

Technical Evaluation
and
Preliminary Determination

National Aeronautics and Space Administration
NASA
Kennedy Space Center
Brevard County, Florida

Space Shuttle Solid Rocket Booster Assembly
and Refurbishment Facility

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

March 1, 1985

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State of Florida
Department of Environmental Regulation
Notice of Proposed Agency Action
on Permit Application

The Department of Environmental Regulation gives notice of its intent to issue permits to the Kennedy Space Center to authorize construction of a Space Shuttle Solid Rocket Booster Refurbishment and Assembly facilities (including the AF Hangar Small Parts Refurbishment and Surface Preparation facility).

This new facility (SRBR) will replace the existing SRBRF located at the Low Bay building. These facilities will be allowed to refurbish not more than 48 solid rocket boosters per year. A best available control technology (BACT) was required for a 1.5 million BTU/hr steam generator.

Persons 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 conform to the requirements of Chapters 17-103 and 28-5, Florida Administrative Code, and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Twin Towers Office Building, Tallahassee, Florida 32301, within fourteen (14) days of publication of this notice. Failure to file a request for hearing 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.

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 preliminary statement. Therefore, persons who may not object to the proposed agency action may wish to intervene in the proceeding. A petition for intervention must be filed pursuant to Model Rule 28-5.207 at least five (5) days before the final hearing and be filed with the hearing officer if one has been assigned at the Division of Administrative Hearings, Department of Administration, 2009, Apalachee Parkway, Tallahassee, Florida 32301. If no hearing officer has been assigned, the petition is to be filed with the Department's Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32301. Failure to petition to intervene within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, Florida Statutes.

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:

Dept. of Environmental Regulation
St. Johns River District
3319 Maguire Blvd.
Suite 232
Orlando, Florida 32803

Dept. of Environmental Regulation
Bureau of Air Quality Management
2600 Blair Stone Road
Tallahassee, Florida 32301

Any person may send written comments on the proposed action to Mr. Bill Thomas at the department's Tallahassee address. All comments mailed within 30 days of the publication of this notice will be considered in the department's final determination.

RULES OF THE ADMINISTRATIVE COMMISSION
MODEL RULES OF PROCEDURE
CHAPTER 28-5
DECISIONS DETERMINING SUBSTANTIAL INTERESTS

28-5.15 Requests for Formal and Informal Proceedings

- (1) Requests for proceedings shall be made by petition to the agency involved. Each petition shall be printed, typewritten or otherwise duplicated in legible form on white paper of standard legal size. Unless printed, the impression shall be on one side of the paper only and lines shall be double spaced and indented.
- (2) All petitions filed under these rules should contain:
 - (a) The name and address of each agency affected and each agency's file or identification number, if known;
 - (b) The name and address of the petitioner or petitioners;
 - (c) All disputed issues of material fact. If there are none, the petition must so indicate;
 - (d) A concise statement of the ultimate facts alleged, and the rules, regulations and constitutional provisions which entitle the petitioner to relief;
 - (e) A statement summarizing any informal action taken to resolve the issues, and the results of that action;
 - (f) A demand for the relief to which the petitioner deems himself entitled; and
 - (g) Such other information which the petitioner contends is material.

BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

In the Matter of an) DER File No. AC 05-094091 thru
Application for Permit by:) 094092
) AC 05-099436 thru 099442
Kennedy Space Center) AC 05-099444 thru 099445
Headquarters Bldg.) AC 05-099447 thru 099450
Kennedy Space Center, FL 32899) AC 05-099452 thru 099453
)

INTENT TO ISSUE

The Department of Environmental Regulation hereby gives notice of its Intent to Issue, and proposed order of issuance for a permit pursuant to Chapter 403, Florida Statutes, 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, John F. Kennedy Space Center, applied on October 8, 1984, to the Department of Environmental Regulation for a permit to construct a Solid Rocket Booster Assembly and Refurbishment facility (SRB-ARF) at the Kennedy Space Center in Brevard County.

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 applicant was officially notified by the Department that an air construction permit was required for the proposed work.

This intent to issue shall be placed before the Secretary for final action unless an appropriate petition for a hearing pursuant to the provisions of Section 120.57, Florida Statutes, is filed within fourteen (14) days from receipt of this letter or publication of the public notice (copy attached) required pursuant to Rule 17-103.150, Florida Administrative Code, whichever occurs first. The petition must comply with the requirements of Section 17-103.155 and Rule 28-5.201, Florida Administrative Code (copy attached) and be filed pursuant to Rule 17-103.155(1) in the Office of General Counsel of the Department of Environmental Regulation at 2600 Blair Stone Road, Tallahassee, Florida 32301.

Petitions which are not filed in accordance with the above provisions are subject to dismissal by the Department. In the event a formal hearing is conducted pursuant to Section 120.57(1), all parties shall have opportunity to respond, to present evidence and argument on all issues involved, to conduct cross-examination of witness and submit rebuttal evidence, to submit proposed findings of facts and orders, to file exception to any order or hearing officer's recommended order, and to be represented by counsel. If an informal hearing is requested, the agency, in accordance with its rules of procedure, will provide affected persons or parties or their counsel an opportunity, at a convenient time and place, to present to the agency or hearing officer, written or oral evidence in opposition to the agency's action or refusal to act, or a written statement challenging the grounds upon which the agency has chosen to justify its action or inaction, pursuant to Section 120.57(2), Florida Statutes.

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 proposed agency action. Therefore, persons who may not wish to file a petition, may wish to intervene in the proceeding. A petition

for intervention must be filed pursuant to Model Rule 28-5.207 at least five (5) days before the final hearing and be filed with the hearing officer if one has been assigned at the Division of Administrative Hearings, 2009 Apalachee Parkway, Tallahassee, Florida 32301. If no hearing officer has been assigned, the petition is to be filed with the Department's Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32301. Failure to petition to intervene within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, Florida Statutes.

Executed the ___ day of _____, 1985, in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

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

Note: This draft copy is furnished to Mario Busacca, from KSC, exclusively, for inter-office use. This facility's (SRB-ARF) preliminary determination and proposed permits are nearly completed.

SPACE SHUTTLE SOLID ROCKET BOOSTER FACILITY

Permit Number:

Project:

AC05-094092	Thermal Protection System, MSA-2 Mixing
AC05-099436	Thermal Protection System, MSA-2 Spray Cell (2)
AC05-099437	Thermal Protection System, MSA-2 Cure Cell (2)
AC05-099438	Thermal Protection System, Topcoat Spray Cell
AC05-099439	Thermal Protection System, Closeout
AC05-099440	Thermal Protection System, Equipment Cleaning
AC05-099441	Thermal Protection System, Quality Lab
AC05-099442	Thrust Vector Control, Phosphoric Acid Bath
AC05-099444	Thrust Vector Control, TVC/CAT Testing
AC05-099445	Thrust Vector Control, Tube and Hose Freon Flush
AC05-099447	Thrust Vector Control, Hot Fire Test
AC05-099448	Ordnance Alabative Mixing
AC05-099449	Small Parts Spray Booth
AC05-099450	Conformal Coating
AC05-099452	Steam Boiler
AC05-099453	Hot Water Boiler

HANGAR AF, SMALL PARTS REFURBISHMENT AND SURFACE PREPARATION FACILITY

Permit Number:

Project:

AC05-094091	Small Parts Refurbishment, Detergent Wash
AC05-099454	Small Parts Refurbishment, Bostik and Rustoleum - Painting and Sealing
AC05-099455	Small Parts Refurbishment, Paint Curing
AC05-099456	Surface Preparation, Walnut Blasting
AC05-099457	Surface Preparation, Paint Cells #1 and #2
AC05-099458	Surface Preparation, Chemical Stripping

I. NAME AND ADDRESS OF APPLICANT

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

II. FACILITY INFORMATION

II.1 FACILITY LOCATION

The proposed facility will be located at the intersection of Schwartz Road and Kennedy Parkway, at the Kennedy Space Center, in Brevard County, Florida. The latitude and longitude are 28° 33' 43" North and 80° 39' 36" West, respectively.

II.2 STANDARD INDUSTRIAL CLASSIFICATION CODE (SIC)

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. The proposed project (SRB-Refurbishment Facility) will also classify the KSC as a major emitting facility for volatile organic compounds.

This facility category is not in the list of the 28 Major Facility Categories, Table 500.1, Chapter 17-2, Florida Administrative Code.

III. PROJECT DESCRIPTION

The proposed project consists of constructing and operating a Space Shuttle Solid Rocket Booster (SRB) Assembly and Refurbishment Facility (ARF). United Space Booster, Inc. (USBI) currently operates these facilities within the Vehicle Assembly Building (VAB) at Kennedy Space Center as part of the Space Shuttle program. USBI and the National Aeronautics and Space Administration team desires to relocate these facilities to a new site within the Kennedy Space Center, and to expand the production capabilities of the system to support up to 24 space shuttle flights per year.

III.1 BACKGROUND INFORMATION

An air pollution source inventory was conducted by Edward E. Clark Engineers - Scientists, Inc., in December 1983. It was concluded that the greatest emissions at the KSC Complex are sulfur dioxide (SO₂) from the heating plant and volatile organic compounds (VOC) from the existing SRB refurbishment and assembly operations at the VAB Low Bay.

As a result of this inventory, and in order to escape prevention of significant deterioration (PSD) review for the proposed project, the Kennedy Space Center requested the department to modify their existing operating permit for the six heating units located at the Central heat plant (2 @ 40 MMBtu/hr; 1 @ 16 MMBtu/hr) and the VAB Annex heat plant (3 @ 16 MMBtu/hr), respectively. The total SO₂ permitted emissions for these sources were 427.6 tons per year.

At the present time, permitted emissions will reflect actual emissions for these sources. The current operating permits for these sources show a total SO₂ permitted emission of 138.6 tons per year.

III.2 APPLICATION'S COMPLETENESS DATE

This application has been determined completed as of January 4, 1985.

IV. PROCESS DESCRIPTION AND POLLUTION CONTROL SYSTEMS

IV.1 SOLID ROCKET BOOSTER STRUCTURE

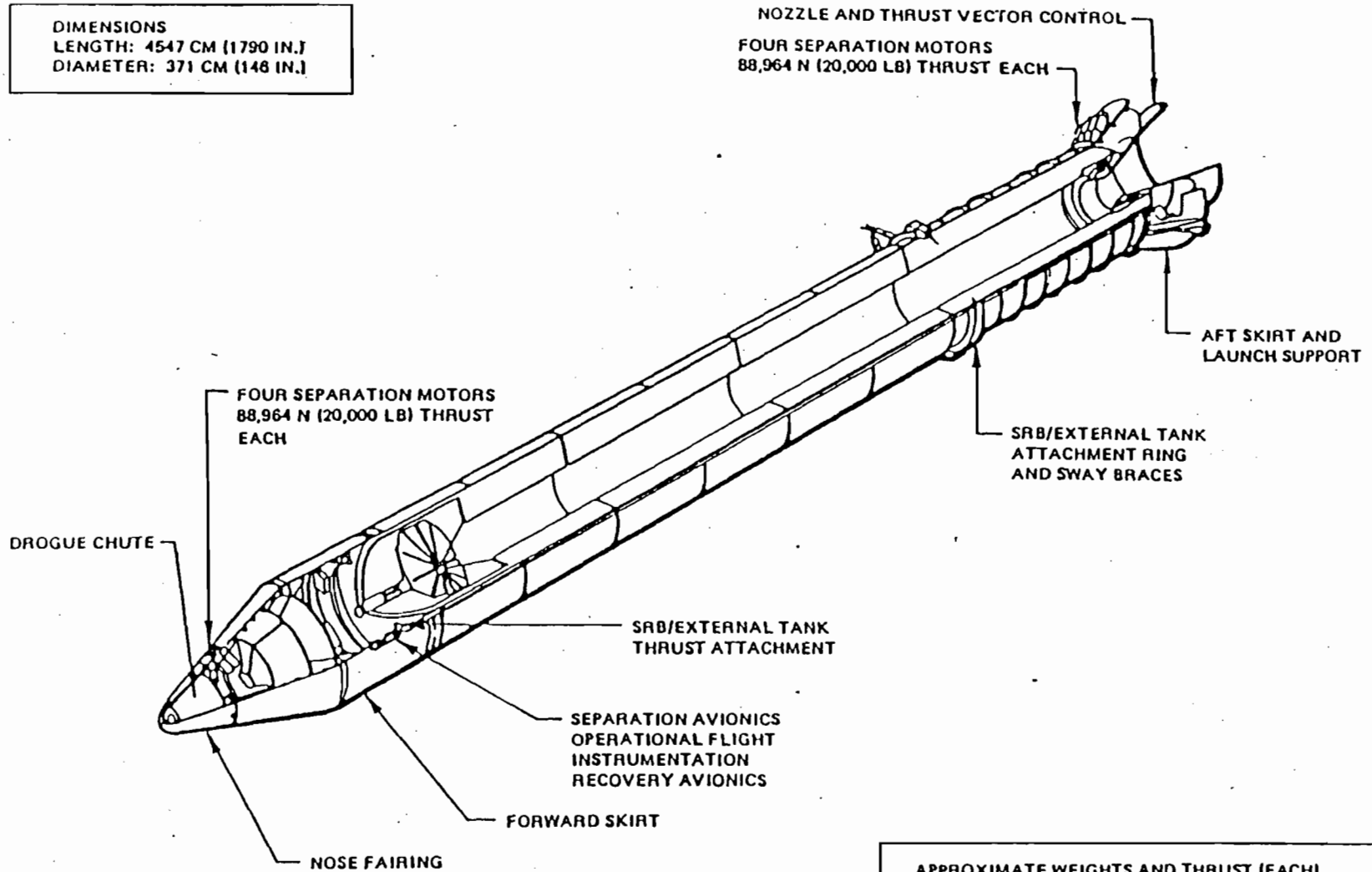
Two SRB's burn in parallel with the main propulsion system of the Orbiter to provide initial ascent thrust.

Primary elements of the solid rocket booster (SRB) (see Fig. A-2) are the motor, including case, propellant, igniter and nozzle; forward and aft structures; separation and recovery system, and thrust vector subsystems. The propellant grain is shaped to reduce thrust by approximately one-third 55 seconds after lift-off to prevent overstressing the vehicle during the period of maximum dynamic pressure. The hydrazine-driven thrust vector control (TVC) subsystem operates in conjunction with the Orbiter main engines to provide flight control during the shuttle boost phase. Eight separation rockets on each SRB (four aft and four forward) separate the SRB from the Orbiter and the External Tank. The section provides space for the SRB electronics and recovery parachutes and for the forward separation rockets.

IV.2 REFURBISHMENT AND ASSEMBLY FACILITY (RSF)

The SRB refurbishment facility will be used to spray the SRB shell retrieved from the ocean after the launch with an ablative MSA-2, and paint it with a topcoat. The purpose is to prepare the SRB for reuse in the space shuttle program. Within this

DIMENSIONS
LENGTH: 4547 CM (1790 IN.)
DIAMETER: 371 CM (148 IN.)



APPROXIMATE WEIGHTS AND THRUST (EACH)

GROSS WEIGHT: 583,600 KG (1,286,600 LB)
INERT WEIGHT: 81,900 KG (180,500 LB)
THRUST (SEA LEVEL): 11,800,000 N (2,650,000 LB)

Figure A-2. Solid Rocket Booster

facility (RSF), two processes have the potential to emit air pollutants. These processes are the Thermal Protection System (TPS) process and the Thrust Vector Control (TVC) assembly hot fire process. A detailed description of these two processes follows:

IV.2.A.1 Thermal Protection System (TPS)

In the course of applying thermal protection on SRB structures and components, nine distinguishable operations are performed within the TPS area:

1) Marshall Sprayable Ablative (MSA)-2 Mixing

MSA-2 is the thermal protection material for the Space Shuttle SRB. The numerous specified solid components are suspended or dissolved in the methylene chloride and perchloroethylene solvent in the mixing process. A resin and catalyst (3M EC2216) are added to provide the polymer matrix which forms during curing. MSA-2 is formulated in the Mix Room, the solid components are weighed out on scales and then fed to a feed hopper located at each Walker Mixer Tank. The addition is accomplished by a sealed screw-feed system. The solvents (methylene chloride and perchloroethylene) are piped from storage tanks to the Walkers mixers via a closed system, thus preventing the escape of any volatile compounds during the mixing process. The only emissions generated from the MSA-2 mixing operation will be particulates due to the solids handling.

2 & 3) MSA-Spraying (Spray Cells 1 and 2)

The mixed MSA-2 is then circulated through the appropriate MSA-2 Spray Cell for application by the robotic spraying apparatus. The SRB structure will be mounted on the turntable and will rotate, while the robot spray gun moves vertically. Ten MSA-2 spray operations will be required for each flight (one spray operation for each of two nose caps, frustums, forward skirts, aft skirts, and each set of tunnel covers). An additional spraying operation will also be performed in these cells; this is the spraying of Insta-foam coating on interior portions (e.g. cables) of the aft skirt structure and frustum to provide protection when the booster impact the water. The spray operation is totally computer controlled, resulting in a more predictable operation. Two identical stacks will be located in each spray room. Only one will operate at the time.

The exhaust system (13,400 scfm) for each MSA-2 spray cell has been designed to reduce the methylene chloride and perchloroethylene concentration within the spray cell to less than the threshold limit value (TLV) within 10 minutes after ceasing operation, in order that personnel may enter the spray cell.

Particulate matter generated by the proposed process will be due to sanding of SRB components before and after MSA-2 application, and MSA-2 spraying.

4 & 5) MSA-2 Application, Cure Cell #1
and Cure Cell #2

The spraying of MSA-2 is followed by two curing cycles using either cure cell. The first is an ambient cure which requires about 24-hours per SRB structure. The ambient cure is followed by a high temperature cure. There are different curing times for each SRB structure. At the completion of the high temperature cure, the cure cell is purged of hot air at a rate of 5,000 acfm for a short duration until the cell is cooled down. The purge exhaust stack vents the purged air.

6) Hypalon Topcoat Spray Cell (HTSC)

The topcoat is applied over the MSA-2 covering, typically within 120 hours after the application of MSA-2. The topcoat paint is applied by an airless robotic spray gun in the topcoat spray cell. Topcoat accelerator is added to the paint to speed curing. Curing for the hypalon topcoat will be performed in this spray cell until the paint is dry to touch. The structure would then be moved to the High Bay.

The exhaust system (11,100 acfm) is designed to reduce VOC concentrations to an acceptable level within 10 minutes after spray operations cease. The air flow is directed throughout the filter banks located along one side wall of the spray cell.

Particulate matter emissions are due to spraying and sanding operations. All exhaust air passes through a filter. It is estimated that a total of one (1) percent of the solids introduced into the process are released into the atmosphere.

7) Thermal Protection System (TPS) Closeout

Small parts not insulated with MSA-2 will be insulated with Marshall Trowelable Ablative-2 (MTA-2) and K5NA. MTA-2 is hand troweled or molded (wet lay-up molding process) instead of sprayed onto the structures. Fresh mixed materials will be extruded to a mold followed by either pressing the part into the mold or by pressing the mold over the part. The mold is removed after curing and the part is deflashed by hand. Vapors are removed from the TPS Closeout area workbench by a lateral exhaust slot hood which has a flow rate of 50 cfm per ft² of bench area and a minimum duct velocity of 1,000 ft/min. The particulate emissions are due to the raw materials (solids) handling. It is conservatively estimated that one (1) percent of total solids introduced in the process will be emitted due to MTA-2 mixing and surface sanding.

8) Thermal Protection System (TPS) Cleanup

The TPS cleaning shop will be used to thoroughly clean MSA-2 and Hypalon topcoat spray guns, spray system equipment, and small tools used in the TPS area. A DETREX vapor degreaser will be used for emission stripping of components that can withstand this kind of treatment. A solvent cleaning bench will be used for components that require a less aggressive cleaning. The cleaning bench will be equipped with an exhaust hood. Methylene chloride will be used in the DETREX degreaser. Perchloroethylene will be used at the cleaning benches.

9) Thermal Protection System (TPS) Quality Lab

Subsequent to the TPS application, MSA-2 and MTA-2 material are analyzed for structural and thermal properties in the TPS Test Lab. Small amounts of solvents are used during the testing and cleanup activities. A fume hood is provided to capture the released solvents and vent them from the room. This hood is designed to provide a minimum of 720 cfm, and is adjustable to provide greater face velocity.

IV.2.A.2. Thrust Vector Control Process (TVC)

Within the TVC area, four distinguishable operations are performed in the course of refurbishing, assembling and testing TVC structures and components.

1) Phosphoric Acid Bath (PAB)

This operation will consist of heating a phosphoric acid bath up to 175°F and pouring some of the solution into the fuel supply module of the TVC system. The module will then be agitated to remove any surface contamination. The liquid will then be poured out, and the module will be rinsed with water several times before being placed in an electric oven for drying. A fume hood, at the phosphoric acid cleaning bench, will capture and exhaust evaporative emissions from the bath. A lid on the bath will be utilized to minimize emissions whenever the tank is not in use. It is conservatively assumed that 10 percent of the phosphoric acid utilized will be lost by evaporation or agitation.

2) TVC/CAT Testing

TVC fuel hoses and tubes will be received and flushed with isopropanol in a closed system. The flush is to remove any dust, dirt, or grease which may be left on the tubes and hoses after receipt from the KSC cleaning contractor. A ventilation hood is provided over the flush console to remove any residual vapors.

3) TVC Tube and Hose Freon Flush

The flush is part of the pre-cleaning/final cleaning operation and is performed to clean the rigid tubes and hoses used in the aft skirts of the SRB. In this process the tubes will be first emersed in a heated tank of a solution of water and slightly alkaline detergent (Turco 3878 LFNE). The tubes and hoses will then be rinsed in a water tank and rinsed again in a demineralized water tank. Next the tubes and hoses will be flushed with Freon 113 for two minutes. The Freon 113 will subsequently be purged with nitrogen gas through a vent pipe that will discharge to the atmosphere. A fume hood (720 cfm minimum), which is adjustable to provide greater face velocity, will be used. The purge vent will exhaust through a small pipe.

4) TVC - Hot Fire Test

There are seven previous steps to the hot fire test. The hot fire test takes 160 seconds to perform. This is accomplished by flowing liquid hydrazine through a gas generator which changes the liquid to a gas (ammonia, nitrogen, hydrogen). This gas rotates a turbine which turns a hydraulic pump that provides hydraulics to operate two actuators. These gases are expelled through an exhaust system and then vented to the atmosphere. Following the hot fire test, hydrazine is removed as liquid waste. The full system is purged for approximately two (2) hours. This is accomplished by using the facility GN₂ (gaseous nitrogen). The GN₂ is scrubbed through citric acid before venting. Hydrazine in the GN₂ gas stream is reacted with the citric acid to form ammonium citrate precipitate. Total hydrazine usage is 2.4192 tons/year.

IV.2.B. Ordnance Ablative Mixing

This operation will take place within the TVC subassembly refurbishment operation. The K5NA (a hardener, resin and a filler) will be applied to small parts (primarily the struts on the aft skirt of the SRB). Before applying the substance to the parts, the parts will be wiped with small quantities of 1, 1, 1 trichloroethane. In addition, small quantities of sealing compounds, primer and silicone rubber will be used in the refurbishment process. The VOC compounds will be stored in sealed containers. Particulate emissions are estimated as 1 percent of total dry solids handled. A fume hood (720 cfm) will be used to provide adequate capture and ventilation.

IV.2.C. Small Parts Spray Booth

Small parts will be painted within the Small Parts Spray Booth. These parts will be ground support equipment, and not SRB parts. The principal paint will be Rustoleum or equivalent. Some particulates may also be generated by the spray painting operation. The exhaust will pass through paint arrestor pads before being exhausted to the atmosphere. Besides the spray booth, welding operations and sand blasting operations will be conducted in the Machine Shop Area. A self-contained fume collector will be used to ventilate the welding operations area. A completely self-contained sand blast booth will be used for sand blasting operations. This booth is equipped with a bag-house and recirculates the air within the booth. There is no exhaust from the booth, either to the room or to the atmosphere.

IV.2.D. Conformal Coating

In this process, a protective coating is applied to flight cable bundles within the SRB and to printed circuit boards. The area to be coated is initially cleaned with isopropyl alcohol applied via a cloth. The solithane urethane prepolymer is thinned with toluene and then applied by a syringe to the cables and brushed onto the boards. The polymer is allowed to dry (24 hours). All work involving the use of chemicals will be performed under an exhaust hood.

IV.2.E. Steam Boiler

This steam boiler (1.5×10^6 BTU/hr) will be used for humidification purposes. The system will maintain portions of the manufacturing building within specified humidity limits. The boiler is expected to be operated for 40 hours per year. The sulfur content will be 0.2% by weight.

IV.2.F. Hot Water Generators

Two hot water generators will be constructed to provide heat for the MSA-2 cure cells. One of the generators will be operating, while the second will be on standby status. The generators will be oil fired and will use No. 2 distillate oil (0.2% sulfur by weight).

Additional sources of VOC emissions will be from the paint, oil and lubricants (POL) storage buildings and the waste staging buildings. Various solvents and waste materials containing VOC will be stored for short periods in these buildings. Emissions of VOC will be fugitive in nature, primarily from the opening and closing of drums of stored materials. These emissions are expected to be minimal.

IV.3 HANGAR AF, SMALL PART REFURBISHMENT AND
SURFACE PREPARATION FACILITY (SPF)

IV.3.1 Process Description and Control Systems

This facility will receive SRB components and ancillary hardware from the high pressure work facility where the parts have been stripped of their insulation materials.

Small aluminum and steel parts (i.e., approximately 3,000 parts such as, brackets, bolts, etc.) will be stripped of their paint in a chemical solution and then rinsed with water. Surge components (aft skirt, frustum and forward skirt) will enter the facility at the blast booth. This blasting is done with pulverized walnut shells. This process will remove the Bostik paint. The large hardware will then be cleaned with a water soluble detergent and rinsed with deionized water.

All components will then go to the anodizing area. Here, alodine will be applied to the aluminum surfaces of the SRB parts. The SRB parts will then move into the spray booth. The parts are first wiped down with 1, 1, 1 trichloroethane and then painted with a Bostik primer and topcoat. The structures are cured in the paint booth until dry to touch. They are then moved to the curing area to complete the cycle. Finally, all the hardware processed at the SPF-ARF for further processing and assembly structures will be processed through the entire SPF only once every five (5) flights. Exhaust from the blasting booth will be filtered to remove 99% of the particulates. VOC emissions are expected from the stripper tank and from paint activities (1, 1, 1 trichloroethane) associated with these processes.

V. 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.

The proposed facility, Kennedy Space Center, is located in an area (Brevard County) currently designated attainment for all criteria pollutants in accordance with Florida Administrative Code, Rule 17-2.420.

The Kennedy Space Center is a major emitting facility for sulfur dioxide and volatile organic compounds (VOC), as defined in Rule 17-2.100, Florida Administrative Code.

This facility category is not on the list of the 28, Major Facility Category, Florida Administrative Code, Table 500-1.

Therefore, this project is exempt from provisions of Rule 17-2.500, Prevention of Significant Deterioration.

The proposed project shall be permitted under Rule 17-2.520, Sources Not Subject to Prevention of Significant Deterioration or Nonattainment Requirements.

The proposed facility shall comply with Rule 17-2.610(2), General Particulate Emission Limiting Standards, and Rule 17-2.620(1) and (2), General Pollutant Emission Limiting Standard.

VI. SOURCE IMPACT ANALYSIS

VI.1 EMISSION LIMITATIONS

The application of the ablative coating system required for refurbishment of the Solid Rocket Boosters (SRB) will produce emissions of particulate matter (PM) and volatile organic compounds (VOC).

The largest portion of the VOC emissions will result from perchlorethylene and methylene chloride used as solvents. Particulate matter will be generated from surface preparation and thermal coating application.

Ammonia is produced as a product of the instantaneous decomposition of hydrazine fuel in The Thrust Vector Control (TVC) subassembly hot fire test process. It has been estimated that about 2.4192 tons per year of hydrazine fuel will be consumed annually to support 24 shuttle launches. Utilization of this fuel quantity will produce about 0.214 tons of ammonia per year.

Sulfur dioxide (SO₂), nitrogen oxides (NO_x), carbon monoxide (CO) and hydrocarbons (HC) will result as combustion products from the steam boiler and hot water generators.

Tables 1 and 2 summarized potential to emit all pollutants regulated under the Act which are affected by the proposed project. As the tables show, the proposed emissions classify the Kennedy Space Center as a major emitting facility for VOC.

All chemical compounds used during the process of refurbishment of the space solid rocket boosters and their emissions are listed as permit conditions. These permitted emissions are in compliance with all applicable requirements of Chapter 17-2, Florida Administrative Code.

VI.2. AIR QUALITY ANALYSIS

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

VII. CONCLUSIONS

Based on a review of the data submitted by NASA, the Florida Department of Environmental Regulation (FDER) concluded that compliance with all applicable state air quality regulations will be achieved, provided certain specific conditions are met. The impact of constructing and operating a Space Shuttle Solid Rocket (SRB) Refurbishment and Subassembly Facility (RSF) at the Kennedy Space Center will not cause or contribute to a violation of any ambient air quality standard.

TABLE NO. 1
 SOLID ROCKET BOOSTER REFORBISHMENT FACILITY
SUMMARY OF EMISSIONS
 (Tons per year)

PROCESS	POLLUTANTS						
	VOC	PM	AMMONIA	HYDRAZINE	SO ₂	NO ₂	CO
MSA-2 Mixing		0.1120					
MSA-2 Spray Cells (2)	71.978	1.950					
MSA-2 Cure Cells (2)	5.956						
Topcoat Spray Cell	12.0921	0.0310					
TPS Closeout Area	6.656	0.1270					
TPS Equipment Cleaning	8.687						
TPS Quality Lab	0.527						
Phosphoric Acid Bth		0.038					
TVC/CAT Testing	3.936						
TVC Tube & Hose	9.490						
Freon Flush							
TVC Hot Fire Test	0.0079		0.214	0.0002			
Ordnance Ablative Mixing	0.1793	0.0001					
Small Parts Spray Booth	0.1874	0.0312					
Conformal Coating	0.0109						
Steam Boiler	0.0001	0.0004			0.0061	0.0043	0.0011
Hot Water Boilers (2)	0.1458	0.5244			7.4461	5.2437	1.2109
TOTAL	119.854	2.814	0.214	0.0002	7.4522	5.2480	1.3120

TABLE NO. 2

HANGAR AF, SMALL PARTS REFURBISHMENT AND
SURFACE PREPARATION FACILITY

SUMMARY OF EMISSIONS

SMALL PARTS REFURBISHMENT

(Tons per year)

PROCESS	POLLUTANTS	
	VOC	PM
Detergent Wash	1.37	
Bostik and Rustoleum Painting and Sealing	1.917	0.624
Paint Curing	0.213	
TOTAL	3.500	0.624

HANGAR AF, SURFACE PREPARATION FACILITY

(Tons per year)

PROCESS	POLLUTANTS	
	VOC	PM
Walnut Blasting		1.15
Paint Cell #1	1.67	
Paint Cell #2	1.67	
Chemical Stripping	2.59	
TOTAL	5.93	1.15

ATTACHMENTS

I. BACT

Best Available Control Technology (BACT) Determination
National Aeronautics and Space Administration
Brevard County

The applicant plans to install a 1.5 million Btu per hour heat input steam generator at the solid rocket booster assembly and refurbishment facility located at the Kennedy Space Center, Florida. The steam generator will be used to control the humidity within the manufacturing building. The steam generator will fire only No. 2 distillate oil and will be operated as needed to maintain the required degree of humidity.

A BACT determination is required for the new source as set forth in the Florida Administrative Code Rule 17-2.600(6) - Emission Limiting and Performance Standards.

BACT Determination Requested by the Applicant:

Particulate and sulfur dioxide emissions to be controlled by firing No. 2 distillate oil.

Date of Receipt of a BACT Application:

October 10, 1984

Date of Publication in the Florida Administrative Weekly:

March 5, 1985

Review Group Members:

The determination was based upon comments received from the Stationary Source Control Section.

BACT Determined by DER:

The amount of particulate and sulfur dioxide emissions emitted from the 1.5 million Btu per hour heat input steam generator will be limited by the firing of new^[1] No. 2 distillate oil having a sulfur content not to exceed 0.5 percent by weight.

Visible Emissions	Not to exceed 15% opacity. 40% opacity is permitted for not more than two minutes in any one hour.
-------------------	--

DER Method 9 (17-2.700(6)(a)9, FAC) will be used to determine compliance.

[1] The term "new" means an oil which has been refined from crude oil and has not been used, and which may or may not contain additives.

BACT Determination Rationale:

Sulfur in fuel oil is a primary air pollution concern, in that most of the fuel sulfur becomes SO₂. The emission factors for SO₂ and particulate emissions from oil burning are related to the sulfur content. The department agrees with the applicant's proposal that the firing of No. 2 distillate oil, containing 0.5 percent or less sulfur, is BACT for the proposed steam generator.

The term "new oil" disallows the use of re-refined or waste oil or any non-fossil fuels, emissions from which were not considered in this BACT analysis.

Details of the Analysis May be Obtained by Contacting:

Edward Palagyi, BACT Coordinator
Department of Environmental Regulation
Bureau of Air Quality Management
2600 Blair Stone Road
Tallahassee, Florida 32301

Recommended by:

C. H. Fancy, Deputy Bureau Chief

Date

Approved by:

Victoria J. Tschinkel, Secretary

Date

II. Draft Permits

DEPARTMENT OF ENVIRONMENTAL REGULATION

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



BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:
National Aeronautics and Space
Administration
NASA
DF-EMS
Kennedy Space Center, Florida
32899

Permit Number: AC05-094092
Expiration Date: January 31, 1987
County: Brevard
Latitude/Longitude: 28° 33' 43" N/
80° 39' 36" W
Project: Thermal Protection System
Process, MSA-2 Mixing

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 of the Space Shuttle Solid Rocket Booster (SRB) Assembly and Refurbishment Facility (ARF), located at the intersection of Schwartz Road and Kennedy Parkway, KSC, in Brevard County, Florida.

Attachments are as follows:

1. Application to construct Air Pollution Sources, DER Form 17-1.122(16).
2. Incompleteness letters of November 7, 1984, November 29, 1984, and January 10, 1985.
3. NASA's letters of December 5, 1984 and January 1, 1985 (responses to technical discrepancies).

PERMITTEE:
Kennedy Space Center

Permit Number: 094092
Expiration Date: January 31, 1987

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.

PERMITTEE:
Kennedy Space Center

Permit Number: 094092
Expiration Date: January 31, 1987

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 noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

PERMITTEE:
Kennedy Space Center

Permit Number: 094092
Expiration Date: January 31, 1987

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.

PERMITTEE:
Kennedy Space Center

Permit Number: 094092
Expiration Date: January 31, 1987

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:

THERMAL PROTECTION SYSTEM PROCESS, MSA-2 Mixing

- 1. The Space Shuttle Solid Rocket Booster Refurbishment (SRBR) facility and the AF Hangar Surface Preparation facility shall be allowed to operate continuously (8,760 hours per year).
- 2. Not more than 48 solid rocket boosters will be refurbished during any 12 month period unless a new application for permit to construct is submitted and approved by the Department.
- 3. Total VOC emissions from the refurbishment of 48 space shuttle solid rocket boosters shall not exceed 130 tons per year for the entire SRB facility, including the AF Hangar Surface Preparation facility.

PERMITTEE:
Kennedy Space Center

Permit Number: 094092
Expiration Date: January 31, 1987

SPECIFIC CONDITIONS:

4. Visible emissions shall not exceed 5% opacity during any 6 minute period. Compliance with this standard shall be determined by EPA Method 9. Visual Determination of the Opacity of Emissions from Stationary Sources as described in Appendix A of 40 CFR 60.
5. Compliance with the VOC emission standard will be determined by monitoring these pollutants (perchloroethylene, PERCL and methylene chloride, MECL). Sampling will be conducted continuously (24 hours per day) for a total of twenty days. Concentration data and calculated mass emission rate will be reported. Thereafter, compliance with the VOC emission limitations will be maintained based on the VOC inventory. Measurements shall be determined by the MIRAN 1A General Purpose Gas Analyzer.
6. No objectionable odors are allowed from this facility.
7. The applicant will demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit to the Department's St. Johns River District office 90 days prior to the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until the expiration date or issuance of an operating permit.
8. Upon obtaining an operating permit, the applicant will be required to submit annual reports on the actual operation and emission of the facility. Quarterly material balance reports (24-hour) shall be required and sent to the Department's St. Johns River District office to assess emissions and maintain VOC inventory. The quantity of flights performed during that quarter shall be included in the report. Visible emissions tests shall be performed on an annual basis.
9. Construction shall reasonably conform to the plans submitted in the application.
10. The applicant shall report any delay in construction and completion of this project to the Department's St. Johns River District office.
11. Reasonable precautions to prevent fugitive particulate emissions during construction such as coating or spraying road and construction sites will be taken by the applicant.
12. This facility (SRBRF) and the SRBRF at the Low Bay building will not be allowed to refurbish more than 48 solid rocket boosters per year without prior approval from the department.

PERMITTEE:
Kennedy Space Center

Permit Number: 094092
Expiration Date: January 31, 1987

SPECIFIC CONDITIONS:

13. This facility shall comply with the provisions and requirements of the attached general conditions.

14. The amount of chemical compounds used and the permitted emissions from the MSA-2 Mixing room shall not exceed the quantities listed in the following table:

MSA - 2 Mixing

<u>Constituent</u>	<u>Annual Usage</u> <u>Tons per Year</u>
<u>Solids</u>	
Phenolic Microballons	6.448
Glass Ecospheres	2.521
1/4" Chopped Glass Fibers	0.267
1/16" Milled Glass Fibers	0.638
Bentone 27	0.703
Ground Cork	0.606
<u>Activator</u>	
Ethyl Alcohol	0.696
<u>Epoxy Resin/Catalyst System</u>	
3M EC 2216 Part A (paste)	4.176
3M EC 2216 Part B (liquid)	4.176
<u>Solvents</u>	
Methylene Chloride	33.816
Perchloroethylene	27.408

No VOC emissions are expected from this operation.

Particulate matter emissions shall not exceed 0.112 tons/year.

PERMITTEE:
Kennedy Space Center

Permit Number: 094092
Expiration Date: January 31, 1987

Issued this _____ day of _____,
19____.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

VICTORIA J. TSCHINKEL, Secretary

_____ pages attached.

DEPARTMENT OF ENVIRONMENTAL REGULATION

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



BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:
National Aeronautics and Space
Administration
NASA
DF-EMS
Kennedy Space Center, Florida
32899

Permit Number: AC05-099436
Expiration Date: January 31, 1987
County: Brevard
Latitude/Longitude: 28° 33' 43" N/
80° 39' 36" W
Project: Thermal Protection System
Process, MSA-2 Spray Cells
No. 1 and No. 2

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 of the Space Shuttle Solid Rocket Booster (SRB) Assembly and Refurbishment Facility (ARF), located at the intersection of Schwartz Road and Kennedy Parkway, KSC, in Brevard County, Florida.

Attachments are as follows:

1. Application to construct Air Pollution Sources, DER Form 17-1.122(16).
2. Incompleteness letters of November 7, 1984, November 29, 1984, and January 10, 1985.
3. NASA's letters of December 5, 1984 and January 1, 1985 (responses to technical discrepancies).

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099436
Expiration Date: January 31, 1987

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.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099436
Expiration Date: January 31, 1987

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 noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099436
Expiration Date: January 31, 1987

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.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099436
Expiration Date: January 31, 1987

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:

THERMAL PROTECTION SYSTEM PROCESS, MSA-2 Spray Cells No. 1 and No. 2

1. The Space Shuttle Solid Rocket Booster Refurbishment (SRBR) facility and the AF Hangar Surface Preparation facility shall be allowed to operate continuously (8,760 hours per year).
2. Not more than 48 solid rocket boosters will be refurbished during any 12 month period unless a new application for permit to construct is submitted and approved by the Department.
3. Total VOC emissions from the refurbishment of 48 space shuttle solid rocket boosters shall not exceed 130 tons per year for the entire SRB facility, including the AF Hangar Surface Preparation facility.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099436
Expiration Date: January 31, 1987

SPECIFIC CONDITIONS:

4. Visible emissions shall not exceed 5% opacity during any 6 minute period. Compliance with this standard shall be determined by EPA Method 9. Visual Determination of the Opacity of Emissions from Stationary Sources as described in Appendix A of 40 CFR 60.

5. Compliance with the VOC emission standard will be determined by monitoring these pollutants (perchloroethylene, PERCL and methylene chloride, MECL). Sampling will be conducted continuously (24 hours per day) for a total of twenty days. Concentration data and calculated mass emission rate will be reported. Thereafter, compliance with the VOC emission limitations will be maintained based on the VOC inventory. Measurements shall be determined by the MIRAN 1A General Purpose Gas Analyzer.

6. No objectionable odors are allowed from this facility.

7. The applicant will demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit to the Department's St. Johns River District office 90 days prior to the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until the expiration date or issuance of an operating permit.

8. Upon obtaining an operating permit, the applicant will be required to submit annual reports on the actual operation and emission of the facility. Quarterly material balance reports (24-hour) shall be required and sent to the Department's St. Johns River District office to assess emissions and maintain VOC inventory. The quantity of flights performed during that quarter shall be included in the report. Visible emissions tests shall be performed on an annual basis.

9. Construction shall reasonably conform to the plans submitted in the application.

10. The applicant shall report any delay in construction and completion of this project to the Department's St. Johns River District office.

11. Reasonable precautions to prevent fugitive particulate emissions during construction such as coating or spraying road and construction sites will be taken by the applicant.

12. This facility (SRBRF) and the SRBRF at the Low Bay building will not be allowed to refurbish more than 48 solid rocket boosters per year without prior approval from the department.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099436
Expiration Date: January 31, 1987

SPECIFIC CONDITIONS:

13. This facility shall comply with the provisions and requirements of the attached general conditions.

14. The amount of chemical compounds used and the permitted emissions from the MSA-2 Spray Cells No. 1 and No. 2 shall not exceed the quantities listed in the following table:

MSA-2 Spray Cell No. 1 and Spray Cell No. 2

<u>Raw Materials</u>	<u>Pollutant Type</u>	<u>Liquid Waste</u>	<u>Utilization Rate</u>	<u>Potential Emissions</u>
		tons/year	tons/year/cell	tons/year/cell
Ethyl Alcohol	VOC	0.03	0.348	0.348
Perchloroethylene	VOC	0.83	13.704	12.632
Methylene Chloride (MSA-2)	VOC	1.02	16.908	15.002
Methylene Chloride (flush)	VOC	7.02	7.800	7.800
Adhesive 2216 A	NONE		2.088	
Adhesive 2216 B	NONE		2.088	
Insta-Foam A	VOC		0.900	0.063
Insta-Foam B	VOC		0.900	0.144
Bentone 27 Organophilic Clay	PART.		0.352	
Glass Ecosphere IG-101	PART.		1.261	
Fibrous Glass - 1/4 inch	PART.		0.134	
Fibrous Glass - 1/16 inch	PART.		0.319	
Phenolic Microballons	PART.		3.224	
Ground Cork	PART.		0.303	

TOTAL VOC FOR EACH SPRAY CELL

35.987

Total emissions from both spray cells are 71.978 tons per year.

Total emissions from both cure cells are 5.956 tons per year.

Total emissions from both spray and cure cells are 77.934 tons per year.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099436
Expiration Date: January 31, 1987

Issued this _____ day of _____,
19____.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

VICTORIA J. TSCHINKEL, Secretary

_____ pages attached.

DEPARTMENT OF ENVIRONMENTAL REGULATION

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



BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:
National Aeronautics and Space
Administration
NASA
DF-EMS
Kennedy Space Center, Florida
32899

Permit Number: AC05-099437
Expiration Date: January 31, 1987
County: Brevard
Latitude/Longitude: 28° 33' 43" N/
80° 39' 36" W
Project: Thermal Protection System
Process, MSA-2 Cure Cells
No. 1 and No. 2

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 of the Space Shuttle Solid Rocket Booster (SRB) Assembly and Refurbishment Facility (ARF), located at the intersection of Schwartz Road and Kennedy Parkway, KSC, in Brevard County, Florida.

Attachments are as follows:

1. Application to construct Air Pollution Sources, DER Form 17-1.122(16).
2. Incompleteness letters of November 7, 1984, November 29, 1984, and January 10, 1985.
3. NASA's letters of December 5, 1984 and January 1, 1985 (responses to technical discrepancies).

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099437
Expiration Date: January 31, 1987

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.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099437
Expiration Date: January 31, 1987

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 noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099437
Expiration Date: January 31, 1987

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.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099437
Expiration Date: January 31, 1987

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:

THERMAL PROTECTION SYSTEM PROCESS, MSA-2 Cure Cells No. 1 and No. 2

1. The Space Shuttle Solid Rocket Booster Refurbishment (SRBR) facility and the AF Hangar Surface Preparation facility shall be allowed to operate continuously (8,760 hours per year).
2. Not more than 48 solid rocket boosters will be refurbished during any 12 month period unless a new application for permit to construct is submitted and approved by the Department.
3. Total VOC emissions from the refurbishment of 48 space shuttle solid rocket boosters shall not exceed 130 tons per year for the entire SRB facility, including the AF Hangar Surface Preparation facility.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099437
Expiration Date: January 31, 1987

SPECIFIC CONDITIONS:

4. Visible emissions shall not exceed 5% opacity during any 6 minute period. Compliance with this standard shall be determined by EPA Method 9. Visual Determination of the Opacity of Emissions from Stationary Sources as described in Appendix A of 40 CFR 60.
5. Compliance with the VOC emission standard will be determined by monitoring these pollutants (perchloroethylene, PERCL and methylene chloride, MECL). Sampling will be conducted continuously (24 hours per day) for a total of twenty days. Concentration data and calculated mass emission rate will be reported. Thereafter, compliance with the VOC emission limitations will be maintained based on the VOC inventory. Measurements shall be determined by the MIRAN 1A General Purpose Gas Analyzer.
6. No objectionable odors are allowed from this facility.
7. The applicant will demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit to the Department's St. Johns River District office 90 days prior to the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until the expiration date or issuance of an operating permit.
8. Upon obtaining an operating permit, the applicant will be required to submit annual reports on the actual operation and emission of the facility. Quarterly material balance reports (24-hour) shall be required and sent to the Department's St. Johns River District office to assess emissions and maintain VOC inventory. The quantity of flights performed during that quarter shall be included in the report. Visible emissions tests shall be performed on an annual basis.
9. Construction shall reasonably conform to the plans submitted in the application.
10. The applicant shall report any delay in construction and completion of this project to the Department's St. Johns River District office.
11. Reasonable precautions to prevent fugitive particulate emissions during construction such as coating or spraying road and construction sites will be taken by the applicant.
12. This facility (SRBRF) and the SRBRF at the Low Bay building will not be allowed to refurbish more than 48 solid rocket boosters per year without prior approval from the department.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099437
Expiration Date: January 31, 1987

SPECIFIC CONDITIONS:

13. This facility shall comply with the provisions and requirements of the attached general conditions.

14. The amount of chemical compounds used and the permitted emissions from the MSA-2 Cure Cells No. 1 and No. 2 shall not exceed the quantities listed in the following table:

MSA-2 Cure Cell No. 1 and Cure Cell No. 2

Potential VOC emissions from both cure cells shall not exceed 5.956 tons per year (it is estimated each cell will emit a total of 2.978 TPY).

Issued this _____ day of _____,
19__.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

VICTORIA J. TSCHINKEL, Secretary

____ pages attached.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

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



BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:
National Aeronautics and Space
Administration
NASA
DF-EMS
Kennedy Space Center, Florida
32899

Permit Number: AC05-099438
Expiration Date: January 31, 1987
County: Brevard
Latitude/Longitude: 28° 33' 43" N/
80° 39' 36" W
Project: Thermal Protection System
Process, Topcoat Spray Cell

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 of the Space Shuttle Solid Rocket Booster (SRB) Assembly and Refurbishment Facility (ARF), located at the intersection of Schwartz Road and Kennedy Parkway, KSC, in Brevard County, Florida.

Attachments are as follows:

1. Application to construct Air Pollution Sources, DER Form 17-1.122(16).
2. Incompleteness letters of November 7, 1984, November 29, 1984, and January 10, 1985.
3. NASA's letters of December 5, 1984 and January 1, 1985 (responses to technical discrepancies).

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099438
Expiration Date: January 31, 1987

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.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099438
Expiration Date: January 31, 1987

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 noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099438
Expiration Date: January 31, 1987

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.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099438
Expiration Date: January 31, 1987

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:

THERMAL PROTECTION SYSTEM PROCESS, Topcoat Spray Cell

- 1. The Space Shuttle Solid Rocket Booster Refurbishment (SRBR) facility and the AF Hangar Surface Preparation facility shall be allowed to operate continuously (8,760 hours per year).
- 2. Not more than 48 solid rocket boosters will be refurbished during any 12 month period unless a new application for permit to construct is submitted and approved by the Department.
- 3. Total VOC emissions from the refurbishment of 48 space shuttle solid rocket boosters shall not exceed 130 tons per year for the entire SRB facility, including the AF Hangar Surface Preparation facility.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099438
Expiration Date: January 31, 1987

SPECIFIC CONDITIONS:

4. Visible emissions shall not exceed 5% opacity during any 6 minute period. Compliance with this standard shall be determined by EPA Method 9. Visual Determination of the Opacity of Emissions from Stationary Sources as described in Appendix A of 40 CFR 60.
5. Compliance with the VOC emission standard will be determined by monitoring these pollutants (perchloroethylene, PERCL and methylene chloride, MECL). Sampling will be conducted continuously (24 hours per day) for a total of twenty days. Concentration data and calculated mass emission rate will be reported. Thereafter, compliance with the VOC emission limitations will be maintained based on the VOC inventory. Measurements shall be determined by the MIRAN 1A General Purpose Gas Analyzer.
6. No objectionable odors are allowed from this facility.
7. The applicant will demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit to the Department's St. Johns River District office 90 days prior to the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until the expiration date or issuance of an operating permit.
8. Upon obtaining an operating permit, the applicant will be required to submit annual reports on the actual operation and emission of the facility. Quarterly material balance reports (24-hour) shall be required and sent to the Department's St. Johns River District office to assess emissions and maintain VOC inventory. The quantity of flights performed during that quarter shall be included in the report. Visible emissions tests shall be performed on an annual basis.
9. Construction shall reasonably conform to the plans submitted in the application.
10. The applicant shall report any delay in construction and completion of this project to the Department's St. Johns River District office.
11. Reasonable precautions to prevent fugitive particulate emissions during construction such as coating or spraying road and construction sites will be taken by the applicant.
12. This facility (SRBRF) and the SRBRF at the Low Bay building will not be allowed to refurbish more than 48 solid rocket boosters per year without prior approval from the department.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099438
Expiration Date: January 31, 1987

SPECIFIC CONDITIONS:

13. This facility shall comply with the provisions and requirements of the attached general conditions.

14. The amount of chemical compounds used and the permitted emissions from the Topcoat Spray Cell shall not exceed the quantities listed in the following table:

Topcoat Spray Cell

<u>Raw Materials</u>	<u>Utilization Rate</u>	<u>Liquid Waste</u>	<u>Potential Emissions</u>
	tons/year	tons/year	tons/year
<u>Topcoat Paint HFR-2000</u>			
Perchloroethylene	5.820		5.820
1,1,1 Trichloroethane	3.096		3.096
Titanium Dioxide	0.867		
Aluminum silicate	0.991		
Topcoat Rubber	1.238		
Hydrocarbon Resin	0.248		0.248
Epoxidized Soybean Oil	0.124		
TOTALS	<u>12.384</u>		
<u>Topcoat Accelerator</u>			
Xylol	0.0010		0.0010
Polymer of undistilled MDI isocyanate and diethylamino ethanol	0.0015		0.0001
TOTALS	<u>0.0025</u>		
<u>Cleanup/Flush</u>			
Perchloroethylene	2.927	2.634	0.283
TOTALS		<u>2.634</u>	<u>9.4581</u>

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099438
Expiration Date: January 31, 1987

Issued this _____ day of _____,
19____.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

VICTORIA J. TSCHINKEL, Secretary

_____ pages attached.

DEPARTMENT OF ENVIRONMENTAL REGULATION

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



BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:
National Aeronautics and Space
Administration
NASA
DF-EMS
Kennedy Space Center, Florida
32899

Permit Number: AC05-099439
Expiration Date: January 31, 1987
County: Brevard
Latitude/Longitude: 28° 33' 43" N/
80° 39' 36" W
Project: Thermal Protection System
Process, Closeout

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 of the Space Shuttle Solid Rocket Booster (SRB) Assembly and Refurbishment Facility (ARF), located at the intersection of Schwartz Road and Kennedy Parkway, KSC, in Brevard County, Florida.

Attachments are as follows:

1. Application to construct Air Pollution Sources, DER Form 17-1.122(16).
2. Incompleteness letters of November 7, 1984, November 29, 1984, and January 10, 1985.
3. NASA's letters of December 5, 1984 and January 1, 1985 (responses to technical discrepancies).

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099439
Expiration Date: January 31, 1987

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.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099439
Expiration Date: January 31, 1987

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 noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099439
Expiration Date: January 31, 1987

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.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099439
Expiration Date: January 31, 1987

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:

THERMAL PROTECTION SYSTEM PROCESS, TPS Closeout.

1. The Space Shuttle Solid Rocket Booster Refurbishment (SRBR) facility and the AF Hangar Surface Preparation facility shall be allowed to operate continuously (8,760 hours per year).
2. Not more than 48 solid rocket boosters will be refurbished during any 12 month period unless a new application for permit to construct is submitted and approved by the Department.
3. Total VOC emissions from the refurbishment of 48 space shuttle solid rocket boosters shall not exceed 130 tons per year for the entire SRB facility, including the AF Hangar Surface Preparation facility.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099439
Expiration Date: January 31, 1987

SPECIFIC CONDITIONS:

4. Visible emissions shall not exceed 5% opacity during any 6 minute period. Compliance with this standard shall be determined by EPA Method 9. Visual Determination of the Opacity of Emissions from Stationary Sources as described in Appendix A of 40 CFR 60.

5. Compliance with the VOC emission standard will be determined by monitoring these pollutants (perchloroethylene, PERCL and methylene chloride, MECL). Sampling will be conducted continuously (24 hours per day) for a total of twenty days. Concentration data and calculated mass emission rate will be reported. Thereafter, compliance with the VOC emission limitations will be maintained based on the VOC inventory. Measurements shall be determined by the MIRAN 1A General Purpose Gas Analyzer.

6. No objectionable odors are allowed from this facility.

7. The applicant will demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit to the Department's St. Johns River District office 90 days prior to the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until the expiration date or issuance of an operating permit.

8. Upon obtaining an operating permit, the applicant will be required to submit annual reports on the actual operation and emission of the facility. Quarterly material balance reports (24-hour) shall be required and sent to the Department's St. Johns River District office to assess emissions and maintain VOC inventory. The quantity of flights performed during that quarter shall be included in the report. Visible emissions tests shall be performed on an annual basis.

9. Construction shall reasonably conform to the plans submitted in the application.

10. The applicant shall report any delay in construction and completion of this project to the Department's St. Johns River District office.

11. Reasonable precautions to prevent fugitive particulate emissions during construction such as coating or spraying road and construction sites will be taken by the applicant.

12. This facility (SRBRF) and the SRBRF at the Low Bay building will not be allowed to refurbish more than 48 solid rocket boosters per year without prior approval from the department.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099439
Expiration Date: January 31, 1987

SPECIFIC CONDITIONS:

13. This facility shall comply with the provisions and requirements of the attached general conditions.

14. The amount of chemical compounds used and the permitted emissions from the TPS Closeout room shall not exceed the quantities listed in the following table:

Thermal Protection System Closeout

<u>Raw Materials</u>	<u>Pollutant</u> Type	<u>Utilization</u> Rate (tons/year)	<u>Liquid</u> Waste (tons/year)	<u>Potential</u> Emissions (tons/year)
<u>MTA-2 Mixing/Application</u>				
EPON Resin 828	---	12,912		0
LP-3 Polysulfide Polymer	VOC	12.912		0.026
Shell EPON Cure Agent Z	VOC	5.140		0.051
Tin Octoate	VOC	0.501		0.005
Phenolic Microballons	Partic.	10.321		
Perchloroethylene (flush)	VOC	6.335	5.702	0.633
<u>MTA-2 Molding</u>				
Plastilease 512B	VOC	0.039		0.036
Partall Paste #2	VOC	0.008		0.002
Partall Film #10	VOC	0.055		0.008
K5NA Hardner	VOC	9.636		0.193
K5NA Resin	VOC	7.227		
K5NA Filler	Partic.	2.409		
	Total		5.702	0.954

Potential VOC Emissions = 6.656 tons per year.

Issued this _____ day of _____,
19__.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

VICTORIA J. TSCHINKEL, Secretary

_____ pages attached.

DEPARTMENT OF ENVIRONMENTAL REGULATION

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



BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:
National Aeronautics and Space
Administration
NASA
DF-EMS
Kennedy Space Center, Florida
32899

Permit Number: AC05-099440
Expiration Date: January 31, 1987
County: Brevard
Latitude/Longitude: 28° 33' 43" N/
80° 39' 36" W
Project: Thermal Protection System
Equipment Cleaning

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 of the Space Shuttle Solid Rocket Booster (SRB) Assembly and Refurbishment Facility (ARF), located at the intersection of Schwartz Road and Kennedy Parkway, KSC, in Brevard County, Florida.

Attachments are as follows:

1. Application to construct Air Pollution Sources, DER Form 17-1.122(16).
2. Incompleteness letters of November 7, 1984, November 29, 1984, and January 10, 1985.
3. NASA's letters of December 5, 1984 and January 1, 1985 (responses to technical discrepancies).

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099440
Expiration Date: January 31, 1987

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.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099440
Expiration Date: January 31, 1987

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 noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099440
Expiration Date: January 31, 1987

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.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099440
Expiration Date: January 31, 1987

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:

THERMAL PROTECTION SYSTEM PROCESS, Equipment Cleaning.

1. The Space Shuttle Solid Rocket Booster Refurbishment (SRBR) facility and the AF Hangar Surface Preparation facility shall be allowed to operate continuously (8,760 hours per year).
2. Not more than 48 solid rocket boosters will be refurbished during any 12 month period unless a new application for permit to construct is submitted and approved by the Department.
3. Total VOC emissions from the refurbishment of 48 space shuttle solid rocket boosters shall not exceed 130 tons per year for the entire SRB facility, including the AF Hangar Surface Preparation facility.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099440
Expiration Date: January 31, 1987

SPECIFIC CONDITIONS:

4. Visible emissions shall not exceed 5% opacity during any 6 minute period. Compliance with this standard shall be determined by EPA Method 9. Visual Determination of the Opacity of Emissions from Stationary Sources as described in Appendix A of 40 CFR 60.
5. Compliance with the VOC emission standard will be determined by monitoring these pollutants (perchloroethylene, PERCL and methylene chloride, MECL). Sampling will be conducted continuously (24 hours per day) for a total of twenty days. Concentration data and calculated mass emission rate will be reported. Thereafter, compliance with the VOC emission limitations will be maintained based on the VOC inventory. Measurements shall be determined by the MIRAN 1A General Purpose Gas Analyzer.
6. No objectionable odors are allowed from this facility.
7. The applicant will demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit to the Department's St. Johns River District office 90 days prior to the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until the expiration date or issuance of an operating permit.
8. Upon obtaining an operating permit, the applicant will be required to submit annual reports on the actual operation and emission of the facility. Quarterly material balance reports (24-hour) shall be required and sent to the Department's St. Johns River District office to assess emissions and maintain VOC inventory. The quantity of flights performed during that quarter shall be included in the report. Visible emissions tests shall be performed on an annual basis.
9. Construction shall reasonably conform to the plans submitted in the application.
10. The applicant shall report any delay in construction and completion of this project to the Department's St. Johns River District office.
11. Reasonable precautions to prevent fugitive particulate emissions during construction such as coating or spraying road and construction sites will be taken by the applicant.
12. This facility (SRBRF) and the SRBRF at the Low Bay building will not be allowed to refurbish more than 48 solid rocket boosters per year without prior approval from the department.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099440
Expiration Date: January 31, 1987

SPECIFIC CONDITIONS:

13. This facility shall comply with the provisions and requirements of the attached general conditions.

14. The amount of chemical compounds used and the permitted emissions from the TPS Equipment Cleaning room shall not exceed the quantities listed in the following table:

Thermal Protection System Equipment Cleaning

Potential VOC Emissions shall not exceed 5.32 tons per year.

Total methylene chloride and perchloroethylene used shall not exceed 3.96 tons per year and 1.36 tons per year respectively.

Issued this ____ day of _____,
19__.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

VICTORIA J. TSCHINKEL, Secretary

____ pages attached.

DEPARTMENT OF ENVIRONMENTAL REGULATION

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



BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:
National Aeronautics and Space
Administration
NASA
DF-EMS
Kennedy Space Center, Florida
32899

Permit Number: AC05-099441
Expiration Date: January 31, 1987
County: Brevard
Latitude/Longitude: 28° 33' 43" N/
80° 39' 36" W
Project: Thermal Protection System
Process, Quality Lab

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 of the Space Shuttle Solid Rocket Booster (SRB) Assembly and Refurbishment Facility (ARF), located at the intersection of Schwartz Road and Kennedy Parkway, KSC, in Brevard County, Florida.

Attachments are as follows:

1. Application to construct Air Pollution Sources, DER Form 17-1.122(16).
2. Incompleteness letters of November 7, 1984, November 29, 1984, and January 10, 1985.
3. NASA's letters of December 5, 1984 and January 1, 1985 (responses to technical discrepancies).

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099441
Expiration Date: January 31, 1987

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.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099441
Expiration Date: January 31, 1987

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 noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099441
Expiration Date: January 31, 1987

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.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099441
Expiration Date: January 31, 1987

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:

THERMAL PROTECTION SYSTEM PROCESS, Quality Lab.

1. The Space Shuttle Solid Rocket Booster Refurbishment (SRBR) facility and the AF Hangar Surface Preparation facility shall be allowed to operate continuously (8,760 hours per year).
2. Not more than 48 solid rocket boosters will be refurbished during any 12 month period unless a new application for permit to construct is submitted and approved by the Department.
3. Total VOC emissions from the refurbishment of 48 space shuttle solid rocket boosters shall not exceed 130 tons per year for the entire SRB facility, including the AF Hangar Surface Preparation facility.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099441
Expiration Date: January 31, 1987

SPECIFIC CONDITIONS:

4. Visible emissions shall not exceed 5% opacity during any 6 minute period. Compliance with this standard shall be determined by EPA Method 9. Visual Determination of the Opacity of Emissions from Stationary Sources as described in Appendix A of 40 CFR 60.
5. Compliance with the VOC emission standard will be determined by monitoring these pollutants (perchloroethylene, PERCL and methylene chloride, MECL). Sampling will be conducted continuously (24 hours per day) for a total of twenty days. Concentration data and calculated mass emission rate will be reported. Thereafter, compliance with the VOC emission limitations will be maintained based on the VOC inventory. Measurements shall be determined by the MIRAN 1A General Purpose Gas Analyzer.
6. No objectionable odors are allowed from this facility.
7. The applicant will demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit to the Department's St. Johns River District office 90 days prior to the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until the expiration date or issuance of an operating permit.
8. Upon obtaining an operating permit, the applicant will be required to submit annual reports on the actual operation and emission of the facility. Quarterly material balance reports (24-hour) shall be required and sent to the Department's St. Johns River District office to assess emissions and maintain VOC inventory. The quantity of flights performed during that quarter shall be included in the report. Visible emissions tests shall be performed on an annual basis.
9. Construction shall reasonably conform to the plans submitted in the application.
10. The applicant shall report any delay in construction and completion of this project to the Department's St. Johns River District office.
11. Reasonable precautions to prevent fugitive particulate emissions during construction such as coating or spraying road and construction sites will be taken by the applicant.
12. This facility (SRBRF) and the SRBRF at the Low Bay building will not be allowed to refurbish more than 48 solid rocket boosters per year without prior approval from the department.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099441
Expiration Date: January 31, 1987

SPECIFIC CONDITIONS:

13. This facility shall comply with the provisions and requirements of the attached general conditions.

14. The amount of chemical compounds used and the permitted emissions from the TPS Quality Lab room shall not exceed the quantities listed in the following table:

Thermal Protection System Quality Lab

Potential VOC emissions shall not exceed 0.527 tons per year.

Total methylene chloride and 1,1,1 trichloroethane used shall not exceed 0.471 tons per year and 0.056 tons per year respectively.

Issued this _____ day of _____,
19__.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

VICTORIA J. TSCHINKEL, Secretary

_____ pages attached.

DEPARTMENT OF ENVIRONMENTAL REGULATION

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



BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:
National Aeronautics and Space
Administration
NASA
DF-EMS
Kennedy Space Center, Florida
32899

Permit Number: AC05-99442
Expiration Date: January 31, 1987
County: Brevard
Latitude/Longitude: 28° 33' 43" N/
80° 39' 36" W
Project: Thrust Vector Control
Process, Phosphoric Acid
Bath

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 of the Space Shuttle Solid Rocket Booster (SRB) Assembly and Refurbishment Facility (ARF), located at the intersection of Schwartz Road and Kennedy Parkway, KSC, in Brevard County, Florida.

Attachments are as follows:

1. Application to construct Air Pollution Sources, DER Form 17-1.122(16).
2. Incompleteness letters of November 7, 1984, November 29, 1984, and January 10, 1985.
3. NASA's letters of December 5, 1984 and January 1, 1985 (responses to technical discrepancies).

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099442
Expiration Date: January 31, 1987

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.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099442
Expiration Date: January 31, 1987

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 noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099442
Expiration Date: January 31, 1987

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.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099442
Expiration Date: January 31, 1987

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:

THRUST VECTOR CONTROL PROCESS, Phosphoric Acid Bath.

1. The Space Shuttle Solid Rocket Booster Refurbishment (SRBR) facility and the AF Hangar Surface Preparation facility shall be allowed to operate continuously (8,760 hours per year).
2. Not more than 48 solid rocket boosters will be refurbished during any 12 month period unless a new application for permit to construct is submitted and approved by the Department.
3. Total VOC emissions from the refurbishment of 48 space shuttle solid rocket boosters shall not exceed 130 tons per year for the entire SRB facility, including the AF Hangar Surface Preparation facility.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099442
Expiration Date: January 31, 1987

SPECIFIC CONDITIONS:

4. Visible emissions shall not exceed 5% opacity during any 6 minute period. Compliance with this standard shall be determined by EPA Method 9. Visual Determination of the Opacity of Emissions from Stationary Sources as described in Appendix A of 40 CFR 60.
5. Compliance with the VOC emission standard will be determined by monitoring these pollutants (perchloroethylene, PERCL and methylene chloride, MECL). Sampling will be conducted continuously (24 hours per day) for a total of twenty days. Concentration data and calculated mass emission rate will be reported. Thereafter, compliance with the VOC emission limitations will be maintained based on the VOC inventory. Measurements shall be determined by the MIRAN 1A General Purpose Gas Analyzer.
6. No objectionable odors are allowed from this facility.
7. The applicant will demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit to the Department's St. Johns River District office 90 days prior to the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until the expiration date or issuance of an operating permit.
8. Upon obtaining an operating permit, the applicant will be required to submit annual reports on the actual operation and emission of the facility. Quarterly material balance reports (24-hour) shall be required and sent to the Department's St. Johns River District office to assess emissions and maintain VOC inventory. The quantity of flights performed during that quarter shall be included in the report. Visible emissions tests shall be performed on an annual basis.
9. Construction shall reasonably conform to the plans submitted in the application.
10. The applicant shall report any delay in construction and completion of this project to the Department's St. Johns River District office.
11. Reasonable precautions to prevent fugitive particulate emissions during construction such as coating or spraying road and construction sites will be taken by the applicant.
12. This facility (SRBRF) and the SRBRF at the Low Bay building will not be allowed to refurbish more than 48 solid rocket boosters per year without prior approval from the department.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099442
Expiration Date: January 31, 1987

SPECIFIC CONDITIONS:

13. This facility shall comply with the provisions and requirements of the attached general conditions.

14. The amount of chemical compounds used and the permitted emissions from the Phosphoric Acid Bath room shall not exceed the quantities listed in the following table:

Phosphoric Acid Bath

Particulate matter emissions from the phosphoric acid bath shall not exceed 0.038 tons per year.

Phosphoric acid usage shall not exceed 765 lb/hr.

Issued this _____ day of _____,
19____.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

VICTORIA J. TSCHINKEL, Secretary

____ pages attached.

DEPARTMENT OF ENVIRONMENTAL REGULATION

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



BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:	Permit Number: AC05-099444
National Aeronautics and Space Administration	Expiration Date: January 31, 1987
NASA	County: Brevard
DF-EMS	Latitude/Longitude: 28° 33' 43" N/ 80° 39' 36" W
Kennedy Space Center, Florida 32899	Project: Thrust Vector Control Process, TVC/CAT Testing

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 of the Space Shuttle Solid Rocket Booster (SRB) Assembly and Refurbishment Facility (ARF), located at the intersection of Schwartz Road and Kennedy Parkway, KSC, in Brevard County, Florida.

Attachments are as follows:

1. Application to construct Air Pollution Sources, DER Form 17-1.122(16).
2. Incompleteness letters of November 7, 1984, November 29, 1984, and January 10, 1985.
3. NASA's letters of December 5, 1984 and January 1, 1985 (responses to technical discrepancies).

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099444
Expiration Date: January 31, 1987

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.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099444
Expiration Date: January 31, 1987

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 noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099444
Expiration Date: January 31, 1987

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.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099444
Expiration Date: January 31, 1987

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:

THRUST VECTOR CONTROL PROCESS, TVC/CAT Testing.

1. The Space Shuttle Solid Rocket Booster Refurbishment (SRBR) facility and the AF Hangar Surface Preparation facility shall be allowed to operate continuously (8,760 hours per year).
2. Not more than 48 solid rocket boosters will be refurbished during any 12 month period unless a new application for permit to construct is submitted and approved by the Department.
3. Total VOC emissions from the refurbishment of 48 space shuttle solid rocket boosters shall not exceed 130 tons per year for the entire SRB facility, including the AF Hangar Surface Preparation facility.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099444
Expiration Date: January 31, 1987

SPECIFIC CONDITIONS:

4. Visible emissions shall not exceed 5% opacity during any 6 minute period. Compliance with this standard shall be determined by EPA Method 9. Visual Determination of the Opacity of Emissions from Stationary Sources as described in Appendix A of 40 CFR 60.
5. Compliance with the VOC emission standard will be determined by monitoring these pollutants (perchloroethylene, PERCL and methylene chloride, MECL). Sampling will be conducted continuously (24 hours per day) for a total of twenty days. Concentration data and calculated mass emission rate will be reported. Thereafter, compliance with the VOC emission limitations will be maintained based on the VOC inventory. Measurements shall be determined by the MIRAN 1A General Purpose Gas Analyzer.
6. No objectionable odors are allowed from this facility.
7. The applicant will demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit to the Department's St. Johns River District office 90 days prior to the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until the expiration date or issuance of an operating permit.
8. Upon obtaining an operating permit, the applicant will be required to submit annual reports on the actual operation and emission of the facility. Quarterly material balance reports (24-hour) shall be required and sent to the Department's St. Johns River District office to assess emissions and maintain VOC inventory. The quantity of flights performed during that quarter shall be included in the report. Visible emissions tests shall be performed on an annual basis.
9. Construction shall reasonably conform to the plans submitted in the application.
10. The applicant shall report any delay in construction and completion of this project to the Department's St. Johns River District office.
11. Reasonable precautions to prevent fugitive particulate emissions during construction such as coating or spraying road and construction sites will be taken by the applicant.
12. This facility (SRBRF) and the SRBRF at the Low Bay building will not be allowed to refurbish more than 48 solid rocket boosters per year without prior approval from the department.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099444
Expiration Date: January 31, 1987

SPECIFIC CONDITIONS:

13. This facility shall comply with the provisions and requirements of the attached general conditions.

14. The amount of chemical compounds used and the permitted emissions from the TVC/CAT Testing room shall not exceed the quantities listed in the following table:

TVC/CAT Testing

Total isopropanol usage shall not exceed 3.936 tons per year
(50 gal/launch)

Total VOC emissions (isopropanol) shall not exceed 0.00022 tons
per year.

Issued this _____ day of _____,
19____.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

VICTORIA J. TSCHINKEL, Secretary

____ pages attached.

DEPARTMENT OF ENVIRONMENTAL REGULATION

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



BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:
National Aeronautics and Space
Administration
NASA
DF-EMS
Kennedy Space Center, Florida
32899

Permit Number: AC05-099445
Expiration Date: January 31, 1987
County: Brevard
Latitude/Longitude: 28° 33' 43" N/
80° 39' 36" W
Project: Thrust Vector Control
Process, TVC Tube & Hose
Freon Flush

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 of the Space Shuttle Solid Rocket Booster (SRB) Assembly and Refurbishment Facility (ARF), located at the intersection of Schwartz Road and Kennedy Parkway, KSC, in Brevard County, Florida.

Attachments are as follows:

1. Application to construct Air Pollution Sources, DER Form 17-1.122(16).
2. Incompleteness letters of November 7, 1984, November 29, 1984, and January 10, 1985.
3. NASA's letters of December 5, 1984 and January 1, 1985 (responses to technical discrepancies).

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099445
Expiration Date: January 31, 1987

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.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099445
Expiration Date: January 31, 1987

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 noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099445
Expiration Date: January 31, 1987

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.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099445
Expiration Date: January 31, 1987

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:

THRUST VECTOR CONTROL PROCESS, TVC Tube and Hose Freon Flush.

1. The Space Shuttle Solid Rocket Booster Refurbishment (SRBR) facility and the AF Hangar Surface Preparation facility shall be allowed to operate continuously (8,760 hours per year).
2. Not more than 48 solid rocket boosters will be refurbished during any 12 month period unless a new application for permit to construct is submitted and approved by the Department.
3. Total VOC emissions from the refurbishment of 48 space shuttle solid rocket boosters shall not exceed 130 tons per year for the entire SRB facility, including the AF Hangar Surface Preparation facility.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099445
Expiration Date: January 31, 1987

SPECIFIC CONDITIONS:

4. Visible emissions shall not exceed 5% opacity during any 6 minute period. Compliance with this standard shall be determined by EPA Method 9. Visual Determination of the Opacity of Emissions from Stationary Sources as described in Appendix A of 40 CFR 60.
5. Compliance with the VOC emission standard will be determined by monitoring these pollutants (perchloroethylene, PERCL and methylene chloride, MECL). Sampling will be conducted continuously (24 hours per day) for a total of twenty days. Concentration data and calculated mass emission rate will be reported. Thereafter, compliance with the VOC emission limitations will be maintained based on the VOC inventory. Measurements shall be determined by the MIRAN 1A General Purpose Gas Analyzer.
6. No objectionable odors are allowed from this facility.
7. The applicant will demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit to the Department's St. Johns River District office 90 days prior to the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until the expiration date or issuance of an operating permit.
8. Upon obtaining an operating permit, the applicant will be required to submit annual reports on the actual operation and emission of the facility. Quarterly material balance reports (24-hour) shall be required and sent to the Department's St. Johns River District office to assess emissions and maintain VOC inventory. The quantity of flights performed during that quarter shall be included in the report. Visible emissions tests shall be performed on an annual basis.
9. Construction shall reasonably conform to the plans submitted in the application.
10. The applicant shall report any delay in construction and completion of this project to the Department's St. Johns River District office.
11. Reasonable precautions to prevent fugitive particulate emissions during construction such as coating or spraying road and construction sites will be taken by the applicant.
12. This facility (SRBRF) and the SRBRF at the Low Bay building will not be allowed to refurbish more than 48 solid rocket boosters per year without prior approval from the department.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099445
Expiration Date: January 31, 1987

SPECIFIC CONDITIONS:

13. This facility shall comply with the provisions and requirements of the attached general conditions.

14. The amount of chemical compounds used and the permitted emissions from the TVC Tube & Hose Freon Flush room shall not exceed the quantities listed in the following table:

TVC Tube and Hose Freon Flush

Total emissions of Freon 113 (1,1,1, trichlorotrifluoroethane) shall not exceed 1.72 tons per year.

Issued this _____ day of _____,
19____.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

VICTORIA J. TSCHINKEL, Secretary

____ pages attached.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

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



BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:	Permit Number: AC05-099448
National Aeronautics and Space Administration	Expiration Date: January 31, 1987
NASA	County: Brevard
DF-EMS	Latitude/Longitude: 28° 33' 43" N/ 80° 39' 36" W
Kennedy Space Center, Florida 32899	Project: ORDNANCE ABLATIVE MIXING

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 of the Space Shuttle Solid Rocket Booster (SRB) Assembly and Refurbishment Facility (ARF), located at the intersection of Schwartz Road and Kennedy Parkway, KSC, in Brevard County, Florida.

Attachments are as follows:

1. Application to construct Air Pollution Sources, DER Form 17-1.122(16).
2. Incompleteness letters of November 7, 1984, November 29, 1984, and January 10, 1985.
3. NASA's letters of December 5, 1984 and January 1, 1985 (responses to technical discrepancies).

BEST AVAILABLE COPY

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099448
Expiration Date: January 31, 1987

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.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099448
Expiration Date: January 31, 1987

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 noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099448
Expiration Date: January 31, 1987

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.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099448
Expiration Date: January 31, 1987

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:

ORDNANCE ABLATIVE MIXING.

1. The Space Shuttle Solid Rocket Booster Refurbishment (SRBR) facility and the AF Hangar Surface Preparation facility shall be allowed to operate continuously (8,760 hours per year).
2. Not more than 48 solid rocket boosters will be refurbished during any 12 month period unless a new application for permit to construct is submitted and approved by the Department.
3. Total VOC emissions from the refurbishment of 48 space shuttle solid rocket boosters shall not exceed 130 tons per year for the entire SRB facility, including the AF Hangar Surface Preparation facility.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099448
Expiration Date: January 31, 1987

SPECIFIC CONDITIONS:

4. Visible emissions shall not exceed 5% opacity during any 6 minute period. Compliance with this standard shall be determined by EPA Method 9. Visual Determination of the Opacity of Emissions from Stationary Sources as described in Appendix A of 40 CFR 60.
5. Compliance with the VOC emission standard will be determined by monitoring these pollutants (perchloroethylene, PERCL and methylene chloride, MECL). Sampling will be conducted continuously (24 hours per day) for a total of twenty days. Concentration data and calculated mass emission rate will be reported. Thereafter, compliance with the VOC emission limitations will be maintained based on the VOC inventory. Measurements shall be determined by the MIRAN 1A General Purpose Gas Analyzer.
6. No objectionable odors are allowed from this facility.
7. The applicant will demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit to the Department's St. Johns River District office 90 days prior to the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until the expiration date or issuance of an operating permit.
8. Upon obtaining an operating permit, the applicant will be required to submit annual reports on the actual operation and emission of the facility. Quarterly material balance reports (24-hour) shall be required and sent to the Department's St. Johns River District office to assess emissions and maintain VOC inventory. The quantity of flights performed during that quarter shall be included in the report. Visible emissions tests shall be performed on an annual basis.
9. Construction shall reasonably conform to the plans submitted in the application.
10. The applicant shall report any delay in construction and completion of this project to the Department's St. Johns River District office.
11. Reasonable precautions to prevent fugitive particulate emissions during construction such as coating or spraying road and construction sites will be taken by the applicant.
12. This facility (SRBRF) and the SRBRF at the Low Bay building will not be allowed to refurbish more than 48 solid rocket boosters per year without prior approval from the department.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099448
Expiration Date: January 31, 1987

SPECIFIC CONDITIONS:

13. This facility shall comply with the provisions and requirements of the attached general conditions.

14. The amount of chemical compounds used and the permitted emissions from the Ordnance Ablative Mixing room shall not exceed the quantities listed in the following table:

Ordnance Ablative Mixing

<u>Raw Materials</u>	<u>Pollutant Type</u>	<u>Utilization Rate</u> (tons/year)	<u>Potential Emission</u> (tons/year)
K5NA Hardner	VOC	0.048	0.0005
K5NA Resin	VOC	0.036	0.0003
K5NA Filler	Part.	0.012	0.0001
PR-1422-B Polysulfide Sealing	VOC	0.017	0.0013
DC-93-076 Sealing Comp.	VOC	0.100	0.0050
DC 1204 Primer	VOC	0.007	0.0032
SS 4004 Silicone Primer	VOC	0.004	
RTV Silicone rubber	VOC	0.588	0.0294
1,1,1 Trichloroethane	VOC	0.134	0.1340

Issued this _____ day of _____,
19____.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

VICTORIA J. TSCHINKEL, Secretary

_____ pages attached.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

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



BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:
National Aeronautics and Space
Administration
NASA
DF-EMS
Kennedy Space Center, Florida
32899

Permit Number: AC05-099449
Expiration Date: January 31, 1987
County: Brevard
Latitude/Longitude: 28° 33' 43" N/
80° 39' 36" W
Project: SMALL PARTS SPRAY BOOTH

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 of the Space Shuttle Solid Rocket Booster (SRB) Assembly and Refurbishment Facility (ARF), located at the intersection of Schwartz Road and Kennedy Parkway, KSC, in Brevard County, Florida.

Attachments are as follows:

1. Application to construct Air Pollution Sources, DER Form 17-1.122(16).
2. Incompleteness letters of November 7, 1984, November 29, 1984, and January 10, 1985.
3. NASA's letters of December 5, 1984 and January 1, 1985 (responses to technical discrepancies).

BEST AVAILABLE COPY

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099449
Expiration Date: January 31, 1987

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.

BEST AVAILABLE COPY

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099449
Expiration Date: January 31, 1987

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 noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099449
Expiration Date: January 31, 1987

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.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099449
Expiration Date: January 31, 1987

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:

SMALL PARTS SPRAY BOOTH.

1. The Space Shuttle Solid Rocket Booster Refurbishment (SRBR) facility and the AF Hangar Surface Preparation facility shall be allowed to operate continuously (8,760 hours per year).
2. Not more than 48 solid rocket boosters will be refurbished during any 12 month period unless a new application for permit to construct is submitted and approved by the Department.
3. Total VOC emissions from the refurbishment of 48 space shuttle solid rocket boosters shall not exceed 130 tons per year for the entire SRB facility, including the AF Hangar Surface Preparation facility.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099449
Expiration Date: January 31, 1987

SPECIFIC CONDITIONS:

4. Visible emissions shall not exceed 5% opacity during any 6 minute period. Compliance with this standard shall be determined by EPA Method 9. Visual Determination of the Opacity of Emissions from Stationary Sources as described in Appendix A of 40 CFR 60.
5. Compliance with the VOC emission standard will be determined by monitoring these pollutants (perchloroethylene, PERCL and methylene chloride, MECL). Sampling will be conducted continuously (24 hours per day) for a total of twenty days. Concentration data and calculated mass emission rate will be reported. Thereafter, compliance with the VOC emission limitations will be maintained based on the VOC inventory. Measurements shall be determined by the MIRAN 1A General Purpose Gas Analyzer.
6. No objectionable odors are allowed from this facility.
7. The applicant will demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit to the Department's St. Johns River District office 90 days prior to the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until the expiration date or issuance of an operating permit.
8. Upon obtaining an operating permit, the applicant will be required to submit annual reports on the actual operation and emission of the facility. Quarterly material balance reports (24-hour) shall be required and sent to the Department's St. Johns River District office to assess emissions and maintain VOC inventory. The quantity of flights performed during that quarter shall be included in the report. Visible emissions tests shall be performed on an annual basis.
9. Construction shall reasonably conform to the plans submitted in the application.
10. The applicant shall report any delay in construction and completion of this project to the Department's St. Johns River District office.
11. Reasonable precautions to prevent fugitive particulate emissions during construction such as coating or spraying road and construction sites will be taken by the applicant.
12. This facility (SRBRF) and the SRBRF at the Low Bay building will not be allowed to refurbish more than 48 solid rocket boosters per year without prior approval from the department.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099449
Expiration Date: January 31, 1987

SPECIFIC CONDITIONS:

13. This facility shall comply with the provisions and requirements of the attached general conditions.

14. The amount of chemical compounds used and the permitted emissions from the Small Parts Spray Booth room shall not exceed the quantities listed in the following table:

Total particulate matter emissions shall not exceed 0.0016 tons/year.

Small Parts Spray Booth

Total VOC emissions (Rustoleum) shall not exceed 0.1874 tons per year.

Issued this _____ day of _____,
19__.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

VICTORIA J. TSCHINKEL, Secretary

____ pages attached.

DEPARTMENT OF ENVIRONMENTAL REGULATION

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



BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:
National Aeronautics and Space
Administration
NASA
DF-EMS
Kennedy Space Center, Florida
32899

Permit Number: AC05-099450
Expiration Date: January 31, 1987
County: Brevard
Latitude/Longitude: 28° 33' 43" N/
80° 39' 36" W
Project: Conformal Coating

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 of the Space Shuttle Solid Rocket Booster (SRB) Assembly and Refurbishment Facility (ARF), located at the intersection of Schwartz Road and Kennedy Parkway, KSC, in Brevard County, Florida.

Attachments are as follows:

1. Application to construct Air Pollution Sources, DER Form 17-1.122(16).
2. Incompleteness letters of November 7, 1984, November 29, 1984, and January 10, 1985.
3. NASA's letters of December 5, 1984 and January 1, 1985 (responses to technical discrepancies).

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099450
Expiration Date: January 31, 1987

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 403.351, 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.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099450
Expiration Date: January 31, 1987

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 noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099450
Expiration Date: January 31, 1987

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.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099450
Expiration Date: January 31, 1987

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:

CONFORMAL COATING.

1. The Space Shuttle Solid Rocket Booster Refurbishment (SRBR) facility and the AF Hangar Surface Preparation facility shall be allowed to operate continuously (8,760 hours per year).
2. Not more than 48 solid rocket boosters will be refurbished during any 12 month period unless a new application for permit to construct is submitted and approved by the Department.
3. Total VOC emissions from the refurbishment of 48 space shuttle solid rocket boosters shall not exceed 130 tons per year for the entire SRB facility, including the AF Hangar Surface Preparation facility.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099450
Expiration Date: January 31, 1987

SPECIFIC CONDITIONS:

4. Visible emissions shall not exceed 5% opacity during any 6 minute period. Compliance with this standard shall be determined by EPA Method 9. Visual Determination of the Opacity of Emissions from Stationary Sources as described in Appendix A of 40 CFR 60.
5. Compliance with the VOC emission standard will be determined by monitoring these pollutants (perchloroethylene, PERCL and methylene chloride, MECL). Sampling will be conducted continuously (24 hours per day) for a total of twenty days. Concentration data and calculated mass emission rate will be reported. Thereafter, compliance with the VOC emission limitations will be maintained based on the VOC inventory. Measurements shall be determined by the MIRAN 1A General Purpose Gas Analyzer.
6. No objectionable odors are allowed from this facility.
7. The applicant will demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit to the Department's St. Johns River District office 90 days prior to the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until the expiration date or issuance of an operating permit.
8. Upon obtaining an operating permit, the applicant will be required to submit annual reports on the actual operation and emission of the facility. Quarterly material balance reports (24-hour) shall be required and sent to the Department's St. Johns River District office to assess emissions and maintain VOC inventory. The quantity of flights performed during that quarter shall be included in the report. Visible emissions tests shall be performed on an annual basis.
9. Construction shall reasonably conform to the plans submitted in the application.
10. The applicant shall report any delay in construction and completion of this project to the Department's St. Johns River District office.
11. Reasonable precautions to prevent fugitive particulate emissions during construction such as coating or spraying road and construction sites will be taken by the applicant.
12. This facility (SRBRF) and the SRBRF at the Low Bay building will not be allowed to refurbish more than 48 solid rocket boosters per year without prior approval from the department.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099450
Expiration Date: January 31, 1987

SPECIFIC CONDITIONS:

13. This facility shall comply with the provisions and requirements of the attached general conditions.

14. The amount of chemical compounds used and the permitted emissions from the Conformal Coating room shall not exceed the quantities listed in the following table:

Conformal Coating

Total VOC emissions shall not exceed 0.0109 tons per year.

Total Toluene and Isopropyl alcohol used shall not exceed 0.0005 and 0.0104 tons per year, respectively.

Issued this _____ day of _____,
19____.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

VICTORIA J. TSCHINKEL, Secretary

_____ pages attached.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099452
Expiration Date: January 31, 1987

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.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099452
Expiration Date: January 31, 1987

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 noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099452
Expiration Date: January 31, 1987

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:

- (X) 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.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099452
Expiration Date: January 31, 1987

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:

STEAM BOILER.

1. The Space Shuttle Solid Rocket Booster Refurbishment (SRBR) facility and the AF Hangar Surface Preparation facility shall be allowed to operate continuously (8,760 hours per year).
2. Not more than 48 solid rocket boosters will be refurbished during any 12 month period unless a new application for permit to construct is submitted and approved by the Department.
3. Total VOC emissions from the refurbishment of 48 space shuttle solid rocket boosters shall not exceed 130 tons per year for the entire SRB facility, including the AF Hangar Surface Preparation facility.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099452
Expiration Date: January 31, 1987

SPECIFIC CONDITIONS:

4. Visible emissions shall not exceed 5% opacity during any 6 minute period. Compliance with this standard shall be determined by EPA Method 9. Visual Determination of the Opacity of Emissions from Stationary Sources as described in Appendix A of 40 CFR 60.
5. Compliance with the VOC emission standard will be determined by monitoring these pollutants (perchloroethylene, PERCL and methylene chloride, MECL). Sampling will be conducted continuously (24 hours per day) for a total of twenty days. Concentration data and calculated mass emission rate will be reported. Thereafter, compliance with the VOC emission limitations will be maintained based on the VOC inventory. Measurements shall be determined by the MIRAN 1A General Purpose Gas Analyzer.
6. No objectionable odors are allowed from this facility.
7. The applicant will demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit to the Department's St. Johns River District office 90 days prior to the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until the expiration date or issuance of an operating permit.
8. Upon obtaining an operating permit, the applicant will be required to submit annual reports on the actual operation and emission of the facility. Quarterly material balance reports (24-hour) shall be required and sent to the Department's St. Johns River District office to assess emissions and maintain VOC inventory. The quantity of flights performed during that quarter shall be included in the report. Visible emissions tests shall be performed on an annual basis.
9. Construction shall reasonably conform to the plans submitted in the application.
10. The applicant shall report any delay in construction and completion of this project to the Department's St. Johns River District office.
11. Reasonable precautions to prevent fugitive particulate emissions during construction such as coating or spraying road and construction sites will be taken by the applicant.
12. This facility (SRBRF) and the SRBRF at the Low Bay building will not be allowed to refurbish more than 48 solid rocket boosters per year without prior approval from the department.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099452
Expiration Date: January 31, 1987

SPECIFIC CONDITIONS:

13. This facility shall comply with the provisions and requirements of the attached general conditions.

14. The amount of chemical compounds used and the permitted emissions from the Steam Boiler shall not exceed the quantities listed in the following table:

Steam Boiler (1.5×10^6 BTU/hr heat input)

Emissions from the steam boiler shall not exceed the following rates:

SO ₂	:	0.30 lb/hr	
		0.0061 tons/year	
PM	:	0.021 lb/hr	
		0.0004 tons/year	
NO _x	:	0.21 lb/hr	
		0.043 tons/year	
CO	:	0.054 lb/hr	
		0.0011 tons/year	
HC	:	0.0060 lb/hr	
		0.0001 tons/year	

Compliance with the SO₂ emission limits shall be based on fuel analysis. Maximum sulfur content in the oil shall not exceed 0.5% by weight.

Maximum operating time is 40 hours per year.

Visible emissions shall not exceed 15% opacity. 40% opacity is permitted for not more than two minutes in any one hour. DER Method 9 (17-2.700[6][a]9, FAC) will be used to determine compliance.

Issued this _____ day of _____,
19____.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

VICTORIA J. TSCHINKEL, Secretary

_____ pages attached.

DEPARTMENT OF ENVIRONMENTAL REGULATION

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



BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:
National Aeronautics and Space
Administration
NASA
DF-EMS
Kennedy Space Center, Florida
32899

Permit Number: AC05-099453
Expiration Date: January 31, 1987
County: Brevard
Latitude/Longitude: 28° 33' 43" N/
80° 39' 36" W
Project: Hot Water Boilers, No. 1
and No. 2

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 of the Space Shuttle Solid Rocket Booster (SRB) Assembly and Refurbishment Facility (ARF), located at the intersection of Schwartz Road and Kennedy Parkway, KSC, in Brevard County, Florida.

Attachments are as follows:

1. Application to construct Air Pollution Sources, DER Form 17-1.122(16).
2. Incompleteness letters of November 7, 1984, November 29, 1984, and January 10, 1985.
3. NASA's letters of December 5, 1984 and January 1, 1985 (responses to technical discrepancies).

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099453
Expiration Date: January 31, 1987

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.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099453
Expiration Date: January 31, 1987

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 noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099453
Expiration Date: January 31, 1987

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.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099453
Expiration Date: January 31, 1987

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:

HOT WATER BOILER, No. 1 and No. 2.

1. The Space Shuttle Solid Rocket Booster Refurbishment (SRBR) facility and the AF Hangar Surface Preparation facility shall be allowed to operate continuously (8,760 hours per year).
2. Not more than 48 solid rocket boosters will be refurbished during any 12 month period unless a new application for permit to construct is submitted and approved by the Department.
3. Total VOC emissions from the refurbishment of 48 space shuttle solid rocket boosters shall not exceed 130 tons per year for the entire SRB facility, including the AF Hangar Surface Preparation facility.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099453
Expiration Date: January 31, 1987

SPECIFIC CONDITIONS:

4. Visible emissions shall not exceed 5% opacity during any 6 minute period. Compliance with this standard shall be determined by EPA Method 9. Visual Determination of the Opacity of Emissions from Stationary Sources as described in Appendix A of 40 CFR 60.
5. Compliance with the VOC emission standard will be determined by monitoring these pollutants (perchloroethylene, PERCL and methylene chloride, MECL). Sampling will be conducted continuously (24 hours per day) for a total of twenty days. Concentration data and calculated mass emission rate will be reported. Thereafter, compliance with the VOC emission limitations will be maintained based on the VOC inventory. Measurements shall be determined by the MIRAN 1A General Purpose Gas Analyzer.
6. No objectionable odors are allowed from this facility.
7. The applicant will demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit to the Department's St. Johns River District office 90 days prior to the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until the expiration date or issuance of an operating permit.
8. Upon obtaining an operating permit, the applicant will be required to submit annual reports on the actual operation and emission of the facility. Quarterly material balance reports (24-hour) shall be required and sent to the Department's St. Johns River District office to assess emissions and maintain VOC inventory. The quantity of flights performed during that quarter shall be included in the report. Visible emissions tests shall be performed on an annual basis.
9. Construction shall reasonably conform to the plans submitted in the application.
10. The applicant shall report any delay in construction and completion of this project to the Department's St. Johns River District office.
11. Reasonable precautions to prevent fugitive particulate emissions during construction such as coating or spraying road and construction sites will be taken by the applicant.
12. This facility (SRBRF) and the SRBRF at the Low Bay building will not be allowed to refurbish more than 48 solid rocket boosters per year without prior approval from the department.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099453
Expiration Date: January 31, 1987

SPECIFIC CONDITIONS:

13. This facility shall comply with the provisions and requirements of the attached general conditions.

14. The amount of chemical compounds used and the permitted emissions from the Hot Water Boilers shall not exceed the quantities listed in the following table:

Hot Water Generators (#1 and #2)

Maximum heat input is 8.38×10^6 BTU/hr (1 boiler), only one boiler shall operate at a time.

Maximum operating time is 8,760 hours per year.

Emissions from each hot water generator shall not exceed the following rates:

SO₂: 1.70 lb/hr
7.45 tons/year

PM: 0.12 lb/hr
0.52 tons/year

NO_x: 1.20 lb/hr
5.24 tons/year

CO: 0.30 lb/hr
1.31 tons/year

HC: 0.033 lb/hr

Compliance with the SO₂ emission rates shall be based on fuel analysis. Maximum sulfur content in the oil shall not exceed 0.5% by weight.

Issued this _____ day of _____,
19____.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

VICTORIA J. TSCHINKEL, Secretary

_____ pages attached.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

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



BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:
National Aeronautics and Space
Administration
NASA
DF-EMS
Kennedy Space Center, Florida
32899

Permit Number: AC05-094091
Expiration Date: January 31, 1987
County: Brevard
Latitude/Longitude: 28° 19' 16" N/
80° 35' 18" W
Project: Small Parts Refurbishment
Detergent Wash

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 of the Hangar AF Small Parts Refurbishment and Surface Preparation Facility located at the Hangar Road, Cape Canaveral Air Force Station, KSC, in Brevard County, Florida.

Attachments are as follows:

1. Application to construct Air Pollution Sources, DER Form 17-1.122(16).
2. Incompleteness letters of November 7, 1984, November 29, 1984, and January 10, 1985.
3. NASA's letters of December 5, 1984 and January 1, 1985 (responses to technical discrepancies).

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-094091
Expiration Date: January 31, 1987

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.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-094091
Expiration Date: January 31, 1987

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 noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-094091
Expiration Date: January 31, 1987

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.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-094091
Expiration Date: January 31, 1987

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:

SURFACE PREPARATION FACILITY, Detergent Wash.

1. The Space Shuttle Solid Rocket Booster Refurbishment (SRBR) facility and the AF Hangar Surface Preparation facility shall be allowed to operate continuously (8,760 hours per year).
2. Not more than 48 solid rocket boosters will be refurbished during any 12 month period unless a new application for permit to construct is submitted and approved by the Department.
3. Total VOC emissions from the refurbishment of 48 space shuttle solid rocket boosters shall not exceed 130 tons per year for the entire SRB facility, including the AF Hangar Surface Preparation facility.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-094091
Expiration Date: January 31, 1987

SPECIFIC CONDITIONS:

4. Visible emissions shall not exceed 5% opacity during any 6 minute period. Compliance with this standard shall be determined by EPA Method 9. Visual Determination of the Opacity of Emissions from Stationary Sources as described in Appendix A of 40 CFR 60.

5. Compliance with the VOC emission standard will be determined by monitoring these pollutants (perchloroethylene, PERCL and methylene chloride, MECL). Sampling will be conducted continuously (24 hours per day) for a total of twenty days. Concentration data and calculated mass emission rate will be reported. Thereafter, compliance with the VOC emission limitations will be maintained based on the VOC inventory. Measurements shall be determined by the MIRAN 1A General Purpose Gas Analyzer.

6. No objectionable odors are allowed from this facility.

7. The applicant will demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit to the Department's St. Johns River District office 90 days prior to the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until the expiration date or issuance of an operating permit.

8. Upon obtaining an operating permit, the applicant will be required to submit annual reports on the actual operation and emission of the facility. Quarterly material balance reports (24-hour) shall be required and sent to the Department's St. Johns River District office to assess emissions and maintain VOC inventory. The quantity of flights performed during that quarter shall be included in the report. Visible emissions tests shall be performed on an annual basis.

9. Construction shall reasonably conform to the plans submitted in the application.

10. The applicant shall report any delay in construction and completion of this project to the Department's St. Johns River District office.

11. Reasonable precautions to prevent fugitive particulate emissions during construction such as coating or spraying road and construction sites will be taken by the applicant.

12. This facility (SRBRF) and the SRBRF at the Low Bay building will not be allowed to refurbish more than 48 solid rocket boosters per year without prior approval from the department.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-094091
Expiration Date: January 31, 1987

SPECIFIC CONDITIONS:

13. This facility shall comply with the provisions and requirements of the attached general conditions.

14. The amount of chemical compounds used and the permitted emissions from the Detergent Wash room shall not exceed the quantities listed in the following table:

Detergent Wash

The maximum amount of Detergent MIL-C-25769 shall not exceed 275 gal/yr.

The maximum amount of Alodine-anodizing agent shall not exceed 125 gal/yr.

These processes (Detergent Wash /anodizing) contain no VOC's and do not generate particulates. There are no emissions expected from these operations.

Issued this _____ day of _____,
19____.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

VICTORIA J. TSCHINKEL, Secretary

_____ pages attached.

DEPARTMENT OF ENVIRONMENTAL REGULATION

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



BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:
National Aeronautics and Space
Administration
NASA
DF-EMS
Kennedy Space Center, Florida

32899

Permit Number: AC05-099454
Expiration Date: January 31, 1987
County: Brevard
Latitude/Longitude: 28° 19' 16" N/
80° 35' 18" W
Project: Small Parts Refurbishment
Bostik and Rustoleum -
Painting and Sealing

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 of the Hangar AF Small Parts Refurbishment and Surface Preparation Facility located at the Hangar Road, Cape Canaveral Air Force Station, KSC, in Brevard County, Florida.

Attachments are as follows:

1. Application to construct Air Pollution Sources, DER Form 17-1.122(16).
2. Incompleteness letters of November 7, 1984, November 29, 1984, and January 10, 1985.
3. NASA's letters of December 5, 1984 and January 1, 1985 (responses to technical discrepancies).

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099454
Expiration Date: January 31, 1987

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.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099454
Expiration Date: January 31, 1987

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 noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099454
Expiration Date: January 31, 1987

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.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099454
Expiration Date: January 31, 1987

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:

SURFACE PREPARATION FACILITY, Bostik and Rustoleum - Painting and Sealing.

1. The Space Shuttle Solid Rocket Booster Refurbishment (SRBR) facility and the AF Hangar Surface Preparation facility shall be allowed to operate continuously (8,760 hours per year).
2. Not more than 48 solid rocket boosters will be refurbished during any 12 month period unless a new application for permit to construct is submitted and approved by the Department.
3. Total VOC emissions from the refurbishment of 48 space shuttle solid rocket boosters shall not exceed 130 tons per year for the entire SRB facility, including the AF Hangar Surface Preparation facility.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099454
Expiration Date: January 31, 1987

SPECIFIC CONDITIONS:

4. Visible emissions shall not exceed 5% opacity during any 6 minute period. Compliance with this standard shall be determined by EPA Method 9. Visual Determination of the Opacity of Emissions from Stationary Sources as described in Appendix A of 40 CFR 60.
5. Compliance with the VOC emission standard will be determined by monitoring these pollutants (perchloroethylene, PERCL and methylene chloride, MECL). Sampling will be conducted continuously (24 hours per day) for a total of twenty days. Concentration data and calculated mass emission rate will be reported. Thereafter, compliance with the VOC emission limitations will be maintained based on the VOC inventory. Measurements shall be determined by the MIRAN 1A General Purpose Gas Analyzer.
6. No objectionable odors are allowed from this facility.
7. The applicant will demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit to the Department's St. Johns River District office 90 days prior to the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until the expiration date or issuance of an operating permit.
8. Upon obtaining an operating permit, the applicant will be required to submit annual reports on the actual operation and emission of the facility. Quarterly material balance reports (24-hour) shall be required and sent to the Department's St. Johns River District office to assess emissions and maintain VOC inventory. The quantity of flights performed during that quarter shall be included in the report. Visible emissions tests shall be performed on an annual basis.
9. Construction shall reasonably conform to the plans submitted in the application.
10. The applicant shall report any delay in construction and completion of this project to the Department's St. Johns River District office.
11. Reasonable precautions to prevent fugitive particulate emissions during construction such as coating or spraying road and construction sites will be taken by the applicant.
12. This facility (SRBRF) and the SRBRF at the Low Bay building will not be allowed to refurbish more than 48 solid rocket boosters per year without prior approval from the department.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099454
Expiration Date: January 31, 1987

SPECIFIC CONDITIONS:

13. This facility shall comply with the provisions and requirements of the attached general conditions.

14. The amount of chemical compounds used and the permitted emissions from the Bostik and Rustoleum - Painting and Sealing room shall not exceed the quantities listed in the following table:

	<u>Pollutant</u>	<u>Potential Emissions (tons/year)</u>
Bostik and Rustoleum Painting and Sealing	VOC	1.917
	PM	0.624

Issued this _____ day of _____,
19____.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

VICTORIA J. TSCHINKEL, Secretary

_____ pages attached.

DEPARTMENT OF ENVIRONMENTAL REGULATION

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



BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:
National Aeronautics and Space
Administration
NASA
DF-EMS
Kennedy Space Center, Florida
32899

Permit Number: AC05-099455
Expiration Date: January 31, 1987
County: Brevard
Latitude/Longitude: 28° 19' 16" N/
80° 35' 18" W
Project: Small Parts Refurbishment
Paint Curing

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 of the Hangar AF Small Parts Refurbishment and Surface Preparation Facility located at the Hangar Road, Cape Canaveral Air Force Station, KSC, in Brevard County, Florida.

Attachments are as follows:

1. Application to construct Air Pollution Sources, DER Form 17-1.122(16).
2. Incompleteness letters of November 7, 1984, November 29, 1984, and January 10, 1985.
3. NASA's letters of December 5, 1984 and January 1, 1985 (responses to technical discrepancies).

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099455
Expiration Date: January 31, 1987

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.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099455
Expiration Date: January 31, 1987

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 noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099455
Expiration Date: January 31, 1987

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.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099455
Expiration Date: January 31, 1987

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:

SURFACE PREPARATION FACILITY, Paint Curing.

1. The Space Shuttle Solid Rocket Booster Refurbishment (SRBR) facility and the AF Hangar Surface Preparation facility shall be allowed to operate continuously (8,760 hours per year).
2. Not more than 48 solid rocket boosters will be refurbished during any 12 month period unless a new application for permit to construct is submitted and approved by the Department.
3. Total VOC emissions from the refurbishment of 48 space shuttle solid rocket boosters shall not exceed 130 tons per year for the entire SRB facility, including the AF Hangar Surface Preparation facility.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099455
Expiration Date: January 31, 1987

SPECIFIC CONDITIONS:

4. Visible emissions shall not exceed 5% opacity during any 6 minute period. Compliance with this standard shall be determined by EPA Method 9. Visual Determination of the Opacity of Emissions from Stationary Sources as described in Appendix A of 40 CFR 60.
5. Compliance with the VOC emission standard will be determined by monitoring these pollutants (perchloroethylene, PERCL and methylene chloride, MECL). Sampling will be conducted continuously (24 hours per day) for a total of twenty days. Concentration data and calculated mass emission rate will be reported. Thereafter, compliance with the VOC emission limitations will be maintained based on the VOC inventory. Measurements shall be determined by the MIRAN 1A General Purpose Gas Analyzer.
6. No objectionable odors are allowed from this facility.
7. The applicant will demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit to the Department's St. Johns River District office 90 days prior to the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until the expiration date or issuance of an operating permit.
8. Upon obtaining an operating permit, the applicant will be required to submit annual reports on the actual operation and emission of the facility. Quarterly material balance reports (24-hour) shall be required and sent to the Department's St. Johns River District office to assess emissions and maintain VOC inventory. The quantity of flights performed during that quarter shall be included in the report. Visible emissions tests shall be performed on an annual basis.
9. Construction shall reasonably conform to the plans submitted in the application.
10. The applicant shall report any delay in construction and completion of this project to the Department's St. Johns River District office.
11. Reasonable precautions to prevent fugitive particulate emissions during construction such as coating or spraying road and construction sites will be taken by the applicant.
12. This facility (SRBRF) and the SRBRF at the Low Bay building will not be allowed to refurbish more than 48 solid rocket boosters per year without prior approval from the department.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099455
Expiration Date: January 31, 1987

SPECIFIC CONDITIONS:

13. This facility shall comply with the provisions and requirements of the attached general conditions.

14. The amount of chemical compounds used and the permitted emissions from the Paint Curing room shall not exceed the quantities listed in the following table:

	<u>Pollutant</u>	<u>Pollutant Emission tons/year</u>
Paint Curing	VOC	0.213

Issued this _____ day of _____,
19__.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

VICTORIA J. TSCHINKEL, Secretary

_____ pages attached.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

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



BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:
National Aeronautics and Space
Administration
NASA
DF-EMS
Kennedy Space Center, Florida
32899

Permit Number: AC05-099456
Expiration Date: January 31, 1987
County: Brevard
Latitude/Longitude: 28° 19' 16" N/
80° 35' 18" W
Project: Surface Preparation Facility
Walnut Blasting

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 of the Hangar AF Small Parts Refurbishment and Surface Preparation Facility located at the Hangar Road, Cape Canaveral Air Force Stateion, KSC, in Brevard County, Florida.

Attachments are as follows:

1. Application to construct Air Pollution Sources, DER Form 17-1.122(16).
2. Incompleteness letters of November 7, 1984, November 29, 1984, and January 10, 1985.
3. NASA's letters of December 5, 1984 and January 1, 1985 (responses to technical discrepancies).

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099456
Expiration Date: January 31, 1987

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.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099456
Expiration Date: January 31, 1987

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 noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099456
Expiration Date: January 31, 1987

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.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099456
Expiration Date: January 31, 1987

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:

SMALL PARTS REFURBISHMENT FACILITY, Walnut Blasting.

1. The Space Shuttle Solid Rocket Booster Refurbishment (SRBR) facility and the AF Hangar Surface Preparation facility shall be allowed to operate continuously (8,760 hours per year).
2. Not more than 48 solid rocket boosters will be refurbished during any 12 month period unless a new application for permit to construct is submitted and approved by the Department.
3. Total VOC emissions from the refurbishment of 48 space shuttle solid rocket boosters shall not exceed 130 tons per year for the entire SRB facility, including the AF Hangar Surface Preparation facility.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099456
Expiration Date: January 31, 1987

SPECIFIC CONDITIONS:

4. Visible emissions shall not exceed 5% opacity during any 6 minute period. Compliance with this standard shall be determined by EPA Method 9. Visual Determination of the Opacity of Emissions from Stationary Sources as described in Appendix A of 40 CFR 60.
5. Compliance with the VOC emission standard will be determined by monitoring these pollutants (perchloroethylene, PERCL and methylene chloride, MECL). Sampling will be conducted continuously (24 hours per day) for a total of twenty days. Concentration data and calculated mass emission rate will be reported. Thereafter, compliance with the VOC emission limitations will be maintained based on the VOC inventory. Measurements shall be determined by the MIRAN 1A General Purpose Gas Analyzer.
6. No objectionable odors are allowed from this facility.
7. The applicant will demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit to the Department's St. Johns River District office 90 days prior to the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until the expiration date or issuance of an operating permit.
8. Upon obtaining an operating permit, the applicant will be required to submit annual reports on the actual operation and emission of the facility. Quarterly material balance reports (24-hour) shall be required and sent to the Department's St. Johns River District office to assess emissions and maintain VOC inventory. The quantity of flights performed during that quarter shall be included in the report. Visible emissions tests shall be performed on an annual basis.
9. Construction shall reasonably conform to the plans submitted in the application.
10. The applicant shall report any delay in construction and completion of this project to the Department's St. Johns River District office.
11. Reasonable precautions to prevent fugitive particulate emissions during construction such as coating or spraying road and construction sites will be taken by the applicant.
12. This facility (SRBRF) and the SRBRF at the Low Bay building will not be allowed to refurbish more than 48 solid rocket boosters per year without prior approval from the department.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099456
Expiration Date: January 31, 1987

SPECIFIC CONDITIONS:

13. This facility shall comply with the provisions and requirements of the attached general conditions.

14. The amount of chemical compounds used and the permitted emissions from the Walnut Blasting room shall not exceed the quantities listed in the following table:

<u>Raw Materials</u>	<u>Pollutant</u>	<u>Utilization Rate lbs/yr</u>	<u>Potential Emission tons/yr</u>
Walnut Shells	PM	55,200	1.15

Issued this _____ day of _____,
19____.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

VICTORIA J. TSCHINKEL, Secretary

____ pages attached.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

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



BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:
National Aeronautics and Space
Administration
NASA
DF-EMS
Kennedy Space Center, Florida
32899

Permit Number: AC05-099457
Expiration Date: January 31, 1987
County: Brevard
Latitude/Longitude: 28° 19' 16" N/
80° 35' 18" W
Project: Surface Preparation Facility
Paint Cells #1 and #2

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 of the Hangar AF Small Parts Refurbishment and Surface Preparation Facility located at the Hangar Road, Cape Canaveral Air Force Station, KSC, in Brevard County, Florida.

Attachments are as follows:

1. Application to construct Air Pollution Sources, DER Form 17-1.122(16).
2. Incompleteness letters of November 7, 1984, November 29, 1984, and January 10, 1985.
3. NASA's letters of December 5, 1984 and January 1, 1985 (responses to technical discrepancies).

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099457
Expiration Date: January 31, 1987

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.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099457
Expiration Date: January 31, 1987

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 noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099457
Expiration Date: January 31, 1987

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.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099457
Expiration Date: January 31, 1987

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:

SMALL PARTS REFURBISHMENT FACILITY, Paint Cells #1 and #2.

1. The Space Shuttle Solid Rocket Booster Refurbishment (SRBR) facility and the AF Hangar Surface Preparation facility shall be allowed to operate continuously (8,760 hours per year).
2. Not more than 48 solid rocket boosters will be refurbished during any 12 month period unless a new application for permit to construct is submitted and approved by the Department.
3. Total VOC emissions from the refurbishment of 48 space shuttle solid rocket boosters shall not exceed 130 tons per year for the entire SRB facility, including the AF Hangar Surface Preparation facility.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099457
Expiration Date: January 31, 1987

SPECIFIC CONDITIONS:

4. Visible emissions shall not exceed 5% opacity during any 6 minute period. Compliance with this standard shall be determined by EPA Method 9. Visual Determination of the Opacity of Emissions from Stationary Sources as described in Appendix A of 40 CFR 60.

5. Compliance with the VOC emission standard will be determined by monitoring these pollutants (perchloroethylene, PERCL and methylene chloride, MECL). Sampling will be conducted continuously (24 hours per day) for a total of twenty days. Concentration data and calculated mass emission rate will be reported. Thereafter, compliance with the VOC emission limitations will be maintained based on the VOC inventory. Measurements shall be determined by the MIRAN 1A General Purpose Gas Analyzer.

6. No objectionable odors are allowed from this facility.

7. The applicant will demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit to the Department's St. Johns River District office 90 days prior to the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until the expiration date or issuance of an operating permit.

8. Upon obtaining an operating permit, the applicant will be required to submit annual reports on the actual operation and emission of the facility. Quarterly material balance reports (24-hour) shall be required and sent to the Department's St. Johns River District office to assess emissions and maintain VOC inventory. The quantity of flights performed during that quarter shall be included in the report. Visible emissions tests shall be performed on an annual basis.

9. Construction shall reasonably conform to the plans submitted in the application.

10. The applicant shall report any delay in construction and completion of this project to the Department's St. Johns River District office.

11. Reasonable precautions to prevent fugitive particulate emissions during construction such as coating or spraying road and construction sites will be taken by the applicant.

12. This facility (SRBRF) and the SRBRF at the Low Bay building will not be allowed to refurbish more than 48 solid rocket boosters per year without prior approval from the department.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099457
Expiration Date: January 31, 1987

SPECIFIC CONDITIONS:

13. This facility shall comply with the provisions and requirements of the attached general conditions.

14. The amount of chemical compounds used and the permitted emissions from the Paint Cells #1 and #2 room shall not exceed the quantities listed in the following table:

<u>Raw Materials</u>	<u>Pollutant</u>	<u>Utilization Rate</u> <u>lbs/yr</u>	<u>Potential Emission Raw</u> <u>tons/yr</u>
1,1,1, Trichloroethane	VOC	2,425.25	1.21
Bostik Primer 463-6-3	VOC	1,057.8	0.53
Bostik Catalyst X306	VOC	495.2	0.25
Bostik Thinner TL-29	VOC	675.0	0.35
Bostik Topcoat 443-3-1	VOC	911	0.45
Bostik Catalyst X304	VOC	415.6	0.21
Bostik Thinner TL-53	VOC	694.8	0.35

Issued this _____ day of _____,
19____.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

VICTORIA J. TSCHINKEL, Secretary

_____ pages attached.

DEPARTMENT OF ENVIRONMENTAL REGULATION

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



BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:

National Aeronautics and Space
Administration

NASA

DF-EMS

Kennedy Space Center, Florida
32899

Permit Number: AC05-099458

Expiration Date: January 31, 1987

County: Brevard

Latitude/Longitude: 28° 19' 16" N/
80° 35' 18" W

Project: Surface Preparation Facility
Chemical Stripping

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 of the Hangar AF Small Parts Refurbishment and Surface Preparation Facility located at the Hangar Road, Cape Canaveral Air Force Stateion, KSC, in Brevard County, Florida.

Attachments are as follows:

1. Application to construct Air Pollution Sources, DER Form 17-1.122(16).
2. Incompleteness letters of November 7, 1984, November 29, 1984, and January 10, 1985.
3. NASA's letters of December 5, 1984 and January 1, 1985 (responses to technical discrepancies).

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099458
Expiration Date: January 31, 1987

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.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099458
Expiration Date: January 31, 1987

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 noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099458
Expiration Date: January 31, 1987

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.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099458
Expiration Date: January 31, 1987

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:

SMALL PARTS REFURBISHMENT FACILITY, Chemical Stripping.

1. The Space Shuttle Solid Rocket Booster Refurbishment (SRBR) facility and the AF Hangar Surface Preparation facility shall be allowed to operate continuously (8,760 hours per year).
2. Not more than 48 solid rocket boosters will be refurbished during any 12 month period unless a new application for permit to construct is submitted and approved by the Department.
3. Total VOC emissions from the refurbishment of 48 space shuttle solid rocket boosters shall not exceed 130 tons per year for the entire SRB facility, including the AF Hangar Surface Preparation facility.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099458
Expiration Date: January 31, 1987

SPECIFIC CONDITIONS:

4. Visible emissions shall not exceed 5% opacity during any 6 minute period. Compliance with this standard shall be determined by EPA Method 9. Visual Determination of the Opacity of Emissions from Stationary Sources as described in Appendix A of 40 CFR 60.
5. Compliance with the VOC emission standard will be determined by monitoring these pollutants (perchloroethylene, PERCL and methylene chloride, MECL). Sampling will be conducted continuously (24 hours per day) for a total of twenty days. Concentration data and calculated mass emission rate will be reported. Thereafter, compliance with the VOC emission limitations will be maintained based on the VOC inventory. Measurements shall be determined by the MIRAN 1A General Purpose Gas Analyzer.
6. No objectionable odors are allowed from this facility.
7. The applicant will demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit to the Department's St. Johns River District office 90 days prior to the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until the expiration date or issuance of an operating permit.
8. Upon obtaining an operating permit, the applicant will be required to submit annual reports on the actual operation and emission of the facility. Quarterly material balance reports (24-hour) shall be required and sent to the Department's St. Johns River District office to assess emissions and maintain VOC inventory. The quantity of flights performed during that quarter shall be included in the report. Visible emissions tests shall be performed on an annual basis.
9. Construction shall reasonably conform to the plans submitted in the application.
10. The applicant shall report any delay in construction and completion of this project to the Department's St. Johns River District office.
11. Reasonable precautions to prevent fugitive particulate emissions during construction such as coating or spraying road and construction sites will be taken by the applicant.
12. This facility (SRBRF) and the SRBRF at the Low Bay building will not be allowed to refurbish more than 48 solid rocket boosters per year without prior approval from the department.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099458
Expiration Date: January 31, 1987

SPECIFIC CONDITIONS:

13. This facility shall comply with the provisions and requirements of the attached general conditions.

14. The amount of chemical compounds used and the permitted emissions from the Chemical Stripping room shall not exceed the quantities listed in the following table:

<u>Raw Materials</u>	<u>Pollutant</u>	<u>Utilization Rate gal/year</u>	<u>Potential Emission tons/year</u>
Cee-Bee-A-202 Paint Stripper	VOC	400 gal/yr	2.59

Issued this _____ day of _____,
19____.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

VICTORIA J. TSCHINKEL, Secretary

____ pages attached.

DEPARTMENT OF ENVIRONMENTAL REGULATION

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



BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:
National Aeronautics and Space
Administration
NASA
DF-EMS
Kennedy Space Center, Florida
32899

Permit Number: AC05-099447
Expiration Date: January 31, 1987
County: Brevard
Latitude/Longitude: 28° 33' 43" N/
80° 39' 36" W
Project: Thrust Vector Control
Process, Hot Fire Test

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 of the Space Shuttle Solid Rocket Booster (SRB) Assembly and Refurbishment Facility (ARF), located at the intersection of Schwartz Road and Kennedy Parkway, KSC, in Brevard County, Florida.

Attachments are as follows:

1. Application to construct Air Pollution Sources, DER Form 17-1.122(16).
2. Incompleteness letters of November 7, 1984, November 29, 1984, and January 10, 1985.
3. NASA's letters of December 5, 1984 and January 1, 1985 (responses to technical discrepancies).

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099447
Expiration Date: January 31, 1987

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.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099447
Expiration Date: January 31, 1987

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 noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099447
Expiration Date: January 31, 1987

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.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099447
Expiration Date: January 31, 1987

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:

THRUST VECTOR CONTROL PROCESS, TVC Hot Fire Test.

1. The Space Shuttle Solid Rocket Booster Refurbishment (SRBR) facility and the AF Hangar Surface Preparation facility shall be allowed to operate continuously (8,760 hours per year).
2. Not more than 48 solid rocket boosters will be refurbished during any 12 month period unless a new application for permit to construct is submitted and approved by the Department.
3. Total VOC emissions from the refurbishment of 48 space shuttle solid rocket boosters shall not exceed 130 tons per year for the entire SRB facility, including the AF Hangar Surface Preparation facility.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099447
Expiration Date: January 31, 1987

SPECIFIC CONDITIONS:

4. Visible emissions shall not exceed 5% opacity during any 6 minute period. Compliance with this standard shall be determined by EPA Method 9. Visual Determination of the Opacity of Emissions from Stationary Sources as described in Appendix A of 40 CFR 60.
5. Compliance with the VOC emission standard will be determined by monitoring these pollutants (perchloroethylene, PERCL and methylene chloride, MECL). Sampling will be conducted continuously (24 hours per day) for a total of twenty days. Concentration data and calculated mass emission rate will be reported. Thereafter, compliance with the VOC emission limitations will be maintained based on the VOC inventory. Measurements shall be determined by the MIRAN 1A General Purpose Gas Analyzer.
6. No objectionable odors are allowed from this facility.
7. The applicant will demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit to the Department's St. Johns River District office 90 days prior to the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until the expiration date or issuance of an operating permit.
8. Upon obtaining an operating permit, the applicant will be required to submit annual reports on the actual operation and emission of the facility. Quarterly material balance reports (24-hour) shall be required and sent to the Department's St. Johns River District office to assess emissions and maintain VOC inventory. The quantity of flights performed during that quarter shall be included in the report. Visible emissions tests shall be performed on an annual basis.
9. Construction shall reasonably conform to the plans submitted in the application.
10. The applicant shall report any delay in construction and completion of this project to the Department's St. Johns River District office.
11. Reasonable precautions to prevent fugitive particulate emissions during construction such as coating or spraying road and construction sites will be taken by the applicant.
12. This facility (SRBRF) and the SRBRF at the Low Bay building will not be allowed to refurbish more than 48 solid rocket boosters per year without prior approval from the department.

PERMITTEE:
Kennedy Space Center

Permit Number: AC05-099447
Expiration Date: January 31, 1987

SPECIFIC CONDITIONS:

13. This facility shall comply with the provisions and requirements of the attached general conditions.

14. The amount of chemical compounds used and the permitted emissions from the TVC Hot Fire Test room shall not exceed the quantities listed in the following table:

TVC Hot Fire Test

Total VOC emissions shall not exceed 0.0079 tons per year.

Total Hydrazine usage shall not exceed 2.419 tons per year.

Issued this _____ day of _____,
19____.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

VICTORIA J. TSCHINKEL, Secretary

_____ pages attached.