

**COMMONWEALTH OF VIRGINIA  
Department of Environmental Quality  
Blue Ridge Regional Office**

**STATEMENT OF LEGAL AND FACTUAL BASIS**

Greif Packaging LLC.  
861 Fibre Plant Road, Riverville, Virginia  
Permit No. BRRO-30549

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Greif Packaging LLC. has applied for a significant modification of their Title V Operating Permit for its Riverville, Virginia facility. The Department has reviewed the application and has prepared a draft Title V Operating Permit.

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Date: 9/22/2017

Air Permit Manager: Paul R. Jenkins  
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Date: 9/22/17

Regional Director: Robert J. Weld  
Robert J. Weld

Date: 9/22/17

## **FACILITY INFORMATION**

### Permittee

Greif Packaging, LLC  
P.O. Box 339  
Amherst, VA 24521

### Facility

Greif Packaging, LLC  
861 Fibre Plant Road  
Riverville, VA

County-Plant Identification Number: 51-009-00022

## **SOURCE DESCRIPTION**

NAICS Code: 322130 - manufacturer of semi-chemical corrugated medium and recycled liner board

Greif Packaging LLC has one semi-chemical paper machine and one recycled paperboard machine, and associated process equipment. Two natural gas/residual oil boilers, one combination fuel boiler, one chemical recovery boiler, and one natural gas/distillate oil spare boiler provide the steam requirements to the facility.

The facility is a Title V major source of Particulate Matter (PM-10), Nitrogen Oxides (NO<sub>x</sub>), Sulfur Dioxide (SO<sub>2</sub>), Carbon Monoxide (CO), and Volatile Organic Compounds (VOCs). This source is located in an attainment area for all pollutants, and is a PSD major source. The facility was previously permitted under the following permits:

- a combined Minor NSR Permit dated 7/19/17 which superseded a combined Minor NSR permit dated 9/17/13 which superseded a Minor NSR permit issued on 4/30/98, which was amended 11/23/04 for a mixed-fuel boiler
- a Minor NSR Permit dated 10/23/14 for the #1 Paper Machine
- a Minor NSR Permit dated 5/30/03 for an evaporator system
- a Minor NSR Permit dated 10/13/00 for a standby boiler
- a Minor NSR Permit dated 5/12/92, as amended 10/5/1994 and 2/22/95 for paper machine No. 2
- a Minor NSR Permit dated 4/3/1973 for the greenfield facility

**SIGNIFICANT MODIFICATION INFORMATION**

The former combined Minor NSR permit dated 9/13/13 for the mixed-fuel boiler (BLR 05) was superseded with a combined Minor NSR permit dated 7/19/17 for a project to add primary paper sludge as an alternate supplementary fuel to be burned in BLR05. The purpose of this current significant modification of Greif's Title V permit is to incorporate the 2017 Minor NSR permit changes into the set of applicable requirements for the facility. Except as described below, the current set of applicable requirements for the Greif facility remain as set forth in the current Title V permit (i.e., Effective date 11/19/06<sup>1</sup>). A permit fee of \$3,681.00 was received on October 14, 2016.

**COMPLIANCE STATUS**

A full compliance evaluation of this facility, including a site visit, has been conducted. In addition, all reports and other data required by permit conditions or regulations, which are submitted to DEQ, are evaluated for compliance. Based on these compliance evaluations, the facility has not been found to be in violation of any state or federal applicable requirements at this time.

**EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION**

The emissions units at this facility are listed in the Title V permit in the significant units table and in Condition 135, which is the insignificant emission units table in the proposed modified permit.

**EMISSIONS INVENTORY**

Emissions are summarized in the following tables.

2015 Actual Emissions

Pollutant	2015 Criteria Pollutant Emission in Tons/Year				
	VOC	CO	SO <sub>2</sub>	PM <sub>10</sub>	NO <sub>x</sub>
Total	160.0	490.0	5.2	32.7	428.0

2015 Facility Hazardous Air Pollutant Emissions

Pollutant	2015 Hazardous Air Pollutant Emission in Tons/Yr
Acetaldehyde	18.7
Acrolein	0.02
Benzene	0.75
Formaldehyde	0.26

<sup>1</sup> Greif Packaging, LLC submitted a timely and complete application for a Title V Permit renewal therefore the source is operating under a permit shield according to 9 VAC 5-80-80 F.5 and 9 VAC 5-80-140.

HCl	0.14
Methanol	129.0
Methyl Ethyl Ketone	4.1
Methylene chloride	0.2
MIBK	0.01
Naphthalene	0.0
n-hexane	0.85
Styrene	0.12
Xylene o	0.5
Xylene m, p	0.06
Toluene	0.16

**FACILITY INFORMATION AND EMISSION UNIT APPLICABLE REQUIREMENTS -**

The following section discusses the new and modified requirements for the modified emissions unit at the facility that is subject to Title V permitting, (i.e. Foster Wheeler Combination Boiler BLR05) and other proposed changes to the Title V permit (i.e. General Permit Changes). These requirements come from the Minor NSR permit dated 7/19/17 for the boiler BLR05 fuel project (addition of primary paper sludge – see the engineering analysis dated 7/19/17 for information concerning the new requirements). The new and modified conditions are not repeated verbatim from the draft Title V permit. However, a summary of the conditions is provided below. The regulatory authority for each condition is listed in parentheses () below each condition in the permit. The other proposed changes are the result of the draft NSR permit, new Title V permit boilerplate, etc. as identified below.

**General Permit Changes:**

- The facility name changed from Greif Riverville, LLC to Greif Packaging, LLC.
- Responsible Official and Contact Permit information updated.
- The previous Title V permit contained roman numeral sections. The formatting has been updated with permit condition numbers to reflect the format of the current Title V permit boilerplate. As such, all permit cross references were updated.
- The Applicable Permit Document identified as “9/17/13” in the Emission Unit Table and included in the regulatory citation has been revised to 7/19/17. This includes requirements for the Foster Wheeler Combination Boiler (Ref. No. BLR05), as discussed below, and requirements for the North Boiler which are also addressed in the 9/17/13 permit document. The changes to the requirements for BLR05 resulted in the renumbering of the permit conditions in the 9/17/13 permit amended on 7/19/17. The condition numbers were revised in the modified Title V permit to correspond to the 7/19/17 permit.
- The Applicable Permit Document identified as “10/23/14” in the Emission Unit Table and included in the regulatory citation has been revised from 4/3/73. This includes requirements for the #1 Paper Machine (Ref. No. PM02), as discussed below, which are

also addressed in the 10/23/14 permit document. The condition numbers were revised in the modified Title V permit to correspond to the 10/23/14 permit.

**Foster Wheeler Combination Boiler (Ref. No. BLR05)**

The following changes to applicable requirements for boiler BLR05 are carried forward from the 2017 Minor NSR permit into the modified draft Title V permit as identified by the draft Title V section and condition:

Emission Units: The description for BLR05 revised to include “primary paper sludge”.

Limitations for BLR05:

Condition 27 (modified):

Primary paper sludge added to the condition as an approved fuel.

Condition 27.c(new): approved fuels definitions

Formerly there were three permitted allowable fuels for BLR05 (natural gas, wood residuals and paper recycling residuals (PRR)). A fourth material is being added with this permit modification. Primary paper sludge which meets the requirements of 40 CFR 241.4, has been added as an approved fuel for BLR05 in conditions 27.c.

Condition 28 (modified): throughput limits for approved fuels

The fuel throughputs of the previously permitted fuels (natural gas, wood residuals and PRR) remain unchanged with this permit modification. The ability to fire primary paper sludge is the focus of the current boiler BLR05 project, and therefore, consistent with the NSR permit, the addition of this material has been added to the permit at the requested throughput of 120 tons per day and 43,800 tons per year.

Condition 33 (modified): NSR permit invalidation

The provisions from the 2017 NSR permit related to NSR permit invalidation if construction is not completed in a timely manner are included in the draft Title V permit. This condition previously addressed the 9/17/13 permit.

Monitoring for BLR05: No changes beyond those discussed in the “General” section above.

Recordkeeping for BLR05:

Condition 38.c (new): Recordkeeping

The EPA has completed its determination under 40 CFR Part 241 regulations for a number of alternative fuels that include primary paper sludge, which are now considered non-waste fuels. The EPA issued a categorical non-waste exemption for dewatered pulp and paper sludge as described in 40 CFR 241.4(a)(4). The NSR permit was amended to include primary paper sludge as an approved fuel for combustion in BLR05. The primary sludge must meet the requirements of 241.4(a)(4). Per 40CFR60.2750(u)<sup>2</sup> any unit that

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<sup>2</sup> From NSPS CCCC (CISWI)

combusts NHSM that has been determined not to be a solid waste must keep records of the appropriate criteria needed to make that determination. This recordkeeping requirement is included in the draft Title V permit.

Reporting for BLR05:

Condition 47.a and b (modified): Reporting

The provisions from the 2017 NSR permit related to notifications of modification and milestones are included in the draft Title V permit. This condition in the 11/19/06 Title V permit addresses notifications and testing requirements of the 9/17/13 NSR permit. The testing requirements of the 9/17/13 NSR permit (included in Condition 47.c) have been completed, but are retained in the 2017 NSR permit for historical purpose. Therefore, Condition 47.c remains in the draft Title V permit. Condition 47.c will be addressed in the Title V renewal process.

**#1 Paper Machine (Ref. No. PM02)**

The following changes to applicable requirements for the #1 Paper Machine are carried forward from the 2014 Minor NSR permit into the modified draft Title V permit as identified by the draft Title V section and condition:

Limitations for PM02:

Condition 83 (new): VOC emission controls

VOC emissions from the #1 Paper Machine shall be controlled by proper operation and maintenance. Operators shall be trained in proper operation and the facility shall develop, maintain and have available to all operators good written operating procedures and a maintenance schedule. The procedures shall be based on the manufacturer's recommendations, at a minimum. The facility shall develop a maintenance schedule for the equipment associated with the #1 Paper Machine.

Condition 84 (new): paper production throughput

A production limit on paper throughput was added to the minor NSR permit and has also therefore been added to the Title V permit. The production limit shall not exceed 414,275 air-dried tons of finished paper (ADTFP) per year.

Condition 86 (new): VOC emission limit

The VOC emission limit that was added to the 2014 Minor NSR has been carried forward to the Title V permit. The limit includes a VOC limitation of 78.6 tpy.

Monitoring for PM02: No changes beyond those discussed in the "General" section above.

Recordkeeping for PM02:

Condition 88.c (new): Recordkeeping

The 2014 NSR included a recordkeeping requirement for annual production of paper from the #1 Paper Machine, calculated monthly. This recordkeeping requirement has been included in the draft Title V permit.

Condition 88.d (new): Recordkeeping

The 2014 NSR included a recordkeeping requirement for monthly VOC emission calculations from the #1 Paper Machine, calculated monthly. This recordkeeping requirement has been included in the draft Title V permit.

Condition 88.e (new): Recordkeeping

The 2014 NSR included a recordkeeping requirement for scheduled and unscheduled maintenance as well as operator training records for the #1 Paper Machine. This recordkeeping requirement has been included in the draft Title V permit.

Facility wide conditions:

Condition 137 (new): Condition for granting permit:

The provision from the draft NSR permit related to major NSR regulations are included in the draft Title V permit. The regulations establish that a source has the responsibility for determining applicability of major NSR permitting. Accordingly, the source may be asked at any point to provide a demonstration, consistent with 9 VAC 5-80-1605 G, that the actual emissions increase associated with this project did not exceed significance levels. At a minimum, this demonstration should include the following: "baseline actual emissions", "projected actual emissions", and the amount and reason for excluding emissions from the "projected actual emissions." The sources determination does not limit the information the Department may rely on in making a decision regarding the need for a permit pursuant to the major NSR regulations. Condition 134 reflects these requirements sufficiently to ensure the permit does not allow a violation of the regulations.

**Streamlined Requirements**

No changes beyond those discussed in the "General" section above.

**GENERAL CONDITIONS**

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110 that apply to all Federal-operating permitted sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions.

**Comments on General Conditions**

**Conditions 140 through 145 - Permit Expiration** (No changes due to the current significant modification.)

This condition refers to the Board taking action on a permit application. The Board is the State Air Pollution Control Board. The authority to take action on permit application(s) has been delegated to the Regions as allowed by §2.2-604 and §10.1-1185 of the *Code of Virginia*, and the "Department of Environmental Quality Agency Policy Statement No. 2-09".

**Conditions 151 through 154 - Failure/Malfunction Reporting** (No changes due to the current significant modification.)

Section 9 VAC 5-20-180 requires malfunction and excess emission reporting within four hours

of discovery. Section 9 VAC 5-80-250 of the Title V regulations also requires malfunction reporting; however, reporting is required within two days. Section 9 VAC 5-20-180 is from the general regulations. All affected facilities are subject to section 9 VAC 5-20-180 including Title V facilities. Section 9 VAC 5-80-250 is from the Title V regulations. Title V facilities are subject to both sections. A facility may make a single report that meets the requirements of 9 VAC 5-20-180 and 9 VAC 5-80-250. The report must be made within four daytime business hours of discovery of the malfunction.

**Condition 175 - Asbestos Requirements** (No changes due to the current significant modification.)

The Virginia Department of Labor and Industry under Section 40.1-51.20 of the Code of Virginia also holds authority to enforce 40 CFR 61 Subpart M, National Emission Standards for Asbestos.

#### **STATE ONLY APPLICABLE REQUIREMENTS**

None (No changes due to the current significant modification.)

**FUTURE APPLICABLE REQUIREMENTS** (No changes due to the current significant modification and future applicable requirements not addressed by this permit action. Future applicable requirements will be identified in the Title V permit renewal process). The 11/19/06 Title V permit contains conditions addressing future requirements for the Boiler MACT. The boiler MACT compliance date was 1/31/2016. The applicable requirements will be identified in the Title V renewal process and included in the new Title V permit.

#### **INAPPLICABLE REQUIREMENTS**

None identified. (No changes due to the current significant modification.)

#### **COMPLIANCE PLAN**

None (No changes due to the current significant modification.)

**INSIGNIFICANT EMISSION UNITS** (No changes due to the current significant modification.)

The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110. Insignificant emission units are included in Condition 135 of the Title V permit

**CONFIDENTIAL INFORMATION** (No changes due to the current significant modification.)

No confidential information request has been made. All portions of the Title V permit and application are available for public review.

#### **PUBLIC PARTICIPATION**

The draft/proposed permit was placed on public notice in the (Lynchburg) News and Advance from 08/03/17 to 09/01/17. The 45 day EPA review period ended 9/17/17.