

DATE: April 24, 2018 FILE REF: 4530-1

TO: Kristin Hart

FROM: Jonathan Wright

SUBJECT: Hearing Summary and Response to Comments for AFE, Inc. and SIO International Wisconsin, Inc., Construction Permits 17-JJW-207, 18-JJW-017, 18-JJW-022, and 18-JJW-036

HEARING SUMMARY

On Tuesday, April 3, 2018, beginning at approximately 7 pm, a public hearing to take comments on four draft air pollution control permits was held in the SC Johnson iMET Center, 2320 Renaissance Boulevard, Sturtevant, Wisconsin. Based upon appearance slips, 26 members of the public were in attendance, of which 5 people indicated they were in opposition to the project, 11 people indicated they were in support of the project, and 10 people did not indicate a position.

The Department representatives in attendance were:

Ms. Kristin Hart – Section Chief of Permits and Stationary Source Modeling

Mr. Mike Szabo – Air Management Engineer Supervisor

Mr. Jonathan Wright – Air Management Construction Permit Engineer

Mr. Ron Dillahunt – Air Management Compliance Specialist.

Ms. Jane Landretti – Staff Attorney

The hearing was opened by Ms. Landretti, who provided a summary of the purpose and format of the hearing. The rest of the public hearing consisted of a forum for public comments. Eight people spoke in support of the project. The comments provided by these eight people were statements of fact or express an opinion and do not require a response from the Department. Two people spoke in opposition to the project. These people provided the Department hard copies of their oral statements and the Department has responded to their written comments.

PUBLIC COMMENTS SUMMARY AND DEPARTMENT RESPONSES

[All public comments that were received for this project are a public record and are retained with the public permit review files. For purposes of this summary document, the public comments may have been edited to reduce length or consolidated with similar comments. Public comments that are not related to the preliminary determinations or draft permits, such as those comments that are statements of fact or express an opinion, are not presented in this document and do not require a response from the Department.]

Public Comment 1: The permittee estimates that it will emit more than 700,000 tons of carbon dioxide equivalents per year, nearly 10 times EPA's significant impact limit (SIL) of 75,000 tons per year. This calculation fails to include three other chemicals used at the plant that are greenhouse gases - carbon tetrafluoride, nitrogen trifluoride, and sulfur hexafluoride. Though not a greenhouse gas itself, the facility will also emit carbon monoxide.

Department Response 1: The preliminary determinations for each construction permit include the greenhouse gas emissions expressed as carbon dioxide equivalents for all greenhouse gases. Under the preliminary determination for construction permit 18-JJW-036, the total potential greenhouse gas emissions expressed as carbon dioxide equivalents resulting from the liquid crystal module (LCM) plant, energy plant, nitrogen plant, and fabrication (fab) plant will be 942,884 tons per year. This total includes the carbon dioxide equivalent emissions resulting

from emissions of carbon tetrafluoride, nitrogen trifluoride, and sulfur hexafluoride. However, the Department erroneously included nitrogen trifluoride as a greenhouse gas. Greenhouse gases are defined under s. NR 400.02(74m), Wis. Adm. Code, as consisting of carbon dioxide, methane, nitrous oxide, sulfur hexafluoride, hydrofluorocarbons and perfluorocarbons. The total potential greenhouse gas emissions expressed as carbon dioxide equivalents resulting from the LCM plant, energy plant, nitrogen plant, and Fab plant combined would be 889,929 tons per year without including nitrogen trifluoride. The Department does not have authority to regulate carbon monoxide as a greenhouse gas. In addition, EPA does not have a SIL for greenhouse gases. The 75,000 tons per year number referenced in this comment is a significant emission rate for greenhouse gas equivalents above which best available control technology (BACT) is required for greenhouse gases if another new source review (NSR) regulated pollutant is also subject to BACT. The Department has applied BACT to greenhouse gases from these sources.

Public Comment 2: The facility will emit hazardous air pollutants (HAPs). HAPs are pollutants that produce known toxic effects in humans. No information is provided as to the nature of these pollutants. The Department must insist that all possible emissions from the facility be identified.

Department Response 2: The Department has prepared a technical support document, known in the state of Wisconsin as a preliminary determination, for each air permit application related to this project. These preliminary determinations are the Department's detailed analysis of the information supplied in each application. These documents and the original applications include the name and the potential emissions of each significant hazardous air pollutant regulated under s. 112(b) of the Clean Air Act and ch. NR 445, Wis. Adm. Code, expected to be emitted from the sources reviewed under each construction permit application. This information was provided in the preliminary determinations and the permit applications which were available on the Department's website along with the draft permits during the public comment period.

Public Comment 3: The facility will emit volatile organic compounds (VOCs). The Department must insist that all possible VOC emissions from the facility be identified.

Department Response 3: The permittee has provided the Department with construction permit applications that satisfy the requirements of s. NR 285.61, Wis. Stats. and chs. NR 405 and NR 406, Wis. Adm. Code. These applications provide the information necessary to determine the applicability of state and federal requirements for emissions of VOCs and determine whether the applications will meet the criteria for permit approval under s. 285.65(3), Wis. Stats.

Public Comment 4: The application discusses air pollution mitigation methods, including the use of scrubbers to remove pollutants from the exhaust gas streams. The inference is that chemicals dissolved in the scrubber liquids will be transferred to the Racine waste water treatment plant prior to discharge to Lake Michigan. The application and permit should address this aspect of the air quality issues.

Department Response 4: The criteria for approval of an air permit are defined under s. 285.63, Wis. Stats. The Air Management program has no statutory or regulatory authority to address water issues.

Public Comment 5: The application does not provide an analysis of the information supplied in the application. The detailed specifications for emission limits listed in the draft permit are not linked either to information in the application or to some concept of acceptable standards of air pollutant emissions.

Department Response 5: The Department has prepared a technical support document, known in the State of Wisconsin as a preliminary determination, for each air permit application related to this project. These preliminary determinations are the Department's detailed analysis of the information supplied in each application,

including what the potential emissions will be for regulated pollutants, what air regulations apply to these sources, what emission limits will apply for the regulated pollutants, and an air quality review analysis. These preliminary determinations were available on the Department's website along with the draft permits during the public comment period.

Public Comment 6: The review does not discuss the prevention of significant deterioration (PSD) category that applies to the facility (e.g. fossil fuel combustion steam production of 250 million BTU per hour heat input).

Department Response 6: The commenter is correct that the facility is a listed major stationary source under s. NR 405.02(22)(a)1., Wis. Adm. Code, because the facility will contain fossil fuel boilers (or combination thereof) totaling more than 250 million British thermal units per hour total heat input. As such, the major stationary source threshold for this facility is 100 tons per year or more of any air contaminant subject to regulation under the Clean Air Act.

Public Comment 7: The facility is seeking approval to emit 106 tons of particulate matter (PM10 + PM2.5) each year.

Department Response 7: PM10 refers to particulate matter with a diameter of 10 micrometers or less. PM2.5 refers to particulate matter with a diameter of 2.5 micrometers or less. Based on these definitions, PM2.5 is a subset of PM10. It is incorrect to add the emissions of PM10 and PM2.5 together for any purpose since any measurement of PM10, by definition, already includes all emissions of PM2.5.

Public Comment 8: The Department should require the facility to install adequate air-monitoring equipment and require regular reporting of emissions to the Department and the public. The Department 2018 Monitoring Network Plan does not include plans to install additional air monitoring in the Racine area.

Department Response 8: As required by the Clean Air Act, the U.S.EPA sets National Ambient Air Quality Standards (NAAQS) for six criteria pollutants. NAAQS - primary standards provide public health protection, including protecting the health of "sensitive" populations such as asthmatics, children and the elderly. The Department conducts ambient air monitoring to measure concentrations of pollutants compared to the relevant NAAQS. In accordance with 40 CFR part 58, the Department currently operates an ozone monitor in the city of Racine, approximately 10 miles to the northeast of the proposed location of this facility. The Department is not required to perform additional monitoring in Racine County.

The Wisconsin Air Monitoring Network Plan is an annual report required under the Code of Federal Regulations. The plan details the siting and operation of each monitoring site in the network. Adjustments to the network are outlined in the plan. The network plan is made available to the public for 30 days prior to its submission to EPA. The Department is currently in the process of reviewing the air monitoring network for 2019 and will be taking public input in May.

In addition to the annual network plan process, every five years, states are required to perform an extensive assessment of their network to ensure the best possible use of available resources to meet policy, regulatory and technical needs. This assessment was most recently completed in 2015 in cooperation with other states within US EPA Region V.

Public Comment 9: The source description of all four reviews indicates the facility will include a glass plant. None of the proposed permits contained any information on or analysis of emissions from a glass plant. The commenter does not think air permits under review can be issued until the emissions from any glass manufacturing plant are included in the air quality review.

Department Response 9: The Department has not received an application for a glass plant as of the preparation of this document. The Department has made a finding that sources reviewed by the Department will meet the criteria for permit approval listed under s. 285.65(3), Wis. Stats. If the Department receives an application for a glass plant and determines that it part of this source, the Department will conduct another air quality review of the total facility at that time. The department does not have the authority to speculate on the impacts of additional sources on the air quality analysis at this time.

Public Comment 10: These permit applications only analyze emissions from the specific processes being permitted and do not provide a full picture of the ozone-contributing potential of the facility and its associated growth. For example, the PSD analysis does not include emissions from increased vehicular traffic related to facility operations and the 13,000 new workers commuting to and from the facility. The permit application must be reviewed in combination with all its supporting industries, additional traffic and businesses as they will all affect the air quality.

Department Response 10: An additional impacts analysis addressing growth impacts was included in the Air Quality Analysis section of the preliminary determination. Southeast Wisconsin Regional Planning Commission (SEWRPC) will be modifying its regional land use and transportation plans to account for the transportation needs associated with this facility.

Public Comment 11: The facility should be required to use tall stacks to better disperse the pollution from the plant and reduce ground level pollution and better protect the health of the residents in the vicinity.

Department Response 11: The height of the exhaust stacks for the sources at the facility were chosen by the permittee and required by the Department as permit conditions based upon the results of the air quality modeling analysis. Air quality modeling is a tool used by the Department to demonstrate that the facility will not cause an exceedance of the applicable federal National Ambient Air Quality Standards (NAAQS) and increment consumption. The NAAQS are established to be protective of human health and the environment. The Department has no regulatory authority to require taller exhaust stacks if the air quality modeling has demonstrated the facility will be in compliance with the applicable NAAQS and increment consumption.

Public Comment 12: The modeling results are deficient in that they do not include error bars that realistically provide averages and statistically relevant upper and lower values for concentrations of pollutants and also quote concentrations with unrealistic precision.

Department Response 12: Regulatory dispersion modeling addresses uncertainty in the modeling results by assuming that a source emits at its maximum physical and operational capacity. The maximum impacts listed in the air quality modeling analysis are the highest from any location around the facility and do not represent the typical or average impacts expected.

Public Comment 13: The air quality modeling analysis should include all nearby sources that may impact the modeling results.

Department Response 13: The air quality modeling analysis did consider all nearby sources. The Wisconsin emissions inventory was examined and any source expected to have impact around the facility was explicitly included in the modeling analysis. All other impacts from distant emissions or nearby small sources are included as part of the regional background concentration. The modeled impact of the facility plus the background concentration meets the National Ambient Air Quality Standards. The modeled impact of the facility is below the

PSD increment standards. In a PSD analysis both the ambient air quality standards and the ambient air increments must be met to satisfy the criteria for permit issuance.

Public Comment 14: Racine County is already within an EPA-designated non-attainment area for ozone. The preliminary determination contains no discussion of the area's recent non-attainment area status for ozone. Permitting a large new source of ozone precursors before the designation will only make the task of reaching attainment more difficult. The commenters believe that the facility should be permitted under the standards of the nonattainment new source review process.

Department Response 14: Racine County is currently in attainment for all criteria pollutants, including the 2008 ozone standard of 75 ppb. On December 20, 2017, the US EPA proposed to designate Racine County as nonattainment of the 2015 ozone standard based upon the results of the last 3 years of certified air quality monitoring data. The US EPA is under court order to provide final designations related to ozone by April 30, 2018. The effective date of such designations is expected to be 30 to 60 days after publication in the Federal Register. Until such time as any nonattainment designation in Racine County is made by EPA and that designation is effective, the Department has no regulatory authority to review any sources located in such an area under the regulations applicable to sources located in nonattainment areas.

Public Comment 15: The Department should wait for the EPA's final ozone designations before making final decisions on the permit applications. The final designation is expected sometime between April 19th and April 30th, so this would not be an unreasonable delay.

Department Response 15: The Department is obligated under Act 118 (2003) to process all construction permits according to timelines established in s. 285.61, Wis. Stats. The Department also strives to meet the timelines of all permittees applying for a construction permit. It would be an arbitrary decision not supported by law for the Department to not issue a construction permit as expeditiously as practicable if the application for a permit meets the requirements for approval under s. 285.63, Wis. Stats. As stated in a previous comment, once the final nonattainment designations are made by US EPA, the effective date of such a designation will be 30 to 60 days from publication in the Federal register, not April 30th as implied by the comment.

Public Comment 16: The length of time allowed for the Department staff and the public to thoroughly examine and evaluate the applications is too short. The nitrogen plant review was a short 71-day period. The energy plant was a short 70-day period. The fabrication plant was a short 10-working day period.

Department Response 16: The length of time required by the Department to review a construction permit application depends on the completeness of the application and the responsiveness of the applicant to Department information requests. The time periods for review as described by the commenter are based upon tracking dates recorded by the Department for the receipt of a construction permit application. These dates are not fully representative of the work performed on these three construction permits, as the facility has been discussing the sources included in the draft construction permits with the Department since December 2017. The public review period of 30 days is mandated by statute in s. 285.65(1), Wis. Stats., and does not vary based on the type or size of the source.

Public Comment 17: The facility exceeds PSD goals. [The commenter lists the goals of the PSD program as derived from an EPA website providing basic information on the PSD program]

Department Response 17: The goals of the PSD program are achieved by following the requirements of the PSD program for major sources as codified under ch. NR 405, Wis. Adm. Code. Wisconsin has a federally approved

State Implementation Plan (SIP) for implementing the PSD program. The draft permits were reviewed under the applicable regulations contained in chs. NR 405 and NR 406, Wis. Adm. Code.

Public Comment 18: The permit does not have any fluoride emission limits, enforceable collection/destruction efficiencies for fluorides as a class, and/or other federally enforceable requirements to assure that the facility is not subject to PSD BACT for all inorganic fluorides (excluding hydrogen fluoride). The review does not identify the facility-wide potential to emit of the inorganic fluorides category of material (excluding HF). Unless demonstrated and limited to have total inorganic fluoride emissions below the significance level, the review is not approvable.

Department Response 18: As discussed in the preliminary determination for 18-JJW-036, the regulation of fluorides is different from other pollutants with a significant emission rate listed in ch. NR 405, Wis. Adm. Code. Fluorides are a regulated NSR air contaminant because six standards for inorganic fluorides were promulgated in 1977 under section 111 of the Clean Air Act for primary aluminum and phosphate fertilizer operations. The definition of total fluorides for those six standards is elemental fluorine and all fluoride compounds as measured by EPA Method 13A, 13B, or 14 or by equivalent or alternative methods. Thus, total fluorides are defined by what the applicable EPA test method measures, not by a mass balance of fluorine or fluoride compounds to the process. Historically, these EPA test methods were developed to control particulate fluoride emissions, such as aluminum fluoride and cryolite, and gaseous fluoride, such as hydrogen fluoride and silicon tetrafluoride. A review of the applicable test methods indicates that only inorganic ionic fluoride or the hydrolysable fluoride ion is the target analyte. The significant fluoride compounds emitted by this facility are derived from the use of nitrogen trifluoride, tetrafluoromethane, and sulfur hexafluoride. In addition, the use and decomposition of these gases generates hydrogen fluoride. As noted by the commenter, hydrogen fluoride is now specifically excluded by regulation from being considered as a fluoride under ch. NR 405, Wis. Adm. Code. As tetrafluoromethane is an organic fluoride, the history of the regulation of fluorides and the applicable test methods exclude consideration of this compound as a fluoride under ch. NR 405, Wis. Adm. Code. Nitrogen trifluoride and sulfur hexafluoride are poorly soluble in water. As the test methods rely upon the decomposition in water of the inorganic fluoride compounds, it is unlikely that the applicable test methods will detect a significant portion of these compounds as total fluorides. Based upon the potential emissions from a similar facility in Asia, the potential emissions of nitrogen trifluoride and sulfur hexafluoride will be approximately 5.6 tons per year. The permittee believes that the potential emissions of total fluorides as determined by the applicable EPA test methods would be less than 3.0 tons per year. Additional inorganic fluorides compounds may be produced. To address this possibility, the permit will be modified to include a facility-wide limitation on total hourly fluoride emissions. Compliance demonstration will be based upon measurement of the exhaust points that will emit fluoride compounds using the applicable US EPA test methods for 3 years after the initial operation of Phase 1 and for an additional 3 years after the initial operation of Phase 2 of the facility.

Public Comment 19: Comments from the permittee related to construction permit 17-JJW-207 –

1. Item c(1) on the following pages under the requirements for the pollutant listed should be updated to reference particulate matter recordkeeping and monitoring items 1 and 2 only. Item #3 in the particulate matter section addresses records for particulate matter emissions testing and should not be referenced in the requirements for other pollutants.

- Page 3- opacity requirements
- Page 4- NOx requirements
- Page 7- CO requirements
- Page 8- VOC and SO2 requirements
- Page 9- GHGs requirements

2. Page 11- requirements for Wipe cleaning operations. Item b(1)(b) prohibits the use of propellant force and Item c(1)(b) requires Method 24 testing based on 40 CFR Part 60 Appendix A. This cleaning will be accomplished

using a product like Endust, sold as an aerosol can. Please advise if these requirements are meant to regulate the use of aerosol cans.

Department Response 19:

1. The references to the particulate matter recordkeeping and monitoring have been updated in construction permit 17-JJW-207.
2. The requirements for industrial cleaning operations in ss. NR 423.035 and NR 423.037, Wis. Adm. Code, regulate the use of aerosol cans. While s. NR 423.035, Wis. Adm. Code, contains an exemption for aerosol cans when using solvents or solvent solutions that contain no more than 0.05 kilograms per liter of VOC, s. NR 423.037, Wis. Adm. Code, does not contain this exemption. Under s. NR 423.037(2)(c), Wis. Adm. Code, the permittee may use 160 fluid ounces or less of VOC-containing aerosol products per day for industrial cleaning operations without meeting the VOC content or control requirements of s. NR 423.037(3)&(7), Wis. Adm. Code. The Department will add this allowance to the draft permit along with daily recordkeeping. The permittee should note that this is a facility-wide limit, not a source-specific emission limit. In addition, the Department has removed the ch. NR 405.08, Wis. Adm. Code, citation from the compliance demonstration requirements related to industrial cleaning operations, which may have prohibited the limited use of aerosol products. The limitation on solvent and solvent solution VOC contents is sufficient to meet the requirements of ch. NR 405, Wis. Adm. Code.

Public Comment 20: Comments from the permittee related to construction permit 18-JJW-017 –

1. Opacity requirements on page 6, Item c(1) should be updated to reference particulate matter recordkeeping and monitoring items 1 and 2 only. Item #3 in the particulate matter section addresses records for particulate matter emissions testing.
2. Page 26, item b(6) citations include 60.4219, which are definitions. Is this the correct citation?

Department Response 20:

1. The references to the particulate matter recordkeeping and monitoring have been updated in construction permit 18-JJW-017.
2. The citation reference to 40 CFR 60.4219 has been removed.

Public Comment 21: Comments from the permittee related to construction permit 18-JJW-022 – VOC requirements on page 8, Item c(1) should be updated to reference particulate matter recordkeeping and monitoring items 1 and 2 only. Item #3 in the particulate matter section addresses records for particulate matter emissions testing.

Department Response 21: The references to the particulate matter recordkeeping and monitoring have been updated in construction permit 18-JJW-022.

Public Comment 22: Comments from the permittee related to construction permit 18-JJW-036 –

1. Remove 818 from the Facility Name.
2. NF3 is not one of the 6 listed greenhouse gases under the PSD definitions/ requirements.
3. Page 2- Item a(2) should the citation be 424.03(2)(b)?
4. Pages 4, 6, 11, 28, 35, 42- NR 439.06(1) does not appear to be the correct citation as Method 320 is not included there.
5. Page 13 – Items a- For any process where there are more than 2 units, request revision to indicate that “up to” x of the total number may operate. For example, Process P18 may only operate up to four of the five controls.
6. Page 36- The facility may also use aerosol can cleaning in this operation; as a result, the same comment as Page 11 of the LCM Permit applies. Could the permit be flexible to allow use of aerosol cans as well?
7. See attached for a mark-up to correct the number of tanks.

8. Page 41- Note that for cylinders and other pressurized vessels, controls are only engaged during vessel change-out. Suggested revising the language to indicate control will be employed during cylinder or pressurized vessel change-out. For other tanks, controls are employed during operation as currently stated.
9. Page 48, Item Z.4.3 indicates “Wet Scrubber Parametric Operating Parameters. Within 60 days after the performance of the tests required under I.Z.3.a.(1), the permittee shall submit to the Department for approval the operating pressure drop range, scrubber fluid flow rate range, and minimum or maximum pH, as applicable, for each wet scrubber. Each value or range shall be based on manufacturer’s recommendations, observations during compliance emission tests, operational history and other relevant information.” Suggest revising the last part of the paragraph to indicate “and/or other relevant information.?”

Department Response 22:

1. The designation ‘818’ has been removed from the naming convention for this portion of the facility.
2. The Department acknowledges that nitrogen trifluoride is not a greenhouse gas as defined under s. NR 400.02(74a), Wis. Adm. Code. As such, the Department has no regulatory authority to require an overall removal efficiency for nitrogen trifluoride of 75% or the use of a combustor as BACT for greenhouse gases on P13 and P23. The Department removed these requirements.
3. The citation has been corrected.
4. The citation has been corrected to s. NR 439.06(8), Wis. Adm. Code.
5. The requested language has been added to the permit to clarify that the permittee is allowed to operate up to the total number of controls allowed by the permit.
6. The requirements for industrial cleaning operations in ss. NR 423.035 and NR 423.037, Wis. Adm. Code, regulate the use of aerosol cans. While s. NR 423.035, Wis. Adm. Code, contains an exemption for aerosol cans when using solvents or solvent solutions that contain no more than 0.05 kilograms per liter of VOC, s. NR 423.037, Wis. Adm. Code, does not contain this exemption. Under s. NR 423.037(2)(c), Wis. Adm. Code, the permittee may use 160 fluid ounces or less of VOC-containing aerosol products per day for industrial cleaning operations without meeting the VOC content or control requirements of s. NR 423.037(3)&(7), Wis. Adm. Code. The Department will add this allowance to the draft permit along with daily recordkeeping. The permittee should note that this is a facility-wide limit, not a source-specific emission limit. In addition, the Department has removed the ch. NR 405.08, Wis. Adm. Code, citation from the compliance demonstration requirements related to industrial cleaning operations, which may have prohibited the limited use of aerosol products. The limitation on solvent and solvent solution VOC contents is sufficient to meet the requirements of ch. NR 405, Wis. Adm. Code.
7. The tank table has been adjusted.
8. The permit language has been modified to clarify that for pressurized vessels only, emission controls are only used during change-out.
9. The language in I.Z.4.3 has been modified as requested.

EPA contacted the DNR’s air permit writer to offer and discuss the following technical comments:

Public Comment 23: Please clarify whether limits for particulate matter emissions, PM10 emissions, and PM2.5 emissions are cumulative limits or individual limits.

Department Response 23: The emission limits listed in the four permits for particulate matter emissions, PM10 emissions, and PM2.5 emissions are individual limits. The Department has separated all particulate matter, PM10 and PM2.5 emission limits in the four construction permits to address this comment, as applicable.

Public Comment 24: The preliminary determination mentions the use of zeolite concentrators prior to the oxidizers, but there is no requirement to use the zeolite concentrators in construction permit 18-JJW-036.

Department Response 24: Construction permit 18-JJW-036 has been modified to require the use of the zeolite concentrators, where applicable.

Public Comment 25: Construction permit 18-JJW-036 has a number of numerical opacity requirements which rely on proper operation of associated control devices for compliance demonstration. Please consider requiring at least an initial compliance demonstration test to verify the process is complying with the associated numerical opacity requirement when the associated control devices are operating properly.

Department Response 25: Construction permit 18-JJW-036 has been modified to require initial visible emission testing for all processes with a numerical visible emission limitation.

Public Comment 26: The natural gas-fired combustion units in the four construction permits do not have any limits on sulfur dioxide emissions as part of the BACT. Please consider adding the sulfur dioxide emission limits used to establish potential emissions from these emission units as part of BACT or describe why setting an emission limit for BACT is infeasible.

Department Response 26: The Department has added the sulfur dioxide emission limits used to establish potential emissions from these emission units as part of BACT.

Public Comment 27: The small fuel burning emission units do not have a numeric limit on greenhouse gas emissions as part of BACT. Please consider adding greenhouse gas emission limits as part of BACT or describe why setting an emission limit for BACT is infeasible.

Department Response 27: Under s. NR 405.02(7), BACT is defined, in part, as an emission limitation based on the maximum degree of reduction for each air contaminant. Under s. 285.01(16), Wis. Stats., an emission limitation means a requirement which limits the quantity, rate or concentration of emissions of air contaminants on a continuous basis. The emergency generators and backup vaporizer do not have specific greenhouse gas emission limits because each source is subject to a limitation on the total hours of operation allowed over each consecutive 12-month period and a limitation on the fuels these sources can combust. The oxidizers and combustors in the Fabrication plant are limited to using only natural gas. Since the greenhouse gas emissions from these sources are calculated using the emission factors provided in 40 CFR 98, limiting the hours of operation and/or the fuels these sources can combust serves as an emission limitation for these sources. A review of the RACT, BACT, LAER Clearinghouse (RBLC) database demonstrates that these BACT limitations for greenhouse gases are not unusual.

Public Comment 28: Please clarify the source of the glycol ethers listed in the preliminary determination for construction permit 18-JJW-036. The process number(s) are not listed for this pollutant in the preliminary determination. The maximum theoretical emission rate is such that if this pollutant passed through a control device with only 95% overall control efficiency, the facility would be a major source of federal hazardous air pollutants.

Department Response 28: The glycol ether emitted by the facility, diethylene glycol diethyl ether, is emitted from Processes P12, P18, P19, P22, P28, and P29. Each of these processes is controlled by thermal oxidizers with a required destruction efficiency of at least 98%.

Public Comment 29: The application indicates the facility intends to be a synthetic minor source of federal hazardous air pollutants. While the permit application contains a number of enforceable limitations related to control efficiencies, the permit does not contain potential limits for certain hazardous air pollutants that may

exceed major source thresholds. Please consider additional requirements to ensure the practical enforceability of the facility being a synthetic minor source of federal hazardous air pollutants.

Department Response 29: The Department will include additional limitations, compliance demonstration, and monitoring to improve the practical enforceability of the limits that make the facility a synthetic minor source of federal hazardous air pollutants. Based upon the application, the facility has the ability to emit two pollutants above the individual major source threshold of 10 tons per year – s. 112(b) regulated glycol ethers and hydrogen fluoride. The Department will limit the potential usage or emissions of these two pollutants to improve the practical enforceability of the facility’s synthetic minor status. For s. 112(b) regulated glycol ethers, the facility is already required to achieve 98% overall control efficiency of VOCs from the processes that use these compounds. The facility will also be subject to a usage limit of no more than 38,966 pounds per month of s. 112(b) regulated glycol ethers averaged over each consecutive 12-month period. Hydrogen fluoride is primarily emitted from Processes P13, P14, P23, and P24. The facility is already required to achieve 95% overall control efficiency for hydrogen fluoride emissions from these sources. The facility will also be subject to an emission limit for hydrogen fluoride on a pound per hour basis from each source. The facility will be required to demonstrate initial compliance with each hydrogen fluoride pound per hour limit in addition to the overall control efficiency requirement.