

Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

June 21, 2000

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. John Bunyak, Chief
Policy, Planning & Permit Review Branch
NPS - Air Quality Division
P.O. Box 25287
Denver, CO 80225

Re: United Technologies-Pratt & Whitney
Project: LOX/Kerosene Rocket Engine Stand
PSD-FL-294
Facility ID No. 0990021-004-AC

Dear Mr. Bunyak:

Enclosed for your review and comment is an application for construction of a LOX/kerosene rocket engine stand at the existing Pratt & Whitney research and development facility in Palm Beach County, Florida. The proposed project will require a PSD review for carbon monoxide.

Your comments may be forwarded to my attention at the letterhead address or faxed to the Bureau of Air Regulation at 850/922-6979. If you have any questions, please contact the project engineer, John Reynolds, at 850/921-9536.

Sincerely,

A handwritten signature in cursive that reads "Al Linero".

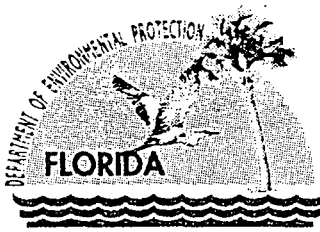
for Al Linero, P.E.
Administrator
New Source Review Section

AAL/jra

Enclosures

"More Protection, Less Process"

Printed on recycled paper.



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June 21, 2000

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Gregg Worley, Chief
Air, Radiation Technology Branch
Preconstruction/HAP Section
U.S. EPA - Region 4
61 Forsyth Street
Atlanta, GA 30303

Re: United Technologies-Pratt & Whitney
Project: LOX/Kerosene Rocket Engine Stand
PSD-FL-294
Facility ID No. 0990021-004-AC

Dear Mr. Worley:

Enclosed for your review and comment is an application for construction of a LOX/kerosene rocket engine stand at the existing Pratt & Whitney research and development facility in Palm Beach County, Florida. The proposed project will require a PSD review for carbon monoxide.

Your comments may be forwarded to my attention at the letterhead address or faxed to the Bureau of Air Regulation at 850/922-6979. If you have any questions, please contact the project engineer, John Reynolds, at 850/921-9536.

Sincerely,

Patty Adams

for Al Linero, P.E.
Administrator
New Source Review Section

AAL/jra

Enclosures

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P.O. Box 109600
West Palm Beach, FL 33410-9600
561-796-2000



Pratt & Whitney

A United Technologies Company

CERTIFIED MAIL #7000 0520 0016 2767 7963
(Submitted by Fax: 850-487-4938)

RECEIVED

FEB 22 2001

BUREAU OF AIR REGULATION

February 16, 2001

Ms. Kathy Carter
Agency Clerk
Office of General Counsel
Florida Department of Environmental Protection
3900 Commonwealth Boulevard, MS 35
Tallahassee, Florida 32399-3000

RE: **REQUEST FOR TIME EXTENSION TO FILE PETITION FOR HEARING**
Pratt & Whitney, LOX/Kerosene Rocket Engine
DEP File No. 0990021-004-AC (PSD-FL-294)

Dear Ms. Carter:

The draft permit for the above-referenced facility in West Palm Beach was issued on January 29, 2001, and received on February 2, 2001, by Pratt & Whitney (P&W). P&W has reviewed the specific permit conditions regarding the rocket test stand. Based upon this review, we believe that certain conditions of the draft permit (test stand design, ambient CO monitoring, controls study, fuel rates, mixture ratios, water rates, etc.) could significantly affect project viability, safety, and the performance of rocket testing. Accordingly, P&W believes that these permit conditions must be discussed and resolved with Florida Department of Environmental Protection (FDEP) staff prior to the issuance of the final permit.

As a result, pursuant to Rule 28-106.111, F.A.C., P&W hereby submits a request for a 90-day extension to file a petition for hearing under Sections 120.569 and 120.57, F.S. We believe this request for extension will allow P&W and FDEP to informally evaluate the technical, financial, safety, and logistical ramifications of the draft permit and resolve these issues without the necessity for a hearing. We have attached the certificate required under Rule 28-106.111, F.A.C. See Attachment #1.

Please contact Mr. Dean Gee at 561-796-2108 or Mr. David Alberghini at 561-796-2448 if you have any questions.

Sincerely,

John K. Silian
Manager
Facilities Management

Attachment

O:\ehst\windocst\environ\dja\FDEP_LOX-Kerosene_TimeExtension.Doc

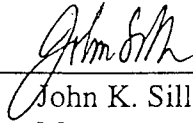
cc: A.A. Linero, FDEP
Benny Susi, P.E., Golder Associates
File: B.4.2.2.3 LOX/Kerosene Rocket Test Stand

ATTACHMENT #1

CERTIFICATE

I, John K. Sillan, hereby certify that this extension request was discussed with Mr. A. A. Linero, P.E., Administrator, New Source Review Section of the Florida Department of Environmental Protection and that he has no objection to the granting of an extension.

By



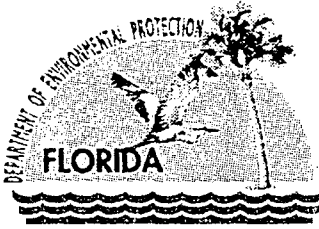
2/16/01

John K. Sillan

Date

Manager

Facilities Management



Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

July 13, 2000

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

Mr. John K. Silan
Manager Facilities Management
United Technologies Corp – Pratt & Whitney
P.O. Box 109600
West Palm Beach, Florida 33410-9600

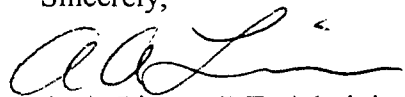
Re: DEP File No. 0990021-004-AC (PSD-FL-294) – LOX/Kerosine Rocket Engine Stand Project
at Pratt & Whitney's Research & Development Facility in West Palm Beach

Dear Mr. Silan:

The Bureau of Air Regulation received the enclosed comments from the Palm Beach County Health Department concerning the referenced permit application. Please address the issues raised in the County's letter. Also, please provide an estimate of the current actual annual CO emissions for the referenced facility.

If there are any questions regarding the above, please call John Reynolds at 850/921-9536.

Sincerely,

A handwritten signature in cursive script, appearing to read "A. A. Linero". To the right of the signature is the date "7/13".

A. A. Linero, P.E. Administrator
New Source Review Section

Enclosure

AAL/JR

cc: Gregg Worley, EPA
John Bunyak, NPS
Isidore Goldman, SED
Darrel Graziani, PBCHD
Benny Susi, Golder Assoc.

INTEROFFICE MEMORANDUM

Date: 10-Jul-2000 09:34am
From: Darrel_Graziani
Darrel_Graziani@doh.state.fl.us
Dept:
Tel No:

To: John.Reynolds (John.Reynolds@dep.state.fl.us)
CC: Jim_Stormer (Jim_Stormer@doh.state.fl.us)
CC: Ajaya_Satyral (Ajaya_Satyral@doh.state.fl.us)
CC: Larry.George (Larry.George@dep.state.fl.us)

Subject: P&W PSD Application

John,

Comments on the application for the new rocket engine test stand at Pratt & Whitney's Palm Beach operations.

1. Emission estimates for the criteria pollutants are not adequately documented. Please request the applicant to supply documentation on the expected emissions. If a combustion model was used, please have them submit a copy. PM emissions need to include solids within the cooling water. VOC emissions also need to be documented given the high CO numbers.

For your information, some of my work at NASA's Stennis Space Center dealt with the testing of a similar engine. For that project, the combustion model predicted initial high CO rates at the engine exhaust. However, when the exhaust gases mix with the air, the model predicted overall lower CO emissions and an increased rate of NOx.

2. Emission estimates for HAPs have not been provided. The activity is a listed source category under Section 112 of the Clean Air Act and the applicant should specify PM and VOC emissions, if possible. A case-by-case MACT determination may be required.

3. There are a number of unregulated activities with significant allowable emissions. The source needs to include these activities within the modeling analyses.

4. The applicant's BACT analysis is not correct. There are controls on a Russian Test Stand which go beyond BACT. My understanding is that the controls were implemented (Cold War Stuff) to hide research activities. The NASA people at SSC are aware of the controls and unless DOD is funding the controls would be cost prohibited.

5. I disagree with the modeling approach. Use of the a puff model is more appropriate given the nature of the activity. NASA used such modeling to support the ARSM PSD Permit application. The applicant needs to submit a revised modeling analysis.



CERTIFIED MAIL

June 9, 2000

A. A. Linero, P.E., Administrator
Florida Department of Environmental Protection
New Source Review
111 South Magnolia Drive, Suite 4
Tallahassee, FL 32301

RECEIVED

JUN 20 2000

BUREAU OF AIR REGULATION

Re: Air Construction Permit Application and
Prevention of Significant Deterioration Analysis

Dear Mr. Linero:

Please find enclosed seven (7) copies of an Air Construction Permit Application and Prevention of Significant Deterioration Analysis for a new LOX (liquid oxygen)/kerosene rocket engine test stand. This test stand is planned for the Pratt & Whitney facility in Palm Beach County. The test stand will be used for testing Pratt & Whitney's latest space vehicle propulsion product, a LOX/kerosene powered rocket engine.

Also enclosed is Pratt & Whitney check number 726873 for \$7,500 to cover the application fee.

A copy of this application has also been sent to Darrel Graziani, Palm Beach County Health Unit, for his use and records.

If you have any questions about the permit application please call our contact person Dale Francke, phone 561-796-3733, e-mail frncked@pwfl.com. Dale will be glad to answer any questions or get the information to you.

Sincerely,

John K. Sillan, Manager
Facilities Management

Copies: Darrel Graziani, Palm Beach County Health Unit, (1 copy of application)

Miguel Cires (1 copy of application)

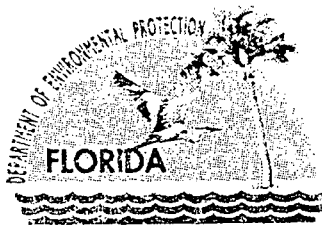
File: B.4.2.2.3 - LOX/Kerosene Rocket Test Stand, (1 copy of application)

SED

EPA

NPS

J. Reynolds



Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

July 19, 2000

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

Mr. John K. Silan
Manager Facilities Management
United Technologies Corp – Pratt & Whitney
P.O. Box 109600
West Palm Beach, Florida 33410-9600

Re: DEP File No. 0990021-004-AC (PSD-FL-294) – LOX/Kerosine Rocket Engine Stand Project at Pratt & Whitney's Research & Development Facility in West Palm Beach

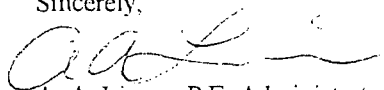
Dear Mr. Silan:

Based on our review of the proposed project, we have determined that the following additional information is needed in order to continue processing this application package:

1. The receptors used to model impacts at the site boundary were not spaced at 100 m. Please re-evaluate impacts at the site boundary by using a fence line receptor network that has a 100 m resolution. Also, in the receptor grid used for the screening analysis contained a 7 kilometer gap between the site boundary receptors and the nearest ring of polar receptors. Please update the screening analysis to include a receptor grid that contains a denser mid field receptor network.
2. In the application, it is assumed that all land enclosed by the site boundary is non-ambient air. However, if there is no physical barrier about this property, the assumption is not valid. Please confirm the existence of a physical barrier that prevents public access onto the land that is enclosed by the site boundary that was utilized in the modeling.
3. Please prepare a CO emission inventory for the NAAQS compliance analysis. The inclusion of only monitored background data does not sufficiently demonstrate compliance with the NAAQS.

If there are any questions regarding the above, please call John Reynolds at 850/921-9536.

Sincerely,

 7/19
A. A. Linero, P.E. Administrator
New Source Review Section

AAL/JR

cc: Gregg Worley, EPA
John Bunyak, NPS
Isidore Goldman, SED
Darrel Graziani, PBCHD
Benny Susi, Golder Assoc.

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