Mr. Greg Thomas, Plant Manager
American Yeast Corporation
8215 Beachwood Road
Baltimore, MD 21222

SEP 29 2023

Dear Mr. Thomas:

Re: Renewal Part 70/ Title V Operating Permit 24-005-0979

Enclosed, please find the Renewal Part 70/Title V Operating Permit and Fact Sheet for American Yeast Corporation located in Dundalk, MD. The Permit will expire on July 31, 2028.

The Code of Maryland Regulations (COMAR) 26.11.03.11 states the following:

If the Department denies a Part 70 permit or issues it with terms and conditions that are objectionable to the applicant, the applicant may request that a contested case hearing be held regarding the permit. This request shall be made to the Department in writing not later than 15 days after the applicant receives notice that the permit has been denied or of the objectionable terms and conditions. The request shall include the basis for the request and refer to any objectionable terms and conditions.

Please note the following revised condition in the Permit under Section II, General Conditions, Number 5, Permit Renewal:

The Permittee shall submit to the Department a completed application for renewal of this Part 70 permit 12 months before the expiration of the permit. Upon submitting a complete application, the Permittee may continue to operate this facility pending final action by the Department on the renewal.

If you have any questions, please feel free to contact Ms. Susan Nash, at susan.nash@maryland.gov, or (410) 537-3230.

Sincerely,

Suna Yi Sariscak, Manager
Air Quality Permits Program
Air & Radiation Administration

SYS/jm

Enclosures

cc: EPA Region III
Mr. Brian Burton
Mr. Jacob Fisher

KEEP PERMIT AT SITE

CONTROL NO. B - 07509

Wes Moore
Governor

State of Maryland

Serena McIlwain
Secretary

DEPARTMENT OF THE ENVIRONMENT

Air and Radiation Administration
1800 Washington Boulevard, Suite 720
Baltimore, MD 21230

[ ] Construction Permit

[X] Part 70 Operating Permit

PERMIT NO. 24-005-0979

DATE ISSUED SEP 29 2023

PERMIT FEE To be paid in accordance with COMAR 26.11.02.19B

EXPIRATION DATE July 31, 2028

LEGAL OWNER & ADDRESS

American Yeast Corporation
8215 Beachwood Rd.
Dundalk, Maryland 21222
Attn: Mr. Greg Thomas, Plant Manager

SITE

American Yeast Corporation
8215 Beachwood Rd.
Dundalk, MD 21222
AI# 8739

SOURCE DESCRIPTION

One (1) Yeast Manufacturing Plant.

This source is subject to the conditions described on the attached pages.

Page 1 of 60

Program Manager

Director, Air and Radiation Administration

MDE/ARMA/PER.009 (REV. 10-08-03)

(NOT TRANSFERABLE)

AMERICAN YEAST CORPORATION
8215 BEACHWOOD ROAD
BALTIMORE, MD 21222
PART 70 OPERATING PERMIT NO. 24-005-0979

SECTION I SOURCE IDENTIFICATION

1. DESCRIPTION OF FACILITY

American Yeast Corporation (American Yeast) manufactures mainly baker's yeast through a fermentation process at its Baltimore facility at 8215 Beachwood Drive, Baltimore, Baltimore County, MD 21222. The facility has been in yeast production business since 1967. All yeast is produced as cream yeast, which is sold in bulk. The fermentation process begins with a pure yeast culture fermenter, which is inoculated in the laboratory and introduced to the pure culture fermenter containing the feedstock. The fermentation process continues in steps through stock, first generation, and trade stages to produce the finished product. Air is blown through the fermentation stages to promote yeast growth. The cream yeast is then concentrated by centrifuging, stored in tanks, or loaded into bulk trucks or totes. The SIC code for this facility is 2099.

2. FACILITY INVENTORY LIST

Emissions Unit Number	ARA Registration Number	Emissions Unit Name and Description	Date of Installation
B3	005-0979-5-1513	One (1) 8.4 MMBtu/hr natural gas fired boiler for process steam and space heat	1995, modified in 2013
B4	005-0979-5-1853	One (1) 9.9 MMBtu/hr dual fuel (biogas or natural gas) boiler for process steam and space heat	2003, modified in 2021
B5 (CHP)	005-0979-9-1465	One (1) 400 kilowatt (536 horsepower) biogas or natural gas fired combined heat and power (CHP) generator	2014
FL	005-0979-8-0301	One (1) Wastewater Pretreatment System with an enclosed flare to control biogas emissions from the waste water pretreatment plant	2003
PC1	005-0979-8-0056	One (1) pure culture fermenter controlled by a water scrubber (PC1)	1967, modified in 2018, 2020
PC2	005-0979-8-0056	One (1) pure culture fermenter controlled by a water scrubber (PC2)	1967, modified in 1994, 2018,and 2020

F4	005-0979-8-0056	One (1) stock fermenter equipped with a continuous emissions monitor	1986, modified in 1994, 2020
F5	005-0979-8-0190	One (1) fermenter unit operated as either a 1st generation or a trade fermenter equipped with a cyclone and continuous emissions monitor	1989
F6	005-0979-8-0209	One (1) fermenter unit operated as either a 1st generation or a trade fermenter equipped with a cyclone and continuous emissions monitor	1991
F7	005-0979-8-0236	One (1) fermenter unit operated as either a 1st generation or a trade fermenter equipped with a cyclone and continuous emissions monitor	1995
F8	005-0979-8-0237	One (1) fermenter unit operated as either a 1st generation or a trade fermenter equipped with a cyclone and continuous emissions monitor	1995

SECTION II GENERAL CONDITIONS

1. DEFINITIONS

[COMAR 26.11.01.01] and [COMAR 26.11.02.01]

The words or terms in this Part 70 permit shall have the meanings established under COMAR 26.11.01 and .02 unless otherwise stated in this permit.

2. ACRONYMS

ARA	Air and Radiation Administration
BACT	Best Available Control Technology
Btu	British thermal unit
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CEM	Continuous Emissions Monitor
CFR	Code of Federal Regulations
CO	Carbon Monoxide
COMAR	Code of Maryland Regulations
EPA	United States Environmental Protection Agency
FR	Federal Register
gr	grains
HAP	Hazardous Air Pollutant
MACT	Maximum Achievable Control Technology
MDE	Maryland Department of the Environment
MVAC	Motor Vehicle Air Conditioner
NESHAPS	National Emission Standards for Hazardous Air Pollutants
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standards
NSR	New Source Review
OTR	Ozone Transport Region
PM	Particulate Matter
PM10	Particulate Matter with Nominal Aerodynamic Diameter of 10 micrometers or less
ppm	parts per million
ppb	parts per billion
PSD	Prevention of Significant Deterioration
PTC	Permit to construct
PTO	Permit to operate (State)
SIC	Standard Industrial Classification
SO_2	Sulfur Dioxide

TAP	Toxic Air Pollutant
tpy	tons per year
VE	Visible Emissions
VOC	Volatile Organic Compounds

3. EFFECTIVE DATE

The effective date of the conditions in this Part 70 permit is the date of permit issuance, unless otherwise stated in the permit.

4. PERMIT EXPIRATION

[COMAR 26.11.03.13B(2)]

Upon expiration of this permit, the terms of the permit will automatically continue to remain in effect until a new Part 70 permit is issued for this facility provided that the Permittee has submitted a timely and complete application and has paid applicable fees under COMAR 26.11.02.16.

Otherwise, upon expiration of this permit the right of the Permittee to operate this facility is terminated.

5. PERMIT RENEWAL

[COMAR 26.11.03.02B(3)] and [COMAR 26.11.03.02E]

The Permittee shall submit to the Department a completed application for renewal of this Part 70 permit at least 12 months before the expiration of the permit. Upon submitting a completed application, the Permittee may continue to operate this facility pending final action by the Department on the renewal.

The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall submit such supplementary facts or corrected information no later than 10 days after becoming aware that this occurred. The Permittee shall also provide additional information as necessary to address any requirements that become applicable to the facility after the date a completed application was submitted, but prior to the release of a draft permit. This information shall be submitted to the Department no later than 20 days after a new requirement has been adopted.

6. CONFIDENTIAL INFORMATION

[COMAR 26.11.02.02G]

In accordance with the provisions of the State Government Article, Sec. 10-611 et seq., Annotated Code of Maryland, all information submitted in an application shall be considered part of the public record and available for inspection and copying, unless the Permittee claims that the information is confidential when it is submitted to the Department. At the time of the request for inspection or copying, the Department will make a determination with regard to the confidentiality of the information. The Permittee, when requesting confidentiality, shall identify the information in a manner specified by the Department and, when requested by the Department, promptly provide specific reasons supporting the claim of confidentiality. Information submitted to the Department without a request that the information be deemed confidential may be made available to the public. Subject to approval of the Department, the Permittee may provide a summary of confidential information that is suitable for public review. The content of this Part 70 permit is not subject to confidential treatment.

7. PERMIT ACTIONS

[COMAR 26.11.03.06E(3)] and [COMAR 26.11.03.20(A)]

This Part 70 permit may be revoked or reopened and revised for cause. The filing of an application by the Permittee for a permit revision or renewal; or a notification of termination, planned changes or anticipated noncompliance by the facility, does not stay a term or condition of this permit.

The Department shall reopen and revise, or revoke the Permittee's Part 70 permit under the following circumstances:

a. Additional requirements of the Clean Air Act become applicable to this facility and the remaining permit term is 3 years or more;

b. The Department or the EPA determines that this Part 70 permit contains a material mistake, or is based on false or inaccurate information supplied by or on behalf of the Permittee;

c. The Department or the EPA determines that this Part 70 permit must be revised or revoked to assure compliance with applicable requirements of the Clean Air Act; or

d. Additional requirements become applicable to an affected source under the Federal Acid Rain Program.

8. PERMIT AVAILABILITY

[COMAR 26.11.02.13G]

The Permittee shall maintain this Part 70 permit in the vicinity of the facility for which it was issued, unless it is not practical to do so, and make this permit immediately available to officials of the Department upon request.

9. REOPENING THE PART 70 PERMIT FOR CAUSE BY THE EPA

[COMAR 26.11.03.20B]

The EPA may terminate, modify, or revoke and reissue a permit for cause as prescribed in 40 CFR §70.7(g)

10. TRANSFER OF PERMIT

[COMAR 26.11.02.02E]

The Permittee shall not transfer this Part 70 permit except as provided in COMAR 26.11.03.15.

11. REVISION OF PART 70 PERMITS – GENERAL CONDITIONS

[COMAR 26.11.03.14] and [COMAR 26.11.03.06A(8)]

a. The Permittee shall submit an application to the Department to revise this Part 70 permit when required under COMAR 26.11.03.15 -.17.

b. When applying for a revision to a Part 70 permit, the Permittee shall comply with the requirements of COMAR 26.11.03.02 and .03 except that the application for a revision need include only information listed that is related to the proposed change to the source and revision to

the permit. This information shall be sufficient to evaluate the proposed change and to determine whether it will comply with all applicable requirements of the Clean Air Act.

c. The Permittee may not change any provision of a compliance plan or schedule in a Part 70 permit as an administrative permit amendment or as a minor permit modification unless the change has been approved by the Department in writing.

d. A permit revision is not required for a change that is provided for in this permit relating to approved economic incentives, marketable permits, emissions trading, and other similar programs.

12. SIGNIFICANT PART 70 OPERATING PERMIT MODIFICATIONS

[COMAR 26.11.03.17]

The Permittee may apply to the Department to make a significant modification to its Part 70 Permit as provided in COMAR 26.11.03.17 and in accordance with the following conditions:

a. A significant modification is a revision to the federally enforceable provisions in the permit that does not qualify as an administrative permit amendment under COMAR 26.11.03.15 or a minor permit modification as defined under COMAR 26.11.03.16.

b. This permit does not preclude the Permittee from making changes, consistent with the provisions of COMAR 26.11.03, that would make the permit or particular terms and conditions of the permit irrelevant, such as by shutting down or reducing the level of operation of a source or of an emissions unit within the source. Air pollution control equipment shall not be shut down or its level of operation reduced if doing so would violate any term of this permit.

c. Significant permit modifications are subject to all requirements of COMAR 26.11.03 as they apply to permit issuance and renewal, including the requirements for applications, public participation, and review by affected states and EPA, except:

(1) An application need include only information pertaining to the proposed change to the source and modification of this permit, including a description of the change and modification, and any

new applicable requirements of the Clean Air Act that will apply if the change occurs;

(2) Public participation, and review by affected states and EPA, is limited to only the application and those federally enforceable terms and conditions of the Part 70 permit that are affected by the significant permit modification.

d. As provided in COMAR 26.11.03.15B(5), an administrative permit amendment may be used to make a change that would otherwise require a significant permit modification if procedures for enhanced preconstruction review of the change are followed that satisfy the requirements of 40 CFR 70.7(d)(1)(v).

e. Before making a change that qualifies as a significant permit modification, the Permittee shall obtain all permits-to-construct and approvals required by COMAR 26.11.02.

f. The Permittee shall not make a significant permit modification that results in a violation of any applicable requirement of the Clean Air Act.

g. The permit shield in COMAR 26.11.03.23 applies to a final significant permit modification that has been issued by the Department, to the extent applicable under COMAR 26.11.03.23.

13. MINOR PERMIT MODIFICATIONS

[COMAR 26.11.03.16]

The Permittee may apply to the Department to make a minor modification to the federally enforceable provisions of this Part 70 permit as provided in COMAR 26.11.03.16 and in accordance with the following conditions:

a. A minor permit modification is a Part 70 permit revision that:

(1) Does not result in a violation of any applicable requirement of the Clean Air Act;

(2) Does not significantly revise existing federally enforceable monitoring, including test methods, reporting, record keeping, or compliance certification requirements except by:

(a) Adding new requirements,

(b) Eliminating the requirements if they are rendered meaningless because the emissions to which the requirements apply will no longer occur, or

(c) Changing from one approved test method for a pollutant and source category to another;

(3) Does not require or modify a:

(a) Case-by-case determination of a federally enforceable emissions standard,

(b) Source specific determination for temporary sources of ambient impacts, or

(c) Visibility or increment analysis;

(4) Does not seek to establish or modify a federally enforceable permit term or condition for which there is no corresponding underlying applicable requirement of the Clean Air Act, but that the Permittee has assumed to avoid an applicable requirement to which the source would otherwise be subject, including:

(a) A federally enforceable emissions standard applied to the source pursuant to COMAR 26.11.02.03 to avoid classification as a Title I modification; and

(b) An alternative emissions standard applied to an emissions unit pursuant to regulations promulgated under Section 112(i)(5) of the Clean Air Act

(5) Is not a Title I modification; and

(6) Is not required under COMAR 26.11.03.17 to be processed as a significant modification to this Part 70 permit.

b. Application for a Minor Permit Modification

The Permittee shall submit to the Department an application for a minor permit modification that satisfies the requirements of COMAR 26.11.03.03 which includes the following:

(1) A description of the proposed change, the emissions resulting from the change, and any new applicable requirements that will apply if the change is made;

(2) The proposed minor permit modification;

(3) Certification by a responsible official, in accordance with COMAR 26.11.02.02F, that:

(a) The proposed change meets the criteria for a minor permit modification, and

(b) The Permittee has obtained or applied for all required permits-to-construct required by COMAR 26.11.03.16 with respect to the proposed change;

(4) Completed forms for the Department to use to notify the EPA and affected states, as required by COMAR 26.11.03.07-.12.

c. Permittee's Ability to Make Change

(1) For changes proposed as minor permit modifications to this permit that will require the applicant to obtain a permit to construct, the permit to construct must be issued prior to the new change.

(2) During the period of time after the Permittee applies for a minor modification but before the Department acts in accordance with COMAR 26.11.03.16F(2):

(a) The Permittee shall comply with applicable requirements of the Clean Air Act related to the change and the permit terms and conditions described in the application for the minor modification.

(b) The Permittee is not required to comply with the terms and conditions in the permit it seeks to modify. If the Permittee fails to comply with the terms and conditions in the application during this time, the terms and conditions of both this permit and the application for modification may be enforced against it.

d. The Permittee is subject to enforcement action if it is determined at any time that a change made under COMAR 26.11.03.16 is not within the scope of this regulation.

e. Minor permit modification procedures may be used for Part 70 permit modifications involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches, but only to the extent that the minor permit modification procedures are explicitly provided for in regulations approved by the EPA as part of the Maryland SIP or in other applicable requirements of the Clean Air Act.

14. ADMINISTRATIVE PART 70 OPERATING PERMIT AMENDMENTS

[COMAR 26.11.03.15]

The Permittee may apply to the department to make an administrative permit amendment as provided in COMAR 26.11.03.15 and in accordance with the following conditions:

a. An application for an administrative permit amendment shall:

(1) Be in writing;

(2) Include a statement certified by a responsible official that the proposed amendment meets the criteria in COMAR 26.11.03.15 for an administrative permit amendment, and

(3) Identify those provisions of this part 70 permit for which the amendment is requested, including the basis for the request.

b. An administrative permit amendment:

(1) Is a correction of a typographical error;

(2) Identifies a change in the name, address, or phone number of a person identified in this permit, or a similar administrative change involving the Permittee or other matters which are not directly related to the control of air pollution;

(3) requires more frequent monitoring or reporting by the Permittee;

(4) Allows for a change in ownership or operational control of a source for which the Department determines that no other revision to the permit is necessary and is documented as per COMAR 26.11.03.15B(4);

(5) Incorporates into this permit the requirements from preconstruction review permits or approvals issued by the Department in accordance with COMAR 26.11.03.15B(5), but only if it satisfies 40 CFR 70.7(d)(1)(v);

(6) Incorporates any other type of change, as approved by the EPA, which is similar to those in COMAR 26.11.03.15B(1)—(4);

(7) Notwithstanding COMAR 26.11.03.15B(1)—(6), all modifications to acid rain control provisions included in this Part 70 permit are governed by applicable requirements promulgated under Title IV of the Clean Air Act; or

(8) Incorporates any change to a term or condition specified as State-only enforceable, if the Permittee has obtained all necessary permits-to-construct and approvals that apply to the change.

c. The Permittee may make the change addressed in the application for an administrative amendment upon receipt by the Department of the application, if all permits-to-construct or approvals otherwise required by COMAR 26.11.02 prior to making the change have first been obtained from the Department.

d. The permit shield in COMAR 26.11.03.23 applies to administrative permit amendments made under Section B(5) of COMAR 26.11.03.15 , but only after the Department takes final action to revise the permit.

e. The Permittee is subject to enforcement action if it is determined at any time that a change made under COMAR 26.11.03.15 is not within the scope of this regulation.

15. OFF-PERMIT CHANGES TO THIS SOURCE

[COMAR 26.11.03.19]

The Permittee may make off-permit changes to this facility as provided in COMAR 26.11.03.19 and in accordance with the following conditions:

a. The Permittee may make a change to this permitted facility that is not addressed or prohibited by the federally enforceable conditions of this Part 70 permit without obtaining a Part 70 permit revision if:

(1) The Permittee has obtained all permits and approvals required by COMAR 26.11.02 and .03;

(2) The change is not subject to any requirements under Title IV of the Clean Air Act;

(3) The change is not a Title I modification; and

(4) The change does not violate an applicable requirement of the Clean Air Act or a federally enforceable term or condition of the permit.

b. For a change that qualifies under COMAR 26.11.03.19, the Permittee shall provide contemporaneous written notice to the Department and the EPA, except for a change to an emissions unit or activity that is exempt from the Part 70 permit application, as provided in COMAR 26.11.03.04. This written notice shall describe the change, including the date it was made, any change in emissions, including the pollutants emitted, and any new applicable requirements of the Clean Air Act that apply as a result of the change.

c. Upon satisfying the requirements of COMAR 26.11.03.19, the Permittee may make the proposed change.

d. The Permittee shall keep a record describing:

(1) Changes made at the facility that result in emissions of a regulated air pollutant subject to an applicable requirement of the Clean Air Act , but not otherwise regulated under this permit; and

(2) The emissions resulting from those changes.

e. Changes that qualify under COMAR 26.11.03.19 are not subject to the requirements for Part 70 revisions.

f. The Permittee shall include each off-permit change under COMAR 26.11.03.19 in the application for renewal of the part 70 permit.

g. The permit shield in COMAR 26.11.03.23 does not apply to off-permit changes made under COMAR 26.11.03.19.

h. The Permittee is subject to enforcement action if it is determined that an off-permit change made under COMAR 26.11.03.19 is not within the scope of this regulation.

16. ON-PERMIT CHANGES TO SOURCES

[COMAR 26.11.03.18]

The Permittee may make on-permit changes that are allowed under Section 502(b)(10) of the Clean Air Act as provided in COMAR 26.11.03.18 and in accordance with the following conditions:

a. The Permittee may make a change to this facility without obtaining a revision to this Part 70 permit if:

(1) The change is not a Title I modification;

(2) The change does not result in emissions in excess of those expressly allowed under the federally enforceable provisions of the Part 70 permit for the permitted facility or for an emissions unit within the facility, whether expressed as a rate of emissions or in terms of total emissions;

(3) The Permittee has obtained all permits and approvals required by COMAR 26.11.02 and .03;

(4) The change does not violate an applicable requirement of the Clean Air Act;

(5) The change does not violate a federally enforceable permit term or condition related to monitoring, including test methods, record keeping, reporting, or compliance certification requirements;

(6) The change does not violate a federally enforceable permit term or condition limiting hours of operation, work practices, fuel usage, raw material usage, or production levels if the term or condition has been established to limit emissions allowable under this permit;

(7) If applicable, the change does not modify a federally enforceable provision of a compliance plan or schedule in this Part 70 permit unless the Department has approved the change in writing; and

(8) This permit does not expressly prohibit the change under COMAR 26.11.03.18.

b. The Permittee shall notify the Department and the EPA in writing of a proposed on-permit change under COMAR 26.11.03.18 not later than 7 days before the change is made. The written information shall include the following information:

(1) A description of the proposed change;

(2) The date on which the change is proposed to be made;

(3) Any change in emissions resulting from the change, including the pollutants emitted;

(4) Any new applicable requirement of the Clean Air Act; and

(5) Any permit term or condition that would no longer apply.

c. The responsible official of this facility shall certify in accordance with COMAR 26.11.02.02F that the proposed change meets the criteria for the use of on-permit changes under COMAR 26.11.03.18.

d. The Permittee shall attach a copy of each notice required by condition b. above to this Part 70 permit.

e. On-permit changes that qualify under COMAR 26.11.03.18 are not subject to the requirements for part 70 permit revisions.

f. Upon satisfying the requirements under COMAR 26.11.03.18, the Permittee may make the proposed change.

g. The permit shield in COMAR 26.11.03.23 does not apply to on-permit changes under COMAR 26.11.03.18.

h. The Permittee is subject to enforcement action if it is determined that an on-permit change made under COMAR 26.11.03.18 is not within the scope of the regulation or violates any requirement of the State air pollution control law.

17. FEE PAYMENT

[COMAR 26.11.02.16A(2) & (5)(b)]

a. The fee for this Part 70 permit is as prescribed in Regulation .19 of COMAR 26.11.02.

b. The fee is due on and shall be paid on or before each 12-month anniversary date of the permit.

c. Failure to pay the annual permit fee constitutes cause for revocation of the permit by the Department.

18. REQUIREMENTS FOR PERMITS-TO-CONSTRUCT AND APPROVALS

[COMAR 26.11.02.09.]

The Permittee may not construct or modify or cause to be constructed or modified any of the following sources without first obtaining, and having in current effect, the specified permits-to-construct and approvals:

a. New Source Review source, as defined in COMAR 26.11.01.01, approval required, except for generating stations constructed by electric companies;

b. Prevention of Significant Deterioration source, as defined in COMAR 26.11.01.01, approval required, except for generating stations constructed by electric companies;

c. New Source Performance Standard source, as defined in COMAR 26.11.01.01, permit to construct required, except for generating stations constructed by electric companies;

d. National Emission Standards for Hazardous Air Pollutants source, as defined in COMAR 26.11.01.01, permit to construct required, except for generating stations constructed by electric companies;

e. A stationary source of lead that discharges one ton per year or more of lead or lead compounds measured as elemental lead, permit to construct required, except for generating stations constructed by electric companies;

f. All stationary sources of air pollution, including installations and air pollution control equipment, except as listed in COMAR 26.11.02.10, permit to construct required;

g. In the event of a conflict between the applicability of (a.— e.) above and an exemption listed in COMAR 26.11.02.10, the provision that requires a permit applies.

h. Approval of a PSD or NSR source by the Department does not relieve the Permittee obtaining an approval from also obtaining all permits-to-construct required by (c.— g.) above.

19. CONSOLIDATION OF PROCEDURES FOR PUBLIC PARTICIPATION

[COMAR 26.11.02.11C] and [COMAR 26.11.03.01K]

The Permittee may request the Department to authorize special procedures for the Permittee to apply simultaneously, to the extent possible, for a permit to construct and a revision to this permit.

These procedures may provide for combined public notices, informational meetings, and public hearings for both permits but shall not adversely affect the rights of a person, including EPA and affected states, to obtain information about the application for a permit, to comment on an application, or to challenge a permit that is issued.

These procedures shall not alter any existing permit procedures or time frames.

20. PROPERTY RIGHTS

[COMAR 26.11.03.06E(4)]

This Part 70 permit does not convey any property rights of any sort, or any exclusive privileges.

21. SEVERABILITY

[COMAR 26.11.03.06A(5)]

If any portion of this Part 70 permit is challenged, or any term or condition deemed unenforceable, the remainder of the requirements of the permit continues to be valid.

22. INSPECTION AND ENTRY

[COMAR 26.11.03.06G(3)]

The Permittee shall allow employees and authorized representatives of the Department, the EPA, and local environmental health agencies, upon presentation of credentials or other documents as may be required by law, to:

a. Enter at a reasonable time without delay and without prior notification the Permittee's property where a Part 70 source is located, emissions-related activity is conducted, or records required by this permit are kept;

b. Have access to and make copies of records required by the permit;

c. Inspect all emissions units within the facility subject to the permit and all related monitoring systems, air pollution control equipment, and practices or operations regulated or required by the permit; and

d. Sample or monitor any substances or parameters at or related to the emissions units at the facility for the purpose of determining compliance with the permit.

23. DUTY TO PROVIDE INFORMATION

[COMAR 26.11.03.06E(5)]

The Permittee shall furnish to the Department, within a reasonable time specified by the Department, information requested in writing by the Department in order to determine whether the Permittee is in compliance with the federally enforceable conditions of this Part 70 permit, or whether cause exists for revising or revoking the permit. Upon request, the Permittee shall also furnish to the Department records required to be kept under the permit.

For information claimed by the Permittee to be confidential and therefore potentially not discloseable to the public, the Department may require the Permittee to provide a copy of the records directly to the EPA along with a claim of confidentiality.

The Permittee shall also furnish to the Department, within a reasonable time specified by the Department, information or records requested in writing by the Department in order to determine if the Permittee is in compliance with the State-only enforceable conditions of this permit.

24. COMPLIANCE REQUIREMENTS

[COMAR 26.11.03.06E(1)] and [COMAR 26.11.03.06A(11)] and [COMAR 26.11.02.05]

The Permittee shall comply with the conditions of this Part 70 permit. Noncompliance with the permit constitutes a violation of the Clean Air Act, and/or the Environment Article Title 2 of the Annotated Code of Maryland and may subject the Permittee to:

a. Enforcement action,

b. Permit revocation or revision,

c. Denial of the renewal of a Part 70 permit, or

d. Any combination of these actions.

The conditions in this Part 70 permit are enforceable by EPA and citizens under the Clean Air Act except for the State-only enforceable conditions.

Under Environment Article Section 2-609, Annotated Code of Maryland, the Department may seek immediate injunctive relief against a person who violates this permit in such a manner as to cause a threat to human health or the environment.

25. CREDIBLE EVIDENCE

Nothing in this permit shall be interpreted to preclude the use of credible evidence to demonstrate noncompliance with any term of this permit.

26. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE

[COMAR 26.11.03.06E(2)]

The need to halt or reduce activity in order to comply with the conditions of this permit may not be used as a defense in an enforcement action.

27. CIRCUMVENTION

[COMAR 26.11.01.06]

The Permittee may not install or use any article, machine, equipment or other contrivance, the use of which, without resulting in a reduction in the total weight of emissions, conceals or dilutes emissions which would otherwise constitute a violation of any applicable air pollution control regulation.

28. PERMIT SHIELD

[COMAR 26.11.03.23]

A permit shield as described in COMAR 26.11.03.23 shall apply only to terms and conditions in this Part 70 permit that have been specifically identified as covered by the permit shield. Neither this permit nor COMAR 26.11.03.23 alters the following:

a. The emergency order provisions in Section 303 of the Clean Air Act, including the authority of EPA under that section;

b. The liability of the Permittee for a violation of an applicable requirement of the Clean Air Act before or when this permit is issued or for a violation that continues after issuance;

c. The requirements of the Acid Rain Program, consistent with Section 408(a) of the Clean Air Act;

d. The ability of the Department or EPA to obtain information from a source pursuant to Maryland law and Section 114 of the Clean Air Act; or

e. The authority of the Department to enforce an applicable requirement of the State air pollution control law that is not an applicable requirement of the Clean Air Act.

29. ALTERNATE OPERATING SCENARIOS

[COMAR 26.11.03.06A(9)]

For all alternate operating scenarios approved by the Department and contained within this permit, the Permittee, while changing from one approved scenario to another, shall contemporaneously record in a log maintained at the facility each scenario under which the emissions unit is operating and the date and time the scenario started and ended.

SECTION III PLANT WIDE CONDITIONS

1. PARTICULATE MATTER FROM CONSTRUCTION AND DEMOLITION

[COMAR 26.11.06.03D]

The Permittee shall not cause or permit any building, its appurtenances, or a road to be used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne.

2. OPEN BURNING

[COMAR 26.11.07]

Except as provided in COMAR 26.11.07.04, the Permittee shall not cause or permit an open fire from June 1 through August 31 of any calendar year. Prior to any open burning, the Permittee shall request and receive approval from the Department.

3. AIR POLLUTION EPISODE

[COMAR 26.11.05.04]

When requested by the Department, the Permittee shall prepare in writing standby emissions reduction plans, consistent with good industrial practice and safe operating procedures, for reducing emissions creating air pollution during periods of Alert, Warning, and Emergency of an air pollution episode.

4. REPORT OF EXCESS EMISSIONS AND DEVIATIONS

[COMAR 26.11.01.07] and [COMAR 26.11.03.06C(7)]

The Permittee shall comply with the following conditions for occurrences of excess emissions and deviations from requirements of this permit, including those in Section VI – State-only Enforceable Conditions:

a. Report any deviation from permit requirements that could endanger human health or the environment, by orally notifying the Department immediately upon discovery of the deviation;

b. Promptly report all occurrences of excess emissions that are expected to last for one hour or longer by orally notifying the Department of the onset and termination of the occurrence;

c. When requested by the Department the Permittee shall report all deviations from permit conditions, including those attributed to malfunctions as defined in COMAR 26.11.01.07A, within 5 days of the request by submitting a written description of the deviation to the Department. The written report shall include the cause, dates and times of the onset and termination of the deviation, and an account of all actions planned or taken to reduce, eliminate, and prevent recurrence of the deviation;

d. The Permittee shall submit to the Department semi-annual monitoring reports that confirm that all required monitoring was performed, and that provide accounts of all deviations from permit requirements that occurred during the reporting periods. Reporting periods shall be January 1 through June 30 and July 1 through December 31, and reports shall be submitted within 30 days of the end of each reporting period. Each account of deviation shall include a description of the deviation, the dates and times of onset and termination, identification of the person who observed or discovered the deviation, causes and corrective actions taken, and actions taken to prevent recurrence. If no deviations from permit conditions occurred during a reporting period, the Permittee shall submit a written report that so states.

e. When requested by the Department, the Permittee shall submit a written report to the Department within 10 days of receiving the request concerning an occurrence of excess emissions. The report shall contain the information required in COMAR 26.11.01.07D(2).

5. ACCIDENTAL RELEASE PROVISIONS

[COMAR 26.11.03.03B(23)] and [40 CFR 68]

Should the Permittee become subject to 40 CFR 68 during the term of this permit, the Permittee shall submit risk management plans by the date specified in 40 CFR 68.150 and shall certify compliance with the requirements of 40 CFR 68 as part of the annual compliance certification as required by 40 CFR 70.

The Permittee shall initiate a permit revision or reopening according to the procedures of 40 CFR 70.7 to incorporate appropriate permit conditions into the Permittee's Part 70 permit.

6. GENERAL TESTING REQUIREMENTS

[COMAR 26.11.01.04]

The Department may require the Permittee to conduct, or have conducted, testing to determine compliance with this Part 70 permit. The Department, at its option, may witness or conduct these tests. This testing shall be done at a reasonable time, and all information gathered during a testing operation shall be provided to the Department.

7. EMISSIONS TEST METHODS

[COMAR 26.11.01.04]

Compliance with the emissions standards and limitations in this Part 70 permit shall be determined by the test methods designated and described below or other test methods submitted to and approved by the Department.

Reference documents of the test methods approved by the Department include the following:

a. 40 CFR 60, appendix A

b. 40 CFR 51, appendix M

c. The Department's Technical Memorandum 91-01 "Test Methods and Equipment Specifications for Stationary Sources", (January 1991), as amended through Supplement 3, (October 1, 1997)

8. EMISSIONS CERTIFICATION REPORT

[COMAR 26.11.01.05-1] and [COMAR 26.11.02.19C] and [COMAR 26.11.02.19D]

The Permittee shall certify actual annual emissions of regulated pollutants from the facility on a calendar year basis.

a. The certification shall be on forms obtained from the Department and submitted to the Department not later than April 1 of the year following the year for which the certification is required;

b. The individual making the certification shall certify that the information is accurate to the individual's best knowledge. The individual shall be:

(1) Familiar with each source for which the certifications forms are submitted, and

(2) Responsible for the accuracy of the emissions information;

c. The Permittee shall maintain records necessary to support the emissions certification including the following information if applicable:

(1) The total amount of actual emissions of each regulated pollutant and the total of all regulated pollutants;

(2) An explanation of the methods used to quantify the emissions and the operating schedules and production data that were used to determine emissions, including significant assumptions made;

(3) Amounts, types and analyses of all fuels used;

(4) Emissions data from continuous emissions monitors that are required by this permit, including monitor calibration and malfunction information;

(5) Identification, description, and use records of all air pollution control equipment and compliance monitoring equipment including:

(a) Significant maintenance performed,
(b) Malfunctions and downtime, and
(c) Episodes of reduced efficiency of all equipment;

(6) Limitations on source operation or any work practice standards that significantly affect emissions; and

(7) Other relevant information as required by the Department.

9. COMPLIANCE CERTIFICATION REPORT

[COMAR 26.11.03.06G(6) and (7)]

The Permittee shall submit to the Department and EPA Region III a report certifying compliance with each term of this Part 70 permit including each applicable standard, emissions limitation, and work practice for the previous calendar year by April 1 of each year.

a. The compliance certification shall include:

(1) The identification of each term or condition of this permit which is the basis of the certification;

(2) The compliance status;

(3) Whether the compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of each source, currently and over the reporting period; and

(5) Any other information required to be reported to the Department that is necessary to determine the compliance status of the Permittee with this permit.

b. The Permittee shall submit the compliance certification reports to the Department and EPA simultaneously.

10. CERTIFICATION BY RESPONSIBLE OFFICIAL

[COMAR 26.11.02.02F]

All application forms, reports, and compliance certifications submitted pursuant to this permit shall be certified by a responsible official as to truth, accuracy, and completeness. The Permittee shall expeditiously notify the Department of an appointment of a new responsible official.

The certification shall be in the following form:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system

designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

11. SAMPLING AND EMISSIONS TESTING RECORD KEEPING

[COMAR 26.11.03.06C(5)]

The Permittee shall gather and retain the following information when sampling and testing for compliance demonstrations:

a. The location as specified in this permit, and the date and time that samples and measurements are taken;

b. All pertinent operating conditions existing at the time that samples and measurements are taken;

c. The date that each analysis of a sample or emissions test is performed and the name of the person taking the sample or performing the emissions test;

d. The identity of the Permittee, individual, or other entity that performed the analysis;

e. The analytical techniques and methods used; and

f. The results of each analysis.

12. GENERAL RECORDKEEPING

[COMAR 26.11.03.06C(6)]

The Permittee shall retain records of all monitoring data and information that support the compliance certification for a period of five (5) years from the date that the monitoring, sample measurement, application, report or emissions test was completed or submitted to the Department.

These records and support information shall include:

a. All calibration and maintenance records;

b. All original data collected from continuous monitoring instrumentation;

c. Records which support the annual emissions certification; and

d. Copies of all reports required by this permit.

13. GENERAL CONFORMITY

[COMAR 26.11.26.09]

The Permittee shall comply with the general conformity requirements of 40 CFR 93, Subpart B and COMAR 26.11.26.09.

14. ASBESTOS PROVISIONS

[40 CFR 61, Subpart M]

The Permittee shall comply with 40 CFR 61, Subpart M when conducting any renovation or demolition activities at the facility.

15. OZONE DEPLETING REGULATIONS

[40 CFR 82, Subpart F]

The Permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for MVACs in subpart B:

a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the prohibitions and required practices pursuant to 40 CFR 82.154 and 82.156.

b. Equipment used during the maintenance, service, repair or disposal of appliances shall comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

c. Persons performing maintenance, service, repairs or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.

d. Persons disposing of small appliances, MVACS, and MVAC-like appliances as defined in 40 CFR 82.152, shall comply with record keeping requirements pursuant to 40 CFR 82.155.

e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.

f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.

16. ACID RAIN PERMIT

Not applicable

SECTION IV PLANT SPECIFIC CONDITIONS

This section provides tables that include the emissions standards, emissions limitations, and work practices applicable to each emissions unit located at this facility. The Permittee shall comply with all applicable emissions standards, emissions limitations and work practices included herein.

The tables also include testing, monitoring, record keeping and reporting requirements specific to each emissions unit. In addition to the requirements included here in **Section IV**, the Permittee is also subject to the general testing, monitoring, record keeping and reporting requirements included in **Section III – Plant Wide Conditions** of this permit.

Unless otherwise provided in the specific requirements for an emissions unit, the Permittee shall maintain at the facility for at least five (5) years, and shall make available to the Department upon request, all records that the Permittee is required under this section to establish. **[Authority: COMAR 26.11.03.06C(5)(g)]**

Table IV – 1	
1.0	**Emissions Unit Number(s)** **Emission Unit B3 - (ARA Registration No. 005-0979-5-1513)**: One (1) 8.4 MMBtu/hr, natural gas fired boiler equipped with a low NOx burner, used for process and space heat, installed in 1995 and modified in 2013 **Emission Unit B4 - (ARA Registration No. 005-0979-5-1853)**: One (1) 9.9 MMBtu/hr, dual fuel-fired (biogas/natural gas) boiler, used for process and space heat, installed in 2003 and modified in 2021.
1.1	**Applicable Standards/Limits:** A. Visible Emissions Limitations **COMAR 26.11.09.05A(2),** which states that "a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers." Exceptions: COMAR 26.11.09.05A(3) establishes that Section A(1) does not apply to emissions during load changing, soot blowing, start-up, or adjustments or occasional cleaning of control equipment if (1) The visible emissions are not greater than 40 percent opacity; and

Table IV – 1	
	(2) The visible emissions do not occur for more than 6 consecutive minutes in any sixty minute period. B. Operational Limitation The Permittee shall burn only natural gas in Boiler B3, and either biogas or natural gas in Boiler B4 unless the Permittee applies for and receives an approval or permit to construct from the Department to burn alternate fuels. **[Authority: COMAR 26.11.02.09A]**
1.2	**Testing Requirements:** A. Visible Emissions Limitations See Monitoring, Record Keeping and Reporting Requirements. B. Operational Limitation See Record Keeping and Reporting Requirements.
1.3	**Monitoring Requirements:** A. Visible Emissions Limitations The Permittee shall properly operate and maintain the boilers in a manner to prevent visible emissions. **[Authority: COMAR 26.11.03.06C]** B. Operational Limitation See Record Keeping and Reporting Requirements.
1.4	**Record Keeping Requirements:** A. Visible Emissions Limitations The Permittee shall maintain a log of maintenance performed that relates to combustion performance. **[Authority: COMAR 26.11.03.06C]** B. Operational Limitation The Permittee shall maintain records of the quantity and types of fuel burned in the boiler. **[Authority: COMAR 26.11.02.19C(1)(c)]**

Table IV – 1	
1.5	**Reporting Requirements:** A. Visible Emissions Limitations The Permittee shall report incidents of visible emissions in accordance with condition 4, plant wide section "Report of Excess Emissions and Deviations". **[Authority: COMAR 26.11.03.06C]** B. Operational Limitation The Permittee shall submit records of the quantity and type of fuels burned with the annual emissions certification report. See permit condition 8 of Section III. **[Authority: COMAR 26.11.02.19C and COMAR 26.11.02.19D]**

Table IV – 2	
2.0	**Emissions Unit Number(s)** **Emission Unit B5 (CHP) - (ARA Registration No. 005-0979-9-1465)**: One (1) 400 kilowatt (536 horsepower) biogas/natural gas fired combined heat and power (CHP) generator
2.1	**Applicable Standards/Limits:** A. Visible Emissions Limitations **COMAR 26.11.09.05E**, which limits visible emissions from engines to 10% and 40% opacity during idle and operating modes, respectively. Exceptions to these opacity limits are as follows: (1) The 10% opacity limit during idle mode does not apply for a period of 2 consecutive minutes after a period of idling of 15 minutes for the purpose of clearing the exhaust system; (2) The 10% opacity limit during idle mode does not apply to emissions resulting directly from a cold engine start-up and warm-up for the following maximum periods: (a) Engines that are idling continuously when not in service: 30

Table IV – 2	
	minutes; and (b) All other engines: 15 minutes. (3) The 10% and 40% opacity limits do not apply while maintenance, repair, or testing is being performed by qualified mechanics. B. Operational Limitation The Permittee shall burn only premises generated biogas or natural gas as fuel in the CHP generator unless the Permittee obtains from the Department written authorization for the use of an alternative fuel. **[Authority: ARA Permit to Construct No. 005-0979-9-1465 issued on November 1, 2013]** C. NSPS Limitations **40 CFR 60, Subpart JJJJ**, which requires the Permittee to operate and maintain the CHP generator engine so that it meets the following emission standards, for the entire life of the engine: (a) Oxides of Nitrogen (NOx): 2.0 g/HP-hr or 150 ppmvd at 15% O_2 (b) Carbon Monoxide (CO): 5.0 g/HP-hr or 610 ppmvd at 15% O_2 (c) Volatile Organic Compounds (VOC): 1.0 g/HP-hr or 80 ppmvd at 15% O_2 **[Authority: 40 CFR §60.4233(e), §60.4234 and Table 1 to 40 CFR 60, Subpart JJJJ]**
2.2	**Testing Requirements:** A. Visible Emissions Limitations See Monitoring, Recordkeeping, and Reporting Requirements. B. Operational Limitation See Recordkeeping and Reporting Requirements. C. NSPS Limitations (3) Performance testing shall be conducted every 8,760 hours or 3

Table IV – 2

years, whichever comes first, to demonstrate continuous compliance. **[Authority: 40 CFR §60.4243(b)(2)(ii) and 40 CFR § 60.8]**

(4) At least 30 days prior to conducting a performance test, the Permittee shall submit a test protocol to the Department for review and approval. **[Authority: 40 CFR §60.8]**

(5) The Permittee must comply with the following requirements for each performance test:

(a) Each performance test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and according to the requirements in 40 CFR §60.8 and under the specific conditions that are specified by Table 2 of 40 CFR 60, Subpart JJJJ.

(b) The Permittee may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in 40 CFR §60.8(c). If the engine is non-operational, the Permittee does not need to startup the engine solely to conduct a performance test; however, the performance test must be conducted immediately upon startup of the engine.

(c) The Permittee must conduct three separate test runs for each performance test required in this section, as specified in 40 CFR §60.8(f). Each test run must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and last at least 1 hour.

(d) To determine compliance with the NOx mass per unit output emission limitation, convert the concentration of NOx in the engine exhaust as specified in 40 CFR §60.4244(d).

(e) To determine compliance with the CO mass per unit output emission limitation, convert the concentration of CO in the engine exhaust as specified in 40 CFR §60.4244(e).

(f) To determine compliance with the VOC mass per unit output emission limitation, convert the concentration of VOC in the engine exhaust as specified in 40 CFR §60.4244(f).

Table IV – 2	
	(g) If the Permittee chooses to measure VOC emissions using either Method 18 of 40 CFR Part 60, Appendix A, or Method 320 of 40 CFR Part 63, Appendix A, then it has the option of correcting the measured VOC emissions to account for the potential differences in measured values between these methods and Method 25A. The results from Method 18 and Method 320 can be corrected for response factor differences using Equations 4 and 5 of §60.4244(g). **[Authority: 40 CFR §60.4244]**
2.3	**Monitoring Requirements:** A. Visible Emissions Limitations The Permittee shall operate and maintain the CHP generator engine in a manner to prevent visible emissions. **[Authority: COMAR 26.11.03.06C]** B. Operational Limitation See Record Keeping and Reporting Requirements. C. NSPS Limitations See Recordkeeping and Reporting Requirements.
2.4	**Record Keeping Requirements:** A. Visible Emissions Limitations The Permittee shall maintain records of all maintenance/repairs performed and make them available to the Department upon request. **[Authority: COMAR 26.11.03.06C]** B. Operational Limitation The Permittee shall maintain records of the quantity and types of fuel burned in the CHP generator. **[Authority: COMAR 26.11.02.19C(1)(c)]** C. NSPS Limitations

Table IV – 2	
	The Permittee must maintain the following records: (1) All notifications submitted to comply with 40 CFR 60, Subpart JJJJ and all documentation supporting any notification. (2) Maintenance conducted on the engine. (3) Documentation that the engine meets the emission standards including records of all performance test results. **[Authority: 40 CFR §60.4245(a)]**
2.5	**Reporting Requirements:** A. Visible Emissions Limitations The Permittee shall make available to the Department upon request any records that the Permittee is required to maintain. The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations". **[Authority: COMAR 26.11.03.06C]** B. Operational Limitation The Permittee shall submit records of the quantity and type of fuels burned with the annual emissions certification report. See permit condition 8 of Section III. **[Authority: COMAR 26.11.02.19C and COMAR 26.11.02.19D]** C. NSPS Limitations The Permittee shall submit a copy of the performance test results within 60 days after each test has been completed, and make all other records required to be maintained available to the Department upon request. **[Authority: 40 CFR §60.4244 and COMAR 26.11.03.06C]**

Table IV – 3	
3.0	**Emissions Unit Number(s)** **Emission Unit PC1 and PC2 - (ARA Registration No. 005-0979-8-0056)**: Two (2) pure culture fermenters installed in 1967, each controlled by a water scrubber. PC1 (formerly F1) was modified in 2018 and 2020. PC2

Table IV – 3	
	(formerly F2) was modified in 1994, 2018, and 2020.
3.1	**Applicable Standards/Limits:** Control of VOC (1) **COMAR 26.11.19.17C(3)**, which requires the Permittee to maintain the temperature and pH within the following limits for the yeast manufacturing installations (F1 and F2): (a) between 75°F and 100°F; and (b) pH between 3.5 and 7.5. (2) The two new PC fermenters shall run one at a time for batch fermentation. **[Authority: PTC issued August 21, 2020]** (3) The recirculated water flow rate for the water scrubber shall be kept at least 1.8 gallons per minute (GPM) when the PC fermenter is in operation unless the permittee can demonstrate, to the satisfaction of the Department, that compliance with COMAR 26.11.06.08 & 09 for a nuisance or air pollution and COMAR 26.11.15.05 & 06 for toxic air pollutants can be achieved using less flow rate. **[Authority: PTC issued August 21, 2020]**
3.2	**Testing Requirements:** Control of VOC See Monitoring, Record Keeping, and Reporting Requirements
3.3	**Monitoring Requirements:** Control of VOC The Permittee shall monitor the following operating parameters to reduce VOC emissions from PC1 and PC2 when each PC is in operation: (1) The Permittee shall continuously monitor the temperature of the fermentation process. **[Authority: COMAR 26.11.19.17C(3)]**

Table IV – 3	
	(2) The Permittee shall measure the pH and the sugar content of the fermentation process at least twice per batch. **[Authority: COMAR 26.11.19.17C(3)]** (3) The Permittee shall monitor the water flow rate for each water scrubber at least once per shift. **[Authority: PTC issued August 21, 2020]**
3.4	**Record Keeping Requirements:** Control of VOC The Permittee shall maintain the following batch monitoring records on-site, for at least five years, and shall make them available to the Department upon request: (1) the temperature of the pure culture fermenters when the PC culture fermenter is in operation; (2) pH and the sugar content of the pure culture fermenters when the PC culture fermenter is in operation; (3) records of the the water flow rate of each water scrubber when the PC culture fermenter is in operation; and (4) The time and date of each fermenter in operation. **[Authority: COMAR 26.11.03.06C]**
3.5	**Reporting Requirements:** Control of VOC The Permittee shall submit to the Department, along with the semi-annual compliance certification report, a summary of those periods when the temperature and /or pH and water flow rate were outside the specified range. **[Authority: COMAR 26.11.03.06C]**

Table IV – 4	
4.0	**Emissions Unit Number(s)**

Table IV – 4	
	Emission Unit F4 - (ARA Registration No. 005-0979-8-0056): One (1) stock fermenter installed in 1986, equipped with a continuous emissions monitor.
4.1	**Applicable Standards/Limits:** Control of VOC (1) **COMAR 26.11.19.17C(2)(c)**, which limits the concentration of VOC from a stock fermenter to 300 ppm. The emissions limit is based on the average (arithmetic) undiluted VOC concentration during the time of a fermentation batch. (2) **COMAR 26.11.19.17D(3)**, which requires that the Permittee meet the 300 ppm VOC limit from the stock fermenter for at least 98% of all batches in each 12-month rolling period. (3) F4 fermenter shall be used as a stock fermenter unless the permittee obtains an approval from the Department for other purpose. **[Authority: PTC issued August 21, 2020]**
4.2	**Testing Requirements:** Control of VOC The Permittee shall perform required daily zero and span checks for the continuous emissions monitor unless an alternative procedure is approved by the Department. **[Authority: COMAR 26.11.19.17E]**
4.3	**Monitoring Requirements:** Control of VOC The Permittee shall continuously monitor the concentration of VOC as total hydrocarbons, reported as propane, in the exhaust gas from the stock fermenter using the following methods: (1) The Permittee shall use a continuous emission monitor to determine compliance with the 300 ppm VOC concentration emission limit from stock fermenter. **[Authority: COMAR 26.11.19.17D(1)]**

Table IV – 4	
	(2) The continuous emission monitor shall be used to generate fermentation batch average concentrations for the installation. **[Authority: COMAR 26.11.19.17D(2)]** The Permittee may utilize an alternative acceptable continuous emissions monitoring method. The alternative method requires Department approval in advance of its utilization.
4.4	**Record Keeping Requirements:** The Permittee shall maintain the following records on site, for at least five years, and shall make them available to the Department upon request: (1) VOC concentration monitoring data; and (2) Percentage of all nutritional yeast batches complying with VOC concentration standards in each rolling 12-month period. **[Authority: COMAR 26.11.03.06C]**
4.5	**Reporting Requirements:** The Permittee shall submit semi-annual reports summarizing process monitoring data by the end of January and the end of July. The semiannual report shall include: (1) A summary of the number of batches for each month and calculations showing the percent of batches that met the VOC standards for each month; (2) Calculations showing the percent of batches that met the VOC standards during the previous six 12 month rolling average periods; and (3) Calculations showing the percent of batches (by fermenter) that were not monitored during the 6-month period. **[Authority: COMAR 26.11.19.17F(1) and (2)]**

Table IV – 5	
5.0	**Emissions Unit Number(s)**

Table IV – 5	
	Emission Unit F5 - (ARA Registration No. 005-0979-8-0190) **Emission Unit F6 - (ARA Registration No. 005-0979-8-0209)** **Emission Unit F7 - (ARA Registration No. 005-0979-8-0236)** **Emission Unit F8 - (ARA Registration No. 005-0979-8-0237)** Four (4) fermenter unit, installed in 1989 (F5), 1992 (F6), 1995 (F7), and 1996 (F8), operated as either a 1st generation or a trade fermenter each equipped with a cyclone and continuous emissions monitor
5.1	**Applicable Standards/Limits:** Control of VOC When the fermenter unit is operated as a 1st generation fermenter: (1) **COMAR 26.11.19.17C(2)(b)**, which limits the concentration of VOC from a first generation fermenter to 150 ppm. The emission limit is based on the average (arithmetic) undiluted VOC concentration during the time of a fermentation batch. (2) **COMAR 26.11.19.17D(3)**, which requires that the Permittee meet the 150 ppm VOC limit from the first generation fermenter for at least 98% of all batches in each 12-month rolling period. When the fermenter unit is operated as a trade fermenter: (1) **COMAR 26.11.19.17C(2)(a)**, which limits the concentration of VOC from a trade fermenter to 100 ppm. The emissions limit is based on the average (arithmetic) undiluted VOC concentration during the time of a fermentation batch. (2) **COMAR 26.11.19.17D(3)**, which requires that the Permittee meet the 100 ppm VOC limit from the trade fermenter for at least 98% of all batches in each 12-month rolling period.
5.2	**Testing Requirements:** Control of VOC The Permittee shall perform required daily zero and span checks for the continuous emissions monitor unless an alternative procedure is approved by the Department. **[Authority: COMAR 26.11.19.17E]**

Table IV – 5	
5.3	**Monitoring Requirements:** Control of VOC The Permittee shall continuously monitor the concentration of VOC as total hydrocarbons, reported as propane, in the exhaust gas from each fermenter using the following methods: (1) The Permittee shall use a continuous emission monitor to determine compliance with the 150 ppm VOC concentration emission limit when operated as a first generation fermenter. **[Authority: COMAR 26.11.19.17D(1)]** (2) The Permittee shall use a continuous emission monitor to determine compliance with the 100 ppm VOC concentration emission limit when operated as a trade fermenter. **[Authority: COMAR 26.11.19.17D(1)]** (3) The continuous emission monitor shall be used to generate fermentation batch average concentrations for each installation. **[Authority: COMAR 26.11.19.17D(2)]** The Permittee may utilize an alternative acceptable continuous emissions monitoring method. The alternative method requires Department approval in advance of its utilization.
5.4	**Record Keeping Requirements:** Control of VOC The Permittee shall maintain the following records on site, for at least five years, and shall make them available to the Department upon request: (1) The Permittee shall identify time and date of each batch when the fermenter is operated as a first generation fermenter or a trade fermenter. (2) VOC concentration monitoring data; and (3) Percent compliance of all nutritional yeast batches with VOC concentration standards in each rolling 12-month period. **[Authority: COMAR 26.11.03.06C]**

Table IV – 5	
5.5	**Reporting Requirements:** Control of VOC The Permittee shall submit semi-annual reports summarizing process monitoring data by the end of January and the end of July. The semiannual report shall include: (1) A summary if the number of batches for each month and calculations showing the percent of batches that met the VOC standards for each month; (2) Calculations showing the percent of batches that met the VOC standards during the previous six 12 month rolling average periods; and (3) Calculations showing the percent of batches (by fermenter) that were not monitored during the 6-month period. **[Authority: COMAR 26.11.19.17F(1) and (2)]**

Table IV – 6	
6.0	**Emissions Unit Number(s):** **Emission Unit FL - Anaerobic Waste Water Pretreatment System - (ARA Registration No. 005-0979-8-0301)** An anaerobic pretreatment system for process wastewater, equipped with an enclosed flare to control biogas emissions from the wastewater pretreatment plant and a continuous emissions monitor. The exhaust biogas is vented through a caustic scrubber and burned in the CHP generator, Boiler B4, or in the enclosed flare as a back-up control device.
6.1	**Applicable Standards/Limits:** A. Visible Emissions Limitations **COMAR 26.11.06.02C(2)**, which prohibits visible emissions other than water in an uncombined form.

Table IV – 6	
	Exceptions: COMAR 26.11.06.02A(2) establishes that "Section C does not apply to emissions during start-up, and process modifications or adjustments, or occasional cleaning of control equipment, if: (a) the visible emissions are not greater than 40 percent opacity; and (b) the visible emissions do not occur for more than 6 consecutive minutes in any 60 minute period." B. Control of Particulate Matter **COMAR 26.11.06.03B(2)**, which limits particulate matter emissions to 0.03 grains per standard cubic foot of dry exhaust gas.
6.2	**Testing Requirements:** A. Visible Emissions Limitations See Monitoring, Record Keeping, and Reporting Requirements B. Control of Particulate Matter See Monitoring, Record Keeping, and Reporting Requirements
6.3	**Monitoring Requirements:** A. Visible Emissions Limitations & B. Control of Particulate The Permittee shall: (1) Properly operate and maintain the enclosed flare in a manner to prevent visible emissions and particulate matter emissions. (2) Perform a visual emissions observation of the exhaust gases from the enclosed flare for a 1-minute period at least once per calendar week. (3) Perform the following, if emissions are visible: (a) Inspect the enclosed flare and the operations, (b) Switch the biogas stream to the CHP or Boiler B4 and perform all necessary adjustments and/or repairs to the

Table IV – 6	
	enclosed flare within 48 hours, so that visible emissions are eliminated; (c) Document in writing the results of inspections, adjustments and/or repairs to the enclosed flare; and (d) If the Permittee is unable to switch the biogas stream to the CHP or Boiler B4 or make the required adjustments and/or repairs to the malfunctioning enclosed flare within 48 hours, the Permittee shall perform a Method 9 observation once daily when the flare is operating for 18 minutes until corrective action have eliminated the visible emissions. **[Authority: COMAR 26.11.03.06C]**
6.4	**Record Keeping Requirements**: A. Visible Emissions Limitations & B. Control of Particulate The Permittee shall keep a written or printable electronic record of each required observation for visible emissions for a period of at least 5 years. Each such record shall include the identification of the observer, the date of the observation, the time at the start of the observation, the time at the end of the observation if the observation endures for more than 1 minute, and an account of the observer's findings during performance of the observation. **[Authority: COMAR 26.11.03.06C]**
6.5	**Reporting Requirements**: A. Visible Emissions Limitations & B. Control of Particulate The Permittee shall report incidents of visible emissions in accordance with condition 4, plant wide section "Report of Excess Emissions and Deviations". **[Authority: COMAR 26.11.03.06C]**

Table IV – 7	
7.0	**Emissions Unit Number:**

Table IV – 7	
	Facility Wide Requirements
7.1	**Applicable Standards/Limits:** A. Control of VOC (1) **COMAR 26.11.19.02I**, which requires the Permittee to implement good operating practices to minimize Volatile Organic Compound (VOC) emissions into the atmosphere. (2) **COMAR 26.11.19.16C**, which requires the Permittee to minimize leaks from VOC equipment and their components, including process equipment, storage tanks, pumps, compressors, valves, flanges and other pipeline fittings, pressure relief valves, process drains, and open-ended pipes. B. Control of HAP The premises wide HAP emissions shall be less than 10 tons for single HAP (Acetaldehyde) and 25 tons for total HAP in any rolling 12-month period.
7.2	**Testing Requirements:** A. Control of VOC See Monitoring, Record Keeping, and Reporting Requirements. B. Control of HAP See Monitoring, Record Keeping, and Reporting Requirements
7.3	**Monitoring Requirements:** A. Control of VOC (1) In accordance with COMAR 26.11.19.02I, the Permittee shall implement "good operating practices" designed to minimize emissions of VOC to the atmosphere. (2) Where applicable, good operating practices shall, at a minimum, include the following: (a) Provisions for training operators with regard to practices,

Table IV – 7

procedures, and maintenance requirements that are consistent with equipment manufacturers' recommendations, and with requirements dictated by the Permittee's experiences with operation of equipment. The training shall include material concerning proper maintenance procedures for air pollution control equipment;

(b) Maintenance of covers on containers and other vessels that are not in use and that contain VOC or VOC-containing materials;

(c) Minimize spills of VOC-containing cleaning materials;

(d) Convey VOC-containing cleaning materials from one location to another in closed containers or pipelines;

(e) Minimize VOC emissions from cleaning of storage, mixing, and conveying equipment;

(f) Scheduling operations as much as practical to minimize color changes and other material changes when applying VOC-containing materials by spray application;

(g) Where practical, using high-volume-low-pressure (HVLP) spray applicators or other high efficiency application methods for spray application of VOC-containing materials; and

(h) Mixing and blending VOC-containing materials, as much as practical, in closed containers, and implementing preventive measures designed to minimize emissions from products that contain VOC for training of operators on practices, procedures, and maintenance requirements that are consistent with the equipment manufacturers' recommendations and the source's experience in operating the equipment, with the training to include proper procedures for maintenance of air pollution control equipment.

(3) The Permittee shall:

(a) Establish good operating practices in writing;

(b) Make the written operating practices available to the Department upon request; and

Table IV – 7

(c) Display the good operating practices so that they are clearly visible to the operator or include them in operator training.

(4) In accordance with COMAR 26.11.19.02I, the Permittee shall take all reasonable precautions to prevent or minimize the discharge of VOC into the atmosphere when cleaning process equipment, including containers, vessels, tanks, lines and pumps.

(5) Where applicable, reasonable precautions for equipment cleanup shall, at a minimum, include the following:

(a) Storing all wastes and waste materials, including cloth and paper that are contaminated with VOC, in closed containers;

(b) Preparing written standard operating procedures for frequently cleaned equipment, including when practical, provisions for the use of low VOC or non-VOC materials and procedures to minimize the quantity of VOC materials used;

(c) Using, when practical, detergents, high-pressure water, or other non-VOC cleaning operations to clean process equipment.

(6) In accordance with COMAR 26.11.19.02I, the Permittee shall minimize VOC emissions into the atmosphere from VOC storage and transfer operations.

(7) Where applicable, the Permittee shall, at a minimum:

(a) Install conservation vents or other vapor control measures designed to minimize standing losses, on all storage tanks with a capacity of 2,000 gallons or more, in VOC service; and

(b) Utilize vapor balance, vapor control lines, or other vapor

Table IV – 7	
	control measures when VOCs are transferred from a tank truck into a stationary storage tank with a capacity greater than 10,000 gallons and less than 40,000 gallons that store VOCs or materials containing VOCs, other than gasoline, that have a vapor pressure greater than 1.5 psia. (8) In accordance with COMAR 26.11.19.16C, the Permittee shall perform the following to minimize VOC emissions from equipment leaks: (a) Visually inspect all components on the premises for leaks at least once each calendar month. (b) Tag any leak immediately so that the tag is clearly visible. The tag shall be made of a material that will withstand any weather or corrosive conditions to which it may be normally exposed. The tag shall bear an identification number, the date the leak was discovered, and the name of the person who discovered the leak. The tag shall remain in place until the leak has been repaired. (c) Take immediate action to repair all observed VOC leaks that can be repaired within 48 hours. (d) Repair all other leaking components not later than 15 days after the leak is discovered. If a replacement part is needed, the part shall be ordered within 3 days after discovery of the leak, and the leak shall be repaired within 48 hours after receiving the part. (e) Maintain a supply of components or component parts that are recognized by the source to wear or corrode, or that otherwise need to be routinely replaced, such as seals, gaskets, packing, and pipe fittings. (f) Maintain a log that includes the name of the person conducting the inspection and the date on which leak inspections are made, the findings of the inspection, and a list of leaks by tag identification number.

Table IV – 7	
	(9) Components that cannot be repaired as required by COMAR 26.11.19.16 because they are inaccessible, or that cannot be repaired during operation of the source, shall be identified in the log and included within the source's maintenance schedule for repair during the next source shutdown. **[Authority: COMAR 26.11.19.16D]** B. Control of HAP The Permittee shall use mass balance, CEM results, stack test results, or AP42 to calculate acetaldehyde emissions. The Permittee can calculate monthly emissions based on each fermenter's throughput or hours of operation to evaluate the monthly emissions, as reported in the annual emission certification submitted with the Title V renewal application.
7.4	**Record Keeping Requirements:** A. Control of VOC (1) Good operating practices information as required by COMAR 26.11.19.02I shall be kept on-site at all times. **[Authority: COMAR 26.11.19.02I(2)(c)]** (2) Leak inspection logs as required by COMAR 26.11.19.16 shall be kept on-site for at least five (5) years. **[Authority: COMAR 26.11.19.16C(6)]** B. Control of HAP The Permittee shall maintain for at least five (5) years, and shall make available to the Department upon request, records of the following information: (a) monthly premises-wide acetaldehyde emissions; and (b) rolling 12-month premises-wide acetaldehyde emissions. **[Authority: COMAR 26.11.03.06C]**

Table IV – 7	
7.5	**Reporting Requirements**: A. Control of VOC (1) Good operating practices information as required by COMAR 26.11.19.02I shall be made available to the Department upon request. (2) Leak inspection logs as required by COMAR 26.11.19.16 shall be made available to the Department upon request. **[Authority: COMAR 26.11.03.06C]** B. Control of HAP The Permittee shall submit to the Department, along with the semi-annual compliance certification report, a summary of those periods when the rolling 12-month premises-wide acetaldehyde emissions is greater than the 10 tons. **[Authority: COMAR 26.11.03.06C]**

SECTION V INSIGNIFICANT ACTIVITIES

This section provides a list of insignificant emissions units that were reported in the Title V permit application. The applicable Clean Air Act requirements, if any, are listed below the insignificant activity.

(1) No. 1 Fuel burning equipment using gaseous fuels or no. 1 or no. 2 fuel oil, and having a heat input less than 1,000,000 Btu (1.06 gigajoules) per hour;

The unit is subject to the following requirements:

COMAR 26.11.09.05A(2), which establishes that the Permittee may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers.

Exceptions: COMAR 26.11.09.05A(2) does not apply to emissions during load changing, soot blowing, start-up, or adjustments or occasional cleaning of control equipment if:

(a) The visible emissions are not greater than 40 percent opacity; and

(b) The visible emissions do not occur for more than 6 consecutive minutes in any sixty minute period.

COMAR 26.11.09.07A(2)(b), which establishes that the Permittee may not burn, sell, or make available for sale any distillate fuel with a sulfur content by weight in excess of 0.3 percent.

(2) ✓ Space heaters utilizing direct heat transfer and used solely for comfort heat;

(3) ✓ Water cooling towers and water cooling ponds unless used for evaporative cooling of water from barometric jets or barometric condensers, or used in conjunction with an installation requiring a permit to operate;

(4) No. 1 Unheated VOC dispensing containers or unheated VOC rinsing containers of 60 gallons (227 liters) capacity or less;

The container is subject to COMAR 26.11.19.09D, which requires that the Permittee control emissions of volatile organic compounds (VOC) from cold degreasing operations by meeting the following requirements:

(a) COMAR 26.11.19.09D(2)(b), which establishes that the Permittee shall not use any VOC degreasing material that exceeds a vapor pressure of 1 mm Hg at 20 ° C;

(b) COMAR 26.11.19.09D(3)(a—d), which requires that the Permittee implement good operating practices designed to minimize spills and evaporation of VOC degreasing material. These practices, which shall be established in writing and displayed such that they are clearly visible to operators, shall include covers (including water covers), lids, or other methods of minimizing evaporative losses, and reducing the time and frequency during which parts are cleaned;

(c) COMAR 26.11.19.09D(4), which prohibits the use of any halogenated VOC for cold degreasing.

The Permittee shall maintain on site for at least five (5) years, and shall make available to the Department upon request, the following records of operating data:

(a) Monthly records of the total VOC degreasing materials used; and

(b) Written descriptions of good operating practices designed to minimize spills and evaporation of VOC degreasing materials.

(5) ✓ Equipment for drilling, carving, cutting, routing, turning, sawing, planing, spindle sanding, or disc sanding of wood or wood products;

(6) Containers, reservoirs, or tanks used exclusively for:

(a) No. 1 Storage of lubricating oils; and

(b) No. 1 Storage of Numbers 1, 2, 4, 5, and 6 fuel oil and aviation jet engine fuel.

(7) any other emissions unit, not listed in this section, with a potential to emit less than the "de minimus" levels listed in COMAR 26.11.02.10X (list and describe units):

No. 1 1,000-gallon anhydrous ammonia storage tanks

No. 1 22,500-gallon aqua ammonia storage tank

No. 1 6,000-gallon sulfuric acid tank

No. 1 6,000-gallon phosphoric acid tank

No. 1 150-gallon chlorine storage tank

No. 1 6,000-gallon caustic storage tank

No. 1 100,000-pound solar salt storage tank

No. 2 1,100,000-pound molasses storage tanks

No. 1 6,000-gallon propionic acid storage tank

No. 1 600-gallon propylene glycol storage tank

No. 1 4,100-gallon propylene glycol storage tank

No. 1 6,000-gallon aqueous brine (NaCl) storage tank

No. 4 Wastewater storage tanks (1- 40,000-gallon, 1- 161,000 gallon, 1- 238,000-gallon, 1- 475,000-gallon)

No. 1 Quality Control Laboratory

SECTION VI STATE-ONLY ENFORCEABLE CONDITIONS

The Permittee is subject to the following State-only enforceable requirements:

Applicable Regulations for the General Facility

(1) COMAR 26.11.06.08 and 26.11.06.09, which generally prohibit the discharge of emissions beyond the property line in such a manner that a nuisance or air pollution is created.

(2) COMAR 26.11.15.05, which requires that the Permittee implement "Best Available Control Technology for Toxics" (T – BACT) to control emissions of toxic air pollutants.

(3) COMAR 26.11.15.06, which prohibits the discharge of toxic air pollutants to the extent that such emissions will unreasonably endanger human health.

Compliance Demonstration for the General Facility

(1) The Compliance demonstrations addressed in Section IV of the Part 70 including good operating practices, testing, and monitoring are sufficient to demonstrate compliance with the requirements of COMAR 26.11.06.08 and 26.11.06.09.

(2) In addition to the compliance demonstrations addressed in Section IV of the Part 70 including good operating practices, testing, and monitoring, the Permittee shall submit to the Department by April 1 of each year during the term of this permit a written certification of the results of an analysis of emissions of toxic air pollutants from the Permittee's facility during the previous calendar year to meet the requirements of COMAR 26.11.15.05 and 26.11.15.06. The analysis shall include either:

(a) a statement that previously submitted compliance demonstrations for emissions of toxic air pollutants remain valid; or

(b) a revised compliance demonstration, developed in accordance with requirements included under COMAR 26.11.15 & 16 that accounts for changes in operations, analytical methods, emissions determinations, or other factors that have invalidated previous demonstrations.

Compliance Demonstration for the Anaerobic Waste Water Pretreatment System (ARA Registration No. 005-0979-8-0301)

(1) Operating Conditions

(a) The biogas generated from the wastewater pre-treatment system shall be combusted by the CHP unit, Boiler B4, or the enclosed flare prior to discharging to the atmosphere. The Permittee shall shut down the wastewater pre-treatment system if Boiler B4 and the enclosed flare are not operational.

(b) The biogas generated from the wastewater pre-treatment system shall be combusted by the CHP unit, Boiler B4, or the enclosed flare prior to discharging to the atmosphere. The Permittee shall shut down the wastewater pre-treatment system if Boiler B4 and the enclosed flare are not operational.

(c) The Permittee shall operate the caustic scrubber system such that the hydrogen sulfide concentration of the undiluted biogas stream exiting the caustic scrubber does not exceed 2000 parts per million by volume on a three-hour average basis so as to assure full and continuous compliance with all applicable air pollution control regulations and permit conditions.
[Authority: COMAR 26.11.02.02H; PTC issued 2003]

(2) Monitoring Requirements

(a) The Permittee shall:

(i) Continuously monitor the flow rate of the freshwater addition to the caustic scrubber;

(ii) Continuously monitor the flow rate of the scrubbing solution to the caustic scrubber;

(iii) Continuously monitor the pH of the scrubbing solution in the caustic scrubber;

(iv) Continuously monitor the hydrogen sulfide concentration (at least one reading every 15 minutes) in the exhaust gas leaving the caustic scrubber stack; and

(v) Calibrate the hydrogen sulfide monitor daily.

(b) In the event of a failure of the continuous hydrogen sulfide monitor the Permittee shall collect and analyze samples and record the hydrogen sulfide concentration in the exhaust gas leaving the caustic scrubber at least once per hour until the monitor is returned to service.

(c) In the event of a failure of the continuous pH monitor the Permittee shall collect and analyze samples and record the pH at least once per hour until the monitor is returned to service.
[Authority: COMAR 26.11.02.02H]

(3) Record Keeping and Reporting

The following records shall be kept on site and shall be made available to the Department upon request for at least 5 years:

(a) The flow rate of the freshwater addition to the caustic scrubber;

(b) The flow rate of the scrubbing solution in the caustic scrubber;

(c) The pH of the scrubbing solution in the caustic scrubber;

(d) The hydrogen sulfide concentration in the exhaust gas leaving the caustic scrubber;

(e) Daily records of calibration checks of the hydrogen sulfide monitor; and

(f) Information concerning the operation of compliance monitoring equipment, including accounts of all malfunctions and outages.

(g) The Permittee is required under "Report of Excess Emissions and Deviations" Permit Condition 4, Section III, to report the incidents.
[Authority: COMAR 26.11.02.02H]

AMERICAN YEAST CORPORATION
8215 BEACHWOOD ROAD, BALTIMORE, MD 21222
PERMIT NO. 24-005-0979
PART 70 OPERATING PERMIT FACT SHEET

BACKGROUND

American Yeast Corporation (American Yeast) manufactures mainly baker's yeast through a fermentation process at its Baltimore facility at 8215 Beachwood Road, Baltimore, Baltimore County, MD 21222. The facility has been in the yeast production business since 1967. All yeast is produced as cream yeast, which is sold in bulk. The fermentation process begins with a pure yeast culture fermenter, which is inoculated in the laboratory and introduced to the pure culture fermenter containing the feedstock. The fermentation process continues in steps through stock, first-generation, and trade stages to produce the finished product. Air is blown through the fermentation stages to promote yeast growth. The cream yeast is then concentrated by centrifuging, stored in tanks, or loaded into bulk trucks or totes. The SIC code for this facility is 2099.

The following table summarizes the actual emissions from American Yeast based on its Annual Emission Certification Reports:

Table 1: Actual Emissions

Year	NO_x (TPY)	SO_x (TPY)	PM_{10} (TPY)	CO (TPY)	VOC (TPY)	Total HAP (TPY)
2015	1.9	5.1	0.1	2.6	22.8	3.7
2016	2.8	8.1	0.1	4.7	22.7	4.0
2017	2.7	11.6	0.3	4.4	22.0	3.9
2018	1.6	7.7	0.2	7.6	21.1	3.8
2019	2.6	2.0	0.1	2.8	19.5	3.2
2020	3.3	2.6	0.1	3.6	12.3	4.6
2021	5.0	3.4	0.1	4.9	17.0	6.4
2022	3.2	1.9	0.1	2.7	9.7	3.6

The major source threshold for triggering Title V permitting requirements in Baltimore County is 25 tons per year for VOC, 25 tons for NOx, and 100 tons per year for any other criteria pollutants and 10 tons for a single HAP or 25 tons per year for total HAPS. Since the facility's potential VOC emissions are greater than the major source threshold, American Yeast Corporation is required to obtain a Title V – Part 70 Operating Permit under COMAR 26.11.03.01.

The Department received the Title V (Part 70) operating permit application for the facility on July 29, 2020. The Part 70 operating permit is a renewal of the current permit that expires on July 31, 2021.

CHANGES AND MODIFICATIONS TO THE PART 70 OPERATING PERMIT

The following modification since the issuance of the last Title V – Part 70 operating permit is incorporated into the renewal permit:

(1) On November 11, 2019, the Department issued a permit to construct for the modification of its existing yeast manufacturing plant by replacing two existing fermentation vessels, F1 and F2, with two new pure culture (PC) fermentation vessels, each controlled by a water scrubber.

(2) On August 21, 2020, the Department re-issued a permit to construct to supersede the previous one issued on November 11, 2019, because the F4 fermenter has been used as a stock fermenter instead of a first-generation fermenter. The permit also includes limitations on premises-wide emissions in order that the American Yeast Baltimore facility may be recognized as a synthetic minor source with respect to HAP emissions. Note that the permit to construct designates the emission unit numbers as F1 and F2; American Yeast has requested to use emission unit numbers PC1 and PC2 in this permit.

(3) On January 29, 2021, American Yeast requested a registration update to replace the No. 2 fuel oil with natural gas as a back-up fuel in Boiler B4, used for process and space heat. This registration update was granted.

(4) On July 6, 2023, American Yeast requested the following updates to the Title V – Part 70 operating permit, which were granted:

- There is one (1) 1,000-gallon anhydrous ammonia tank;
- There is one (1) 6,000-gallon phosphoric acid tank;
- Remove the two (2) 37,000-gallon wastewater storage tanks from the permit as they are no longer operational;
- Add one (1) 4,000-gallon propylene glycol tank; this tank was added as an insignificant activity as per COMAR 26.11.02.10Q(5), with propylene glycol having a boiling point of 368.6 °F; and
- Add one (1) 6,000-gallon liquid brine tank; this tank was added as an insignificant activity, the brine is aqueous NaCl.

REGULATORY APPLICABILITY

American Yeast is a major source of VOC emissions based on potential emissions and is subject to VOC RACT. They are a true minor source of nitrogen oxide (NOx) emissions and are therefore not subject to NOx RACT requirements. American Yeast is not subject to National Emissions Standards for Hazardous Air Pollutants (NESHAP) 40 CFR Part 63 Subpart CCCC—for

Manufacturing of Nutritional Yeast because it is a synthetic minor source of HAP. The facility is subject to the New Source Performance Standards (NSPS) of 40 CFR 60, Subpart JJJJ for Stationary Spark Ignition Internal Combustion Engines for the combined heat and power (CHP) generator.

COMPLIANCE ASSURANCE MONITORING (CAM) APPLICABILITY

Compliance Assurance Monitoring (CAM) applies to any emission unit at a major source that meets all of the following criteria:

(1) The emission unit is subject to a federally enforceable emission limit or standard for a regulated pollutant;

(2) The emission unit uses a control device to achieve compliance with any such emission limitation or standard; and

(3) The emission unit has the potential to emit pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year required for a source to be classified as a major source and must not otherwise be exempt from CAM.

The fermenters are subject to VOC RACT, but the fermenters do not have pre-control VOC emissions greater than 25 tons per year (the major source threshold in Baltimore County for VOC emissions) and are therefore not subject to CAM requirements.

The 1st generation and trade fermenters (F5, F6, F7, and F8) at the facility employ cyclones to minimize emissions of particulate matter and condensed vapors from the fermenters. The emission units do not have the potential to emit pre-control emissions of 100 tons or greater (the major source threshold for PM emissions) and are therefore not subject to CAM requirements.

The facility also uses a control device to reduce emissions of hydrogen sulfide from the wastewater pre-treatment system. Hydrogen sulfide is not a VOC or HAP; therefore, it is not considered a regulated pollutant subject to a federally enforceable emission limit or standard. The control of hydrogen sulfide is required by state-only toxic air pollutant regulations. CAM requirements do not apply to the wastewater pre-treatment system.

All of the emission units at American Yeast either do not employ a control device or have pre-control emissions less than applicable major source thresholds; therefore, CAM does not apply.

GREENHOUSE GAS (GHG) EMISSIONS

American Yeast emits the following greenhouse gases (GHGs) related to Clean Air Act requirements: carbon dioxide, methane, and nitrous oxide. These GHGs originate from various processes (i.e., boilers, combined heat and power generator, and gas flaring) within the facility premises applicable to American Yeast. The facility has not triggered the Prevention of Significant Deterioration (PSD) requirements for GHG emissions; therefore, there are no applicable GHG Clean Air Act requirements. The Permittee shall quantify facility-wide GHGs emissions and report them under Section 3 of the Part 70 permit.

The following table summarizes the actual emissions from American Yeast based on its Annual Emission Certification Reports:

Table 2: Greenhouse Gases Emissions Summary

GHG	Conversion factor	2020 tpy CO_2e	2021 tpy CO_2e	2022 tpy CO_2e
Carbon dioxide CO_2	1	5,202	6,944	3,809
Methane CH_4	25	2.5	3.3	1.8
Nitrous Oxide N_2O	300	28.6	38.4	20.9
Total GHG CO_{2eq}		**5,233**	**6,986**	**3,832**

EMISSION UNIT IDENTIFICATION

American Yeast has identified the following emission units as subject to Title V permitting requirements and applicable requirements.

Table 3: Emission Unit Identification

Emissions Unit Number	ARA Registration Number	Emissions Unit Name and Description	Date of Installation
B3	005-0979-5-1513	One (1) 8.4 MMBtu/hr natural gas-fired boiler for process steam and space heat	1995, Modified in 2013

B4	005-0979-5-1853	One (1) 9.9 MMBtu/hr dual fuel (biogas or natural gas) boiler for process steam and space heat	2003, modified in 2021
B5 (CHP)	005-0979-9-1465	One (1) 400 kilowatt (536 horsepower) biogas or natural gas-fired combined heat and power (CHP) generator	2014
FL	005-0979-8-0301	One (1) Wastewater Pretreatment System with an enclosed flare to control biogas emissions from the wastewater pre-treatment plant	2003
PC1	005-0979-8-0056	One (1) pure culture fermenter controlled by a water scrubber (PC1)	1967, modified in 2018, 2020
PC2	005-0979-8-0056	One (1) pure culture fermenter controlled by a water scrubber (PC2)	1967, modified in 1994, 2018, and 2020
F4	005-0979-8-0056	One (1) stock fermenter equipped with a continuous emissions monitor	1986, modified in 1994, 2020
F5	005-0979-8-0190	One (1) fermenter unit operated as either a 1st generation or a trade fermenter equipped with a cyclone and continuous emissions monitor	1989
F6	005-0979-8-0209	One (1) fermenter unit operated as either a 1st generation or a trade fermenter equipped with a cyclone and continuous emissions monitor	1991
F7	005-0979-8-0236	One (1) fermenter unit operated as either a 1st generation or a trade fermenter equipped with a cyclone and continuous emissions monitor	1995
F8	005-0979-8-0237	One (1) fermenter unit operated as either a 1st generation or a trade fermenter equipped with a cyclone and continuous emissions monitor	1995

AN OVERVIEW OF THE PART 70 PERMIT

The Fact Sheet is an informational document. If there are any discrepancies between the Fact Sheet and the Part 70 permit, the Part 70 permit is the enforceable document.

Section I of the Part 70 Permit contains a brief description of the facility and an inventory list of the emissions units for which applicable requirements are identified in Section IV of the permit.

Section II of the Part 70 Permit contains the general requirements that relate to administrative permit actions. This section includes the procedures for renewing, amending, reopening, and transferring permits, the relationship to permits to construct and approvals, and the general duty to provide information and to comply with all applicable requirements.

Section III of the Part 70 Permit contains the general requirements for testing, record keeping and reporting; and requirements that affect the facility as a whole, such as open burning, air pollution episodes, particulate matter from construction and demolition activities, asbestos provisions, ozone depleting substance provisions, general conformity, and acid rain permit. This section includes the requirement to report excess emissions and deviations, to submit an annual emissions certification report and an annual compliance certification report, and results of sampling and testing.

Section IV of the Part 70 Permit identifies the emissions standards, emissions limitations, operational limitations, and work practices applicable to each emissions unit located at the facility. For each standard, limitation, and work practice, the permit identifies the basis upon which the Permittee will demonstrate compliance. The basis will include testing, monitoring, record keeping, and reporting requirements. The demonstration may include one or more of these methods.

Section V of the Part 70 Permit contains a list of insignificant activities. These activities emit very small quantities of regulated air pollutants and do not require a permit to construct or registration with the Department. For insignificant activities that are subject to a requirement under the Clean Air Act, the requirement is listed under the activity.

Section VI of the Part 70 Permit contains State-only enforceable requirements. Section VI identifies requirements that are not based on the Clean Air Act, but solely on Maryland air pollution regulations. These requirements generally relate to the prevention of nuisances and implementation of Maryland's Air Toxics Program.

REGULATORY REVIEW/TECHNICAL REVIEW/COMPLIANCE METHODOLOGY

Table IV-1

(1) **Emission Unit B3 - (ARA Registration No. 005-0979-5-1513)**: One (1) 8.4 MMBtu/hr natural gas-fired boiler used for process and space heat

(2) **Emission Unit B4 - (ARA Registration No. 005-0979-5-1853)**: One (1) 9.9 MMBtu/hr, dual fuel fired (biogas/natural gas) boiler, used for process and space heat

Emission Units B3 and B4 are small boilers, each with a maximum design heat input capacity of less than 10 MMBtu/hr. At a design heat input capacity of less than 10 MMBtu/hr, the boilers are not subject to NSPS Subpart Dc.

Boiler B3 was permitted as a dual-fired boiler (No. 2 fuel oil and natural gas), but when the burner was replaced in 2013, American Yeast removed the capability to burn No. 2 fuel oil. The boiler now burns only natural gas and is exempt from the NESHAP requirements of 40 CFR 63, Subpart JJJJJJ.

Boiler B4 was initially permitted as a dual-fired boiler (biogas and No. 2 fuel oil) to burn the processed biogas that results from the pre-treatment of the wastewater. On January 29, 2021, American Yeast requested a registration update to replace No. 2 fuel oil with natural gas as a back-up fuel. Boiler B4 is not subject to 40 CFR 63, Subpart JJJJJJ.

A. Visible Emissions Limitations

COMAR 26.11.09.05A(2), which states that "a person may not cause or permit the discharge of emissions from any fuel-burning equipment, other than water in an uncombined form, which is visible to human observers."

Exceptions: COMAR 26.11.09.05A(3) establishes that Section A(1) does not apply to emissions during load changing, soot blowing, start-up, or adjustments or occasional cleaning of control equipment if

(1) The visible emissions are not greater than 40 percent opacity; and

(2) The visible emissions do not occur for more than 6 consecutive minutes in any sixty-minute period.

Compliance Demonstration

(1) The Permittee must properly operate and maintain the boilers in a manner to prevent visible emissions.

(2) The Permittee will maintain records of maintenance performed on the boilers to prevent visible emissions.

(3) The Permittee shall report incidents of visible emissions in accordance with condition 4, plant-wide section "Report of Excess Emissions and Deviations". **[Authority: COMAR 26.11.03.06C]**

Rationale for Periodic Monitoring Strategy

Boilers of this size that are properly maintained and operated will operate without visible emissions when burning natural gas, distillate fuel oil, or biogas. The requirements of record keeping and reporting are sufficient to demonstrate compliance. No additional periodic monitoring is required.

B. Operational Limitation

The Permittee shall burn only natural gas in Boiler B3, and either biogas or natural gas in Boiler B4 unless the Permittee applies for and receives an approval or permit to construct from the Department to burn alternate fuels. **[Authority: COMAR 26.11.02.09A]**

Compliance Demonstration

(1) The Permittee shall maintain records of the quantity and types of fuel burned in each boiler. **[Authority: COMAR 26.11.02.19C(1)(c)]**

(2) The Permittee shall submit records of the quantity and type of fuels burned with the annual emissions certification report. See permit condition 8 of Section III. **[Authority: COMAR 26.11.02.19C and COMAR 26.11.02.19D]**

Rationale for Periodic Monitoring Strategy

The requirements of record keeping and reporting the quantity and types of fuel burned in each boiler in the annual emissions certification report are sufficient to demonstrate compliance. No additional periodic monitoring is required.

Table IV-2
Emission Unit B5 (CHP) - (ARA Registration No. 005-0979-9-1465): One (1) 400 kilowatt (536 horsepower) biogas/natural gas fired combined heat and power generator

The CHP unit began operation in March 2016. The CHP unit was permitted to burn both natural gas and biogas. American Yeast burns biogas (digester gas) as a primary fuel in this CHP unit, with natural gas as a back-up fuel.

Applicable Standards/Limits

A. Visible Emissions Limitations

COMAR 26.11.09.05E, which limits visible emissions from engines to 10% and 40% opacity during idle and operating modes, respectively. Exceptions to these opacity limits are as follows:

(1) The 10% opacity limit during idle mode does not apply for a period of 2 consecutive minutes after a period of idling of 15 minutes for the purpose of clearing the exhaust system;

(2) The 10% opacity limit during idle mode does not apply to emissions resulting directly from a cold engine start-up and warm-up for the following maximum periods:

(a) Engines that are idling continuously when not in service: 30 minutes; and
(b) All other engines: 15 minutes.

(3) The 10% and 40% opacity limits do not apply while maintenance, repair, or testing is being performed by qualified mechanics.

Compliance Demonstration
(1) The Permittee shall operate and maintain the CHP generator engine in a manner to prevent visible emissions.

(2) The Permittee shall maintain records of all maintenance/repairs performed and make them available to the Department upon request.

(3) The Permittee shall make available to the Department upon request any records that the Permittee is required to maintain. The Permittee shall report incidents of visible emissions in accordance with Permit Condition

4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations".
[Authority: COMAR 26.11.03.06C]

Rationale for Periodic Monitoring Strategy
To comply with these requirements, the Permittee must properly operate and maintain the CHP generator engine in a manner to prevent visible emissions. CHP units of this size that are properly maintained will operate without visible emissions when burning biogas. The requirements of record keeping and reporting are sufficient to demonstrate compliance. No additional periodic monitoring is required.

B. Operational Limitation

The Permittee shall burn only premises generated biogas or natural gas as fuel in the CHP generator unless the Permittee obtains from the Department written authorization for the use of an alternative fuel. **[Authority: ARA Permit to Construct No. 005-0979-9-1465 issued on November 1, 2013]**

Compliance Demonstration
(1) The Permittee shall maintain records of the quantity and types of fuel burned in the CHP generator. **[Authority: COMAR 26.11.02.19C(1)(c)]**

(2) The Permittee shall submit records of the quantity and type of fuels burned with the annual emissions certification report. See permit condition 8 of Section III. **[Authority: COMAR 26.11.02.19C and COMAR 26.11.02.19D]**

Rationale for Periodic Monitoring Strategy
The requirements of record keeping and reporting are sufficient to demonstrate compliance. No additional periodic monitoring is required.

C. NSPS Limitations

40 CFR 60, Subpart JJJJ, which requires the Permittee to operate and maintain the CHP generator engine so that it meets the following emission standards, for the entire life of the engine:

(1) Oxides of Nitrogen (NOx): 2.0 g/HP-hr or 150 ppmvd at 15% O_2

(2) Carbon Monoxide (CO): 5.0 g/HP-hr or 610 ppmvd at 15% O_2

(3) Volatile Organic Compounds (VOC): 1.0 g/HP-hr or 80 ppmvd at 15% O_2

[Authority: 40 CFR §60.4233(e), §60.4234 and Table 1 to 40 CFR 60, Subpart JJJJ]

Compliance Demonstration
Due to issues with the CHP unit's start-up, an initial performance test was conducted on May 10, 2016, and demonstrated compliance with the requirements of 40 CFR 60, Subpart JJJJ. The Permittee will also conduct subsequent performance testing every 8,760 hours or three years - whichever comes first. The Permittee must keep records of all notifications and performance testing and prepare a copy of the test results to be submitted to the Department after the test is completed.

Note: The CHP unit has not run since December 2018 as it awaits repair to the computer interface. Per the compliance FCE report of January 8, 2020, the Company is aware that a performance test will be required if the unit returns to operation.

Rationale for Periodic Monitoring Strategy
40 CFR 60, Subpart JJJJ outlines the specific performance test methods, procedures, frequency and notification, record keeping, and reporting requirements applicable to the CHP generator to demonstrate continuous compliance with the subpart. No additional periodic monitoring is required.

Table IV-3
Emission Unit PC1 and PC2 - (ARA Registration No. 005-0979-8-0056): Two (2) pure culture fermenters modified in 2018 and 2020, each controlled by a water scrubber.

Applicable Standards/Limits

A. Control of VOC

(1) **COMAR 26.11.19.17C(3)**, which requires the Permittee to maintain the temperature and pH within the following limits for the yeast manufacturing installations (PC1 and PC2):

(a) between 75°F and 100°F; and

(b) pH between 3.5 and 7.5.

(2) The PC1 and PC2 fermenters shall run one at a time for batch fermentation. **[Authority: PTC issued August 21, 2020]**

(3) The recirculated water flow rate for the water scrubber shall be kept at least 1.8 gallons per minute (GPM) when the PC fermenter is in operation. **[Authority: PTC issued August 21, 2020]**

Compliance Demonstration

(1) The Permittee shall monitor the following operating parameters to reduce VOC emissions from PC1 and PC2 when each PC is in operation:

(a) The Permittee shall continuously monitor the temperature of the fermentation process. **[Authority: COMAR 26.11.19.17C(3)]**; and

(b) The Permittee shall measure the pH and the sugar content of the fermentation process at least twice per batch. **[Authority: COMAR 26.11.19.17C(3)]**

(c) The Permittee shall monitor the water flow rate for each water scrubber at least once per shift. **[Authority: PTC issued August 21, 2020]**

(2) The Permittee shall maintain the following batch monitoring records on-site for at least five years and shall make them available to the Department upon request:

(a) the temperature of the pure culture fermenters when the PC culture fermenter is in operation;

(b) pH and the sugar content of the pure culture fermenters when the PC culture fermenter is in operation;

(c) records of the water flow rate of each water scrubber when the PC culture fermenter is in operation; and

(d) The time and date of each fermenter in operation. **[Authority: COMAR 26.11.03.06C]**

Rationale for Periodic Monitoring Strategy

The Permittee shall monitor the time and date of each fermenter, water flow rate of the scrubber in operation, pH, temperature, and sugar content of each batch. The Permittee shall keep records of this information and submit any exceedances or deviations to the Department in the compliance certification report. The record keeping and reporting are sufficient to demonstrate compliance with the applicable requirements.

Table IV-4

Emission Unit F4 - (ARA Registration No. 005-0979-8-0056): One (1) stock fermenter installed in 1986, equipped with a continuous emissions monitor

Applicable Standards/Limits

Control of VOC

(1) **COMAR 26.11.19.17C(2)(c)**, which limits the concentration of VOC from a stock fermenter to 300 ppm. The emissions limit is based on the average (arithmetic) undiluted VOC concentration during the time of a fermentation batch.

(2) **COMAR 26.11.19.17D(3)**, which requires that the Permittee meet the 300 ppm VOC limit from the stock fermenter for at least 98% of all batches in each 12-month rolling period.

Compliance Demonstration

(1) The Permittee shall perform required daily zero and span checks for the continuous emissions monitor unless an alternative procedure is approved by the Department. **[Authority: COMAR 26.11.19.17E]**

(2) The Permittee shall use a continuous emission monitor to determine compliance with the 300 ppm VOC concentration emission limit from the stock fermenter. **[Authority: COMAR 26.11.19.17D(1)]**

(3) The continuous emission monitor shall be used to generate fermentation batch average concentrations for the installation. **[Authority: COMAR 26.11.19.17D(2)]**

(4) The Permittee shall maintain the following records on-site for at least five years and shall make them available to the Department upon request:

(a) VOC concentration monitoring data; and

(b) Percentage of all nutritional yeast batches complying with the VOC concentration standards in each rolling 12-month period.
[Authority: COMAR 26.11.03.06C]

(5) The Permittee shall submit semi-annual reports summarizing process monitoring data by the end of January and July. The semi-annual report shall include:

(a) A summary of the number of batches for each month and calculations showing the percent of batches that met the VOC standards for each month;

(b) Calculations showing the percent of batches that met the VOC standards during the previous six 12 month rolling average periods; and

(c) Calculations showing the percent of batches (by fermenter) that were not monitored during the 6-month period.

[Authority: COMAR 26.11.19.17F(1) and (2)]

Rationale for Periodic Monitoring Strategy

Daily zero and span checks are adequate to ensure normal operation of CEMs for assessing VOC emissions. The requirements of record keeping, and reporting are sufficient to demonstrate compliance. No additional periodic monitoring is required.

Table IV-5
Emission Unit F5 - (ARA Registration No. 005-0979-8-0190)
Emission Unit F6 - (ARA Registration No. 005-0979-8-0209)
Emission Unit F7 - (ARA Registration No. 005-0979-8-0236)
Emission Unit F8 - (ARA Registration No. 005-0979-8-0237)

Four (4) fermenter unit, installed in 1989 (F5), 1992 (F6), 1995 (F7), and 1996 (F8), operated as either a 1st generation or a trade fermenter, each equipped with a cyclone and continuous emissions monitor

Applicable Standards/Limits

Control of VOC

When the fermenter unit is operated as a 1st generation fermenter:

(1) **COMAR 26.11.19.17C(2)(b)**, which limits VOC concentration from a 1st generation fermenter to 150 ppm. The emissions limit is based on the average (arithmetic) undiluted VOC concentration during the time of a fermentation batch.

(2) **COMAR 26.11.19.17D(3)**, which requires that the Permittee meet the 150 ppm VOC limit from the 1st generation fermenter for at least 98% of all batches in each 12-month rolling period.

When the fermenter unit is operated as a trade fermenter:

(1) **COMAR 26.11.19.17C(2)(a)**, which limits VOC concentration from a trade fermenter to 100 ppm. The emissions limit is based on the average (arithmetic) undiluted VOC concentration during the time of a fermentation batch.

(2) **COMAR 26.11.19.17D(3)**, which requires that the Permittee meet the 100 ppm VOC limit from the trade fermenter for at least 98% of all batches in each 12-month rolling period.

Compliance Demonstration

(1) The Permittee shall use a continuous emission monitor to determine compliance with the 150 ppm VOC concentration emission limit when operated as a first-generation fermenter. **[Authority: COMAR 26.11.19.17D(1)]**

(2) The Permittee shall use a continuous emission monitor to determine compliance with the 100 ppm VOC concentration emission limit when operated as a trade fermenter. **[Authority: COMAR 26.11.19.17D(1)]**

(3) The Permittee shall perform required daily zero and span checks for the continuous emissions monitor unless an alternative procedure is approved by the Department. **[Authority: COMAR 26.11.19.17E]**

(4) The continuous emission monitor shall be used to generate fermentation batch average concentrations for each installation. **[Authority: COMAR 26.11.19.17D(2)]**

(5) The Permittee shall maintain the following records on site, for at least five years, and shall make them available to the Department upon request:

(a) The Permittee shall identify time and date of each batch when the fermenter is operated as a first-generation fermenter or a trade fermenter.

(b) VOC concentration monitoring data; and

(c) Percent compliance of all nutritional yeast batches with VOC concentration standards in each rolling 12-month period.

[Authority: COMAR 26.11.03.06C]

(6) The Permittee shall submit semi-annual reports summarizing process monitoring data by the end of January and July. The semi-annual report shall include:

(a) A summary of the number of batches for each month and calculations showing the percent of batches that met the VOC standards for each month;

(b) Calculations showing the percent of batches that met the VOC standards during the previous six 12 month rolling average periods; and

(c) Calculations showing the percent of batches (by fermenter) that were not monitored during the 6-month period.

[Authority: COMAR 26.11.19.17F(1) and (2)]

Rationale for Periodic Monitoring Strategy

Daily zero and span checks are adequate to ensure normal operation of CEMs for assessing VOC emissions. The requirements of records keeping and reporting are sufficient for compliance demonstration. No additional periodic monitoring is required.

Table IV-6
Emission Unit FL - Anaerobic Waste Water Pretreatment System - (ARA Registration No. 005-0979-8-0301)

An anaerobic pre-treatment system, equipped with an enclosed flare and a continuous emissions monitor, controls biogas emissions from the wastewater. The exhaust biogas is vented through a caustic scrubber and burned in the CHP generator, Boiler B4, or in the enclosed flare as a back-up control device.

Applicable Standards/Limits

A. Visible Emissions Limitations

COMAR 26.11.06.02C(2), which prohibits visible emissions other than water in an uncombined form.

Exceptions: COMAR 26.11.06.02A(2) establishes that "Section C does not apply to emissions during start-up, and process modifications or adjustments, or occasional cleaning of control equipment, if: (a) the visible emissions are not greater than 40 percent opacity; and (b) the visible emissions do not occur for more than 6 consecutive minutes in any 60 minute period."

B. Control of Particulate Matter Emissions

COMAR 26.11.06.03B(2), which limits particulate matter emissions to 0.03 grains per standard cubic foot of dry exhaust gas.

Compliance Demonstration of A and B
(1) The Permittee shall:

(a) Properly operate and maintain the enclosed flare in a manner to prevent visible emissions and particulate matter emissions.

(b) Perform a visual emissions observation of the exhaust gases from the enclosed flare for a 1-minute period at least once per calendar week.

(c) Perform the following if emissions are visible:

(i) Inspect the enclosed flare and the operations;

(ii) Switch the biogas stream to the CHP or Boiler B4 and perform all necessary adjustments and/or repairs to the enclosed flare within 48 hours so that visible emissions are eliminated;

(iii) Document in writing the results of inspections, adjustments, and/or repairs to the enclosed flare; and

(iv) If the Permittee is unable to switch the biogas stream to the CHP or Boiler B4 or make the required adjustments and/or repairs to the malfunctioning enclosed flare within 48 hours, the Permittee shall perform a Method 9 observation once daily when the flare is operating for 18 minutes until corrective action has eliminated the visible emissions.

[Authority: COMAR 26.11.03.06C]

(2) The Permittee shall keep a written or printable electronic record of each required observation for visible emissions for a period of at least 5 years. Each such record shall include the identification of the observer, the date of the observation, the time at the start of the observation, the time at the end of the observation if the observation endures for more than 1 minute, and an account of the observer's findings during performance of the observation. **[Authority: COMAR 26.11.03.06C]**

(3) The Permittee shall report incidents of visible emissions in accordance with condition 4, plant-wide section "Report of Excess Emissions and Deviations". **[Authority: COMAR 26.11.03.06C]**

Rationale for Periodic Monitoring Strategy
Under normal operation, an enclosed flare is unlikely to cause visible emission, which is a good indication of excess PM emissions. The requirements of visible emissions observation, record keeping, and reporting are sufficient for compliance demonstration.

Table IV-7
Facility Wide Requirements

Applicable Standards/Limits

A. Control of VOC - Good Operating Practices and Leak Detection and Repair

(1) **COMAR 26.11.19.02I**, which requires the Permittee to implement good operating practices to minimize Volatile Organic Compound (VOC) emissions into the atmosphere.

(2) **COMAR 26.11.19.16C**, which requires the Permittee to minimize leaks from VOC equipment and their components, including process equipment, storage tanks, pumps, compressors, valves, flanges and other pipeline fittings, pressure relief valves, process drains, and open-ended pipes.

Compliance Demonstration
To comply with COMAR 26.11.19.02I, the Permittee shall establish "good operating practices" for the facility in writing and implement the practices at the facility. The "good operating practices" shall include provisions for training operators on methods to minimize VOC emissions at the facility and provisions for minimizing VOC emissions from clean-up and storage operations, including maintaining covers on containers of VOC. The Permittee shall also display the "good operating practices" documents in a clear view for all operators who work in VOC emitting process areas and include them in operator training.

To comply with COMAR 26.11.19.16, the Permittee shall conduct monthly VOC leak inspections of all equipment and their components that may cause leaks of VOC. The Permittee is also required to tag any leaks discovered and repair the leak within the guidelines specified in COMAR 26.11.19.16. Logs

of the leak inspections must be kept and made available to the Department upon request.

Rationale for Periodic Monitoring Strategy
COMAR 26.11.19.02I and COMAR 26.11.19.16 outline specific methods to demonstrate compliance with each of these regulations. By establishing and implementing "good operating practices" in writing and by conducting monthly VOC leak inspections, the Permittee is able to demonstrate that they are minimizing VOC emissions as required by COMAR 26.11.19.02I and COMAR 26.11.19.16. No additional periodic monitoring is required.

B. Control of HAP
The premises-wide HAP emissions shall be less than 10 tons for single HAP (Acetaldehyde) and 25 tons for total HAP in any rolling 12-month period.

Compliance Demonstration
(1) The Permittee shall use mass balance, CEM results, stack test results, or AP42 to calculate acetaldehyde emissions. The Permittee can calculate monthly emissions based on each fermenter's throughput or hours of operation to evaluate the monthly emissions, as reported in the annual emission certification submitted with the Title V renewal application.

(2) The Permittee shall maintain for at least five (5) years, and shall make available to the Department upon request, records of the following information:

(a) monthly premises-wide acetaldehyde emissions; and

(b) rolling 12-month premises-wide acetaldehyde emissions.
[Authority: COMAR 26.11.03.06C]

(3) The Permittee shall submit to the Department, along with the semi-annual compliance certification report, a summary of those periods when the rolling 12-month premises-wide acetaldehyde emissions are greater than the 10 tons. **[Authority: COMAR 26.11.03.06C]**

Rationale for Periodic Monitoring Strategy
Since acetaldehyde is the only source of HAP emissions for the facility, monitoring rolling 12-month premises-wide acetaldehyde emissions is sufficient to demonstrate a synthetic minor status for HAP. The requirements of monitoring, record keeping, and reporting are adequate for compliance demonstration.

COMPLIANCE SCHEDULE

American Yeast is currently in compliance with all applicable air quality regulations.

TITLE IV – ACID RAIN

American Yeast is not subject to Title IV requirements.

TITLE VI – OZONE DEPLETING SUBSTANCES

American Yeast is not subject to Title VI requirements.

SECTION 112(r) – ACCIDENTAL RELEASE

American Yeast is not subject to the requirements of Section 112(r).

PERMIT SHIELD

American Yeast did not request a permit shield.

INSIGNIFICANT ACTIVITIES

This section provides a list of insignificant emissions units that were reported in the Title V permit application. The applicable Clean Air Act requirements, if any, are listed below the insignificant activity.

(1) No. 1 Fuel burning equipment using gaseous fuels or no. 1 or no. 2 fuel oil, and having a heat input less than 1,000,000 Btu (1.06 gigajoules) per hour;

The unit is subject to the following requirements:

COMAR 26.11.09.05A(2), which establishes that the Permittee may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers.

Exceptions: COMAR 26.11.09.05A(2) does not apply to emissions during load changing, soot blowing, start-up, or adjustments or occasional cleaning of control equipment if:

(a) The visible emissions are not greater than 40 percent opacity; and

(b) The visible emissions do not occur for more than 6 consecutive minutes in any sixty minute period.

COMAR 26.11.09.07A(2)(b), which establishes that the Permittee may not burn, sell, or make available for sale any distillate fuel with a sulfur content by weight in excess of 0.3 percent.

(2) ✓ Space heaters utilizing direct heat transfer and used solely for comfort heat;

(3) ✓ Water cooling towers and water cooling ponds unless used for evaporative cooling of water from barometric jets or barometric condensers, or used in conjunction with an installation requiring a permit to operate;

(4) No. 1 Unheated VOC dispensing containers or unheated VOC rinsing containers of 60 gallons (227 liters) capacity or less;

The container is subject to COMAR 26.11.19.09D, which requires that the Permittee control emissions of volatile organic compounds (VOC) from cold degreasing operations by meeting the following requirements:

(a) COMAR 26.11.19.09D(2)(b), which establishes that the Permittee shall not use any VOC degreasing material that exceeds a vapor pressure of 1 mm Hg at 20 ° C;

(b) COMAR 26.11.19.09D(3)(a—d), which requires that the Permittee implement good operating practices designed to minimize spills and evaporation of VOC degreasing material. These practices, which shall be established in writing and displayed such that they are clearly visible to operators, shall include covers (including water covers), lids, or other methods of minimizing evaporative losses, and reducing the time and frequency during which parts are cleaned;

(c) COMAR 26.11.19.09D(4), which prohibits the use of any halogenated VOC for cold degreasing.

The Permittee shall maintain on site for at least five (5) years, and shall make available to the Department upon request, the following records of operating data:

(a) Monthly records of the total VOC degreasing materials used; and

(b) Written descriptions of good operating practices designed to minimize spills and evaporation of VOC degreasing materials.

(5) ✓ Equipment for drilling, carving, cutting, routing, turning, sawing, planing, spindle sanding, or disc sanding of wood or wood products;

(6) Containers, reservoirs, or tanks used exclusively for:

(a) No. 1 Storage of lubricating oils; and

(b) No. 1 Storage of Numbers 1, 2, 4, 5, and 6 fuel oil and aviation jet engine fuel.

(7) any other emissions unit, not listed in this section, with a potential to emit less than the "de minimus" levels listed in COMAR 26.11.02.10X (list and describe units):

No. 1 1,000-gallon anhydrous ammonia storage tanks

No. 1 22,500-gallon aqua ammonia storage tank

No. 1 6,000-gallon sulfuric acid tank

No. 1 5,000-gallon phosphoric acid tank

No. 1 150-gallon chlorine storage tank

No. 1 6,000-gallon caustic storage tank

No. 1 100,000-pound solar salt storage tank

No. 2 1,100,000-pound molasses storage tanks

No. 1 6,000-gallon propionic acid storage tank

No. 1 600-gallon propylene glycol storage tank

No. 1 4,100-gallon propylene glycol storage tank

No. 1 6,000-gallon aqueous brine (NaCl) storage tank

No. 4 Wastewater storage tanks (1- 40,000-gallon, 1- 161,000 gallon, 1- 238,000-gallon, 1- 475,000-gallon)

No. 1 Quality Control Laboratory

STATE ONLY ENFORCEABLE REQUIREMENTS

This section of the permit contains state-only enforceable requirements. The requirements in this section will not be enforced by the U.S. Environmental Protection Agency. The requirements in this section are not subject to COMAR 26.11.03 10 - Public Petitions for Review to EPA Regarding Part 70 Permits.

The Permittee is subject to the following State-only enforceable requirements:

Applicable Regulations for the General Facility

(1) COMAR 26.11.06.08 and 26.11.06.09, which generally prohibit the discharge of emissions beyond the property line in such a manner that a nuisance or air pollution is created.

(2) COMAR 26.11.15.05, which requires that the Permittee implement "Best Available Control Technology for Toxics" (T – BACT) to control emissions of toxic air pollutants.

(3) COMAR 26.11.15.06, which prohibits the discharge of toxic air pollutants to the extent that such emissions will unreasonably endanger human health.

Compliance Demonstration for the General Facility

(1) The Compliance demonstrations addressed in Section IV of the Part 70 including good operating practices, testing, and monitoring are sufficient to demonstrate compliance with the requirements of COMAR 26.11.06.08 and 26.11.06.09.

(2) In addition to the compliance demonstrations addressed in Section IV of the Part 70 including good operating practices, testing, and monitoring, the Permittee shall submit to the Department by April 1 of each year during the term of this permit a written certification of the results of an analysis of emissions of toxic air pollutants from the Permittee's facility during the previous calendar year to meet the requirements of COMAR 26.11.15.05 and 26.11.15.06. The analysis shall include either:

(a) a statement that previously submitted compliance demonstrations for emissions of toxic air pollutants remain valid; or

(b) a revised compliance demonstration, developed in accordance with requirements included under COMAR 26.11.15 & 16 that accounts for

changes in operations, analytical methods, emissions determinations, or other factors that have invalidated previous demonstrations.

Compliance Demonstration for the Anaerobic Waste Water Pretreatment System (ARA Registration No. 005-0979-8-0301)

(1) Operating Conditions

(a) The biogas generated from the wastewater pre-treatment system shall be combusted by the CHP unit, Boiler B4, or the enclosed flare prior to discharging to the atmosphere. The Permittee shall shut down the wastewater pre-treatment system if Boiler B4 and the enclosed flare are not operational.

(b) The Permittee shall operate the caustic scrubber system such that the hydrogen sulfide concentration of the undiluted biogas stream exiting the caustic scrubber does not exceed 2000 parts per million by volume on a three-hour average basis so as to assure full and continuous compliance with all applicable air pollution control regulations and permit conditions.
[Authority: COMAR 26.11.02.02H; PTC issued 2003]

(2) Monitoring Requirements

(a) The Permittee shall:

(i) Continuously monitor the flow rate of the freshwater addition to the caustic scrubber;

(ii) Continuously monitor the flow rate of the scrubbing solution to the caustic scrubber;

(iii) Continuously monitor the pH of the scrubbing solution in the caustic scrubber;

(iv) Continuously monitor the hydrogen sulfide concentration (at least one reading every 15 minutes) in the exhaust gas leaving the caustic scrubber stack; and

(v) Calibrate the hydrogen sulfide monitor daily.

(b) In the event of a failure of the continuous hydrogen sulfide monitor the Permittee shall collect and analyze samples and record the hydrogen sulfide concentration in the exhaust gas leaving the caustic scrubber at least once per hour until the monitor is returned to service.

(c) In the event of a failure of the continuous pH monitor the Permittee shall collect and analyze samples and record the pH at least once per hour until the monitor is returned to service.
[Authority: COMAR 26.11.02.02H]

(3) Record Keeping and Reporting

The following records shall be kept on site and shall be made available to the Department upon request for at least 5 years:

(a) The flow rate of the freshwater addition to the caustic scrubber;

(b) The flow rate of the scrubbing solution in the caustic scrubber;

(c) The pH of the scrubbing solution in the caustic scrubber;

(d) The hydrogen sulfide concentration in the exhaust gas leaving the caustic scrubber;

(e) Daily records of calibration checks of the hydrogen sulfide monitor; and

(f) Information concerning the operation of compliance monitoring equipment, including accounts of all malfunctions and outages.

(g) The Permittee is required under "Report of Excess Emissions and Deviations" Permit Condition 4, Section III, to report the incidents.
[Authority: COMAR 26.11.02.02H]

Rationale for Periodic Monitoring Strategy
The requirements of work practices, testing, monitoring, record keeping, and reporting addressed above are sufficient to demonstrate compliance with the State-only requirements.