

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

BUREAU OF AIR

DIVISION of AIR POLLUTION CONTROL

PERMIT SECTION

PROJECT SUMMARY for the
DRAFT CLEAN AIR ACT PERMIT PROGRAM (CAAPP) PERMIT

Fleischmann's Vinegar
4801 South Oakley Avenue
Chicago, Illinois 60609

Illinois EPA ID Number: 031600AHP

Application Number: 9603002

Application Type: Renewal Permit

Start of Public Comment Period: June 5, 2008

Close of Public Comment Period: July 5, 2008

Permit Engineer/Technical Contact: Jack Yates, 217/782-2113

Community Relations/Comments Contact: Brad Frost, 217/782-7027

(This Project Summary generally describes the source and explains the draft permit. This document has been prepared pursuant to Section 39.5(8)(b) of the Illinois Environmental Protection Act, which requires "a statement that sets forth the legal and factual basis for the draft CAAPP permit conditions.")

I. INTRODUCTION

This source has applied for a renewal of the Clean Air Act Permit Program (CAAPP) operating permit. The CAAPP is the program established in Illinois for operating permits for significant stationary sources as required by Title V of the federal Clean Air Act and Section 39.5 of Illinois' Environmental Protection Act. The conditions in a CAAPP permit are enforceable by the Illinois Environmental Protection Agency (Illinois EPA), the USEPA, and the public. This document is for informational purposes only and does not shield the Permittee from enforcement actions or its responsibility to comply with applicable regulations. This document shall not constitute a defense to a violation of the Act or any rule or regulation.

A CAAPP permit contains conditions identifying the applicable state and federal air pollution control requirements that apply to a source. The permit also establishes emission limits, appropriate compliance procedures, and specific operational flexibility. The appropriate compliance procedures may include monitoring, record keeping, and reporting to show compliance with these requirements. The Permittee must carry out these procedures on an on-going basis to demonstrate that the source is operating in accordance with the requirements of the permit. Further explanations of the specific provisions of the draft CAAPP permit are contained in the attachments to this document, which also identify the various emission units at the source.

The principal changes from the current version of this CAAPP permit are changes made to existing acetators and the addition of a new acetator.

II. GENERAL SOURCE DESCRIPTION

a. Nature of Source

Fleischmann's Vinegar Company, Inc. is located at 4801 South Oakley Avenue in Chicago. The source manufactures vinegar. Vinegar is made by the acetous fermentation of ethyl alcohol to acetic acid (vinegar) by the microorganism called Acetobacter. This fermentation method is called an acetator process. In addition, the Source uses Scrubbers and submerged loading for pollution control equipment.

b. Ambient Air Quality Status for the Area

The source is located in an area that is currently designated nonattainment for the National Ambient Air Quality Standards for PM_{2.5}, moderate non-attainment for ozone and PM₁₀ and attainment or unclassifiable for all other criteria pollutants (carbon monoxide, lead, nitrogen dioxide and sulfur dioxide).

c. Major Source Status

1. The source requires a CAAPP permit as a major source of Volatile Organic Material (VOM) emissions.

d. Source Emissions

The following table lists annual emissions of criteria pollutants from this source, as reported in the Annual Emission Reports sent to the Illinois EPA.

Pollutant	Annual Emissions (tons)		
	2006	2005	2004
CO	0.07	0.07	0.07
NO _x	0.31	1.16	1.16
PM	0.02	0.09	0.01
SO ₂	0	0.01	0.01
VOM	35.09	38.40	38.40
(top HAP)	0	0	0

Permitted Emissions of Regulated Pollutants

Pollutant	Tons/Year
Volatile Organic Material (VOM)	92.6
Sulfur Dioxide (SO ₂)	0.02
Particulate Matter (PM)	0.28
Nitrogen Oxides (NO _x)	3.70
HAP, not included in VOM or PM	----
Total	96.6

III. NEW SOURCE REVIEW/TITLE I CONDITIONS

This draft permit contains terms and conditions that address the applicability of permit programs for new and modified sources under Title I of the Clean Air Act (CAA) and regulations promulgated thereunder, including 40 CFR 52.21, Prevention of Significant Deterioration (PSD) and 35 IAC Part 203, Major Stationary Sources Construction and Modification. Any such terms and conditions are identified within the draft permit by T1, T1R, or T1N. Any conditions established in a construction permit pursuant to Title I and not revised or deleted in this draft permit, remain in effect pursuant to Title I provisions until such time that the Illinois EPA revises or deletes them. Where the source has requested that the Illinois EPA establish new conditions or revise such conditions in a Title I permit, those conditions are

consistent with the information provided in the CAAPP application and will remain in effect pursuant to Title I provisions until such time that the Illinois EPA revises or deletes them.

This draft permit would not establish any new Title I requirements or revised Title I requirements. The most recent inspection and compliance reports were reviewed and found to indicate compliance.

IV. COMPLIANCE INFORMATION

The source has certified compliance with all applicable rules and regulations; therefore, a compliance schedule is not required for this source. In addition, the draft permit requires the source to certify its compliance status on an annual basis.

V. PROPOSED ILLINOIS EPA ACTION/REQUEST FOR COMMENTS

It is the Illinois EPA's preliminary determination that this source's permit application meets the standards for issuance of a CAAPP permit. The Illinois EPA is therefore proposing to issue a CAAPP permit, subject to the conditions proposed in the draft permit.

Comments are requested by the Illinois EPA for the draft or proposed permit, pursuant to 35 IAC Part 252 and Sections 39.5(8) and (9) of the Illinois Environmental Protection Act. A final decision on the draft or proposed permit will not be made until the public, affected states, and USEPA have had an opportunity to comment. The Illinois EPA is not required to accept recommendations that are not based on applicable requirements. If substantial public interest is shown in this matter, the Illinois EPA will consider holding a public hearing in accordance with 35 IAC Part 166.

ATTACHMENT 1: Summary of Source-Wide Requirements

The following table indicates the source-wide emissions control programs and planning requirements that are applicable to this source. These programs are addressed in Sections 5 and 6 of the draft permit.

Program/Plan	Applicable
Emissions Reduction Market System (ERMS) ^X	Yes
Nitrogen Oxides (NO _x) Trading Program	No
Acid Rain Program	No
Compliance Assurance Monitoring (CAM) Plan ^X	No
Fugitive Particulate Matter (PM) Operating Program ^X	Yes
Risk Management Plan (RMP)	No
PM ₁₀ Contingency Measure Plan	No

- X. The ERMS is a market-based program designed to reduce VOM emissions from stationary sources located in the Chicago ozone non-attainment area in order to contribute to reasonable further progress toward attainment (35 IAC Part 205). If applicable, this program is further described in Section 6.0 of the draft permit, including the Illinois EPA's determination of the source's baseline emissions and allotment of trading units under the ERMS.

- X. The fugitive PM operating program is required to significantly reduce fugitive particulate matter emissions from certain affected locations and facilities (35 IAC Part 212.309 – 212.312). Normally, elements of this program include, but are not limited to, addressing normal traffic pattern roads, parking facilities, and material piles and handling through the use of water, oils, or chemical dust suppressants.

ATTACHMENT 2: Summary of Requirements for Specific Emission Units

The following tables include information on the requirements that apply to significant emission units at this source. The requirements are found in Section 7 of the draft permit, which is further divided into subsection, i.e., Section 7.1, 7.2, etc., for the different categories of units at the source. A separate table is provided for each subsection in Section 7 of the draft permit. An explanation of acronyms and abbreviations is contained in Section 2 of the draft permit.

Table 1 (Section 7.1 of the draft permit)

Emission Unit - Acetators																			
Description	Acetator process uses a tank with an aerator and internal cooling coils or external heat exchanger for controlling the temperature. The alcohol/nutrient/vinegar mixture is continuously mixed and aerated inside this tank by the aerator. The acetobacter thrives in the liquid mixture. When the alcohol is completely fermented into vinegar, one third of the liquid volume is pumped out. The same volume of fresh mash of alcohol/nutrient/vinegar mixture is then charged into tank to start another cycle of fermentation.																		
Date Constructed	<table border="0"> <tr> <td>1 Acetator (A1)</td> <td>1976</td> </tr> <tr> <td>3 Acetators (A2, A3 & A9)</td> <td>1986</td> </tr> <tr> <td>5 Acetators (A4 thru A8)</td> <td>1992</td> </tr> <tr> <td>1 Acetator (A10)</td> <td>2000</td> </tr> <tr> <td>1 Acetator (A11)</td> <td>2001</td> </tr> <tr> <td>2 Acetators (A14 & A15)</td> <td>2002</td> </tr> <tr> <td>3 Acetators (A16, A17 & A18)</td> <td>2001</td> </tr> <tr> <td>3 Acetators (X1, X2 & X3)</td> <td>1992</td> </tr> <tr> <td>1 Acetator (A19)</td> <td>1995</td> </tr> </table>	1 Acetator (A1)	1976	3 Acetators (A2, A3 & A9)	1986	5 Acetators (A4 thru A8)	1992	1 Acetator (A10)	2000	1 Acetator (A11)	2001	2 Acetators (A14 & A15)	2002	3 Acetators (A16, A17 & A18)	2001	3 Acetators (X1, X2 & X3)	1992	1 Acetator (A19)	1995
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1 Acetator (A19)	1995																		
Emission Control Equipment	All acetators are controlled by Scrubbers																		
Applicable Rules and Requirements																			
Emission Standards	<ul style="list-style-type: none"> • 35 IAC 218 Subpart G, Use of Organic Material • 35 IAC 218 Subpart RR, Miscellaneous Organic Chemical Manufacturing Processes. 																		
Title I Conditions	<ul style="list-style-type: none"> • The draft permit contains limits on operation and emissions in Conditions 7.1.6. These limits were incorporated from Permits 92100085, 01010007, 00030132, and 05070046. 																		

Emission Unit - Acetators	
Non-applicability	<ul style="list-style-type: none"> • 40 CFR 63, Subpart F: because the source does not manufacture as a primary product one or more of the chemicals listed in table 1 of 40 CFR 63 Subpart F. • 35 IAC 218 Subpart Q: because these components are not used to manufacture the synthetic organic chemicals or polymers listed in Appendix A of 35 IAC Part 218. • 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the units do not have potential pre-control device emissions of the applicable regulated air pollutant that equals or exceeds major source threshold levels (as indicated in the permit application documents).
Periodic Monitoring (other than basic regulatory requirements)	
Periodic monitoring is sufficient for these units because testing is incorporated to verify gas and scrubbant solution flow rates as an indicator for operating within VOM emissions limitations; also, there are no indications of any past non-compliance.	
Testing	<p>To demonstrate adequate volumetric gas flow limits(cfm)for Permit Conditions 7.1.5(d)and 7.1.12(b); and adequate scrubbant flow limits(gpm)for Permit Conditions 7.1.5(e)and 7.1.12(c); tests as described in Permit Conditions 7.1.7(a)(b)and(c) shall be completed within 90 days after issuance of this permit on five (5)acetators and respective scrubbers pursuant to 39.5(7)(e) of the Act as follows:</p> <ul style="list-style-type: none"> • 1 of acetators A1 through A11 • 1 of acetators A16 through A18 • Acetator A19 • Acetators A14 and A15 (operating at the same time using one scrubber)
Operational Monitoring	<ul style="list-style-type: none"> • Monitor the air flow from each affected acetator to the respective scrubber on a monthly basis pursuant to 39.5(7)(b)of the Act. • Monitor the volumetric flow rates (gpm) of scrubbant solution (fresh and recirculated water) of each affected scrubber on a monthly basis pursuant to 39.5(7)(b)of the Act.
Recordkeeping	Records of the efficiency testing of each capture system and control device tested pursuant to 39.5(7)(e) of the Act
Reporting	
Prompt Reporting	Deviations of an affected acetator or scrubber with the permit requirements pursuant to 39.5(7)(f)(ii) of the Act.

Table 2 (Section 7.2 of the draft permit)

Emission Unit - Boiler	
Description	Natural gas fired boiler used for producing process steam Max heat input 8.4 (mmBtu/hr)
Date Constructed	1981
Emission Control Equipment	None
Applicable Rules and Requirements	
Emission Standards	<ul style="list-style-type: none"> This boiler is only subject to regulations of general applicability as specified in Section 5.3.2 because the boiler is fired only with natural gas and because the maximum heat input is less than 10(mmBtu/hr).
Title I Conditions	<ul style="list-style-type: none"> There are no Title I Conditions in this section.
Non-applicability	<ul style="list-style-type: none"> 40 CFR 60, Subpart Dc, New Source Performance Standards (NSPS) for Small - Industrial - Commercial - Institutional Steam Generating Units, does not apply because the affected boiler is <10 mmBtu/hr. 40 CFR Part 63, Subpart DDDDD, because the affected boiler is not located at, and is not part of, a major source of HAP. 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected boiler does not use an add-on control device to achieve compliance with an emission limitation or standard. 35 IAC 216.121, because the affected boiler has a maximum heat input capacity of <10 mmBtu/hr. 35 IAC 212.122; affected boiler is not subject to, 35 IAC 212.122 because the affected boiler has a maximum heat input capacity of <250 mmBtu/hr. 35 IAC 217.121; affected boiler is not subject to 35 IAC 217.121, because the affected boiler has a maximum heat input capacity of <250 mmBtu/hr.
Periodic Monitoring (other than basic regulatory requirements)	
Periodic Monitoring	<ul style="list-style-type: none"> Annual Method 9 test for opacity <p>Other periodic monitoring is not required because there is no indication of non-compliance with this Unit.</p>

Emission Unit - Boiler	
Reporting	
Prompt Reporting	Deviations from permit Conditions must be reported within 30 days of the occurrence, which is reasonable for this boiler. See attachment 3.

ATTACHMENT 3: Prompt Reporting of Deviations

Prompt reporting of deviations is critical in order to have timely notice of deviations and the opportunity to respond, if necessary. The effectiveness of the permit depends upon, among other important elements, timely and accurate reporting. The Illinois EPA, USEPA and the public rely on timely and accurate reports submitted by the permittee to measure compliance and to direct investigation and follow-up activities. Prompt reporting is evidence of a permittee's good faith in disclosing deviations and describing the steps taken to return to compliance and prevent similar incidents.

Any occurrence that results in an excursion from any emission limitation, operating condition, or work practice standard as specified in this CAAPP permit is a deviation subject to prompt reporting. Additionally, any failure to comply with any permit term or condition is a deviation of that permit term or condition and must be reported to the Illinois EPA as a permit deviation. The deviation may or may not be a violation of an emission limitation or standard. A permit deviation can exist even though other indicators of compliance suggest that no emissions violation or exceedance has occurred. Reporting permit deviations does not necessarily result in enforcement action. The Illinois EPA has the discretion to take enforcement action for permit deviations that may or may not constitute an emission limitation or standard or the like, as necessary and appropriate.

Section 39.5(7)(f)(ii) of the Illinois Environmental Protection Act, which mirrors 40 CFR 70.6(a)(3)(iii)(B), requires prompt reporting of deviations from the permit requirements. The permitting authority (in this case, Illinois EPA) has the discretion to define "prompt" in relation to the degree and type of deviation likely to occur. Furthermore, Section 39.5(7)(f)(i) of the Illinois Environmental Protection Act, which mirrors 40 CFR 70.6(a)(3)(iii)(A) requires that monitoring reports must be submitted at least every 6 months. Therefore, USEPA generally considers anything less than 6 months to be "prompt" as long as the selected time frame is justified appropriately (60 Fed. Reg. 36083, 36086 (July 13, 1995)).

The USEPA has stated that, for purposes of administrative efficiency and clarity, it is acceptable to define prompt in each individual permit. *Id.* The Illinois EPA has elected to follow this approach and defines prompt reporting on a permit by permit basis. In instances where the underlying applicable requirement contains "prompt" reporting, this frequency or a shorter frequency of reporting is the required timeframe used in this permit. Where the underlying applicable requirement fails to explicitly set forth the timeframe for reporting deviations, the Illinois EPA has developed a structured manner to determine the reporting approach used in this permit.

The Illinois EPA generally uses a time frame of 30 days to define prompt reporting of most deviations. Also, for certain permit conditions in individual permits, the Illinois EPA may require an alternate timeframe that is less than 30 days if the permit requirement justifies a shorter reporting time period. Under certain circumstances, EPA may establish a deviation

reporting period longer than 30 days, but, in no event exceeding 6 months. Where it has established a deviation reporting period other than 30 days in an individual permit (specifically Section 7.x.10), the Illinois EPA has explained the reason for the alternative timeframe. (See Attachment 2 of this Project Summary.)

The timing for certain deviation reporting may be different when a source or emission unit at a source warrants reporting to address operation, independent of the occurrence of any deviations. This is the case for a source that is required to perform continuous monitoring for the emission unit, for which quarterly or semi-annual “monitoring” reports are appropriate. Where appropriate, reporting of deviations has generally been combined in, or coordinated with these quarterly or semi-annual reports, so that the overall performance of the plant can be reviewed in a comprehensive fashion. This will allow a more effective and efficient review of the overall performance of the source by the Illinois EPA and other interested parties, as well as by the source itself.

At the same time, there are certain deviations for which quicker reporting is appropriate. These are deviations for which individual attention or concern may be warranted by the Illinois EPA, USEPA, and other interested parties. Under this scenario, emphasis has been placed primarily on deviations that could represent substantial violations of applicable emission standards or lapses in control measures at the source. For these purposes, depending on the deviation, immediate notification may be required and preceded by a follow-up report submitted within 15 days, during which time the source may further assess the deviation and prepare its detailed plan of corrective action.

In determining the timeframe for prompt reporting, the Illinois EPA assesses a variety of criteria such as:

- historical ability to remain in continued compliance,
- level of public interest in a specific pollutant and/or source,
- seriousness of the deviation and potential to cause harm,
- importance of applicable requirement to achieving environmental goals,
- designation of the area (i.e., non-attainment or attainment),
- consistency among industry type and category,
- frequency of required continuous monitoring reports (i.e., quarterly),
- type of monitoring (inspection, emissions, operational, etc.), and
- air pollution control device type and operation

These prompt reporting decisions reflect the Illinois EPA’s consideration of the possible nature of deviations by different emission units and the responses that might be required or taken for those different types of deviations. As a consequence, the conditions for different emission units may identify types of deviations which include but are not limited to: 1) Immediate (or very quick) notification; 2) Notification within 30 days as the standard; or 3) Notification with regular quarterly or semi-annual monitoring reports.

The Illinois EPA's decision to use the above stated prompt reporting approach for deviations as it pertains to establishing a shorter timeframe in certain circumstances reflects the criteria discussed as well as USEPA guidance on the topic.

- 40 CFR 71.6(a)(3)(iii)(B) specifies that certain potentially serious deviations must be reported within 24 or 48 hours, but provides for semi-annual reporting of other deviations. (Serious or severe consequences)
- FR Vol. 60, No. 134, July 13, 1995, pg. 36086 states that prompt should generally be defined as requiring reporting within two to ten days of the deviation, but longer time periods may be acceptable for a source with a low level of excess emissions. (intermediate consequences)
- Policy Statement typically referred to as the "Audit Policy" published by the USEPA defines prompt disclosure to be within 21 days of discovery. (Standard for most "pollutant limiting" related conditions)
- Responses to various States by USEPA regarding other States' definition of prompt.

As a result, the Illinois EPA's approach to prompt reporting for deviations as discussed herein is consistent with the requirements of 39.5(7)(f)(ii) of the Act as well as 40 CFR part 70 and the CAA. This reporting arrangement is designed so that the source will appropriately notify the Illinois EPA of those events that might warrant individual attention. The timing for these event-specific notifications is necessary and appropriate as it gives the source enough time to conduct a thorough investigation into the causes of an event, collecting any necessary data, and to develop preventative measures, to reduce the likelihood of similar events, all of which must be addressed in the notification for the deviation.

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