

Air Permit Review - DRAFT

Permit Issue Date:

Region: Mooresville Regional Office
County: Catawba
NC Facility ID: 1800106
Inspector's Name: Tamera Eplin
Date of Last Inspection: 08/27/2003
Compliance Code: 3/In Compliance – Inspection
CDS Plant ID* (10-digit) 37-035-00106

| | | | |
|--|---|--|---|
| Facility Data | | | Permit Applicability (this application only) |
| Applicant (Facility's Name): HWS Company Inc. dba Hickory White Facility Address: HWS Company Inc. dba Hickory White 856 7th Avenue SE Hickory, NC 28602 SIC: 2511 / Wood Household Furniture NAICS: 337122 / Nonupholstered Wood Household Furniture Manufacturing Facility Classification: Before: Title V After: Title V Fee Classification: Before: Title V After: Title V | | | SIP: N/A NSPS: N/A NESHAP: N/A PSD: N/A PSD Avoidance: N/A NC Toxics: N/A 112(r): N/A Other: N/A |
| Contact Data | | | Application Data |
| Facility Contact | Authorized Contact | Technical Contact | Application Number: 1800106.04A Date Received: 01/28/2004 Application Type: Renewal Application Schedule: TV-Renewal Existing Permit Data Existing Permit Number: 02796/T16 Existing Permit Issue Date: 06/12/2001 Existing Permit Expiration Date: 10/31/2004 |
| William Smith VP of Operations (828) 322-2640 P O Box 189 Hickory NC, 28603 | William Smith Corporate Director of Operations (828) 322-2640 P O Box 2690 Hickory NC, 28603 | William Smith Corporate Director of Operations (828) 322-2640 P O Box 2690 Hickory NC, 28603 | |
| Review Engineer: Judy Lee-Greco Review Engineer's Signature: _____ Date: _____ | | Comments / Recommendations: Issue 02796/T17 Permit Issue Date: Permit Expiration Date: | |

1. Purpose of Application

This revision is a renewal of an existing Title V permit pursuant to 2Q .0513. The existing Title V permit (02796T16) was issued on June 12, 2001 as a modification to the initial Title V (02796T15) issued on November 22, 1999. Permit number 02796T16 is currently scheduled to expire on October 31, 2004. The renewal application was received on January 28, 2004 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.

2. Facility Description

HWS Company, Inc. dba Hickory White manufactures, assembles, and finishes wooden case goods furniture and has been in business for 102 years. A small portion of the facility is devoted to upholstering table chairs. The facility is currently operating 4 days per week, 3 weeks per month. This facility is subject to 40 CFR, Subpart JJ, the Wood Furniture NESHAP.

3. Application Chronology

The application chronology is detailed on the attached IMPAQ Comprehensive Application Report and attached email correspondence.

4. Permit Modification/Changes

The table below shows changes made to the initial Title V Permit (**Permit # 02796T15**) since issuance on November 2, 1999. One permit modification request was received on April 24, 2001 to re-rate the wood-fired boilers (ID Nos. ES-1 and ES-2). The applicant reports the correct rating of each boiler is 14.78 million Btu per hour. A 502(b)(10) change was made and Permit Number **02796T16** was issued on June 12, 2001.

| Condition # | Changes made to Permit Number 02796T15 |
|----------------|---|
| Section 1 | Change heat input rate for boilers (ID Nos. ES-1 and ES-2) from 28.7 million Btu per hour to 14.78 million Btu per hour |
| Section 2.1 A. | Change particulate matter standard for wood fuel burning from 0.47 pounds per million Btu to 0.55 pounds per million Btu. |
| Section 2.1 A. | Change particulate matter standard for non-wood fuel burning from 0.46 pounds per million Btu to 0.38 pounds per million Btu. |
| Section 2.1 A. | Remove testing requirement for wood-fired boilers. |

The following table represents changes to the current Title V permit (02796T16) for this renewal:

| Old Page Number | New Page Number | Condition Number | Change |
|-----------------|-----------------|---------------------------------|--|
| All | All | Entire Permit | Converted to MS Word |
| | | Entire Permit, where applicable | Changed reference to "Air Quality Title V Operation Permit" to "Air Quality Federal Title V and State Operation Permit" and "Air Quality Construction and Operation Permit" to "Air Quality State Operation Permit" |
| Cover Letter | Cover Letter | Permit Information | Modified to reflect current permit number, issue and effective date, and associated application information Changed "Corporate Director of Operations" to "Vice President of Operations" and changed address from PO Box 998 to PO Box 189 Updated language with shell and added reference to Table of Changes |
| | Attachment | Table of Changes | Added Table with changes to Title V as Attachment I |
| 1 | 1 | Permit Information | Modified to reflect current permit number, issue and effective date, and associated application information and changed address from PO Box 998 to PO Box 189 |
| 3-4 | 3-4 | Equipment List | Under ES-5, replaced "finising" with "finishing" and Added "DO-1, One steam heated drying oven divided into multiple sections" |
| 4 | 4 | 2.1-A. - Table | Changed " <i>POS: boiler (ID No. ES-2) firing wood in combination with No. 2 fuel oil</i> " to " <i>POS: boiler (ID No. ES-2) firing wood fuel only or wood fuel in combination with No. 2 fuel oil</i> " |
| 5 | 5-6 | 2.1-A.2. | Updated section with shell language |
| 5-6 | 6-7 | 2.1-A.3. | Updated section with shell language |
| 6-7 | 7 | 2.1-A.4. | Updated section with shell language |
| 7 | 7 | 2.1-A.5. | Updated section with shell language |
| 7 | 7-8 | 2.1-A.6. | Updated section with shell language |
| 8 | 8 | 2.1-B.1. | Updated section with shell language |
| 8 | 8-9 | 2.1-B.2. | Updated section with shell language |
| 8 | 9 | 2.1-B.3. | Updated section with shell language |
| 9 | 9 | 2.1-C. | Added "DO-1, One steam heated drying oven divided into multiple |

| Old Page Number | New Page Number | Condition Number | Change |
|-----------------|-----------------|-------------------------------|--|
| | | | sections” |
| 9 | 9-10 | 2.1-C.1. | Updated section with shell language |
| 9-10 | 10 | 2.1-C.2.c. – e. | Changed Monitoring/Recordkeeping and Reporting Requirements per facility and regional requests due to compliance history to “c. To assure compliance, the Permittee shall follow the monitoring, recordkeeping, and reporting requirements per Specific Conditions 2.1.C.1.b. – e. The Permittee shall be deemed in noncompliance with 2D .0521 if the monitoring and recordkeeping is not maintained.” |
| 10 | 11 | 2.1-D. | Updated section with shell language |
| 10-11 | 11-12 | 2.1-E.1. | Updated section with shell language |
| 11-12 | 12 | 2.1-E.2. | Updated section with shell language |
| 12 | 13 | 2.2-A. | Updated section with shell language |
| 12-20 | 13-21 | 2.2-B. | Updated section with shell language and added “DO-1, One steam heated drying oven divided into multiple sections” |
| 20-28 | 22-30 | Section 3 List of Acronyms | Updated with most recent General Conditions and List of Acronyms |

5. Regulatory Review

The facility is subject to the following regulations:

2D .0503 “Particulates from Fuel Burning Indirect Heat Exchangers”
2D .0504 “Particulates from Wood Burning Indirect Heat Exchangers”
2D .0512 “Particulates from Wood Products Finishing Plants”
2D .0516 “Sulfur Dioxide Emissions from Combustion Sources”
2D .0521 “Control Of Visible Emissions”
2D .0535 “Excess Emissions Reporting and Malfunctions”
2D .1111 “Maximum Achievable Control Technology”
2D .1806 “Control and Prohibition of Odorous Emissions”

No regulatory review is required at this time since there are no new applicable regulations for this permit revision (renewal).

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

NSPS

New Source Performance Standards (NSPS) do not apply to this facility.

NESHAP/MACT

This facility is subject to the Wood Furniture Surface Coating MACT. The wood furniture finishing operations shall comply with all requirements of 15A NCAC 2D .1111 “Maximum Achievable Control Technology” and 40 CFR Part 63 Subpart JJ “National Emission Standards for Wood Furniture Manufacturing Operations.”

The facility may be subject to the proposed “National Emission Standards for Hazardous Air Pollutants for Industrial/Commercial/Institutional Boilers and Process Heaters,” 40 CFR, Subpart DDDDD, proposed January 13, 2003. The final rule was signed on February 27, 2004; however, it has not been published in the Federal Register. Therefore, no compliance dates are available at this time. Once the final rule is published, the facility should be looked at for applicability during the next significant modification or renewal.

PSD

This facility is not a major Prevention of Significant Deterioration (PSD) source.

Attainment Status

This facility is located in Catawba County, which is in nonattainment according to US EPA's Boundary Designations for 8-hour Ozone Standard dated June 15, 2004. This county is participating in an Early Action Compact (EAC).

112(r)

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

CAM

A Compliance Assurance Monitoring (CAM) (40 CFR Part 64) determination is required for this renewal because: (1) the facility is a Title V facility with potential emissions that exceed the Title V major source levels without considering controls; (2) there are sources subject to an emission limitation or standard that require controls in order to comply with the emission limitation. However, the following exemptions apply:

- Wood Products Finishing Operations (ID Nos. ES-5) are exempt because they are subject to 40 CFR Part 63 Subpart JJ, which is a Section 112 standard promulgated after 11/15/90.
- Boiler (ID No. ES-1) is exempt because potential PM₁₀ emissions to the flyash collector are less than 100 tons per year pre-controlled.
- Boiler (ID No. ES-2) is exempt because potential PM₁₀ emissions to the flyash collector are less than 100 tons per year.
- Boiler (ID No. ES-3) is exempt because potential uncontrolled PM₁₀ emissions are less than 100 tons per year.
- Boiler (ID No. ES-4) is exempt because potential uncontrolled PM₁₀ emissions are less than 100 tons per year.
- Lumber Drying Operation (ID No. ES-8) are exempt because they have no applicable regulations and potential uncontrolled emissions are less than 100 tons per year.
- Woodworking Operations (ID No. ES-9) is exempt because potential uncontrolled PM₁₀ emissions prior to each control device (ID Nos. BF-6, CD-4, BF-7, CD-3, CD-2, BF-1, BF-3, BF-5, and BF-4) are less than 100 tons per year.

Therefore, the facility is exempt from the requirements of CAM.

The Permittee has provided a CAM analysis for their Woodworking Operations (ID No. ES-9) based on DAQ guidance (see attached email from HWS on July 23, 2004).

The following Table represents the results:

| Process and Description | Control Scheme | Potential Uncontrolled PM₁₀ Emissions Tons per Year |
|--|---|---|
| WD-1 (Outside Hog) Rough Sawing – 100% | Ducted directly to CD-10 (cyclone) controlled by BF-1 (bagfilter) | 4.14 |
| WD-2 (Inside Hog) Rough Sawing – 100% | Ducted directly to CD-3 (cyclone) | 3.16 |
| WD-3 (Plant 2) Rough Sawing – 100% | Ducted directly to BF-4 (bagfilter) | 11.59 |
| WD-4 (Machine Room) | Ducted directly to BF-6 (bagfilter) | 1.96 |

| Process and Description | Control Scheme | Potential Uncontrolled PM₁₀ Emissions Tons per Year |
|---|---|---|
| Rough Sawing – 20% Fine Sawing – 30% Molding – 40% Sanding – 10% | | |
| WD-5 (Old Machine Room - Lathes) Rough Sawing – 20% Fine Sawing – 30% Molding – 40% Sanding – 10% | Ducted directly to CD-4 (cyclone) | 1.63 |
| WD-6 (Router Room) Rough Sawing – 20% Fine Sawing – 30% Molding – 40% Sanding – 10% | Ducted directly to BF-3 (bagfilter) | 1.63 |
| WD-7 (Sample Room) Fine Sawing – 100% | Ducted directly to CD-2 (cyclone) | 0.19 |
| WD-8 (Sanding Room) Sanding – 100% | Ducted directly to BF-5 (bagfilter) | 21.23 |
| WD-9 (Old Machine Room) Fine Sawing – 100% | Ducted directly to BF-6 (bagfilter) | 0.19 |
| WD-10 (Dust Transfer) Rough Sawing – 100% | Ducted directly to CD-11 (cyclone) controlled by BF-1 (bagfilter) | 8.64 |
| WD-11 (Dust Transfer) Rough Sawing – 100% | Ducted directly to CD-7 (cyclone) controlled by BF-1 (bagfilter) | 5.39 |
| WD-12 (BF-7 Filter System) Rough Sawing – 20% Fine Sawing – 30% Molding – 40% Sanding – 10% | Ducted directly to BF-7 (bagfilter) | 0.64 |
| Total | | 60.38 |

Example Calculation using WD-1:

$178,774 \text{ BD-FT/YR} * 3.5 \text{ lbs/BD-FT} * 1 \text{ ton}/2000 \text{ lbs} = 312.85 \text{ tons per year processed}$

$312.85 \text{ tpy} * 20\% \text{ Waste} * 1.89\% \text{ PM}_{10} * (8760 \text{ Potential hrs per yr}/2500 \text{ Actual hrs per yr}) = 4.139 \text{ tpy PM}_{10}$

7. Facility Wide Air Toxics

The facility must comply with the emission limitations and other requirements of 2D .1111 and 40 CFR Part 63, Subpart JJ. Therefore, toxics requirements under 2Q .0711 do not apply.

8. Facility Compliance Status

The facility was last inspected on August 27, 2003 by Ms. Tamera Eplin, MRO. The facility was found to be in compliance with the applicable air quality regulations.

9. 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. The applicant has certified that the facility will be in compliance with all applicable requirements at the time of permit issuance and will continue to comply with these requirements. The applicant has also certified that the facility will be in compliance with any applicable requirements taking effect during the term of the permit and will meet such requirements on a timely basis.

10. Facility Emissions Review

There is no change in emissions for this renewal.

Facility Actual Emissions as reported for the 2002 Emission Inventory

| Pollutant | Emissions (tons per year) |
|---|----------------------------------|
| Carbon Monoxide (CO) | 10.24 |
| Oxides of Nitrogen (NOx) | 9.17 |
| PM/TSP – Particulate Matter | 26.68 |
| PM10 | 10.72 |
| PM2.5 | 1.42 |
| Sulfur Dioxide (SO2) | 0.72 |
| Volatile Organic Compounds (VOC) | 89.92 |
| Hazardous Air Pollutants (HAPs): >10 tpy or combinations >25 tpy | <3 |

11. Stipulation Review

All stipulations are standard for this type of facility.

Comments from the Regional Recommendations and Comments received on February 9, 2004 were to add one large steam heated drying oven to the finishing operations that was noted during a recent inspection.

RCO Response: This drying oven was added to the permit.

After reviewing the draft permit, Ms. Angela Hall, MRO, requested removing the Visible Emissions monitoring, recordkeeping and reporting requirement for spray booths listed under the wood furniture finishing operations, Specific Condition 2.1.C.2.c. – e.

RCO Response: The MRR requirements will be removed; however, to assure compliance the facility must follow MRR as required under 2D .0512. The following language was placed in the revised permit:

Monitoring/Recordkeeping/Reporting [15A NCAC 2Q .0508(f)]

c. To assure compliance, the Permittee shall follow the monitoring, recordkeeping, and reporting requirements per Specific Conditions 2.1.C.1.b. – e. The Permittee shall be deemed in noncompliance with 2D .0521 if the monitoring and recordkeeping is not maintained.

12. 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.

13. Conclusions, Comments, and Recommendations

A permit processing fee was not required for this renewal.

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

A consistency determination was not required for this renewal.

MRO recommends issuance of the permit per Ms. Angela Hall's Recommendations and Comments received on February 9, 2004.

A draft permit and review were sent to the MRO for review on August 13, 2004 and comments received on August 16, 2004.

A draft permit was sent to the facility on August 13, 2004 and comments received on August 25, 2004.

RCO concurs with MRO's recommendation to issue Air Permit Number 02796T17.