

**AIR PERMIT REVIEW**

<b>APPLICANT:</b> Lexington Furniture Industries Plant 10	<b>SITE LOCATION:</b> Hildebran	<b>COUNTY:</b> Burke	
<b>TECHNICAL CONTACT:</b> Stuart Stapleton	<b>PHONE:</b> (336) 236-5316	<b>RESPONSIBLE OFFICIAL:</b> Bill Mitchell	<b>TITLE:</b> Vice President – Manufacturing
<b>REVIEW ENGINEER:</b> Mark Cuilla	<b>SIGNATURE:</b>	<b>DATE:</b> XXXXXX, 2003	
<b>REGIONAL CONTACT:</b> Brendan Davey	<b>REGIONAL OFFICE:</b> ARO	<b>SIC CODE:</b> 2511	
<b>APPLICATION NUMBER:</b> 1200074.03A	<b>EXISTING PERMIT NUMBER:</b> 04424T11	<b>NEW PERMIT NUMBER:</b> 04424T12	

**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 (04424T11) was issued on July 25, 2002, and is currently scheduled to expire on January 31, 2004. The renewal application was received on April 7, 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. 10 is a furniture manufacturer located in Hildebran, Burke County, North Carolina. This title V facility has currently permitted sources consisting of two boilers, woodworking operations, and MACT applicable painting and gluing operations. The facility manufactures upholstered wood furniture consisting mainly of couches and chairs. The facility operates eight hours per day, four and half days per week.

**III History/Background/Application Chronology**

**February 25, 1999** – Initial title V permit 04424T09 issued.

**January 18, 2002** – Permit **04424T10** issued as a **502(b)(10) amendment** to allow the addition of natural gas as primary fuel to existing No. 2/No. 5 fuel oil-fired boiler (ID No. ES-B2). At this time an administrative amendment was made to clarify the description of the organic liquid storage tanks (ID No. ES-F4).

**July 25, 2002** – Permit 04424T11 issued as an administrative amendment to modify the recordkeeping and reporting requirements for Subpart Dc for the usage of natural gas in the boiler (ID No. ES-B2).

**April 7, 2003** – Permit renewal application received and deemed complete for processing.

**May 1, 2003** – I spoke with Mr. Stuart Stapleton concerning the permitted equipment at the facility with respect to the required compliance assurance monitoring (CAM) plan. I told Mr. Stapleton that the DRAFT plan submitted with the application was not sufficient for inclusion in the permit. He informed me that all equipment subject to the CAM plan had been shut down and removed from the facility. However, he wanted to keep the equipment as “active” for permitting purposes to keep flexibility (i.e., allow the facility to re-start the process in the future). Therefore, I informed him that a CAM plan would be required if the process has/(had) pre-controlled particulate (PM10) emissions greater than 100 tons per year.

**June 6, 2003** – In an email to Mr. Stapleton, I commented that this facility is most likely eligible for synthetic minor status because of emission levels (as a result of most of the process equipment no longer being used); however, because the facility is subject to the furniture MACT (Subpart JJ), EPA requires that the facility have a title V permit. I told him that I would like to add a HAP avoidance condition to the permit, which would limit the emissions of HAPs to below the major source thresholds. This would keep the facility out of all future MACTs. The “once-in-always-in” policy would keep the requirement for compliance with Subpart JJ in effect. In his email reply, Mr. Stapleton agreed with the insertion of the synthetic minor language. He also commented that prior to the shutdown of the woodworking equipment, its pre-controlled emissions were greater than 100 tons per year. Therefore, CAM would apply. I suggested that I include in the renewed permit, a requirement that the CAM plan would only apply upon re-startup of the process equipment. Mr. Stapleton agreed with the proposed language.

**June 10, 2003** – I received the permit application review and inspection report from Mr. Brendan Davey of the ARO.

**July 18, 2003** – I received the re-drafted CAM plan from Mr. Stapleton. I then forwarded it on to Mr. Samir Parekh, DAQ Technical Services, for approval. I received approval of this language and informed Mr. Stapleton of the results.

**August 26, 2003** – DRAFT permit sent to facility for review. There were no comments received as of September 25, 2003, therefore it is being sent to notice.

**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	NA	-Modified permit numbers, effective date and expiration dates -Modified application number, application date, and renewal application date
TOC	TOC	-Removed references to Part II
All	Header	-Modified permit revision number
3-4	Equipment Table	-Added NSPS and MACT Subpart names -Amended control device CD-1 to separate into two parts (A and B) per description
4	2.1 A (table)	-Removed reference to 2D .0516 -Added reference to 2D .1806 and 2Q .0317
NA	2.1 A	-Removed requirement to comply with 2D .0516 (re. Subject to sulfur dioxide standards of Subpart Dc- <i>formerly 2.1 A.2</i> ) -Removed Notification requirement for fuel switch per 502(b)(10) amendment 04424T10 – <i>formerly 2.1 A.4</i>

Page(s)	Section	Description of Change(s)
4	2.1 A.1.a-c	-Added source ID Nos. -Updated shell condition (tvcond53.wpd)
5	2.1 A.2.a-e	-Added source ID Nos. -Updated shell condition (tvcond53.wpd)
5-6	2.1 A.3.a-f	-Added source ID Nos. -Updated shell condition (tvcond53.wpd) -Removed Monitoring/Recordkeeping/Reporting requirements while firing natural gas or No. 2 fuel oil per shell conditions
6-7	2.1 B (description and table)	-Amended control device description to separate multicyclones -Added reference to 2D .1806 and 2Q .0317
7	2.1 B.1.a-f	-Added source and control device ID Nos. -Updated shell condition (tcvond53.wpd)
7-8	2.1 B.2.a-c	-Added source ID Nos. -Updated shell condition (tvcond53.wpd)
8	2.1 B.3.a-e	-Added source ID Nos. -Updated shell condition (tvcond53.wpd)
9	2.1 B.4.a-c	-Added source ID Nos. -Updated shell condition (tvcond53.wpd)
9	2.1 C. (table)	-Added reference to 2D .0614 and .1806
9-10	2.1 C.1.a-e	-Added source ID Nos. -Updated shell condition (tvcond53.wpd)
10-11	2.1 C.2.a-e	-Added source ID Nos. -Updated shell condition (tvcond53.wpd)
11-12	2.1 C.3.a-d	-Added condition for CAM
12-13	2.1 D (table)	-Amended PSD Avoidance citation (2Q .0317) -Added reference to 2D .1806 and 2Q .0317 (MACT Avoidance)
13	2.1 D.1.a-e	-Added source ID Nos. -Updated shell condition (tvcond53.wpd)
13-14	2.1 D.2.a-e	-Added source ID Nos. -Updated shell condition (tvcond53.wpd)
14	2.2 A (table)	-Amended PSD Avoidance citation (2Q .0317)
14-15	2.2 A.1.a-d	-Updated shell condition (tvcond53.wpd)
15	2.2 B (table)	-Corrected rule citation
15	2.2 B.1.a	-Updated shell condition (tvcond53.wpd)
15-23	2.2 C.1 – 10	-Updated shell condition (tvcond53.wpd)
23-24	2.2 D	-Added permit condition for MACT Avoidance
24-32	Section 3 – General Conditions	-Updated shell conditions (newshe37.wpd)

**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 Dc
- 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/MACT Avoidance)

Except for CAM and MACT Avoidance (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 two boilers are subject to 40 CFR 60, Subpart Dc. The current permit requires that the sulfur content of the fuel oils fired in boiler (ID No. ES-B2) be limited to 0.5 percent sulfur content and that daily fuel records be kept on boiler (ID No. ES-B3). Per the ARO review, “This boiler (ID No. ES-B2) has not been fired for a few months and is used solely to heat the building. It has both natural gas and No. 2 fuel oil capability. The boiler is not currently equipped to fire No. 5 fuel oil.” Continued compliance is expected. ARO also notes that boiler (ID No. ES-B3) “has been completely shut down for approximately 5 years.” Therefore, continued compliance (because of non-operation) is expected.

*It should be noted that Lexington has requested that all equipment remain on the permit in “active” status to keep the flexibility to restore operations to full amount in the future if needed.*

The permit conditions for each of these boilers has been updated per the most recent shell language (tvcond53.wpd).

### **NESHAP/MACT**

1. Subpart JJ - The facility is currently required to comply with 40 CFR 63, Subpart JJ “Wood Furniture MACT”. Applicable equipment includes 18 spray booths, one dip tank, two wash-off tanks, gluing operations, and five liquid storage tanks. Per ARO review, 10 of the 18 permitted spray booths are no longer in operation. The remaining booths and tanks are in compliance with the MACT and continued compliance is expected.

*It should be noted that Lexington has requested that all equipment remain on the permit in “active” status to keep the flexibility to restore operations to full amount in the future if needed.*

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

2. Future MACT Avoidance - New permit condition 2.2 D has been added to the renewed permit as a federally-enforceable avoidance condition for HAP emissions. The facility can not officially be classified as a synthetic minor/or small facility because of its requirements to comply with Subpart JJ. However, this avoidance condition will limit HAP emissions to below the 10 tons per year for a single HAP and 25 tons per year for multiple HAPs major source thresholds. This limit will eliminate the requirement for this facility to comply with any new MACTs as they are promulgated. Specifically, this limit will keep the facility from having to comply with the future boiler MACT for its permitted boilers.

*It should be noted that boiler (ID No. ES-B3) has been completely shut down for approximately five years but will remain on the permit in “active” status to keep the flexibility to restore operations to full amount in the future if needed.*

### **PSD**

This facility is currently a PSD minor facility, in that actual and potential emissions are less than 250 tons per year of any of the PSD-regulated pollutants. The facility has a PSD avoidance condition of 242 tons per 12-month period for emissions from plant-wide VOC sources. Per ARO permit application review, the quarterly reports show the facility well in compliance with this requirement. Continued compliance is expected. Permit condition 2.2 A. has been updated to reflect the language contained in shell conditions (tvcond53.wpd).

### **Attainment Status**

This facility is located in Burke County, which is in attainment according to 2D .0902.

### **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 be 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 condition 2.1 C.3. has been added to comply with this federal requirement. The woodworking operations are being controlled by three 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 bagfilter. 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..”

Per ARO, all the woodworking equipment and bagfilters were removed from the facility approximately five years ago. *It should be noted that Lexington has requested that all equipment remain on the permit in “active” status to keep the flexibility to restore operations to full amount in the future if needed.* Therefore, the permit condition contains a provision that compliance with CAM will not be required until such time as the source (ID No. ES-WD-1) is operating. In addition, the facility will be required to notify the regional supervisor at least seven days prior to the re-start of the emission source (ID No. ES-WD-1).

## **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 the latest inspection, the facility was in compliance with all applicable requirements

**IX. Facility Emissions Review**

There is no change in emissions for this renewal.

**X. Stipulation Review**

Mr. Davey of the ARO, pointed out that the current permit has a small typo (page 5, 3.d. should say “No. 5” not “No. 6”), the NSPS Subpart Dc condition should be reviewed and revised to reflect the current rule and policies, and that the visual observation requirements for 2D .0521 for natural gas firing, No. 2 fuel oil firing, and the VOC sources should be removed (re. Noncompliance is not expected under any conditions for these sources).

These changes were incorporated into the permit (see table of changes in Section IV of this document).

**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**

A professional engineer’s seal was not required for this renewal.

A consistency determination was not required for this renewal.

ARO recommends issuance of the permit and **does not** request a DRAFT permit prior to issuance.

RCO concurs with ARO’s recommendation to issue air permit.