

AIR PERMIT REVIEW

APPLICANT: Valley Proteins, Inc. – d.b.a. Carolina By-Products – Gastonia	SITE LOCATION: Gastonia	COUNTY: Gaston	
TECHNICAL CONTACT: Van Jones	PHONE: (704) 864-9941	RESPONSIBLE OFFICIAL: Thomas Gibson	TITLE: Director of Environmental Affairs
REVIEW ENGINEER: Jeff Twisdale	SIGNATURE:	DATE: April 2, 2004	
REGIONAL CONTACT: Ronald Slack	REGIONAL OFFICE: MRO	SIC CODE: 2077	
APPLICATION NUMBER: 3600026.02C	EXISTING PERMIT NUMBER: 03590T23	NEW PERMIT NUMBER: 03590T24	

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 (03590T23) was issued on July 17, 2003, and is currently scheduled to expire on October 31, 2003. The renewal application was received on November 21, 2002 and deemed complete on December 11, 2002 after receipt of Responsible Official's signature. Since the renewal application was received at least nine months prior to the expiration date, 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

Carolina By-Products – Gastonia Division (CBP-GD) operates as a subsidiary of parent company, Valley Proteins, Inc. (VPI). CBP-GD is a rendering plant that processes mostly chicken blood, offal and feathers as raw material for animal feed.

III. History/Background/Application Chronology

November 4, 1998 – Initial Title V permit 03590T16 issued by Lesley Biller.

July 12, 1999 – Significant modification of permit along with consolidated state modification to add a new NSPS Subpart Dc affected natural gas/No. 2 fuel oil-fired boiler (50.2 million Btu per hour maximum heat input, ID No. ES-1) as a replacement for the existing boiler. This modification was classified as a significant permit modification under 2Q .0516. (revised permit 03590R17 issued by Jennifer Kelvington).

June 1, 2000 – Section 502(b)(10) modification of permit to install of a pre NSPS Subpart Dc affected natural gas/No. 6 fuel oil-fired boiler (41.8 million Btu per hour heat input; ID No. ES-15) that will increase steam production at this facility and to install a steam disc dryer (25,000 pounds per hour maximum design capacity; ID No. ES-9) that will replace the existing direct-fired dryer for the feather process plus the removal of three cyclones presently connected to the dryer being replaced. (revised permit 03590T18 issued by Mark Cuilla).

December 8, 2000 – Section 502(b)(10) modification of permit to add the capability to burn saleable animal fat in the existing boilers (revised permit 03590T19 issued by Steve Proctor).

February 1, 2002 – Section 502(b)(10) modification of permit along with an administrative request to replace four venturi scrubbers (ID Nos. ES-4a, ES-4b, ES-6 and ES-9) with one larger venturi scrubber (ID No. ES-10b) previously utilized as control for the blood drying process. Also, CBP has applied to utilize the boilers as thermal oxidizers for the process emissions. The biofilter (ID No. CD-9d) will be added as back-up control device if the boilers (thermal oxidizers) are not in operation. (revised permit 03590T20 issued by Jeff Twisdale).

May 20, 2002 – Appeal of previous permit concerning mainly monitoring/recordkeeping/reporting requirements and some administrative items issued as revised permit 03590T21 by Jeff Twisdale.

August 2, 2002 – Administrative amendment issued as revised permit 03590T22 by Jeff Twisdale.

December 11, 2002 – Permit renewal application received and deemed complete for processing.

December 19, 2002 – Permit renewal application review received from Ronald Slack of MRO.

July 17, 2003 – Section 502(b)(10) modification to add a stack for existing packed bed scrubber (ID No. CD-10c) that will allow venting to atmosphere (revised permit 03590T23 issued by Jeff Twisdale).

February 13, 2004 – DRAFT permit sent to CBP-GD and MRO for review via email.

February 16, 2004 – Comments on DRAFT permit received from MRO via email. See Section XII of this document for a discussion.

February 20, 2004 – DAQ requested additional information via telephone regarding particulate matter from the feather dryer (ID No. ES-9) that is controlled by a venturi scrubber for CAM applicability.

March 4, 2004 – Additional information regarding CAM received from CBP-GD via fax.

March 10, 2004 – DAQ informed CBP-GD via telephone that information was not sufficient for CAM applicability determination. DAQ requested additional information be submitted.

March 26, 2004 – Additional information regarding CAM received from CBP-GD via letter. See Section VI of this document for a discussion.

IV. Permit Modification/Changes

The following table describes the modifications to the current permit as part of the renewal process. (Note: See Section III of this document for a description of all significant modifications pursuant to 2Q .0516, Section 502(b)(10) modifications pursuant to 2Q .0523, administrative amendments pursuant to 2Q .0514, and appeal changes pursuant to North Carolina General Statutes (NCGS) 150B-22 (through informal means) to the permit.)

Page(s)	Section	Description of Change(s)
Cover	NA	-Updated permit numbers and all dates
TOC	NA	-Removed reference to Part II Construction
3-4	Equipment table	-Removed ** notation and reference to Part II Construction for packed bed scrubber (ID No. CD-10c)
5	2.1 A (table)	-Grouped like emission sources (NSPS Subpart Dc affected boilers (ID Nos. ES-1 and ES-3))
6	2.1 A.3.c-e	-Updated M/R/R condition language for visible emissions (2D .0521) consistent with "tvcond54.doc"
7	2.1 A.4.c-e	-Updated M/R/R condition language for sulfur dioxide (NSPS Subpart Dc) consistent with "tvcond54.doc"

Page(s)	Section	Description of Change(s)
8	2.1 B (table)	-Grouped like emission sources (non NSPS Subpart Dc affected boilers (ID Nos. ES-2 and ES-15))
8	2.1 B.1.c-g	-Combined M/R/R condition language for particulate matter (2D .0503) for virgin fuel and waste oil
9	2.1 B.2.c-g	-Updated M/R/R condition language for sulfur dioxide (2D .0516) consistent with "tvcond54.doc"
10	2.1 B.3.c-e	-Updated M/R/R condition language for visible emissions (2D .0521) consistent with "tvcond54.doc"
10	2.1 C (table)	-Grouped like emission sources (meat material, press/centrifuge, and feather drying processes (ID Nos. ES-4, ES-6, and ES-9))
12	2.1 C.1.k	-Updated reporting condition language for particulate matter (2D .0515) consistent with "tvcond54.doc"
12-13	2.1 C.2.c-e	-Updated M/R/R condition language for visible emissions (2D .0521) consistent with "tvcond54.doc"
13	2.2 A.1 (heading)	-Updated condition heading for PSD avoidance (2Q .0317) consistent with "tvcond54.doc"
14	2.2 A.1.f	-Updated reporting condition (to semiannual) for PSD avoidance (2Q .0317) consistent with "tvcond54.doc"
17	2.2 C.1.n.	-Added boiler/thermal oxidizer operation and maintenance requirements consistent with other plants
18-25	General Conditions	-Updated all general conditions consistent with "new word shell 2.1.doc"
NA	NA	-Removed reference to Part II Construction (including all asterisks located throughout Part I)

V. Regulatory Review

The facility is subject to the following regulations:

15A NCAC 2D .0503, Particulates from Fuel Burning Indirect Heat Exchangers
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 .0524, NSPS 40 CFR Part 60 Subpart Dc
15A NCAC 2D .0539, Odor Control of Feed Ingredient Manufacturing Plants
15A NCAC 2D .1100, Control of Toxic Air Pollutants
15A NCAC 2Q .0317, Avoidance Conditions (PSD Avoidance)

No new or additional requirements have been added to this renewed permit. Therefore, a regulatory review will not be included in this document.

VI. NSPS, NESHAPS, PSD, Attainment Status, 112(r), CAM

NSPS

The facility (actually existing boilers (ID Nos. ES-1 and ES-3) is currently subject to New Source Performance Standard (NSPS) Subpart Dc. Fuel oil supplier certifications meet this requirement. This renewal application does not add any new requirements.

NESHAP/MACT

The facility is currently not subject to any NESHAP or MACT.

PSD

This facility is currently minor for PSD purposes and currently operates under two separate PSD avoidance conditions. The boilers (**ID Nos. ES -1, ES -2, ES -3 and ES -15**) are limited to less than 250 tons of sulfur dioxide per year and to less than 250 tons of carbon monoxide per year. Continued compliance is expected. Semiannual reporting of the monthly calculations is now allowed. Permit condition 2.2 A. has been updated to reflect the language contained in shell conditions (tvcond54.doc).

Attainment Status

This facility is located in Gaston County, which is currently in attainment according to 2D .0902.

112(r)

This 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.

CAM

40 CFR 64 requires that a continuous 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. Most of the process equipment (e.g. meat material process, press/centrifuge process, etc.) is primarily controlled by scrubbers, thermal oxidizers and/or biofilter for the reduction of odor. However, the feather drying equipment at the facility is controlled by a venturi scrubber (ID No. CD-10b) typically used for the reduction of particulate matter (PM). Per DAQ guidance, CAM is required on those control devices that see pre-controlled PM-10 emissions of 100 tons per year or more. Therefore, DAQ requested additional information regarding the potential PM-10 emissions from the feather drying operations. CBP-GD submitted supporting documentation including results of a recent stack test at VPI's plant in Ward, SC, calculations. Since the test data at Ward, SC plant reflects PM-10 emission rates from all plant cookers and dryers, CBP-GD made a worst-case assumption of using the Ward, SC test data as surrogate for estimating PM-10 emissions. The results yielded 5.7 tons per year (TPY) of uncontrolled PM-10 emissions that is well less than the 100 tpy threshold for CAM applicability. Therefore, CAM does not apply to this facility.

VII. Facility-wide Air Toxics

The facility is subject to the toxics regulations because waste oil may be fired in boiler (ID No. ES-2). There is no change required for this renewal.

VIII. Statement of Compliance

The DAQ has reviewed the compliance status of this facility. Based on visual observations and review of records at the time of the inspection, this facility was judged to be operating in compliance with Air Quality standards and regulations.

IX. Facility Emissions Review

There is no change in emissions for this renewal. The following table represents facility-wide actual emissions as submitted by the facility in its latest* emissions inventory:

Pollutant	2002 Emissions (tons per year)
Particulate Matter less than 10 microns	6.53
Carbon Monoxide	10.6
Nitrogen Oxides	37.1
Sulfur Dioxide	72.4
Volatile Organic Compounds	6.91
(all other HAPs/TAPs)	< 1 ton

*The 2003 inventory has not been submitted yet.

X. Stipulation Review

The permit modification/changes (where needed) were incorporated into the permit (see table of changes in Section IV of this document).

XI. Public Notice / EPA and Affected State Review

Pursuant to 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 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 and Mecklenburg County are considered to be affected States for this facility.

XII. Conclusions, Comments, and Recommendations

1. A professional engineer's seal was not required for this renewal.
2. A consistency determination was not required for this renewal.
3. MRO recommends issuance of the permit and does request a DRAFT permit prior to issuance.
4. RCO concurs with MRO's recommendation to issue air permit.
5. Comments received on DRAFT permit:

MRO

- Comments were received via e-mail from Ron Slack of MRO on February 16, 2004 stating that the DRAFT permit did not require any changes at this time and was ready for issuance.

CBP-GD

- Facility had no comments on the DRAFT permit.