P 938 762 582

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to Mr. James R. Kolanek, Harris	
Street and No. P.O. Box 883	
P.O., State and ZIP Code Melbourne, FL 32901	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date Permit: AC 05-161706 Mailed: 6-2-89	

PS Form 3800, June 1985

● **SENDER:** Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.
Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☐ Show to whom delivered, date, and addressee's address. *(Extra charge)*
2. ☐ Restricted Delivery *(Extra charge)*

3. Article Addressed to: Mr. James R. Kolanek Manager, Environmental Services Harris Semiconductor P. O. Box 883 Melbourne, FL 32901	4. Article Number P 938 762 582 Type of Service: ☐ Registered ☐ Insured ☒ Certified ☐ COD ☐ Express Mail ☐ Return Receipt for Merchandise Always obtain signature of addressee or agent and DATE DELIVERED.
5. Signature — Address X	8. Addressee's Address *(ONLY if requested and fee paid)* [Postmark: MELBOURNE JUN 5 1989 USPS]
6. Signature — Agent X Harris Semiconductor Willie J. Saxon	
7. Date of Delivery	

PS Form **3811**, Mar. 1988 ★ U.S.G.P.O. 1988-212-865 **DOMESTIC RETURN RECEIPT**

Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Bob Martinez, Governor Dale Twachtmann, Secretary John Shearer, Assistant Secretary

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
NOTICE OF PERMIT

Mr. James R. Kolanek
Manager, Environmental Services
Harris Semiconductor
Post Office Box 883
Melbourne, Florida 32901

May 31, 1989

Enclosed is construction permit No. AC 05-161706 for Harris Semiconductor to consolidate mulitiple permits previously issued for Building No. 57, which is a source involved with soldering and plating of integrated circuit parts and is located at the permittee's existing facility on Palm Bay Road in the city of Palm Bay, Brevard County, Florida. This permit is issued pursuant to Section 403, Florida Statutes.

Any party to this permit has the right to seek judicial review of the permit pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date this permit is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality Management

Copy furnished to:

C. Collins, CF District
L. R. Hutker, P.E.

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this NOTICE OF PERMIT and all copies were mailed before the close of business on June 2, 1989.

FILING AND ACKNOWLEDGEMENT
FILED, on this date, pursuant to §120.52(9), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Martha Wise June 2, 1989
Clerk Date

Final Determination

Harris Semiconductor
Brevard County
Palm Bay, Florida

Construction Permit Number:
AC 05-161706

Florida Department of Environmental Regulation
Division of Air Resources Management
Bureau of Air Quality Management
Central Air Permitting

May 25, 1989

Final Determination

The construction permit application has been reviewed by the Department. Public Notice of the Department's Intent to Issue was published in The Tribune on May 5, 1989. The Technical Evaluation and Preliminary Determination were available for public inspection at the DER's Central Florida District and Bureau of Air Quality Management offices.

There were no comments received on the proposed action. Therefore, it is recommended that the proposed construction permit be issued as drafted.

Florida Department of Environmental Regulation

Twin Towers Office Bldg. ● 2600 Blair Stone Road ● Tallahassee, Florida 32399-2400

Bob Martinez, Governor Dale Twachtmann, Secretary John Shearer, Assistant Secretary

PERMITTEE:
Harris Semiconductor
P. O. Box 883
Melbourne, Florida 32901

Permit Number: AC 05-161706
Expiration Date: April 30, 1990
County: Brevard
Latitude/Longitude: 28° 01' 20" N
80° 36' 10" W
Project: Building 57

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code (F.A.C.) Chapters 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

For the permitting of Building 57, which is a source whose primary manufacturing operations are soldering and plating of integrated circuit parts. The scrubber control system is:

o F57SO1: a Tri Mer Corp. 13,500 cfm horizontal counter-flow mist eliminator using polypropylene filter packing for caustic and corrosive vapor removal; Model No. F/W 5.

The building/source is located at the permittee's existing facility located on Palm Bay Road in the City of Palm Bay. The UTM coordinates are Zone 17, 538.7 km East and 3100.9 km North.

The Source Classification Codes are: Major Group 36
o Cold Solvent Cleaning/ Stripping 4-01-003-99 Tons VOC/Solvent Consumed

The source shall be in accordance with the permit application and plans, documents, amendments, and drawings except as otherwise noted in the General and Specific Conditions.

Attachments to be Incorporated:

1. Application to Construct Air Pollution Sources, DER Form 17-1.202(1), and Mr. James R. Kolanek's cover letter received March 6, 1989.
2. Technical Evaluation and Preliminary Determination dated April 14, 1989.

PERMITTEE:
Harris Semiconductor

Permit Number: AC 05-161706
Expiration Date: April 30, 1990

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit does not constitute a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

GENERAL CONDITIONS:

6. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:

a. Having access to and copying any records that must be kept under the conditions of the permit;

b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and

c. Sampling or monitoring any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately notify and provide the Department with the following information:

a. a description of and cause of non-compliance; and

b. the period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

GENERAL CONDITIONS:

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the Department, may be used by the Department as evidence in any enforcement case arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.12 and 17-30.30, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. This permit also constitutes:

( ) Determination of Best Available Control Technology (BACT)
( ) Determination of Prevention of Significant Deterioration (PSD)
( ) Compliance with New Source Performance Standards

14. The permittee shall comply with the following monitoring and record keeping requirements:

a. Upon request, the permittee shall furnish all records and plans required under Department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the Department, during the course of any unresolved enforcement action.

GENERAL CONDITIONS:

b. The permittee shall retain at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be at least three years from the date of the sample, measurement, report or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the date(s) analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be submitted or corrected promptly.

SPECIFIC CONDITIONS:

1. The maximum allowable VOC/solvent emissions from Building No. 57 shall be 1.7 tons per year.

2. The VOC/solvent vapor exhaust scrubber must be on during working hours.

3. Permitted hours of operation are 8760.

4. Objectionable odors shall not be allowed off plant property.

SPECIFIC CONDITIONS:

5. An inspection and maintenance plan shall be submitted to the DER's Central Florida District office as part of the operating permit application. The plan shall include provisions for the prevention and correction of VOC/solvent losses from leaks and equipment malfunctions.

6. By March 31 of each calendar year, an annual operating report shall be submitted to the DER's Central Florida District office demonstrating compliance with the VOC/solvent emissions limit for Building No. 57. The emissions shall be determined by a material balance scheme, verifiable on a monthly basis, and shall include the following:

a) a beginning inventory of full containers, cylinders and storage tanks at the beginning of each calendar year;

b) plus all purchased deliveries after the beginning inventory (verifiable by invoices);

c) minus all quantities picked-up and shipped-off the premise after the beginning inventory (verifiable by invoices);

d) minus all quantities deep well injected during the calendar year, justified by assumptions and established scrubber efficiencies; and,

e) minus an ending inventory of full containers, cylinders, and storage tanks.

7. The scrubber system's efficiency and potential VOC/solvent emissions shall be established by a sampling and analysis program, which includes:

a) a sample shall be taken annually from each scrubber stack and analyzed using EPA Reference Method 25 or, with Department approval, EPA Reference Method 25A, 40 CFR 60, Appendix A;

b) the DER's Central Florida District office shall receive 15 days notice in writing prior to sampling; and,

c) the report, summarizing the sampling results, shall be submitted to the DER's Central Florida District office within 45 days after the last test run is completed.

8. This permit will supercede all other permits previously issued on this source/Building No. 57.

9. The source/Building No. 57 is subject to all applicable provisions of F.A.C. Chapters 17-2 and 17-4.

PERMITTEE:
Harris Semiconductor

Permit Number: AC 05-161706
Expiration Date: April 30, 1990

SPECIFIC CONDITIONS:

10. Projected potential acid emissions are 0.2 TPY.

11. Building No. 57 is subject to the provisions of F.A.C. Rules 17-2.240: Circumvention; 17-2.250: Excess Emissions; and, 17-4.130: Plant Operation - Problems.

12. Any modification pursuant to F.A.C. Rule 17-2.100(119), Modification, shall be submitted to the DER's Central Florida District office and the Bureau of Air Quality Management office for approval.

13. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the BAQM prior to 60 days before the expiration of the permit (F.A.C. Rule 17-4.090).

14. An application for an operation permit must be submitted to the Central Florida District office at least 90 days prior to the expiration date of this construction permit or within 45 days after completion of compliance testing, whichever occurs first. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. Rule 17-4.220).

Issued this 26 day
of May, 1989

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

Dale Twachtmann, Secretary

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

For Routing To Other Than The Addressee	
To:	Location:
To:	Location:
To:	Location:
From:	Date:

Interoffice Memorandum

RECEIVED
MAY 25 1989
Office of the Secretary

TO: Dale Twachtmann

FROM: Steve Smallwood

SUBJ: Approval of Construction Permit No. AC 05-161706
Harris Semiconductor

DATE: May 25, 1989

Attached for your approval and signature is a permit prepared by Central Air Permitting for the above mentioned company to consolidate multiple permits previously issued for Building No. 57, which is a source involved with soldering and plating of integrated circuit parts and located at the permittee's existing facility on Palm Beach Road in the City of Palm Bay, Brevard County, Florida.

There were no comments received during the public notice period.

Day 90, after which this permit will be issued by default, is July 8, 1989.

I recommend your approval and signature.

SS/BM/s

attachment

Check Sheet

Company Name: Harris Semiconductor
Permit Number: AC 09-161706
PSD Number:
Permit Engineer:

Application:

- [x] Initial Application
  - [ ] Incompleteness Letters
  - [ ] Responses
  - [ ] Waiver of Department Action
  - [ ] Department Response
  - [ ] Other

Cross References:

- [ ]
- [ ]
- [ ]

Intent:

- [ ] Intent to Issue
- [x] Notice of Intent to Issue
- [x] Technical Evaluation
- [ ] BACT Determination
- [x] Unsigned Permit
- Correspondence with:
  - [ ] EPA
  - [ ] Park Services
  - [ ] Other
- [x] Proof of Publication
  - [ ] Petitions - (Related to extensions, hearings, etc.)
  - [ ] Waiver of Department Action
  - [ ] Other

Final Determination:

- [x] Final Determination
- [x] Signed Permit
- [ ] BACT Determination
  - [ ] Other

Post Permit Correspondence:

- [x] Extensions/Amendments/Modifications
- [x] Other

Florida Department of Environmental Regulation
Twin Towers Office Bldg. ● 2600 Blair Stone Road ● Tallahassee, Florida 32399-2400
Bob Martinez, Governor Dale Twachtmann, Secretary John Shearer, Assistant Secretary

August 29, 1990

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Kent Smith, Environmental Manager
Harris Semiconductor
P. O. Box 883
Melbourne, Florida 32902-0883

Dear Mr. Smith:

Re: Amendment of Construction Permits

AC 05-165757	Bldg. 04
-157786	51
-147321	54
-164544	55
-161706	57
-159484	58
-150794	59
-168460	60
-157787	62
-158237	63

The Department has reviewed Constantine Triantafyllidis' letter received July 19, 1990, requesting that the above referenced air construction permits' expiration dates be extended. The Department is in agreement with the request and the following will be changed and added:

Expiration Date:

From: December 31, 1990
To: June 30, 1991

Attachment to be Incorporated:

o Constantine Triantafyllidis' letter received July 19, 1990.

This letter must be attached to your air construction permits, as referenced above, and shall become a part of the permits.

Sincerely,

for STEVE SMALLWOOD, P.E.
Director
Division of Air Resource Management

SS/BM/plm

Attachment

c: C. Collins, Central Dist.
C. Triantafyllidis, HS

HARRIS SEMICONDUCTOR
HARRIS · RCA · GE · INTERSIL

July 17, 1990

Mr. Claire Fancy
Bureau Chief
Bureau of Air Regulation
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

JUL 19 1990
DER-BAQM

Subject: Extension of Consolidated Construction Permits
Harris Semiconductor, Melbourne

Permit Nos.	Bldg.
AC 05-165757	04
AC 05-157786	51
AC 05-147321	54
AC 05-164544	55
AC 05-161706	57
AC 05-159484	58
AC 05-150794	59
AC 05-168460	60
AC 05-157787	62
AC 05-158237	63

Dear Mr. Fancy:

This letter is submitted, on behalf of Harris Semiconductor Sector, Inc. ("Semiconductor"), to request an extension of the expiration dates of the above-referenced permits until March 31, 1991. We believe the extension is justified for the following reasons. The current specific conditions of these permits require the submission of applications for operating permits by the end of September. As you are aware, over the last several months we have been working with the Department to reduce the potential for Semiconductor's operations to contribute to odors in the areas adjacent to the facility. It is possible that some of the projects we currently have underway to accomplish this objective may not be completed by the end of September. The stack extensions associated with the Building 54 operations should be completed by the end of September. However, another major element of our odor reduction efforts which consists of a facility-wide substitution of certain phenolic process chemicals with non-phenolic ones, where reasonably possible, may not be completed by October 1st. We believe this program is important because these non-phenolic compounds should prove to be much less odoriferous in nature.

This program is considerably more complex and difficult to implement than the stack extensions. Due to the sophisticated and sensitive nature of the integrated circuits manufactured at the facility, in many instances, a substitution of process chemicals requires customer (which in many instances is the U.S. Government) approval.

The whole project, including necessary customer approval and the actual chemical substitutions, may take several months or more. We believe, from the Department's and Semiconductor's perspective, it would be better to complete this process prior to submission of the applications for operating permits. It should be noted that some chemical changes may not be possible if the U.S. Government objects to the substitution. Should the Department have any questions or require any additional information, please contact our office at 407/729-5301.

Yours sincerely,

Constantine Triantafyllidis

Constantine Triantafyllidis
Environmental Engineer
Environmental Services

cc: T. Sawicki
B. Mitcell 7/24/90 RC
C. Collins

E/929/90

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

For Routing To Other Than The Addressee

To: _____ Location: _____

To: _____ Location: _____

To: _____ Location: _____

From: _____ Date: _____

Interoffice Memorandum

TO: Steve Smallwood

FROM: Clair Fancy

DATE: August 29, 1990

SUBJ: Amendment of Construction Permits
Harris Semiconductor

Attached for your approval and signature is a letter that will amend ten construction permits issued to the above mentioned company to extend their expiration dates. There is no controversy regarding this action.

I recommend your approval and signature.

CF/BM/plm

Reading File

Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Bob Martinez, Governor Dale Twachtmann, Secretary John Shearer, Assistant Secretary

January 8, 1990

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Kent Smith, Environmental Manager
Harris Semiconductor
P. O. Box 883
Melbourne, Florida 32902-0883

Dear Mr. Smith:

Re: Amendment of Construction Permits:

AC 05-147321	Bldg. 54
-150794	59
-157786	51
-157787	62
-158237	63
-159484	58
-161706	57
-164544	55

The Department has reviewed Ms. Nancy Baldisserotto's letter received December 13, 1989, requesting that the above referenced air construction permits' expiration dates be extended. The Department is in agreement with the basic request and the following will be changed and added:

A. AC 05-147321, -150794, -157786, -157787, -158237, -159484, -161706 and -164544.

- o Expiration Date

  From: April 30, 1990
  To: June 30, 1990

B. Attachment to be Incorporated

- o Ms. Nancy Baldisserotto's letter received December 13, 1989.

This letter must be attached to your air construction permits, as referenced above, and shall become a part of the permits.

Sincerely,

Dale Twachtmann
Secretary

DT/plm

Attachment

c: C. Collins, Central Dist.
N. Baldisserotto, HS

PM
5-6-89
Orlando, FL

Best Available Copy

CAPE PUBLICATIONS, INC.

The Times
Published Weekly on Wednesday

THE TRIBUNE
Published Weekly on Wednesday

RECEIVED
MAY 9 1989
DER - BAQM

FLORIDA TODAY
Published Daily

STATE OF FLORIDA
COUNTY OF BREVARD

Before the undersigned authority personally appeared **Linda L. Spicer** who on oath says that he/she is **Legal Advertising Clerk** of the **FLORIDA TODAY**, a newspaper published in Brevard County, Florida; that the attached copy of advertising being a Legal Notice in the matter of permit to Harris Semiconductor in the Court was published in the **FLORIDA TODAY NEWSPAPER** in the issues of May 5, 1989

Affiant further says that the said **FLORIDA TODAY NEWSPAPER** is a newspaper published in said Brevard County, Florida and that the said newspaper has heretofore been continuously published in said Brevard County, Florida regularly as stated above, and has been entered as second class mail matter at the post office in **COCOA**, said Brevard County, Florida for a period of one year next preceeding the first publication of the attached copy of advertisement; and affiant further says that he has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in said newspaper.

Linda L. Spicer

Sworn and subscribed to before me this 5th day of May A.D., 19 89

Notary Public
State of Florida at Large
My Commission Expires March 29, 1992

State of Florida
Department of
Environmental Regulation
Notice of Intent to Issue

The Department of Environmental Regulation hereby gives notice of its intent to issue a permit to Harris Semiconductor, Post Office Box 883, Melbourne, Florida 32901, to consolidate multiple permits previously issued for Building No. 57, which is a source involved with soldering and plating of integrated circuit parts. The proposed project will occur at the applicant's existing facility in Brevard County, Florida. A determination of Best Available Control Technology (BACT) was not required. The Department is issuing this Intent to Issue for the reasons stated in the Technical Evaluation and Preliminary Determination.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within fourteen (14) days of publication of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The petition shall contain the following information:

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;

(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;

(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;

(d) A statement of the material facts disputed by Petitioner, if any;

(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;

(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and,

(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this Notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

The application is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday except legal holidays, at:

Department of Environmental Regulation
Bureau of Air Quality Management
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Dept. of Environmental Regulation
Central Florida District
3319 Maguire Blvd., Suite 232
Orlando, Florida 32803-3767

Any person may send written comments on the proposed action to Mr. Bill Thomas at the Department's Tallahassee address. All comments mailed within 14 days of the publication of this notice will be considered in the Department's final determination.

TO096525-1T-5/5, 1989, Friday

FLORIDA TODAY/USA TODAY
GANNETT PLAZA
P.O. BOX 363000
MELBOURNE, FL 32936

RECEIVED
MAY 9 1989
DER - BAQM

Department of Enviromental Regulation
Twin Towers Office Building
Attn: C.H. Fancy, P.E.
2600 Blair Stone Road
Tallahassee, Florida 32301-8241

PM
5-2-89
Melbourne, FL

file copy (all files)

HARRIS

RECEIVED
MAY 4 1989
DER - BAQM

April 27, 1989

Mr. Bruce Mitchell
Engineer
Bureau of Air Quality Management
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Subject: Consolidated air permits -- Harris Semiconductor

Dear Mr. Mitchell:

The purpose of this memo is to summarize the clarifications made during our phone conversation on April 27, 1989. The questions raised were in regard to the appropriate submittal dates for stack monitoring data, site mass balance information, and operating permit applications for each building. the following conclusions were reached:

1. Stack monitoring data will be submitted to the department within 45 days after the last test run is completed.

2. Operating permit applications will be submitted at least 90 days prior to the expiration date of the construction permits. These applications are to include the site's material balance results, by building. If additional time is needed to compile these applications, Semiconductor will request an extension.

If there are any discrepancies, please contact me at (407) 729-4061.

Sincerely,

Nancy Baldisserotto

Nancy Baldisserotto
Environmental Engineer
Harris Semiconductor Corporation

copied: C. Collins, CF Dist
B. Mitchell
CHF/BT

HARRIS SEMICONDUCTOR
HARRIS · RCA · GE · INTERSIL

HARRIS CORPORATION
SEMICONDUCTOR SECTOR
P.O. BOX 883
MELBOURNE, FLORIDA 32902-0883

MELBOURNE FL MAY 2'89 P.B. METER 6121163 U.S.POSTAGE ≈0.25≈

Mr. Bruce Mitchell
Engineer
Bureau of Air Quality Management
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

6

P 274 010 403

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to Mr. James R. Kolanek, Harris Corp.	
Street and No. P. O. Box 883	
P.O., State and ZIP Code Melbourne, FL 32901	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date Mailed: 4-17-89 Permit: AC 05-161706	

PS Form 3800, June 1985 ★ U.S.G.P.O. 1985-480-794

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☐ Show to whom delivered, date, and addressee's address. *(Extra charge)*
2. ☐ Restricted Delivery *(Extra charge)*

3. Article Addressed to:

Mr. James R. Kolanek
Manager, Environmental Services
Harris Semiconductor
P. O. Box 883
Melbourne, FL 32901

4. Article Number
P 274 010 403

Type of Service:
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature — Address
X

6. Signature — Agent
X Harris Semiconductor
Willie L Dayton

7. Date of Delivery

8. Addressee's Address *(ONLY if requested and fee paid)*

PS Form **3811**, Mar. 1988 ★ U.S.G.P.O. 1988-212-865 **DOMESTIC RETURN RECEIPT**

Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Bob Martinez, Governor Dale Twachtmann, Secretary John Shearer, Assistant Secretary

April 17, 1989

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. James R. Kolanek
Manager, Environmental Services
Harris Semiconductor
Post Office Box 883
Melbourne, Florida 32901

Dear Mr. Kolanek:

Attached is one copy of the Technical Evaluation and Preliminary Determination and proposed permit for Harris Semiconductor to consolidate multiple permits previously issued for Building No. 57, which is a source involved with soldering and plating of integrated circuit parts.

Please submit any written comments you wish to have considered concerning the Department's proposed action to Mr. Bill Thomas of the Bureau of Air Quality Management.

Sincerely,

C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality
Management

CHF/BM/plm

Attachments

cc: C. Collins, CF Dist.
L. R. Hutker, P.E., HS

BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

In the Matter of
Application for Permit by:

Harris Semiconductor
Post Office Box 883
Melbourne, Florida 32901

DER File No. AC 05-161706

INTENT TO ISSUE

The Department of Environmental Regulation hereby gives notice of its intent to issue a permit (copy attached) for the proposed project as detailed in the application specified above. The Department is issuing this Intent to Issue for the reasons stated in the attached Technical Evaluation and Preliminary Determination.

The applicant, Harris Semiconductor, applied on March 6, 1989, to the Department of Environmental Regulation for a permit to consolidate multiple permits previously issued for Building No. 57, which is a source involved with soldering and plating of integrated circuit parts. The proposed project will occur at the applicant's existing facility located in Melbourne, Brevard County, Florida.

The Department has permitting jurisdiction under Chapter 403, Florida Statutes, and Florida Administrative Code Rules 17-2 and 17-4. The project is not exempt from permitting procedures. The Department has determined that an air construction permit is required for the proposed work.

Pursuant to Section 403.815, F.S. and DER Rule 17-103.150, F.A.C., you (the applicant) are required to publish at your own expense the enclosed Notice of Intent to Issue Permit. The notice shall be published one time only within 30 days, in the legal ad section of a newspaper of general circulation in the area affected. For the purpose of this rule, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. The applicant shall provide proof of publication to the Department, at the address specified within seven days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit.

The Department will issue the permit with the attached conditions unless a petition for an administrative proceeding (hearing) is filed pursuant to the provisions of Section 120.57, F.S.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Petitions filed by the permit applicant and the parties listed below must be filed within 14 days of receipt of this intent. Petitions filed by other persons must be filed within 14 days of publication of the public notice or within 14 days of receipt of this intent, whichever first occurs. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information:

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;

(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;

(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;

(d) A statement of the material facts disputed by Petitioner, if any;

(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;

(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and

(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the applicant have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office in General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such

person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality
Management

Copies furnished to:

C. Collins, CF Dist.
L. R. Hutker, P.E., HS

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this NOTICE OF INTENT TO ISSUE and all copies were mailed before the close of business on 4-17-89.

FILING AND ACKNOWLEDGEMENT
FILED, on this date, pursuant to §120.52(9), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Martha McVee 4-17-89
Clerk Date

State of Florida
Department of Environmental Regulation
Notice of Intent to Issue

The Department of Environmental Regulation hereby gives notice of its intent to issue a permit to Harris Semiconductor, Post Office Box 883, Melbourne, Florida 32901, to consolidate multiple permits previously issued for Building No. 57, which is a source involved with soldering and plating of integrated circuit parts. The proposed project will occur at the applicant's existing facility in Brevard County, Florida. A determination of Best Available Control Technology (BACT) was not required. The Department is issuing this Intent to Issue for the reasons stated in the Technical Evaluation and Preliminary Determination.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within fourteen (14) days of publication of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information:

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;

(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;

(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;

(d) A statement of the material facts disputed by Petitioner, if any;

(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;

(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and

(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the

Department's final action may be different from the position taken by it in this Notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

The application is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Department of Environmental Regulation
Bureau of Air Quality Management
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Dept. of Environmental Regulation
Central Florida District
3319 Maguire Blvd., Suite 232
Orlando, Florida 32803-3767

Any person may send written comments on the proposed action to Mr. Bill Thomas at the Department's Tallahassee address. All comments mailed within 14 days of the publication of this notice will be considered in the Department's final determination.

Technical Evaluation
and
Preliminary Determination

Harris Semiconductor
Brevard County
Palm Bay, Florida

Construction Permit Numbers:
AC 05-161706

Florida Department of Environmental Regulation
Division of Air Resources Management
Bureau of Air Quality Management
Central Air Permitting

April 14, 1989

I. Application

A. Applicant

Harris Semiconductor
Post Office Box 883
Melbourne, Florida 32901

B. Project and Location

The applicant has applied for a construction permit for Building No. 57 in order to consolidate multiple permits previously issued for this source/building.

The existing facility is located on Palm Bay Road, City of Palm Bay, Florida. The UTM coordinates are Zone 17, 538.7 km East and 3100.9 km North.

C. Process and Controls

1. Building 57

The primary manufacturing operations in Building 57 are soldering and plating of integrated circuit parts. Exhausted equipment includes wave soldering machines, wet stations, chemical storage cabinets, and vapor phase reflow systems.

The building houses five wet stations, four of which contain acid vats. The fifth is a water rinse station. Three of the four acid stations contain heated vats. No covers are used on the vats.

Scrubber number F57S01 treats caustic and corrosive contaminated exhaust generated from the above mentioned equipment. The scrubber is located on the roof of the building.

2. General

A material balance scheme will be used to account for the annual VOC/solvent emissions released into the atmosphere by the building/source and facility. A program of sampling and analysis will be used to assess the VOC/solvent emissions from each building/source.

The Standard Industrial Classification Codes are:

- Major Group 36: Electrical and Electronic Machinery, Equipment, and Supplies
- Industry Group No. 367: Electronic Components and Accessories
- Industry No. 3674: Semiconductors and Related Devices

The Source Classification Codes are: Major Group 36

o Cold Solvent Cleaning/Stripping

o Building 57 4-01-003-99 Tons VOC/solvent consumed

II. Rule Applicability

The proposed project is subject to preconstruction review under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code (F.A.C.) Chapters 17-2 and 17-4.

The application package was deemed complete on March 6, 1989.

The existing facility is located in an area designated attainment for all pollutants.

Since the facility is not one of those contained in Table 500-1, F.A.C. Chapter 17-2, the VOC/solvent threshold for triggering new source review pursuant to F.A.C. Rule 17-2.500(5) is 250 TPY.

The following table presents the projected potential VOC/solvent emissions from Building No. 57:

Table 1

Source	Potential VOC/solvent Emissions (TPY)
Building 57	
o F57S01	1.66

Note: Annual hours of operation at 8760.

The following table presents the projected potential VOC/solvent emissions from the entire facility:

Table 2

Building	Potential VOC/solvent Emissions (TPY)
4	10.96
51	33.29
54	95.65
57	1.66
58	3.24
59	0.50
60	trace
61	0.25
62	0.83
63	6.14
Total:	152.50

Note: Annual hours of operation at 8760.

Since the potential emissions are less than 250 TPY for the facility, the potential emissions projected from Building 57 will be reviewed pursuant to F.A.C. Rule 17-2.520, Sources Not Subject to Prevention of Significant Deterioration or Nonattainment Requirements.

Since there is no specific emission limiting standard contained in F.A.C. Rule 17-2.600 nor is there any standards of performance for new stationary sources contained in F.A.C. Rule 17-2.660, the source/Building 57 will be permitted in accordance with F.A.C. Rule 17-2.620, General Pollutant Emission Limiting Standards.

In F.A.C. Rule 17-2.620(1)(a), no person shall store, pump, handle, process, load, unload or use in any process or installation volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department. Pursuant to F.A.C. Rule 17-2.620(2), no person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor. Objectionable odor is defined as any odor present in the outdoor atmosphere which, by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance according to F.A.C. Rule 17-2.100(132).

The building operations/source is subject to the provisions of F.A.C. Rules 17-2.240: Circumvention; 17-2.250: Excess Emissions; and, 17-4.130: Plant Operation - Problems.

III. Summary of Emissions

A. Emission Limitations

The regulated pollutant emissions from this building/source are VOC/solvents in accordance with F.A.C. Rule 17-2.620.

Specific acid solutions are also being used during the manufacturing operations. There are no specific emission limiting standards for these specific acids. However, the acid vapors will be scrubbed to reduce emissions.

The following table presents the maximum allowable VOC/solvent emissions and the potential acid vapor emissions from Building 57 in TPY:

Table 3

Building	Maximum Allowable VOC/Solvent Emissions	Potential Acid Vapor Emissions
57	1.7	0.2

Note: Annual hours of operation at 8760.

The permitted emissions are in compliance with all requirements of F.A.C. Chapters 17-2 and 17-4.

B. Air Quality Impacts

From the technical review of the application packages and supplementary material, an air quality analysis was not required.

V. Conclusion

A system of material balance and sampling/analysis will be used to account for and verify pollutant emissions from the facility and each building/source and their scrubber systems.

Based on the information provided by Harris Semiconductor, the Department has reasonable assurance that the consolidation of multiple permits previously issued for this source/building, as described in this evaluation, and subject to the conditions proposed herein, will not cause or contribute to a violation of any air quality standard, PSD increment, or any other technical provision of Chapter 17-2 of the Florida Administrative Code.

Florida Department of Environmental Regulation
Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400
Bob Martinez, Governor Dale Twachtmann, Secretary John Shearer, Assistant Secretary

PERMITTEE:
Harris Semiconductor
P. O. Box 883
Melbourne, Florida 32901

Permit Number: AC 05-161706
Expiration Date: April 30, 1990
County: Brevard
Latitude/Longitude: 28° 01' 20" N
80° 36' 10" W
Project: Building 57

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code (F.A.C.) Chapters 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

For the permitting of Building 57, which is a source whose primary manufacturing operations are soldering and plating of integrated circuit parts. The scrubber control system is:

o F57SO1: a Tri Mer Corp. 13,500 cfm horizontal counter-flow mist eliminator using polypropylene filter packing for caustic and corrosive vapor removal; Model No. F/W 5.

The building/source is located at the permittee's existing facility located on Palm Bay Road in the City of Palm Bay. The UTM coordinates are Zone 17, 538.7 km East and 3100.9 km North.

The Source Classification Codes are: Major Group 36
o Cold Solvent Cleaning/ Stripping 4-01-003-99 Tons VOC/Solvent Consumed

The source shall be in accordance with the permit application and plans, documents, amendments, and drawings except as otherwise noted in the General and Specific Conditions.

Attachments to be Incorporated:

1. Application to Construct Air Pollution Sources, DER Form 17-1.202(1), and Mr. James R. Kolanek's cover letter received March 6, 1989.
2. Technical Evaluation and Preliminary Determination dated April 14, 1989.

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit does not constitute a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

GENERAL CONDITIONS:

6. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:

a. Having access to and copying any records that must be kept under the conditions of the permit;

b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and

c. Sampling or monitoring any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately notify and provide the Department with the following information:

a. a description of and cause of non-compliance; and

b. the period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

GENERAL CONDITIONS:

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the Department, may be used by the Department as evidence in any enforcement case arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.12 and 17-30.30, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. This permit also constitutes:

( ) Determination of Best Available Control Technology (BACT)
( ) Determination of Prevention of Significant Deterioration (PSD)
( ) Compliance with New Source Performance Standards

14. The permittee shall comply with the following monitoring and record keeping requirements:

a. Upon request, the permittee shall furnish all records and plans required under Department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the Department, during the course of any unresolved enforcement action.

GENERAL CONDITIONS:

b. The permittee shall retain at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be at least three years from the date of the sample, measurement, report or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the date(s) analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be submitted or corrected promptly.

SPECIFIC CONDITIONS:

1. The maximum allowable VOC/solvent emissions from Building No. 57 shall be 1.7 tons per year.

2. The VOC/solvent vapor exhaust scrubber must be on during the working hours.

3. Permitted hours of operation are 8760.

4. Objectionable odors shall not be allowed off plant property.

SPECIFIC CONDITIONS:

5. An inspection and maintenance plan shall be submitted to the DER's Central Florida District office as part of the operating permit application. The plan shall include provisions for the prevention and correction of VOC/solvent losses from leaks and equipment malfunctions.

6. By March 31 of each calendar year, an annual operating report shall be submitted to the DER's Central Florida District office demonstrating compliance with the VOC/solvent emissions limit for Building No. 57. The emissions shall be determined by a material balance scheme, verifiable on a monthly basis, and shall include the following:

a) a beginning inventory of full containers, cylinders and storage tanks at the beginning of each calendar year;

b) plus all purchased deliveries after the beginning inventory (verifiable by invoices);

c) minus all quantities picked-up and shipped-off the premise after the beginning inventory (verifiable by invoices);

d) minus all quantities deep well injected during the calendar year, justified by assumptions and established scrubber efficiencies; and,

e) minus an ending inventory of full containers, cylinders, and storage tanks.

7. The scrubber system's efficiency and potential VOC/solvent emissions shall be established by a sampling and analysis program, which includes:

a) a sample shall be taken annually from each scrubber stack and analyzed using EPA Reference Method 25 or, with Department approval, EPA Reference Method 25A, 40 CFR 60, Appendix A;

b) the DER's Central Florida District office shall receive 15 days notice in writing prior to sampling; and,

c) the report, summarizing the sampling results, shall be submitted to the DER's Central Florida District office within 45 days after the last test run is completed.

8. This permit will supercede all other permits previously issued on this source/Building No. 57.

9. The source/Building No. 57 is subject to all applicable provisions of F.A.C. Chapters 17-2 and 17-4.

PERMITTEE:
Harris Semiconductor

Permit Number: AC 05-161706
Expiration Date: April 30, 1990

SPECIFIC CONDITIONS:

10. Projected potential acid emissions are 0.2 TPY.

11. Building No. 57 is subject to the provisions of F.A.C. Rules 17-2.240: Circumvention; 17-2.250: Excess Emissions; and, 17-4.130: Plant Operation - Problems.

12. Any modification pursuant to F.A.C. Rule 17-2.100(119), Modification, shall be submitted to the DER's Central Florida District office and the Bureau of Air Quality Management office for approval.

13. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the BAQM prior to 60 days before the expiration of the permit (F.A.C. Rule 17-4.090).

14. An application for an operation permit must be submitted to the Central Florida District office at least 90 days prior to the expiration date of this construction permit or within 45 days after completion of compliance testing, whichever occurs first. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. Rule 17-4.220).

Issued this _____ day

of _____, 1989

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

_____
Dale Twachtmann, Secretary

ATTACHMENT 1

Available upon Request

HARRIS

FS-JRK-121-89

March 3, 1989

Mr. C. H. Fancy
Deputy Bureau Chief
Department of Environmental Regulation
Bureau of Air Quality Management
2600 Blair Stone Road
Tallahassee, Florida 32301

Reference: HARRIS SEMICONDUCTOR
B-57 Consolidated Air Permit

Dear Mr. Fancy:

On February 17, 1988, representatives from Harris and the Florida DER met in Orlando to discuss the status of air permits at Harris Semiconductor's facility in Palm Bay. At that meeting it was agreed that Harris would submit modified air permits. The purpose of the permit modifications was as follows:

1. Consolidate permits on a by building basis to reduced the existing number of permits.

2. To accurately quantify the current air emissions.

Enclosed is the modified permit application for Semiconductor's Building 57.

If you should have any questions about the enclosed information, please feel free to contact me at (407) 724-7467.

Sincerely,

James R. Kolanek

1031

J. R. Kolanek, Manager
Environmental Services

/pgc

cc: A. T. Sawicki
L. R. Hutker
D. R. Erdley
R. R. Sands

HARRIS

HARRIS CORPORATION
SEMICONDUCTOR SECTOR

0314

THE FIRST NATIONAL BANK OF ATLANTA
AUGUSTA, GEORGIA

64-1327
611

05278

PAY

DATE	CHECK NO.	NET AMOUNT
02/10/89	00052788	********200.0

WO HUNDRED AND 00/100 DOLLARS

TO THE ORDER OF
DEPT OF ENVIRONMENT REGULATION
2600 BLAIR STONE ROAD
TALLAHASSEE,
FLA

HARRIS CORPORATION
SEMICONDUCTOR SECTOR

32399

COUNTERSIGNED

AUTHORIZED SIGNATURE

[redacted]

Dear Mr. Fancy.

On February 17, 1988, representatives from Harris and the Florida DER met in Orlando to discuss the status of air permits at Harris Semiconductor's facility in Palm Bay. At that meeting it was agreed that Harris would submit modified air permits. The purpose of the permit modifications was as follows:

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Sincerely,

James R. Kolanek

1031

J. R. Kolanek, Manager
Environmental Services

/pgc

cc: A. T. Sawicki
L. R. Hutker
D. R. Erdley
R. R. Sands

DEPARTMENT OF ENVIRONMENTAL REGULATION

$200 pd. 3-6-89 Recpt. #117601

AC 05-161706

WM. TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

RECEIVED
MAR 7 1989
DER - BAQM

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Stationary [ ] New[1] [X] Existing[1]

APPLICATION TYPE: [ ] Construction [ ] Operation [X] Modification

COMPANY NAME: Harris Semiconductor COUNTY: Brevard

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) Bldg 57 Plating shop

SOURCE LOCATION: Street Palm Bay Road City Palm Bay

UTM: East 17-538700 North 17-3100900

Latitude 28 ° 01 ' 20 "N Longitude 80 ° 36 ' 10 "W

APPLICANT NAME AND TITLE: J. R. Kolanek; Manager Environmental Services

APPLICANT ADDRESS: P.O. Box 883, Melbourne, Fl 32901

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Harris Semiconductor

I certify that the statements made in this application for a modified permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

*Attach letter of authorization

Signed: James R. Kolanek

J. R. Kolanek, Manager, Environmental Svcs
Name and Title (Please Type)

Date: 2/27/89 Telephone No. (407) 724-7467

B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that

[1] See Florida Administrative Code Rule 17-2.100(57) and (104)

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.

Signed Lawrence R. Hutker

Lawrence R. Hutker
Name (Please Type)

Harris Semiconductor
Company Name (Please Type)

P.O. Box 883, Melbourne, Florida 32901
Mailing Address (Please Type)

lorida Registration No. 35972 Date: _____ Telephone No. (407) 729-4655

SECTION II: GENERAL PROJECT INFORMATION

. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

This is a modification and consolidation of existing air permits.

. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction N/A Completion of Construction _____

. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

N/A

. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

AC 05-104522 issued 1/14/86; expires 6/30/86.

E. Requested permitted equipment operating time: hrs/day 24 ; days/wk 7 ; wks/yr 52 ;

if power plant, hrs/yr_____; if seasonal, describe:_____

F. If this is a new source or major modification, answer the following questions. (Yes or No)

1. Is this source in a non-attainment area for a particular pollutant? No

   a. If yes, has "offset" been applied? _____

   b. If yes, has "Lowest Achievable Emission Rate" been applied? _____

   c. If yes, list non-attainment pollutants. _____

2. Does best available control technology (BACT) apply to this source? If yes, see Section VI. No

3. Does the State "Prevention of Significant Deterioration" (PSD) requirement apply to this source? If yes, see Sections VI and VII. No

4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? No

5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? No

H. Do "Reasonably Available Control Technology" (RACT) requirements apply to this source? No

   a. If yes, for what pollutants?_____

   b. If yes, in addition to the information required in this form, any information requested in Rule 17-2.650 must be submitted.

Attach all supportive information related to any answer of "Yes". Attach any justification for any answer of "No" that might be considered questionable.

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other then Incinerators)

A. Raw Materials and Chemicals Used in your Process, if applicable:

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
---SEE ATTACHMENT C ----				

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): not applicable

2. Product Weight (lbs/hr): not applicable

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

Name of Contaminant	Emission[1]		Allowed[2] Emission Rate per Rule 17-2	Allowable[3] Emission lbs/hr	Potential[4] Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
---SEE ATTACHMENT B ----							

[1]See Section V, Item 2.

[2]Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

[3]Calculated from operating rate and applicable standard.

[4]Emission, if source operated without control (See Section V, Item 3).

J. Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
---SEE ATTACHMENT D ----				

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis:

Percent Sulfur: _____ Percent Ash: _____

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): _____

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average _____ Maximum _____

G. Indicate liquid or solid wastes generated and method of disposal.

Waste water from air scrubbers is discharged to on-site Waste Water Treatment Plant--discharge to deepwell under UIC - Permit #UC05-126519.

--------SEE ATTACHMENT D--------

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: _____ ft. Stack Diameter: _____ ft.

Gas Flow Rate: _____ ACFM _____ DSCFM Gas Exit Temperature: _____ °F.

Water Vapor Content: _____ % Velocity: _____ FPS

SECTION IV: INCINERATOR INFORMATION

not applicable

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq.& Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (lbs/hr)							

Description of Waste _____

Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____

Approximate Number of Hours of Operation per day _____ day/wk _____ wks/yr. _____

Manufacturer _____

Date Constructed _____ Model No. _____

	Volume $(ft)^3$	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: _____ ft. Stack Diamter: _____ Stack Temp. _____

Gas Flow Rate: _____ ACFM _____ DSCFM* Velocity: _____ FPS

*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device: [ ] Cyclone [ ] Wet Scrubber [ ] Afterburner

[ ] Other (specify) _____

Brief description of operating characteristics of control devices: _____

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

NOTE: Items 2, 3, 4, 6, 7, 8, and 10 in Section V must be included where applicable.

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]

2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.

3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).

4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)

5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).

6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.

7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).

8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.

10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY

A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

[ ] Yes [ ] No

Contaminant	Rate or Concentration

B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy)

[ ] Yes [ ] No

Contaminant	Rate or Concentration

C. What emission levels do you propose as best available control technology?

Contaminant	Rate or Concentration

D. Deecribe the existing control and treatment technology (if any).

1. Control Device/System:
2. Operating Principles:
3. Efficiency:*
4. Capital Costs:

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height: ft.

b. Diameter: ft.

c. Flow Rate: ACFM

d. Temperature: °F.

e. Velocity: FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary).

1.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy [2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

[1]Explain method of determining efficiency.
[2]Energy to be reported in units of electrical power - KWH design rate.

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:[1]

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:[2]

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

[1] Explain method of determining efficiency.
[2] Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

b. (1) Company:

(2) Mailing Address:

(3) City: (4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

10. Reason for selection and description of systems:

[1]Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

A. Company Monitored Data

1. _____ no. sites _____ TSP _____ ( ) SO^{2} _____ Wind spd/dir

Period of Monitoring _____/_____/_____ to _____/_____/_____
month day year month day year

Other data recorded _____

Attach all data or statistical summaries to this application.

[2]Specify bubbler (B) or continuous (C).

2. Instrumentation, Field and Laboratory

a. Was instrumentation EPA referenced or its equivalent? [ ] Yes [ ] No

b. Was instrumentation calibrated in accordance with Department procedures?

[ ] Yes [ ] No [ ] Unknown

B. Meteorological Data Used for Air Quality Modeling

1. _____ Year(s) of data from _____/_____/_____ to _____/_____/_____
month day year month day year

2. Surface data obtained from (location)_____

3. Upper air (mixing height) data obtained from (location)_____

4. Stability wind rose (STAR) data obtained from (location)_____

C. Computer Models Used

1. _____ Modified? If yes, attach description.

2. _____ Modified? If yes, attach description.

3. _____ Modified? If yes, attach description.

4. _____ Modified? If yes, attach description.

Attach copies of all final model runs showing input data, receptor locations, and principle output tables.

D. Applicants Maximum Allowable Emission Data

Pollutant	Emission Rate	
TSP	_____	grams/sec
SO^2	_____	grams/sec

E. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description of point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

F. Attach all other information supportive to the PSD review.

G. Discuss the social and economic impact of the selected technology versus other applicable technologies (i.e., jobs, payroll, production, taxes, energy, etc.). Include assessment of the environmental impact of the sources.

H. Attach scientific, engineering, and technical material, reports, publications, journals, and other competent relevant information describing the theory and application of the requested best available control technology.

HARRIS SEMICONDUCTOR

AIR PERMIT - BUILDING 57

ATTACHMENT A

PROCESS DESCRIPTION

ATTACHMENT A.

PROCESS DESCRIPTION

The primary manufacturing operations in building 57 are soldering and plating of integrated circuit parts. Exhausted equipment includes wave soldering machines, wet stations, chemical storage cabinets, and vapor phase reflow systems.

The building houses five wet stations; four of which contain acid vats. The fifth is a water rinse station. Three of the four acid stations contain heated vats. No covers are used on the vats.

Scrubber number F57S01 treats caustic and corrosive contaminated exhaust generated from the above mentioned equipment. The scrubber is located on the roof of the building (see attached scrubber location maps.)

HARRIS SEMICONDUCTOR

AIR PERMIT - BUILDING 57

ATTACHMENT B

AIR EMISSIONS

ACID MONITORING--BUILDING 57

Monitoring was performed on the building 57 scrubber F57S01 in December of 1988. Samples were collected using modified EPA method 8 sampling train. The impinger medium consisted of a 0.1 N sodium hydroxide solution. The analytical methodology utilized to determine the ions of highest concentration is as follows:

Chloride ion--EPA Method 325.3
Fluoride ion--EPA Method 340.2
Nitrate, phosphite, and sulfate ions--ion chromatography

All results were in pounds per hour as "X", where "X" represents the acid compound present in highest concentration.

The test results revealed that the total accumulative monitored acid emissions for the building were 0.175 tons/year expressed as hydrochloric, hydrofluoric, nitric, phosphoric and sulfuric acids. This figure is based on a hypothetical production schedule of 8760 hours a year. The monitoring was performed over an 8 hour time interval when the full production was occurring.

When a resulting acid concentration was expressed as a "less than 'y' " value, where 'y' represents the lowest detectable limit possible using the analytical methodology employed, acid emissions were taken to be equal to this 'y' limit value.

RESULTS OF ACID MONITORING--BUILDING 57

PERFORMED ON SCRUBBER OUTLET
IN DECEMBER OF 1988

Scrub #		HCl	HF	Nitric Acid	Phosphoric Acid	Sulfuric Acid	TOTAL (TON/YR)
F57S01	(lb/hr)	0.020	0.001	0.009	0.005	0.005	
	(ton/yr)	0.088	0.004	0.039	0.022	0.022	0.175

TOTAL ACID EMISSIONS = 0.175 TONS/YEAR

SOLVENT MONITORING--BUILDING 57

Solvent monitoring work was performed on the building 57 scrubber system F57S01 during December of 1986, and August of 1987. The tests conducted were EPA Method 25A (flame ionization detection) and EPA Method TO-1 (Tenax adsorption and GC/MS analysis.) The test results are included in this application.

FID test results revealed that total accumulative monitored VOC emissions for the building were 1.66 tons/year expressed as propane. This figure is based on a hypothetical production schedule of 8760 hours a year. The following assumptions were made regarding monitoring work on this building:

-VOC values refer to all organic emissions including organic solvents.

-All data was corrected for 2 ppm background noise that is normally present in the ambient air.

-The F.I.D. accumulative emission figure is based on the maximum concentration of VOC's observed during the monitoring time frame.

EPA METHOD 25-A (F.I.D. ANALYSIS) BUILDING 57
VOC EMISSIONS DURING FULL PRODUCTION

TEST DATE	SCRUBBER #	PRODUCTN SCHEDULE (HRS/YR)	VOC EMISSIONS (TON/YR)
12/16/86	F57S01	8760	1.66

TOTAL PROJECTED VOC EMISSIONS FOR BUILDING 57 = 1.66 TONS/YEAR

GC/MS:

AUGUST 1987 RESULTS-SCRUBBER NUMBER F57S01

ACETONE (LB/HR).....	---
TRICHLOROETHANE (LB/HR).....	---
METHYLENE CHLORIDE (LB/HR).....	---
TETRACHLOROMETHYLENE (LB/HR).....	---
FREON-113 (LB/HR).....	---
CHLOROFORM (LB/HR).....	trace
BENZENE (LB/HR).....	trace
TRICHLOROETHYLENE (LB/HR).....	---
TOLUENE (LB/HR).....	trace
METHYL ISOBUTYL KETONE (LB/HR).....	trace
ETHYL BENZENE (LB/HR).....	trace
XYLENES (LB/HR).....	trace

HARRIS SEMICONDUCTOR

AIR PERMIT - BUILDING 57

ATTACHMENT C

RAW MATERIALS AND CHEMICALS

HARRIS SEMICONDUCTOR
BUILDING 57

PROCESS SOLVENTS

1,1,1 TRICHLOROETHANE
4-METHYL-2,4-PENAHNEDIOL
ACETONE
ALIPHATIC ESTER
ALIPHATIC SOLVENTS
ALKANOLAMINE
ALKYL AMINE
CARBON TETRACHLORIDE
CELLOSOLVE ACETATE
CHLOROFORM
ETHANOL
ETHYL ACETATE
ETHYLENE GLYCOL MONOBUTYL ETHER ACETATE
ETHYLENE GLYCOL MONOETHYL ACETATE
FLUORINERT FC-71
FLUORINERT FC-84
HEXANE
HYDROQUINONE
ISOPROPANOL
METHANOL
METHYLENE CHLORIDE
N-METHYL-2-PYRROLIDONE
ORGANIC SALT
OXTYLPHENOL
PETROLATUM
PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE
TRICHLOROETHYLENE
TRICHLOROETHYLENE
TRICHLOROTRIFLUOROETHANE
TRIETHYLENE GLYCOL MONOMETHYL ETHER
TURPENTINE
XYLENE

HARRIS SEMICONDUCTOR
BUILDING 57

PROCESS CHEMICALS

ACTIVATORS
AMINE SALT
AMINO ACID CHLORIDEE
AMMONIUM CHLORIDE
AMMONIUM HYDROXIDE
ANTIMONY
ANTIOXIDEMT
BENZOIC ACID
BISMUTH
BORIC ACID
CADMIUM MERCURY SULFIDE
CADMIUM SULFOSELENIDE RED
CARAMIDE
CARBOXYLIC ACID-PHENOL
CITRIC ACID
CRESOL
DIMETHYL PHTHALATE
ETHOXYLATED TALL OIL FATTY ACIDS
FATTY ACID GLYCERIDES
FATTY ACIDS
FLUOBORIC ACID
FLUORIDE SALT
FORMIC ACID
GLUTAMATE POLYMER ACTIVATOR
GLUTAMATE POLYMER HYDROCHLORIDE
GLYCERINE
GLYCEROL
GUM RESIN
HYDROCHLORIC ACID
HYDROCHLORIDE
HYDROFLUORIC ACID
HYDROGEN PEROXIDE
INDICATING DYE
INDIUM
INORGANIC CARBONATES
INORGANIC OXIDES
ISOBUTANE PROPELLANT
ISOPHORONE
JANUS GREEN B
LEAD
LEAD CHROMATE
LEAD SALT
LITHIUM SALT
METHYL CHLORIDE
MONOETHANOLAMINE
NEUTRALIZER
NITRIC ACID
ORGANIC ACID

BUILDING 57 PROCESS CHEMICALS (CONT.)

ORGANIC ACID PHOSPHATE
PETROLEUM OIL
PHOSPHORIC ACID
POLYFUNCTIONAL ACID
POTASSIUM 2-CHLORO-4-NITROBENZOATE
POTASSIUM BIFLUORIDE
POTASSIUM CYANIDE
POTASSIUM PENTABORATE
POTASSIUM TETRABORATE
RESIN
ROSIN
SILVER
SODIUM BICARBONATE
SODIUM CARBONATE
SODIUM DODECYL SULFATE
STANNOUS SULFATE
STEARIC ACID
SULFATE
SULFURIC ACID
SURFACTANTS
THIOUREA
TIN
WATER SOLUBLE DISPERANT
ZINC CHLORIDE

HARRIS SEMICONDUCTOR

AIR PERMIT - BUILDING 57

ATTACHMENT D

CONTROL EQUIPMENT

HARRIS SEMICONDUCTOR -- AIR PERMIT INFORMATION

CURRENT PERMIT

BUILDING: 57
PERMIT NUMBER: AC 05-104522
PERMIT TYPE : CONSTRUCTION

DATE ISSUED : 01/15/86
RENEWAL DATE: 04/01/86
DATE EXPIRES: 06/30/86

AREA SERVED:
PROCESS DESCRIPTION: CHEMICAL VAPOR SCRUBBER

PERMIT LIMITS

VOL. RATE (SCFM): 13,500
ACID MIST (LB/HR): 0.0009
SOLVENTS (LB/HR): 0.0005
VOCS (LB/HR): --
OPER. (HRS/YEAR): 2112

SPECIFIC CONDITIONS

ANNUAL OPERATING REPORT :
NOTIFICATION OF VE TEST :
ANNUAL VIS EMISSION TEST:

EQUIPMENT INFORMATION

MANUFACTURER : TRI-MER CORP.
LOCATION : B57 ROOF CENTER OF BLDG
HARRIS ID NUMBER : F57S01
VOLUME FLOW RATE (CFM): 13,500
RECIRCULATION RATE (GPM): 36
MAKEUP WATER RATE (GPM): 2.0

MODEL NUMBER : F/W 5
STACK HEIGHT (FT): 12
STACK DIAMETER (IN): 32
STACK VELOCITY (FPM): 2750
DUCT MATERIAL : polypro

PERMIT HISTORY

PERMIT NUMBER: AC 05-104522
DATE EXPIRED : 06/30/86

SCRUBBER INFORMATION

HARRIS ID # : F57S01
MANUFACTURER : TRI-MER CORP. MODEL NUMBER : F/W 5
SERIAL NUMBER: 7029 MATERIAL : PVC
DESCRIPTION : HORIZONTAL COUNTER-FLOW, MIST ELIMINATOR, POLYPRO FILTER PACK

DESIGN DATA
VOLUME FLOW RATE (CFM): 14,000 PRESSURE DROP (IN):
RECIRCULATION RATE (GPM): 36 MAKE UP RATE (GPM): 2.0

ACTUAL DATA
VOLUME FLOW RATE (CFM): 13,260 PRESSURE DROP (IN): 4.2 DATE: 12/16/86
RECIRCULATION RATE (GPM): 55 MAKE UP RATE (GPM): 11 DATE: 06/05/87

RECIRCULATION PUMP INFORMATION

MANUFACTURER : FLOTEC MODEL NUMBER : C8P8-1194V
SERIAL NUMBER: HP : 1.5 RPM : 3450
BRKR LOCATION: NEXT TO UNIT FED FROM MCC : PP 26

FAN INFORMATION

HARRIS ID # : F57E03
MANUFACTURER : TRI-MER CORP. MODEL NUMBER: 30 FAN UB
SERIAL NUMBER: 5397 MATERIAL : PVC
DESCRIPTION : CENTRIFUGAL BLOWER, BACKWARD INCLINED BLADES

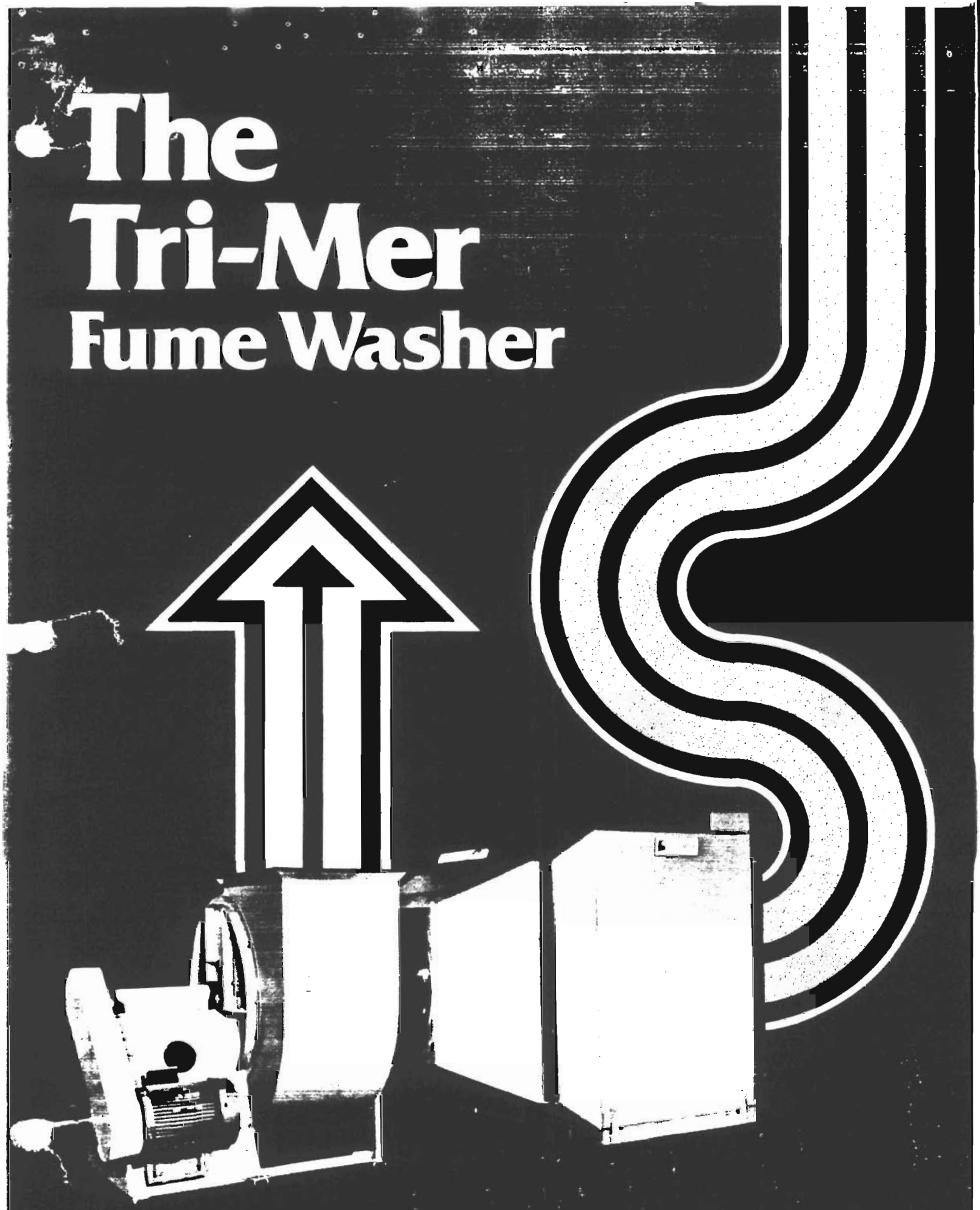
DESIGN DATA
VOLUME FLOW RATE (CFM): 13,500 STATIC PRESS (IN):

ACTUAL DATA SPEED (RPM): DATE:
VOLUME FLOW RATE (CFM): 13,260 STATIC PRESS (IN): DATE: 12/16/86

FAN MOTOR INFORMATION

MANUFACTURER : MODEL NUMBER :
SERIAL NUMBER: HP : 20 RPM : 1750
BRKR LOCATION: NEXT TO UNIT FED FROM MCC : PP 26

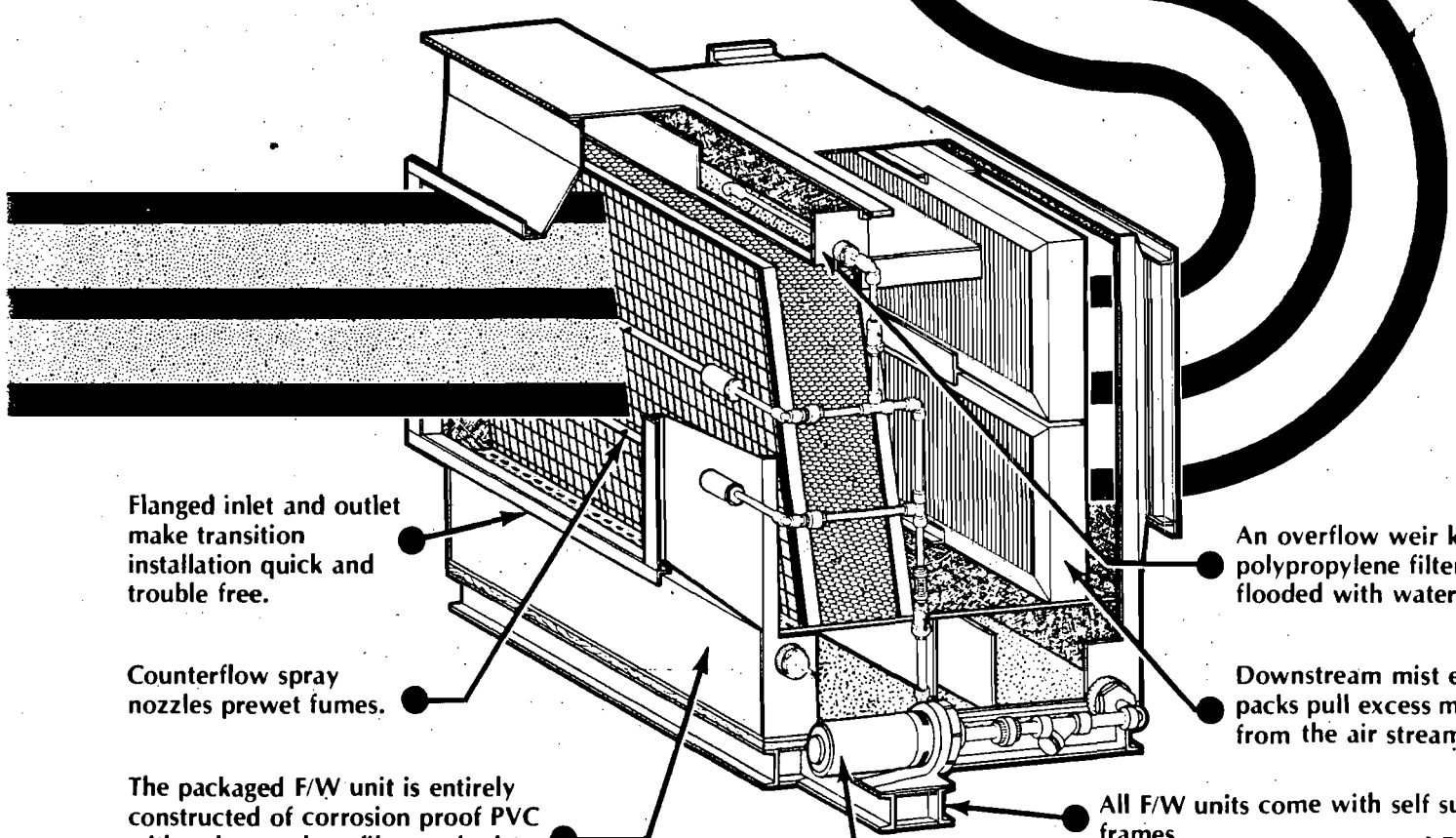
The Tri-Mer Fume Washer



Designers and Manufacturers of Corrosion Control Systems

Design Features of the Tri-Mer Fume Washer

TRI-MER fume washers offer an efficient economically packaged solution to your corrosive fume problems. Couple this unit to a TRI-MER all PVC fan, or use your existing fan, and you're ready for operation. A simple inexpensive installation.



Flanged inlet and outlet make transition installation quick and trouble free.

Counterflow spray nozzles prewet fumes.

The packaged F/W unit is entirely constructed of corrosion proof PVC with polypropylene filter and mist eliminator packs.

An overflow weir keeps the polypropylene filter pack flooded with water.

Downstream mist eliminator packs pull excess moisture from the air stream.

All F/W units come with self supporting frames.

Units through Model F/W-9 are available with integral recirculation tank and pump as shown.

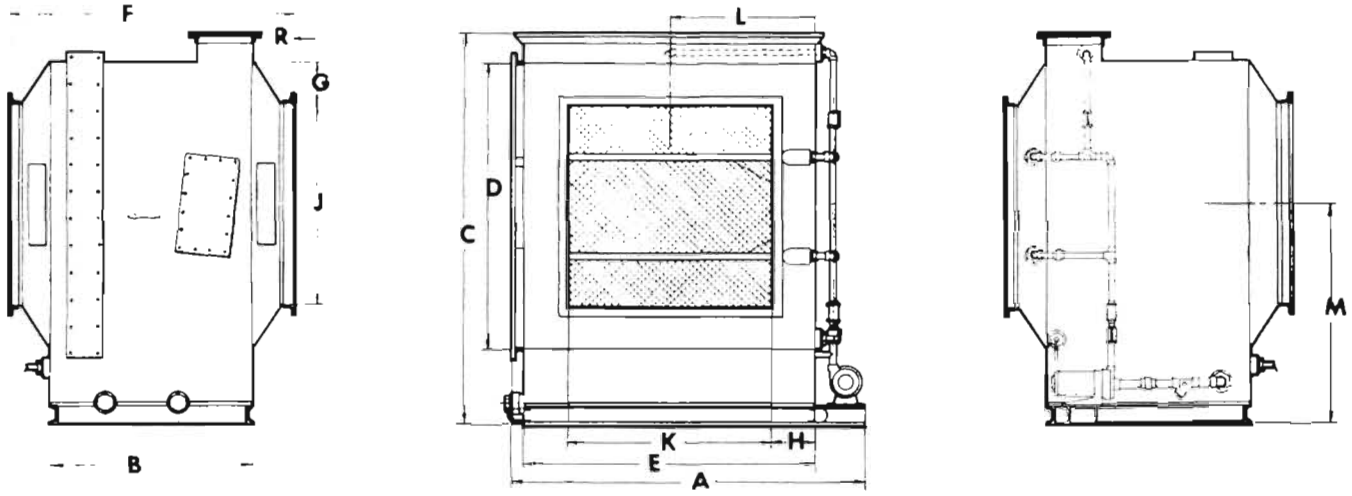
NOTE — Models F/W-10 through F/W-16 require remote recirculation tanks per manufacturers suggestion.

F/W with integral recirculation tank. F/W without integral recirculation tank

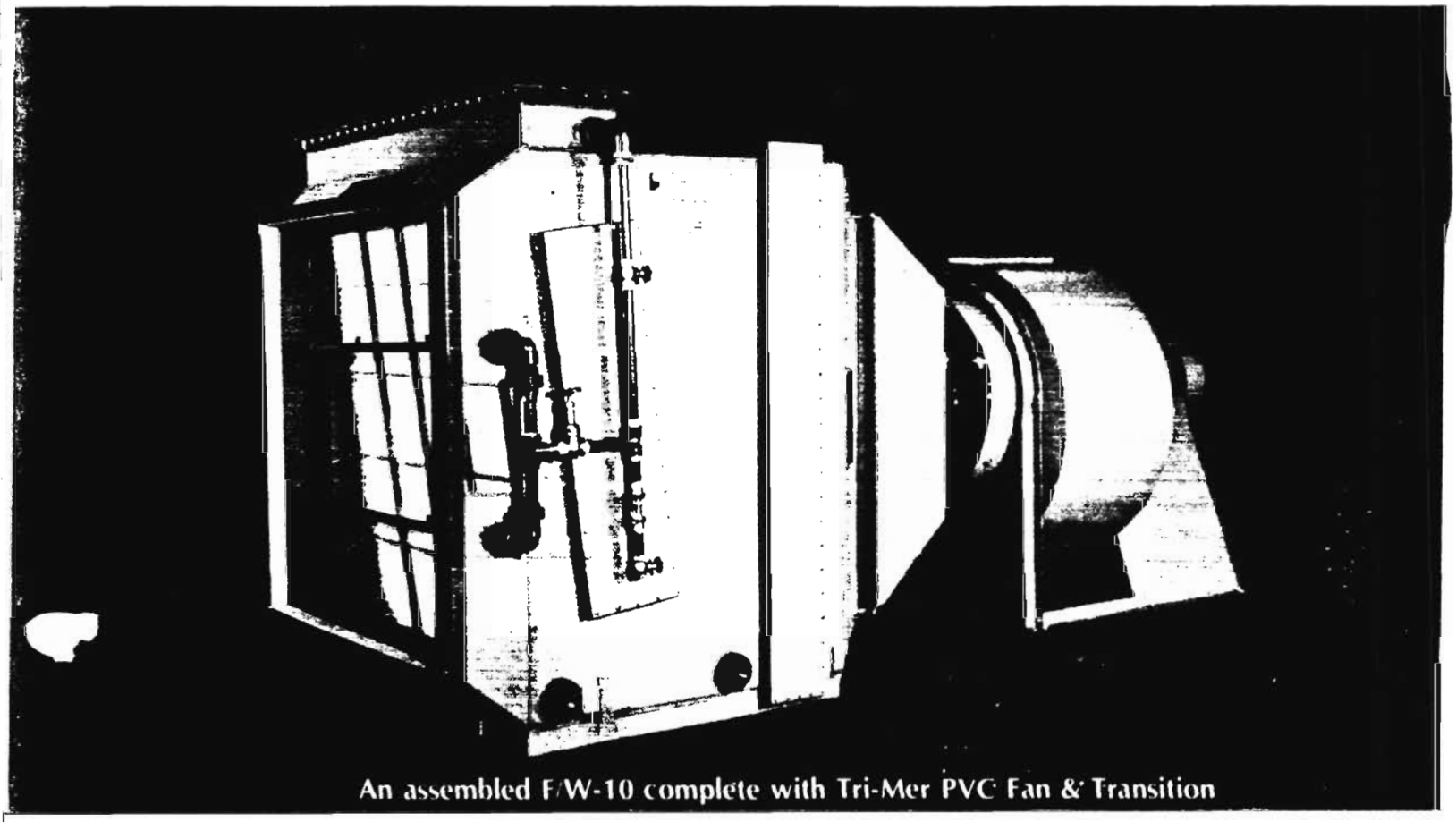
F/W	A		B	C		D	E	F	G	H	J	K	L	M		R	CHANNEL	ANGLE	DRAIN	G.P.M.	No. OF HEADERS	PIPE	CFM CAPACITY
1	3'-11½"	4'-4½"	3'-6"	4'-3"	5'-3"	3'-4"	3'-4"	4'-10"	6"	6"	28°	28°	1'-8"	2'-0¾"	3'-0¾"	8"	4"@5.4#	1½"x1½"x3/16"	3"	8	2	¾"	3,000 to 5,500
2	4'-3½"	4'-8½"	3'-10"	4'-6¾"	5'-6¾"	3'-8"	3'-4"	5'-2"	4½"	4½"	35°	35°	1'-10"	2'-2¾"	3'-2¾"	8"	4"@5.4#	1½"x1½"x3/16"	3"	9	2	¾"	5,500 to 7,000
3	5'-0½"	5'-5½"	3'-6"	5'-3¾"	6'-3¾"	4'-5"	4'-5"	4'-10"	8"	8"	37°	37°	2'-4½"	2'-7¼"	3'-7¼"	8"	4"@5.4#	1½"x1½"x3/16"	3"	12	2	¾"	7,000 to 9,500
4	5'-6"	5'-11"	4'-0"	5'-8¾"	6'-8¾"	4'-10"	4'-10"	5'-6"	6½"	6½"	45°	45°	2'-5"	2'-9¾"	3'-9¾"	9"	4"@5.4#	2"x2"x¼"	3"	14	2	¾"	9,500 to 11,800
5	6'-0"	6'-5"	3'-8½"	6'-2¾"	7'-2¾"	5'-0"	5'-4"	5'-0½"	9½"	9½"	45°	45°	2'-8"	3'-0¾"	4'-0¾"	8"	4"@5.4#	2"x2"x¼"	3"	18	2	¾"	11,500 to 14,000
6	6'-8"	7'-1"	4'-1½"	6'-10¾"	7'-10¾"	5'-0"	6'-0"	5'-1½"	11"	11"	50°	50°	3'-0"	3'-4¾"	4'-4¾"	1'-0"	4"@5.4#	2"x2"x¼"	3"	19	2	¾"	14,000 to 17,000
7	6'-11"	7'-5"	3'-10¾"	7'-3"	8'-3"	6'-4"	6'-4"	5'-10¾"	11"	11"	54°	54°	3'-2"	3'-6¾"	4'-6¾"	1'-0"	4"@5.4#	2"x2"x¼"	3"	22	2	¾"	17,000 to 20,000
8	7'-8"	8'-1"	4'-3"	7'-10¾"	8'-10¾"	7'-0"	7'-0"	6'-3"	1'-0½"	1'-0½"	59°	59°	3'-6"	3'-9¾"	3'-9¾"	1'-0"	4"@5.4#	2"x2"x¼"	3"	28	2	¾"	20,000 to 24,000
9	8'-5"	9'-0"	4'-0¾"	8'-8"	9'-8"	7'-9"	7'-9"	6'-0¾"	1'-1½"	1'-1½"	66°	66°	3'-10½"	4'-2¾"	5'-2¾"	1'-0"	4"@6.4#	2"x2"x¼"	3"	34	3	¾"	24,000 to 30,000
10	9'-7"		4'-5"	9'-11¾"		8'-11"	8'-11"	6'-5"	1'-3½"	1'-3½"	76°	76°	4'-5½"	5'-0¾"		1'-0"	6"@8.2#	2"x2"x¼"	3"	44	3	1"	30,000 to 40,000
11	12'-1"		4'-2½"	9'-9¾"		8'-9"	11'-5"	6'-2½"	10"	2'-2"	85°	85°	5'-8"	4'-11¼"		1'-0"	6"@8.2#	2"x2"x¼"	3"	56	3	1"	40,000 to 50,000
12	14'-5"		4'-5½"	9'-9¾"		8'-9"	13'-9"	8'-5½"	10"	2'-7½"	85°	102°	6'-10½"	4'-11¼"		2'-0"	6"@8.2#	2"x2"x¼"	3"	66	3	1"	50,000 to 60,000
14	17'-9"		4'-5½"	9'-9¾"		8'-9"	17'-1"	8'-5½"	10"	3'-2½"	85°	125°	8'-5½"	4'-11¼"		2'-0"	6"@8.2#	2"x2"x¼"	3"	81	3	1"	60,000 to 75,000
15	20'-8"		4'-2½"	9'-9¾"		8'-9"	19'-10"	8'-2½"	10"	3'-9½"	85°	147°	9'-11"	4'-11¼"		2'-0"	6"@8.2#	2"x2"x¼"	3"	93	3	1½"	75,000 to 87,000
16	20'-8"		4'-7"	10'-0¾"		10'-0"	20'-0"	8'-7"	1'-5½"	3'-0"	85°	240°	10'-0"	5'-6¾"		2'-0"	6"@8.2#	2"x2"x¼"	3"	106	3	1½"	87,000 to 100,000

• NOTE — For exact unit weight check with manufacturers.

• NOTE — Double pack models are available where particularly heavy loadings exist. Check with manufacturer for dimensional changes.



Typical three view drawing of units with integral recirculation tanks.



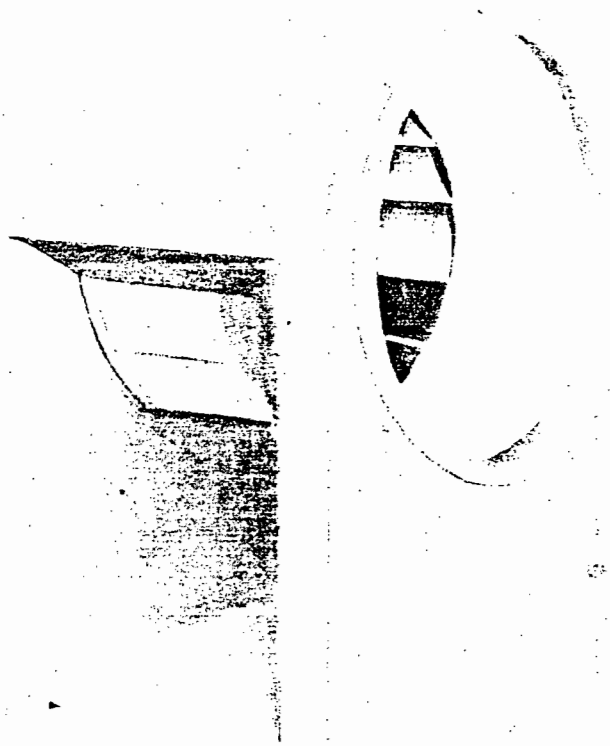
An assembled F/W-10 complete with Tri-Mer PVC Fan & Transition

PVC

UNPLASTICIZED POLYVINYL CHLORIDE

NON-OVERLOADING BLOWERS

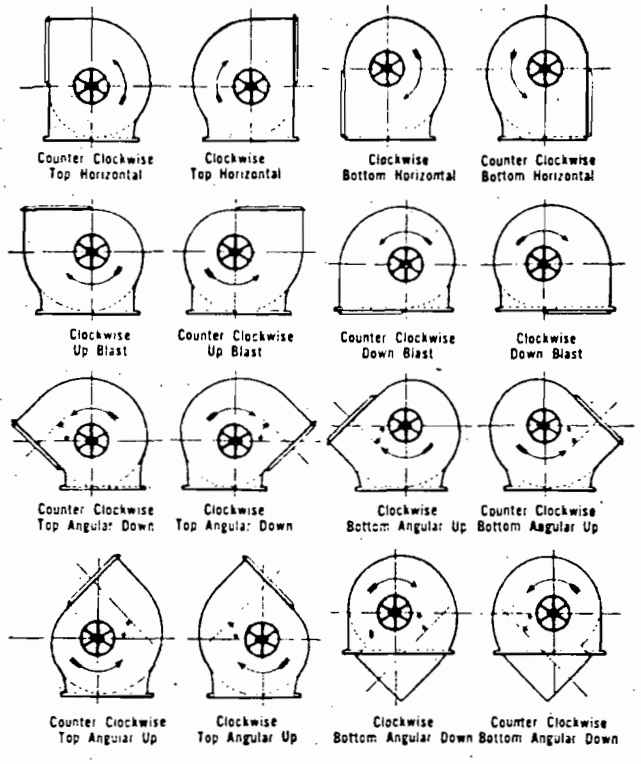
(BACKWARD INCLINED BLADES)



® Tri-Mer® Corporation
Air Pollution Control Systems
DESIGN • ENGINEERING • MANUFACTURING
1400 Monroe Street • Owosso, Michigan 48867 • 517-723/5124 • Telex 228545

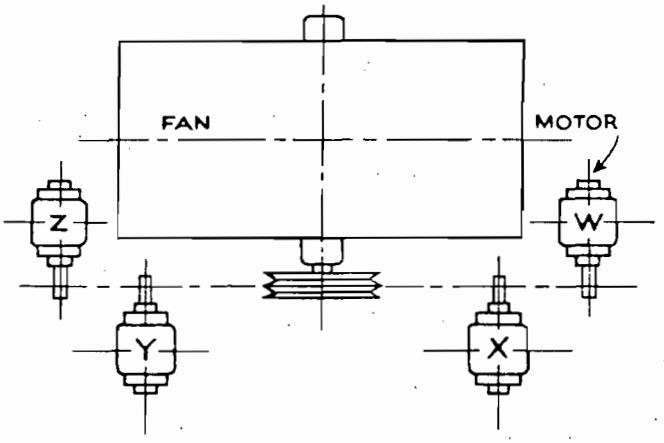
STANDARD NOMENCLATURE

Direction of Rotation and Discharge



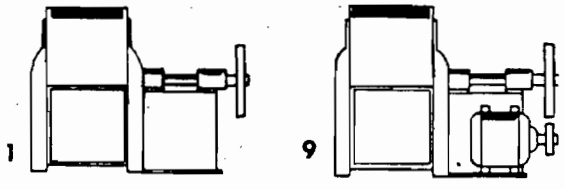
Direction of rotation is determined from the drive side. On single inlet fans, drive side is considered as opposite inlet, regardless of actual drive location.

STANDARD MOTOR POSITIONS



The location of motor is determined from plan view of the blower, designating the motor position by letters W, X, Y and Z as the case may be.

ARRANGEMENTS OF DRIVE



ARRANGEMENT No. 1, SWSI

For belt drive or direct connection. Wheel overhung. Two bearings on base. Furnished in sizes 122 to 600 inclusive. Single inlet only.

ARRANGEMENT No. 9, SWSI

For belt drive. Arrangement No. 1 designed for mounting prime mover on side of base. Furnished in sizes 122 to 600 inclusive. Single inlet only.

SWSI – Class II

Heavier design than Class I. A one piece intermediate stiffening ring is also welded into each blade. Tip speed limit approximately 13000 FPM and 6 inches total pressure.

CONSTRUCTION FEATURES

- **HOUSING—All P.V.C.**
- **WHEEL—P.V.C. and Coated Steel**
- **INLET—1½" P.V.C. Angle Flange**
- **OUTLET—1½" P.V.C. Angle Flange**
- **DRAIN—2" P.V.C. Flanged**
- **CLEANOUT DOOR—P.V.C. Bolted**
- **STEEL FRAME—Epoxy Coated**

Blowers are very rugged with heavy angle iron bracing, over capacity shaft and bearings. Formed P.V.C. venturi inlets give streamlined flow into the wheel with its own matching cone for very high efficiency and quiet operation. OPERATING TEMPERATURES UP TO 155°F.

CAPACITY TABLES

TRI-MER CORPORATION
Air Pollution Control Systems

SIZE 30

Wheel Diameter = 30"
Wheel Circumference = 7.85'

Inlet Diameter = 33⅛"
Fan Outlet Area = 5.17 sq. ft.

Safe RPM = 1530
Maximum BHP = 5.25 $\left(\frac{RPM}{1000}\right)^3$

13,500 CFM

CFM	OV	¼" SP		⅛" SP		½" SP		⅝" SP		¾" SP		1" SP		2" SP		3" SP		4" SP		5" SP		6" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1116	600	300	.32	435	.42	467	.53	496	.64	525	.75	579	.99										
5893	900	332	.39	366	.51	405	.63	523	.75	550	.97	650	1.13	735	2.12								
5160	1000	365	.38	397	.61	525	.74	552	.87	577	1.01	625	1.28	797	2.52								
5687	1100	468	.57	526	.72	586	.86	632	1.01	607	1.15	651	1.45	813	2.75	952	4.27						
6324	1200	532	.69	561	.94	598	1.01	613	1.16	636	1.32	680	1.63	833	3.01	972	4.55	1105	6.44				
6721	1300	566	.82	594	.98	620	1.15	644	1.33	667	1.49	709	1.84	855	3.27	987	4.88	1113	6.69				
7018	1400	602	.97	628	1.15	653	1.33	676	1.51	698	1.69	740	2.07	880	3.58	1006	5.24	1124	7.07	1240	9.11		
7265	1500	638	1.14	662	1.33	686	1.52	708	1.72	730	1.91	770	2.31	906	3.91	1027	5.64	1139	7.62	1250	9.77	1361	11.9
7472	1600	675	1.34	697	1.53	720	1.73	741	1.94	762	2.15	801	2.57	934	4.26	1050	6.06	1163	7.97	1262	10.1	1363	12.3
7706	1700	749	1.61	769	2.01	788	2.22	808	2.45	823	2.73	861	3.15	982	5.05	1099	6.98	1202	9.07	1336	11.2	1390	13.5
7910	1800	824	2.37	842	2.59	860	2.83	877	3.07	895	3.31	930	3.84	1051	5.93	1155	8.05	1250	10.3	1346	12.5	1427	15.1
8074	1900	900	3.05	916	3.29	931	3.54	948	3.81	964	4.08	997	4.66	1113	6.92	1212	9.23	1304	11.6	1399	14.1	1469	16.6
8203	2000	978	3.91	991	4.14	1005	4.38	1021	4.68	1035	4.96	1061	5.54	1177	8.05	1272	10.5	1359	13.1	1440	15.7	1518	18.4
8312	2100	1055	4.96	1066	5.09	1079	5.37	1093	5.66	1106	5.96	1125	6.61	1240	9.75	1335	12.1	1419	14.8	1496	17.5		
8405	2200	1132	6.07	1144	6.26	1155	6.53	1169	6.95	1181	7.17	1205	7.72	1305	10.5	1396	13.5	1479	16.6				
15610	2000	1210	7.27	1220	7.54	1232	7.87	1242	8.16	1254	8.51	1277	9.09	1373	12.2	1460	15.3						
16544	2200	1288	8.73	1297	9.02	1308	9.36	1317	9.66	1329	10.1	1350	10.7	1439	13.9	1525	17.2						
17579	2400	1366	10.4	1375	10.7	1385	11.1	1395	11.4	1403	11.7	1424	12.5	1508	15.7								

BHP shown does not include belt drive loss.

TRI-MER CORPORATION
Air Pollution Control Systems

SIZE 33

Wheel Diameter = 33"
Wheel Circumference = 8.63'

Inlet Diameter = 36⅜"
Fan Outlet Area = 6.26 sq. ft.

Safe RPM = 1390
Maximum BHP = 8.54 $\left(\frac{RPM}{1000}\right)^3$

CFM	OV	¼" SP		⅛" SP		½" SP		⅝" SP		¾" SP		1" SP		2" SP		3" SP		4" SP		5" SP		6" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
5008	600	348	.35	380	.47	410	.59	438	.72	466	.85	518	1.12										
5634	900	375	.43	405	.56	434	.71	460	.84	485	1.08	534	1.27										
6280	1000	403	.52	432	.67	459	.82	483	.97	507	1.12	553	1.44	717	2.84								
6836	1100	432	.61	459	.79	484	.96	509	1.12	531	1.29	574	1.62	728	3.11								
7312	1200	461	.76	486	.93	510	1.11	533	1.29	555	1.46	596	1.83	742	3.37	876	5.14						
7738	1300	492	.91	515	1.09	538	1.28	560	1.47	581	1.66	621	2.06	760	3.53	886	5.51	1005	7.55				
8164	1400	522	1.08	544	1.27	566	1.46	587	1.67	607	1.88	645	2.29	778	4.02	899	5.91	1012	7.89				
8590	1500	554	1.27	574	1.47	594	1.68	614	1.89	634	2.11	671	2.56	800	4.39	914	6.34	1023	8.48	1125	10.8		
10015	1600	585	1.48	604	1.69	624	1.91	643	2.14	661	2.37	697	2.85	821	4.77	932	6.81	1036	9.01	1136	11.4	1231	13.9
11268	1800	650	2.01	667	2.22	684	2.46	700	2.71	717	2.95	750	3.48	858	5.63	971	7.84	1069	10.2	1160	12.7	1248	15.3
12520	2000	716	2.54	730	2.87	743	3.12	761	3.39	776	3.67	806	4.23	917	6.59	1015	9.02	1105	11.5	1191	14.1	1275	16.9
13772	2200	783	3.42	795	3.66	808	3.92	822	4.22	836	4.49	864	5.12	969	7.68	1062	10.3	1147	13.1	1228	15.8	1306	18.5
15024	2400	848	4.32	860	4.61	873	4.91	885	5.17	898	5.51	923	6.12	1021	8.68	1112	11.3	1193	14.5	1270	17.5	1345	20.7
16275	2600	916	5.43	927	5.71	937	5.99	948	6.31	960	6.61	983	7.28	1076	10.2	1162	13.3	1240	16.4	1315	19.6	1385	22.8
17529	2800	983	6.56	993	6.96	1003	7.27	1013	7.61	1024	7.93	1045	8.65	1133	11.8	1214	15.1	1291	18.4	1362	21.8		
18780	3000	1050	8.11	1060	8.42	1069	8.75	1078	9.09	1088	9.44	1108	10.2	1188	13.4	1263	16.9	1342	20.5				
20032	3200	1119	9.77	1127	10.1	1136	10.4	1144	10.8	1153	11.1	1172	11.9	1247	15.3	1322	18.9						
21284	3400	1186	11.6	1195	12.1	1203	12.3	1212	12.7	1218	13.1	1236	13.9	1306	17.3	1378	21.2						

BHP shown does not include belt drive loss.

TRI-MER CORPORATION
Air Pollution Control Systems

SIZE 36

Wheel Diameter = 36½"
Wheel Circumference = 9.55'

Inlet Diameter = 40⅞"
Fan Outlet Area = 7.96 sq. ft.

Safe RPM = 1255
Maximum BHP = 15.3 $\left(\frac{RPM}{1000}\right)^3$

CFM	OV	¼" SP		⅛" SP		½" SP		⅝" SP		¾" SP		1" SP		2" SP		3" SP		4" SP		5" SP		6" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
6128	800	300	.41	330	.55	356	.69	382	.83	407	.99	455	1.33										
6894	900	324	.51	351	.66	376	.81	399	.97	422	1.14	466	1.49	629	3.19								
7560	1000	348	.61	374	.78	397	.95	419	1.13	440	1.31	481	1.67	633	3.41								
8426	1100	373	.73	397	.93	419	1.11	440	1.31	460	1.49	498	1.88	640	3.67	770	5.85						
9192	1200	398	.88	422	1.09	442	1.29	462	1.51	481	1.71	517	2.12	650	3.97	774	6.18						
9958	1300	424	1.04	446	1.28	466	1.49	485	1.71	503	1.94	537	2.38	663	4.31	780	6.55	890	9.13				
10724	1400	451	1.23	472	1.48	491	1.72	508	1.96	526	2.19	559	2.67	679	4.69	789	6.98	894	9.57				
11490	1500	478	1.45	497	1.71	515	1.96	533	2.22	549	2.47	580	2.98	695	5.09	801	7.45	901	10.1	997	13.1		
12256	1600	505	1.69	524	1.97	541	2.24	557	2.51	572	2.77	603	3.32	713	5.53	814	7.97	910	10.7	1001	13.5	1091	16.3
13788	1800	560	2.25	577	2.57	593	2.87	607	3.16	621	3.46	650	4.08	753	6.54	846	9.14	933	11.9	1018	14.9	1101	18.3
15320	2000	616	2.94	632	3.31	646	3.63	659	3.96	672	4.29	699	4.97	794	7.65	882	10.5	963	13.4	1041	16.5	1118	19.9
16852	2200	673	3.78	688	4.19	700	4.54	712	4.89	724	5.25	748	5.97	838	8.94	921	12.1	997	15.1	1071	18.4	1142	21.8
18384	2400	730	4.78	744	5.21	755	5.61	767	5.99	778	6.38	800	7.18	884	10.4	963	13.7	1035	17.1	1104	20.4	1171	24.1
19916	2600	788	5.94	800	6.42	811	6.85	822	7.26	832	7.67	853	8.52	932	12.1	1006	15.5	1075	19.1	1140	22.7	1205	26.5
21448	2800	845	7.28	857	7.83	867	8.25	876	8.68	886	9.13	906	10.1	981	13.8	1051	17.5	1117	21.3	1180	25.2	1240	29.2
22980	3000	903	8.81	915	9.41	924	9.88	933	10.4	942	10.8	960	11.8	1031	15.8	1098	19.8	1161	23.8	1222	28.1		
24512	3200	961	10.6	973	11.3	981	11.8	989	12.2	998	12.7	1015	13.7	1081	17.9	1145	22.2	1205	26.5				
26044	3400	1019	12.5	1031	13.3	1038	13.8	1046	14.3	1054	14.9	1070	15.9	1133	20.4	1193	24.8	1252	29.4				

BHP shown does not include belt drive loss.

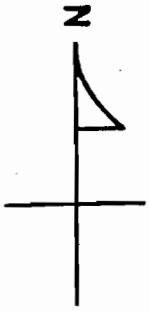
HARRIS SEMICONDUCTOR

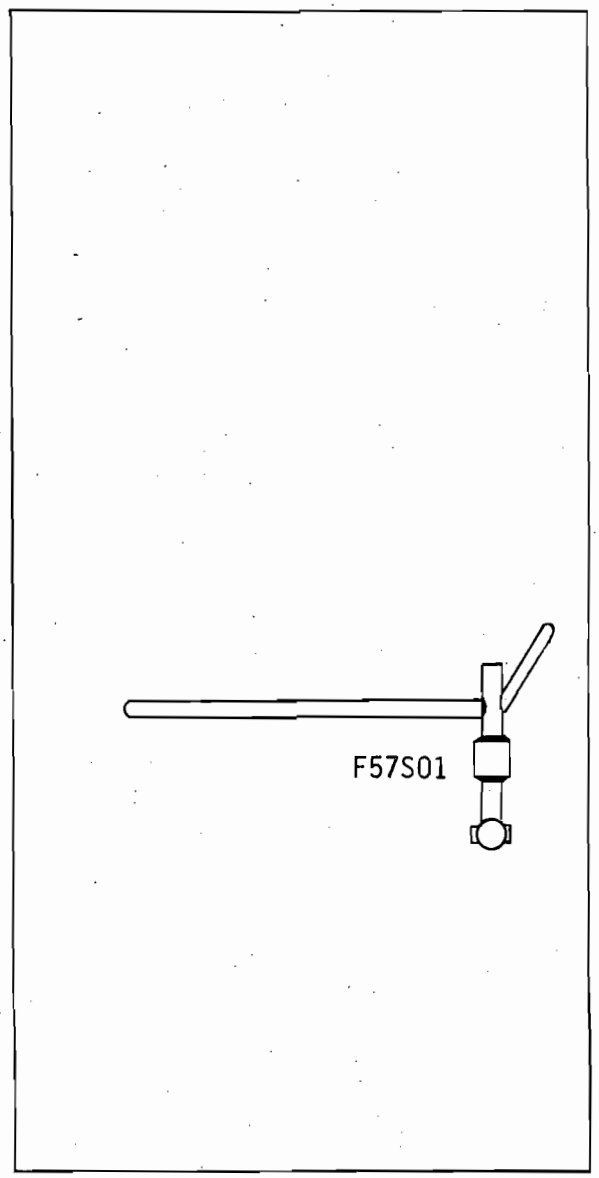
AIR PERMIT - BUILDING 57

ATTACHMENT E

SITE LOCATION MAPS

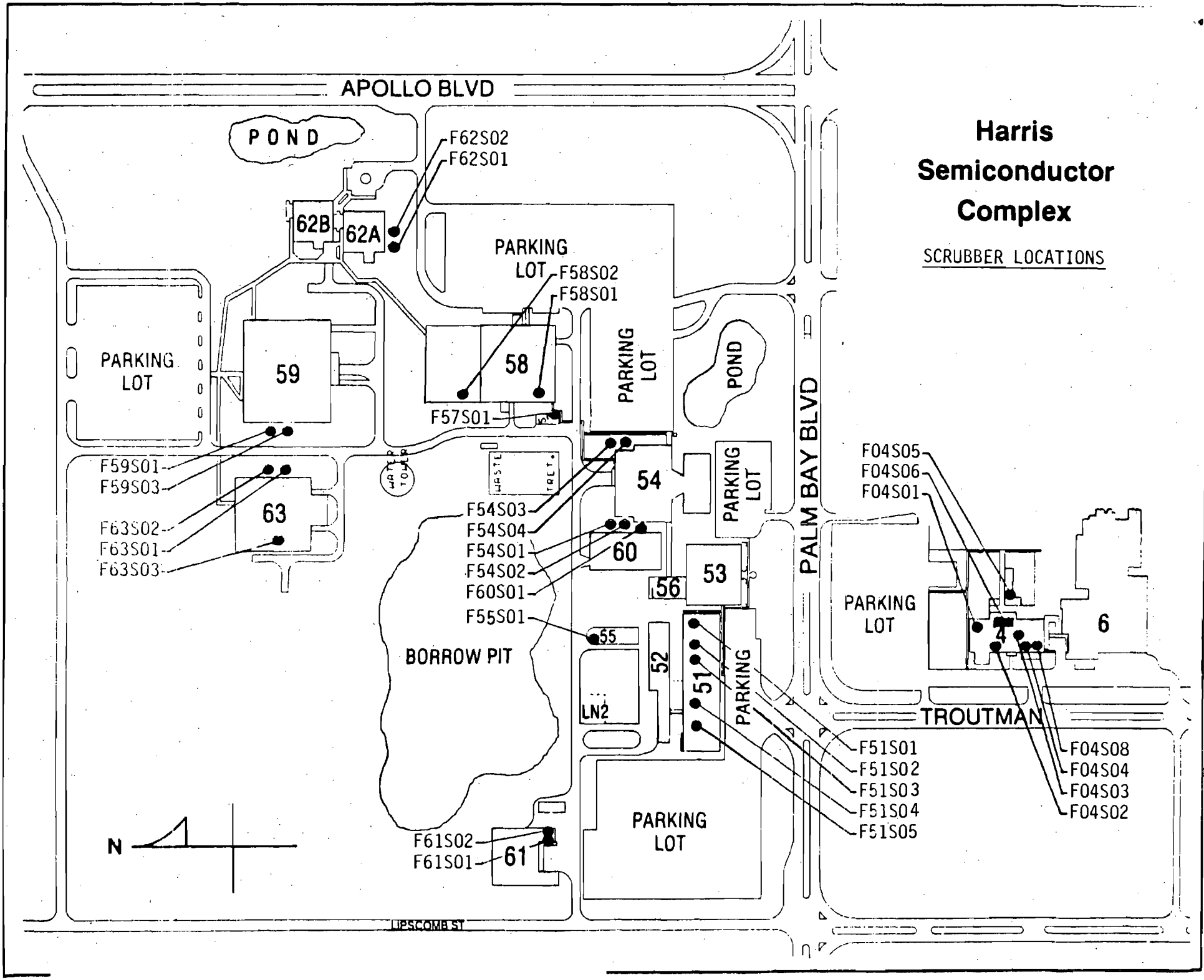
HARRIS SEMICONDUCTOR
SCRUBBER LOCATIONS
BUILDING 57





LEGEND

- Horizontal Scrubber
- Vertical Scrubber
- Exhaust Stack
- Exhaust Fan
- Stack mounted on fan
- Epitaxial Scrubber


Harris
Semiconductor
Complex
SCRUBBER LOCATIONS
APOLLO BLVD
POND
F62S02
F62S01
62B
62A
PARKING
LOT
F58S02
F58S01
PARKING
LOT
59
58
POND
PALM BAY BLVD
F57S01
F59S01
F59S03
63
F63S02
F63S01
F63S03
WATER TOWER
WASTE
54
PARKING
LOT
F54S03
F54S04
F54S01
F54S02
F60S01
60
56
53
F55S01
55
BORROW PIT
52
51
LN2
PARKING
F04S05
F04S06
F04S01
PARKING
LOT
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