TECHNICAL EVALUATION
&
PRELIMINARY DETERMINATION

APPLICANT

SiVance, LLC
P.O. Box 1466
Gainesville, Florida 32602

SiVance, LLC
Facility ID No. 0010049

PROJECT

Project No. 0010049-014-AC
Application for Minor Source Air Construction Permit
New Reactor (R-20)

COUNTY

Alachua, Florida

PERMITTING AUTHORITY

Florida Department of Environmental Protection
Waste and Air Resource Management Program
Northeast District Office
8800 Baymeadows Way West, Suite 100
Jacksonville, Florida 32256.

January 9, 2014

1. 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.

Facility Description and Location

SiVance, LLC, is an existing Specialty Organic Chemical Manufacturing facility, which is categorized under Standard Industrial Classification Code No. 2869. The facility is located in Alachua County at 5002 N.E. 54th Place in Gainesville, Florida. The UTM coordinates of the existing facility are Zone 17, 377.6 km East, and 3286.7 km North. This site is in an area that is in attainment (or designated as unclassifiable) for all air pollutants subject to state and federal Ambient Air Quality Standards (AAQS).

Facility Regulatory Categories

- The facility **is not** a major source of hazardous air pollutants (HAP).
- The facility **has no** units subject to the acid rain provisions of the Clean Air Act.
- The facility **is not** a Title V major source of air pollution in accordance with Chapter 213, F.A.C.
- The facility **is not** a major stationary source in accordance with Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

Project Description

Intermediate Tank (No. T-3126) in the Prosil Manufacturing Building No 26 will be converted into a new Reactor (R-20) EP24. This reactor will be dedicated to blending, neutralization, and simple synthesis processes associated with the production of products currently manufactured at the site. The tank conversion will involve adding an agitator to the tank, a condenser above the tank, piping, valves and etc. Emissions from the new reactor EP24 will be directed through existing wet scrubbers (WS 26-5 or WS 26-6) and to (EPs 20 and 21) and will not result in the creation of additional emission points.

Additional product production will not change the previously established facility-wide emissions limits of less than 100 tons per year of VOC, less than 10 tons per year of Individual Hazardous Air Pollutants, less than 25 tons per year of Total Combined Hazardous Air Pollutants and less than 100 tons per year of Ammonia.

Processing Schedule

11/27/13 Received the application for a minor source air pollution construction permit.

12/26/13 Requested additional information (via phone).

01/06/14 Received additional information; application complete.

2. APPLICATION REVIEW

Discussion of Emissions

Pollutant	Location	Emissions Rate	FAC Rule
Total Volatile Organic Compounds	Facility-wide	Less than 100 tons per year **NOTE (1)**	62-210.200(PTE)
Individual Hazardous Air Pollutants **NOTES (2)**	Facility-wide	Less than 10 tons per year **NOTE (1) (3)**	62-210.200(PTE)
Total Combined Hazardous Air Pollutants **NOTES (2)**	Facility-wide	Less than 25 tons per year **NOTE (1)**	62-210.200(PTE)
Ammonia	Facility-wide	Less than 100 tons per year **NOTE (1)**	62-210.200(PTE)

NOTE (1) Limit established to escape Title V classification.
NOTE (2) Hazardous Air Pollutants (HAPs), as defined in Section 112(g) of the Clean Air Act. Emissions are not to exceed the limits specified above.
NOTE (3) Limit established to escape Title III classification.

State Requirements

Rule 62-296.320(4)(b)1., F.A.C. and Rule 62-210.200(PTE).

Federal NSPS Provisions

The application addressed 40 CFR 60, Subpart Kb. Flow-through process tanks are exempt from the regulation. All tanks but one within the facility are process tanks. SiVance no longer has any tanks subject to this subpart.

Federal NESHAP Provisions

The application addressed 40 CFR 63, Subpart VVVVVV. SiVance was subject to this subpart when it produced hexachlorobenzene as a by- product of their chemical manufacturing activities. The facility no longer produces this chemical. However, SiVance has elected to continue the monitoring and maintain of the recordkeeping logs required by this subpart. The State of Florida has not adopted this regulation.

Other Draft Permit Requirements

Additional product production will not change the previously established facility-wide emissions limits of less than 100 tons per year of VOC, less than 10 tons per year of Individual Hazardous Air Pollutants, less than 25 tons per year of Total Combined Hazardous Air Pollutants and less than 100 tons per year of Ammonia.

7. <u>Initial Compliance Test for Reactor (R-20) EP24</u>. Reactor R-(20) EP24 shall be tested to determine actual VOC emissions. The initial test shall be conducted prior to applying for an operating permit and in accordance with **Specific Condition No. 8**.

[Rules 62-4.070(3) and 62-297.310(7)(a)1, F.A.C.]

8. <u>Initial Testing Requirements</u>. The tests shall be conducted no later than 180 days after the initial startup of the new Reactor (R-20) EP24. Notify the Department 15 days prior to testing [FAC Rule 297.310(7)(a)9], and submit the test report documentation to the Department 45 days after completion of the testing. Tests shall be conducted in accordance with the applicable requirements specified in Appendix D (Common Testing Requirements) of this permit.

POLLUTANT	LOCATION IDENTIFICATION	TEST METHOD
VOC	EP20/21	Method 25 or 25A

[Rule 297.310(8)(b), F. A.C.]

12.a. <u>Initial Record Keeping Reactor (R-20)</u>. During the construction process and prior to applying for an operating permit, the facility shall calculate the emissions of VOC, each HAP and Ammonia, on a monthly basis **for Reactor (R-20),** to facilitate the emissions tracking needed to document compliance with **Specific Condition 4**. **The facility must submit these records/calculations along with the application for the operating permit....**

3. PRELIMINARY DETERMINATION

The Department, Waste and Air Resource Management makes a preliminary determination that the proposed 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 draft permit. Leslie Maybin is the project engineer responsible for reviewing the application and drafting the permit. Additional details of this analysis may be obtained by contacting the project engineer at the Northeast District, Waste and Air Resource Management, 8800 Baymeadows Way West, Suite 100, Jacksonville, Florida 32256.