



**TECHNICAL EVALUATION
&
PRELIMINARY DETERMINATION**

APPLICANT

Kingspan Insulated Panels, Inc.
725 Summerhill Drive
DeLand, Florida 32724

Facility ID No. 1270174

PROJECT

Project No. 1270174-005-AF
Application for Federally Enforceable State Operating Permit
Project Name: Operation Permit Revision

COUNTY

Volusia County, Florida

PERMITTING AUTHORITY

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

June 14, 2013

Prepared by Stephen Amirault, Project Engineer

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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. Marcos Garibay, Polymer Engineer
Kingspan Insulated Panels, Inc.
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DeLand, Florida 32724
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B. Professional Engineer:

James T. Show, P.E.
Grove Scientific & Engineering Company
6140 Edgewater Drive, Suite F
Orlando, FL 32810

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B. Project Location:

725 Summerhill Drive
DeLand, Florida 32724

C. Project Summary:

This Permit Revises Permit No. 1270174-003-AF to incorporate terms and conditions of Construction Permit 1270174-004-AC.

D. Application Information:

Application and appropriate Application fee received on: 06/03/2013
Application Complete: 06/13/2013

Note: As requested, additional emission calculations and information regarding emission factor testing conducted in October, 2010 were received from the applicant via electronic mail on 06/14/13.

III. PSD Applicability for Project

As provided in the application, the total project emissions will not exceed the PSD significant emission rates; therefore, the project is not subject to the PSD preconstruction review.

II. 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 62-210.300, F.A.C. – Stationary Source, General Requirements	Y	Not exempt from general permitting requirements
Rule 62-212.400, F.A.C. – Prevention of Significant Deterioration	N	Facility is not a PSD major source
Rule 62-296.320(4), F.A.C. - General Particulate Emission Limiting Standards	Y	Foam panel manufacturing cutting and sawing operations are a source of unconfined particulate matter emissions.

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Subject to:	Y/N	Comments
Rules 62-296.320(1) and (2), F.A.C. - General Pollutant Emission Limiting Standards (VOCs and Odor)	Y	Foam panel manufacturing operations are a source of VOCs.
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	Volusia County is an attainment area for ozone.
Rule 62-296.700, F.A.C. - Reasonably Available Control Technology (PM)	N	There is no applicable source category.
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.
Rule 62-213, F.A.C. – Operation Permits for Major Source of Air Pollution	N	Facility is a synthetic minor source.

III. Summary of Emissions

As provided by the applicant, emissions from the facility are expected to remain below the following values (expressed in tons per year (tpy)):

Pollutant	EU No. and brief description	Potential Emissions - Process and panel heaters	Potential Emissions - Pyrolysis oven	Facility-wide Potential Emissions Total	Allowable Emissions
PM	EU 001 - Polyurethane Foam Panel Manufacturing Facility	1.81	0.58	2.39	
NOx	EU 001 - Polyurethane Foam Panel Manufacturing Facility	1.5	1.2	2.7	

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Pollutant	EU No. and brief description	Potential Emissions - Process and panel heaters	Potential Emissions - Pyrolysis oven	Facility-wide Potential Emissions Total	Allowable Emissions
SO ₂	EU 001 - Polyurethane Foam Panel Manufacturing Facility	0.01	0.008	0.018	
CO	EU 001 - Polyurethane Foam Panel Manufacturing Facility	1.26	0.22	1.48	
VOC	EU 001 - Polyurethane Foam Panel Manufacturing Facility	36.59		36.59	Less than 40 ²
Total HAP	EU 001 - Polyurethane Foam Panel Manufacturing Facility	2.1		2.1	Less than 25 ²
Individual HAP	EU 001 - Polyurethane Foam Panel Manufacturing Facility	1.9		1.9	Less than 10 ²
VE	EU 001 - Polyurethane Foam Panel Manufacturing Facility				Less than twenty percent (20%) opacity

- Potential emission estimates from the facility are based on the following information: The Permit limitation of maximum annual material usage rates of: 9,850 tpy of isocyanate, 4,820 tpy of polyol, and 610 tpy of cyclo/isopentane. Additional process and panel heater emission estimates are based on: usage of 660 gallons per year of clean up*

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solvents, and annual natural gas usage rate of 30 million cubic feet per year for panel oven heaters as provided in supplemental information submitted in 2010 permit application. Pyrolysis oven emission estimates are based on an oven maximum firing rate of 0.5 million BTU per hour and a load rate of 10 pounds per hour for 8,760 hours per year, as provided in construction permit application information submitted 10/16/2012.

2. *The VOC and HAP emission limitations were established in Construction Permit 1270174-001-AC dated 08/20/02.*
3. *Permitting Note - during next permit renewal material usage and emissions should be evaluated to verify that the facility has the potential to use enough materials to emit 100 tpy of VOCs and thus would be FESOP.*

IV. Federal NSPS and/or NESHAP Provisions

There are no applicable federal NSPS or NESHAP provisions.

V. Conclusions

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

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.

VI. Preliminary Determination

The Department 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. Additional details of this analysis may be obtained by contacting the project engineer, Stephen Amirault, at the Florida Department of Environmental Protection, Waste & Air Resource Programs, Central District Office, 3319 Maguire Blvd., Suite 232, Orlando, Florida 32803-3767, 407/897-4100. His e-mail address is stephen.amirault@dep.state.fl.us.