Louisville Metro Air Pollution Control District
701 West Ormsby Avenue, Suite 303
Louisville, Kentucky 40203-2624

Federally Enforceable District Origin Operating Permit (FEDOOP)

Permit No.: O-0291-16-F Plant ID: 0291

Effective Date: xx/xx/2016 Expiration Date: xx/xx/2021

Permission is hereby given by the Louisville Metro Air Pollution Control District to operate the process(es) and equipment described herein which are located at:

AAK USA K2, LLC
2520 South 7th Street Road
Louisville, Kentucky 40208

The applicable procedures of District Regulation 2.17 regarding review by the U.S. EPA and public participation have been followed in the issuance of this permit. Based on review of the application on file with the District, permission is given to operate under the conditions stipulated herein. If a renewal permit is not issued prior to the expiration date, the owner or operator may continue to operate in accordance with the terms and conditions of this permit beyond the expiration date, provided that a complete renewal application is submitted to the District no earlier than twelve (12) months and no later than ninety (90) days prior to the expiration date.

Emission limitations to qualify for non-major status:

Pollutant:	NOx	CO	VOC	Single HAP	Total HAPs
Tons/year:	< 25	< 25	<5	< 5	< 12.5

Application No.: 11442 Application Received: 08/28/2006
70025 03/11/2015

Permit Writer: Nantaporn Noosai

Date of Public Notice: 04/14/2016

{Manager1}
Air Pollution Control Officer
{date1}

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FEDOOP Permit Revisions/Changes

Revision No.	Permit No.	Issue Date	Public Notice Date	Change Type	Change Scope	Description
NA	0124-01-F	11/05/2001	06/03/2001	Initial	Entire Permit	Initial Permit Issuance
1	O-0291-16-F	Xx/xx/20xx	04/14/2016	Renewal	Entire Permit	Permit Renewal

Abbreviations and Acronyms

AP-42	- AP-42, *Compilation of Air Pollutant Emission Factors, published by U.S.EPA*
APCD	- Louisville Metro Air Pollution Control District
BAC	- Benchmark Ambient Concentration
BACT	- Best Available Control Technology
Btu	- British thermal unit
CEMS	- Continuous Emission Monitoring System
CFR	- Code of Federal Regulations
CO	- Carbon monoxide
District	- Louisville Metro Air Pollution Control District
EA	- Environmental Acceptability
gal	- U.S. fluid gallons
GHG	- Greenhouse Gas
HAP	- Hazardous Air Pollutant
HCl	- Hydrogen chloride
Hg	- Mercury
hr	- Hour
in.	- Inches
lbs	- Pounds
l	- Liter
LMAPCD	- Louisville Metro Air Pollution Control District
mmHg	- Millimeters of mercury column height
MM	- Million
NAICS	- North American Industry Classification System
NO_x	- Nitrogen oxides
PM	- Particulate Matter
PM_{10}	- Particulate Matter less than 10 microns
$PM_{2.5}$	- Particulate Matter less than 2.5 microns
ppm	- parts per million
PSD	- Prevention of Significant Deterioration
psia	- Pounds per square inch absolute
QA	- Quality Assurance
RACT	- Reasonably Available Control Technology
SIC	- Standard Industrial Classification
SIP	- State Implementation Plan
SO_2	- Sulfur dioxide
STAR	- Strategic Toxic Air Reduction
TAC	- Toxic Air Contaminant
UTM	- Universal Transverse Mercator
VOC	- Volatile Organic Compound
w.c.	- Water column
year	- Any period of twelve consecutive months, unless "calendar year" is specified
yr	- Year, or any 12 consecutive-month period, as determined by context

Preamble

This permit covers only the provisions of Kentucky Revised Statutes Chapter 77 Air Pollution Control, the regulations of the Louisville Metro Air Pollution Control District (District) and, where appropriate, certain federal regulations. The issuance of this permit does not exempt any owner or operator to whom it has been issued from prosecution on account of the emission or issuance of any air contaminant caused or permitted by such owner or operator in violation of any of the provisions of KRS 77 or District regulations. Any permit shall be considered invalid if timely payment of annual fees is not made. The permit contains general permit conditions and specific permit conditions. General conditions are applicable unless a more stringent requirement is specified elsewhere in the permit.

General Conditions

1. The owner or operator shall comply with all General Conditions herein and all terms and conditions in the referenced process/process equipment list.

2. All terms and conditions in this FEDOOP are enforceable by EPA, except those terms and conditions specified as District-only enforceable, and those which are not required pursuant to the Clean Air Act Amendments of 1990 (CAAA) or any of the Act's applicable requirements.

3. All application forms, reports, compliance certifications, and other relevant information submitted to the District shall be certified by a responsible official. If a change in the responsible official (RO) occurs during the term of this permit, or if an RO is added, the owner or operator shall provide written notification (Form AP-100A) to the District within 30 calendar days of such change or addition.

4. The owner or operator shall submit an annual compliance certification, signed by the responsible official, to the District, on or before April 15 of the year following the year for which the certification applies. This certification shall include completion of District Form 9440-O.

5. Periodic testing, instrumental monitoring, or non-instrumental monitoring, which may include record keeping, shall be performed to the extent necessary to yield reliable data for purposes of demonstrating continuing compliance with the terms and conditions of this permit.

6. The owner or operator shall retain all records required by the District or any applicable requirement, including all required monitoring data and supporting information, for a period of five years from the date of the monitoring, sampling, measurement, report, or application, unless a longer time period for record retention is required by the District or an applicable requirement. Records shall be retrievable within a reasonable time and made available to the District, Kentucky Division for Air Quality, or the EPA upon request.

7. The owner or operator shall provide written notification to the District, and receive approval, prior to making any changes to existing equipment or processes that would result in emissions of any regulated pollutant in excess of the allowable emissions specified in this permit.

8. This permit may be reissued, revised, reopened, or revoked pursuant to District Regulation 2.17. Repeated violations of permit conditions are sufficient cause for revocation of this permit. The filing of a request by the owner or operator for any reissuance, revision, revocation, termination, or a notification of planned changes in equipment or processes, or anticipated noncompliance shall not alter any permit requirement.

9. Except as otherwise specified or limited herein, the owner or operator shall not allow or cause the emissions to equal or exceed either 10 tons per year, or such lesser quantity as

the EPA has established by rule, of any one Hazardous Air Pollutant (HAP) or 25 tons per year of all HAPs combined. Fugitive HAP emissions shall be included in this limit. HAPs are listed in Section 112(b) of the CAAA and as amended in 40 CFR 63, Subpart C.

10. Except as otherwise specified or limited herein, the owner or operator shall not allow or cause the emissions to equal or exceed 100 tons per year of any regulated pollutant, including particulate matter, PM_{10}, $PM_{2.5}$, sulfur dioxide, carbon monoxide, nitrogen oxides, lead, hydrogen sulfide, gaseous fluorides, total fluorides, or Volatile Organic Compounds (VOC); any pollutant subject to any standard in District Regulation 7.02; any substance listed in sections 112(r), 602(a) and 602(b) of the CAAA; or any combination of greenhouse gasses whose combined global warming potential equals or exceeds 100,000 tons CO_2-equivalent, as defined in 40 CFR 98). Fugitive emissions shall be included in these limits for source categories listed in District Regulation 2.16.

11. Unless specified elsewhere in this permit, the owner or operator shall complete required monthly record keeping within 30 days following the end of each calendar month.

12. Unless specified elsewhere in this permit, the owner or operator shall submit annual reports demonstrating compliance with the emission limitations specified. The report shall contain monthly and consecutive 12-month totals for each pollutant that has a federally enforceable limitation on the potential to emit. All reports shall include the company name, plant ID number, and the beginning and ending date of the reporting period. The compliance reports shall clearly identify any deviation from a permit requirement or a declaration that there were no such deviations. All annual compliance reports shall include the statement "Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete" and the signature and title of a responsible official of the company. The report must be postmarked no later than March 1 of the year following the calendar year covered in the annual report.

13. The owner or operator shall comply with all applicable requirements of the following federally enforceable District Regulations:

Regulation	Title
1.01	General Application of Regulations and Standards
1.02	Definitions
1.03	Abbreviations and Acronyms
1.04	Performance Tests
1.05	Compliance with Emissions Standards and Maintenance Requirements
1.06	Source Self-Monitoring, Emissions Inventory Development and Reporting
1.07	Excess Emissions During Startups, Shutdowns, and Upset Conditions
1.08	Administrative Procedures
1.09	Prohibition of Air Pollution
1.10	Circumvention
1.11	Control of Open Burning

Regulation	Title
1.14	Control of Fugitive Particulate Emissions
2.01	General Application (Permit Requirements)
2.02	Air Pollution Regulation Requirements and Exemptions
2.03	Authorization to Construct or Operate; Demolition/Renovation Notices and Permit Requirements
2.07	Public Notification for Title V, PSD, and Offset Permits; SIP Revisions; and Use of Emission Reduction Credits
2.09	Causes for Permit Modification, Revocation, or Suspension
2.10	Stack Height Considerations
2.11	Air Quality Model Usage
2.17	Federally Enforceable District Origin Operating Permits
4.01	General Provisions for Emergency Episodes
4.02	Episode Criteria
4.03	General Abatement Requirements
4.07	Episode Reporting Requirements
6.01	General Provisions
6.02	Emission Monitoring for Existing Sources
7.01	General Provisions

14. The owner or operator shall comply with all applicable requirements of the following District-only enforceable regulations:

Regulation	Title
1.12	Control of Nuisances
1.13	Control of Objectionable Odors in the Ambient Air
2.08	Fees
5.00	Definitions
5.01	General Provisions
5.02	Adoption and Incorporation by Reference of National Emission Standards for Hazardous Air Pollutants
5.14	Hazardous Air Pollutants and Source Categories
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant
5.21	Environmental Acceptability for Toxic Air Contaminants
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant
5.23	Categories of Toxic Air Contaminants
7.02	Adoption of Federal New Source Performance Standards

15. The owner or operator shall submit emission inventory reports, as required by Regulation 1.06, if so notified by the District.

16. The owner or operator shall submit timely reports of abnormal conditions or operational

changes that may cause excess emissions, as required by Regulation 1.07.

17. Applications, reports, test data, monitoring data, compliance certifications, and any other document required by this permit shall be submitted to:

Air Pollution Control District
701 West Ormsby Avenue, Suite 303
Louisville, Kentucky 40203-2624

Emission Unit U1

U1 Description:

Bleaching, Hydrogenation, Deodorizing, and Refining processes

U1 Applicable Regulations:

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
2.17	Federally Enforceable District Origin Operating Permits	All
7.25	Standards of Performance for New Sources Using Volatile Organic Compounds	1 through 5

U1 Equipment:

Emission Point	Description	Applicable Regulation	Control Device (Control ID)
Bleaching process			
E1	Five (5) pressure leaf filter presses	7.25	N/A
E2	One (1) heat exchanger		
E3	One (1) vacuum pump		
E4	Two (2) condensate receiver tanks 1000 gallons each		
E5	Earth Slurry/Pre-coat tank 6000 lbs		
E6	Mixer tank 100 gallons	7.25	N/A
E7	N. Oil bleacher tank 103,350 lbs		
E8	S. Oil bleacher tank 103,550 lbs		
E9	#36 Surge tank 129,200 lbs		
E10	Steam out tank 25,000 lbs		
E11	Unused tank 1,400 gallons		
E12	Unused tank 275 gallons		
E13	#B7 Bleached oil storage tank 342,000 lbs	7.25	N/A
E14	#B9 Bleached oil blend tank 342,000 lbs		
E15	#B11 Bleached oil tank 2,300,000 lbs		
E16	#B12 Bleached oil tank 305,600 lbs		
E17	#B13 Bleached oil tank 398,160 lbs		
E18	#B14 Bleached oil tank 398,160 lbs		
E19	E. BW bleached oil tank 374,000 lbs		
E20	W. BW bleached oil tank 374,000 lbs	7.25	N/A

Emission Point	Description	Applicable Regulation	Control Device (Control ID)
Hydrogenation process			
E21	Two (2) filter presses	7.25	N/A
E22	Two (2) heat exchangers		
E23	Four (4) hydrogen converters		
E24	#F1 Bleach tank 100,000 lbs		
E25	#F2 Bleach tank 105,000 lbs		
E26	#F3 Bleach tank 50,000 lbs		
E27	#1 Oil tank 425,000 lbs	7.25	N/A
E28	#2 Oil tank 429,000 lbs		
E29	#3 Oil tank 334,000 lbs		
E30	#4 Oil tank 338,000 lbs		
E31	#5 Oil tank 342,000 lbs		
E32	#6 Oil tank 342,000 lbs		
E33	#8 Storage tank 342,000 lbs		
E34	#40 Blend tank 84,500 lbs		
E35	#41 Blend tank 104,520 lbs		
E36	#42 Blend tank 84,500 lbs	7.25	N/A
E37	#43 Oil tank 137,125 lbs		
E38	#44 Oil tank 156,400 lbs		
E39	#45 Oil tank 156,400 lbs		
E40	#46 Oil tank 156,400 lbs		
E41	#47 Oil tank 156,400 lbs		
E42	#48 Oil tank 289,320 lbs		
E43	#49 Oil tank 289,320 lbs	7.25	N/A
E44	#50 Oil tank 253,680 lbs		
E45	#129 Dump tank 68,500 lbs		
E46	#B 15 Blend tank 110,140 lbs		
E47	Slurry tank 5,000 lbs		
E48	Condensate tank 9,000 lbs		
Deodorizing process			
E49	Two (2) parallel continuous deodorizing systems, designated G3 and G4	7.25	N/A
E50	Bayonne Unit		
E51	One (1) water cooler located on roof	7.25	N/A

Emission Point	Description	Applicable Regulation	Control Device (Control ID)
E52	#21 Inside Storage Room tank 64,500 lbs	7.25	N/A
E53	#22 Inside Storage Room tank 64,500 lbs	7.25	N/A
E54	#23 Inside Storage Room tank 64,300 lbs		
E55	#24 Inside Storage Room tank 64,000 lbs		
E56	#25 Inside Storage Room tank 64,500 lbs		
E57	#26 Inside Storage Room tank 65,000 lbs		
E58	#27 Inside Storage Room tank 64,700 lbs		
E59	#28 Inside Storage Room tank 115,000 lbs		
E60	#70 Distillate tank 67,780 lbs	7.25	N/A
E61	#71 Shell drain tank 30,744 lbs		
E62	#114 Outside Storage Area tank 204,950 lbs		
E63	#115 Outside Storage Area tank 204,950 lbs		
E63	#115 Outside Storage Area tank 204,950 lbs		
E64	#116 Outside Storage Area tank 204,950 lbs		
E65	#117 Outside Storage Area tank 153,700 lbs		
E66	#118 Outside Storage Area tank 86,300 lbs		
E67	#119 Outside Storage Area tank 86,300 lbs	7.25	N/A
E68	#120 Outside Storage Area tank 86,300 lbs		
E69	#121 Outside Storage Area tank 68,500 lbs		
E70	#122 Outside Storage Area tank 43,354 lbs		
E71	#123 Outside Storage Area tank 43,354 lbs		
E72	#124 Outside Storage Area tank 98,002 lbs		
E73	#126 Fat Removal Storage 94,005 lbs		
E74	#161 Fat Removal Storage 95,009 lbs	7.25	N/A
E75	#201 Outside Storage Area tank 841,680 lbs		
E76	#217 Outside Storage Area tank109,000 lbs		
E77	#218 Outside Storage Area tank 109,000 lbs		
E78	#219 Inside Storage Area tank 81,980 lbs		
E79	#220 Inside Storage Area tank 81,980 lbs		
E80	#221 Outside Storage Area tank 99,000 lbs		
E81	#404 Deodorizer Oil Storage 100,000 lbs		
E82	#405 Deodorizer Oil Storage 45,000 lbs	7.25	N/A
E83	#406 Deodorizer Oil Storage 45,000 lbs		
E84	K1 Bayonne Unit	7.25	N/A

Emission Point	Description	Applicable Regulation	Control Device (Control ID)
E85	K2 Bayonne Unit	7.25	N/A
E86	K3 Bayonne Unit	7.25	N/A
E87	D/A Bayonne Unit		
E88	K1 Bayonne Unit		
Refining process			
E89	One (1) caustic mix tank	7.25	N/A
E90	Caustic injection equipment		
E91	Six (6) oil mixers		
E92	Six (6) SRG-214 refining centrifuges		
E93	Two (2) water wash POD horizontal centrifuges		
E94	Oil to oil heat exchangers		
E95	Heaters		
E96	Coolers		
E97	One (1) condensate tank		
E98	One (1) vacuum dryer	7.25	E121 or E122
E99	One (1) vacuum pump		
E100	One (1) hot well tank		
E101	One (1) split box	7.25	N/A
E102	#145 Crude oil storage tank 2,300,000 lbs		
E103	#146 Crude oil storage tank 1,185,600 lbs		
E104	#147 Crude oil storage tank 3,765,000 lbs		
E105	#148 Crude oil storage tank 2,300,000 lbs		
E106	#29 Refining wash water tank 40,000 lbs		
E107	#30 Refining soap stock hold tank 63,800 lbs	7.25	N/A
E108	#31 Refining surge tank 63,800 lbs		
E109	#32 Refining holding tank 64,300 lbs		
E110	#33 Refining holding tank 63,800 lbs		
E111	#34 Refining bleach tank 63,800 lbs		
E112	#35 Refining tank- not in use		
E113	#C1 Refining caustic storage 105,000 lbs		
E114	#C2 Refining caustic storage 105,000 lbs		
E115	#C3 Refining caustic storage 105,000 lbs		
E116	Two (2) Rail car wash tanks 2,000 gallons each	7.25	N/A
E117	Three (3) water storage tanks	7.25	N/A

Emission Point	Description	Applicable Regulation	Control Device (Control ID)
E118	Acidulation tank	7.25	N/A

U1 Control Devices:

There are no control devices for this emissions unit.

U1 Specific Conditions

S1. **Standards** (Regulation 2.17, section 5.1)

a. **HAP (Hexane)**

i. The owner or operator shall not allow or cause the *plant-wide* of single HAP (Hexane) emission to equal or exceed 5 tons during any consecutive 12-month period[1, 2]. (Regulation 5.00, section 1.13.5.2)

ii. The owner or operator shall not allow or cause the plant-wide total HAP emissions to equal or exceed 12.5 tons during any consecutive 12-month period[1]. (Regulation 5.00, section 1.13.5.3)

b. **VOC**

i. The owner or operator shall not allow or cause the *plant-wide* VOC emission from all affected facilities subject to Regulation 7.25 to equal or exceed 5 tons during any consecutive 12-month period, unless a BACT is submitted and approved by the District. (Regulation 7.25, sections 2.1 and 3.1)

ii. For Refining process, any gaseous or vapor emissions containing volatile organic compounds from the vacuum equipment (E98 and E99) and hot well tank (E100) of this emission unit shall be controlled by either the Babcox and Wilcox Steam Boiler (E121) or Nebraska Steam Boiler (E122). (Regulation 7.25, sections 2.1 and 3.1)

S2. **Monitoring and Recordkeeping** (Regulation 2.17, section 5.2)

The owner or operator shall maintain the following records for a minimum of 5 years and make the records readily available to the District upon request.

a. **HAP (Hexane)**

See U1 Specific Condition S2.b.

b. **VOC**

[1] On 3/11/2015, the source requested the limits of the criteria pollutants < 25 tpy, total HAPs < 12.5 tpy, and largest single HAP < 5 tpy to qualify as a FEDOOP STAR Exempt as defined by Regulation 5.00, section 1.13.5. This will ensure the emissions are limited to below the major source thresholds of 100 tpy for criteria pollutants, 10 tpy of single HAP and 25 tpy of total HAP.

[2] The source can use HAP (Hexane) emissions as a surrogate for total VOC emissions since all VOC emissions from the source are Hexane.

i. The owner or operator shall maintain records of the type and amount (throughput) of every VOC material used at this source.

ii. The owner or operator shall maintain records of crude oil supplier certification, as described in 1) and 2), for crude oil.

1) The name of the crude oil supplier, and
2) The type and quantity of crude oil

iii. The owner or operator shall maintain laboratory analysis records of VOC/Hexane content (ppm) in the incoming crude oil per batch and processed oil (before and after processing) quarterly for all the processes including: Refinery, Bleaching, Hydrogenation, and Deodorization processes.

iv. The owner or operator shall monthly calculate and maintain records of the total VOC/Hexane emissions for each calendar month and for each consecutive 12-month period. The following equation shall be used to calculate monthly VOC/Hexane emissions unless another method is approved in writing by the District:

Plant-wide VOC/Hexane emissions (ton) = VOC/Hexane emissions (ton) from Refinery process x (1-0.98) + VOC/Hexane emissions (ton) from Bleaching process + VOC/Hexane emissions (ton) from Hydrogenation process + VOC/Hexane emissions (ton) from Deodorization process[3]

where;

VOC/Hexane emissions (ton) from each process = Oil processed (ton) x (ppm of Hexane before processing – ppm of Hexane after processing) /1,000,000

Oil processed (ton) = Oil (ton) that was extracted using solvent[4]

v. For Refining process, E98-E100, any period of time when the process was operating and control device E121 or E122 was not operating, the owner or operator shall maintain the following records:

1) The duration of the control device downtime;
2) The process throughput during the control device downtime;
3) The VOC emissions (tons); and

[3] For refinery process, VOC emissions from the process are vented to E121 or E122. A typical control efficiency of 98% shall be used for the emission calculation.

[4] The oils are not extracted at the facility. The soybean and cottonseed oils are the only oils that are extracted by solvent. All other oils are mechanically extracted.

4) Summary information on the cause of the event, corrective action taken, and measures implemented to prevent reoccurrence.

S3. **Reporting** (Regulation 2.17, section 5.2)

The owner or operator shall submit annual reports demonstrating compliance with the emission limitations specified in accordance with General Condition 12.

a. **HAP (Hexane)**

See U1 Specific Condition S3.b.i and ii.

b. **VOC**

i. The total *plant-wide* consecutive 12-month VOC emissions for each month in the reporting period.

ii. For Refining process, E98-E100, identification of all periods when a process was operating and an associated control device was not operating, including the information in Specific Condition S2.b.iv., or a negative declaration if the control device was operating at all times the process was operating during the reporting period.

Emission Unit U2

U2 Description: Two (2) Oil Heaters and two (2) Boilers.

U2 Applicable Regulations:

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
2.17	Federally Enforceable District Origin Operating Permits	All
7.06	Standards of Performance for New Indirect Heat Exchangers	1, 2, 3, 4 and 5
40 CFR 60, Subpart D_c	Federal New Source Performance Standards for Small Industrial- Commercial-Institutional Steam Generating Units	60.43c(c), 60.48c(d)

U2 Equipment:

Emission Point	Description	Applicable Regulation	Stack ID	Installation Date
E119	One (1) Dowtherm/oil heater, capacity: 3 MMBtu/hr. Fuel: natural gas	7.06	S1	1988
E120	One (1) Dowtherm/oil heater, capacity: 4 MMBtu/hr. Fuel: natural gas		S2	1988
E121	One (1) Babcox and Wilcox Steam Boiler, type: watertube boiler with low NO_x burner, installed originally in 1996, replaced in 2000 using same burner, capacity 43 MMBtu/hr. Fuels: natural gas	7.06 and 40 CFR 60, Subpart Dc	S3	1994
E122	One (1) Nebraska Steam Boiler, type: watertube boiler, capacity: 60 MMBtu/hr. Fuels: natural gas with No. 2 fuel oil backup[5].		S4	1990

U2 Control Devices:

There are no control devices for this emissions unit.

[5] 40 CFR 63 Subpart JJJJJJ, National Emissions Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources emission standards are not applicable by definition to the boilers. §63.11195 lists boilers not subject to the subpart and §63.11195(e) states "A gas fired boiler as defined in this subpart." §63.11237 defines a gas fired boiler as "Gas-fired boiler includes any boiler that burns gaseous fuels not combined with any solid fuels, burns liquid fuel only during periods of gas curtailment, gas supply emergencies, or periodic testing on liquid fuel. Periodic testing of liquid fuel shall not exceed a combined total of 48 hours during any calendar year."

U2 Specific Conditions

S1. **Standards** (Regulation 2.17, section 5.1)

a. **SO_2**

i. The owner or operator shall not cause to be discharged into the atmosphere from each boiler any gases which contain SO_2 in excess of 1.0 pound per million BTU actual total heat input (four boilers combined are 110 MMBtu/hr) for combustion of liquid (for E122) and gaseous fuels[6]. (Regulation 7.06, section 5.1.1)

ii. For E122, the owner or operator shall not combust fuel oil that contains greater than 0.5 weight percent sulfur. (40 CFR 60.42c(d))

b. **NOx**

The owner or operator shall not allow or cause the *plant-wide* NOx emissions to exceed 25 tons during any consecutive 12-month period. (Regulation 2.17, section 5.1) (Regulation 5.00, section 1.13.5.1)

c. **CO**

The owner or operator shall not allow or cause the plant-wide CO emissions to exceed 25 tons during any consecutive 12-month period. (Regulation 2.17, section 5.1) (Regulation 5.00, section 1.13.5.1)

d. **PM**

The owner or operator shall comply with the following PM emission standards: (Regulation 7.06, section 4.1)

Emission Point	Equipment	Emission Standard (lb/MMBtu)
E119	Dowtherm Boiler, capacity 3 MMBtu/hr	0.560[6]
E120	Dowtherm Boiler, capacity 4 MMBtu/hr	0.560[6]
E121	Babcox and Wilcox Steam Boiler, capacity 43 MMBtu/hr	0.155[6]

[6] The District has performed a one-time PM and SO_2 compliance demonstration for the boilers using AP-42 emission factors the result showed that the limits cannot be exceeded using natural gas or fuel oil. Therefore, there are no monitoring, recordkeeping and reporting requirements for these boilers with respect to PM emission limits. However, there are recordkeeping requirements for these emission points with respect to SO_2 emission limits, since there is a low sulfur (0.5%) fuel oil, the shipper fuel oil certifications are required to be maintained on site for five years.

Emission Point	Equipment	Emission Standard (lb/MMBtu)
E122	Nebraska Steam Boiler, capacity 60 MMBtu/hr	0.202[4]

e. **Opacity**

i. The owner or operator shall not cause to be discharged into the atmosphere from any affected facility particulate matter emissions which exhibit greater than 20% opacity except: (Regulation 7.06, section 4.2)

1) A maximum of 40% opacity shall be permissible for not more than two consecutive minutes in any 60 consecutive minutes;

2) A maximum of 40% opacity shall be permissible for not more than six consecutive minutes in any 60 consecutive minutes during cleaning the fire box or blowing soot; or

3) For emissions from an indirect heat exchanger during building a new fire for the period required to bring the boiler up to operating conditions provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations.

ii. For E122, no owner or operator of an affected facility that can combust coal, wood, or oil and has a heat input capacity of 8.7 MW (30 MMBtu/hr) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that exhibit greater than 20% opacity (6-minute average), except for one 6-minute period per hour of not more than 27% opacity[7]. (40 CFR 60.43c(c))

iii. The opacity standards apply at all times, except during periods of startup, shutdown, or malfunction. (40 CFR 60.43c(d))

f. **Unit Operations**

i. For E122, the owner or operator shall combust liquid fuel only during periods of gas curtailment, gas supply emergencies, or periodic testing on liquid fuel. (40 CFR Subpart JJJJJJ §63.11237)

ii. For E122, the owner or operator shall not exceed a combined total of more than forty-eight (48) hours of operation during a calendar year of liquid fuel testing. (40 CFR JJJJJJ §63.11237)

[7] 40 CFR 60.45c(a) requires the source subject to the PM and/or opacity standards under §60.43c to conduct an initial performance test as required under §60.8, to determine the compliance with the standard. The source conducted the test according with 40 CFR 60 Reference Method 9 on 11/03/1994 for E122 and demonstrated compliance with opacity standard specified in 40 CFR 60.43c(c).

S2. **Monitoring and Record Keeping** (Regulation 2.17, section 5.2)

The owner or operator shall maintain the following records for a minimum of 5 years and make the records readily available to the District upon request.

a. **SO_2**

i. The owner or operator shall demonstrate compliance with the fuel oil sulfur limits (0.5 % by weight) by maintaining records of fuel supplier certification, as described in 1) through 3), for distillate oil. (40 CFR 60.48c(f)(1))

1) The name of the fuel oil supplier; (40 CFR 60.48c(f)(1)(i))

2) A statement from the fuel oil supplier that the oil complies with the specifications under the definition of distillate oil in §60.41c; and (40 CFR 60.48c(f)(1)(ii))

3) The sulfur content or maximum sulfur content of the fuel oil. (40 CFR 60.48c(f)(1)(iii))

ii. The fuel oil sulfur limits apply at all times, including periods of startup, shutdown, and malfunction. (40 CFR 60.42c(i))

iii. The owner or operator of an affected facility that combusts only natural gas, wood, fuels using fuel certification in §60.48c(f) to demonstrate compliance with the SO_2 standard, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to keep records of the amount of fuel combusted during each operating month, or (40 CFR 60.48c(g)(2))

b. **NOx**

iv. The owner or operator shall monthly monitor and maintain records of the amount and type of each fuel combusted during each calendar month and each consecutive 12-month period.

v. The owner or operator shall monthly calculate and maintain records of the monthly and consecutive 12-month NOx emissions.

c. **CO**

i. See U2 Specific Condition S2.a.i.

ii. The owner or operator shall monthly calculate and maintain records of the monthly and consecutive 12-month CO emissions.

d. **PM**

There are no monitoring or record keeping requirements for PM compliance.

e. **Opacity**

i. For each PM emission point, the owner or operator shall conduct a monthly one-minute visible emission survey, during normal operation and daylight hours when combusting No. 2 fuel oil as fuel. No more than four emission points shall be observed simultaneously. The opacity surveys can be performed on the building exhaust points if the process is inside and enclosure[8].

ii. At emission points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9, in accordance with 40 CFR Part 60, Appendix A, within 24 hours of the initial observation.

iii. The owner or operator shall maintain monthly records that show the results of all visible emissions surveys and Method 9 tests performed. The records of the results of each visible emissions survey shall include the date of the survey, the name of the person conducting the survey, whether or not visible emissions were observed, and what if any corrective action was taken to minimize visible emissions. If an emission point is not being operated during a given month, then no visible emission survey is required to be performed and a negative declaration shall be entered in the record.

f. **Unit Operations**

i. For E122, the owner or operator shall record all hours of operating while combusting liquid fuel, during periods of natural gas curtailment or natural gas supply emergencies.

ii. For E122, the owner or operator shall monthly calculate and record the monthly and calendar year-to-date total hours of operation when combusting liquid fuel, during the liquid fuel operation testing.

S3. **Reporting** (Regulation 2.17, section 5.2)

The owner or operator shall submit annual reports demonstrating compliance with the emission limitations specified in accordance with General Condition 12.

[8] The District has determined that no periodic visible emissions surveys are required for this emission unit while combusting natural gas.

a. **SO_2**

The owner or operator shall report the following information:

i. The owner or operator shall report records of the amount of each fuel combusted during each operating day for each calendar month during the reporting period. (40 CFR 60.48c(g)(1))

ii. As an alternative to meeting the requirements of 40 CFR 60.48c(g)(1), the owner or operator of an affected facility that combusts only natural gas, wood, fuels using fuel certification in §60.48c(f) to demonstrate compliance with the SO_2 standard, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to record and maintain records of the amount of each fuel combusted during each calendar month. (40 CFR 60.48c(g)(2)).

iii. Records of fuel supplier certification. In addition to records of fuel supplier certifications, the report shall include a certified statement signed by the owner or operator of the affected facility that the records of fuel supplier certifications submitted represent all of the fuel oil combusted during the reporting period. (40 CFR 60.48c(e)(11))

b. **NOx**

The owner or operator shall report the calendar month and consecutive 12-month *plant-wide* NOx emissions for each month in the reporting period.

c. **CO**

The owner or operator shall report the calendar month and consecutive 12-month *plant-wide* CO emissions for each month in the reporting period.

d. **PM**

There are no routine compliance reporting requirements for this pollutant.

e. **Opacity**

There are no routine compliance reporting requirements for this pollutant.

f. **Unit Operations**

The owner or operator shall report, for E122, monthly and year-to-date total hours of operation, within the reporting period, when combusting liquid fuel, during the liquid fuel operation testing.

Insignificant Activities

Equipment	Quan.	PTE (tpy)	Regulation Basis
Cooling Towers for packaging line #1 (900 gal/minute)	1	1.13 PM_{10}	Regulation 1.02, section 1.38
Cooling Towers for packaging line #2 (900 gal/minute)	1	1.13 PM_{10}	Regulation 1.02, section 1.38
Cooling Towers for packaging line #3 (900 gal/minute)	1	1.13 PM_{10}	Regulation 1.02, section 1.38
Oil/Water separator for packaging line	1	0.015 VOC	Regulation 1.02, Appendix A
Wastewater Treatment Process			
Receiving tank (TK-W100)	1	1.36 VOC	Regulation 1.02, Appendix A

1) Insignificant activities identified in District Regulation 1.02, Appendix A, may be subject to size or production rate disclosure requirements.

2) Insignificant activities identified in District Regulation 1.02, Appendix A shall comply with generally applicable requirements.

3) The owner or operator shall annually submit an updated list of insignificant activities that occurred during the preceding year, with the compliance certification due April 15th.

4) Emissions from Insignificant Activities shall be reported in conjunction with the reporting of annual emissions of the facility as required by the District.

5) The owner or operator may elect to monitor actual throughputs for each of the insignificant activities and calculate actual annual emissions, or use Potential to Emit (PTE) as the annual emissions for each piece of equipment.

6) The District has determined that no monitoring, record keeping, or reporting requirements apply to the insignificant activities listed, except for the equipment that has an applicable regulation and permitted under an insignificant activity (IA) unit.