

Check Sheet

Company Name: Kennedy Space Center

Permit Number: AC 09-168071

PSD Number: \_\_\_\_\_

Permit Engineer: \_\_\_\_\_

**Application:**

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

**Cross References:**

- 
- 
- 

**Intent:**

- Intent to Issue
- Notice of Intent to Issue
- Technical Evaluation
- BACT Determination
- Unsigned Permit

Correspondence with:

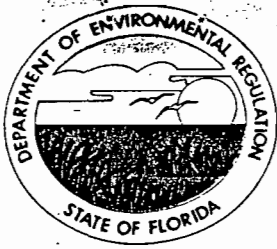
- EPA
- Park Services
- Other
- Proof of Publication
  - Petitions - (Related to extensions, hearings, etc.)
  - Waiver of Department Action
  - Other

**Final Determination:**

- Final Determination
- Signed Permit
- BACT Determination
- Other

**Post Permit Correspondence:**

- Extensions/Amendments/Modifications
- 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

## STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION NOTICE OF PERMITS

Mr. James D. Phillips  
Director of Engineering Development  
John F. Kennedy Space Center  
Kennedy Space Center, Florida 32899

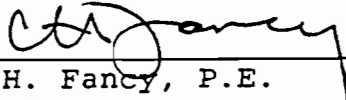
February 1, 1990

Enclosed are construction permits Nos. AC 05-165463 and AC 05-166071 to construct a spray cure cell and a 2.54 MMBtu/hr hot water generator at the Kennedy Space Center in Brevard County, Florida. These permits are issued pursuant to Section 403, Florida Statutes.

Any party to these permits has the right to seek judicial review of these permits 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 these permits are filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

  
\_\_\_\_\_  
C. H. Fancy, P.E.  
Chief  
Bureau of Air Regulation

Copy furnished to:  
John Turner, Central District

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 2-5-90.

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.

Kim Baker  
Clerk

2-5-90  
Date

Final Determination

Payload Hazardous Servicing Facility  
John F. Kennedy Space Center  
Brevard County

Permit No. AC 05-165463  
Hot Water Generator

Permit No. AC 05-166071  
Spray Cure Cell No. 5

Florida Department of Environmental Regulation  
Division of Air Resources Management  
Bureau of Air Regulation

January 25, 1990

## Final Determination

National Aeronautics and Space Administration's applications for permits to construct a spray cure cell and a 2.54 MMBtu/hr hot water generator at their existing facility in Brevard County, Florida, have been reviewed by the Bureau of Air Regulation.

Public Notice of the Department's Intent to Issue the construction permits was published in the Florida Today newspaper on September 23, 1989.

Copies of the Preliminary Determination have been available for public inspection at the Department's Central District office in Orlando, Florida, and the Department's Bureau of Air Regulation in Tallahassee.

No comments were received as a result of the public notice period. However, the expiration date of the permits will be extended to July 31, 1990.

The final action of the Department will be to issue the permit as noted during the public notice period.



# 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:**

National Aeronautics and  
Space Administration - NASA  
Kennedy Space Center - KSC  
Headquarters Bldg.  
Kennedy Space Center, FL  
32899

Permit Number: AC 05-166071

Expiration Date: July 31, 1990

County: Brevard

Latitude/Longitude: 28°30'35"N  
80°30'51"W

Project: Spray/Cure Cell No. 5  
Polyurethane Foam Spray Application

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code 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 construction/modification of Spray/Cure Cell No. 5 to use polyurethane foam spray application. Spray/Cure Cell No. 5 is located at the Vehicle Assembly, Kennedy Space Center (Building No. M7-1354) in Brevard County, Florida.

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

Attachments are listed below:

1. Application to Construct Air Pollution Source, DER Form 17-2.122(16), received on June 8, 1989.

PERMITTEE:  
NASA

Permit No. AC 05-166071  
Expiration Date: July 31, 1990

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
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. Neither 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 is not 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, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; 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.

PERMITTEE:  
NASA

Permit No. AC 05-166071  
Expiration Date: July 31, 1990

GENERAL CONDITIONS:

6. The permittee shall 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 and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

- a. Have access to and copy any records that must be kept under the conditions of the permit;
- b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sample or monitor 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 provide the Department with the following information:

- a. a description of and cause of non-compliance; and
- b. the period of noncompliance, including 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.



PERMITTEE:  
NASA

Permit No. AC 05-166071  
Expiration Date: July 31, 1990

**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 for 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 involving the permitted source arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

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 17-4.120 and 17-30.300, F.A.C., 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 or a copy thereof shall be kept at the work site of the permitted activity.

13. The permittee shall comply with the following:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

PERMITTEE:  
NASA

Permit No. AC 05-166071  
Expiration Date: July 31, 1990

**GENERAL CONDITIONS:**

- b. The permittee shall hold 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) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained 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 dates analyses were performed;
  - the person responsible for performing the analyses;
  - the analytical techniques or methods used; and
  - the results of such analyses.

14. 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 corrected promptly.

**SPECIFIC CONDITIONS:**

1. Except as required pursuant to these specific conditions, the proposed source operation shall be carried out in accordance with the statements in the application.
2. This source is allowed to operate continuously (8760 hours per year).

PERMITTEE:  
NASA

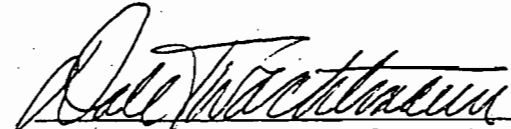
Permit No. AC 05-166071  
Expiration Date: July 31, 1990

SPECIFIC CONDITIONS:

3. The visible emissions from the proposed source shall not exceed 5 percent opacity during any 6 minute period. DER Method 9, F.A.C., (17-2.700(6)(a)9,) December 5, 1988, shall be used for the performance test conducted by the permittee. The permittee shall notify DER's Central District office at least 15 days prior to the compliance test.
4. Total VOC emissions shall not exceed 356 lbs/yr and 0.179 tons/year. Compliance with the VOC emission limitations will be maintained based on the VOC inventory.
5. No objectionable odors are allowed from this facility.
6. Upon obtaining a permit to operate, the permittee shall be required to submit annual reports on the actual operation and emission from this source. Quarterly material balance reports shall be sent to the DER's Central District office to assess emissions and maintain VOC inventory. Visible emissions tests shall be performed on an annual basis.
7. 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. 17-4.090).
8. An application for an operation permit must be submitted to the DER's Central 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. 17-4.220).

Issued this 30 day  
of January, 1990

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

  
Dale Twachtmann, Secretary



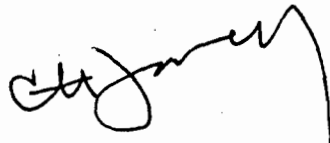
Best Available Copy

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: Dale Twachtmann

for FROM: Steve Smallwood 

DATE: January 29, 1990

SUBJ: Approval of Construction Permits for National Aeronautics and Space Administration, Permit Nos. AC 05-165463 and AC 05-166071

Attached for your approval and signature is a permit prepared by Bureau of Air Regulation for the above mentioned company to construct a spray cure cell and a 2.54 MMBtu/hr hot water generator at their facility in Brevard County, Florida.

No comments were received during the public notice period.

Day 90, after which these permits will be issued by default, is February 11, 1990 for permit AC 05-166071 and February 23, 1990 for permit AC 05-165463.

I recommend your approval and signature.

SS/TH/plm

Attachments

RECEIVED  
JAN 29 1990

Office of the Secretary

**John F. Kennedy Space Center**  
Kennedy Space Center, Florida 32899

Reply to Attn of DF-EMS

DEC 21 1989

RECEIVED

DEC 26 1989

DER-BAQM

Florida Department of Environmental Regulation  
Attn: Ms. Patricia Adams  
2600 Blair Stone Road  
Tallahassee, Florida 32391-2400

Subject: Notice of Intent Publications for Two Air Pollution Permits  
(Permit Nos. AC05-165463 and AC05-166071)

Enclosed are copies of the subject certifications of publication for the two subject permits. Because of the delay in publishing these notices, the expiration date on the draft permit for the hot water generator (permit # AC05-165463) does not allow enough time for construction. Please extend the expiration date on this permit to June 31, 1990. The expiration date on the other permit remains acceptable.

Any questions concerning either of these permits should be directed to Mr. Mario Busacca of my staff at 407 867-4049.

*Mario Busacca*

*For* Kirby K. Key, Chief  
Environmental Management Staff

cc: *S. Neron*  
*C. Collins, c Dist*

Key  
National Aeronautics and  
Space Administration

**John F. Kennedy Space Center**  
Kennedy Space Center, Florida 32899

OFFICIAL BUSINESS  
Penalty for Private Use \$300

MAIL CODE: DF-EMS

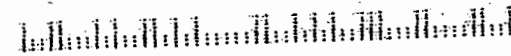


POSTAGE AND FEES PAID  
National Aeronautics  
and Space Administration  
NASA-451

Florida Dept. Of Environmental Regulation  
Attn: Ms. Patricia Adams  
2600 Blair Stone Road  
Tallahassee, Florida 32391-2400

**NASA**

KSC FORM 1-28 (REV. 2/88)



CAPE PUBLICATIONS, INC.

The Times

Published Weekly on Wednesday

THE TRIBUNE

Published Weekly on Wednesday



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

Contract Order No. cc-56283B

in the Court

was published in the FLORIDA TODAY NEWSPAPER

in the issues of September 23, 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 (signature)

Sworn and subscribed to before me this

23rd day of September, 1989

(Signature of Notary Public)

Notary Public, State of Florida at Large
My Commission Expires July 20, 1990

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 construct/modify a spray cure cell No. 3 to use polyurethane foam application spray to be located at the vehicle assembly facility (Low Bay) at RSC, 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) pursuant to 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 statute 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. A hearing is required. 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 28-5.107 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. Department of Environmental Regulation Bureau of Air Quality Management 2600 Blair Stone Road Tallahassee, Florida 32399-2400 Dept. of Environmental Regulation Central Florida District 1219 Maguire Blvd., Suite 237 Orlando, Florida 32803-3767 Any person may send written comments on the proposed action to Mr. Bill Thomas at the Department's Tallahassee office. All comments mailed within 14 days of the publication of this notice will be considered in the Department's final determination. F0100393-11-9/23, 1989, Saturday

**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: James D. Phillips Director of Eng. Devel. JFK Space Center KSC, FL 32899	4. Article Number P 938 762 637
	Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise
5. Signature - Address X	Always obtain signature of addressee or agent and DATE DELIVERED.
6. Signature - Agent X <i>Fal. Lambert</i>	8. Addressee's Address (ONLY if requested and fee paid)
7. Date of Delivery <i>08/2/89</i>	

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

P 938 762 637

**RECEIPT FOR CERTIFIED MAIL**  
 NO INSURANCE COVERAGE PROVIDED  
 NOT FOR INTERNATIONAL MAIL  
 (See Reverse)

Sent to James D. Phillips	
Director of Eng. Devel. JFK Space Center	
KSC, FL 32899	
Postage	S
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	S
Postmark or Date mailed: 7/31/89 AC 05-166071	

PS Form 3800, June 1985





# 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

July 31, 1989

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. James D. Phillips  
Director of Engineering Development  
John F. Kennedy Space Center  
Kennedy Space Center, FL 32899

Dear Mr. Phillips:

Attached is one copy of the Technical Evaluation and Preliminary Determination and proposed permit for John F. Kennedy Space Center to modify a spray cure cell No. 5 to use polyurethane foam spray application to be located at the KSC, vehicle assembly building (Low Bay), Brevard County, Florida.

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/TH/t

Attachments

cc: J. Turner, Central District

Reading File }  
Teresa Heron } 7-31-89 RAN

BEFORE THE STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

In the Matter of  
Application for Permit by:

National Aeronautics and  
Space Administration - NASA  
Kennedy Space Center - KSC  
Kennedy Space Center, FL 32899

DER File No. AC 05-166071

---

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, NASA, applied on June 8, 1989, to the Department of Environmental Regulation for a permit to construct/modify cell No. 5 to use polyurethane foam application to be located at the vehicle assembly building facility (Low Bay) at the Kennedy Space Center, 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

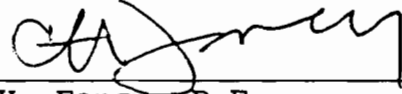
(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

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:

J. Turner, C District

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 July 31, 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 J. Wise July 31, 1989  
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 construct/modify a spray cure cell No. 5 to use polyurethane foam application spray to be located at the vehicle assembly facility (Low Bay) at KSC, 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 District Office  
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

Vehicle Assembly Building Facility (Low Bay)  
John F. Kennedy Space Center  
Brevard County

Spray/Cure Cell No. 5  
Polyurethane Foam Spray Application  
Permit No. AC 05-166071

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

July 28, 1989



I. SYNOPSIS OF APPLICATION

I.1 National Aeronautics and Space Administration - NASA  
John F. Kennedy Space Center  
DF-EMS  
Kennedy Space Center, Florida 32899

I.2 Reviewing and Process Schedule

Date of Receipt of Application: June 8, 1989  
Completeness Review (30 days): July 8, 1989  
Applications Completeness Date: June 8, 1989

II. FACILITY INFORMATION

II.1 Facility Location

The proposed facility will be located at the Vehicle Assembly Building (Low Bay) at the Kennedy Space Center in Brevard County, Florida. The latitude and longitude of this facility are 28° 35' 05" North and 80° 39' 00" West, respectively,

II.2 Standard Industrial Classification Code (SIC) and Source Classification Code (SCC)

This new facility will be classified as follows:

Group No. 966, Space Research and Technology  
Industry No. 9661, Space Research and Technology

II.3 Facility Category

The Kennedy Space Center (KSC) is classified as a major emitting facility for sulfur dioxide (SO<sub>2</sub>) and volatile organic compounds (VOC).

This facility category is not in the list of the 28 Major Facility Categories, Chapter 17-2, Table 500-1, Florida Administrative Code.

III. PROJECT DESCRIPTION

This project consists of the use of spray/cure cell No. 5 to provide personnel/operator training and certification in foam spray application and qualification testing.

Spray/Cure Cell No. 5, will be utilized for all training process exercises.

Personnel/operator training procedures will include surface preparation, consisting of primer application, cleaning and adhesive application, prior to final polyurethane foam spray application. Aluminum test panels, varying in size and shape depending on test requirements, will be staged adjacent to where actual foam spray application will be performed, for surface preparation exercises. The test panels will be painted with Epoxy Primer, using brush or spray can applicators. After ambient cure of the primer, the test panels will be clean wiped with Freon TMC to remove any surface contamination prior to adhesive application. A thin film of either Isochem or Conathane Adhesive will be applied to the test panel surface to complete surface preparation procedures. Polyurethane Foam (both Stephan-Foam and Insta-Foam) will then be sprayed onto the test panel to a thickness of approximately one-inch using a Gusmer D Spray Cart. Training exercises will utilize an estimated maximum of 50 square feet of aluminum test panels per week.

Air conditioners and exhaust fans will be turned off prior to spraying application. When foam spraying operations are completed, Spray Cell No. 5 exhaust fans will be turned on and vapors will be vented to the atmosphere via the VAB south multi-fan/stack system.

#### IV. RULE APPLICABILITY

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

The proposed facility, Kennedy Space Center, is located in an area (Brevard County) currently designated attainment for all criterial pollutants in accordance with F.A.C., 17-2.420.

This facility, a major emitting facility for SO<sub>2</sub> and VOC, is not on the list of the 28 Major Facility Categories, F.A.C., Table 500-1. Therefore, this project is exempt from provisions of F.A.C. 17-2.500, Prevention of Significant Deterioration.

The proposed source shall be permitted under F.A.C. 17-2.520, Sources Not Subject to Prevention of Significant Deterioration or Nonattainment Requirements and shall comply with F.A.C. 17-2.610(2) General Particulate Emission Limiting Standards and F.A.C. 17-2.600(6)(b) and (c).

#### V. SOURCE IMPACT ANALYSIS

##### V.1. Emission Limitations

The air pollutants emitted from the proposed operation will be volatile organic compounds (VOC). Table No. 1 summarizes VOC emissions from the proposed source.

The permitted emission, in compliance with all applicable requirements of Chapter 17-2, Florida Administrative Code.

Table 1  
Summary of Emissions

Raw Material/ Chemical	% VOC	Utilization Rate (Tons/Yr)	Potential Emissions (Tons/Yr)
Stephan-Foam A	Nil	0.260	-
Stephan-Foam B	30	0.260	0.078
Insta-Foam A	7	0.260	0.018
Insta-Foam B	16	0.230	0.037
Isochem Adhesive A	<30**	0.004	0.001**
Isochem Adhesive B	Nil	0.003	-
Conathane Adhesive A	Nil	0.003	-
Conathane Adhesive B	Nil	0.003	-
Epoxy Primer A	57	0.020	0.011
Epoxy Primer B	58	0.007	0.004
Solvent Reducer	100	0.019	0.019
Freon TMC	100	0.011	0.011
Total VOC Emissions			= 0.179 tons/yr
			= 356 lbs/yr

\* Emissions estimates conservatively assume that all volatiles are emitted to the atmosphere, and does not consider the recovery of waste materials.

\*\* Either Isochem or Conathane Adhesive will be utilized: emissions estimates conservatively assume Isochem Adhesive with 30 percent VOC.

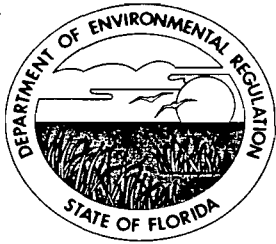
## VI.2 Air Quality Analysis

From a technical review of the application, the Department has determined that the construction and operation of this source will not have a significant impact on Florida's ambient air quality standards.

## VI. CONCLUSION

Based on the information provided by NASA, the Department has reasonable assurance that the proposed operation and spray application of polyurethane foam at the Spray/Cure Cell No. 5, 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.

*John Thomas*  
7/31/89



# 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:**

National Aeronautics and  
Space Administration - NASA  
Kennedy Space Center - KSC  
Headquarters Bldg.  
Kennedy Space Center, FL  
32899

Permit Number: AC 05-166071  
Expiration Date: March 30, 1990  
County: Brevard  
Latitude/Longitude: 28°30'35"N  
80°30'51"W  
Project: Spray/Cure Cell No. 5  
Polyurethane Foam Spray Application

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 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 construction/modification of Spray/Cure Cell No. 5 to use polyurethane foam spray application. Spray/Cure Cell No. 5 is located at the Vehicle Assembly, Kennedy Space Center (Building No. M7-1354) in Brevard County, Florida.

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

Attachments are listed below:

1. Application to Construct Air Pollution Source, DER Form 17-2.122(16), received on June 8, 1989.

PERMITTEE:  
NASA

Permit No. AC 05-166071  
Expiration Date: March 30, 1990

**GENERAL CONDITIONS:**

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

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. Neither 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 is not 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, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; 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.

PERMITTEE:  
NASA

Permit No. AC 05-166071  
Expiration Date: March 30, 1990

**GENERAL CONDITIONS:**

6. The permittee shall 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 and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

- a. Have access to and copy any records that must be kept under the conditions of the permit;
- b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sample or monitor 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 provide the Department with the following information:

- a. a description of and cause of non-compliance; and
- b. the period of noncompliance, including 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.

PERMITTEE:  
NASA

Permit No. AC 05-166071  
Expiration Date: March 30, 1990

**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 for 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 involving the permitted source arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

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 17-4.120 and 17-30.300, F.A.C., 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 or a copy thereof shall be kept at the work site of the permitted activity.

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:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

PERMITTEE:  
NASA

Permit No. AC 05-166071  
Expiration Date: March 30, 1990

**GENERAL CONDITIONS:**

b. The permittee shall hold 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) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained 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 dates 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 corrected promptly.

**SPECIFIC CONDITIONS:**

1. Except as required pursuant to these specific conditions, the proposed source operation shall be carried out in accordance with the statements in the application.

2. This source is allowed to operate continuously (8760 hours per year).



PERMITTEE:  
NASA

Permit No. AC 05-166071  
Expiration Date: March 30, 1990

**SPECIFIC CONDITIONS:**

3. The visible emissions from the proposed source shall not exceed 5 percent opacity during any 6 minute period. DER Method 9, F.A.C., (17-2.700(6)(a)9,) December 5, 1988, shall be used for the performance test conducted by the permittee. The permittee shall notify DER's Central Florida District office at least 15 days prior to the compliance test.

4. Total VOC emissions shall not exceed 356 lbs/yr and 0.179 tons/year. Compliance with the VOC emission limitations will be maintained based on the VOC inventory.

5 No objectionable odors are allowed from this facility.

6. 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. 17-4.090).

7. An application for an operation permit must be submitted to the DER's 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. 17-4.220).

8. Upon obtaining a permit to operate, the permittee shall be required to submit annual reports on the actual operation and emission from this source. Quarterly material balance reports shall be sent to the DER's Central Florida District office to assess emissions and maintain VOC inventory. Visible emissions tests shall be performed on an annual basis.

Issued this \_\_\_\_\_ day  
of \_\_\_\_\_, 1989

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

---

Dale Twachtman, Secretary

Attachments Available Upon Request



Pay to  
the order of

000 0 271,000,004  
BEST AVAILABLE COPY  
BEST AVAILABLE COPY  
D5 19 89 52 BIRMINGHAM, AL. 3508 20706161  
AJ911189 02 STATE OF FLORIDA 80004904  
NASA JFK KENNEDY FL  
STATE OF FLORIDA  
DEPT OF ENVIRONMENTAL REG  
AIR PERMIT  
SPRAY BOOTH OPS VAB  
\*\*\*\*\*200\*00



⑈ 3508 ⑈⑈⑈ ⑆000000518⑆ 207061613⑈

SUBJECT: Air Source Construction Permit Application for Vehicle Assembly Bldg. Spray/Cure Cell No. 5 - Foam Polyurethane Spray Application Kennedy Space Center

Enclosed is an air pollution permit application to perform foam-polyurethane spray applications within spray/cell no. 5 at the Vehicle Assembly Bldg. at Kennedy Space Center. Also enclosed is a \$200 check for application processing fees.

Please address any questions regarding this application to Mr. Mario Busacca.

*James D. Phillips*  
James D. Phillips  
Director of Engineering Development

Enclosures

**John F. Kennedy Space Center**  
Kennedy Space Center, Florida 32899

RECEIVED  
DER - MAIL ROOM  
1989 JUN -8 AM 10: 54

JUN 05 1989

Reply to Attn of DF-EMS

Florida Dept. of Environmental Regulation  
Attn: Mr. Claire Fancy  
Twin Towers Office Bldg.  
2600 Blair Stone Road  
Tallahassee, FL 32301

SUBJECT: Air Source Construction Permit Application for Vehicle Assembly  
Bldg. Spray/Cure Cell No. 5 - Foam Polyurethane Spray Application  
Kennedy Space Center

Enclosed is an air pollution permit application to perform foam-polyurethane  
spray applications within spray/cell no. 5 at the Vehicle Assembly Bldg. at  
Kennedy Space Center. Also enclosed is a \$200 check for application  
processing fees.

Please address any questions regarding this application to Mr.  
Mario Busacca.

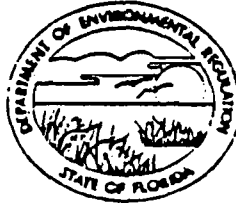
  
James D. Phillips  
Director of Engineering Development

Enclosures

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION.

#200pd.  
6-8-89  
Rept. #  
119628

TWIN TOWERS OFFICE BUILDING  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32301



AC 05-166071

BOB GRAHAM  
GOVERNOR  
VICTORIA J. TSCHINKEL  
SECRETARY

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

Foam, Polyurethane

SOURCE TYPE: Spray application  New<sup>1</sup>  Existing<sup>1</sup>

APPLICATION TYPE:  Construction  Operation  Modification

COMPANY NAME: National Aeronautics and Space Administration COUNTY: Brevard

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

SOURCE LOCATION: Street Vehicle Assembly Bldg. (Low Bay) City Kennedy Space Center

UTM: East X-612,000 North Y=1,554,000

Latitude 28 ° 35 ' 05 " N Longitude 80 ° 39 ' 00 " W

APPLICANT NAME AND TITLE: James D. Phillips, Director of Engineering Development.

APPLICANT ADDRESS: John F. Kennedy Space Center, Kennedy Space Center, FL 32899

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative\* of NASA, Kennedy Space Center

I certify that the statements made in this application for a Construction 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 D. Phillips  
James D. Phillips, Director of Engineering Dev.  
Name and Title (Please Type)

Date: JUL 05 1989 Telephone No. (407)867-2565

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

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

DER Form 17-1.202(1)  
Effective October 31, 1982

Page 1 of 12

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 James D. Phillips  
James D. Phillips  
Name (Please Type)

National Aeronautics and Space Administration  
Company Name (Please Type)  
John F. Kennedy Space Center, KSC, FL 32899  
Mailing Address (Please Type)

Exempt per F.A.C. 17-4  
Florida Registration No. \_\_\_\_\_ Date: JUN 05 1989 Telephone No. (407) 867-2565

**SECTION II: GENERAL PROJECT INFORMATION**

A. 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.

See Attachment A

B. Schedule of project covered in this application (Construction Permit Application Only)  
Start of Construction Upon Receipt of Permit Completion of Construction Within 60 Days

C. 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.)  
Total cost including filters, exhauster building, stack, and associated duct work is \$66,000 (existing).

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.  
A005-112083 Issuance: 1/31/86 Expiration: 1/31/91

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? N/A  
b. If yes, has "Lowest Achievable Emission Rate" been applied? N/A  
c. If yes, list non-attainment pollutants. N/A

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 justifi-  
cation for any answer of "No" that might be considered questionable.

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

A. Raw Materials and Chemicals Used in your Process, if applicable: (See Attachment B)

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

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

1. Total Process Input Rate (lbs/hr): \_\_\_\_\_

2. Product Weight (lbs/hr): \_\_\_\_\_

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

Name of Contaminant	Emission <sup>1</sup>		Allowed Emission Rate per Rule 17-2	Allowable <sup>3</sup> Emission lbs/hr	Potential <sup>4</sup> Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	

<sup>1</sup>See Section V, Item 2.

<sup>2</sup>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)

<sup>3</sup>Calculated from operating rate and applicable standard.

<sup>4</sup>Emission, if source operated without control (See Section V, Item 3).



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

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

E. Fuels N/A

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. N/A

Annual Average \_\_\_\_\_ Maximum \_\_\_\_\_

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

Waste products from solvent (Freon TMC) wipes and Epoxy Primer applications

will be disposed of in OSHA/Fire Service approved containers and disposed of by  
permitted vendor.

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

Stack Height: 102 ft. Stack Diameter: 4.5(54") ft.  
 Gas Flow Rate: 29784 ACFM 29055 DSCFM Gas Exit Temperature: Avg. 78 °F.  
 Water Vapor Content: 1.8 (Avg.) % Velocity: 34.5 (Avg.) 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) <sup>3</sup>	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: \_\_\_\_\_ ft. Stack Diameter: \_\_\_\_\_ 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  
SEE ATTACHMENT B**

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**  
**NOT APPLICABLE**

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. Describe 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

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:<sup>1</sup>

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:<sup>2</sup>

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:<sup>1</sup>

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:<sup>2</sup>

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

<sup>1</sup>Explain method of determining efficiency.

<sup>2</sup>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:<sup>1</sup>
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy:<sup>2</sup>
- 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:<sup>1</sup>
- d. Capital Costs:
- e. Useful Life:
- f. Operating Cost:
- g. Energy:<sup>2</sup>
- 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:<sup>1</sup>
- 3. Capital Cost:
- 4. Useful Life:
- 5. Operating Cost:
- 6. Energy:<sup>2</sup>
- 7. Maintenance Cost:
- 8. Manufacturer:
- 9. Other locations where employed on similar processes:
- a. (1) Company:
- (2) Mailing Address:
- (3) City:
- (4) State:

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

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:<sup>1</sup>

Contaminant	Rate or Concentration

(8) Process Rate:<sup>1</sup>

b. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:<sup>1</sup>

Contaminant	Rate or Concentration

(8) Process Rate:<sup>1</sup>

10. Reason for selection and description of systems:

<sup>1</sup>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<sub>2</sub> \_\_\_\_\_ Wind spd/di:

Period of Monitoring \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ to \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
month day year month day year

Other data recorded \_\_\_\_\_

Attach all data or statistical summaries to this application.

Specify bubbler (B) or continuous (C).





## ATTACHMENT A

### SECTION II: GENERAL PROJECT INFORMATION

A new air pollution source construction permit application is submitted for the Solid Rocket Booster Refurbishment and Assembly Facility (SRBRAAF) located in the Vehicle Assembly Building (VAB) Low Bay, at Kennedy Space Center (KSC), Florida.

In order to support the SRB refurbishment Thermal Protection System (TPS) process operations, a facility is required to provide personnel/operator training and certification in foam spray application and qualification testing.

While the SRBRAAF is presently permitted (A005-112083) for refurbishment processing and assembly operations, the majority of these operations have been transferred to the new Solid Rocket Booster Assembly and Refurbishment Facility (SRBARF) located on Schwartz Road at KSC (permit No. A005-139635). It has been determined that the existing VAB refurbishment facility is properly equipped to satisfy all necessary requirements for the foam spray application training activities. One process room, Spray/Cure Cell No. 5, will be utilized for all training process exercises.

Personnel/operator training procedures will include surface preparation, consisting of primer application, cleaning and adhesive application, prior to final polyurethane foam spray application. Aluminum test panels, varying in size and shape depending on test requirements, will be staged adjacent to where actual foam spray application will be performed, for surface preparation exercises. The test panels will be painted with Epoxy Primer, using brush or spray can applicators. After ambient cure of the primer, the test panels will be clean wiped with Freon TMC to remove any surface contamination prior to adhesive application. A thin film of either Isochem or Conathane Adhesive will be applied to the test panel surface to complete surface preparation procedures. Polyurethane Foam (both Stephan-Foam and Insta-Foam) will then be sprayed onto the test panel to a thickness of approximately one inch using a Gusmer D Spray Cart. Training exercises will utilize an estimated maximum of 50 square feet of aluminum test panels per week.

Air conditioners and exhaust fans will be turned off prior to spraying application. When foam spraying operations are completed, Spray Cell No. 5 exhaust fans will be turned on and vapors will be vented to the atmosphere via the VAB south mutli-fan/stack system.

ATTACHMENT B

SECTION V: SUPPLEMENTAL INFORMATION

CALCULATIONS \*

POTENTIAL EMISSION FACTORS

<u>RAW MATERIAL/ CHEMICAL</u>	<u>WEIGHT (LBS/GAL)</u>	<u>UTILIZATION RATE</u>		
		<u>(GAL/WK)</u>	<u>(LBS/WK)</u>	<u>(TONS/YR)</u>
Stephan-Foam A	10.0	1.000	10.00	0.260
Stephan-Foam B	10.0	1.000	10.00	0.260
Insta-Foam A	10.0	1.000	10.00	0.260
Insta-Foam B	9.0	1.000	9.00	0.230
Isochem Adhesive A	11.7	0.013	0.15	0.004
Isochem Adhesive B	9.0	0.013	0.12	0.003
Conathane Adhesive A	8.5	0.013	0.11	0.003
Conathane Adhesive B	8.6	0.013	0.11	0.003
Epoxy Primer A	7.4	0.106	0.78	0.020
Epoxy Primer B	10.3	0.026	0.27	0.007
Solvent Reducer	7.0	0.106	0.74	0.019
Freon TMC	13.0	0.032	0.42	0.011

\*Calculations are based on a weekly training utilization rate per maximum 50 square feet surface area.

VOC EMISSION ESTIMATES \*

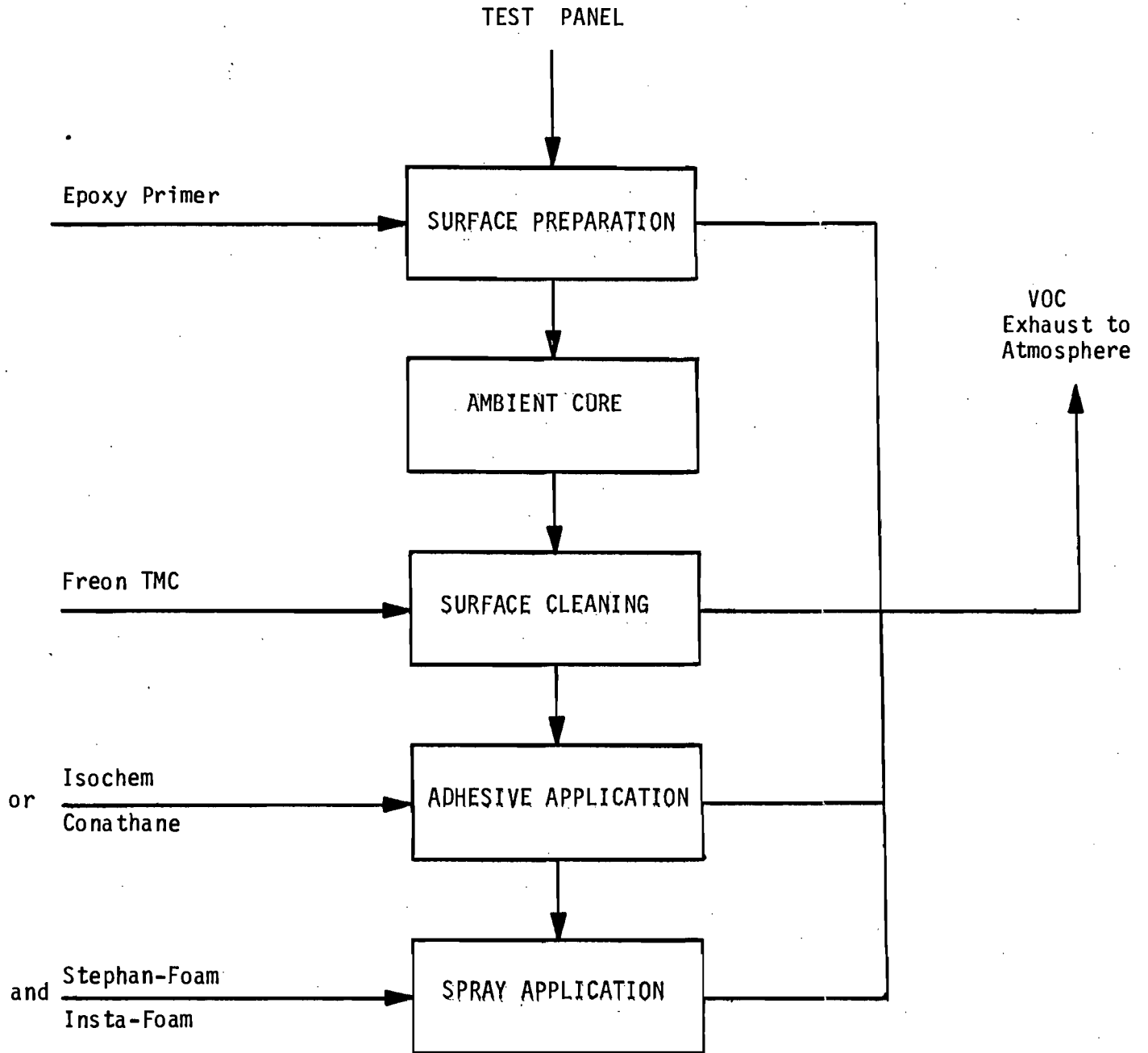
<u>RAW MATERIAL/ CHEMICAL</u>	<u>PERCENT VOC</u>	<u>UTILIZATION RATE (TONS/YR)</u>	<u>POTENTIAL EMISSIONS (TONS/YR)</u>
Stephan-Foam A	Nil	0.260	-
Stephan-Foam B	30	0.260	0.078
Insta-Foam A	7	0.260	0.018
Insta-Foam B	16	0.230	0.037
Isochem Adhesive A	<30**	0.004	0.001**
Isochem Adhesive B	Nil	0.003	-
Conathane Adhesive A	Nil	0.003	-
Conathane Adhesive B	Nil	0.003	-
Epoxy Primer A	57	0.020	0.011
Epoxy Primer B	58	0.007	0.004
Solvent Reducer	100	0.019	0.019
Freon TMC	100	0.011	0.011

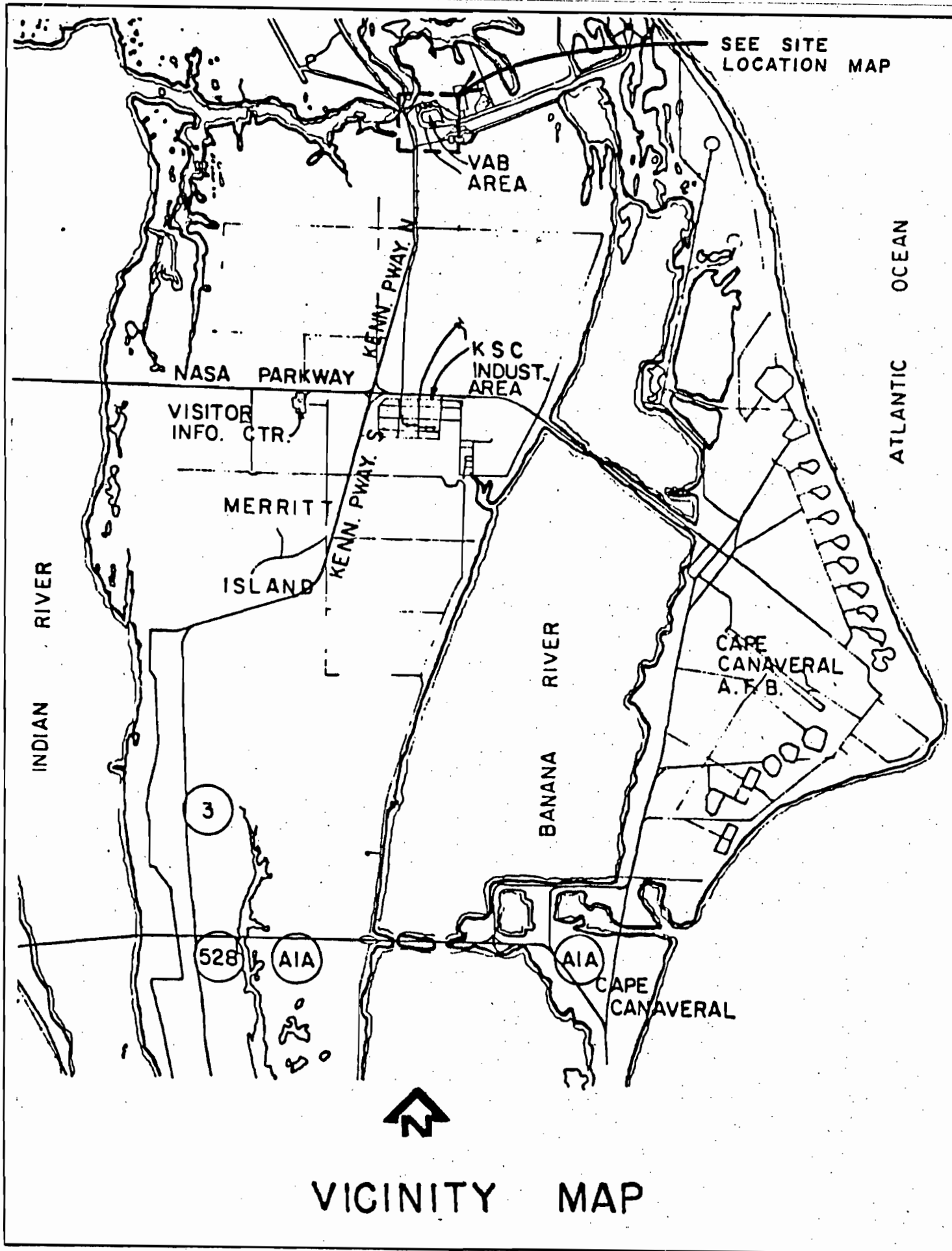
Total VOC Emissions = 0.179 tons/yr  
= 356 lbs/yr

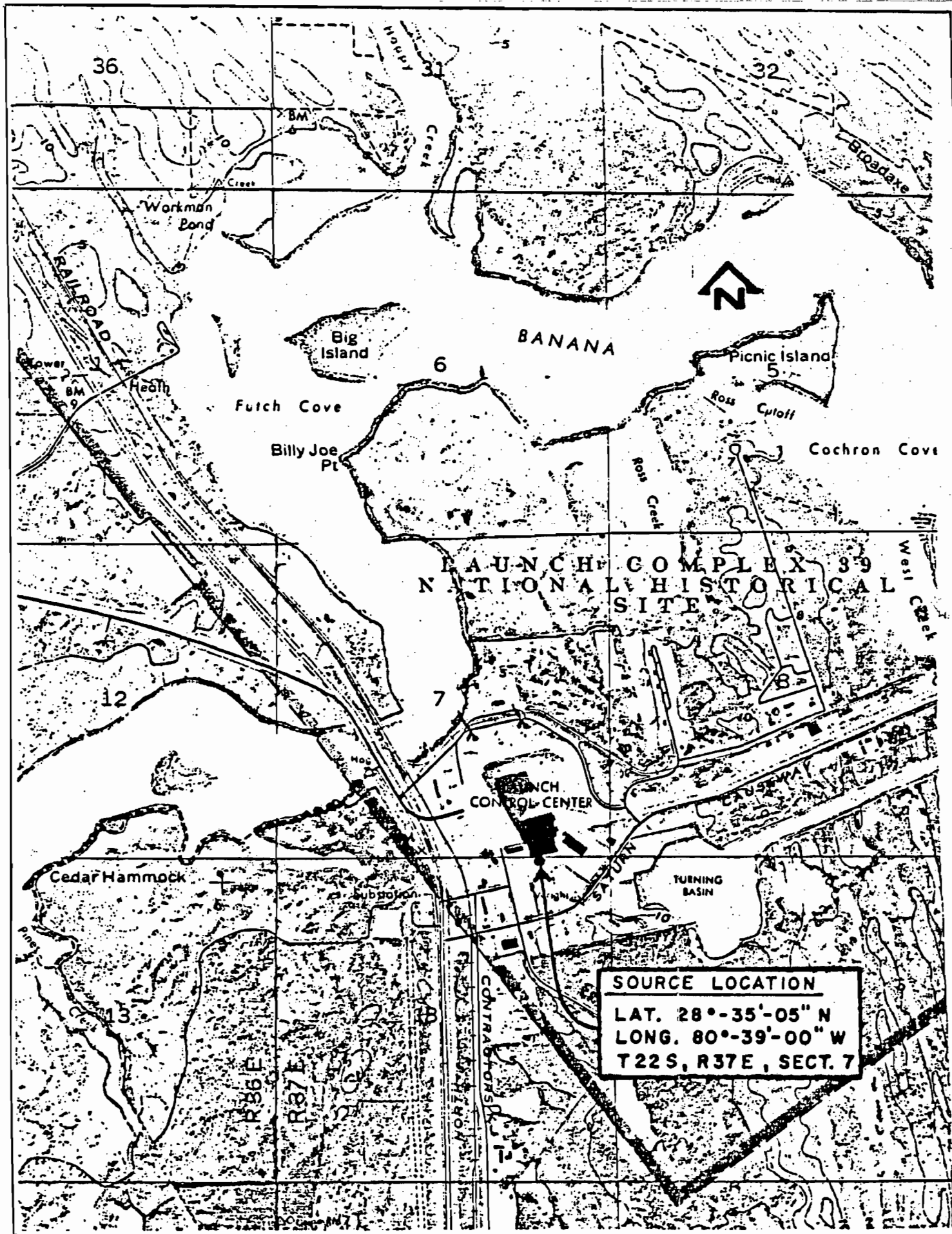
\*Emissions estimates conservatively assume that all volatiles are emitted to the atmosphere, and does not consider the recovery of waste materials.

\*\*Either Isochem or Conathane Adhesive will be utilized: emissions estimates conservatively assume Isochem Adhesive with 30 percent VOC.

FLOW DIAGRAM  
FOAM SPRAY APPLICATION  
TRAINING PROCESS







**SOURCE LOCATION**  
LAT. 28°-35'-05" N  
LONG. 80°-39'-00" W  
T22 S, R37 E, SECT. 7

PROJECT LOCATION  
VAB

SATURN  
CAUSEWAY

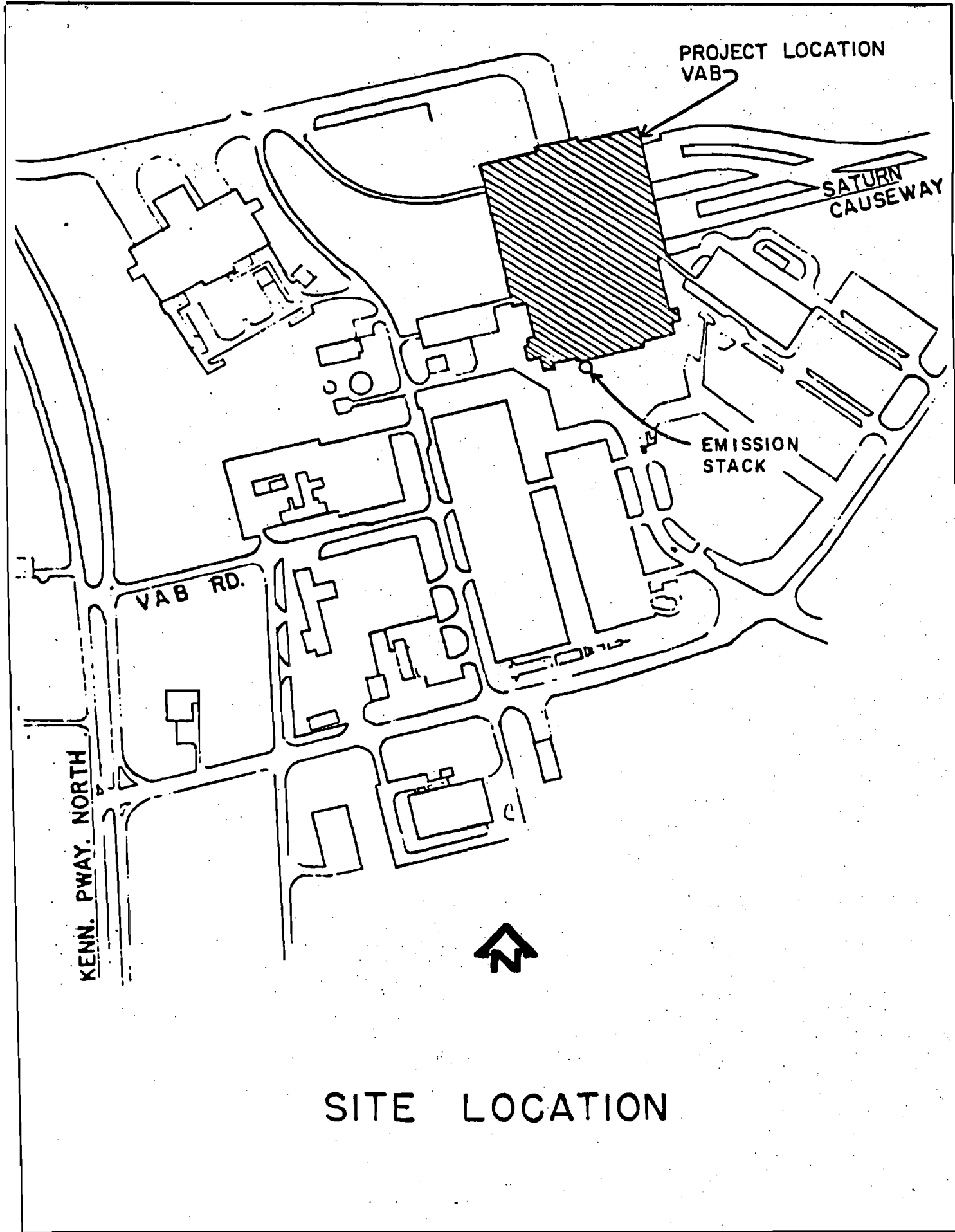
EMISSION  
STACK

VAB RD.

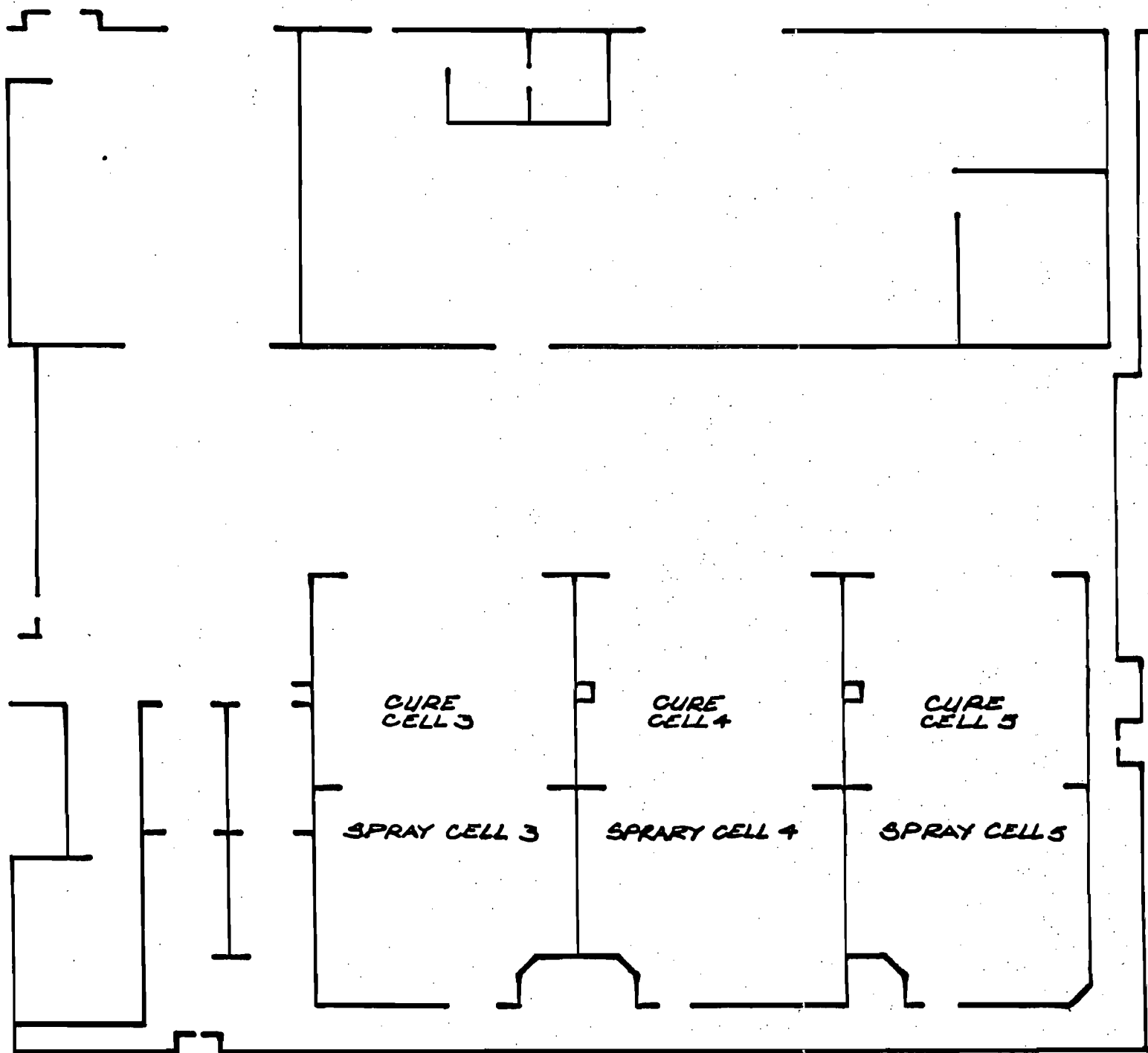
KENN. PWAY. NORTH



SITE LOCATION

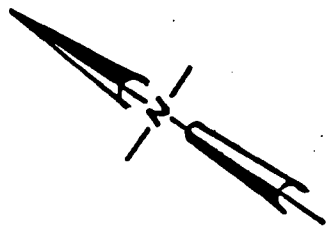




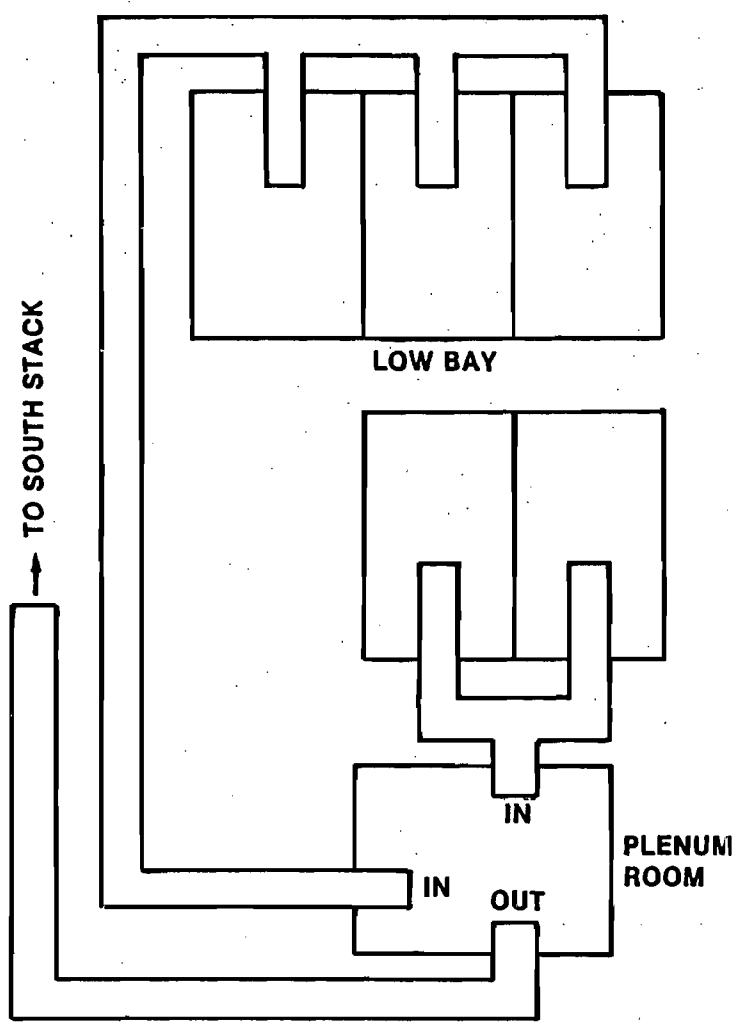


PARTIAL PLAN

SOLID ROCKET BOOSTER  
 REFURBISHMENT FACILITY  
 AT KSC VAB-RSF



SCALE  $\frac{1}{16}'' = 1'-0''$



**LOW BAY (SOUTH) SCHEMATIC**