TECHNICAL EVALUATION
&
PRELIMINARY DETERMINATION

APPLICANT

Owens Corning Insulating Systems, LLC
2222 West Bella Vista Street
Lakeland, FL 33810

Lakeland Facility

Facility ID No. 1050375

PROJECT

Project No. 1050375-008-AC
Application for Minor Air Construction Permit
Process and Emission Control Device Modifications

COUNTY

Polk, Florida

PERMITTING AUTHORITY

Florida Department of Environmental Protection
Air Resource Management
Southwest District Office
Temple Terrace, Florida 33637-7600

November 23, 2011
(revised December 12, 2011)

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

Prepared by David Zell

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. John McClellan, Plant Manager
Owens Corning Insulating Systems, LLC
2222 West Bella Vista Street
Lakeland, FL 33810

B. Professional Engineer:

Mr. Brad James, P.E.
Trinity Consultants
4767 New Broad Street
Orlando, FL 32814

C. Project Location:

This facility is located in Polk County at 2222 West Bella Vista Street in Lakeland, Florida.

D. Project Summary:

The proposed project is reduction of an emission limitation, and modifications to process and emission control equipment consisting of the following:

- lowering of the particulate matter (PM) emission limit for the forming process scrubbers common stack from 4.88 lb/ton to 4.5 lb/ton in order to reduce potential emissions from this emission unit (PM PTE reduced from 94.1 to 86.7 TPY);
- removal of all of the bonded insulation production line and all of the associated equipment;
- replacement of all four unbonded loosefill (ULF) product line natural gas fired glass fiberizers and addition of three new ULF fiberizers (for a total of seven);
- replacement of the two baghouse particulate matter (PM) emission control devices on the cold top electric furnaces;
- modification of the furnace material inlet shrouds to better contain and capture dust
- addition of a new furnace dust storage bin;
- addition of a new baghouse PM emission control device to control emissions from the existing glass batch ingredient conveyors, ingredient weigh hopper and batch mixer; and act as a filter/receiver and control device for the new furnace dust storage bin; and
- reconfiguration of the three product forming zones into three ULF Zones.

See the construction permit for further description of the modifications.

E. Application Information:

Application Received and Complete on: November 9, 2011

(Supplemental Information Note – As a result of phone conversations between the SW District air permitting staff and the applicant's consultant, additional supplemental information was submitted by email from the applicant's consultant on 12/01, 12/02, and 12/06/11.)

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. - Project Not Subject to Prevention of Significant Deterioration or Nonattainment Requirements, F.A.C.	Y	not exempt from general permitting requirements
Rule 62-212.400, F.A.C. - Prevention of Significant Deterioration	N	facility is synthetic non-PSD source, and this project is not major in and of itself
Rule 62-296.320(4), F.A.C. - General Particulate Emission Limiting Standards	Y	manufacturing operations could be a source of unconfined particulate matter emissions, and melt furnaces are subject to process weight table*
Rules 62-296.320(1) and (2), F.A.C. - General Pollutant Emission Limiting Standards (VOCs and Odor)	Y	manufacturing operations are a source of VOC and odors
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	Polk County is not an air quality maintenance area for ozone
Rule 62-296.700, F.A.C. - Reasonably Available Control Technology (PM)	N	based on its date of start of operation, this facility is not subject to PM RACT rule
Rule 62-204.800, F.A.C. - Standards of Performance for New Stationary Sources (NSPS)	Y	EU No. 003 is subject to 40 CFR 60 Subpart PPP (Wool Fiberglass Insulation Manufacturing)
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 62-204.800, 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 area source category
Chapter 62-213, F.A.C. - Operation Permits for Major Sources of Air Pollution	N	facility is a synthetic non-Title V source for PM
Rule 62-297.310, F.A.C. - General Compliance Test Requirements, F.A.C.	Y	compliance testing is required for EU Nos. 001, 002 and 003

** See Process Weight Table Note in Technical Evaluation for the initial facility construction permit, 1050376-001-AC.*

III. Summary of Emissions

Pollutant	EU No. and brief description	PTE increase from new emissions sources incl. in modif. (TPY)	PTE after modif. (TPY)
PM/PM10 (after controls)	001 – Raw Material Handling	1.4	2.6
	002 – Electric Furnaces	no change or decrease	0.1
	003 – Forming Processes	(-7.4) (from reduction in lb/ton limit)	86.7
	Total	(-6.0)	89.4 [1]
PM2.5	Total		75.8
NOx	001 – Raw Material Handling	*NA*	0
	002 – Electric Furnaces	*NA*	0
	003 – Forming Processes	2.79	6.57 [2]
	Total	2.79	6.57
SO2	001 – Raw Material Handling	*NA*	0
	002 – Electric Furnaces	*NA*	0
	003 – Forming Processes	0.017	0.04 [2]
	Total	0.017	0.04
VOC	001 – Raw Material Handling	*NA*	0
	002 – Electric Furnaces	*NA*	0
	003 – Forming Processes	0.13 [3]	0.36 [2,3]
	Total	0.13	0.36
CO	001 – Raw Material Handling	*NA*	0
	002 – Electric Furnaces	*NA*	
	003 – Forming Processes	1.98 [4]	5.51 [2,4]
	Total	1.98	5.51
Total HAP	001 – Raw Material Handling	*NA*	0
	002 – Electric Furnaces	*NA*	0.0004
	003 – Forming Processes	negligible from increase in NG combustion + decrease (of approx 22 TPY) from removal of bonded product line	0.0004
	Total	(-22 TPY)	0.0008

NA = Not Applicable because this source does not emit this pollutant and therefore modifications to this emission unit will not affect emissions of this pollutant.

Notes –

[1] Based upon this level of potential PM emissions from the listed emission units, there is reasonable assurance the potential PM/PM_{10} emissions from this facility will be less than the Title V and PSD major source level of 100 TPY even if fugitive PM emissions and PM emissions from exempt and insignificant emission sources are included.

[2] EU No. 002 natural gas combustion emissions after the modification are based on the maximum potential natural gas usage for the new fiberizers of 131.4 MMscf/year *(from construction permit application Appendix C , note to Table C-6.).*

[3] VOC TPY is estimated from natural gas combustion only based on AP-42 Ef. Applicant has claimed confidentiality for VOC emissions from the forming process. Previously (when facility was permitted by Fibertek Insulation LLC) VOC emissions from the forming process, not including HAPs from bonded products (which will no longer be produced) were 0.23 TPY.

[4] CO TPY is estimate from natural gas combustion only based on AP-42 Ef. Applicant has claimed confidentiality for CO emissions from the forming process. Previously (when facility was permitted by Fibertek Insulation LLC) CO emissions from the forming process were estimated at 3.53 tons/year and originated from natural gas combustion only.

IV. 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.

V. 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 at the Florida Department of Environmental Protection Air Resource Management, Southwest District 13051 North Telecom Parkway, Temple Terrace, Florida 33637-7600.

Pursuant to Section 403.087, Florida Statutes and Section 62-4.070, Florida Administrative Code, the Department hereby gives notice of its intent to issue a permit to construct the aforementioned air pollution source in accordance with the draft permit and its conditions as stipulated (see attached).