

Application Review

Issue Date: Date needed

Region: Mooresville Regional Office
County: Catawba
NC Facility ID: 1800043
Inspector's Name: Amir Stewart
Date of Last Inspection: 08/16/2023
Compliance Code: 3 / Compliance - inspection

<p style="text-align: center;">Facility Data</p> <p>Applicant (Facility's Name): Century Furniture - Plant No. 3</p> <p>Facility Address: Century Furniture - Plant No. 3 3086 Main Avenue NW Hickory, NC 28601</p> <p>SIC: 2512 / Upholstered Household Furniture NAICS: 337121 / Upholstered Household Furniture Manufacturing</p> <p>Facility Classification: Before: Title V After: Title V Fee Classification: Before: Title V After: Title V</p>	<p style="text-align: center;">Permit Applicability (this application only)</p> <p>SIP: 15A NCAC 02D .0503, .0512, .0516, .0521, and .1806 NSPS: N/A NESHAP: DDDDD and JJ PSD: N/A PSD Avoidance: N/A NC Toxics: N/A 112(r): N/A Other: N/A</p>
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Contact Data			Application Data
<p style="text-align: center;">Facility Contact</p> Dennis Tart Environmental Engineer (828) 326-8376 PO Box 608 Hickory, NC 28603	<p style="text-align: center;">Authorized Contact</p> Matthew Clark Plant Manager (828) 326-8621 PO Box 608 Hickory, NC 28603	<p style="text-align: center;">Technical Contact</p> Dennis Tart Environmental Engineer (828) 326-8376 PO Box 608 Hickory, NC 28603	<p>Application Number: 1800043.23A Date Received: 10/09/2023 Application Type: Renewal Application Schedule: TV-Renewal Existing Permit Data Existing Permit Number: 03749/T19 Existing Permit Issue Date: 05/17/2019 Existing Permit Expiration Date: 04/30/2024</p>

Total Actual emissions in TONS/YEAR:							
CY	SO2	NOX	VOC	CO	PM10	Total HAP	Largest HAP
2022	---	0.4900	0.1700	0.4100	0.1300	0.0131	0.0087 [Hexane, n-]
2021	---	0.3200	0.2000	0.2700	0.1200	0.0119	0.0058 [Hexane, n-]
2020	0.0020	0.3700	10.40	0.3100	0.2919	0.7235	0.4824 [Toluene]
2019	---	0.5400	29.91	0.4600	0.5700	2.09	1.42 [Toluene]
2018	---	0.6800	31.96	0.5700	0.8100	2.28	1.52 [Toluene]

<p>Review Engineer: Jacob Larson</p> <p>Review Engineer's Signature: _____ Date: _____</p>	<p style="text-align: center;">Comments / Recommendations:</p> <p>Issue: 03749/T20 Permit Issue Date: Date needed Permit Expiration Date: Date needed</p>
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1. Purpose of Application

Century Furniture – Plant No. 3 currently holds Title V Permit No. 03749T19 with an expiration date of April 30, 2024 for upholstered furniture manufacturing and finishing facility in Hickory, Catawba County, North Carolina. This permit renewal without modification. The renewal application was received on October 09, 2023, or at least 6 months prior to 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.

2. Facility Description

Century Furniture plant No. 3 manufactures/assembles wood and upholstered furniture items and applies stains, lacquers, and other finishing materials per customer request.

3. History/Background/Application Chronology

History/Background

May 17, 2019 TV permit renewal issued. Air Permit No. 03749T19 with an expiration date of April 30, 2024.

Application Chronology

October 09, 2023 DEQ received permit application 1800043.23A for Title V renewal.

October 12, 2022 Sent acknowledgment letter indicating that the application for permit renewal was complete.

November 16, 2023 Draft permit and review forwarded for comments to Permitting Supervisor.

November 27, 2023 Comments received from Booker Pullen, Permitting Supervisor.

December 04, 2023 Draft permit and review forwarded to the Stationary Compliance Branch for comments. No comments were received December 22, 2023.

December 04, 2023 Draft permit and review forwarded to the Mooresville Regional Office for comments. Minor comments were received December 22, 2023.

January 02, 2024 Draft permit forwarded to Joseph Voelker for MACT DDDDD consult. Replacement DDDDD language received January 17, 2024.

January 19, 2024 Draft permit forwarded to the applicant for comments. Minor comments received January 25, 2024.

XXXX xx, 2023 Draft permit and permit review forwarded to public notice.

XXXX xx, 2023 Public comment period ends. ___ comments received.

XXXX xx, 2023 EPA comment period ends. ___ comments received.

4. Permit Modifications/Changes and TVEE Discussion

The following table describes the modifications to the current permit as part of the renewal process.

Page No.	Section	Description of Changes
--	Cover page and throughout permit	<ul style="list-style-type: none"> Updated all dates and permit revision numbers.
--	Cover page	<ul style="list-style-type: none"> Added "Notice Regarding The Right To Contest A Division Of Air Quality Permit Decision" page
--	Summary of Changes to Permit	<ul style="list-style-type: none"> Added summary of changes made to Permit No. 03749T19 according to the most recent requirements of the renewal Title V permit
Page 2	Table of Contents	<ul style="list-style-type: none"> Added Section 3.0 as "Insignificant Activities List" Added Section 4.0 as "General Permit Conditions"
Page 3	List of Acronyms	<ul style="list-style-type: none"> Added "List of Acronyms"
Page 4	Permitted Emissions Table	<ul style="list-style-type: none"> Removed 112(j) from permit and replaced with MACT DDDDD
Page 4	Permitted Emissions Table	<ul style="list-style-type: none"> Removed Wash-Off tank ID No. WO-2 from permitted emission source table and removed from all applicable conditions
Page 5	Permitted Emissions Table	<ul style="list-style-type: none"> Removed BNG-2 and BNG-3 from permitted emissions table
Page 6	2.1 A.2.c	<ul style="list-style-type: none"> Updated monitoring requirement to latest shell version
Page 7-8	2.1 B.2.d	<ul style="list-style-type: none"> Updated monitoring requirements to latest shell version
Page 10	2.1 C. 4	<ul style="list-style-type: none"> Removed 112(j) from permit and replaced with MACT DDDDD
Page 18	Section 3	<ul style="list-style-type: none"> Added Insignificant Activities as Section 3 of the Title V Permit
Page 18	Section 3	<ul style="list-style-type: none"> Added I-BNG-2 and I-BNG-3 to Insignificant Activities
Page 19-26	Section 4	<ul style="list-style-type: none"> Added General Conditions (version 7.0, 08/21/2023) as Section 4 of the Title V Permit

Changes to TVEE as of this renewal include:

- Removal of Wash off Tank (**ID No. WO-2**) from the permit. The tank was removed from the facility in April 2023.
- Moved (**ID Nos. BNG-2 and BNG-3**) to the insignificant list as (**ID Nos. I-BNG-2 and I-BNG-3**)

5. Regulatory Review

Century Furniture is subject to the following regulations. The facility's equipment and operations have not changed since the last renewal in 2019. The permit was updated to reflect the most current stipulations for all applicable regulations, where necessary.

15A NCAC 02D .0503 "Particulates from Fuel Burning Indirect Heat Exchangers"

This regulation limits the allowable amount of particulate emissions from a boiler as a function of the facility-wide heat input capacity. Once a limit is determined, it will not be revised upwards or downwards if the facility-wide heat input capacity changes. The formula to determine the allowable emission rate is:

$$E = 1.090 \times Q^{-0.2594}$$

Where:

- E = The allowable particulate emission rate, in pounds per million Btu heat input
- Q = The facility-wide maximum heat input, in million Btu per hour

Based on revision T18 of the permit, *E* for all boilers at the facility is 0.46 lb/mmBtu. The boilers only fire natural gas, which produces very little particulate in combustion. Therefore, no monitoring, recordkeeping, or reporting is required to show compliance with the regulation.

Continued compliance is anticipated.

15A NCAC 02D .0512 "Particulates from Miscellaneous Wood Products Finishing Plants"

This regulation requires that facilities provided adequate particulate control for wood finishing processes.

In order to demonstrate compliance, all of the particulate control devices (such as filters and cyclones) must be regularly inspected and maintained. Records of maintenance must be kept and reported twice per year.

Based on the most recent inspection, Century appears to be in compliance with the regulation. Based on the latest inspection report per IBEAM, Century has been submitting the required reports. Continued compliance will be determined during the next inspection.

Continued compliance is anticipated.

15A NCAC 02D .0516 "Sulfur Dioxide from Combustion Sources"

This regulation limits SO₂ emissions from combustion sources to 2.3 pounds emitted per million Btu heat input.

The only combustion sources on the permit are the three natural gas-fired boilers. Natural gas has a very low sulfur content, so compliance with this regulation is assumed by default. There are no monitoring, recordkeeping, or reporting requirements.

Continued compliance is anticipated.

15A NCAC 02D .0521 "Control of Visible Emissions"

This regulation limits visible emissions (VE) from pre-1971 processes to less than 40% and post-1971 processes to less than 20% opacity when averaged over a six-minute period. Sources are allowed one exception per hour. The hourly exception cannot exceed 87% opacity (90% for pre-1971 sources) and cannot occur more than four times per 24-hour period.

SB-1 through 16 are pre-1971 sources and all other sources at the facility are post-1971. In order to demonstrate compliance, Century must regularly inspect emission points for VE above normal. All monitoring must be recorded and reported twice per year.

Continued compliance is anticipated.

15A NCAC 02D .1806 "Control and Prohibition of Odorous Emissions"

This regulation states that facilities must not emit odors that contribute to objectionable odors beyond the facility's property boundary.

There have been no odor complaints against the facility. During the most recent inspection, no objectionable odors that could have constituted a violation beyond the facility's property were observed. No monitoring, recordkeeping, or reporting is required for this regulation.

Continued compliance is anticipated.

15A NCAC 02D .1109 “112(j) Case-by-Case Maximum Achievable Control Technology” [CAA § 112(j) MACT for Boilers and Process Heaters] – This case-by-case requirement will be removed in the renewal permit.

The Permittee shall use best combustion practices when operating the affected boilers (ID Nos. BNG-1, BNG-2, and BNG-3). The initial compliance date for this work practice standard and the associated monitoring, recordkeeping, and reporting requirements is February 5, 2013. The Permittee shall comply with this CAA 112(j) standard until May 19, 2019. This condition is end-dated for May 19, 2019 and will be removed from the permit as of this renewal. The condition will be superseded by MACT DDDDD in Section 6 below.

6. NSPS, NESHAPS/MACT, PSD, 112(r), CAM

NSPS

There are no New Source Performance Standards (NSPS)-affected sources at the facility.

NESHAP/MACT

MACT DDDDD

The requirements for complying with the National Emission Standards for Hazardous Air Pollutants (NESHAP) federal regulations promulgated by the EPA. The three boilers (ID Nos. BNG-1, BNG-2, and BNG-3) are subject to 40 CFR Part 63, subpart DDDDD. The boilers have three different sets of conditions due to all three having different heat input capacities.

- equal to or greater than 10 million Btu per hour (**ID No. BNG-1**);
- greater than 5 million Btu per hour and less than 10 million Btu per hour (**ID No. I-BNG-2**);
- less than or equal to 5 million Btu per hour (**ID No. I-BNG-3**)

As of the inspection conducted 08/16/2023 by Amir Stewart, the initial tune-ups of the insignificant boilers **I-BNG-2** and **I-BNG-3** occurred in December 2018. The one-time energy assessment occurred on March 13, 2019. The initial tune-up for BNG-1 was never performed as of this renewal, but the boiler has remained inoperable since before the initial 5D compliance date May 19, 2019 and before previously applicable 112(j) compliance date of February 5, 2013. The Permittee shall conduct a tune-up of the source (**ID No. BNG-1/I-BNG-2/I-BNG-3**) every year/two years/five years. For **BNG-1 and I-BNG-3** that are not in operation, the tune-up must be conducted within 30 days of start-up.

MACT Subpart JJ

The furniture finishing operations are subject to MACT Subpart JJ. In order to demonstrate compliance, Century must only use materials that meet the requirements of 63.802(a)(2) and (3) and 63.804(a)(4).

Century must comply with the MACT monitoring, recordkeeping, work practice standards, emission limits and reporting requirements listed in condition 2.2 A of permit. Based on the most recent

inspection conducted on 08/16/2023 by Amir Stewart, Century has been complying with all MACT JJ requirements.

PSD

The facility is not considered a major source for Prevention of Significant Deterioration (PSD).

The Catawba County PSD Minor Source Baseline was triggered for PM₁₀ as of 07/21/78 by Century Furniture. This renewal application does not change the status of this facility, nor does it increase the emissions of increment.

112(r)

The 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 112(r) thresholds. No change with respect to 112(r) is anticipated under this permit renewal.

CAM

The CAM rule (40 CFR 64; 15A NCAC 02D .0614) applies to each pollutant specific emissions unit (PSEU) at major TV facilities that meets all three following criteria:

- the unit is subject to any (non-exempt: e.g. pre November 15, 1990, Section 111 or Section 112 standard) emission limitation or standard for the applicable regulated pollutant.
- the unit uses any control device to achieve compliance with any such emission limitation or standard.
- The unit has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source (i.e., 100 tons per year for criteria pollutants or 10/25 tons per year for HAPs).

Century Furniture employs one bag filter (ID No. B-2) and one 80-inch transfer cyclone (ID No. CY2). These control devices are used to meet the PM emission standard of 15A NCAC 02D .0512. However, the facility does not emit PM in quantities greater than major source threshold. Therefore, CAM does not apply. This permit renewal does not change the facility's CAM status.

7. Facility Wide Air Toxics

Century's primary operations are wood furniture manufacturing and combustion sources, which are exempt per 15A NCAC 02Q .0702 EXEMPTIONS (a)(23) and (27) as toxics emission sources because they are subject to MACT Subpart JJ and Subpart DDDDD. The facility does not currently have any TAP emission limits in the permit.

Hazardous Air Pollutants(HAPS) and/or Toxic Air Pollutants(TAPs)

Pollutant	CAS	Actual Emissions (Pounds/Year)		% Change
		2022	2021	
Pollutant Group:Cobalt compounds Group Sum:.00082				
Cobalt Unlisted Compound (Specify & Component of COC)	COC-Other	8.2E-4	.00102	-19.60784%
Pollutant Group:Glycol ethers (total all individual glycol ethers-See http://daq.state.nc.us/toxics/glycol/) Group Sum:0.0				
Glycol Ethers, Unlisted (Specify & Component of GLYET) (See http://daq.state.nc.us/toxics/glycol/)	GLYET-Other	0.0	.195	-100.0%
Pollutant Group:Lead and Lead compounds Group Sum:.00485				
Lead Unlisted Compounds (Specify and Component of PBC)	PBC-Other	0.00485	.00323	50.154808%
Pollutant Group:Manganese & compounds Group Sum:0.0				
Manganese Unlisted Compounds (Specify & Component of MNC)	MNC-Other	0.0	.00074	-100.0%
Pollutant Group:Polycyclic Organic Matter (7 PAH Compounds for NIF) Group Sum:.00001				
Benzo(a)pyrene (Component of POMTV & POM7)	50-32-8	1.0E-5	.00001	0.0%
Pollutant Group:Polycyclic Organic Matter (Specific Compounds from OAQPS for TV) Group Sum:.00593				
Benzo(a)pyrene (Component of POMTV & POM7)	50-32-8	1.0E-5	.00001	0.0%
Naphthalene (Component of POMTV)	91-20-3	0.00592	.00394	50.253796%
Benzene	71-43-2	0.0204	.0136	50.000004%
Ethyl acetate	141-78-6	0.0	.0119	-100.0%
Ethyl benzene	100-41-4	1.34	1.93	-30.569944%
Formaldehyde	50-00-0	0.728	.484	50.413223%
Hexane, n-	110-54-3	17.47	11.62	50.34423%
Hydroquinone	123-31-9	0.27	.175	54.28572%
Selenium Compounds	SEC	2.3E-4	.00016	43.750008%
Toluene	108-88-3	0.033	.3159	-89.55366%
Xylene	1330-20-7	6.35	9.1	-30.219786%

8. Facility Emissions Review

The facility-wide potential emissions do not change under this TV permit renewal. Actual emissions for criteria pollutants and HAPs for the years 2018 through 2022 are provided in the header of this permit review.

9. Compliance Status

DAQ has reviewed the compliance status of Century Furniture - Plant No. 3 During the most recent inspection, conducted on 08/16/2023 by Amir Stewart of MRO, the facility appeared to be in compliance with all applicable requirements. The facility's Annual Compliance Certification was received on January 27, 2023 and indicated compliance with all applicable requirements in 2022.

10. Public Notice/EPA and Affected State(s) Review

A notice of the DRAFT Title V Permit shall be made pursuant to 15A NCAC 02Q .0521. The notice will provide for a 30-day comment period, with an opportunity for a public hearing. Consistent with 15A NCAC 02Q .0525, the EPA will have a concurrent 45-day review period. Copies of the public notice shall be sent to persons on the Title V mailing list and EPA. Pursuant to 15A NCAC 02Q .0522, a copy of each permit application, each proposed permit and each final permit shall be provided to EPA. Also pursuant to 02Q .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 02Q .0521 above. No affected states or local agencies are within 50 miles of this facility.

11. Other Regulatory Considerations

- A P.E. seal is NOT required for this renewal application.
- A zoning consistency determination is NOT required for this renewal application.
- A permit fee is NOT required for this renewal application.
- EPA has promulgated a rule (88 FR 47029, July 21, 2023), with an effective date of August 21, 2023, removing the emergency affirmative defense provisions in operating permits programs, codified in both 40 CFR 70.6(g) and 71.6(g). EPA has concluded that these provisions are inconsistent with the EPA's current interpretation of the enforcement structure of the CAA, in light of prior court decisions¹. Moreover, per EPA, the removal of these provisions is also consistent with other recent EPA actions involving affirmative defenses² and will harmonize the EPA's treatment of affirmative defenses across different CAA programs.

As a consequence of this EPA action to remove these provisions from 40 CFR 70.6(g), it will be necessary for states and local agencies that have adopted similar affirmative defense provisions in their Part 70 operating permit programs to revise their Part 70 programs (regulations) to remove these provisions. In addition, individual operating permits that contain Title V affirmative defenses based on 40 CFR 70.6(g) or similar state regulations will need to be revised.

Regarding NCDAQ, it has not adopted these discretionary affirmative defense provisions in its Title V regulations (15A NCAC 02Q .0500). Instead, DAQ has chosen to include them directly in individual Title V permits as General Condition (GC) J.

Per EPA, DAQ is required to promptly remove such impermissible provisions, as stated above, from individual Title V permits, after August 21, 2023, through normal course of permit issuance.

¹ NRDC v. EPA, 749 F.3d 1055 (D.C. Cir. 2014).

² In newly issued and revised New Source Performance Standards (NSPS), emission guidelines for existing sources, and NESHAP regulations, the EPA has either omitted new affirmative defense provisions or removed existing affirmative defense provisions. See, e.g., National Emission Standards for Hazardous Air Pollutants for the Portland Cement Manufacturing Industry and Standards of Performance for Portland Cement Plants; Final Rule, 80 FR 44771 (July 27, 2015); National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters; Final Rule, 80 FR 72789 (November 20, 2015); Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Commercial and Industrial Solid Waste Incineration Units; Final Rule, 81 FR 40956 (June 23, 2016).

12. Recommendations

The permit renewal application for Century Furniture - Plant No. 3 located in Hickory, Catawba County, North Carolina has been reviewed by DAQ to determine compliance with all procedures and requirements. DAQ has determined this facility is complying or will achieve compliance, as specified in the permit, with all requirements that are applicable to the affected sources. DAQ recommends the issuance of Air Permit No. 03749T20.