgia Biomass has established these controls as BACT for wood pellet plants, meaning LDEQ must select this level of control as BACT for Morehouse BioEnergy.

### **LDEQ Response to Comment No. 8**

See LDEQ Response to Comment No. 2.

### **Comment No. 9**

#### **The Draft Permit Does Not Require Adequate VOC Testing to Assure Compliance with Permit Limits and PSD Avoidance.**

[P]ellet coolers are substantial sources of VOC emissions, with pellet coolers at similar plants in neighboring states emitting more than 400 tons of VOCs per year. Despite this fact, the draft permit inexplicably exempts the pellet coolers from VOC testing. Other post-dryer units at Morehouse BioEnergy also have significant issues with VOC emissions and likewise are not subject to adequate VOC emissions testing. Morehouse BioEnergy failed its initial compliance stack testing for the primary and secondary hammermills in 2016, emitting VOCs at a rate of .35 lb/ODT and .174 lb/ODT respectively. The draft permit, however, restricts the primary hammermills to .22 lb/ODT and the secondary hammermills to .11 lb/ODT. The only monitoring, recordkeeping, and reporting requirements associated with these limits is the requirement to conduct compliance testing every five years, plus or minus six months. Under the proposed permit, therefore, Morehouse BioEnergy is not required to conduct another round of compliance testing until August 2021. This monitoring requirement is far too infrequent to assure compliance with the VOC limits, especially given that the facility has already failed to comply with these limits.

Part 70 permits must include “periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source’s compliance with the permit.” Where a facility does not utilize continuous emissions monitoring, Part 70 permits must include monitoring requirements “that provide sufficiently reliable and timely information for determining compliance.” A monitoring requirement that allows a facility to exceed emissions limits for five years—or in the case of the pellet coolers, indefinitely—before an exceedance is detected does not provide “timely information for determining compliance.” Further, on its face, a once-per-permit-term test does not constitute “periodic monitoring.” At a bare minimum, LDEQ must require at least annual emissions compliance testing on all of the significant sources of VOCs (this is especially vital for those sources not subject to parametric monitoring under a compliance assurance monitoring plan) in order to demonstrate that Morehouse BioEnergy is complying with emissions limits. This should include the wood dryer, primary and secondary hammermills, as well as pellet coolers.

Further, it is highly likely that Morehouse BioEnergy’s hammermills continue to exceed the permit’s VOC limits. Because the limits are expressed in pounds of emissions per product produced, the facility cannot comply by simply reducing production rates. This means the facility must take steps to reduce VOC emissions in other ways. Nothing in the permit record or application, however, reveals what Morehouse BioEnergy has done to

reduce the rate of VOC emissions from the .35 lb/ODT and .174 lb/ODT rates ascertained from the February 2016 tests. If LDEQ or the facility have identified operating or maintenance techniques that reduce the VOC emissions from the hammermills, those techniques should be incorporated as enforceable requirements into the permit, along with adequate monitoring, recordkeeping, and reporting requirements. If Drax cannot remedy this ongoing violation immediately, LDEQ must add an appropriate compliance schedule to the permit with enforceable milestones leading the facility's full compliance.

#### **LDEQ Response to Comment No. 9**

Regarding stack testing for VOC emissions from the Pellet Cooler Pneumatic Systems, see LDEQ Response to Comment No. 2.

VOC emissions from the Chip Dryer are controlled via a Regenerative Thermal Oxidizer, which is subject to continuous parametric monitoring requirements per the approved Compliance Assurance Monitoring (CAM) plan developed pursuant to 40 CFR 64 (see LDEQ Response to Comment No. 12). Thus, additional monitoring for this source is not warranted.

Regarding the proposed permit conditions limiting VOC emissions from the Primary Hammermill Pneumatic Systems and Secondary Hammermill Pneumatic Systems to 0.22 lb/ODT and 0.11 lb/ODT, respectively, see LDEQ Response to Comment No. 6.

The origin of the 0.35 lb/ODT and 0.174 lb/ODT emission rates cited by the commenter is not clear. For the primary hammermills, the average rate observed during the February 2016 testing was 0.273 lb/ODT.<sup>16</sup> For the secondary hammermills, the average VOC rate observed was 0.219 lb/ODT.<sup>17</sup> Thus, it is evident that Morehouse BioEnergy has not reduced the rate of VOC emissions from the primary and secondary hammermills. VOC emission limits for the Primary Hammermill Pneumatic Systems and Secondary Hammermill Pneumatic Systems will be based on emission factors of 0.298 lb/ODT and 0.255 lb/ODT, respectively.<sup>18</sup>

At this time, there is no data that suggest VOC emissions from the primary and secondary hammermills are sufficiently variable to warrant annual stack testing.

Regarding the methods by which Morehouse BioEnergy must demonstrate compliance with the VOC emission limits of the permit, see LDEQ Response to Comment No. 5.

#### **Comment No. 10**

##### **The Draft Permit Does Not Require Sufficient PM Testing to Demonstrate Continuing Compliance with Permit Limits and PSD Avoidance.**

The draft permit only requires emissions testing for PM every five years, and only for select units. Notably, the draft permit again does not require any emissions testing of the

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<sup>16</sup> EDMS Doc ID 10706490

<sup>17</sup> *Id.*

<sup>18</sup> EPA's Environmental Appeals Board (EAB) has recognized that "[t]here is nothing inherently wrong with setting an emissions limitation that takes into account a reasonable safety factor" and that the "resulting emission limitation is still an enforceable cap on ... emissions." See *Knauf II*, 9 E.A.D. at 15 ([https://yosemite.epa.gov/oa/EAB\\_Web\\_Docket.nsf/CAA~Decisions/438271793CB5A1898525706C006A3F49/\\$File/knauf00.pdf](https://yosemite.epa.gov/oa/EAB_Web_Docket.nsf/CAA~Decisions/438271793CB5A1898525706C006A3F49/$File/knauf00.pdf)).

facility's pellet coolers. While Morehouse BioEnergy's first Title V permit did require initial compliance testing for the pellet coolers for PM, the units are no longer subject to any periodic testing for PM emissions. This is despite the fact that LDEQ lists the pellet coolers as the second-highest emitting source of PM at the facility, higher than units with continuing testing obligations such as the hammermills. The draft permit therefore lacks any method to assure that the facility continues to comply with unit-specific limits on PM as well as avoiding the major-source PSD threshold.

As discussed above in the context of VOCs, testing every five years does not constitute "periodic monitoring" and is far too infrequent to "provide sufficiently reliable and timely information for determining compliance." This is especially true in the case of PM emissions, as control devices for PM like cyclones and baghouses are particularly susceptible to losing control efficiency over time due to maintenance and reliability issues. The draft permit should be revised to require at least annual PM testing for units with significant PM emissions, including the wood chip dryer, hammermills, pellet coolers, screened materials return system, and the pellet loadout system.

#### **LDEQ Response to Comment No. 10**

LDEQ will amend the proposed permit to require the Pellet Cooler Pneumatic Systems, Screened Materials Return System, and Pellet Loading System to be stack tested every 5 years. The proposed permit already requires the Chip Dryer, Primary Hammermill Pneumatic Systems, and Secondary Hammermill Pneumatic Systems to be stack tested every 5 years.<sup>19</sup> LDEQ believes these periodic testing requirements are sufficient to assure compliance with the emission limits in the permit for several reasons.

One, permitted PM<sub>10</sub> and PM<sub>2.5</sub> emissions from the Wood Pellet Manufacturing Facility are well below the PSD major stationary source threshold of 250 tons per year.

Two, the aforementioned sources are not subject to any underlying federal or state standards that limit the particulate concentration or mass per unit of production.

Three, daily monitoring requirements have been established for the numerous baghouses and dust filters employed at the facility. The proposed permit requires visible emissions from baghouses and fabric filters to be monitored daily. If visible emissions are observed, Morehouse BioEnergy must return the filter to its normal operating condition as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. In addition, baghouses (including gaskets) and dust filters must be inspected every six months and whenever visual checks indicate maintenance may be necessary. Elements must be changed as necessary, and records of visual checks and maintenance inspections must be maintained. Finally, LAC 33:III.905 requires Morehouse BioEnergy to use and diligently maintain the baghouses and dust filters in proper working order.

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<sup>19</sup> See proposed Specific Requirements 55, 7, and 19, respectively.



### **Comment No. 11**

#### **The Statement of Basis Fails to Provide a Rationale for the Limited Testing Requirements.**

To comply with the statement of basis requirement in 40 C.F.R. § 70.7(a)(5), a permitting authority must ensure that the rationale for selected monitoring is “clear and documented in the permit record.” LDEQ’s statement of basis for the draft permit fails to provide any explanation whatsoever for exempting the pellet coolers from any VOC testing, or for not requiring periodic PM testing from the pellet coolers. Further, the statement of basis fails to explain how five-year testing cycle for the other units will assure compliance with the permit limits. To the extent that LDEQ does believe the permit’s testing and monitoring requirements are adequate to assure compliance, it must provide a rationale for each monitoring requirement in the permit.

### **LDEQ Response to Comment No. 11**

See LDEQ Response to Comment Nos. 2, 9, and 10. The Statement of Basis (SOB) has been amended accordingly.

### **Comment No. 12**

#### **The Draft Permit is Deficient Because It Fails to Incorporate Specific Monitoring Requirements Developed Under the Compliance Assurance Monitoring (CAM) Plan.**

The draft permit subjects Morehouse BioEnergy’s wet electrostatic precipitator (WESP) and regenerative thermal oxidizer (RTO) to CAM requirements, but the monitoring requirements developed under an approved CAM plan have not been incorporated into the draft permit, in contravention of Part 64 and Title V rules. 40 CFR 64.6(c) requires that “at a minimum, the permit shall specify the approved monitoring approach that includes all of the following: the indicator(s) to be monitored (such as temperature, pressure drop, emissions, or similar parameter) [and] the mean or device to be used to measure the indicator(s) ...” The Title V rules, meanwhile, state that each Title V permit shall contain “[a]ll monitoring and analysis procedures or test methods required under applicable monitoring and testing requirements, *including part 64 of this chapter.*”

RTO and WESP parameters are crucial to assuring the facility does not exceed limits on VOC and PM emissions as well as the major source PSD threshold, yet nothing in the permit specifies what RTO and WESP parameters shall be monitored, nor does the permit state the frequency of monitoring, the methods or devices to be used, the acceptable accuracy of monitoring devices, or other basic requirements that assure the facility’s compliance with applicable requirements. To satisfy Part 64 and Part 70 requirements pertaining to monitoring these parameters, the draft permit must be revised to incorporate the specific monitoring requirements contained in an approved CAM plan as enforceable permit conditions. Further, to adequately assure that these control devices are achieving desired control efficiencies, the permit must require continuous monitoring of the RTO chamber combustion temperature, as well as the WESP’s secondary current and secondary voltage.

## **LDEQ Response to Comment No. 12**

Although Compliance Assurance Monitoring (CAM) requirements for the regenerative thermal oxidizer (RTO) and wet electrostatic precipitator (WESP) were included in the proposed permit,<sup>20</sup> LDEQ believes that incorporating the approved CAM plans<sup>21</sup> into the permit in their entirety would more clearly show that the information described in 40 CFR 64.6(c)(1)-(4) is included therein. The final permit will be revised accordingly.

## **Comment No. 13**

### **The Draft Permit is Deficient Because It Does Not Contain Monitoring, Recordkeeping, and Reporting Requirements to Assure Compliance with Limits on Visible Emissions.**

Most of the emission sources at Morehouse BioEnergy are subject to LAC 33:III.1311.C, which limits visible emissions to less than 20%. Units that combust fuel or waste, meanwhile, are also subject to LAC 33:III.1101.B, which likewise limits visible emissions to 20%. While the draft permit does contain a requirement that the facility conduct daily emissions monitoring for units subject only to § 1311.C, the draft permit fails to specify the frequency of visible emissions monitoring for units subject to both § 1311.C and § 1101.B. This means that the permit does not specify any schedule of visible emissions monitoring for the fire water pump, emergency generator, and, most crucially, the facility's wood chip dryer. The draft permit is therefore deficient because it fails to require periodic monitoring sufficient to assure compliance with the limits on opacity.

Where, as here, applicable requirements do not specify periodic testing or monitoring, Title V permits must contain "periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source's compliance" with applicable permit requirements. Ideally, LDEQ should require that Morehouse BioEnergy install and operate continuous opacity monitoring systems (COMs) on the wood chip dryer. COMS are in use at several wood pellet manufacturing facilities and provide the best method to assure that Morehouse BioEnergy complies with the limits on opacity. At a bare minimum, however, the draft permit must be revised to require daily opacity monitoring on each unit subject to opacity limits by personnel certified in Method 9 emissions testing.

Finally, the permit is completely devoid of any recordkeeping or reporting requirements explicitly tied to the opacity limits set forth in either LAC 33:III § 1311 or § 1101. Title V permits must require records of required monitoring as well as "prompt reporting of deviations from permit requirements." The draft permit should therefore be revised to require that persons conducting daily opacity monitoring make quantitative records of the opacity observed, the date and time of the observation, and the name and training or certifications of the observer. Additionally, the permit must require that the facility report exceedances promptly.

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<sup>20</sup> See proposed Specific Requirements 36-52 for the RTO (EQT 0003) and proposed Specific Requirements 111-125 for the WESP (EQT 0032).

<sup>21</sup> EDMS Doc ID 10519441 (pp. 11-13 of 47)

### **LDEQ Response to Comment No. 13**

For the Chip Dryer (EQT 0003), Fire Pump Engine (EQT 0019), and Emergency Generator (EQT 0020) (i.e., those sources subject to both LAC 33:III.1101.B and 1311.C), LDEQ agrees that additional monitoring and recordkeeping requirements are necessary to assure compliance with LAC 33:III.1101.B and 1311.C. Appropriate provisions have been added to the final permit (see Specific Requirements 48, 76, and 90).

As previously noted, Specific Requirement 138 directs Morehouse BioEnergy to comply with the Part 70 General Conditions as set forth in LAC 33:III.535. Part 70 General Condition R requires Morehouse BioEnergy to “submit prompt reports of all permit deviations” consistent with 40 CFR 70.6(a)(3)(iii)(B).

### **Comment No. 14**

#### **The Draft Permit Improperly Ignores Emissions from the Wood Chipper, Wood Rechipper and Other Pre-Dryer Operations.**

Morehouse BioEnergy utilizes a debarker, wood chipper, and wood rechipper before the wood dryer, yet emissions from these units are completely ignored in the draft permit and statement of basis. At similar wood pellet facilities, pre-dryer units used to reduce the size of whole logs are significant sources of PM. In Morehouse BioEnergy’s 2012 initial application, Morehouse accounted for only the wood rechipper, but still estimated that it would emit 22 tpy of PM. Before the facility was complete, however, Morehouse Bioenergy applied for a modification to remove the wood rechipper as an emission source, arguing that a re-design would eliminate all emissions. Morehouse BioEnergy Provided [*sic*] only minimal justification for the claim that the redesigned rechipper would have zero emissions, and LDEQ approved this modification without any discussion in the statement of basis for the modified permit.

LDEQ must either provide an explanation in the statement of basis for why it believes these units have no emissions or must include emissions from these units in facility-wide totals and require stack testing to confirm their true emissions rates.

### **LDEQ Response to Comment No. 14**

Debarking, wood chipping, and wood rechipping operations at the Wood Pellet Manufacturing Facility generate large particulates which are not believed to be PM<sub>10</sub> or PM<sub>2.5</sub>. According to EPA, particulate matter that is not PM<sub>10</sub> (and therefore not PM<sub>2.5</sub>) is not considered a “regulated air pollutant” under 40 CFR 70.2.<sup>22</sup> Further, because particulate emissions from the debarker and wood chipper have significant fugitive components, stack testing is not possible.

The wood rechipper is a “bottom discharge” chipper that discharges directly into a conveyor without creating the conveying air that a blow chipper creates.<sup>23</sup>

<sup>22</sup> “Definition of Regulated Pollutant for Particulate Matter for Purposes of Title V,” October 16, 1995 (<https://www.epa.gov/sites/production/files/2015-08/documents/pmregdef.pdf>)

<sup>23</sup> EDMS Doc ID 10519441 (p. 31 of 47)

Regardless of the size of the particles generated, LAC 33:III.1305 requires Morehouse BioEnergy to take all reasonable precautions to prevent particulate matter<sup>24</sup> from becoming airborne.

#### **Comment No. 15**

##### **The Draft Permit Does Not Assure Compliance with Fugitive Dust Control Requirements Designed to Protect Public Health and the Environment.**

Wood pellet plants generate a lot of fugitive dust, i.e., airborne particulate matter. In fact, one of the most common air pollution complaints raised by residents of communities where wood pellet plants are located is the large amount of fugitive dust that escapes into surrounding neighborhoods. Major sources of fugitive dust at wood pellet plants include wood handling, wood storage piles, conveyor transfer points, yard dust, haul road dust and engine exhaust. Health problems associated with exposure to particulate matter pollution primarily involve damage to the lungs and respiratory system due to inhalation. Specifically, the inhalation of dust particles can irritate the eyes, nose and throat; cause respiratory distress, including coughing, difficulty in breathing and chest tightness; increase the severity of bronchitis, asthma and emphysema; cause heart attacks and aggravate heart disease; and lead to premature death in individuals with serious lung or heart disease. In addition to affecting human health, fugitive dust reduces visibility, affects surface water, reduces plant growth, and can be a nuisance.

The draft permit for Morehouse BioEnergy does not contain any specific, enforceable requirements addressing fugitive dust. Instead, the permit merely states that the facility shall take “all reasonable precautions including, but not limited to, those specified in LAC 33:III.1305.A.1 through A.7” to prevent particulate matter from becoming airborne. The generic set of precautions listed in § 1305 are not specific to wood pellet manufacturing and barely address the sources of fugitive particulate emissions at Morehouse BioEnergy. LDEQ must revise the permit to include specific and enforceable requirements tailored to the facility’s unique operation that actually prevent fugitive emissions from becoming airborne. The steps should include requiring windbreaks or enclosed structures for storage piles, minimizing drop heights and transfer points, watering or coverings where necessary, and daily monitoring and recordkeeping for visible emissions of fugitive dust from storage piles and handling operations.

#### **LDEQ Response to Comment No. 15**

LDEQ disagrees. The primary source of fugitive PM<sub>10</sub> and PM<sub>2.5</sub> emissions identified in the permit is paved roads, which are directly addressed by LAC 33:III.1305.A.6 and 7.

LAC 33:III.1305.A.3 (i.e., installation and use of dust collectors to enclose and vent the handling of dusty materials) is also directly relevant to the Wood Product Manufacturing Facility. All major processing operations at the facility, including the primary and secondary hammermills and their associated feed silos, pellet coolers, pellet storage silos, screened materials return system, and pellet loading system, are controlled by high efficiency baghouses and fabric filters. Further, the permit includes appropriate monitoring and recordkeeping provisions to ensure the control devices are operated and maintained properly (see LDEQ Response to Comment No. 10).

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<sup>24</sup> Here, particulate matter includes more than PM<sub>10</sub>/PM<sub>2.5</sub>. LAC 33:III.111 defines “particulate matter” as “any airborne finely divided solid or liquid material with an aerodynamic diameter smaller than 100 micrometers.”



The largest permitted source of particulate emissions, the Chip Dryer, is controlled by a wet electrostatic precipitator. Again, the permit includes appropriate monitoring and recordkeeping provisions to ensure that it is operated and maintained properly (see LDEQ Response to Comment No. 12).

Finally, LDEQ does not consider emissions from the Fire Pump Engine or Emergency Generator to be fugitive in nature, as they are released from a stack. Regardless, permitted PM<sub>10</sub> and PM<sub>2.5</sub> emissions from these engines total less than 0.02 tons per year.<sup>25</sup>

#### **Comment No. 16**

##### **The Draft Permit Does Not Assure Compliance with the Requirement to Design and Maintain a Safe Facility Under the Clean Air Act Section 112(r)(1) General Duty Clause.**

The draft Title V operating permit for Morehouse BioEnergy also lacks sufficient detail to assure compliance with Morehouse BioEnergy's general duty under Clean Air Act section 112(r)(1) to design and maintain their facility in a way that prevents the accidental release of any extremely hazardous substance and minimizes the consequences of accidental releases that do occur. This statutory provision, commonly referred to as the "General Duty Clause," qualifies as an "applicable requirement" that must be addressed in Morehouse BioEnergy's Title V permit. The extremely hazardous substance at issue for Morehouse BioEnergy is combustible wood dust, which carries an extreme risk of fires and explosions. Indeed, the risk of explosions and fires caused by combustible dust at wood pellet plants is well-documented in the wood pellet industry. Since 2010, more than half of the 15 largest wood pellet mills in the nation have had newsworthy fires or explosions. A fire at a wood pellet facility in Port Arthur, Texas burned for more than 50 days in 2017, leading to dozens of nearby residents to seek medical attention. In another incident, a "flash fire" at the Hazlehurst pellet mill in Hazlehurst, Georgia—the facility's second fire since commencing operations in 2013—seriously injured four employees. A wood dust explosion at another Georgia pellet mill "rattled windows in homes about five miles away." While it is fortunate that there have been no fatalities from wood dust explosions in at pellet mills in the US, a wood dust explosion at a Canadian mill in 2012 killed an employee.

Due to the significant risk posed by combustible dust at the Morehouse BioEnergy Plant, it is critical that the draft Title V permit be amended to state that the General Duty Clause applies to the facility's handling of explosive dust, and to require the facility to perform specific steps that are sufficient to ensure that workers and others who live, work, recreate, or simply commute in the facility's vicinity are protected from the dangers posed by combustible dust. The permit also must include monitoring, recordkeeping, and reporting to assure the facility's compliance with these requirements.

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<sup>25</sup> Per LAC 33:III.501.B.1.c and e, mobile sources and nonroad engines are exempt from the requirement to obtain an air permit.



Wood dust at Morehouse BioEnergy easily qualifies as an “extremely hazardous substance” that is subject to the General Duty Clause. According to Clean Air Act section 112(r)(1), the General Duty Clause applies to “owners and operators of stationary sources producing, processing, handling or storing any extremely hazardous substances.” The legislative history of this provision indicates that an accidental release is one which causes or may cause immediate (or near term) death, serious injury or substantial property damage as the result of exposure to an extremely hazardous substance over limited periods of time. Although the Clean Air Act does not define “extremely hazardous substances,” the legislative history provides criteria which EPA may use to determine if a substance is extremely hazardous. Specifically, the Senate Report states that “extremely hazardous substance” would include any agent “which may or may not be listed or otherwise identified by any Government agency which may as the result of short-term exposures associated with releases to the air cause death, injury or property damage due to its toxicity, reactivity, flammability, volatility, or corrosivity.” Further, the Senate Report states, “the release of any substance which causes death or serious injury because of its acute toxic effect or as a result of an explosion or fire or which causes substantial property damage by blast, fire, corrosion or other reaction would create a presumption that such substance is extremely hazardous.” There is ample evidence that wood dust generated by pellet plants is flammable and can be explosive, leading to death, injury, or substantial property damage.

Aside from failing to clearly state Morehouse BioEnergy’s obligation to handle wood dust in accordance with the General Duty Clause, the draft permit is also deficient in that it fails to provide adequate specificity regarding what the facility must do to comply with the General Duty Clause and fails to require the facility to perform monitoring to assure its compliance with this requirement. As the D.C. Circuit confirmed in *Sierra Club v. EPA*, 551 F.3d 1019 (D.C. Cir. 2008), a permitting authority is obligated to add monitoring, recordkeeping, and reporting requirements to a source’s Title V permit where needed to assure the source’s compliance with an applicable requirement. Clarifying a source’s obligations under the Clean Air Act’s General Duty Clause and developing monitoring, recordkeeping, and reporting sufficient to assure a source’s compliance with those obligations falls squarely within what Congress intended by enacting the Title V operating permit program in 1990. The fact that a source’s specific obligations under this requirement may be unique from those of other sources strongly supports the argument that a Title V permit must clarify what the source’s obligations are and incorporate any conditions needed to assure the source’s compliance with those obligations.

To assure Morehouse BioEnergy’s compliance with the General Duty Clause, the permit must be revised to, at a minimum:

- (1) Identify Clean Air Act section 112(r)(1) as an applicable requirement with respect to the facility’s handling of combustible dust.
- (2) Specifically require the facility to prepare a hazard analysis identifying the hazards associated with explosive dust and the facility’s processes, potential fire and explosion scenarios, and the consequences of a fire or explosion.
- (3) Establish specific design and operation standards that the facility must meet to prevent a dust-related fire or explosion.
- (4) Establish recordkeeping and reporting requirements sufficient to demonstrate that the facility is meeting its General Duty Clause obligations.

It is important to recognize that regardless of what detail is ultimately included in the final permit, the facility must comply with the General Duty Clause and may be subject to an enforcement action for non-compliance. In recent years, the EPA has been enforcing the General Duty Clause against non-compliant facilities and has levied substantial penalties against significant violators. Unfortunately, these enforcement actions typically take place after an accident occurs. When enforcement actions are brought, some facility operators contend that they were unaware of the General Duty Clause or of its applicability to their facility. By adding sufficiently detailed requirements to the Morehouse BioEnergy permit to put facility operators on notice of the facility's General Duty Clause obligations, LDEQ would decrease the likelihood of a violation, thereby decreasing the likelihood of a serious accident causing death, serious injury, or significant property damage. Thus, regardless of whether LDEQ agrees that the Clean Air Act *requires* that the permit include additional detail regarding the facility's General Duty Clause obligations (which we believe it does), we urge the LDEQ to add these details to the Morehouse BioEnergy permit.

### **LDEQ Response to Comment No. 16**

LDEQ disagrees. The General Duty Clause (GDC) under Section 112(r)(1) of the Clean Air Act is *not* an “applicable requirement” or a “federally applicable requirement” as defined in 40 CFR 70.2 and LAC 33:III.502.A, respectively. As such, the GDC is not a required element of a Part 70 permit per 40 CFR 70.6 and LAC 33:III.507.A.3,<sup>26</sup> and LDEQ is not obligated to impose additional monitoring, recordkeeping, and/or reporting requirements pursuant to 40 CFR 70.6(a)(3)(B) or 70.6(c)(1). Indeed, EPA has described the GDC as a “self-implementing requirement of the Act”<sup>27</sup> and a “self-executing statutory requirement.”<sup>28</sup>

To be clear, an “applicable requirement” does include “any requirement concerning accident prevention under section 112(r)(7) of the Act.” However, wood dust (i.e., PM<sub>10</sub>/PM<sub>2.5</sub>) is not a “regulated substance” listed pursuant to section 112(r)(3) of the Act and regulated under 40 CFR 68 (Chemical Accident Prevention Provisions). In fact, Section 112(r)(3) precludes EPA from listing any “air pollutant for which a national primary ambient air quality standard has been established.”

EPA has also clarified that it “is important to understand that the General Duty Clause is not a regulation and compliance cannot be checked against a regulation or submission of data.”<sup>29</sup> Thus, notwithstanding the fact that the GDC is not an “applicable requirement,” it is clear that any permit conditions akin to periodic monitoring requirements are not necessary or appropriate.

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<sup>26</sup> Notably, Section 112(r)(7)(F) of the Act states, “Notwithstanding the provisions of subchapter V of this chapter or this section, no stationary source shall be required to apply for, or operate pursuant to, a permit issued under such subchapter solely because such source is subject to regulations or requirements under this subsection” (i.e., § 112(r)). See also 40 CFR 70.3(a)(3).

<sup>27</sup> Shintech Decision (n. 9) (<https://www.epa.gov/title-v-operating-permits/shintech-decision>). Although Morehouse BioEnergy is not subject to 40 CFR 68, EPA noted in the cited order that “compliance with the provisions of 40 CFR § 68.215 – governing section 112(r) and Title V permit content requirements – is sufficient to satisfy the legal obligations of section 112(r) for purposes of part 70” and denied the petitioners’ request that EPA object to the permits “for failure to meet the requirements of section 112(r)(1).”

<sup>28</sup> 61 FR 31680 (June 20, 1996)

<sup>29</sup> General Duty Clause Fact Sheet (p. 2) (<https://www.epa.gov/rmp/general-duty-clause-fact-sheet>)