



# South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178  
(909) 396-2000 • www.aqmd.gov

November 7, 2013

Mr. Gerardo C. Rios  
Chief of Permit Operation  
U. S. EPA, Region IX, AIR 3  
75 Hawthorne Street  
San Francisco, CA 94105-3901

Dear Mr. Rios:

Baker Commodities, Inc. (ID 800016) has proposed to revise their Title V Permit. Baker Commodities proposes to update the scrubbing solution flow rate and differential pressure to reflect current rendering vapor stream. Baker Commodities primarily renders meat waste into products such as tallow and meat meal; they also process restaurant grease and oil into yellow grease. Baker Commodities is located at 4021 Bandini Blvd., Vernon, CA 90058. This proposed permit revision is considered a "minor" permit revision to their Title V permit. Attached for your review are the evaluations and the proposed permit. With your receipt of the proposed Title V permit revision today, we will note that the EPA 45-day review period will begin on November 7, 2013.

If you have any questions or need additional information regarding the proposed permit revision, please contact Ms. Monica Fernandez-Neild at 909.396.2202.

Sincerely,

A handwritten signature in blue ink that reads "Mohan Balagopalan".

Mohan Balagopalan  
Senior Manager  
Chemical, Mechanical and Port Permitting

MB:mfn

Attachments

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	PROCESSOR <b>MFN</b>	REVIEWER

**PERMIT TO OPERATE ANALYSIS**

**FACILITY MAILING ADDRESS**

Baker Commodities, Inc.  
4021 Bandini Blvd.  
Vernon, CA 90058

(ID: 800016      NOx RECLAIM Cycle 2      -      TITLE V)

**EQUIPMENT LOCATION**

SAME AS ABOVE

**EQUIPMENT DESCRIPTION**

**APPLICATION NO.      552749      -      CHANGE OF CONDITION**

**AIR POLLUTION CONTROL SYSTEM CONSISTING OF:**

1. SCRUBBER, DEVICE ID C370, CUSTOM BUILT, VERTICAL PACKED BED COUNTER-CURRENT TYPE, 4'-0" W. X 3'-0" L. 12'-6" H. WITH ONE 3 HP WASTEWATER PUMP AND ONE 5-HP COOLING LOOP PUMP.
2. TANK, WASTEWATER/SCRUBBER SOLUTION, 5'-0" DIA. X 6'-0" H.
3. TANK, SULFURIC ACID.
4. EXHAUST SYSTEM VENTING TO THREE BOILER/INCINERATORS, DEVICE IDS C200, C215 AND C216.

**APPLICATION NO.      552750      -      FACILITY PERMIT MODIFICATION**

**HISTORY**

Application No. 552749 was filed on June 13, 2013, as a Change of Condition Application. Application No. 522750 was filed on June 13, 2013, as a Facility Permit Modification.

There was no compliance activity found in District records (CLASS computer database) for Baker Commodities during the past 2 years.

**PROCESS DESCRIPTION**

Baker Commodities primarily renders meat waste into products such as tallow and meat meal. They also process restaurant grease and oil into yellow grease, in addition to operating a small on-site wastewater treatment facility.

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**EVALUATION**

Applicant has requested the removal or alteration of conditions for monitoring the differential pressure (C10.1) and flow rate of scrubbing solution (C12.1) associated with their ammonia scrubber, device id C370. The ammonia scrubber is used to reduce ammonia from the rendering gases prior to them entering the three boiler/incinerators, device ids C200, C215 and C216. The reduction of ammonia prior to the rendering gases entering the boiler/incinerators is needed to maintaining the NOx levels in compliance with permitted operating limits.

The original application for this scrubber was submitted in November 1996. The purpose of this scrubber has always been to "scrub" ammonia out of the rendering gases prior to their introduction into the boiler/incinerators. When originally introduced, the scrubber was to use only wastewater from their onsite wastewater treatment plant as the scrubbing solution, no "chemicals" were proposed at the time.

Initial calculations indicated that at 25 gallons per minute of the wastewater resulted in ammonia removal efficiencies greater than 99%. The optimal differential pressure across the scrubber with a flowrate of 25 gpm was equal to the differential range of 3-6 inches of water. Though the original design did control the ammonia of the rendering gases, using water from the wastewater treatment plant produced unpleasant odors and also some scaling inside the scrubber which in turn could damage the scrubber if allowed to build up.

By 2008, Baker had stopped using just wastewater to control the ammonia. Baker replaced the wastewater with water from the City of Vernon and a small amount of sulfuric acid to neutralize the ammonia found in the rendering gasses from the cooker before entering the boilers/incinerators. This change also greatly reduced the scaling. See Revision 30, dated March 27, 2009, of the Facility Permit.

Over the years the rendering process at Baker has changed. Baker rarely renders any dead stock; they currently render high quantities of food processing waste. This rendering change has resulted in lower amounts of ammonia in the vapor stream of the cooker. This lower amount of ammonia is the reason for Baker's request to lower (or remove) the scrubbing solution flow rate to >5 gpm.

Maintaining the pH of the scrubbing solution at or below 8 on the pH scale has a direct influence on the effectiveness of this scrubber. See condition C6.11.

The second condition Baker is proposing to change is condition C10.1, which requires the differential pressure across scrubber to be between 3 and 6 inches of water. With a lower flow rate of the scrubbing solution and the lower tendency for scale forming within the scrubber; the different pressure is expected to be much lower than previous. Baker is proposing to lower the pressure range to between 0.5 to 3 inches of water.

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**RULES COMPLIANCE**

RULE 212: Public Notification

**Paragraph 212 (c)(1)** Requires a public notice for all new or modified permit units that may emit air contaminants located within 1,000 feet from the outer boundary of a school. According to the website Geodistance the closest school Maywood Elementary, is almost over 4200 feet from Baker Commodities' property line. A 30-Day Public Notice is not required under this paragraph.

**Paragraph 212(c)(2)** There are no emission changes associated with this change of condition. A 30-day public notice period will not be required under this paragraph.

**Paragraph 212(c)(3)** There are no emission changes associate with this change of condition application. Public notice will not be required under this paragraph.

RULE 401: Visible emissions are not expected with proper operation and maintenance of this equipment.

RULE 402: There is a potential for odors from most processes in a rendering operation. However, nuisance is not expected with proper operation and maintenance of this equipment.

REG XIII/XX: There are no emission increases associated with this change of condition. This equipment is being used to remove ammonia out of rendering gases. Criteria pollutants are not generated by this equipment, BACT, Modeling & Offsets are not applicable.

RULE 1401: Continued compliance is expected.

REG XXX: This is a Minor Permit Revision to the Title V permit. An EPA 45-day review period is required.

**RECOMMENDATION**

Issue Permit to Operate for this scrubber with the following conditions:

**C6.11 THE OPERATOR SHALL USE THIS EQUIPMENT IN SUCH A MANNER THAT THE PH BEING MONITORED, AS INDICATED BELOW, DOES NOT EXCEED 8 OF THE PH SCALE.**

To comply with this condition, the operator shall install and maintain a pH meter to accurately indicate the pH of the scrubbing solution.

The operator shall maintain records in a manner approved by the District, to demonstrate compliance with this condition.

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**C8.3 THE OPERATOR SHALL USE THIS EQUIPMENT IN SUCH A MANNER THAT THE FLOW RATE BEING MONITORED, AS INDICATED BELOW, IS NOT LESS THAN 5 GPM.**

To comply with this condition, the operator shall install and maintain a(n) flow meter to accurately indicate the flow rate of the scrubbing solution.

The operator shall maintain records in a manner approved by the District, to demonstrate compliance with this condition.

**C10.1 THE OPERATOR SHALL USE THIS EQUIPMENT IN SUCH A MANNER THAT THE DIFFERENTIAL PRESSURE BEING MONITORED, AS INDICATED BELOW, IS MAINTAINED BETWEEN 0.5 AND 3.0 INCHES WATER COLUMN.**

To comply with this condition, the operator shall install and maintain a(n) differential pressure gauge to accurately indicate the differential pressure across the scrubber.

The operator shall maintain records in a manner approved by the District, to demonstrate compliance with this condition.

The original conditions for this scrubber were C6.11, C10.1, C12.1, D12.11, D12.12 and K67.4. The following conditions are recommended for removal, they have been incorporated within the above condition using child conditions that were not previously available.

~~C12.1 THE OPERATOR SHALL USE THIS EQUIPMENT IN SUCH A MANNER THAT THE SCRUBBER SOLUTION FLOW RATE BEING MONITORED AS INDICATED BELOW IS GREATER THAN OR EQUAL TO 25 GPM.~~

~~D12.11 THE OPERATOR SHALL INSTALL AND MAINTAIN A(N) DIFFERENTIAL PRESSURE GAUGE TO ACCURATELY INDICATE THE DIFFERENTIAL PRESSURE ACROSS THE SCRUBBER.~~

~~D12.12 THE OPERATOR SHALL INSTALL AND MAINTAIN A(N) PH METER TO ACCURATELY INDICATE THE PH OF THE SCRUBBER SOLUTION.~~

~~K67.4 THE OPERATOR SHALL KEEP RECORDS, IN A MANNER APPROVED BY THE DISTRICT, FOR THE FOLLOWING PARAMETER(S) OR ITEM(S):~~

~~Pressure differential across the scrubber~~

~~The pH of the scrubbing solution~~

~~Scrubbing solution flow rate~~