



**TECHNICAL EVALUATION
&
DETERMINATION**

APPLICANT

FAR Research, Inc.
2210 Wilhelmina Court, NE
Palm Bay, Florida 32905

FAR Research Facility

Facility ID No. 0090103

PROJECT

Project No. 0090103-005-AF
Application for Federally Enforceable State Operation Permit Renewal
Project Name: FAR Research Permit Renewal

COUNTY

Brevard County, Florida

PERMITTING AUTHORITY

Florida Department of Environmental Protection
Waste and Air Resource Programs
Central District Office
Orlando, Florida 32803-3767

April 16, 2013

Prepared by: Jeffrey Rustin, P.E.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

GENERAL PROJECT INFORMATION

Air Pollution Regulations

Projects at stationary sources with the potential to emit air pollution are subject to the applicable environmental laws specified in Section 403 of the Florida Statutes (F.S.). The statutes authorize the Department of Environmental Protection (Department) to establish regulations regarding air quality as part of the Florida Administrative Code (F.A.C.), which includes the following applicable chapters: 62-4 (Permits); 62-204 (Air Pollution Control – General Provisions); 62-210 (Stationary Sources – General Requirements); 62-212 (Stationary Sources – Preconstruction Review); 62-213 (Operation Permits for Major Sources of Air Pollution); 62-296 (Stationary Sources - Emission Standards); and 62-297 (Stationary Sources – Emissions Monitoring). Specifically, air construction permits are required pursuant to Rules 62-4, 62-210 and 62-212, F.A.C.

In addition, the U. S. Environmental Protection Agency (EPA) establishes air quality regulations in Title 40 of the Code of Federal Regulations (CFR). Part 60 specifies New Source Performance Standards (NSPS) for numerous industrial categories. Part 61 specifies National Emission Standards for Hazardous Air Pollutants (NESHAP) based on specific pollutants. Part 63 specifies NESHAP based on the Maximum Achievable Control Technology (MACT) for numerous industrial categories. The Department adopts these federal regulations on a quarterly basis in Rule 62-204.800, F.A.C.

Glossary of Common Terms

Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of this permit.

I. Project Description:

A. Applicant:

Mr. Alfred Nuttall, VP/General Manager
FAR Research, Inc.
2210 Wilhelmina Court, NE
Palm Bay, Florida 32905
anuttall@far-chemical.com

B. Professional Engineer: N/A

C. Project Location:

2210 Wilhelmina Court, NE
Palm Bay, Florida 32905

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

D. Project Summary:

This project renews Air Operation Permit No. 0090103-005-AF. The Croll-Reynolds Model 18T-12H packed tower scrubber Ammonia Stack is no longer at the facility and was removed from the permit. There are no other changes in the facility's operation.

E. Application Information:

Application Fee and other information received on: 01/30/13

The cover page (RE: Renewal of Air Permit Number 0090103-004-AF); fee calculation page; copies of the air emission reports for January 2012 through December 2012; and processing fee were received.

Application Complete on: 02/06/13

The permit application, facility plot plan, and compliance test report were received electronically on February 6, 2013.

II. PSD Applicability for Project

No increase in air emissions; therefore, this project is not subject to PSD preconstruction review.

III. Rule Applicability

This project is subject to the preconstruction review requirements of Chapter 403, Florida Statutes and Chapters 62-204 through 62-297, Florida Administrative Code (F.A.C.), as indicated below.

| Subject to: | Y/N | Comments |
|--|------------|---|
| Rule 62-296.320(4), F.A.C. - General Particulate Emission Limiting Standards | Y | The facility is a potential source of unconfined particulate matter. |
| Rules 62-296.320(1) and (2), F.A.C. - General Pollutant Emission Limiting Standards (VOCs and Odor) | Y | The facility is a source of VOC emissions and a potential source of odor. |
| Rule 62-204.800, F.A.C. - Standards of Performance for New Stationary Sources (NSPS) | N | There is no applicable source category. |
| Rule 62-204.800, F.A.C. National Emission Standard for Hazardous Air Pollutants (NESHAPS – 40 CFR 61) | N | There is no applicable source category. |

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

| Subject to: | Y/N | Comments |
|---|------------|--|
| Rule 62-204.800, F.A.C. National Emission Standard for Hazardous Air Pollutants for Source Categories a.k.a. MACT (NESHAPS –40 CFR 63) | N | There is no applicable source category. |
| Chapter 62-213, F.A.C. - Operation Permits for Major Sources of Air Pollution | N | The facility is classified as a synthetic minor source. |
| Rule 62-297.310, F.A.C. - General Compliance Test Requirements, F.A.C. | Y | A visible emission test is required prior to permit renewal for each of the 2 existing fume scrubbers. |

IV. Summary of Emissions

| Pollutant | EU No. & brief description | Actual Emissions (tpy)* | Allowable Emissions (tpy) |
|--|---------------------------------------|--------------------------------|----------------------------------|
| Total HAPS | Facility | 5.097 | Less than 25.0 |
| Individual HAP that was emitted at the highest rate (methanol) | Facility | 2.203 | Less than 10.0 |
| Total VOC | Facility | 5.037 | Less than 25.0 |

* based on AOR (Annual Operating Report) for calendar year 2012.

The AOR data and various purchase/air emission logs for calendar years 2008 through 2012 were reviewed. None of the emission limits were exceeded during the last 5-year period. The previous air operation permit and the current facility plot plan were reviewed also. Additionally, emission logs were reviewed for calendar years 2002, 2005, 2006 and 2007.

The potential to emit for the facility is based primarily on customer orders/demand. The applicant wants to maintain the current FESOP (Federally Enforceable State Operation Permit) status to avoid the need to modify the permit due to any significant future increases in customer demand.

V. Federal NSPS and/or NESHAP Provisions

None are applicable. The boilers are not subject to 40 CFR 60, Subpart Dc, because the heat input for each boiler is less than 10.0 MMBTU/hr. (1.05 MMBTU/hr. and 4.19 MMBTU/hr.). The boilers are not subject to 40 CFR 63, Subpart JJJJJ, because both are gas-fired boilers.

VI. Conclusions

The emission limits proposed by the applicant will meet all of the requirements of Chapters 62-204 through 297, F.A.C.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

The General and Specific Conditions listed in the proposed final permit (attached) will assure compliance with all the applicable requirements of Chapters 62-204 through 297, F.A.C.

VII. Preliminary Determination

The Department makes a determination that the project will comply with all applicable state and federal air pollution regulations as conditioned by the draft permit. This determination is based on a technical review of the complete application, reasonable assurances provided by the applicant, and the conditions specified in the permit. Additional details of this analysis may be obtained by contacting the project engineer at the Florida Department of Environmental Protection, Waste & Air Resource Programs, Central District Office, 3319 Maguire Blvd., Ste. 232, Orlando, FL 32803-3767, by e-mail at jeff.rustin@dep.state.fl.us or by phone at 407-897-4100.