

HEARING OFFICER'S REPORT

Regarding: Rohm & Haas Electronic Materials, CMP, Inc.,
Permitting Applications: Reg. #30 (Title V) Significant Permit Modification
Application of January 29, 2003; Reg. #30 (Significant Permit
Modification Application of March 31, 2004; and Reg. #2 Application to
Install a Pilot Scale Coating Line and PVC Powder Delivery System dated
October 29, 2004

Lisa A. Vest
Hearing Officer

October 13, 2005

I. Background:

A public hearing was held on May 5, 2005 at Clayton Hall at the University of Delaware in Newark, Delaware, to receive public comment on three applications submitted to the Division of Air and Waste Management – Air Quality Management Section (hereinafter referred to as “AQM”) of the Department by Rohm & Haas Electronic Materials, CMP, Inc. (hereinafter referred to as “Rohm and Haas”). Rohm & Haas operates a facility on Bellevue Road in Newark, Delaware, which specializes in manufacturing polishing pads and slurries primarily for the semiconductor industry. The first submission by the Applicant was a Regulation No. 30 (Title V) Significant Permit Modification Application dated January 29, 2003. This application was a request to update Title V permit **AQM-003/00033** (originally issued December 31, 2001) to include requirements covering newly installed equipment (installed in accordance with Regulation No. 2 procedures) and new applicable requirements resulting from changes to Regulation No. 24, Section 33. It should be noted that this application was submitted under the name “Rodel, Inc.”, which was the previous name of the Company.

The second submission by the Applicant was a Regulation No. 30 (Title V) Significant Permit Modification Application dated March 31, 2004. This application was submitted as an update to the January 29,

2003 application noted above. Between January 2003 and March 2004, several changes were made at the facility and several additional updates to the permit became necessary. The Company also wanted to have federally enforceable limits established to limit their emissions of hazardous air pollutants (HAPs) below all applicable major source thresholds.

The third submission by Rohm & Haas was a Regulation No. 2 Application to Install a Pilot Scale Coating Line and a PVC Powder Delivery System dated October 29, 2004. This application was a request for a federally enforceable construction permit to install new equipment at their facility. This permit type would allow the Department to administratively amend the Title V permit to include the requirements of the Regulation No. 2 permit and thus allow operation of the equipment without going through significant permit modification procedures as those procedures are followed prior to construction permit issuance.

The first two of the above applications were addressed via a single draft permit issuance. The draft permit (dated March 18, 2005) was advertised for public review on March 20, 2005. The third of these applications was addressed via a separate draft permit document with permit numbers **APC-91/0580-CONSTRUCTION (Amendment 4)**, **APC-96/0942-CONSTRUCTION (Amendment 4)**, and **APC-2005/0044-CONSTRUCTION**. This draft permit document was dated February 4, 2005, and was advertised for public review on February 6, 2005.

A hearing request was received on March 9, 2005 from Richard Levering in response to the Reg. No. 2 Construction permit advertisement. Based upon discussions between the Department and Mr. Levering, it was anticipated that a request would be forthcoming in response to the Title V significant permit modification advertisement as well. In light of this, a public hearing was scheduled for May 5, 2005. As expected, a second hearing request from Mr. Levering was received by the Department on April 7, 2005.

Following the hearing, AQM submitted a Final Response Document to the Hearing Officer which thoroughly reviewed and addressed all public comments and questions raised at the public hearing on May 5, 2005. That Final Response Document, dated July 29, 2005 and received by the Hearing Officer on September 9, 2005, is incorporated into this report and attached hereto. Proper notice of the hearing was provided as required by law.

II. Summary of Record:

After entering the Department's exhibits into the record, Stephen Ours gave a brief presentation to the public, which explained the permit applications submitted to DNREC by Rohm & Haas. Specifically, Mr. Ours explained that there are two draft permits for which there were hearing requests. The first was a request for a significant permit modification to Rohm & Haas' Title V air permit. This permit amendment addresses two applications: the January 29, 2003 application, and the

March 31, 2004 application. The first application was submitted when the company was still known as Rodel, Inc. The second application was submitted after the name changed to Rohm & Haas Electronic Materials, CMP, Inc., but both of these applications are for the same facility. Thus, the Department is addressing both applications with one draft permit.

These applications requested a number of changes to the Title V Permit. One of the most significant requests was the removal of the RODOs polymer assembly process, which resulted in reduced emission limits coming out of what was referred to as the REECO incinerator (basically a thermal oxidizer). That device historically controls emissions from the RODOs equipment, as well as the second impregnation line. The removal of that polymer process resulted in a significant reduction in VOC (i.e., volatile organic compound) usage limits, an establishment of an MEK (i.e., methylethyl ketone) usage limit, and a DMF (i.e., dimethylformamide) usage limit (these are both pollutants emitted by this line). There has also been a reduction in the draft permit of the VOC plus acetone (from 13 tons per year to 4.1 tons per year). Other requested changes included, but are not limited to, the following:

- Inclusion of the requirements of Regulation No. 24, Section 33, for degreasers;
- A compliance assurance monitoring plan;
- Federally enforceable limits to keep total facility emissions of each hazardous air pollutant emitted by the facility below major source

- thresholds (which are 10 tons per year for any individual hazardous air pollutant and 25 tons per year for all combined hazardous air pollutants;
- Inclusion of previously issued Regulation No. 2 permits into the Title V permit for an emergency generator, for a fire protection pump (both diesel units), and for the copper slurry preparation equipment (another emission unit that emits small amounts of particulate matter);
 - Incorporation of changes (primarily upgrades) to the SUBA lines #1 and #2 (which are their main coating lines), and significant modifications to their scrubber to increase the flow rate it can handle;
 - Installation of some closed system sampling ports in the polymer area tanks so that samples can be taken from the tanks without opening them to the atmosphere;
 - Removal of operating hour restrictions with no increase of emission limits;
 - Reduction of emission limits from 9.6 pounds per hour and 29.7 tons per year DMF from SUBAs 1 and 2 combined to 2 pounds per hour and 8.9 tons per year combined
 - Additional minor changes (i.e., company name, updating of site plan, updating of tank specification information, etc.).

Mr. Ours pointed out on more than one occasion during the course of his presentation that the point of the public hearing that night was to find out whether the public had any concerns about this proposed draft permit, and, if so, that the Department was very open to making changes to the draft permit if necessary, and (if significant enough) even withholding approval of the permit application until all applicable requirements have been met by the Applicant.

With regard to the third permit application at issue at this hearing, Mr. Ours explained to the audience that night that the Applicant had made a request for a construction permit to install a pilot scale coating line with associated coating preparation vessels, as well as a pneumatic PVC powder delivery system to deliver powder to an existing tank in their polymer area. The pilot line proposed by the Applicant would have a total enclosure installed to capture fugitive emissions and that total enclosure will have all of its captured emissions directed to an existing scrubber currently used for SUBA lines 1 and 2, the existing large-scale coating lines. This scrubber serves the polymer area as well. The scrubber referenced was the same scrubber to which significant upgrades were made in order to be able to handle additional flow rate. They have also proposed to control the dust, emissions from the bin vent for the PVC powder delivery system, with the use of a unifier system with two cartridge-type HEPA filters. Furthermore, they have requested

to obtain authority to manually load this tank as they have done in the past, in case a problem arises with the pneumatic system.

After Mr. Ours concluded his explanation of the applications before the Department at this time, Tom Pilla (Plant Manager of the Newark, Delaware site of Rohm & Haas) began his presentation to the public. Mr. Pilla's presentation was very thorough, and included an in-depth explanation of the Applicant's manufacturing process and how the requested permit modifications would result in a general reduction of emissions for Rohm & Haas. For the sake of brevity, a copy of both the Department's PowerPoint presentation (see Exhibit "A") and the Applicant's PowerPoint presentation (see Exhibit "B") given at the May 5, 2005 public hearing (which summarize the permit applications currently before the Department at this time) are being expressly incorporated into this Hearing Officer's report and attached hereto as noted above.

After all presentations were concluded, a short break was taken so that the public could review the informational charts displayed by the Applicant prior to the commencement of the comment and question phase of the hearing. It also afforded the public an opportunity to sign up to speak at the hearing, either to offer their comments or ask questions of the Applicant. Upon reconvening the hearing, it was noted that only two persons had requested the opportunity to speak at that hearing: Alan Muller and Rich Levering.

There were numerous questions and comments offered for the record by both Mr. Muller and Mr. Levering. Many of those questions were able to be answered during the course of the hearing by either the Applicant or the Department. There were, however, several questions which either led to extended discussion during that phase of the hearing, as well as other questions which were asked but not satisfactorily answered at the time of the hearing. On some issues, the AQM staff went back to the Applicant subsequent to this hearing for further discussion on certain matters. After a thorough review of all the issues raised as a result of this public hearing, Stephen Ours of the AQM staff provided the Hearing Officer with its Final AQM Response Document, which lists each item in controversy at the time of the public hearing, and the AQM's final stance regarding each such issue. AQM's Response Document encompasses the full range of comment contained in the record, including those from both the public and the Applicant. Each question and response was meticulously organized according to its source, followed by a thorough and rational discussion of the issues based on the record. In addition, AQM offered its recommendation as to how each of these issues should be resolved. In several instances, modifications to the draft permits and/or conditions to the permits were recommended to reflect the additional information procured from the Applicant as a result of the questions raised at the hearing.

After reviewing AQM's Response Document, it is my view that Mr. Ours has done an excellent job of identifying all of the relevant issues and discussing them in a thorough and balanced manner to accurately reflect the information in the record. Therefore, the Secretary may get an in-depth understanding of this record by reading Mr. Ours' Response Document, which is expressly incorporated into this report and attached hereto for that purpose as Exhibit "C".

III. Conclusions and Recommended Findings:

As noted earlier, the AQM Response Document not only captures the relevant aspects of the record, but also provides a thorough discussion of the issues, along with a recommended resolution of each. Again, I found the dimensions of the AQM Response Document to be very rational and even-handed, and the proposed resolutions to be reasonable and consistent with the record. After a review of the record generated as a result of this permitting procedure, I recommend that the two draft permits be modified in accordance with the aforementioned Response Document, issued in proposed form for final EPA review, and upon EPA approval, issued to Rohm & Haas as a final permit document. Specifically, I recommend that the permits shall be modified prior to their issuance to the Applicant as follows:

1. A condition should be added to the Applicant's permits requiring that Rohm & Haas not use DMF as a cleaning solvent.
2. Said permits should be further modified to require that Rohm & Haas submit a Title V permit application update and receive approval of the Department prior to increasing DMF usage above 95 megagrams per year. This proposed permit condition would reserve the right of the Department at the time of submittal of this application to reassess the permit's requirements and determine whether a formal permit modification with associated public notice would be required at that time.

I also recommend that the following findings be made:

1. Proper notice of the hearing was provided as required by law.
2. The Response Document provides a thorough, accurate and balanced summary of the record and is incorporated herein for that purpose.
3. AQM's recommended conclusions with respect to each issue are well-reasoned and based on the record. As such, they are sufficient to serve as specific findings for that purpose.
4. The proposed permits, as amended to reflect comments in the record, should be issued in final form.

Lisa A. Vest
Hearing Officer

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