

**ARKANSAS DEPARTMENT OF POLLUTION CONTROL AND ECOLOGY
DIVISION OF AIR POLLUTION CONTROL**

Summary Report Relative to Permit Application

Submitted By: Thomas & Betts Corporation
5601 E. Highland
Jonesboro, AR 72401
Craighead County
Contact Person: Facilities Engineer
Phone Number: (870) 935-2559

CSN: 16-0275

Permit No.: 1630-AR-1

Date Issued:

Submittal(s):07/25/96; 1/8/98

Summary

Thomas & Betts Corporation operates a manufacturing facility (SIC Code 3644) located at 5601 East Highland in Jonesboro which manufactures electrical fittings (raceways). The emissions associated with this permit application are included in the table at the end of the permit summary. **This facility is subject to regulation under the *Arkansas Air Pollution Control Code (Air Code)* and the regulations of the *Arkansas Plan of Implementation for Air Pollution Control (SIP)*.**

This permit modification will consist of the following changes:

- C Change the process description for the solution evaporator to more accurately describe the process.
- C Change the required emission management equipment for specified tanks in the plating process. Delete the Acid Scrubber (SN-01) and the Caustic Scrubber (SN-02) from the original permit. Add the combined emissions from these two sources going through a single manifold emission system with no controls - Emission Management System (SN-01).
- C Increase allowable annual emissions to permit year round operations to be conducted twenty four hours per day. Hourly emission limits will, however, remain the same.

Installation: Existing

Reviewed By: Paul Osmon

Applicable Regulation: Air Code SIP

Operation: In Operation

Approved By: Keith A. Michaels

Process Description

There are three plating lines for *zinc (not chromium)* electroplating of steel electrical components. Parts are brought to the loading/unloading station either mounted on a rack with the rack being processed through the plating line or loaded in a barrel by moving the barrel from tank to tank. These parts are then moved through the process by soaking and electrocleaning followed by activation in an acid dip. The zinc plating tanks contain a very small amount of muriatic acid which has the potential to evaporate into the atmosphere. The concentration of the hydrochloric in the zinc plating tanks is estimated to be 0.5 oz. per gallon of muriatic acid. The zinc plating tanks are open top tanks .

Emissions from all of the soak cleaning, electro cleaning, acid dip, and chromate conversion tanks will be collected by a single manifold emission collection system. Each of the tanks will be outfitted with “push” air and a slotted hood pickup. The exhaust will be provided by a single Duall blower. The rated discharge of the blower is 24,000 CFM at the stack. This stack will be designated SN-01. There will be no controls on this emission point. This facility is not subject to regulation under National Emission Standards for Hazardous Air Pollutants (NESHAP).

Two natural gas fired boilers, the primary service (SN-03) and a backup service (SN-04) provide heat to the plating lines. These natural gas fired boilers are not subject to regulation under New Source Performance Standards (NSPS).

A natural gas fired sludge dryer (SN-05) is used to dry zinc electroplating waste water . Electroplating sludge generated from treatment of process waste water is being dried from a nominal about 50% moisture filter cake . Drying of the sludge commonly reduces the volume of waste to be shipped off site by 75%.

The Samsco water evaporator (SN-08) is used to evaporate water from spent water soluble cutting oils. Steam at 15 psig pressure is used to supply heat indirectly to evaporate water from solutions to reduce the volume of used oil which is sent off site for recycling. No volatile organic compounds (VOC) are present in any materials being processed. Emissions are water vapor only and a small amount of oil mist.

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The emission limits were rounded to the nearest tenth as per Air Division policy. The following table summarizes the emissions of all criteria pollutants associated with this permit application:

Total Facility Annual Emissions (Tons Per Year)				
PM/PM₁₀	SO₂	VOC	CO	NO_x
4.4	1.5	1.3	1.3	5.9

Specific Conditions

1. Emissions shall not exceed the emission limits set forth in Table I of this permit. Emissions from any point source not specifically listed in Table I of this permit shall be considered a violation of this permit.
2. Visible emissions from each source shall not exceed the opacity limits specified in Table I as measured by EPA Reference Method 9 (40 CFR Part 60 Appendix A).
3. The permittee shall not cause or permit the emission of air contaminants, including odors or water vapor and including an air contaminant whose emission is not otherwise prohibited by Regulation#18, if the emission of the air contaminant constitutes air pollution within the meaning of A.C.A. §8-4-303.
4. The permittee shall not conduct operations in such a manner as to unnecessarily cause air contaminants and other pollutants from becoming airborne.
5. Natural gas usage at this facility for sources (SN-03, SN-04 and SN-05) shall not exceed 114,580,800 cubic feet during any consecutive twelve (12) month period. Compliance with this condition shall be verified by maintaining monthly records of the amount of the natural gas used. These records shall be kept on site and shall be made available to Department personnel upon request.
6. The facility shall comply with all regulations of the *Arkansas Air Pollution Control Code* (Air Code) and the regulations of the *Arkansas Plan of Implementation for Air Pollution Control* (SIP).
7. No additions or changes in process and/or pollution control equipment shall be made without a permit modification.
8. The Department reserves the right to require other pollution control equipment as needed.

TABLE I ALLOWABLE EMISSION RATES							
SN	Description	Control Equipment	Emission Rate		Pollutant	Regulation	% Opacity
			lb/hr	ton/yr			
01	Emission Management System	None	0.7	3.1	PM/PM ₁₀	SIP	5
			0.1	0.5	HAPs HCl		
02	This source Deleted in 1997 permit modification						
03	Boiler-Primary Service Natural Gas (6.3 MM Btu/hr)	None	0.1	0.3	PM/PM ₁₀	SIP	5
			0.1	0.5	SO ₂		
			0.1	0.5	VOC		
			0.2	0.6	CO		
			0.7	2.8	NO _x		
04	Boiler-Backup Service Natural Gas (6.3 MM Btu/hr)	None	0.1	0.3	PM/PM ₁₀	SIP	5
			0.1	0.5	SO ₂		
			0.1	0.5	VOC		
			0.2	0.6	CO		
			0.7	2.8	NO _x		
05	Sludge Dryer Natural Gas (0.48 MM Btu/hr)	Recirculating Water	0.1	0.1	PM/PM ₁₀	SIP	5
			0.1	0.5	SO ₂		
			0.1	0.5	VOC		
			0.1	0.1	CO		
			0.1	0.3	NO _x		
06	Napco Parts Dryer	None	Only Water Vapor Is Emitted From This Source				
07	Ransohoff Dryer	None	Only Water Vapor Is Emitted From This Source				

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TABLE I ALLOWABLE EMISSION RATES							
SN	Description	Control Equipment	Emission Rate		Pollutant	Regulation	% Opacity
			lb/hr	ton/yr			
08	Coolant Solution Evaporator (0.5 MMBTU/HR Steam)	None	0.2	0.6	PM/PM ₁₀	SIP	5
Total Emissions			0.1	4.4	PM/PM₁₀		
			0.3	1.5	SO₂		
			0.3	1.3	VOC		
			0.5	1.3	CO		
			1.5	5.9	NO_x		
			0.1	0.5	HCl		

Public Notice

Pursuant to Section 19.4(k) of the Arkansas Plan of Implementation for Air Pollution Control (Regulation 19), the Arkansas Department of Pollution Control and Ecology gives the following notice:

Thomas & Betts Corporation operates a zinc electroplating facility at 5601 East Highland in Jonesboro, Arkansas. They have requested a minor modification for the air permit for this facility allowing two minor pollution control devices anticipated in the original permit for the facility to not be installed. Permitted emissions from the facility for particulate matter will decrease by 0.3 tons per year and for VOCs will increase by 0.2 tons per year. All other permit levels will remain the same.

The application has been reviewed by the staff of the Department and has received the Department's tentative approval subject to the terms of this notice.

Citizens wishing to examine the permit application and staff findings and recommendations may do so by contacting Rhonda Sharp, Information Officer. Citizens desiring technical information concerning the application or permit should contact Paul Osmon, Engineer. Both Rhonda Sharp and Paul Osmon can be reached at the Department's central office, 8001 National Drive, Little Rock, Arkansas 72219-8913 (501) 682-0744.

Copies of the draft permit and permit application have been placed in the Crowley Ridge Regional Library, 315 West Oak, Jonesboro, Arkansas 72401. This information may be reviewed during the Library's normal business hours.

Interested or affected persons may also submit written comments on the proposal to the Department at the above address - Attention: Rhonda Sharp. In order to be considered, the comments must be submitted within thirty (30) days of publication of this notice. Although the Department is not proposing to conduct a public hearing, one will be scheduled if significant comments on the permit provisions are received. If a hearing is scheduled, adequate public notice will be given in the newspaper of largest circulation in the county in which the facility in question is, or will be, located.

The Director shall make a final decision to issue or deny this application or to impose special conditions in accordance with Section 2.1 of the Arkansas Pollution Control and Ecology's Commission Administrative Procedures (Regulation #8).

Dated this

Randall Mathis
Director

AIR DIVISION
INVOICE REQUEST FORM

(1-94)

Route To: FELICIA INMAN

Facility Name & Address:

Thomas & Betts Corporation
5601 E. Highland
Jonesboro, AR. 72401

CSN: 16-0275

Permit No: 1630-AR-1

Permit Description: Air Code, SIP

(e.g. A = AIR CODE, S=SIP, H=NESHAP, P=PSD, N=NSPS)

Initial Fee Calculations:

FEE = 17.78*(TPY PREDOMINANT POLLUTANT, EXCEPT CO)
not greater than \$65,760 or less than \$500

$F_I =$

Mod Fee Calculations:

FEE = 17.78*(TPY INCREASE PREDOMINANT POLLUTANT, EXCEPT CO)
no less than \$400

$F_M = 17.78 \times 0 = 0$

Fee Amount: \$ 400.00

Engineer: Paul Osmon