



South Coast Air Quality Management District

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

March 7, 2012

Mr. Gerardo C. Rios
Chief of Permit Operations
US EPA Region IX, AIR 3
75 Hawthorne Street
San Francisco, CA 94105

Dear Mr. Rios:

MCP Foods, Inc. (ID 002825) has proposed to revise their Title V Permit by combining the maximum monthly production of two of their product lines to increase the efficiency of the facility while decreasing their overall emissions. In addition, they are also proposing to replace their 230 gallon recirculation tanks from 4 of their product lines with 50 gallon tanks. The tank replacement is also expected to decrease the facilities' overall emissions. MCP Foods is a flavoring manufacturing facility and is located at 424-425 S. Atchison Street, Anaheim, CA 92805. This proposed permit revision is considered a minor permit revision to their Title V permit. Attached for your review are the evaluation and permit for the proposed revision. With your receipt of the proposed Title V permit revision today, we will note that the EPA 45-day review period will begin on March 6, 2012.

If you have any questions or need additional information regarding the proposed permit revision, please contact Ms. Monica Fernandez-Neild at (909) 396-2202.

Sincerely,

A handwritten signature in black ink, appearing to read "Brian L. Yeh", is written over a light blue circular stamp.

Brian L. Yeh
Senior Manager
Mechanical, Chemical and Public Services

BLY:mfn

Enclosures

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	APPL. NO. New IPA Tanks	DATE 3/7/2012
	PROCESSOR MFN	REVIEWER

**EQUIPMENT MODIFICATION
PERMIT TO OPERATE ANALYSIS**

FACILITY MAILING ADDRESS

Firmerich, DBA MCP Foods, Inc.
424-425 Atchison Street
Anaheim, CA 92805

(ID: 002825 NOx RECLAIM Cycle 1 - Title V)

EQUIPMENT LOCATION

SAME

EQUIPMENT DESCRIPTION

APPLICATION NO. 526854 FACILITY PERMIT MODIFICATION

APPLICATION NO. 526855 EQUIPMENT MODIFICATION

MODIFICATION OF THE SILVER LINE (PROCESS 4, SYSTEM 3) WITH THE
REMOVAL OF:

PROCESS TANK, ISOPROPYL ALCOHOL, ROYAL WELDING, 3'-6" DIA. X 4'-10"
H, 230 GALLON CHILLED RECIRCULATION WITH A DOUBLE TUBE COOLER
HEAT EXCHANGER.

ADDITION OF:

PROCESS TANK, ISOPROPYL ALCOHOL, ROYAL WELDING, 1'-6" DIA. X 4'-0" H,
50 GALLON CHILLED RECIRCULATION WITH A DOUBLE TUBE COOLER HEAT
EXCHANGER.

APPLICATION NO. 526856 EQUIPMENT MODIFICATION

MODIFICATION OF THE YELLOW LINE (PROCESS 4, SYSTEM 4) WITH THE
REMOVAL OF:

PROCESS TANK, ISOPROPYL ALCOHOL, ROYAL WELDING, 3'-6" DIA. X 4'-10"
H, 230 GALLON CHILLED RECIRCULATION WITH A DOUBLE TUBE COOLER
HEAT EXCHANGER.

ADDITION OF:

PROCESS TANK, ISOPROPYL ALCOHOL, ROYAL WELDING, 1'-6" DIA. X 4'-0" H,
50 GALLON CHILLED RECIRCULATION WITH A DOUBLE TUBE COOLER HEAT
EXCHANGER.

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Notices of Violation:

P51879, 2/25/10, Failure to perform required source test on spray dryer (Device D23) by 12/31/09.

Dryer tested 3/25/10.

FACILITY DESCRIPTION

MCP Foods is a flavoring manufacturing facility that primarily produces flavors used in beverage, sweet goods, dairy, oral care and nutrition products. The existing equipment at the facility includes eight manufacturing lines which are supported by a boiler, process vessels, solvent storage tanks, food dryers, and packaging equipment along with associated control equipment.

PROCESS DESCRIPTION

The above four Durarome Batch Lines are identical, they each have 2 dissolution vessels, 4 homogenizer vessels, 2 quench tanks, 1 recirculation tank, 1 heat exchanger, 1 hydrocyclone, and 1 centrifuge. Following the centrifuge, the flavored product is dried in one of 26 rotary drum dryers, and then it is screened and packaged. Each dryer has a dedicated cyclone (Dust Kop) that vents to the facility's dust collector and then the catalytic thermal oxidizer.

EVALUATION

MCP Foods is proposing to replace each of the 230 gallon isopropyl alcohol (IPA) recirculation tanks on the above four Durarome batch lines with smaller 50 gallon tanks. The proposed tanks will be similar to the original tanks, except for the tank size. The tank replacements are part of a facility efficiency upgrade which is expected to reduce the daily maximum IPA usage by more than 50% by reducing waste.

IPA will be supplied to each tank from the fresh IPA underground tank, device ID D4. The IPA in the individual recirculation tanks is maintained chilled by the use of external cooling coils. The IPA from the recirculation tanks will flow into the quench tanks as needed to maintain the quench tank IPA temperature below 50°F. IPA that is recovered from the hydrocyclone and centrifuge is also directed back to the recirculation tank. The contents of the Recirculation Tank are sent to the Flavored (Used) IPA Tank, device ID D5 whenever the contents are too contaminated with sugar and starch and at the end of a production run (change of flavor). A totalizing meter will be installed on each IPA line in order to meter the amount of IPA used in each line.

Operating Schedule – 16 hrs/day, 6 day/wk, 50 wks/yr (4800 hr/yr Average)
 - 24 hrs/day, 7days/wk, 52 wks/yr (7200 hrs/yr Max)

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Isopropyl Alcohol usage – 2,500 gal/day (Maximum daily Pre-Modification)
- 1,200 gal/day (Maximum daily Post-Modification)

The table below provides the maximum number of batches per line per day and per month. In addition, the table provides the typical IPA usage per batch.

Batch Line	Max Capacity ¹ (lbs/batch)	Max Daily Operation (Batch/day)	Max Monthly Operation (Batch/mo)	Typical IPA Usage ² (gal/batch)
Silver	924.0	16	480	45
Yellow	897.6	15	450	50
Orange	484.0	18	540	48
Tan	558.8	15	450	42

¹ The capacity is provided as finished product (dry weight). The wet process rate is greater at approximately 25%.

² Usage is provided as total IPA processed before recovery. On average, approximately 54% by weight of the IPA used in the process is recovered as liquid in the spent (flavored) IPA tank (Device ID D5).

The total VOC emissions from the batch lines are comprised from the loading and evaporation of IPA into and from the recirculation and quench tanks and evaporative losses from the centrifuge. The VOC loss from loading the tanks is calculated based on Equation 8.4-1 from USEPA's Emission Inventory Improvement Program (EIIP) Technical Document dated February 2005. The VOC loss from passive evaporation is calculated using Equation 8.4-22 from the same EIIP Document. The VOC loss from the centrifuge is based on the assumption that the purge stream is saturated with IPA and calculated using the Ideal Gas Law.

$$E_{\text{loading}} = 12.46 \times \frac{S \times P \times M \times Q}{T}$$

$$E_{\text{centrifuge}} = \frac{P \times V \times 60 \times M}{R \times T}$$

$$E_{\text{evaporation}} = \frac{M \times K \times A \times P \times 3600}{R \times T}$$

$$K = 0.00438 \times U^{0.78} \times (18/M)^{1/3}$$

Equation Parameter	Definition	Pre Mod	Post Mod	Units
S	Saturation factor, splash loading	1.45	1.45	Unitless
P _a	Vapor pressure of IPA @ temp	0.336	0.336	Psia
Q	Volume of material loaded	0.104 (avg)	0.075 (max)	Kgal/hr
M	Vapor molecular weight	60	60	Lb/lb-mol

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R	Universal gas constant	10.73	10.73	psia-ft ³ /lb-mol°R
T	Temp of IPA in °R	510	510	°R
V	Flow rate of purge line	6	6	Cfm
A	Surface area of quench tank, assuming 5'6" h x 2'8" w x 1'10" l	14.667	14.667	Ft ²
K _i	Gas-Phase mass transfer coefficient	0.0148	0.0148	Ft/sec

Only the loading emissions will change as a result of the requested tank replacement. The smaller tank is not expected to increase the overall emission of the batch lines, actual emissions are expected to decrease. For these current applications, the previous emissions will be brought forward. See attached NSR sheets from the previous applications.

RULES COMPLIANCE

RULE 212 Public Notification

Paragraph 212 (c)(1) Requires a public notice for all new or modified permit units that may emit air contaminants located within 1,000 feet from the outer boundary of a school. Using to the website geodistance.com the closest schools, Abraham Lincoln Elementary and Thomas Jefferson Elementary are beyond a 1000 feet from MCP's property line. A 30-Day Public Notice is not required under this paragraph.

Paragraph 212(c)(2) The equipment will not result in on-site emission increase exceeding the daily maximums as specified in the table in Rule 212(g). The requested change results in an emission decrease; therefore, a 30-day public notice period will not be required under this paragraph.

Paragraph 212(c)(3) Public notice will not be required under this paragraph. There is no increase of Rule 1401 emissions for this permitting action.

RULE 401 Compliance is expected. Visible emissions are not expected from proper operation of this equipment. There have been no visible emission violations credited to this facility.

RULE 402 Compliance is expected. Nuisance is not expected if equipment is properly operated and maintained. There have been no violations credited to this facility.

RULE 1131 Continued compliance is expected. October 19, 2005, source test found control device to have a capture efficiency of 97.6% and a destruction efficiency of 99.3% (96.9% overall). Rule requires solvents not be used in food product manufacturing unless the VOC emission control system has

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a collection efficiency greater than 90% and a removal efficiency greater than 95%.

REG XIII/XX There is no increase of emissions associated with the requested modification. Overall VOC emissions are expected to decrease due to the requested equipment change. The requested change has not effect on PM₁₀ emissions.

Rule 1401 There is no increase or Rule 1401 Toxic compounds associated with the change of condition requested.

REG XXX This is a minor permit revision; a 45-day EPA review is required.

RECOMMENDATION

Issue the Permit to Operate to replace the recirculation tank of the Silver Line, under A/N 526855, incorporate requested change of condition from A/N 524803 in this permit approval.

Issue the Permit to Operate to replace the recirculation tank of the Yellow Line, under A/N 526856.

Issue the Permit to Operate to replace the recirculation tank of the Orange Line, under A/N 526857.

Issue the Permit to Operate to replace the recirculation tank of the Tan Line, under A/N 526858.

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**CHANGE OF CONDITION
PERMIT TO OPERATE ANALYSIS**

FACILITY MAILING ADDRESS

Firmerich, DBA MCP Foods, Inc.
424-425 Atchison Street
Anaheim, CA 92805

(ID: 002825 NOx RECLAIM Cycle 1 - Title V)

EQUIPMENT LOCATION

SAME

EQUIPMENT DESCRIPTION

APPLICATION NO. 524803 CHANGE OF CONDITION

PROCESS 4: FOOD

SYSTEM 3: FLAVOR EXTRACTION SYSTEM NO. 1 (SILVER LINE)

D54-D58 FLAVOR EXTRACTION SYSTEM CONSISTING OF:

1. DISSOLUTION VESSEL, LEE INDUSTRIES, TWO 100 GALLON KETTLES, EACH WITH A 7½ HP LOW-SPEED MIXING AGITATOR AND A 10-HP HIGH-SPEED DISPERSION AGITATOR.
2. HOMOGENIZING VESSEL, ROYAL WELDING, FOUR PRESSURE VESSELS, EACH 60 GALLONS WITH A 50-HP AGITATOR.
3. QUENCH TANK, ROYAL WELDING, TWO TANKS, EACH 50 GALLONS WITH A 7½ HP HIGH-SPEED DISINTEGRATOR AGITATOR.
4. PROCESS TANK, ISOPROPYL ALCOHOL, ROYAL WELDING, 3'-6" DIA. X 4'-10" H, 230 GALLON CHILLED RECIRCULATION WITH A DOUBLE TUBE COOLER HEAT EXCHANGER.
5. HYDROCYCLONE, KREBS, MODEL P4-55-752, 5" DIA X 25" L.
6. CENTRIFUGE, TEMA SYSTEMS, WORM SCREW DECANTER, MODEL TS-360-FK, 25" DIA X 16" L WITH A 30-HP DRIVE MOTOR.

APPLICATION NO. 524805 CHANGE OF CONDITION

PROCESS 4: FOOD

SYSTEM 9: CONTINUOUS LINE

FLAVOR EXTRACTION SYSTEM CONSISTING OF:

1. BULK BAG DISCHARGE SYSTEM, THREE, SUGAR, FLEXICON, MODEL 1450, EACH WITH A 5 HP CONVEYOR DRIVE
2. FIVE EXEMPT TANKS

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3. THREE EXEMPT HEAT EXCHANGERS
4. QUENCH TANKS, ISOPROPYL ALCOHOL, CUSTOM BUILT, 50 GALLON CAPACITY EACH, WITH A 10 HP DISINTEGRATOR MOTOR.
5. CENTRIFUGE, DECANTER, TEMA SYSTEMS, MODEL TS-360-FK
6. DRYER, FOOD FLAVORANT, CARRIER VIBRATING EQUIPMENT, FLUID BED, MODEL QAD/C-2'X25HP, 3'-0" W. X 16'-0" L. X 8'-0" H., STEAM HEATED, WITH TWO 10-HP RECIRCULATION FANS, ONE 20-HP EXHAUST FAN AND ONE 5-HP DRIVE MOTOR
7. CONVEYOR, HAPMAN, MODEL 4000, TUBULAR FLIGHT
8. SCREW DEEDER, FLEXWALL, MODEL FW33
9. VIBRATORY SCREEN, SOUTHWESTERN VIBRECON, 2'-6" DIA. 1/3 HP MOTOR

APPLICATION NO. 524806 FACILITY PERMIT MODIFICATION

HISTORY

Application Nos. 524803 and 524805 were filed on June 30, 2011, for a Change of Condition Permit. Application No. 524806 was filed on June 30, 2011, for a RECLAIM facility permit modification.

The following compliance activity was found in District records (CLASS computer database) for the past 2 years.

Complaints:

213545, 11/5/10, for very pungent odor from company that makes perfume scents and flavor chemicals.

The inspector detected a faint strawberry scent, but not a Violation. The company was operating in compliance at the time of inspection on 8/14/07.

Notice to Comply:

D28651, 4/9/10, to submit the Semi-Annual Monitoring Report and the Annual Compliance Certification by the due date.

Information supplied before deadline.

Notices of Violation:

P51879, 2/25/10, Failure to perform required source test on spray dryer (Device D23) by 12/31/09.

Dryer tested 3/25/10.

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FACILITY DESCRIPTION

MCP Foods is a flavoring manufacturing facility that primarily produces flavors used in beverage, sweet goods, dairy, oral care and nutrition products. The existing equipment at the facility includes eight manufacturing lines which are supported by a boiler, process vessels, solvent storage tanks, food dryers, and packaging equipment along with associated control equipment.

PROCESS DESCRIPTION

The above applications are for two of the flavor manufacturing lines. Both lines produce the same product, Durarome, however, the drying and packaging use different technologies. The Continuous Line (CL) has an enclosed conveyor that transports material from its centrifuge to its dedicated dryer, which eliminates any fugitive air emissions. The Silver Line (SL) transports product from the centrifuge in plastic pails by hand to a rotary dryer and also from the dryer to the vibrating screens and to packaging.

Though both lines typically can process 900 lb/hr of product, the CL can process a product continuously; in the SL the processing is in batches. Thus the CL is used to produce a higher volume of a single product when compared to the SL.

EVALUATION

Both lines have a similar monthly production limit of end product, the CL is limited to 450,000 lbs and the SL is limited to 443,520 lbs. The applicant is proposing a combined limit of 893,520 lbs for both lines, while maintaining the individual monthly limit of the SL, 443,520 lbs. The applicant expects that this change will increase the efficiency of producing the end product while not increasing the associated emissions. Overall emissions are expected to decrease for the facility.

Continuous Line

Operating Schedule – 16 hrs/day, 5 day/wk, 51 wks/yr (Average)
- 24 hrs/day, 7 days/wk, 52 wks/yr (Max)

Syrup Ingredients (Dry) – 800 lb/hr

Flavor Oils - 100 lb/hr

IPA - 83,348 lb/mo

PM₁₀ - 0.5 PM emissions, District Default, assumed to be an overestimation.

Moisture content of product before the dryer is ~8%. Moisture content of product after the dryer is ~4%. IPA content of product before the dryer is ~12% and 0.05% after the dryer. PM emission factors in use are for product with a moisture content typically <3% and no solvent content.

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PM emission factors for Continuous Line

Process Step	Emission Factor Lb/ton	Ap-42 Process
Bulk bag unloading	2.0	6.7-1
Conveyer transfer	0.26	9.10.1.1-6
Dryer	0.26	9.10.1.1-6
Screening (PM ₁₀)	0.0087	11.19.2-8
Packaging	0.19	8.2-4

PM₁₀ emissions for Continuous Line

Process	Eff [‡] %	R1 Lb/hr	R2 Lb/hr	R1 Lb/day	R2 Lb/day	30-Day*
Bulk bag transfer [†]	99	0.4	0.004	9.6	0.096	0.0667
Conveyer transfer	98	0.052	0.00104	1.248	0.025	0.0173
Dryer [‡]	99	0.052	0.00052	1.248	0.0125	0.00867
Conveyer transfer	98	0.052	0.00104	1.248	0.025	0.0173
Screening	98	0.00348	0.00007	0.08352	0.00167	0.00117
Packaging	98	0.038	0.00076	0.912	0.01824	0.0127
PM₁₀ Total		0.5975	0.00743	14.34	0.178	0.124

* 30-Day emissions based on monthly production limits

† Capture efficiency is 100%, all others @ 99%

‡ Efficiency of control is >99%

VOC emission factors for Continuous Line are taken from previous permit

Process Step	Emission Factor Lb/hr	Equation Process
Centrifuge – IPA	0.576	Ideal Gas Law/Dalton's Law
Dryer – IPA	67.66	Mass balance
Trace – Organics	10.39	Flow rate
Storage - IPA	0.0063	Tanks 4.0

VOC emissions from Continuous Line

Process	R1 Lb/hr	R2** Lb/hr	R1 Lb/day	R2** Lb/day	30-Day*
Centrifuge	0.5763	0.0179	13.831	0.429	0.298
Dryer	67.66	2.097	1623.84	50.33	34.95
Storage	0.0063	0.0063	0.15	0.15	0.105
Trace	10.39	0.3221	249.36	7.73	5.368
Total	78.63	2.443	1887.18	58.64	40.72

* 30-Day emissions based on monthly production limit of finished product.

** VOC emission with 96.9% control

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Silver Line

The Silver Line is a batch operation; the various steps in making the final product are controlled or carried out by hand. Each step of the batch line is an individual permit unit. The change of condition requested only affects the initial loading into the line and syrup production; the drying, screening and packaging of Durarome are separate permit units for the batch lines.

Operating schedule, syrup ingredients, flavor oils and maximum processing weight are identical to the continuous line. The current monthly production limit for the SL is 443,520 lbs of Durarome, the corresponding monthly IPA usage is 76,752 lbs. Below is the maximum emissions for the Silver Line as summarized from previous evaluation (see attached data sheet). This includes initial syrup preparation to crystal production.

Silver Line Emissions

Pollutant	Uncontrolled	Controlled	Uncontrolled	Controlled	30Day
PM ₁₀	0.28 lb/hr	0.28 lb/hr	6.72 lb/day	6.72 lb/day	5
VOC	0.71 lb/hr	0.65 lb/hr	17.04 lb/day	15.60 lb/day	11

Maximum emissions per each Dryer, 26 total shared by 4 batch lines (Yellow, Orange, Tan and Silver). See attached data sheet. If the dryers were dedicated to a line, the Silver Line would require 7 to 8 dryers to process their monthly production.

Individual Dryer Emissions

Pollutant	Uncontrolled	Controlled	Uncontrolled	Controlled	30Day
PM ₁₀	2.0 lb/hr	4.0e ⁻⁵ lb/hr	37.15 lb/day	7.43 e ⁻⁴ lb/da	0
VOC	7.407 lb/hr	0.293 lb/hr	130.91 lb/da	5.18 lb/day	4.15

There are 5 vibratory screens used to sort and package the final product. These 5 screens are shared by the above mentioned of the batch lines. A conservative estimate would assume that one of the screens could process the Silver Lines' monthly production.

Vibratory Screen Emissions

Pollutant	Uncontrolled	Controlled	Uncontrolled	Controlled	30Day
PM ₁₀	0.146 lb/hr	0.146 lb/hr	1.10 lb/day	1.10 lb/day	0.88

A conservative estimate of total emissions expected for the production of Durarome that begins in the Silver Line.

Maximum Durarome Production for Silver Line is 443,520 lbs/month

Emissions per Step	R1 Lb/hr	R2 Lb/hr	R1 Lb/day	R2 Lb/day	30-Day
Syrup to Crystal _{PM10}	0.28	0.28	6.72	6.72	5.0
Drying _{PM10} each	2	4.0e ⁻⁵	37.15	7.43 e ⁻⁴	0

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Sort & Package PM ₁₀	0.146	0.146	1.10	1.10	0.88
Total PM₁₀					5.88
Syrup to Crystal VOC	0.71	0.65	17.04	15.60	11
Drying VOC each	7.407	0.293	130.91	5.18	4.15
Total VOC					44.2

RULES COMPLIANCE

RULE 212 Public Notification

Paragraph 212 (c)(1) Requires a public notice for all new or modified permit units that may emit air contaminants located within 1,000 feet from the outer boundary of a school. Using to the website geodistance.com the closest schools, Abraham Lincoln Elementary and Thomas Jefferson Elementary are beyond a 1000 feet from MCP's property line. A 30-Day Public Notice is not required under this paragraph.

Paragraph 212(c)(2) The equipment will not result in on-site emission increase exceeding the daily maximums as specified in the table in Rule 212(g). Therefore, a 30-day public notice period will not be required under this paragraph.

Paragraph 212(c)(3) Public notice will not be required under this paragraph. There is no increase of Rule 1401 emissions for this permitting action.

RULE 401 Compliance is expected. Visible emissions are not expected from proper operation of this equipment. There have been no visible emission violations credited to this facility.

RULE 402 Compliance is expected. Nuisance is not expected if equipment is properly operated and maintained. There have been no violations credited to this facility.

RULE 1131 Continued compliance is expected. October 19, 2005, source test found control device to have a capture efficiency of 97.6% and a destruction efficiency of 99.3% (96.9% overall). Rule requires solvents not be used in food product manufacturing unless the VOC emission control system has a collection efficiency greater than 90% and a removal efficiency greater than 95%.

REG XIII/XX There is no increase of facility emissions associated with the requested change of condition. However, the emissions for the CL may increase. This scenario qualifies as a concurrent facility modification per Coatings Team Policy, PTE before equals PTE after. Concurrent facility modifications are exempt from offsets; however BACT and Modeling still apply. BACT requirement for a food flavoring line is our R1131. Per

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R1131 the minimum overall control should be 85.5%, the conditionally acceptable source test results for the control (catalytic afterburner) is 96.9%. **BACT** is met. Per Table A-1 of Rule 1303, the screening level for PM₁₀ is 0.41 lb/hr. The CL PM₁₀ rate is 0.124 lb/hr, which is below the screening rate, no further analysis is required. There is no modeling requirement for VOC. **Modeling** requirements are met

Rule 1401 There is no increase or Rule 1401 Toxic compounds associated with the change of condition requested.

REG XXX This is a minor permit revision; a 45-day EPA review is required.

RECOMMENDATION

A subsequent application has been submitted for a modification to the Silver Line. It is recommended to Cancel A/N 524803 and keep all fees. The change of condition requested under A/N 524803 will be incorporated under A/N 526585.

The new monthly IPA usage limit of 160,100 lbs is a combination of the current IPA limit for the CL (83,348 lbs) plus 76,752 lbs for the SL. In 2001, the applicant submitted over 70 applications due to Rule 219 amendment. Four of those applications submitted were for the Silver, Yellow, Orange and Tan Batch Lines. These four batch lines were identical except in their maximum hourly production capacity. The maximum yearly production of Durarome for the four batch lines was 9,350,000 lbs. The maximum yearly production of Durarome for the Silver line was 2,925,000 lbs (31.28%), 2,925,000 lbs for the Yellow line (31.28%), 1,680,000 lbs for the Orange Line (17.97%) and 1,820,000 lbs for the Tan Line (19.47%). The maximum yearly usage of IPA for the four batch lines was 2,944,459 lbs. The monthly average of the IPA usage for all four lines is 245,372 lbs., 31.28 % of this total is 76,752 lbs.

Issue the Permits to Operate for the Continuous Line under A/N 524805 as described in this report and the facility permit with the following System Conditions:

S1.3 THE OPERATOR SHALL LIMIT THE THROUGHPUT TO NO MORE THAN 160,100 LBS IN ANY ONE CALENDAR MONTH.

For the purpose of this condition, throughput shall be defined as the combined usage of isopropyl alcohol from the Continuous Line and the Silver Line.

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

S1.4 THE OPERATOR SHALL LIMIT THE THROUGHPUT TO NO MORE THAN 893,520 LBS IN ANY ONE CALENDAR MONTH.

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For the purpose of this condition, throughput shall be defined as product from the Continuous Line and the Silver Line, including off spec and discarded material.

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

S1.5 THE OPERATOR SHALL LIMIT THE THROUGHPUT TO NO MORE THAN 443520 LBS IN ANY ONE CALENDAR MONTH.

For the purpose of this condition, throughput shall be defined as finished Durarome product from the Silver Line.

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

CONFIDENTIAL



3.2 Process Rates

As described above, the syrup preparation is a batch process. The ingredients for a typical batch are shown in Table 3-1. The Blue line is used as the example. The Yellow line has the same capacity and batch recipe. The Orange and Tan lines are smaller - the batch recipe is scaled linearly according to the batch size. The overall capacity of each line is shown in Table 3-2. The typical cycle times for the various process steps are shown in Table 3-3. Actual cycle times may vary, depending on the product.

Table 3-1
Typical Batch Recipe - Blue Line

Chemical	Lbs/Batch	Maximum Batch/Yr	Maximum Lbs/Yr
Sugar	385	3250	1,251,250
Maltodextrin	385	3250	1,251,250
Water	170	3250	552,500
Additives*	25	3250	81,250
Flavor Oils	105	3250	341,250
Total (excluding water)	900	3250	2,925,000

* Additives may include, but are not limited to: potassium hydroxide, gum arabic, and lecithin.

Table 3-2
Production Capacity - Durarome

Process Line	Lbs/Batch*	Maximum Batch/Yr	Maximum Lbs/Yr*
Blue	900	3,250	2,925,000
Yellow	900	3,250	2,925,000
Orange	480	3,500	1,680,000
Tan	520	3,500	1,820,000
Total		13,500	9,350,000

* Excluding water

SILVER →

~ 31.28%

~ 31.28%

~ 17.97%

~ 19.47%

**Table 3-3
Typical Batch Cycle Times**

Process Step	Cycle Time (Hours)
Load	0.25
Dissolve / Heat / Agitate	1.75
Transfer	0.25
Blend Flavor Oils	0.25
Quench/ Centrifuge	0.75
Dry	8
Screen	0.5
Total Cycle Time	11.75

The IPA is used in the quench tank and recirculation tank until contaminated with sugar and starch or until a new production run is started (the product flavor is changed), whichever occurs first. From the quench tank, the slurry is pumped through a hydrocyclone and centrifuge to remove the bulk of the IPA. The IPA flows from the hydrocyclone to the holding tank where it is cooled. The chilled IPA is returned to the quench tank. IPA is replenished to the system as required to replace IPA lost through evaporation from the equipment. The total quantity of IPA used in the existing operations includes IPA lost through evaporation and IPA shipped offsite as waste. (A more complete derivation of the IPA requirements is found in Section 4.2.2.1 and presented in Table 4-5.) The total annual throughput is shown in Table 3-4.

**Table 3-4
IPA Process Requirements**

Chemical	Maximum Lbs/Yr
IPA	2,944,459

CONDITIONS PRIOR TO C/C REQUEST

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Facility ID: 002825
Revision #: 16
Date: June 07, 2011

**FACILITY PERMIT TO OPERATE
MCP FOODS INC**

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

For the purpose of this condition, throughput shall be defined as finished product from the J Line.

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

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Systems subject to this condition : Process 4, System 12]

S1.3 The operator shall limit the throughput to no more than 83,348 lb(s) in any one calendar month.

For the purpose of this condition, throughput shall be defined as isopropyl alcohol usage.

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

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Systems subject to this condition : Process 4, System 9]

S1.4 The operator shall limit the throughput to no more than 450000 lb(s) in any one calendar month.

For the purpose of this condition, throughput shall be defined as product from the Continuous Line, including off spec and discarded material.

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

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

FACILITY PERMIT TO OPERATE MCP FOODS INC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

[Systems subject to this condition : Process 4, System 9]

- S1.5 The operator shall limit the throughput to no more than 443520 lb(s) in any one calendar month.

For the purpose of this condition, throughput shall be defined as finished Durarome product from the Silver Line.

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

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Systems subject to this condition : Process 4, System 3]

- S1.6 The operator shall limit the throughput to no more than 403920 lb(s) in any one calendar month.

For the purpose of this condition, throughput shall be defined as finished Durarome product from the Yellow Line.

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

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Systems subject to this condition : Process 4, System 4]

- S1.7 The operator shall limit the throughput to no more than 261360 lb(s) in any one calendar month.