

AIR PERMIT REVIEW

APPLICANT: Lexington Furniture Industries Plant 5	SITE LOCATION: Lexington	COUNTY: Davidson	
TECHNICAL CONTACT: Stuart Stapleton	PHONE: (336) 236-5316	RESPONSIBLE OFFICIAL: Bill Mitchell	TITLE: Vice President – Manufacturing
REVIEW ENGINEER: Mark Cuilla	SIGNATURE:	DATE: XXXXXX, 2003	
REGIONAL CONTACT: Stephen Moser	REGIONAL OFFICE: WSRO	SIC CODE: 2511	
APPLICATION NUMBER: 2900179.03A	EXISTING PERMIT NUMBER: 04015T10	NEW PERMIT NUMBER: 04015T11	

I Purpose of Application

This permitting action is a renewal of an existing Title V permit pursuant to 2Q .0513. The existing Title V permit (04015T10) was issued on September 5, 2003, and is currently scheduled to expire on October 31, 2003. The renewal application was received on January 28, 2003, or at least nine months prior to the expiration date. Therefore, the existing permit shall not expire until the renewal permit has been issued or denied. All terms and conditions of the existing permit shall remain in effect until the renewal permit has been issued or denied.

II Facility Description

Lexington Furniture Plant No. 5 is a furniture manufacturer located in Lexington, Davidson County, North Carolina. This is wooden furniture manufacturing facility. Standard hours of operation are 8 hours per day, 5 days per week, and 50 weeks per year.

III History/Background/Application Chronology

December 10, 1998 – Permit 03115T14 was issued as a 503(b)(10) revision for the addition of two tunnel spray booths to ES4-F3. Note, this issued permit was for Plant 4.

June 4, 1999 – Permit 03115T15 was issued as a 502(b)(10) revision for the addition of a bagfilter CD4-DF8 to ES4-WD1A. Note, this issued permit was for Plant 4.

January 28, 2000 – Permit 03115T16 was issued as a 502(b)(10) revision for the addition of a boiler ES4-B6 and a bagfilter CD4-DF9 to ES4-WD1. Note, this issued permit was for Plant 4.

July 19, 2002 – Permit 04015T09 was issued as a 502(b)(10) revision for the addition of one dip tank ES4-F2-DT3 and the addition of No. 2 fuel oil and natural gas combustion capability on boiler ES4-B6. Note, this issued permit was also for the combination of permits of Plants 4 and 5 into one permit using Plant 5's permit number.

January 28, 2003 – Permit application 25000179.03A received for renewal of current title V permit.

February 6, 2003 – WSRO permit application review was received.

April 16, 2003 – WSRO inspection of the facility was completed by Mr. Stephen Moser.

June 6, 2003 – I spoke with Mr. Stuart Stapleton of Lexington Furniture on CAM applicability. This phone conversation was followed up with an email summary of the phone conversation. Mr. Stapleton verified CAM applicability in an email response the same day and said that a revised CAM would follow.

June 10, 2003 – Mr. Stapleton submitted a revised CAM plan via email. This CAM plan was forwarded to Mr. Samir Parekh of DAQ Technical Services for review on June 19, 2003. Those comments were forwarded to Lexington that same day via email.

June 20, 2003 – Mr. Stapleton submitted a revised CAM plan via fax in response to Mr. Parekh’s comments.

July 3, 2003 – I emailed further clarifications to the re-submitted CAM plan to Lexington based on comments from Mr. Parekh.

July 7, 2003 – Mr. Stapleton submitted via email a revised CAM plan. Mr. Parekh confirmed an approvable CAM plan for inclusion in the permit.

July 18, 2003 – I received final CAM plans from Lexington via email for plants 1, 5, and 10.

September 5, 2003 – Permit 04015T10 was issued as a 502(b)(10) revision for the addition of one boiler ES5-B7.

September 11, 2003 – DRAFT permit and review submitted to Title V Coordinator and Lexington Furniture for review and comment. There were no comments received.

IV. Permit Modification/Changes

The following table describes the modifications to the current permit as part of the renewal process. (Note. See Section III of this document for a description of all 502(b)(10) modifications to the permit.)

Page(s)	Section	Description of Change(s)
Cover	-	-Amended permit revision numbers and all dates
TOC	-	-Removed reference to Part II
All	-	-Updated permit revision number on all headers
3-5	Equipment table	-Added Subpart references -Grouped like equipment -Removed asterisks for Part II
5	2.1 A (table)	-Added reference to 2D .1806
5-6	2.1 A.1.a-f	-Updated condition with most recent revision tvcond53.wpd -Added emission source IDs
6	2.1 A.2.a-c	-Updated condition with most recent revision tvcond53.wpd -Added emission source IDs
6-7	2.1 A.3.a-f	-Updated condition with most recent revision tvcond53.wpd -Added emission source IDs
7	2.1 B (table)	-Added reference to 2D .1806
7-8	2.1 B.1.a-c	-Updated condition with most recent revision tvcond53.wpd -Added emission source IDs

Page(s)	Section	Description of Change(s)
8	2.1 B.2.a-c	-Updated condition with most recent revision tvcond53.wpd -Added emission source IDs
8-9	2.1 B.3.a-e	-Updated condition with most recent revision tvcond53.wpd -Added emission source IDs
9	2.1 C (table)	-Added reference to 2D .1806 -Added MACT Subpart reference -Amended PSD Avoidance reference
10	2.1 C.1.a-e	-Updated condition with most recent revision tvcond53.wpd -Added emission source IDs
10-11	2.1 C.2.a-e	-Updated condition with most recent revision tvcond53.wpd -Added emission source IDs
11-12	2.1 C.3.a-e	-Updated condition with most recent revision tvcond53.wpd -Added emission source IDs
12	2.1 D (table)	-Added reference to 2D .1806 -Added MACT Subpart reference
12-13	2.1 D.1.a-e	-Updated condition with most recent revision tvcond53.wpd -Added emission source IDs
13	2.1 D.2.a-e	-Updated condition with most recent revision tvcond53.wpd -Added emission source IDs
14	2.1 E (table)	-Added reference to 2D .1806 -Added reference to CAM requirements
14-15	2.1 E.1.a-e	-Updated condition with most recent revision tvcond53.wpd -Added emission source IDs
15	2.1 E.2.a-f	-Updated condition with most recent revision tvcond53.wpd -Added emission source IDs
16-17	2.1 E.3.a-d	-Added new permit condition for CAM compliance
17	2.1 F (table)	-Added reference to 2D .1806
18	2.1 G (table)	-Added reference to 2D .1806
18	2.1 H (table)	-Added reference to 2D .1806 -Added MACT Subpart reference
18-19	2.1 H.1.a-e	-Updated condition with most recent revision tvcond53.wpd -Added emission source IDs
19	2.1 H.2.a-c	-Updated condition with most recent revision tvcond53.wpd -Added emission source IDs
19-20	2.1 H.2.a-e	-Updated condition with most recent revision tvcond53.wpd -Added emission source IDs
20	2.1 I (table)	-Added reference to 2D .1806 -Added reference to CAM requirements
20-21	2.1 I.1.a-e	-Updated condition with most recent revision tvcond53.wpd -Added emission source IDs

Page(s)	Section	Description of Change(s)
21	2.1 I.2.a-e	-Updated condition with most recent revision tvcond53.wpd -Added emission source IDs
22-23	2.1 I.3.a-d	-Added new permit condition for CAM compliance
23	2.1 J (table)	-Added reference to 2D .1806 -Corrected reference to sulfur dioxide PSD avoidance condition
24	2.1 J.1.a-c	-Updated condition with most recent revision tvcond53.wpd -Added emission source IDs
24	2.1 J.2.a-f	-Updated condition with most recent revision tvcond53.wpd -Added emission source IDs
25	2.1 J.3.a-f	-Updated condition with most recent revision tvcond53.wpd -Added emission source IDs
25-26	2.1 J.4.a-d	-Updated condition with most recent revision tvcond53.wpd -Added emission source IDs -Corrected condition reference in title of condition
26	2.1 K (table)	-Added reference to 2D .1806
26	2.1 K.1.a-c	-Updated condition with most recent revision tvcond53.wpd -Added emission source IDs
26-27	2.1 K.2.a-c	-Updated condition with most recent revision tvcond53.wpd -Added emission source IDs
27	2.1 K.3.a-c	-Updated condition with most recent revision tvcond53.wpd -Added emission source IDs
28-35	2.2 B.1-9	-Updated condition with most recent revision tvcond53.wpd -Added emission source IDs
35-43	Section 3 – General Conditions	-Updated conditions with most recent revision newshe38.wpd
44	Attachment	-Added reference to QIP

V. Regulatory Review

The facility is subject to the following regulations:

- 15A NCAC 2D .0503, Particulates from Fuel Burning Indirect Heat Exchangers
- 15A NCAC 2D .0504, Particulates from Woodburning Indirect Heat Exchangers
- 15A NCAC 2D .0512, Particulates from Miscellaneous Wood Products Finishing
- 15A NCAC 2D .0516, Sulfur Dioxide Emissions from Combustion Sources
- 15A NCAC 2D .0521, Control of Visible Emissions
- 15A NCAC 2D .0524, NSPS 40 CFR Part 60 Subpart Kb
- 15A NCAC 2D .0614, Compliance Assurance Monitoring
- 15A NCAC 2D .1111, Maximum Achievable Control Technology (Subpart JJ)
- 15A NCAC 2D .1806, Control and Prohibition of Odorous Emissions
- 15A NCAC 2Q .0317, Avoidance Conditions (PSD Avoidance)

Except for CAM (See Section VI of this document for discussion), no new or additional requirements have been added to this renewed permit. Therefore, a regulatory review will not be included in this document.

VI. NSPS, NESHAPS, PSD, Attainment Status, 112(r), CAM

NSPS

The facility is currently subject to New Source Performance Standards, Subpart Kb (ES4-T1). This renewal application does not add any new requirements. The facility is required to maintain records of storage vessel dimensions. Continued compliance is expected

NESHAP/MACT

The facility is currently required to comply with 40 CFR 63, Subpart JJ “Wood Furniture MACT”. Applicable equipment includes spray booths, dip tanks, wash-off tanks, gluing operations, and liquid storage tanks. Per WSRO review, all booths and tanks are in compliance with the MACT and continued compliance is expected.

The permit condition for the MACT requirement has been updated per the most recent shell language (tvcond53.wpd).

PSD

This facility is currently a PSD major facility. It currently operates under two separate PSD avoidance conditions. The fourteen spray booths (ES5-F1) are limited to less than 250 tons of VOC’s per year. The facility is required to monitor and record monthly VOC emissions. Continued compliance is expected. Boiler (ES4-B6) is limited to less than 40 tons sulfur dioxide per year. To ensure compliance the facility is required to restrict boiler operation to 6,750 hours per year and maintain records indicating this fact.

112(r)

This facility is not subject to Section 112(r) of the Clean Air Act requirements because it does not store any of the regulated substances in quantities above the thresholds in the Rule.

CAM

40 CFR 64 requires that a continuous assurance monitoring plan be developed for all equipment located at a major facility, that have pre-controlled emissions above the major source threshold, and use a control device to meet an applicable standard. The woodworking operations at the facility are controlled by bagfilters and transfer cyclones (some stand-alone and some in series). Per DAQ guidance, CAM is required on those control devices which see pre-controlled PM10 emissions of 100 tons per year or more. As stated above, the CAM rule requires that the control device is installed on the emission source in order to meet an applicable standard. The woodworking operations are all subject to 15A NCAC 2D .0512, which requires “adequate ductwork and properly designed collectors.” 2D .0512 is an applicable standard; therefore CAM applies to this facility. DAQ argues that the transfer cyclones do not meet the definition of necessary equipment to meet the applicable standard. The particulate standard is met with the use of the bagfilters; therefore, the transfer cyclones will not require that a CAM plan be applied to them.

Permit conditions 2.1 E.3. and 2.1 I.3. have been added to comply with this federal requirement. The woodworking operations are being controlled by bagfilters. As stated above, this emission source is subject to the particulate standard of 2D .0512 and the 20 percent opacity standard of 2D .0521. In its proposed CAM plan, the facility has chosen to measure and record as the primary method of compliance, the pressure drop across the bagfilters. Lexington argues "...bagfilters are designed to operate at a relatively constant pressure drop. Monitoring pressure drop provides a means of detecting a change in operation that could lead to an increase in emissions...." As a backup to the pressure drop, the facility is also proposing to monitor visible emissions. They state "...visible emissions were selected as the performance indicator because its indicative of good operation and maintenance of the bagfilters..."

VII. Facility Wide Air Toxics

The facility is not subject to the toxics regulations. There is no change required for this renewal.

VIII. Statement of Compliance

The DAQ has reviewed the compliance status of this facility. Based on visual observations and review of records at the time of the inspection, this facility was judged to be operating in compliance with Air Quality standards and regulations.

IX. Facility Emissions Review

There is no change in emissions for this renewal. The following table represents facility wide emissions as submitted by the facility in its latest emissions inventory:

Pollutant	2001 Emissions (tons)
Particulate	17.32
Carbon Monoxide	39.22
Nitrogen Oxides	35.01
Sulfur Dioxide	20.98
Volatile Organic Compounds	73.91
Ethyl Acetate	8950 (pounds)
(all other HAPs/TAPs)	26392.30 (pounds)

X. Stipulation Review

WSRO did not note any needed permit stipulation corrections.

XI. Public Notice / EPA and Affected State Review

Pursuant to 2Q. 0521, a notice of the draft Title V Permit shall be placed in a newspaper of general circulation in the area where the facility is located. The notice will provide for a 30-day comment period, with an opportunity for a public hearing. Copies of the public notice shall be sent to persons on the Title V mailing list and EPA. Pursuant to 2Q .0522, a copy of each permit application, each proposed permit and each final permit pursuant shall be provided to EPA. Also pursuant to 2Q .0522, a notice of the draft Title V Permit shall be provided to each affected State at or before the time notice provided to the public under 2Q .0521 above. There are no affected States for this facility.

XII. Conclusions, Comments, and Recommendations

1. A professional engineer's seal was not required for this renewal.
2. A consistency determination was not required for this renewal.
3. WSRO recommends issuance of the permit and **does not** request a DRAFT permit prior to issuance.
4. RCO concurs with WSRO's recommendation to issue air permit.