

**NORTH CAROLINA DIVISION OF
AIR QUALITY**

Air Permit Review

Permit Issue Date: **date, 2008**

Region: Winston-Salem Regional Office
County: Rockingham
NC Facility ID: 7900093
Inspector's Name: Steve Moser
Date of Last Inspection: 11/13/2007
Compliance Code: 3/In Compliance - Inspection

Facility Data			Permit Applicability (this application only)
Applicant (Facility's Name): Ball Metal Beverage Container Corp Facility Address: Ball Metal Beverage Container Corp 1900 Barnes Street Reidsville, NC 27320 SIC: 3411 / Metal Cans NAICS: 332431 / Metal Can Manufacturing Facility Classification: Before: Title V After: Title V Fee Classification: Before: Title V After: Title V			SIP: NSPS: NESHAP: PSD: PSD Avoidance: NC Toxics: 112(r): Other:
Contact Data			Application Data
Facility Contact	Authorized Contact	Technical Contact	Application Number: 7900093.06A Date Received: 06/14/2006 Application Type: Renewal Application Schedule: TV-Renewal Existing Permit Data Existing Permit Number: 03662/T21 Existing Permit Issue Date: 12/16/2005 Existing Permit Expiration Date: 03/31/2007
Jeffery Boehler Environmental Health and Safety Manager (336) 342-7373 P O Box 1170 Reidsville NC, 27323	Todd Farley Plant Manager (336) 342-7210 1900 Barnes Street Reidsville NC, 27323	Robert Hall Environmental Engineer (303) 460-5445 9300 W. 108th Circle Broomfield CO, 80021+3682	
Review Engineer: Mark Cuilla Review Engineer's Signature: Date: date, 2008		Comments / Recommendations: Issue 03662/T22 Permit Issue Date: date, 2008 Permit Expiration Date: date, 2013	

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 (**03662T21**) was issued on **December 16, 2005**, and is currently scheduled to expire on **March 31, 2007**. The renewal application was received on **June 14, 2006**, 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

The facility is a metal beverage can manufacturer.

III. History/Background/Application Chronology

December 16, 2005 – Permit **03662T21** was issued as a 502(b)(10) modification for the addition of two UV rim coaters (**ID Nos. ESRC02 and ESRC03**).

June 14, 2006 – Permit application **7900093.06A** was received for the renewal of the current Title V permit and assigned to Jenny Sheppard for processing.

July 12, 2006 – Received Regional permit application comments and recommendations from Ray Stewart of the WSRO.

June 2, 2008 – Application transferred to Mark Cuilla for continuation of processing.

June 5, 2008 – Mark Cuilla sent email to Robert Hall of Ball Metal requesting that he update the equipment list and reference any necessary changes/additions/modifications, that he provide detailed calculations on all emission sources being controlled in order to determine CAM applicability, and that he verify if all necessary NSPS notifications had been completed. He responded that all sources associated with the aluminum can end production lines 1 and 2 should be removed as part of this renewal. He also supplied CAM applicability calculations for the remaining control devices and verified that all NSPS notifications had been completed as necessary.

June 17, 2008 – DRAFT permit sent to Permittee, Regional Office, Title V Coordinator for comment prior to public notice and EPA review. Permittee returned a “no comment” email **June 18, 2008**. WSRO returned a “no comment” email **July 9, 2008**.

Date, 2008 – DRAFT sent to 30-day public notice and 45-day EPA review prior to issuance.

IV. Permit Modifications/Changes and ESM Discussion

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

Page(s)	Section	Description of Change(s)
Attachment	Insignificant Activities	-amended permit revision number
Cover	-	-amended permit revision numbers and all dates
All	Header	-amended permit revision number
3-4	Equipment Table	-added NSPS Subpart reference where needed -updated equipment descriptions where needed -removed reference to aluminum can end production lines 1 and 2 permit Permittee
5	2.1 A	-clarified applicable equipment listing
5-6	2.1 A (table)	-added source ID numbers where needed
6	2.1 A.1.a 2.1 A.1.b 2.1 A.1.c 2.1 A.1.d	-updated shell language -corrected regulatory reference -updated shell language -updated shell language -added “no reporting” language

Page(s)	Section	Description of Change(s)
7	2.1 A.2.a 2.1 A.2.b 2.1 A.3.a 2.1 A.3.b 2.1 A.3.c	-added ID numbers -corrected regulatory reference -updated shell language -added ID numbers -corrected regulatory reference -updated shell language -updated shell language and added ID numbers
8	2.1 A.4.a 2.1 A.4.c	-updated shell language -corrected regulatory reference -updated shell language
9	2.1 A.4.i	-added NSPS reporting requirement clarification
-	2.1 B (old)	-removed original section corresponding to removal of aluminum can end production lines 1 and 2 (renumbered remaining sections)
10	2.1 B (new) 2.1 B (table) 2.1 B.1.a 2.1 B.1.b 2.1 B.1.c	-clarified equipment description -clarified emission limit for particulate -added ID numbers and updated shell language -corrected regulatory reference -updated shell language -added ID numbers
11	2.1 B.1.e 2.1 B.2.a 2.1 B.2.b 2.1 B.2.c	-added ID numbers -added ID numbers -corrected regulatory reference -updated shell language -added ID numbers and updated shell language
12	2.1 C	-clarified applicable equipment
14	2.2 A.1.e 2.2 A.2 2.2 A.2.d	-updated shell language -clarified regulatory citation -updated shell language
15	2.2 A.3 2.2 A.3.c	-clarified regulatory citation -updated shell language
17	2.2 B 2.2 B.1.b	-clarified applicable equipment -updated shell language
18-28	General Conditions	-updated shell conditions (v2.22.1)
29	Attachment	-updated shell language

The following table represents the modifications/additions/deletions to ESM:

Current Language	Proposed Change
Redicon Shell Press (ID No. ESSP1)	End-date per Permittee
Three Stolle conversion presses (ID No. ESESC1)	End-date per Permittee
Five end liners for water borne preferred compound application (ID No. ESLINERSM1)	End-date per Permittee
Five vented electric dryers (ID No. ED1)	End-date per Permittee
Redicon Shell Press (ID No. ESSP2)	End-date per Permittee
Three Stolle conversion presses (ID No. ESESC2)	End-date per Permittee
Five end liners for water borne preferred compound application (ID No. ESLINERSM2)	End-date per Permittee
Five vented electric dryers (ID No. ED2)	End-date per Permittee

Current Language	Proposed Change
Simple cyclone (90 inches in diameter; ID No. ESC1)	End-date per Permittee
Simple cyclone (72 inches in diameter; ID No. ESC2)	End-date per Permittee

V. Regulatory Review

The facility is currently subject to the following regulations:

- 15A NCAC 2D .0515, Particulate Emissions 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 .0524, New Source Performance Standards (40 CFR 60, Subpart WW)
- 15A NCAC 2D .0958, Work Practices for Sources of Volatile Organic Compounds
- 15A NCAC 2D .1100, Control of Toxic Air Pollutants
- 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 and 15A NCAC 2D .1111, Maximum Achievable Control Technology)
- 15A NCAC 2Q .0711, Emission Rates Requiring a Permit

A regulatory review for the existing sources will not be included in this document.

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

NSPS – The sources comprising the aluminum can production lines 1, 2, and 3 are subject to New Source Performance Standards for Beverage Can Surface Coating Industry (40 CFR 60, Subpart WW). The Permittee shall limit VOC emissions to less than 0.46 kilograms of VOC per liter of coating solids from each two piece can clear base coating operation and from each overvarnish coating operation and to less than 0.89 kilograms of VOC per liter of coating solids from each two piece can inside spray coating. To ensure compliance, the Permittee must calculate the monthly volume-weighted average emissions of VOC for each operation type. Recordkeeping and reporting is also required. This permit renewal does not affect this status.

However, as part of this renewal, the reporting language has been modified to more correctly reflect the language of the NSPS. Specifically, quarterly reporting is only required if instances exist in which the volume-weighted average of the total mass of VOC per volume of coating solids exceed the limits above. Otherwise, semiannual reporting is allowed by rule.

NESHAPS/MACT – Facility-wide affected sources are subject to a 10 ton per year individual hazardous air pollutant and a 25 ton per year combination hazardous air pollutants limitation in order to avoid the applicability of 15A NCAC 2D .1111, Maximum Achievable Control Technology. To ensure compliance with this limit, the Permittee is required to calculate facility wide emissions each month by multiplying the total amount of each type of HAP-containing material consumed by the HAP content of the material. Recordkeeping and semiannual reporting are also required. This permit renewal does not affect this status.

PSD – Facility-wide affected sources are subject to a 250 tons per year volatile organic compound limitation in order to avoid the applicability of 15A NCAC 2D .0530, Prevention of Significant Deterioration. To ensure compliance with this limit, the Permittee is required to calculate facility wide emissions each month by multiplying the total amount of each type of VOC-containing material consumed by the VOC content of the material. Recordkeeping and semiannual reporting are also required. This permit renewal does not affect this status.

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 thresholds in the Rule. 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. The following table indicates the emission control sources and their respective control devices:

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
Miscellaneous			
CFU	Cup forming unit consisting of three identical cupping presses (Nos. 1 through 3)	C1 C2	Two simple cyclones (144 inches in diameter each)
CT.1 through CT.11	Eleven can trimmers	CTR1	One simple cyclone (108 inches in diameter)
DIMS.1 through DIMS.19	Nineteen draw and iron (D&I) machines serving three lines (Nos. 1 through 3)	CTV1 CTV2 CTV3 CTV4	Four simple cyclones (36 inches in diameter each)

In each case the cyclones are subject to both the particulate matter standard 15A NCAC 2D .0515 and visible emissions limitations per 15A NCAC 2D .0521. In order to comply with these rules, the Permittee is required to conduct monthly and annual inspection and maintenance activities on each control device.

As described in the initial Title V permit review, the can forming process is as follows:

During the can forming and trimming operations, aluminum coil stock is brought through a lubricator and into the cupping process. A water based coolant is applied to the cans for lubrication during the forming and trimming processes. Aluminum scrap is conveyed via the roof mounted cyclones (ID Nos. C1 and C2). The cyclones separate 3 foot long pieces of copper scrap from an air stream. The air goes to the atmosphere and the scrap drops into a bailer for recycling. The cups are then conveyed overhead via air conveyors to the draw and iron machines where the cans are formed. Can transfer within the D&I machines is accomplished via a vacuum system that holds the cans against a transfer wheel. The vacuum system is connected to 4 cyclones (ID Nos. CTV1 through CTV4). The cans are then fed into one on of the trimmers where the tops are trimmed. The wet, scrap metal generated during the can making process is captured by a conveying and trimming vacuum system. Cyclone (ID No. CTR1) is used to separate the waste coolant and scrap metal from the air drawn through the system.

Information provided by Bob Hall of Ball Metal states that control devices (**ID Nos. C1 and C2**) controlling the air stream from the cup forming process have no PM₁₀ or smaller emissions. This is additionally supported by the permit review for revision R14 of this permit. That document states that the remaining aluminum scrap “skeleton” (i.e., area surrounding the punched cups) is large and not expected to leave the cyclone as it is removed from the lines via a vacuum system.

The remaining cyclones (**ID Nos. CTR1, and CTV1 through CTV2**) as described above are also part of a vacuum system for material reclamation and oil separation. The lubricated cans are held to a pin wheel via a vacuum system and eventually sent to a trimmer to remove the excess aluminum. These rings are also too large to be expected to be emitted from the cyclones. All collected material is sent to a bailer. The remaining air stream does contain some residual coolant in the forms of droplets. It is this material that is reported annually as the PM portion of the waste stream. The Permittee reported actual PM emissions from these sources in his 2006 emissions inventory as 0.44 and 1.75 tons per year respectively. Assuming a conservative 50% control efficiency for particulate matter from cyclones, it is estimated that potential uncontrolled emissions are well below the major source thresholds for CAM applicability. Therefore, CAM is not required as part of this permit renewal.

VII. Facility Wide Air Toxics

Facility-wide affected sources are subject to the toxic pollutant emission rates as listed in 15A NCAC 2Q .0711 for ammonia, ethyl acetate, and methyl ethyl ketone. In each case, the Permittee has made a demonstration that emissions do not exceed the toxic pollutant emission rate. As such, the Permittee must operate the facility so that these rates are not exceeded. A permit to emit any of these pollutants in quantities above the emission rates requires the submittal of a permit application. This permit renewal does not affect this status.

The sources comprising aluminum can production lines 1, 2, and 3 (except the ultraviolet rim coating applicators) are subject to modeled emission rates for formaldehyde per 15A NCAC 2D .1100. In order to comply with these limits, aluminum can production lines shall be limited to a combined production of 2,300,000,000 cans per year. The Permittee is required to maintain records verifying production rates and submit quarterly reporting. This permit renewal does not affect this status.

VIII. Facility Emissions Review

The following table represents the latest years emission inventory from the facility:

Pollutant(s)	2006 Actual Emissions (tpy)
CO	5.62
NO _x	6.70
PM ₁₀	5.03
SO ₂	0.04
VOC	223.94
Total HAP/TAP – Largest	11.16 / 8.81 (Formaldehyde)

IX. Stipulation Review

Ray Stewart of the WSRO indicates in his permit application review comments, that this facility has no emission sources that are of a real concern for visible emissions. Therefore, VE monitoring frequency for all emission sources should be no more than once per month.

Steve Moser of the WSRO indicates in **November 14, 2007** inspection report, that the facility appeared to be in compliance with all applicable regulations. That report also indicated the following needed permit modifications:

1. The word “applied” should probably be taken out of permit condition 2.1 A.4.e. He notes that Subpart WW does not specify the solids be “as applied”. This language was most likely taken from another NSPS Subpart when added to this permit. *Agree, change has been made to both Sections 2.1 A.4.e and f.*
2. A logbook requirement needs to be added to the permit following permit condition 2.1 B.2.c. No change. *The Permittee has requested that the equipment referenced in Section 2.1 B be removed from the permit; as it is no longer at the facility. Therefore, the Section referenced as written, no longer exists.*
3. The NSPS Subpart WW compliance reporting frequency needs to be made semi-annual instead of quarterly. *Agree. The current reporting language has been modified to only require quarterly reporting if the volume-weighted average of the total mass of VOC per volume of coating solids exceed the limits specified in this regulation. Otherwise reporting is semiannual.*
4. On page 4 of the existing permit, Section 2.1 A.4.c refers to NSPS Subpart WW as Standards of Performance for Metal Coil Surface Coating. This is not correct. It should say Standards of Performance for the Beverage Can Surface Coating Industry instead. *Agree, change has been made as suggested.*

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

Pursuant to 15A NCAC 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 15A NCAC 2Q .0522, a copy of each permit application, each proposed permit and each final permit 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. The State of Virginia and the Forsyth County Local Program are both affected areas within 50 miles of the 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.

WSRO recommends issuance of the permit and **was presented** with a DRAFT permit prior to notice and issuance (See History Section of this Document for a listing of dates).

RCO concurs with WSRO’s recommendation to issue the renewed air permit.