Agner, Tracy

From: Kozlov, Leonard
Sent: Tuesday, November 09, 2004 9:13 AM
To: Zahm, Alan
Cc: Agner, Tracy; Turner, John B.
Subject: FW: Merillat Ocala RAI

FYI, Alan do we do such a detailed RAI with the applications that come into our shop? If not why ? This is a very comprehensive RAI done in Linero's shop. I find it quite good.
-----Original Message-----
From: Mulkey, Cindy
Sent: Monday, November 08, 2004 4:09 PM
To: 'dtackett@merillat.com'; 'stift@merillat.com'; 'mstickles@merillat.com'; 'dcibik@pirnie.com'; 'jcohn@pirnie.com'; Kozlov, Leonard; Zahm, Alan
Subject: Merillat Ocala RAI

The Department mailed a request for additional information today to supplement the permit application for the Merillat Ocala expansion.
Attached is an electronic copy of the letter.

If you have any questions feel free to contact me.

Cindy Mulkey

Cindy Mulkey
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Department of
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Colleen M. Castille
Secretary

November 8, 2004

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Michael Stickles, Plant Manager
Merillat Corporation
1300 Southwest 38th Avenue
Ocala, Florida 34474

Re: Request for Additional Information
Ocala Facility Expansion Project
File Nos. 0830137-003-AC (PSD-FL-347), 0830137-004-AV

Dear Mr. Stickles:

The Department is in receipt of your PSD application. However, in order to continue processing the application, we will need the additional information below. Should your response to any of the below items require new calculations, please submit the new calculations, assumptions, reference material and appropriate revised pages of the application form.

The Department understands that despite having submitted a PSD application, the company still believes the project does not trigger PSD because the modification will emit less than 250 tons per year of volatile organic compounds (VOC). The Department requires additional information to determine if and/or when this facility may have triggered PSD. The specific requests for additional information are set forth below.

I. Project Description

Based on our review of the facts, it appears that Merillat accepted a limit of 249 TPY of VOC on the initial project to avoid PSD and a determination of best available control technology (BACT). The physical plant constructed appears capable of producing sufficient product to emit more than 249 TPY of VOC but for the limitation. A relaxation of restrictions on pollutant capacity would subject the facility to PSD and a BACT determination "as though construction had not yet commenced on it." [Rule 62-212.400(2)(g), F.A.C.]

In addition to realizing the capacity of the constructed facility, Merillat requested further physical expansion of the facility. Such an expansion would likely cause emission increases greater than 40 TPY of VOC which is the trigger for another PSD and BACT review. The short time between the original project and the new one suggests they may constitute a single phased construction to which the PSD Rules apply.

In addition, based on the application and conversations with Malcolm Pirnie, it is unclear as to the amount of equipment planned for this expansion. In the application Merillat proposes to modify the Ocala facility by installing additional equipment (spray booths, curing ovens, and ancillary equipment). The facility currently consists of three lines containing spray booths, curing ovens, and ancillary equipment unique to each line. The facility was originally permitted with potential VOC emissions of 249 TPY to cover 4 coating lines of which three have been constructed. The limit is now being approached by the three

existing lines reportedly due to customer demand and additional hours of operation. The existing building has available space for the immediate addition of one coating line and related equipment. The building has also been constructed with a break-away wall with plans for future expansion of two additional coating lines. The Department requests the following:

1) Control equipment cost effectiveness on the basis that all VOC from the original development plus the expansion are available for control. However add-on control might maintain emissions at their pre-expansion level in which case Merillat would not trigger PSD and would only need to maintain emissions at 249 TPY or less.

2) Site and floor plans showing equipment layouts, before and after the expansion. (This should include a description of any foundation or infrastructure completed for future building expansion.)

3) Description of completed construction. Identify each individual coating line and each individual piece of equipment on that line. This includes, but is not limited to, each spray booth, flash area, and curing oven.

4) Please clarify the construction plans for this specific project request including a timeline for planned stages of construction and amount of equipment involved. Identify each individual piece of equipment for the new line. This includes, but is not limited to, each spray booth, flash area, and curing oven.

5) If the project is for the addition of one coating line, explain why this line has such a high potential compared to the three existing lines. Explain why the original permit application did not include a request for a higher PTE.

6) Describe whether the current potential VOC emissions are limited by the existing woodworking operations and clarify plans for any additions or expansions of these areas.

7) Quantify the amounts of VOCs from glues and adhesives and describe the locations where they are applied.

II. BACT analysis.

Add-on controls including regenerative thermal oxidation (RTO), and catalytic oxidation were concluded by the applicant to be inappropriate as BACT for the proposed finishing equipment on the basis of excessive economic impacts. The economic analyses were completed based on two 60,000 cfm control systems. A 10-year equipment life and seven year interest rate were used to calculate a capital recovery cost. The annualized cost effectiveness value in terms of dollars per ton of pollutant (VOC) reduced was calculated by subtracting the current potential emission value (249 TPY) from the newly proposed potential emissions value (411 tons/year) and applying a 90 percent overall control efficiency factor. The estimated ductwork system cost was based on an estimated capital cost completed by Merillat. Note that the RTO estimate in the Control Cost Manual was based on a rough estimate developed by EPA and is in 1988 dollars. The Department requests the following information:

1) Describe the existing exhaust system and baghouse equipment used to control particulate matter. Identify the cost of these systems.

2) Describe the existing ventilation systems. For each existing spray booth, flash area, and curing oven identify:

   the quantity of each

   the VOC emissions from each

   the flow rate (scfm) from each

the amount (feet) and cost of existing ductwork used to directly vent VOC emissions to the atmosphere

- the size, flow rate, and cost of each existing fan.

3) Clarify that the cost of ductwork/fans included with the control equipment was discounted by the amount equal to the cost of ductwork/fans typically used to vent VOC emissions directly to the atmosphere when performing cost analyses.

4) Describe the area covered by the two 60,000 cfm control systems. Describe whether exhaust from any of the three existing coating lines is to be included in the possible control systems.

5) Please obtain two or more current vendor quotes for an RTO designed specifically for the proposed system and also for the cost of an RTO had it been installed with the existing equipment. Provide copies of these quotes along with all related vendor correspondence to the Department. As discussed previously on the phone, revise each cost analysis to reflect actual budget estimates from control equipment vendors. The revised estimates will also affect other cost items such as the pressure differential through the system and the fan electricity costs. Also note that control equipment fan electricity costs would be offset by the ventilation fan electricity costs.

6) Provide a cost analysis for a rotary concentrator with oxidizer based on a current vendor quote designed specifically for the proposed system and also for a system had it been installed on the original equipment. The application states that Merillat has evaluated the use of these systems. Include this evaluation with the requested information.

7) As discussed during previous phone conversations, revise the cost analysis to reflect a 20-year life for the control equipment.

8) Based on the application, the RACT/BACT/LAER Clearinghouse (RBLC) identifies at least one facility that operates an RTO as BACT to reduce VOC emissions. Discuss why an RTO was a cost effective and appropriate control technology for that facility and is not for the project.

9) Based on discussions with other permitting agencies, other facilities not identified in the RBLC (including other Merillat facilities) operate RTOs as BACT to reduce VOC emissions or to avoid BACT or PSD review. Discuss why an RTO was cost effective and appropriate control technology for other Merillat facilities and not for this project.

10) Revise the cost analysis to reflect cost per ton of VOC removed by subtracting the actual emissions value (166 tons/year) from the newly proposed potential emissions value (411 TPY) and applying a 90 percent overall control efficiency factor to the remaining 245 tons. Also include a cost per ton analysis applying a 95 percent overall control efficiency factor. Supply an additional cost analysis to reflect cost per ton of VOC removed assuming control of the entire future potential emissions (411 TPY) with a 90 percent and 95 percent overall control efficiency factor.

11) Provide information to support the statement that the existing facilities employing RTOs have "highly automated" spray application systems and not trained operators with HVLP systems. Is this also true for the other Merilatt facility utilizing RTO?

12) The application describes "non-destructive" control options as "not as effective" in reducing VOC emissions and were eliminated from consideration. In a top-down BACT determination, controls are ranked according to effectiveness. If a top control is rejected, the next most effective control option must be reviewed. Please revise the top-down BACT analysis accordingly.

13) The application states that the VOC concentration in the exhaust stream can be as low as 100 ppmv. Identify the maximum and average VOC concentration expected in the exhaust stream.

III. Modeling Requirements

According to the application, an exemption from preconstruction air quality monitoring for ozone is requested due to the availability of representative ozone data for the Ocala area. Projects with projected VOC (Volatile Organic Compounds) emissions greater than 100 TPY are required to perform an ambient impact analysis for ozone including the gathering of preconstruction ambient air quality data. Rule 62-212.400(3)(h)(5) states that an application must include *information relating to the air quality impacts of, and the nature and extent of, all general commercial, residential, industrial and other growth which has occurred since August 7, 1977, in the area the facility or modification would affect.* The Department requests the following information:

1) Submit the representative monitoring ozone data the applicant refers to and the locations of the monitors with respect to the facility.

2) Identify the chemical sources of VOC this project will be emitting.

3) Perform an ambient air impact analysis for ozone as is required for projects with greater than 100 TPY VOC emissions, including impacts on soils and vegetation, impacts on the Class I and Class II areas.

4) Evaluate odor from sources of VOC with regards to this project, including an evaluation of the extent and degree of odor impacts.

5) Satisfy the requirements of Rule 62-212.400(3)(h)(5) as it relates to the Merillat project by submitting the appropriate information.

We have not yet received comments from EPA Region 4 or the Fish and Wildlife Service. We will promptly forward any comments they send us.

Rule 62-4.050(3), F.A.C. requires that all applications for a Department permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature. Please note that per Rule 62-4.055(1), F.A.C., "The applicant shall have ninety days after the Department mails a timely request for additional information to submit that information to the Department ... Failure of an applicant to provide the timely requested information by the applicable date shall result in denial of the application."

If you have any questions, please call Cindy Mulkey at 850/921-8968.

Sincerely,

A. A. Linero, Administrator
South Air Permitting Section

Cc: Len Kozlov, DEP
Jim Little, EPA Region 4
John Bunyak, National Park Service
Mike Stickles, Merillat - Ocala
Donna Tackett, Merillat - Ocala
Joel Cohn, P.E., Malcolm Pirnie
David Cibik, P.E., Malcolm Pirnie