# TECHNICAL EVALUATION
# &
# PRELIMINARY DETERMINATION

## APPLICANT

Creative Foam Medical Systems
4800 NW 5th Street
Ocala, FL 34482

Creative Foam Medical Systems

Facility ID No. 0830178

## PROJECT

Project No. 0830178-001-AC
Application for Air Construction Permit
Project Name: Creative Foam-Foam Products

## COUNTY

Marion County, Florida

## PERMITTING AUTHORITY

Florida Department of Environmental Protection
Waste and Air Resource Programs
Central District Office
Orlando, Florida 32803-3767
DEP_CD@dep.state.fl.us

January 9, 2014

Prepared by Jeff 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. Doug Hofferth, Engineering/ Operations Manager
Creative Foam Medical Systems
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dahofferth@creativefoammedicalsystems.com

B. Professional Engineer:

Mr. Bryan Petriko, P.E.
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C. Application Contact:

Mr. Doug Hofferth, Engineering/ Operations Manager
Creative Foam Medical Systems
4800 NW 5th Street
Ocala, FL 34482
dahofferth@creativefoammedicalsystems.com

D. Project Location:

4800 NW 5th Street
Ocala, FL 34482

E. Project Summary:

This project is the Initial Air Construction Permit for the proposed facility, a custom molded polyurethane products manufacturing plant for molded medical cable insulator production. The closed mold foam production unit will utilize polyol and isocyanate to produce the foam. There is no release of emissions from the reaction of the raw materials (polyols and isocynates) because all the volatile organic compounds (VOCs) and hazardous pollutants (HAP) contained in the raw materials become chemically bound in the final product as consumable.

Mold release will be used to remove the foam from the molds. The mold release will be sprayed manually. The mold release accounts for all the volatile organic compound (VOC) emissions from the foam production line. The unit will utilize 1.25 pounds per hour of mold release. The potential VOC emissions from the mold release are estimated to be 5.48 tons per year.

The in-mold surface coating operation will coat the molded parts by a manual spray application. The applicator will use a maximum of 1.2 pounds of coating per hour. The potential emissions generated by the proposed in-mold surface coating are 3.52 tons per year (VOC emissions), 1.05 tons per year (worst case single HAP emissions), and 2.47 tons per year (total HAP emissions). Based on that information, this operation is exempt from air permitting (Rule 62-210.300(3)(a)27., F.A.C.). Currently no recordkeeping is required for this activity.

F. Application Information:

Application Received on: 12/15/2014
Requested Additional Information on: 12/23/2014
Received Additional Information on: 12/31/2014
Application determined to be complete on: 01/06/2014

II. PSD Applicability for Project

The Potential to Emit for VOCs (Volatile Organic Compounds) for the facility is 9.0 tons per year, which is less than 250 tons per year; therefore, no additional PSD Applicability Evaluation is necessary.

III. Rule Applicability

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

| **Subject to:** | **Y/N** | **Comments** |
|---|---|---|
| **Rule 62-212.400, F.A.C.** - Prevention of Significant Deterioration | N | The Potential to Emit for VOCs is less than 250 tons per year. |
| **Rule 62-296.320(4), F.A.C.** - General Particulate Emission Limiting Standards | Y | The facility is a potential source of unconfined particulate matter emissions, but not anticipated to be a significant source. Visible emissions for each source that emits particulates are limited to less than 20 percent opacity. |
| **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 VOCs and odors. Potential to emit for VOCs from the facility is 9.0 tons per year, based on unlimited operation (8,760 hours/year). The potential to emit for VOCs from the mold release of the closed mold foam production unit is 5.48 tons per year. The potential to emit for VOCs from the exempt mold surface coating operation is 3.52 tons per year. |
| **Rule 62-296.400, F.A.C.** – Stationary Source Emission Standards | N | There is no applicable source category. |
| **Rule 62-296.500, F.A.C.** - Reasonably Available Control Technology (VOC) | N | Marion County is an attainment area for ozone |
| **Rule 62-204.800(8), F.A.C.** - Standards of Performance for New Stationary Sources (NSPS – 40 CFR 60) | N | No applicable categories |

| Subject to: | Y/N | Comments |
|---|---|---|
| **Rule 62-204.800(11), F.A.C.** National Emission Standard for Hazardous Air Pollutants for Source Categories a.k.a. MACT (NESHAPS – 40 CFR 63) | Y | The facility is subject to 40 CFR 63, Subpart A and 40 CFR 63, Subpart OOOOOO, because it is an area source of HAP and the plant produces flexible polyurethane foam. Specific Conditions No. A.1, A.2, A.3, and A.4 and Appendix D address the requirements. |
| **Chapter 62-213, F.A.C.** - Operation Permits for Major Sources of Air Pollution | Y | The Potential to Emit for VOCs is less than 100 tons per year. Facility is classified as a natural minor facility. |
| **Rule 62-297.310, F.A.C.** – General Compliance Test Requirements | N | No visible emission testing is required. |

IV. Summary of Emissions

| Pollutant | EU No. and brief description | Potential Emissions (tons/year) | Major Source Thresholds (tons/year) |
|---|---|---|---|
| VOC | EU 001 Small Polyurethane Mold Production Unit | 9.0* | 100 |

*based on 8,760 hours of operation. The potential to emit for VOCs from the mold release of the closed mold foam production unit is 5.48 tons per year. The potential to emit for VOCs from the exempt mold surface coating operation is 3.52 tons per year.

V. Discussion

The facility is a VOC emission source with potential to emit of 9.0 tons per year based on 8,760 hours of operation. The potential to emit for VOCs from the mold release of the closed mold foam production unit is 5.48 tons per year. The potential to emit for VOCs from the exempt mold surface coating operation is 3.52 tons per year. These potential emission calculations can be found in Attachment B of the application (received on December 15, 2014). The applicant had requested a maximum operation schedule of 8,760 operation per year. For operational flexibility and to keep permitting simple, operational hours are not limited by this permit. However, there will be an emission limit of 5.5 tons of volatile organic compounds (VOCs) from the mold release of the closed mold foam production unit based on the PTE calculations. The source is considered to be a natural minor air source. There is no current need for a Federal Enforceable State Operation Permit (FESOP) for this facility.

VI. Federal NSPS and/or NESHAP Provisions

A. NESHAP, 40 CFR 63 Subpart A, General Provisions

B. NESHAP, 40 CFR 63, Subpart OOOOOO, National Emission Standards for Hazardous Air Pollutants for Flexible Polyurethane Foam Production and Fabrication Area Sources

VII. Conclusions

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

VIII. Preliminary Determination

The Department makes a preliminary determination that the proposed project will comply with all applicable state and adopted 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. 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.