

## Air Permit Review

Permit Issue Date: **date, 2011**

**Region:** Mooresville Regional Office  
**County:** Cabarrus  
**NC Facility ID:** 1300027  
**Inspector's Name:** Jim Westmoreland  
**Date of Last Inspection:** 10/06/2010  
**Compliance Code:** 3 / Compliance - inspection

<b>Facility Data</b>			<b>Permit Applicability (this application only)</b>
<p><b>Applicant (Facility's Name):</b> Berenfield Containers SE Ltd</p> <p><b>Facility Address:</b> Berenfield Containers SE Ltd 12180 University City Boulevard Harrisburg, NC 28075</p> <p><b>SIC:</b> 3412 / Metal Barrels, Drums &amp; Pails <b>NAICS:</b> 332439 / Other Metal Container Manufacturing</p> <p><b>Facility Classification: Before:</b> Title V    <b>After:</b> Title V <b>Fee Classification: Before:</b> Title V    <b>After:</b> Title V</p>			<p><b>SIP:</b> <b>NSPS:</b> <b>NESHAP:</b> <b>PSD:</b> <b>PSD Avoidance:</b> <b>NC Toxics:</b> <b>112(r):</b> <b>Other:</b></p>
<b>Contact Data</b>			<b>Application Data</b>
<b>Facility Contact</b>	<b>Authorized Contact</b>	<b>Technical Contact</b>	<p><b>Application Number:</b> 1300027.11A <b>Date Received:</b> 07/12/2011 <b>Application Type:</b> Renewal <b>Application Schedule:</b> TV-Renewal <b>Existing Permit Data</b> <b>Existing Permit Number:</b> 05577/T14 <b>Existing Permit Issue Date:</b> 04/15/2009 <b>Existing Permit Expiration Date:</b> 05/31/2012</p>
<p>Artie Jones Process Engineer (704) 455-2111 12180 University City Blvd Harrisburg, NC 28075</p>	<p>Ken Fowler Plant Manager (704) 455-2111 12180 University City Blvd Harrisburg, NC 28075</p>	<p>David Henderson Plant Engineer (704) 455-2111 12180 University City Blvd Harrisburg, NC 28075</p>	
<p><b>Review Engineer:</b> Mark Cuilla</p> <p><b>Review Engineer's Signature:</b> <b>Date:</b> <b>date, 2011</b></p>		<p style="text-align: center;"><b>Comments / Recommendations:</b></p> <p><b>Issue</b> 05577/T15 <b>Permit Issue Date:</b> <b>date, 2011</b> <b>Permit Expiration Date:</b> <b>date, 2016</b></p>	

### 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 (**05577T14**) was issued on **April 15, 2009**, and is currently scheduled to expire on **May 31, 2012**. The renewal application was received on **July 12, 2011**, 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.

As part of this permit renewal, the Permittee is requesting the following modifications to the permit (*DAQ response in italics*):

1. that source (**ID No. F-01**) be removed as it is no longer operational. *Agree; source has been removed;*
2. that source (**ID No. ES-INK**) be removed as it is no longer operational. *Agree; source has been removed;*

3. the facility has several natural gas-fired space heaters that qualify as insignificant activities which have not been included in the title V permit. Nine 0.03 million and three 0.25 million Btu per hour maximum heat input capacity space heaters should be added to the list of insignificant activities. *Agree; sources have been added as requested;* and
4. insignificant source (**ID No. IPW-1**) is subject to the boiler MACT (40 CFR 63, Subpart DDDDD) because the burner meets the definition of a boiler as an existing affected source at a major source of HAP emissions. Additionally, the emission source description should include the following language which was inadvertently omitted in the current title V permit:  
“parts washer with natural gas-fired burner (5 million Btu per hour maximum heat input capacity).”

*Agree. As the facility is a Title III major facility, this source now needs to be a permitted source because it is subject to the 112j Case-by-Case MACT standards. The source has been added and the following applicable regulations now apply:*

- A. *15A NCAC 2D .0503. This regulation limits emissions of particulate matter from fuel burning indirect heat exchangers. Maximum heat inputs up to and including 10 million Btu per hour have an allowable emission limit of 0.60 pounds per million Btu. No monitoring, recordkeeping, or reporting is required for this source because it fires natural gas. Compliance is expected.*
- B. *15A NCAC 2D .0516. This regulation limits sulfur dioxide emissions from combustion sources to less than 2.3 pounds per million Btu heat input. No monitoring, recordkeeping, or reporting is required for this source because it fires natural gas. Compliance is expected.*
- C. *15A NCAC 2D .0521. This regulation limits visible emissions. Post manufacturing date of July 1, 1971 sources are limited to 20 percent opacity. No monitoring, recordkeeping, or reporting is required for this source because it fires natural gas. Compliance is expected.*
- D. *15A NCAC 2D .1109. This regulation establishes case-by-case MACT standards per the 112j requirements. See Section VI of this Document for a discussion of regulatory requirements. Because the source is natural gas-fired, compliance with the best combustion practices is expected.*
- E. *15A NCAC 2Q .0317 (for 15A NCAC 2D .0530). This regulation establishes a facility-wide volatile organic compound emission limit of 250 tons per year. This unit is a source of VOCs and therefore has been included under the emissions cap. See Section VI of this Document for a discussion of regulatory requirements. Continued compliance is expected.*
- F. *15A NCAC 2D .0958. This regulation establishes facility-wide work practice standards for sources of VOCs. Continued compliance is expected.*
- G. *15A NCAC 2D .1806. This regulation establishes facility-wide state-enforceable only odor requirements. Continued compliance is expected.*
- H. *15A NCAC 2D .1111. This regulation establishes maximum achievable control technology standards for equipment engaged in the surface coating of miscellaneous metal parts and products (40 CFR 63, Subpart MMMM). The source is subject because the Subpart includes requirements for cleaning operations. Continued compliance is expected.*

*It should be noted that the RACT requirements per 15A NCAC 2D .0951 (See Section V of this Document for a discussion) do not apply to this source because DAQ’s RACT review (See Charlie Yirka’s Air Permit Review – **1300027.08A; April 15, 2009** for permit No. **05577T14**) indicated some VOC emitting insignificant (<5 tpy VOC) sources are not subject to RACT and “exempt” per 15A NCAC 2D .0902(b)(1) as emissions are less than 15 pounds per day. The original footnote added to the list of insignificant sources has been moved to the list of permitted sources.*

## II. Facility Description

The facility is a steel drum manufacturer. 55-gallon drums are manufactured and painted (approximately 98,000 drums per month are manufactured). Current permitted equipment includes cleaning, painting, and stenciling/printing stations.

## III. History/Background/Application Chronology

**June 12, 2007** – Permit **05577T13** issued as a Title V renewal.

**April 15, 2009** – Permit **05577T14** issued as a significant modification to add RACT requirements.

**September 10, 2009** – Permit application **1300027.09A** received as a 112j Part II application.

**December 8, 2009** – Permit application **1300027.09A** withdrawn as the facility “has no indirect-fired sources.”

**October 6, 2010** – Jim Westmoreland of the MRO completed annual inspection of the facility.

**July 13, 2011** – Permit application **1300027.11A** received as Title V renewal.

**date, 2011** – DRAFT permit sent to Permittee, Regional Office, and Title V Coordinator for comment prior to public notice and EPA review.

**date, 2011** – DRAFT permit sent to 30-day public notice and 45-day EPA review.

## IV. Permit Modifications/Changes and ESM Discussion

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

Page	Section	Description of Change
Attachment	Insignificant Activities	-removed parts washers ( <b>ID Nos. IPW-1 and IW-1</b> ) to the list of permitted equipment per the renewal application -added twelve space heaters per application -added shell asterisk language
Cover	-	-amended permit revision numbers and all dates
TOC	-	-added reference to Section 2.3
All	Header	-amended permit revision number
3	Equipment Table	-removed sources ( <b>ID Nos. F-01 and ES-INK</b> ) per renewal application -added parts washer ( <b>ID No. PW-1</b> ) per renewal application -added combustion source equipment description clarifications
4	2.1 A 2.1 A (table)	-added combustion source equipment description clarifications -corrected RACT rule reference
5	2.1 A.1.b 2.1 A.1.c	-corrected testing rule cross reference -updated shell particulate standard monitoring/recordkeeping language

Page	Section	Description of Change
6	2.1 A.2.b 2.1 A.3.c 2.1 A.3.d	-corrected testing rule cross reference -corrected testing rule cross reference -updated shell visible emission monitoring language
7	2.1 B (table)	-corrected RACT rule reference
8-10	2.1 C	-added new section for parts washer including standards for particulate (2D .0503), sulfur dioxide (2D .0516), visible emissions (2D .0521), and hazardous air pollutants (2D .1109)
10	2.2 A (table)	-corrected RACT rule reference -clarified applicable regulatory requirements
11	2.2 A.2	-clarified RACT requirements
13	2.2 A.6	-corrected paragraph listings
14	2.2 A.7.a 2.2 A.7.b 2.2 A.7.c	-added ID numbers -added ID numbers -added ID numbers and corrected cross reference
23	2.2 A.7.e	-added ID numbers
27	2.3	-added permit shield for non-applicable requirements (15A NCAC 2D .0967)
28-38	General Conditions	-updated shell general conditions (v3.5)
39	List of Acronyms	-added acronyms for CAIR and NAA

The following table indicates the modifications to TVEE as a result of this permit renewal:

Current Description	Modified Description
One ink-jet drum painter installed on a steel drum painting operation ( <b>ID No. ES-INK</b> ) 9MACT Subpart MMMM, RACT]	<i>End-dated per Permittee request</i>
One drum cleaning area ( <b>ID No. F-01</b> ) [MACT Subpart MMMM, RACT]	<i>End-dated per Permittee request</i>
One lids/parts painting operation....in line with one natural gas-fired drying... ( <b>ID No. ES-01</b> ) [MACT Subpart MMMM, RACT]	One lids/parts painting operation....in line with one <i>direct</i> natural gas-fired drying... ( <b>ID No. ES-01</b> ) [MACT, Subpart MMMM; RACT]
One steel drum spray painting operation....in line with one natural gas-fired drying... ( <b>ID No. ES-02</b> ) [MACT Subpart MMMM, RACT]	One steel drum spray painting operation....in line with one <i>direct</i> natural gas-fired drying... ( <b>ID No. ES-02</b> ) [MACT, Subpart MMMM; RACT]
One steel drum spray painting operation....in line with one natural gas-fired drying... ( <b>ID No. ES-05</b> ) [MACT Subpart MMMM, RACT]	One steel drum spray painting operation....in line with one <i>direct</i> natural gas-fired drying... ( <b>ID No. ES-05</b> ) [MACT, Subpart MMMM; RACT]
Alkaline parts washer with natural gas-fired dryer (8 million Btu per hour maximum heat input capacity; <b>ID No. IW-1</b> )	<i>End-dated. Permittee clarified that parts washer was actually a two-step unit with both a natural gas-fired burner and dryer. Source was combined with PW-1 and moved to list of permitted equipment.</i>
One silk screen/stenciling machine installed on a steel drum painting operation ( <b>ID No. SILK</b> ) [MACT Subpart MMMM, RACT]	One silk screen/stenciling machine installed on a steel drum painting operation ( <b>ID No. SILK</b> ) [MACT, Subpart MMMM; RACT]

Current Description	Modified Description
Parts washer (ID No. IPW-1)	<i>One two stage parts washer with indirect natural gas-fired burner (8 million Btu per hour maximum heat input capacity) and direct natural gas-fired dryer (5 million Btu per hour maximum heat input capacity) (ID No. PW-1) [2D .1109 Case-by-Case MACT]</i>
NA	<i>Nine direct natural gas-fired space heaters (0.03 million Btu per hour maximum heat input capacity, each) (ID Nos. ISH1 through ISH9)</i>
NA	<i>Three direct natural gas-fired space heaters (0.25 million Btu per hour maximum heat input capacity, each) (ID Nos. ISH10 through ISH12)</i>

## V. Regulatory Review

The facility is currently subject to the following regulations:

- 15A NCAC 2D .0515, Particulates from Miscellaneous Industrial Processes
- 15A NCAC 2D .0516, Sulfur Dioxide Emissions from Combustion Sources
- 15A NCAC 2D .0521, Control of Visible Emissions
- 15A NCAC 2D .0958, Work Practice Standards for Sources of Volatile Organic Compounds
- 15A NCAC 2D .1100, Control of Toxic Air Pollutants
- 15A NCAC 2D .1111, Maximum Achievable Control Technology (40 CFR 63, Subpart Mmmm)
- 15A NCAC 2D .1806, Control and Prohibition of Odorous Emissions
- 15A NCAC 2Q .0317, Avoidance Conditions (for 15A NCAC 2D .0530, Prevention of Significant Deterioration)
- 15A NCAC 2Q .0705, Existing Facilities and SIC Calls
- 15A NCAC 2Q .0711, Emission Rates Requiring a Permit

A regulatory review for these existing requirements will not be included in this document.

As indicated above, the permit was modified on **April 15, 2009** to add RACT requirements. At that time, the facility became subject to 15A NCAC 2D .0934, Coating of Miscellaneous Metal Parts. On **September 1, 2010**, this regulation was repealed and replaced with a corresponding rule (15A NCAC 2D .0967). As part of this renewal, the Permittee has requested that all references to 15A NCAC 2D .0934 be removed from the permit because of the repeal. However, RACT still applies to this facility.

To account for this repeal, the renewed permit has been modified as follows:

1. The reference to 15A NCAC 2D .0934 has been replaced with a reference to 15A NCAC 2D .0951, Miscellaneous Volatile Organic Compound Emissions, throughout the permit. Paragraph (c)(1) of this rule requires that the owner or operator of any facility to which this rule applies shall install and operate reasonable available control technology (RACT). The National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products (40 CFR 63, Subpart Mmmm) requirements satisfy the RACT requirement under 2D .0951. 15A NCAC 2D .0951 applies to all facilities that use volatile organic compounds as solvents, carriers, material processing media, or industrial chemical reactants, or in other similar uses, or that mix, blend, or manufacture volatile organic compounds for which there is no other applicable emissions control rule in this Section. As indicated in item 2 below, 15A NCAC 2D .0967 would be the applicable requirement for this facility; however, the Permittee has been

shielded from its applicability. Therefore, applicability to 15A NCAC 2D .0951 is appropriate; and

2. A permit shield for non-applicable requirements has been added as Section 2.3. The shield extends to the applicability of 15A NCAC 2D .0967, Miscellaneous Metal and Plastic Parts Coatings. Specifically, 15A NCAC 2D .0967, Miscellaneous Metal and Plastic Parts Coating, is not applicable to this facility because RACT under 2D .0951 is applicable (as discussed above) and satisfies the RACT requirements. In making this determination, DAQ notes:
  - A. MACT standards are generally recognized as superior to RACT; therefore complying with MACT is sufficient to comply with RACT; and
  - B. in order to expedite RACT review, EPA encourages permitting authorities to generally recognize those MACT rules that regulate HAPs, and indirectly VOCs, as superior to RACT.

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

**NSPS** – The facility is not currently subject to any New Source Performance Standards. This permit renewal does not affect this status.

**NESHAPS/MACT** – The following sources (**ID Nos. ES-01, ES-02, ES-05, F-01, SILK, and ES-INK**) are currently listed as being subject to the National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products. Compliance with this standard was required on **January 2, 2007** for all existing sources. Initial notification of applicability was received by the Division on **May 6, 2002**. The current permit includes the specific permit language applicable to these sources. This permit renewal does not affect this status.

However, it should be noted that per the Permittee's request, sources (**ID Nos. F-01 and ES-INK**) have been removed from the facility (and therefore, MACT applicability). In addition, a parts washer (**ID No. PW-1**) has been moved from the list of insignificant activities to the list of permitted equipment. This source is subject to the cleaning portions of the coating MACT and has been listed as being an applicable source. Therefore, as part of this permit renewal the list of applicable equipment has been modified to read "**(ID Nos. ES-01, ES-02, ES-05, SILK, and PW-1)**."

As indicated above, the Permittee submitted a permit application in order to meet the requirements of Section 112j, MACT Hammer for combustion sources in response to a DAQ request for submittals. The Permittee later withdrew this application because it had identified all its combustion sources as being direct-fired units. Direct-fired units are not subject to the 112j requirements. However, as part of this permit renewal, the Permittee indicated that its parts washer had an indirect-fired natural gas burner. This burner meets the definition of a process unit under the boiler MACT (40 CFR 63, Subpart DDDDD). In lieu of meeting the requirements of the MACT (note that as of the writing of this document, the boiler MACT has not been promulgated), the Permittee has requested that the state 112j requirements for natural gas-fired units less than 10 million Btu per hour be applied to this parts washer. As a result, the following language has been added to the permit as Section 2.1 C.4:

### **4. 15A NCAC 2D .1109: 112j CASE-BY-CASE MACT FOR BOILERS AND PROCESS HEATERS**

- a. *The Permittee shall use best combustion practices when operating the affected source (ID No. PW-1). The initial compliance date for this work practice standard and the associated monitoring/recordkeeping/reporting requirements is **[date three years after permit issuance date]**. These conditions need not be included on the annual compliance certification until after the initial compliance date.*

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

- b. To assure compliance, the Permittee shall perform an annual source inspection and maintenance as recommended by the manufacturer, or as a minimum, the inspection and maintenance requirement shall include the following:
- i. inspect the burner, and clean or replace any components of the burner as necessary;
  - ii. inspect the flame pattern and make any adjustments to the burner necessary to optimize the flame pattern; and
  - iii. inspect the system controlling the air-to-fuel ration, and ensure that it is correctly calibrated and functioning properly.

The Permittee shall conduct at least one tune-up per calendar year to demonstrate compliance with this requirement. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1109 if the affected source is not inspected and maintained as required above.

- c. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
- i. the date of each recorded action;
  - ii. the results of each inspection; and
  - iii. the results of any maintenance performed on the source.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1109 if these records are not maintained.

**Reporting** [15A NCAC 2Q .0508(f)]

- d. No reporting is required for hazardous air pollutants from the firing of natural gas in this source (**ID No. PW-1**).

**PSD** – The facility is currently subject to a permit condition that limits volatile organic compound emissions facility-wide to less than 250 tons per year. The Permittee is required to complete monthly VOC emissions calculations by multiplying total amount of each type of VOC-containing material consumed during the month by the VOC content of the material. Calculations are to be recorded monthly in a logbook. The current permit also requires semi-annual reporting of the monitoring and recordkeeping activities. This permit renewal does not affect this status.

**112(r)** – The facility is not currently subject to the 112(r) “Prevention of Accidental Releases” requirements because it does not store any chemicals in amounts greater than the applicability threshold. This permit renewal does not affect this status.

**CAM** – 40 CFR 64 requires that a continuous compliance 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. No permitted equipment currently employs a control device; therefore, CAM does not apply. This permit renewal does not affect this status.

## **VII. Facility Wide Air Toxics**

The facility is currently subject to the following state-enforceable only requirements:

1. 15A NCAC 2D .1100 for modeled air toxics (TAPs) emission rates,
2. 15A NCAC 2Q .0711 for all other TAPs not emitted in quantities greater than their respective toxic permit emission rates (TPERs), and
3. 15A NCAC 2Q .0705 indicating compliance with the last MACT/air toxics permit requirements.

This permit renewal does not affect this status.

### VIII. Facility Emissions Review

There is no change in emissions for this renewal.

The following table represents the latest years' emission inventories from the facility:

<b>Pollutant(s)</b>	<b>2009 Actual Emissions (tpy)</b>	<b>2010 Actual Emissions (tpy)</b>
CO	0.79	0.95
NO <sub>x</sub>	0.94	1.13
PM <sub>10</sub>	0.14	0.19
SO <sub>2</sub>	0.01	0.01
VOC	75.19	93.98
Total HAP/TAP	10.54	29.98

### IX. Stipulation Review

The facility was last inspected by Jim Westmoreland of the MRO on **October 6, 2010**. Based on his findings, the facility appeared to be in compliance with the applicable air quality regulations.

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

A notice of the DRAFT Title V Permit shall be made pursuant to 15A NCAC 2Q .0521. 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 15A NCAC 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. South Carolina is an affected state and Mecklenburg County is an affected local program within 50 miles of this facility.

### XI. Conclusions, Comments, and Recommendations

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 and was presented with a DRAFT permit prior to notice and issuance.

RCO concurs with MRO's recommendation to issue the renewed air permit.