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FEB 17 2004

HEARING BOARD
BAY AREA AIR QUALITY
MANAGEMENT DISTRICT

MARY ROMAIDIS
CLERK
HEARING BOARD
BAY AREA AIR QUALITY
MANAGEMENT DISTRICT

BEFORE THE HEARING BOARD
OF THE
BAY AREA AIR QUALITY MANAGEMENT DISTRICT
STATE OF CALIFORNIA

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7	In the Matter of the Application of)	
8	MAXIM INTEGRATED PRODUCTS,)	No. 3448
9	INC.)	
10	For a Variance from Regulation 2,)	<u>ORDER GRANTING VARIANCE</u>
11	Rule 1, Section 307, Condition ID # 18523,)	
12	Item No. 5)	
13	_____)	

The above-entitled matter is an Application for Variance from District Regulation 2-1-307 and from the provisions of operating Permit Condition ID # 18523, Item No. 5 for Source S-1, Plant 11696, located at 3725 N. First Street, San Jose, California.

Isaak Mandelbaum, P.E., and Edwin B. Medlin, Associate General Counsel, appeared on behalf of Maxim Integrated Products, Inc. ("Applicant").

Adan Schwartz, Senior Assistant Counsel, appeared for the Air Pollution Control Officer ("APCO").

The Clerk of the Hearing Board provided notice of this hearing on the Application for Variance in accordance with the requirements of the California Health and Safety Code. The Hearing Board heard the request for variance on January 22, 2004 and the hearing was continued on January 29, 2004. At the hearing, the variance application was amended to request a variance for the period February 8, 2004, through February 13, 2004.

The Hearing Board provided the public opportunity to testify at the hearing as required by the California Health and Safety Code, but no one did so. The Hearing Board heard the evidence,

ARB.

1 testimony and argument from the Applicant and the APCO. Following the hearing on January 22,
2 2004, by letter of January 27, 2004 to the Hearing Board, and during the hearing on January 29,
3 2004, the APCO withdrew its opposition to the granting of this variance.

4 The Hearing Board received evidence and argument, and took the matter under submission
5 for decision. After consideration of the evidence, the Hearing Board voted to grant the request for
6 variance, as set forth in more detail below:

7 BACKGROUND

8 Applicant operates a Volatile Organic Compounds ("VOC") abatement system at a
9 wafer fabrication facility located at 3725 N. First Street, San Jose, California 95134. Applicant's
10 representatives testified at the hearing that the facility vents all emissions of VOC emissions from
11 its operations (solvent sinks, solvent spray stations, solvent vapor stations, photoresist developers,
12 and other coating applicators, collectively referred to in the operating permit as S-1) through an
13 abatement system consisting of a concentrator wheel that is used to absorb VOCs, which, in
14 concentrated form, is then sent to a thermal oxidizer for abatement.

15 The District's operating permit requires that activities constituting S-1 be abated by the
16 thermal oxidizer. The Applicant is now required to perform repairs from errors made by the VOC
17 abatement system vendor at the time of installation. Applicant also desires to perform preventive
18 maintenance simultaneously with the repairs, but preventive maintenance will not impact,
19 interfere, prolong, or delay the repairs necessitating this Application for Variance. The repairs
20 require the abatement system, which operates at 1,400 degrees (F), to be shut down in order to be
21 cool enough to allow access inside the duct area that circulates hot exhaust air from the incinerator
22 to the heat exchangers and further to the discharge stack. The insulation in this area was
23 incorrectly installed by the VOC abatement system manufacturer such that surface temperatures
24 on the outside of the equipment have been measured in excess of 300 degrees (F), creating a
25 substantial hazard to property and persons, as well as risk of sudden and catastrophic failure of the
26 abatement system. The abatement system cannot operate during the repairs due to extreme

1 temperatures required inside the abatement system for destruction of VOCs. Applicant seeks a
2 variance so that it can operate S-1 while the abatement system is taken off line for repairs.

3 4 DISCUSSION

5 Current permit conditions require the VOC abatement system to be in operation with a
6 collection efficiency of at least 95%. During the requested variance period the VOC emissions
7 will be 58.6 pounds per day, less Applicant's abatement of 2.2 pounds per day, for 46.6 pounds
8 per day of unabated emissions in excess of District Regulation limits. Applicant has been in
9 compliance with emissions Regulations and permit conditions. Applicant does not anticipate
10 further need for a variance after the current repairs are performed. Applicant does not require a
11 variance in order to accomplish ongoing preventive maintenance.

12 The Applicant has requested a variance from February 8, 2004, through February 13, 2004,
13 or until such time as the repairs are complete, whichever occurs first.

14 15 SPECIFIC FINDINGS

16 The Hearing Board finds pursuant to Health and Safety Code Section 42352 that:

17 1. Applicant will be in violation of District Regulation 2, Rule 1, Section 307 and Permit
18 Condition ID # 18523, Item No. 5 during the variance period. The Regulation requires that the
19 Applicant comply with Permit Condition ID # 18523, Item No. 5, which requires that the VOC
20 abatement system be in operation with 95% collection efficiency. (Other permit conditions, as to
21 required destruction efficiencies and system outlet emission levels during operations, will not be
22 violated since the system will not be in operation during the variance period.)

23 2. Due to conditions beyond the reasonable control of the Applicant, requiring compliance
24 with District Regulation 2, Rule 1, Section 307, and Permit Condition ID # 18523, Item No. 5
25 would result in an arbitrary and unreasonable taking of property. The cause of noncompliance is
26 beyond the reasonable control of the Applicant because it is due to faulty installation of insulation

1 in the abatement system ductwork. There was no evidence to suggest that the Applicant bears
2 any responsibility for the problem. Compliance with VOC emission levels during the 5-day
3 period required for repairs would require Applicant to completely shut down operations at the
4 wafer fabrication facility, and the required time to shut down and re-start other equipment in the
5 fabrication facility would require an additional 2 to 4 days, for a total shut down of all facility
6 manufacturing operations of 7 - 9 days, which would effectively result in closing the business
7 during this period. This would directly reduce revenue in excess of \$1 million per day.
8 Furthermore, Applicant would be exposed to additional out-of-pocket costs, liability exposure
9 for interruption in product manufacturing and delivery, and loss of goodwill and future business
10 when customers harmed from missed deliveries remove future business to Applicant's
11 competitors.

12 3. The hardship due to requiring immediate compliance with District Regulation 2,
13 Rule 1, Section 307 and Permit Condition ID # 18523, Item No. 5 would be without a
14 corresponding benefit in reducing air contaminants. The Applicant estimates that during the
15 5-day variance period the VOC emissions will be 46.6 pounds per day of unabated emissions in
16 excess of District Regulation limits. The contribution of less than 250 pounds of VOC emissions
17 over the course of a week outside of the ozone season, as weighed against the considerable
18 financial loss to the Applicant if it were to shut down, supports the conclusion that hardship to the
19 Applicant is without a corresponding benefit.

20 4. Applicant has carefully considered possibilities for curtailing operations in lieu of
21 obtaining a variance, but curtailing operation would not result in compliance since a complete
22 elimination of all manufacturing operations at this facility would be required in order to remain
23 in compliance during the 5-day period that the VOC abatement system will be shut off. The
24 products and processes at this fabrication facility cannot be relocated to another fabrication facility
25 due to capacity and equipment requirements that are unique to these wafer fabrication designs
26 and products. Due to the sequential nature of Applicant's wafer fabrication processes, it is not

1 feasible to reduce VOC emissions by reducing production without having a larger than 1:1
2 corresponding impact on revenue. Furthermore, any reduction in production could subject
3 Applicant to liability to customers for missed shipments as well as loss of goodwill and future
4 business.

5 5. Applicant has identified processes that can be avoided during the 5-day period,
6 which would result in a reduction of 2 pounds of VOC emissions per day. During the period the
7 variance is in effect, Applicant will reduce excess emissions to the maximum extent feasible by
8 avoiding the wipe down process and by conducting repairs as quickly as possible.

9 6. The District staff has not requested Applicant to monitor or otherwise further
10 quantify any emission levels beyond what is already required by the Permit.

11
12 In response to an inquiry from the Hearing Board, the Applicant offered to implement a one-week
13 mass transit program providing temporary incentives to Applicant's employees to use mass transit,
14 with the goal of encouraging a more permanent shift in commuting practices and reducing total
15 VOC emissions during ozone season. Applicant has approximately 2,000 employees in Santa
16 Clara County, with approximately 250 at this facility.

17
18 **THEREFORE, THE HEARING BOARD ORDERS:**

19 A variance from Regulation 2, Rule 1, Section 307, Condition ID # 18523, Item No. 5
20 is hereby granted for a 5-day period starting at 8:00 pm on February 8, 2004, through and
21 including February 13, 2004, or until such time as repairs are completed, whichever is sooner,
22 subject to the following conditions:

- 23 1) Applicant shall provide BAAQMD with two days notice of the planned shut down
24 and shall also notify BAAQMD of the intended start-up as soon as it is feasible to
25 do so.
- 26 2) Applicant shall implement its proposed one-week mass transit program to

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encourage employee use of mass transit, including promotion and reimbursement of mass transit fares for commuting to and from work during a specified week for all of Applicant's employees in Santa Clara County.

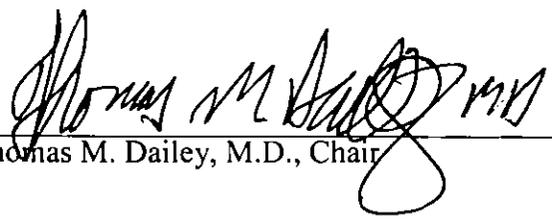
3) Applicant shall pay excess emission fees for VOC emissions as required by, and in accordance with, District Regulation 3.

Moved by: Christian Colline, P.E.

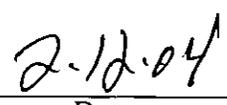
Seconded by: Terry A. Trumbull, Esq.

AYES: Christian Colline, P.E., Julio Magalhães, Ph.D., Allan R. Saxe, Esq., Terry A. Trumbull, Esq., Thomas M. Dailey, M.D.

NOES: None.



Thomas M. Dailey, M.D., Chair



Date