

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
FIELD OPERATIONS - BUREAU OF AIR QUALITY

OPERATING PERMIT

In accordance with provisions of the Air Pollution Control Act, the act of January 8, 1960, P.L. 2119, as amended, and after due consideration of an application received under Chapter 127 of the Rules and Regulations of the Department of Environmental Protection, the Department hereby issues this permit for the operation of the air contamination source(s) described below:

Permit No.	<u>OP-46-0006</u>	Source(s)	<u>Facility NOx and VOC emitting Sources</u>
Owner	<u>Allegro Microsystems W.G., Inc.</u>	Air	<u></u>
Address	<u>3900 Welsh Road</u>	Cleaning	<u></u>
	<u>Willow Grove, PA 19090-2995</u>	Device	<u></u>
Attention	<u>Wendy Balson Cooper</u>	Location	<u>3900 Welsh Road</u>
	<u>Environmental Engineer</u>		<u>Upper Moreland Township</u>
			<u>Montgomery County</u>

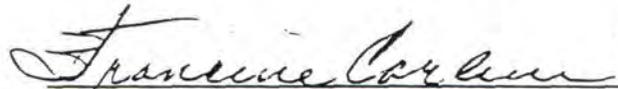
This permit is subject to the following conditions:

1. That the source(s) and any associated air cleaning devices are to be:
 - a. operated in such a manner as not to cause air pollution;
 - b. in compliance with the specifications and conditions of any applicable plan approval issued;
 - c. operated and maintained in a manner consistent with good operating and maintenance practices.
2. This permit is valid only for the specific equipment, location and owner named above.

(SEE ADDITIONAL CONDITIONS ATTACHED)

Failure to comply with the conditions placed on this permit is a violation of Section 127.444. Violation of this or any other provision of Article III of the Rules and Regulations of the Department of Environmental Protection will result in suspension or revocation of this permit and/or prosecution under Section 9 of the Air Pollution Control Act.

Issued 12/19/ 1997



Francine Carlini
Regional Manager
Air Quality

~~Expires~~ 12/19/2002

cc: Division of Permits, RCSOB
Administration
SEFO
Re 30 (RN)174-15

OPERATING PERMIT CONDITIONS
PERMIT NO. OP-46-0006
ALLEGRO MICROSYSTEMS W.G., INC.

CONDITIONS (continued):

3. The Operating Permit No. OP-46-0006 is issued to Allegro Microsystems W.G., Inc. (Allegro) for the following NOx and VOC sources/activities located in Upper Moreland Township, Montgomery County.
 - A. Two (2) Mechanical Room No. 1 boilers manufactured by Kewanee, with peak heat input capacities of 8.4 MMBTU per hour and 5.2 MMBTU per hour; and fired by natural gas.
 - B. One Fire Pump House boiler manufactured by H.B. Smith, with a peak heat input capacity of 1.0 MMBTU per hour; and fired by No. 2 fuel oil.
 - C. Emergency equipment as listed below:
 - a. One Facilities Shop back-up generator, with a rated capacity of 30 KW; and fired by natural gas.
 - b. One Mechanical Room No. 1 back-up generator, with a rated capacity of 260 KW; and fired by No. 2 Fuel Oil.
 - c. One Fire Pump House pump, with a rated capacity of 175 HP; and fired by No. 2 Fuel Oil.
 - D. Integrated circuit manufacturing which includes the following operations:
 - a. Photolithography operation
 - b. Stripping operation
 - c. Cleaning operation
 - E. Miscellaneous operations as listed below:
 - a. Probe area
 - b. Mask area
 - c. Diffusion furnaces
 - d. Four direct-fired heaters, manufactured by Trane and located on the roof. Two have rated capacities of 0.24 MMBTU/hr each and the other two are 0.35 MMBTU/hr each. All are natural gas fired.

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ALLEGRO MICROSYSTEMS W.G., INC.

CONDITIONS (continued):

4. This Operating Permit includes operational and emission limitations for the facility to become a NOx synthetic minor facility. Both the Fire Pump House pump and the Mechanical Room No. 1 back-up generator are limited to combined NOx emissions by restricting the operational hours as follows:
 - A. Both the Fire Pump House pump and the Mechanical Room No. 1 back-up generator shall be operated for less than five hundred (500) hours per year as a consecutive 12 month total.
 - B. The combined emissions by combusting No. 2 Fuel Oil in the Fire Pump House Pump and the Mechanical Room No. 1 Back-up Generator shall be less than 16.2 pounds of NOx per hour and less than 4.1 tons of NOx per year as a 12 month rolling average.
 - C. The company shall maintain a record of operating hours and fuel consumption of the Fire Pump House Pump and the Mechanical Room No. 1 Back-up Generator on a monthly basis. This emission report must be calculated on a monthly basis and it shall be available to the Department.

Emission Limits

5. The VOC emissions from each of the following de minimis source categories: the three boilers, the emergency equipment, and the miscellaneous operations, as listed in Condition 3, shall be less than 3 pounds per hour, 15 pounds per day, and 2.7 tons per year. Annual emissions shall be calculated as a 12 month rolling sum.
6. The emissions of VOC from the integrated circuit manufacturing operations shall be less than 51.3 tons (102,600 lbs) of VOC per year. Emissions shall be calculated as defined in Condition 10 E, and as a 12 month rolling sum.
7. The emissions of VOC from the entire facility shall be less than 52.4 tons (104,800 lbs) of VOC per year. Emissions shall be calculated as a 12 month rolling sum.
8. The emissions of NOx from the entire facility shall be less than 17.5 pounds of NOx per hour and less than 9.7 tons of NOx per year. Emissions shall be calculated as a 12 month rolling sum.
- ~~9. Combustion units operated under this Operating Permit shall not, at any time, result in the emission of visible emissions in excess of the limitations specified in 25 Pa 123.41.~~

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ALLEGRO MICROSYSTEMS W.G., INC.

CONDITIONS (continued):

Recordkeeping and reporting requirements:

10. For the integrated circuit manufacturing operations, the company shall implement the solvent accounting and management (SAM) system based on EPA's Alternative Control Techniques Document and shall maintain the following requirements:
 - A. The pounds of each VOC containing chemical withdrawn from stock shall be recorded on a monthly basis.
 - B. The total pounds of all VOC containing chemicals withdrawn from stock for the consecutive 12 month period shall be recorded on a monthly basis. The company may add non-VOC materials, such as acetone, into its monthly records.
 - C. The pounds of each VOC containing chemical group shipped as hazardous waste shall be recorded on a monthly basis.
 - D. The total pounds of all VOC containing chemical groups shipped as hazardous for the consecutive 12 month period shall be recorded on a monthly basis. The company may add non-VOC materials, such as acetone, into its monthly records.
 - E. The annual VOC emissions (lbs/yr) shall be calculated by taking the value from Condition 10 B. less the value from Condition 10 D. This emission value must be recorded on a monthly basis and it shall be available to the Department upon request.
11. The company shall maintain a file containing all records and other data that are required to be collected pursuant to the various provisions of the operating permit, 25 PA Code Section 129.95, such that records provide sufficient data and calculations to clearly demonstrate that the requirements of 25 PA Code Sections 129.91-94 are met. The file shall include, but not be limited to: **Twelve** month rolling average fuel usage rates by fuel type, NOx and VOC emission for each source, all air pollution control systems performance evaluations and records of calibration checks, adjustments and maintenance performed on all equipment which is subject to this operating permit. Chemical inventory tracking system, mass balance technique and usage and disposal records. All measurements, records and other data required to be maintained by the company shall be retained for at least two years following the date on which such measurements, records or data are recorded.
12. This Operating Permit supersedes and incorporates the conditions of the previously issued Operating Permit 46-399-049B. Operating Permit No. 46-399-049B will not be reissued separately in the future.

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ALLEGRO MICROSYSTEMS W.G., INC.

CONDITIONS (continued):

~~13. The following conditions apply to the integrated circuit manufacturing operations and its associated scrubbers.~~

~~A. Equipment shall be provided so that at the request of the Department the following can be measured:~~

~~a. pressure drop across scrubber Nos. 1 and 2, using a manometer;~~

~~b. recirculation flow rate to scrubber Nos. 1 and 2, using a flow meter;~~

~~c. pH of scrubber water, using a pH meter.~~

~~B. Scrubber Nos. 1 and 2 shall be maintained to operate at a pressure drop of between 0.6 and 3.0 inches water gauge. A recirculation flow rate of greater than or equal to 300 gallons per minute shall be maintained to the scrubber. A pH level of at least 10 shall be maintained. The scrubbers will operate alternately, not in series.~~

~~C. The aforementioned source(s) may be operated and used only so long as any associated air pollution control devices are operated and maintained in accordance with the specifications set forth in the respective plan approval(s), and the application(s) submitted for said plan approval(s) (as approved by the Department), and in accordance with any conditions set forth herein.~~

14. General Conditions

A. If at any time the permittee causes, permits or allows any modification (as that term is defined in Chapter 121 of Title 25, the Rules and Regulations of the Department of Environmental Protection) of the aforementioned air contamination source(s), the operation and use of which is authorized by this permit, or causes, permits or allows any modifications, malfunction or removal of any air pollution control device required as a condition of this permit, then and in that event, this permit shall be suspended, and the permittee shall not thereafter continue to operate or use said air contamination source(s).

B. The company shall not impose conditions upon or otherwise restrict the Department's access to the aforementioned source(s) and/or any associated air cleaning device(s) and shall allow the Department to have access at any time to said source(s) and associated air cleaning device(s) with such measuring and recording equipment, including equipment recording visual observations, as the Department deems necessary and proper for performing its duties and for the effective enforcement of the Air Pollution Control Act.

OPERATING PERMIT CONDITIONS
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CONDITIONS (continued):

- C. If at any time the Department has cause to believe that air contaminant emissions from the aforementioned source may be in excess of the limitations specified in, or established pursuant to, any applicable rule or regulation contained in Article III of the Rules and Regulations of the Department of Environmental Protection, the company shall be required to conduct whatever tests are deemed necessary by the Department to determine the actual emission rate(s). Such testing shall be conducted in accordance with the provisions of Chapter 139 of the Rules and Regulations of the Department of Environmental Protection, where applicable, and in accordance with any restrictions or limitations established by the Department at such time as it notifies the company that testing is required.
- ~~D. This operating permit is valid for a limited period of time and may be renewed before its expiration. Request for an operating permit renewal must be in writing and must be accompanied by the appropriate permit application processing and annual permit administration fees as specified in Section 127.703 of the Rules and Regulations of the Department of Environmental Protection. These fees shall be paid in the form of a check payable to the "Commonwealth of Pennsylvania - Clean Air Fund". The request should be made using the appropriate application form and must be received by the Department along with a completed Air Pollution Control Act Compliance Review form no later than 30 days prior to the expiration date of this permit.~~
- E. The expiration date shown on the Operating Permit is for state purposes. For Federal enforcement purposes the RACT provisions of the Operating Permit shall remain in effect as part of the State Implementation Plan (SIP) until replaced pursuant to 40 CFR 51 and approved by the U.S. Environmental Protection Agency (EPA).