



DEPARTMENT OF NATURAL RESOURCES

MISSOURI AIR CONSERVATION COMMISSION

PERMIT TO CONSTRUCT

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to construct the air contaminant source(s) described below, in accordance with the laws, rules and conditions as set forth herein.

Permit Number: 102015-006

Project Number: 2014-11-053
Installation Number: 021-0016

Parent Company: N/A

Parent Company Address: N/A, N/A

Installation Name: Lifeline Foods, Inc./ICM Biofuels, LLC

Installation Address: 2811 South 11th Street, St. Joseph, MO 64503

Location Information: Buchanan County, S20, T57N, R35W

Application for Authority to Construct was made to: incorporate additional equipment as well as request additional limits for truck traffic. This review was conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required.*

Standard Conditions (on reverse) are applicable to this permit.

Standard Conditions (on reverse) and Special Conditions are applicable to this permit.

Steckenkamp for

Prepared by
Randy Raymond
New Source Review Unit

Kyra L Moore

Director or Designee
Department of Natural Resources

OCT 22 2015

Effective Date

STANDARD CONDITIONS:

Permission to construct may be revoked if you fail to begin construction or modification within two years from the effective date of this permit. Permittee should notify the Air Pollution Control Program if construction or modification is not started within two years after the effective date of this permit, or if construction or modification is suspended for one year or more.

You will be in violation of 10 CSR 10-6.060 if you fail to adhere to the specifications and conditions listed in your application, this permit and the project review. In the event that there is a discrepancy between the permit application and this permit, the conditions of this permit shall take precedence. Specifically, all air contaminant control devices shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the Department's Air Pollution Control Program of the anticipated date of startup of these air contaminant sources. The information must be made available within 30 days of actual startup. Also, you must notify the Department of Natural Resources' regional office responsible for the area within which you are located within 15 days after the actual startup of these air contaminant sources.

A copy of this permit and permit review shall be kept at the installation address and shall be made available to Department of Natural Resources' personnel upon request.

You may appeal this permit or any of the listed special conditions to the Administrative Hearing Commission (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.075.6 and 621.250.3. If you choose to appeal, you must file a petition with the AHC within 30 days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC.

If you choose not to appeal, this certificate, the project review and your application and associated correspondence constitutes your permit to construct. The permit allows you to construct and operate your air contaminant sources(s), but in no way relieves you of your obligation to comply with all applicable provisions of the Missouri Air Conservation Law, regulations of the Missouri Department of Natural Resources and other applicable federal, state and local laws and ordinances.

The Air Pollution Control Program invites your questions regarding this air pollution permit. Please contact the Construction Permit Unit at (573) 751-4817. If you prefer to write, please address your correspondence to the Missouri Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, attention: Construction Permit Unit.

SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

The special conditions listed in this permit were included based on the authority granted the Missouri Air Pollution Control Program by the Missouri Air Conservation Law (specifically 643.075) and by the Missouri Rules listed in Title 10, Division 10 of the Code of State Regulations (specifically 10 CSR 10-6.060). For specific details regarding conditions, see 10 CSR 10-6.060 paragraph (12)(A)10. "Conditions required by permitting authority."

Lifeline Foods, Inc./ICM Biofuels, LLC
Buchanan County, S20, T57N, R35W

(1) Superseding Condition

The conditions of this permit supersede the following special conditions found in the previously issued construction permit (Permit #122013-001) issued by the Air Pollution Control Program:

- (A) Special Condition 2. Operational Limits
- (B) Special Condition 3. Emission Limitations
- (C) Special Condition 4. Control Device Requirements- Baghouse
- (D) Special Condition 5. Control Device Requirements for Existing Baghouses

(2) Lifeline Foods, Inc./ICM Biofuels, LLC¹

(A) Superseding Condition

Ambient Air Quality Impact Analysis (replaces Permit #122013-001, Special Condition 6.):

Lifeline Foods, Inc./ICM Biofuels, LLC must submit any change to the facility that would change the release parameters and/or emission rates contained in Attachment L, Table 1 and Attachment M, Table 2, to the permitting authority for review. If the permitting authority determines that the changes are significant, Lifeline Foods, Inc./ICM Biofuels, LLC will be required to submit an updated ambient air quality impact analysis (AAQIA) that demonstrates compliance with the national ambient air quality standards (NAAQS) and ambient air increment standards.

(B) Record Keeping and Reporting Requirements

1. Lifeline Foods, Inc./ICM Biofuels, LLC shall maintain all records required by this permit for not less than five years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request.
2. Lifeline Foods, Inc./ICM Biofuels, LLC shall report to the Air Pollution

¹ There are three separate responsible "persons" or permittees (i.e. facilities) at this installation. This condition represents the shared responsibilities of Lifeline and ICMB. ICM, Inc. (ICM, the Integrated BioRefinery/Pilot Plant or ICM IBR, MoEIS/EIQ ID is 021-0125) was issued separate construction permits.

SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than 10 days after the end of the month during which any record required by this permit show an exceedance of a limitation imposed by this permit.

(C) Performance Testing

Lifeline Foods, Inc./ICM Biofuels, LLC shall perform unit testing of the new or reactivated units [refer to the lists in (3)(B) and (4)(B)] in this permit in the next series of testing performed at the installation as specified by previous permits.

(3) Lifeline Foods, Inc. (Lifeline, the food mill operations)²

(A) Superseding Condition

Operational Limits (replaces Permit #122013-001, Special Condition 2.)

1. Lifeline shall not exceed the daily and annual receipt limits as follows:

Table 1 "Haul Road" Limits

Material	Annual Limit (tons)	Daily Limit (tons)
Grain Receiving (to Pit #1 or Pit #2)	1,133,333	6,020

2. To demonstrate compliance with Special Condition (3)(A), Lifeline shall keep a record of the daily weight (tons) of material received and/or shipped. Attachments A and B, or equivalent forms, shall be used for this purpose.

(B) Superseding Condition

Emission Limitations (replaces Permit #122013-001, Special Condition 3.)

Particulate Matter less than 10 microns in diameter (PM₁₀)

Lifeline shall not discharge PM₁₀ into the atmosphere from the following stacks in excess of the listed amounts:

² There are three separate responsible "persons" or permittees (i.e. facilities) at this installation. This permit has separated the special permit conditions according to the responsible party, Lifeline and ICMB. ICM, Inc. (ICM, the Integrated BioRefinery/Pilot Plant or ICM IBR, MoEIS/EIQ ID is 021-0125) was issued separate construction permits.

SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

Table 2 PM₁₀ Emission Limitations

Emission Point	Description	pounds PM ₁₀ per hour
S20	Grain Unloading Baghouse	0.086
S32	Bran Hammermill	0.103
S37	New Mill Baghouse	0.0017
S39	New Mill Baghouse	0.0008
I08	Hex Bins-Railcar Loadout	0.00049
J06	Aux Corn Mill	0.0017
S101	Degermer Baghouse	0.1826
S120	Anderson Dryer	0.0913
S121	Anderson Cooler	0.1142
SandJ	Source "J" Units-Aux Corn Mill	1.18

Legend

	new sources	
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- (C) Superseding Condition
Control Device Requirement-Baghouses (replaces Permit #122013-001, Special Condition 4. and 5.)

- As specified in the permit application, Lifeline must use the baghouses listed below at all times when the associated equipment is in operation. Lifeline must operate the baghouses at or below the stated flow rate and grain loading:

Table 3 Control Device Grain Loading Limits

Emission Point	Emission Unit controlled	Flow Rate (scfm)	Grain Loading (grains/scf)
S20	Grain Unloading Baghouse	10,000	0.004
S37	New Milling Baghouse	22,500	0.003
S39	New Milling Baghouse	6,800	0.004
SANDJ	Source "J" Units-Aux Corn Mill	187,500	0.0015
S101	Degermer Baghouse	20,000	0.003
S120	Anderson Dryer	3,000	0.004

SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

Emission Point	Emission Unit controlled	Flow Rate (scfm)	Grain Loading (grains/scf)
S121	Anderson Cooler	4,000	0.004

2. Lifeline shall operate and maintain the baghouses in accordance with the manufacturer's specifications. Lifeline shall equip the baghouses with a differential pressure indicator³, which monitors the pressure drop across the control device. These indicators shall be located such that the Department of Natural Resources' employees may easily observe them.
3. Lifeline shall keep replacement filters for the baghouses on hand at all times. The bags shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance).
4. Lifeline shall monitor and record the operating pressure drop across the baghouses at least once every 24 hours of operation. Lifeline shall maintain the operating pressure drop within the design conditions specified by the manufacturer's performance warranty.
5. Lifeline shall maintain an operating and maintenance log for the baghouses which shall include the following:
 - A. Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
 - B. Maintenance activities, with inspection schedule, repair actions, and replacements, etc.

(4) ICM Biofuels, LLC (ICMB, the ethanol plant)⁴

(A) Superseding Condition
Operational Limits (replaces Permit #122013-001, Special Condition 2.)

1. ICMB shall not exceed the daily and annual receipt and/or shipping limits as follows:

³ Any accurate instrument may be used, such as a magnehelic or electronic instrument, to monitor the pressure differential.

⁴ There are three separate responsible "persons" or permittees (i.e. facilities) at this installation. This permit has separated the special permit conditions according to the responsible party, Lifeline and ICMB. ICM, Inc. (ICM, the Integrated BioRefinery/Pilot Plant or ICM IBR, MoEIS/EIQ ID is 021-0125) was issued separate construction permits.

SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

Table 4 "Haul Road" Limits

Material	Annual Limit (tons)	Daily Limit (tons)
Denaturant	3,300	54
Denatured Ethanol	165,000	700
Dry Distillers Grain Solids (DDGS)	162,218	600
Corn oil/caustic/acid	10,100	150
Wet DGS	415,613	1,200
Carbon Dioxide (CO ₂)	32,177	150

2. To demonstrate compliance with Special Condition (4)(A), ICMB shall keep a record of the daily weight (tons) of material received and/or shipped. Attachments A and B, or equivalent form(s), shall be used for this purpose.

(B) Superseding Condition

Emission Limitations (replaces Permit #122013-001, Special Condition 3.)
 Particulate Matter less than 10 microns in diameter (PM₁₀)

ICMB shall not discharge PM₁₀ into the atmosphere from the following stacks in excess of the listed amounts:

Table 5 PM₁₀ Emission Limitations

Emission Point	Description	pounds PM ₁₀ per hour
S10	Dryers and RTO	0.9475
S11	Gas Dryer with RTO	1.5120
S30	Corn Hammermill	0.086
S31	Hammermill Receiver	0.039
S33	DDGS Receiver	0.242
S40	Fermentation Scrubber	0.2300
S104	Bran Storage	0.0086
S105	DDGS Storage	0.0429
S106	Natural Gas Boiler	0.615

Legend

	new sources	
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SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

(C) Superseding Condition
Control Device Requirement-Baghouses (replaces Permit #122013-001, Special Condition 4. and 5.)

1. As specified in the permit application, ICMB must use the baghouses listed below at all times when the associated equipment is in operation. ICMB must operate the baghouses at or below the stated flow rate and grain loading:

Table 6 Control Device Grain Loading Limits

Emission Point	Emission Unit controlled	Flow Rate (scfm)	Grain Loading (grains/scf)
S30	Corn Hammermilling	10,000	0.004
S31	Hammermill Receiving (Slurry)	4,500	0.004
S32	Bran Hammermilling	12,000	0.004
S33	DDGS Receiver	28,200	0.004
S104	Bran Storage	1,000	0.004
S71	Germ Cooler Cyclone	5,000	0.004
S105	DDGS Storage	5,000	0.004

2. ICMB shall operate and maintain the baghouses in accordance with the manufacturer's specifications. ICMB shall equip the baghouses with a differential pressure indicator⁵, which monitors the pressure drop across the control device. These indicators shall be located such that the Department of Natural Resources' employees may easily observe them.
3. ICMB shall keep replacement filters for the baghouses on hand at all times. The bags shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance).
4. ICMB shall monitor and record the operating pressure drop across the baghouses at least once every 24 hours of operation. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.

⁵ Any accurate instrument may be used, such as a magnehelic or electronic instrument, to monitor the pressure differential.

SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

5. ICMB shall maintain an operating and maintenance log for the baghouses which shall include the following:
 - A. Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
 - B. Maintenance activities, with inspection schedule, repair actions, and replacements, etc.

REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE
SECTION (5) REVIEW

Project Number: 2014-11-053
Installation ID Number: 021-0016
Permit Number:

Installation Address:

Lifeline Foods, Inc./ICM Biofuels, LLC
2811 South 11th Street
St. Joseph, MO 64503

Parent Company:

N/A
N/A
N/A

Buchanan County, S20, T57N, R35W

REVIEW SUMMARY

- Lifeline Foods, Inc./ICM Biofuels, LLC has applied for authority to incorporate or reactivate additional equipment as well as increased limits for daily and annual receipt and/or shipping (i.e. truck traffic).
- The application was deemed complete on July 15, 2015.
- HAP emissions are not expected from the proposed equipment.
- None of the NESHAPs apply to this project. None of the currently promulgated MACT regulations apply to the proposed equipment.
- Baghouses are being used to control the particulate emissions from the equipment in this permit.
- This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of particulate matter are conditioned below the de minimis levels.
- This installation is located in Buchanan County, an attainment/unclassified area for all criteria pollutants. This installation is not located in the Jefferson County lead nonattainment area.
- This installation is on the List of Named Installations found in 10 CSR 10-6.020(3)(B), Table 2. The installation is currently classified as Chemical process plants in Missouri. The installation's major source level is 100 tons per year and fugitive emissions are counted toward major source applicability.
- Ambient air quality modeling was performed to determine the ambient impact of the new, reactivated sources and haul road increases for PM₁₀.

- Emissions testing is not required for the equipment, until the next regularly schedule series of testing.
- Any necessary revisions to the Intermediate Operating Permit renewal application are required to be submitted within sixty (60) days of equipment startup.
- Approval of this permit is recommended with special conditions.

INSTALLATION DESCRIPTION

Lifeline Foods, Inc. (Lifeline) is a cereal manufacturing plant located in St. Joseph, Missouri. Refer to Attachment I to this report for a detailed aerial photograph of the facility. Locally grown grains are milled and processed into food products and ingredients for various companies.

LifeLine entered into a leasing agreement in June of 2014, where ICM Biofuels, LLC (ICMB) is leasing the ethanol plant assets from Lifeline. This makes ICMB responsible for the operation of the ethanol plant. The facility remains complex in regard to permitting, as there are three separate facilities that interact as one installation; Lifeline Foods (the food mill operations, county-plant identification number is 021-0012), ICMB (the ethanol plant, also county-plant identification number is 021-0012), and ICM IBR (the Integrated BioRefinery/Pilot Plant or ICM R&D, county-plant identification number is 021-0125). The ethanol plant is capable of producing 50 million gallons of denatured ethanol annually.

ICM, Inc. (ICM) was issued construction permit 062010-009A (an Integrated BioRefinery) for the construction of a 260,000 gallon per year fuel ethanol production facility. The process converts cellulosic materials (renewable biomass) to fuel ethanol through a natural fermentation process. ICM has constructed this operation on leased land located at the Lifeline property. Although ICM will manage the cellulosic ethanol production facility independently of the other two facilities, ICM Investments, LLC an affiliated company, owns 50% (percent) of Lifeline which qualifies as common control. The three facilities are considered the same installation for construction and operating permit purposes. This permit has tried to identified both the shared limitations and the specific facility limitations.

Therefore, Lifeline Foods, ICMB and ICM facilities share the plant-wide level limits endemic of Intermediate State Installations for all regulated pollutants, which the facilities have the potential to emit greater than the major source levels.

Lifeline was issued a Part 70 Operating Permit in 2000. However, a combined facilities Intermediate Operating Permit application is currently under review (Project number 2014-02-051).

The following construction permits have been issued to Lifeline from the Air Pollution Control Program.

Table 7 Permit History

Permit Number	Description
0686-003	Two (2) boiler replacements
1289-002	Installation of two (2) cereal manufacturing lines
0790-004	Installation of additional dry and wet dust collecting systems
0791-007	Installation of two hammermills and baghouses replacements
0596-002	Modification to the ingredient transfer system
112001-006	Installation of three (3) dryers and three (3) coolers for the corn milling operation
082007-017	Installation of a 50 million gallon per year denatured ethanol plant
082007-017A	Amendment to revise emission rates from original permit
082009-010	Installation of a pilot plant
082009-010A	Extension of permit
122011-013	Construction of two hammermills, a natural gas dryer and regenerative thermal oxidizer, and equipment associated with the Polar Process.
122011-013A	Amendment
122013-001	Modify the existing plant to incorporate additional equipment for new milling technology

PROJECT DESCRIPTION

Lifeline Foods, Inc./ICM Biofuels has applied for authority to incorporate or reactivate additional equipment (J06, I08, S37, S39 and S105) as well as request additional limits for daily and annual receipt and/or shipping (i.e. truck traffic). The **increases** are: Denaturant, 27 tons for daily; Denatured Ethanol, 140 tons for daily; Dry Distillers Grain Solids (DDGS), 150 tons for daily and 126,578 tons for annual; Wet DDGS, 400 tons for daily and 257,218 tons for annual; and, Carbon Dioxide (CO₂), 7,722 tons for annual.

To summarize, the changes proposed in this application are:

- An increase to several daily and annual loading/unloading limits as it relates to haul road emissions, including, DDG shipping, corn oil/caustic/acid shipping and receiving, WDGS shipping and CO₂ shipping;
- Two additional baghouses are being included in the LifeLine portion identified as units S37 (Mill Baghouse) and S39 [Mill (Buhler) Baghouse];
- One additional baghouse is being included in the ICM Biofuels portion, identified as unit S105 (Hi Pro Storage Bin)
- There are two units being activated. These units are identified as J06 (Aux Corn Mill) and I08 (Hex Bins – Railcar Flour Loadout).

Attachments C, D, E, F and G are the Form 2.0 details from the application for the emission units described above. Attachment I (Site Layout) shows an aerial view of the facilities and the location of these same emission units.

Attachment J (Modeled Site Layout) shows the location of the haul roads of the project. They are numbered and shaded brown on Attachment J.

Generally, the grain products are transferred pneumatically from emission unit to unit. Cyclones are used to separate the material from the air stream when necessary, and the cyclone gas outlet is then routed to a baghouse.

EMISSIONS/CONTROLS EVALUATION

The emission factors (including their sources) and control efficiencies used in this analysis, can all be found in the detailed calculations shown in Attachments N, O and P (pages 29, 30 and 31, respectively).

The following table provides an emissions summary for this project. Existing potential emissions were taken from the application. The existing potential emissions were the results of extensive review and revision of the source inventory. The review was necessary in order to identify the responsible entities for each piece of equipment. Existing actual emissions were taken from the installation's 2014 MoEIS/EIQ. Potential emissions of the application represent the potential of the new, reactivated or revised sources, assuming continuous operation (8760 hours per year).

The haul road traffic values are conditioned to the receipt or shipping limits, so they directly relate to the production of the facilities.

Table 8 Emissions Summary (tons per year)

Pollutant	Regulatory <i>De Minimis</i> Levels	Existing Potential Emissions	Existing Actual Emissions (2014 MoEIS/EIQ)	Potential Emissions of the Application	New Installation Conditioned Potential
PM	25.0	89.5	N/A	6.2	95.7
PM ₁₀	15.0	50.5	63.8	1.3	51.8
PM _{2.5}	10.0	30.9	8.4	0.3	31.2
SO _x	40.0	1.0	3.8	N/A	1.0
NO _x	40.0	95.7	53.8	N/A	95.7
VOC	40.0	29.2	51.1	N/A	29.2
CO	100.0	80.4	49.2	N/A	80.4
GHG (CO ₂ e) ⁶	75,000 /100,000	N/D	N/A	N/A	186,899.9

⁶ GHG Emissions are based on 40 CFR 98, Tables A-1, C-1 and C-2

GHG (mass)	0.0 /100.0 /250.0	N/D	N/A	N/A	53.0
HAPs	10.0/25.0	17.4	10.4	N/A	17.4

N/A = Not Applicable; N/D = Not Determined

PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. The project potential emissions of particulate matter are below the de minimis levels.

APPLICABLE REQUIREMENTS

Lifeline Foods, Inc./ICM Biofuels, LLC shall comply with the following applicable requirements. The Missouri Air Conservation Laws and Regulations should be consulted for specific record keeping, monitoring, and reporting requirements. Compliance with these emission standards, based on information submitted in the application, has been verified at the time this application was approved. For a complete list of applicable requirements for your installation, please consult your operating permit.

GENERAL REQUIREMENTS

- *Submission of Emission Data, Emission Fees and Process Information*, 10 CSR 10-6.110
- *Operating Permits*, 10 CSR 10-6.065
- *Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin*, 10 CSR 10-6.170
- *Restriction of Emission of Visible Air Contaminants*, 10 CSR 10-6.220
- *Restriction of Emission of Odors*, 10 CSR 10-6.165

SPECIFIC REQUIREMENTS

- *Restriction of Emission of Particulate Matter From Industrial Processes*, 10 CSR 10-6.400 (see Attachment Q)

AMBIENT AIR QUALITY IMPACT ANALYSIS

Ambient air quality modeling was performed to determine the ambient impact of PM₁₀ at the significance level. The results of this modeling effort are presented in the memorandum, *Ambient Air Quality Impact Analysis (AAQIA) for LifeLine Foods, LLC June 29, 2015 Submittal-Revision #1*. The modeling was performed because of the past history of refined modeling. The modeled sources and parameters are listed in Attachments L and M. The modeling site layout is presented in Attachment J.

The modeling procedures utilized in this study follow current air quality modeling guidelines as contained within 40 CFR Part 51 Appendix W. The AERMOD modeling system, Version 14134, was used to evaluate compliance with the 24-hour and annual standards based upon the PM₁₀ emissions that result from the operations at the LifeLine Foods, LLC facility. PM_{2.5} was not evaluated because emissions are below the de minimis emissions threshold for this pollutant.

A facility that proposes to emit any pollutant above the thresholds outlined in 10 CSR 10-6.020 (3)(A) Table 1 must submit an ambient air quality impact analysis to the permit granting authority. In order to determine if a full impact model analysis is necessary, a facility must complete a preliminary model analysis. This analysis should only include the proposed source(s) or modification(s) so it can be determined if a significant modeled impact will take place. If the model predicts the high first high to be below the thresholds outlined in 10 CSR 10-6.060 (11)(D) Table 4, no further analysis is necessary and the modeling study can be deemed complete provided it follows the EPA's minimum modeling requirements.

The maximum 24-hour impacts occurred during the 2009 meteorological period with a concentration of 3.314 ug/m³. The maximum annual impact occurred during the 2010 meteorological period with a concentration of 0.897 ug/m³. Based upon the project emissions, the facility had less than significant impacts for both the 24-hour and annual averaging periods; as such, no further analysis is necessary and the study is considered complete.

No previous air quality monitoring was required and the results of this modeling indicate nothing has changed significantly to warrant monitoring now.

STAFF RECOMMENDATION

On the basis of this review conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*, I recommend this permit be granted with special conditions.

Randy Raymond
New Source Review Unit

Date

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated November 16, 2014, received November 19, 2014, designating Lifeline Foods, Inc./ICM Biofuels, LLC/ICM IBR as the owner and operator of the installation.

Attachment A - Monthly Grain and Co-Products Tracking Record

This sheet covers one of: denat, denat EtOH, #1 grain receiving, #2 grain receiving, DDGS, corn oil/caustic/acid, Wet DGS, or CO₂ road traffic. One sheet for each.

for the month of _____
 (month, year)

Previous 11 Month/Year	Material Description	Amount of Material Received/Shipped (tons)
(a) Total Amount Calculated for this Month from Attachment B, in Tons:		
(b) Current 12-month Total in Tons: [sum of the 12 rows] to be compared to the limits below		

Annual Limits [compare to line (b) above]:

<i>Material Description</i>	<i>Limit</i>	<i>Material Description</i>	<i>Limit</i>
denat	3,300	DDGS	162,218
denat EtOH	165,000	corn oil/caustic/acid	10,100
#1 grain receiving	1,133,333	Wet DGS	415,613
21 grain receiving	1,133,333	CO ₂	32,177

Attachment B – Daily Grain and Co-Products Tracking Record

24 HOUR DAILY ROADS									
Haul Roads		denat	denat EtOH	#1 grain receiving	#2 grain receiving	DDGS	corn oil/caustic/acid	Wet DGS	CO2
Daily limit	tons/day	54	700	6,020	6,020	600	150	1,200	150
Month	1								
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9								
	10								
	11								
	12								
	13								
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	20								
	21								
	22								
	23								
	24								
	25								
	26								
	27								
	28								
	29								
	30								
	31								
Total for the Month-->									

Attachment C – I08 Form 2.0 from Application

Emission Information for Air Construction Permit Application

Form 2.0 Emission Point Information (duplicate this form as needed.)

INSTALLATION NAME (A.) LifeLine Foods, Inc.		FIPS COUNTY NO. (B.) 021		PLANT NO. (C.) 0016		
POINT IDENTIFICATION						
POINT NO. (D.) I08		POINT DESCRIPTION (E.) Hex Bins - Railcar Flour Loadout				
SOURCE CLASSIFICATION CODE (SCC) (F.) 30200506		MAKE (G.)	MODEL (H.)	YEAR (I.)		
STACK/VENT PARAMETERS						
STACK NO. (J.) I08		HEIGHT (FT) (K.) 33		DIAMETER (FT) (L.) 0.5		
TEMPERATURE (F) (M.) 80		VELOCITY (FT/MIN) (N.) 58.57 fps		FLOW RATE (STANDARD CUBIC FT/MIN) (O.)		
OPERATING RATE/SCHEDULE						
EXPECTED ANNUAL THROUGHPUT (P.) 9		UNITS (Q.) tons/hour	MAXIMUM HOURLY DESIGN RATE (R.) 9		UNITS/HR (S.) tons/hr	
HOURS/DAY (T.) 24		DAYS/WEEK 7		WEEKS/YEAR 52		
AIR POLLUTION CONTROLS						
DEVICE NO. (U.)	CONTROL DEVICE DESCRIPTION (V.)	Control Device Destruction/Removal Efficiency % (w.)				
		PM ₁₀	SO _x	NO _x	VOC	CO
I08	Baghouse	~99.0	N/A	N/A	N/A	N/A
DEVICE NO.		DESCRIPTION OF COLLECTION/SUPPRESSION SYSTEM (X.)				
		Dust Collection system for hex bins-rail flour loadout. Vents indoors, so emission estimates are assumed conservative.				
CALCULATION SECTION (Y.)						
POLLUTANT	EMISSION FACTOR	EMISSION FACTOR UNITS	OVERALL CONTROL EFFICIENCY	EMISSION RATE (LB/HR)	POTENTIAL EMISSIONS (TONS/YR)	
Refer to Emission Calculations						

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Attachment D – J06 Form 2.0 from Application

Emission Information for Air Construction Permit Application

Form 2.0 Emission Point Information (duplicate this form as needed.)

INSTALLATION NAME (A.) LifeLine Foods, Inc.		FIPS COUNTY NO. (B.) 021		PLANT NO. (C.) 0016		
POINT IDENTIFICATION						
POINT NO. (D.) J06		POINT DESCRIPTION (E.) Aux Corn Mill				
SOURCE CLASSIFICATION CODE (SCC) (F.) 30200760		MAKE (G.)	MODEL (H.)	YEAR (I.)		
STACK/VENT PARAMETERS						
STACK NO. (J.) J06		HEIGHT (FT) (K.) 106		DIAMETER (FT) (L.) 2.0		
TEMPERATURE (F) (M.) 100		VELOCITY (FT/MIN) (N.) 269.77 fps		FLOW RATE (STANDARD CUBIC FT/MIN) (O.)		
OPERATING RATE/SCHEDULE						
EXPECTED ANNUAL THROUGHPUT (P.) 9		UNITS (Q.) tons/hour	MAXIMUM HOURLY DESIGN RATE (R.) 9		UNITS/HR (S.) tons/hr	
HOURS/DAY (T.) 24		DAYS/WEEK 7		WEEKS/YEAR 52		
AIR POLLUTION CONTROLS						
DEVICE NO. (U.)	CONTROL DEVICE DESCRIPTION (V.)	Control Device Destruction/Removal Efficiency % (w.)				
		PM ₁₀	SO _x	NO _x	VOC	CO
J06	Baghouse	~99.0	N/A	N/A	N/A	N/A
DEVICE NO.	DESCRIPTION OF COLLECTION/SUPPRESSION SYSTEM (X.)					
	Dust Collection system for Aux Corn Mill.					
CALCULATION SECTION (Y.)						
POLLUTANT	EMISSION FACTOR	EMISSION FACTOR UNITS	OVERALL CONTROL EFFICIENCY	EMISSION RATE (LB/HR)	POTENTIAL EMISSIONS (TONS/YR)	
Refer to Emission Calculations						

MO 780-1323 (06-07)

Attachment E – S37 Form 2.0 from Application

Emission Information for Air Construction Permit Application

Form 2.0 Emission Point Information (duplicate this form as needed.)

INSTALLATION NAME (A.) LifeLine Foods, Inc.		RIPS COUNTY NO. (B.) 021		PLANT NO. (C.) 0016		
POINT IDENTIFICATION						
POINT NO. (D.) S37		POINT DESCRIPTION (E.) Mill Baghouse				
SOURCE CLASSIFICATION CODE (SCC) (F.) 30200744			MAKE (G.) TBD	MODEL (H.)	YEAR (I.)	
STACK/VENT PARAMETERS						
STACK NO. (J.) S38		HEIGHT (FT) (K.) 145		DIAMETER (FT) (L.) 3.0		
TEMPERATURE (F) (M.) 80		VELOCITY (FT/MIN) (N.)		FLOW RATE (STANDARD CUBIC FT/MIN) (O.) 22,500		
OPERATING RATE/SCHEDULE						
EXPECTED ANNUAL THROUGHPUT (P.) 43.5		UNITS (Q.) tons/hour	MAXIMUM HOURLY DESIGN RATE (R.) 43.5		UNITS/HR (S.) tons/hr	
HOURS/DAY (T.) 24		DAYS/WEEK 7		WEEKS/YEAR 52		
AIR POLLUTION CONTROLS						
DEVICE NO. (U.)	CONTROL DEVICE DESCRIPTION (V.)	Control Device Destruction/Removal Efficiency % (w.)				
		PM ₁₀	SO _x	NO _x	VOC	CO
S38	Baghouse	~99.4	N/A	N/A	N/A	N/A
DEVICE NO.		DESCRIPTION OF COLLECTION/SUPPRESSION SYSTEM (X.)				
S37 and S38 serve the same point. Corn is sent into degermentators, there are two paths out, one stream serviced by S110 (degerm baghouse -already permitted) then the other is serviced by S37/38. As material falls down baghouse pull this stream down for control. This is no different than any other dust collection system.						
CALCULATION SECTION (Y.)						
POLLUTANT	EMISSION FACTOR	EMISSION FACTOR UNITS	OVERALL CONTROL EFFICIENCY	EMISSION RATE (LB/HR)	POTENTIAL EMISSIONS (TONS/YR)	
Refer to Emission Calculations						

MO 780-1323 (06-07)

Attachment F – S39 Form 2.0 from Application

Emission Information for Air Construction Permit Application

Form 2.0 Emission Point Information (duplicate this form as needed.)

INSTALLATION NAME (A.) LifeLine Foods, Inc.		RIPS COUNTY NO. (B.) 021	PLANT NO. (C.) 0016			
POINT IDENTIFICATION						
POINT NO. (D.) S39		POINT DESCRIPTION (E.) Mill Baghouse				
SOURCE CLASSIFICATION CODE (SCC) (F.) 30200744		MAKE (G.) TBD	MODEL (H.)	YEAR (I.)		
STACK/VENT PARAMETERS						
STACK NO. (J.) S39		HEIGHT (FT) (K.) 136	DIAMETER (FT) (L.) 3.0			
TEMPERATURE (F) (M.) 80		VELOCITY (FT/MIN) (N.)	FLOW RATE (STANDARD CUBIC FT/MIN) (O.) 6,800			
OPERATING RATE/SCHEDULE						
EXPECTED ANNUAL THROUGHPUT (P.) 21.5		UNITS (Q.) tons/hour	MAXIMUM HOURLY DESIGN RATE (R.) 21.5		UNITS/HR (S.) tons/hr	
HOURS/DAY (T.) 24		DAYS/WEEK 7	WEEKS/YEAR 52			
AIR POLLUTION CONTROLS						
DEVICE NO. (U.)	CONTROL DEVICE DESCRIPTION (V.)	Control Device Destruction/Removal Efficiency % (w.)				
		PM ₁₀	SO _x	NO _x	VOC	CO
S39	Baghouse	~99	N/A	N/A	N/A	N/A
DEVICE NO.		DESCRIPTION OF COLLECTION/SUPPRESSION SYSTEM (X.)				
		<i>Dust Collection system for bulk loadout process. (vents inside, therefore, 99% control considered conservative.)</i>				
CALCULATION SECTION (Y.)						
POLLUTANT	EMISSION FACTOR	EMISSION FACTOR UNITS	OVERALL CONTROL EFFICIENCY	EMISSION RATE (LB/HR)	POTENTIAL EMISSIONS (TONS/YR)	
Refer to Emission Calculations						

MO 780-1323 (06-07)

Attachment G – S105 Form 2.0 from Application

Emission Information for Air Construction Permit Application

Form 2.0 Emission Point Information (duplicate this form as needed.)

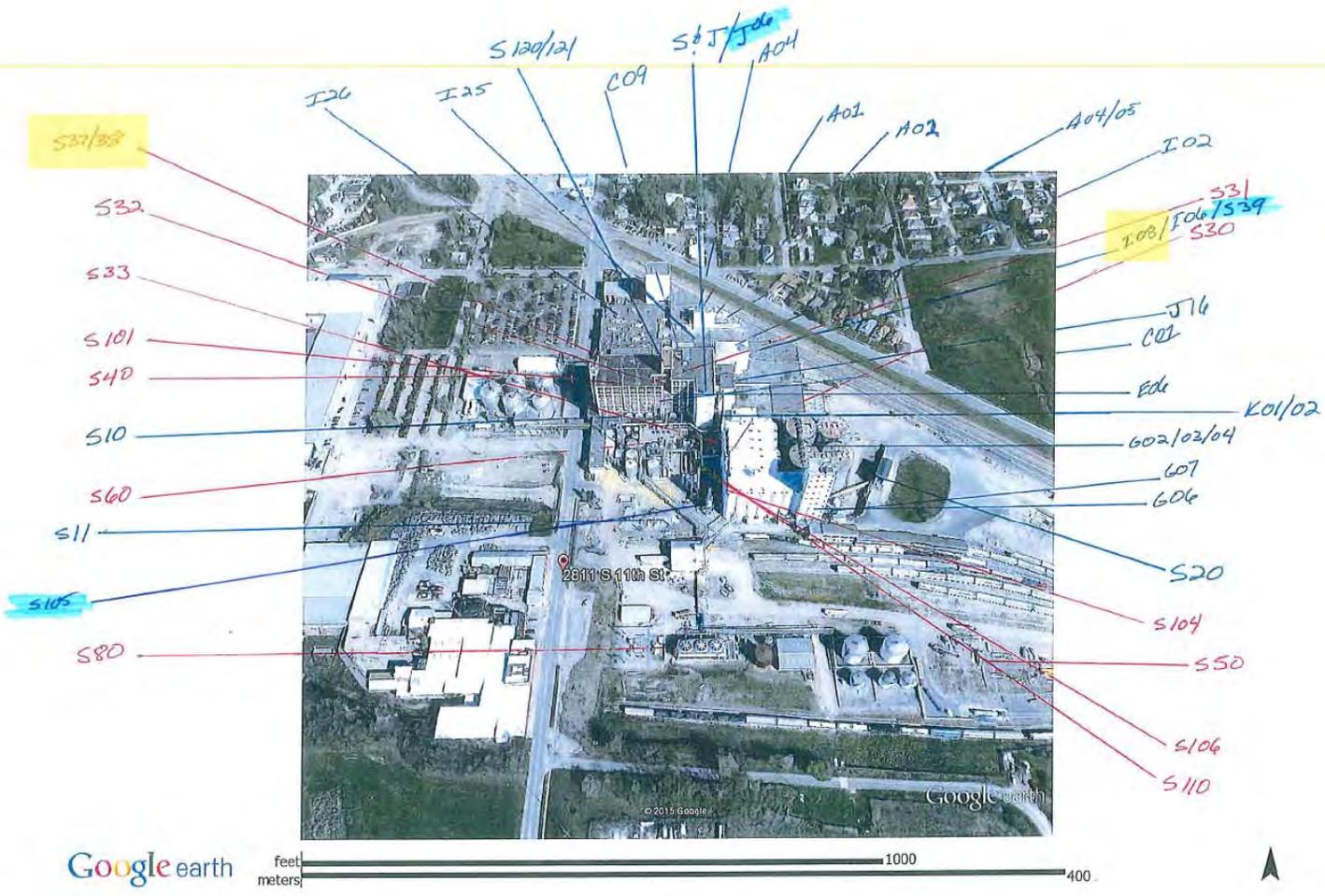
INSTALLATION NAME (A.) LifeLine Foods, Inc.		FIPS COUNTY NO. (B.) 021		PLANT NO. (C.) 0016			
POINT IDENTIFICATION							
POINT NO. (D.) S105		POINT DESCRIPTION (E.) Hi Pro Storage Bin					
SOURCE CLASSIFICATION CODE (SCC) (F.) 30200506		MAKE (G.)	MODEL (H.)	YEAR (I.)			
STACK/VENT PARAMETERS							
STACK NO. (J.) S105	HEIGHT (FT) (K.) 58		DIAMETER (FT) (L.) 0.67				
TEMPERATURE (F) (M.) 250	VELOCITY (FT/MIN) (N.) 11.84 fps		FLOW RATE (STANDARD CUBIC FT/MIN) (O.) 5000				
OPERATING RATE/SCHEDULE							
EXPECTED ANNUAL THROUGHPUT (P.) 18 tpd		UNITS (Q.) tons/day	MAXIMUM HOURLY DESIGN RATE (R.) 6570		UNITS/HR (S.) tons/year		
HOURS/DAY (T.) 24		DAYS/WEEK 7		WEEKS/YEAR 50			
AIR POLLUTION CONTROLS							
DEVICE NO. (U.)	CONTROL DEVICE DESCRIPTION (V.)		Control Device				
			Destruction/Removal Efficiency % (w.)				
		PM ₁₀	SO _x	NO _x	VOC	CO	HAPs
S105	Baghouse	-99.0	N/A	N/A	N/A	N/A	N/A
DEVICE NO.	DESCRIPTION OF COLLECTION/SUPPRESSION SYSTEM (X.)						
	Dust Collection system for hi protein storage bins.						
CALCULATION SECTION (Y.)							
POLLUTANT	EMISSION FACTOR	EMISSION FACTOR UNITS	OVERALL CONTROL EFFICIENCY	EMISSION RATE (LB/HR)	POTENTIAL EMISSIONS (TONS/YR)		
Refer to Emission Calculations							

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Attachment H – Particulate Matter Emission Summary
from the project sources (sources changing)

Project 2014-11-053 Emissions (tons per year)				
	Point ID	PM	PM10	PM2.5
	S37	0.0137	0.0074	0.0055
	S39	0.0068	0.0037	0.0027
	I08	0.0088	0.0022	0.0004
	J06	0.0296	0.0075	0.0013
	S105	0.7509	0.1877	0.0319
	denat	0.0045	0.0009	0.0002
	denat EtOH	0.2271	0.0454	0.0111
Haul	#1 grain receiving	1.5275	0.3055	0.0750
Roads	#2 grain receiving	3.0549	0.6110	0.1500
	DDGS	0.4373	0.0875	0.0215
	corn oil/ caustic/ acid	0.0278	0.0056	0.0014
	Wet DGS	0.1430	0.0286	0.0070
	CO2	0.0111	0.0022	0.0005
	Totals	<i>6.2429</i>	<i>1.2950</i>	<i>0.3084</i>

Attachment I – Site Layout



Ref: 7/17/15 MS

Attachment J – Modeled Site Layout

Figure 1
LifeLine Foods, LLC
Release Locations



- Project #2014-11-053-August Update
- ExistingStacks
- Property Boundary
- Buildings
- Project Haul Roads

Legend

Attachment K – Modeled Emission Changes

Table 3

LifeLine Foods, Inc.-Area Source Emission Rates and Release Parameters

<i>Removal of Daily & Seasonal Grain Receiving Limitations</i>																
Source I.D.	Description	Model I.D.	Release Type	Easting	Northing	Elevation	Emission Rate					Release Height	X Dimension	Y Dimension	Angle	Initial Vertical Dimension
							(Meters)	(Meters)	(Meters)	(Lbs/Hour)	(Grams/Second)					
Significance Emission Rates (PTE for All Haul Road Routes)																
24-Hour Area Source Emission Rates - Increases in Road traffic																
M01	CO ₂ Haul Rou	CO20	Area	341663.35	4400530.21	257.86	8.6000E-04	1.0836E-04	9.4371E-08	5.4179E-05	0.000054	2.55	37	6.1	0	2.37
M01	Wet Distillers	DWG0	Area	341694.00	4400434.43	257.86	6.8800E-03	8.6686E-04	6.92159E-07	2.8895E-04	0.000288	2.55	6.1	23.5	116	2.37
M01	DDGS Haul Rd	DDGS1	Area	342220.5	4400293.7	257.86	2.6960E-02	3.3969E-03	6.13765E-08	1.0958E-04	0.000110	2.55	6.1	24	-160	2.37
M01	Denaturant H	DENAT1	Area	342281	4400252.63	257.86	1.2390E-03	1.5611E-04	1.3037E-08	7.8055E-06	0.000008	2.55	10	65	-76.5	2.37
M01	Ethanol Haul R	ETH1	Area	342281	4400252.63	257.86	1.6100E-02	2.0286E-03	2.7039E-07	1.0143E-04	0.000101	2.55	10	65	-76.5	2.37
Significance Emission Rates (PTE for All Haul Road Routes)																
Annual Area Source Emission Rates - Increases in Road traffic																
M01	CO ₂ Haul Rou	CO20	Area	341663.35	4400530.21	257.86	5.0000E-04	6.2999E-05	6.32289E-08	3.1499E-05	0.000031	2.55	37	6.1	0	2.37
M01	Wet Distillers	DWG0	Area	341694.00	4400434.43	257.86	6.5000E-03	8.1898E-04	6.67508E-07	2.7299E-04	0.000272	2.55	6.1	23.5	116	2.37
M01	DDGS Haul Rd	DDGS1	Area	342220.5	4400293.7	257.86	1.9970E-02	2.5162E-03	5.99303E-08	8.1167E-05	0.000081	2.55	6.1	24	-160	2.37
Point Source Emission Rates and Stack Parameters																
Source I.D.	Description	Model I.D.	Release Type	Easting	Northing	Elevation	Emission Rate		Stack Height	Stack Temperature	Stack Exit Velocity	Stack Diameter	Comments			
							(Lbs/Hour)	(Grams/Second)								
Project Emissions - ANNUAL																
S37	Hammermill	S37	point	341789.1	4400483.33	256	0.0017	2.14E-04	44.196	299.82	4.88697633	0.9144	New hammermill			
S39	Hammermill	S39	point	341916.2	4400525.47	256	8.00E-04	1.01E-04	41.4528	299.82	4.88697633	0.9144	New Hammermill			
I08		I08	point	341916.5	4400521.27	256	4.90E-04	6.17E-05	10.0584	299.82	17.851837	0.1524	reactivate			
J06		J06	point	341873	4400440.86	256	0.0017	2.14E-04	32.3088	310.93	82.2251733	0.6096	reactivate			
S105		S105	point	341835.3	4400399	257.1	0.0429	5.40E-03	38.1	394.26	21.828	0.2032	reactivate			
Project Emissions - 24-hour																
S37	Hammermill	S37	point	341789.1	4400483.33	256	0.0017	2.14E-04	44.196	299.82	4.88697633	0.9144	New hammermill			
S39	Hammermill	S39	point	341916.2	4400525.47	256	8.00E-04	1.01E-04	41.4528	299.82	4.88697633	0.9144	New Hammermill			
I08		I08	point	341916.5	4400521.27	256	4.90E-04	6.17E-05	10.0584	299.82	17.851837	0.1524	reactivate			
J06		J06	point	341873	4400440.86	256	0.0017	2.14E-04	32.3088	310.93	82.2251733	0.6096	reactivate			
S105		S105	point	341835.3	4400399	257.1	0.0429	5.40E-03	38.1	394.26	21.828	0.2032	reactivate			
<i>These point source emissions were not modeled previously, as these sources are new or being reactivated.</i>																

Attachment L – Table 1 from “Ambient Air Quality Impact Analysis (AAQIA) for Lifeline Foods, LLC
June 29, 2015 Submittal

Table 1																		
LifeLine Foods, LLC-Point Source Emission Rates and Stack Parameters																		
<i>ERI Solutions, Inc. Emission Rate Submittal</i>																		
<i>PM₁₀ Only Pollutant Modeled</i>																		
<i>Consultant Provided Significant Impact Analysis for Proposed Project/Modification</i>																		
<i>New Hammermill Baghouses, Reactivation of the DDGS Storage Bin, Railcar Loading Hex Bin and the Auxillary Corn Mill. Haul Road Limit Increase.</i>																		
Stack Driven Releases																		
Emission Unit I.D.	Model I.D.	Description	Release Type	Easting	Northing	Elevation	Emission Rate		Stack Height		Stack Temperature		Stack Exit Velocity		Stack Diameter		Comments?	
				(Meters)	(Meters)	(Meters)	(Grams/Second)	(Lbs/Hour)	(Meters)	(Feet)	(Kelvin)	(Fahrenheit)	(Meters/Second)	(Feet/Minute)	(Meters)	(Feet)	(Yes)	(No)
<i>Emission Rates for Use in the Significant Impact Analysis- Project Only -24-Hour and Annual</i>																		
S37	S37	New Hammermill Baghouse	Point	341789.14	4400483.33	256.00	2.1420E-04	1.7000E-03	44.20	145.00	299.82	80.01	4.89	962.00	0.91	3.00		X
S39	S39	New Buhler Baghouse	Point	341916.17	4400525.47	256.00	1.0080E-04	8.0000E-04	41.45	136.00	299.82	80.01	4.89	962.00	0.91	3.00		X
J08	J08	Hex Bins-Railcar Loadout	Point	341916.52	4400521.27	266.27	6.1739E-05	4.9000E-04	10.06	33.00	299.82	80.01	17.85	3514.14	0.15	0.50		X
J06	J06	Aux Corn Mill	Point	341872.97	4400435.91	257.77	2.1420E-04	1.7000E-03	32.31	106.00	310.93	100.00	82.23	16186.06	0.61	2.00		X
S105	S105	Hi Pro Storage Bin	Point	341860.00	4400378.00	256.89	5.4179E-03	4.3000E-02	17.68	58.00	394.26	250.00	3.61	710.40	0.20	0.67		X

Attachment M – Table 2 from “Ambient Air Quality Impact Analysis (AAQIA) for Lifeline Foods, LLC
June 29, 2015 Submittal

Table 2																	
LifeLine Foods, LLC-Area Source Emission Rates and Release Parameters																	
<i>ERI Solutions, Inc. Emission Rate Submittal</i>																	
<i>PM_{2.5} Only Pollutant Modeled</i>																	
<i>Consultant Provided Significant Impact Analysis for Proposed Project/Modification</i>																	
<i>New Hammerrill Baghouses, Reactivation of the Railcar Loading Hex Bin and the Auxillary Corn Mill. Haul Road Limit Increase.</i>																	
Haul Road Releases																	
Model I.D.	Description	Release Type	Easting	Northing	Elevation	Emission Rate			Release Height		X Dimension		Y Dimension		Angle	Initial Vertical Dimension	
						(Grams/Second /M ²)	(Grams/Second)	(Lbs/Hour)	(Meters)	(Feet)	(Meters)	(Feet)	(Meters)	(Feet)		(Meters)	(Feet)
<i>Emission Rates for Use in the Significant Impact Analysis-Project Only-24-Hour</i>																	
DENAT1	Denaturant Haul Route	AREA	342280.99	4400252.63	257.86	1.201E-08	7.805E-06	6.195E-05	2.55	16.73	10	32.81	65	213.25	-76.5	2.37	16.72
DENAT2	Denaturant Haul Route	AREA	342217.79	4400267.80	257.86	8.673E-08	7.806E-06	6.195E-05	2.55	16.73	10	32.81	9	29.53	-56	2.37	16.72
DENAT3	Denaturant Haul Route	AREA	342211.98	4400271.72	257.86	6.787E-08	7.805E-06	6.195E-05	2.55	16.73	10	32.81	11.5	37.73	-61.5	2.37	16.72
DENAT4	Denaturant Haul Route	AREA	342211.62	4400271.43	257.86	2.945E-08	7.806E-06	6.195E-05	2.55	16.73	10	32.81	26.5	86.94	-133	2.37	16.72
DENAT5	Denaturant Haul Route	AREA	342192.24	4400253.36	257.86	1.501E-08	7.806E-06	6.195E-05	2.55	16.73	10	32.81	52	170.60	-83.5	2.37	16.72
DENAT6	Denaturant Haul Route	AREA	342140.57	4400259.24	257.86	1.501E-08	7.806E-06	6.195E-05	2.55	16.73	10	32.81	52	170.60	-80	2.37	16.72
DENAT7	Denaturant Haul Route	AREA	342089.36	4400268.27	257.86	1.593E-08	7.805E-06	6.195E-05	2.55	16.73	10	32.81	49	160.76	-81	2.37	16.72
DENAT8	Denaturant Haul Route	AREA	342040.97	4400275.94	257.86	1.593E-08	7.805E-06	6.195E-05	2.55	16.73	10	32.81	49	160.76	-79	2.37	16.72
DENAT9	Denaturant Haul Route	AREA	341991.92	4400275.33	257.86	3.903E-08	7.806E-06	6.195E-05	2.55	16.73	10	32.81	20	65.62	10	2.37	16.72
DENAT10	Denaturant Haul Route	AREA	341991.23	4400227.18	257.86	1.626E-08	7.806E-06	6.195E-05	2.55	16.73	10	32.81	48	157.48	0	2.37	16.72
DENAT11	Denaturant Haul Route	AREA	341991.23	4400237.18	257.86	3.548E-08	7.805E-06	6.195E-05	2.55	16.73	10	32.81	22	72.18	95	2.37	16.72
DENAT12	Denaturant Haul Route	AREA	342013.15	4400235.26	257.86	3.394E-08	7.806E-06	6.195E-05	2.55	16.73	10	32.81	23	75.46	96.5	2.37	16.72
DENAT13	Denaturant Haul Route	AREA	342035.00	4400232.77	257.86	4.003E-08	7.805E-06	6.195E-05	2.55	16.73	10	32.81	19.5	63.98	88.5	2.37	16.72
DENAT14	Denaturant Haul Route	AREA	342054.50	4400233.28	257.86	2.891E-08	7.806E-06	6.195E-05	2.55	16.73	10	32.81	27	88.58	89	2.37	16.72
DENAT15	Denaturant Haul Route	AREA	342081.49	4400233.75	257.86	2.788E-08	7.806E-06	6.195E-05	2.55	16.73	10	32.81	28	91.86	85.5	2.37	16.72
DENAT16	Denaturant Haul Route	AREA	342109.41	4400235.95	257.86	3.548E-08	7.805E-06	6.195E-05	2.55	16.73	10	32.81	22	72.18	85.3	2.37	16.72
DENAT17	Denaturant Haul Route	AREA	342127.35	4400237.42	257.86	5.575E-08	7.805E-06	6.195E-05	2.55	16.73	10	32.81	14	45.93	66	2.37	16.72
DENAT18	Denaturant Haul Route	AREA	342136.48	4400241.49	257.86	5.204E-08	7.806E-06	6.195E-05	2.55	16.73	10	32.81	15	49.21	48	2.37	16.72
DENAT19	Denaturant Haul Route	AREA	342147.63	4400251.53	257.86	6.004E-08	7.806E-06	6.195E-05	2.55	16.73	10	32.81	13	42.65	52	2.37	16.72
DENAT20	Denaturant Haul Route	AREA	342157.87	4400259.53	257.86	2.365E-08	7.805E-06	6.195E-05	2.55	16.73	10	32.81	33	108.27	83	2.37	16.72
CO20	CO2 Haul Route	AREA	341663.35	4400530.21	257.86	2.400E-07	5.418E-05	4.300E-04	2.55	16.73	37	121.39	6.1	20.01	0	2.37	16.72
CO21	CO2 Haul Route	AREA	341694.26	4400447.66	257.86	1.004E-07	5.418E-05	4.300E-04	2.55	16.73	6.1	20.01	88.5	290.35	0	2.37	16.72
DWG0	Wet Distillers Grains Haul Route	AREA	341694.00	4400434.43	257.86	2.016E-06	2.890E-04	2.293E-03	2.55	16.73	6.1	20.01	23.5	77.10	116	2.37	16.72
DWG1	Wet Distillers Grains Haul Route	AREA	341711.50	4400418.56	257.86	1.579E-06	2.890E-04	2.293E-03	2.55	16.73	30	98.43	6.1	20.01	0	2.37	16.72
DWG2	Wet Distillers Grains Haul Route	AREA	341735.50	4400423.99	257.86	2.016E-06	2.890E-04	2.293E-03	2.55	16.73	6.1	20.01	23.5	77.10	62	2.37	16.72
DDGS1	DDGS Haul Route	AREA	342220.54	4400293.70	257.86	7.485E-07	1.096E-04	8.697E-04	2.55	16.73	6.1	20.01	24	78.74	-160	2.37	16.72
DDGS2	DDGS Haul Route	AREA	342206.60	4400273.23	257.86	3.097E-07	1.096E-04	8.697E-04	2.55	16.73	6.1	20.01	58	190.29	-45.5	2.37	16.72
DDGS3	DDGS Haul Route	AREA	342166.30	4400312.88	257.86	3.666E-07	1.096E-04	8.697E-04	2.55	16.73	6.1	20.01	49	160.76	-55	2.37	16.72
DDGS4	DDGS Haul Route	AREA	342125.95	4400340.66	257.86	4.606E-07	1.096E-04	8.697E-04	2.55	16.73	6.1	20.01	39	127.95	-52.5	2.37	16.72
DDGS5	DDGS Haul Route	AREA	342095.52	4400363.82	257.86	5.988E-07	1.096E-04	8.697E-04	2.55	16.73	6.1	20.01	30	98.43	-45.5	2.37	16.72
DDGS6	DDGS Haul Route	AREA	342069.79	4400389.10	257.86	9.980E-07	1.096E-04	8.697E-04	2.55	16.73	6.1	20.01	18	59.06	45	2.37	16.72
DDGS7	DDGS Haul Route	AREA	342082.07	4400401.74	257.86	8.982E-07	1.096E-04	8.697E-04	2.55	16.73	6.1	20.01	20	65.62	125	2.37	16.72
DDGS8	DDGS Haul Route	AREA	342098.05	4400390.75	257.86	3.389E-07	1.096E-04	8.697E-04	2.55	16.73	6.1	20.01	53	173.88	127	2.37	16.72
DDGS9	DDGS Haul Route	AREA	342140.38	4400358.86	257.86	3.593E-07	1.096E-04	8.697E-04	2.55	16.73	6.1	20.01	50	164.04	134	2.37	16.72
DDGS10	DDGS Haul Route	AREA	342176.34	4400324.13	257.86	2.874E-07	1.096E-04	8.697E-04	2.55	16.73	6.1	20.01	62.5	205.05	142	2.37	16.72
DDGS11	DDGS Haul Route	AREA	342211.62	4400271.43	257.86	4.135E-07	1.096E-04	8.697E-04	2.55	16.73	10	32.81	26.5	86.94	-133	2.37	16.72
DDGS12	DDGS Haul Route	AREA	342192.24	4400253.36	257.86	2.107E-07	1.096E-04	8.697E-04	2.55	16.73	10	32.81	52	170.60	-83.5	2.37	16.72
DDGS13	DDGS Haul Route	AREA	342140.57	4400259.24	257.86	2.107E-07	1.096E-04	8.697E-04	2.55	16.73	10	32.81	52	170.60	-80	2.37	16.72

Attachment N – Continued

Table 2

LifeLine Foods, LLC-Area Source Emission Rates and Release Parameters

ERI Solutions, Inc. Emission Rate Submittal

PM_{2.5} Only Pollutant Modeled

Consultant Provided Significant Impact Analysis for Proposed Project/Modification

New Hammermill Baghouses, Reactivation of the Railcar Loading Hex Bin and the Auxillary Corn Mill. Haul Road Limit Increase.

Haul Road Releases

Model I.D.	Description	Release Type	Easting	Northing	Elevation	Emission Rate			Release Height		X Dimension		Y Dimension		Angle	Initial Vertical Dimension	
						(Grams/Second /M ²)	(Grams/Second)	(Lbs/Hour)	(Meters)	(Feet)	(Meters)	(Feet)	(Meters)	(Feet)		(Meters)	(Feet)
<i>Emission Rates for Use in the Significant Impact Analysis-Project Only-24-Hour</i>																	
DDGS14	DDGS Haul Route	AREA	342089.36	4400268.27	257.86	2.236E-07	1.096E-04	8.697E-04	2.55	16.73	10	32.81	49	160.76	-81	2.37	16.72
DDGS15	DDGS Haul Route	AREA	342040.97	4400275.94	257.86	2.236E-07	1.096E-04	8.697E-04	2.55	16.73	10	32.81	49	160.76	-79	2.37	16.72
DDGS16	DDGS Haul Route	AREA	341992.87	4400285.29	257.86	2.331E-07	1.096E-04	8.697E-04	2.55	16.73	10	32.81	47	154.20	-82	2.37	16.72
DDGS17	DDGS Haul Route	AREA	341946.32	4400291.83	257.86	1.826E-07	1.096E-04	8.697E-04	2.55	16.73	10	32.81	60	196.85	-85.5	2.37	16.72
DDGS18	DDGS Haul Route	AREA	341886.51	4400296.54	257.86	3.131E-07	1.096E-04	8.697E-04	2.55	16.73	10	32.81	35	114.83	-84	2.37	16.72
DDGS19	DDGS Haul Route	AREA	341851.70	4400300.20	257.86	2.640E-07	1.096E-04	8.697E-04	2.55	16.73	10	32.81	41.5	136.15	-63	2.37	16.72
DDGS20	DDGS Haul Route	AREA	341814.72	4400319.04	257.86	7.305E-07	1.096E-04	8.697E-04	2.55	16.73	10	32.81	15	49.21	-50	2.37	16.72
DDGS21	DDGS Haul Route	AREA	341803.23	4400328.68	257.86	1.096E-06	1.096E-04	8.697E-04	2.55	16.73	10	32.81	10	32.81	-54	2.37	16.72
DDGS22	DDGS Haul Route	AREA	342061.28	4400377.81	257.86	5.444E-07	1.096E-04	8.697E-04	2.55	16.73	6.1	20.01	33	108.27	121	2.37	16.72
DDGS23	DDGS Haul Route	AREA	342089.80	4400360.88	257.86	4.277E-07	1.096E-04	8.697E-04	2.55	16.73	6.1	20.01	42	137.80	127	2.37	16.72
DDGS24	DDGS Haul Route	AREA	342123.34	4400335.61	257.86	3.593E-07	1.096E-04	8.697E-04	2.55	16.73	6.1	20.01	50	164.04	124	2.37	16.72
DDGS25	DDGS Haul Route	AREA	342078.12	4400389.17	257.86	7.186E-07	1.096E-04	8.697E-04	2.55	16.73	6.1	20.01	25	82.02	-142	2.37	16.72
DDGS26	DDGS Haul Route	AREA	342164.80	4400307.65	257.86	3.358E-07	1.096E-04	8.697E-04	2.55	16.73	6.1	20.01	53.5	175.52	123	2.37	16.72
DDGS27	DDGS Haul Route	AREA	342213.99	4400276.01	257.86	2.113E-06	1.096E-04	8.697E-04	2.55	16.73	6.1	20.01	8.5	27.89	115	2.37	16.72
DDGS28	DDGS Haul Route	AREA	342220.23	4400272.83	257.86	2.722E-07	1.096E-04	8.697E-04	2.55	16.73	6.1	20.01	66	216.54	103	2.37	16.72
DDGS29	DDGS Haul Route	AREA	341886.66	4400296.32	257.86	3.742E-07	1.096E-04	8.697E-04	2.55	16.73	6.1	20.01	48	157.48	0	2.37	16.72
DDGS30	DDGS Haul Route	AREA	341886.66	4400337.60	257.86	8.165E-07	1.096E-04	8.697E-04	2.55	16.73	6.1	20.01	22	72.18	-90	2.37	16.72
DDGS31	DDGS Haul Route	AREA	341844.85	4400337.60	257.86	4.083E-07	1.096E-04	8.697E-04	2.55	16.73	6.1	20.01	44	144.36	-92	2.37	16.72
ETH1	Ethanol Haul Route	AREA	342280.99	4400252.63	257.86	1.560E-07	1.014E-04	8.050E-04	2.55	16.73	10	32.81	65	213.25	-76.5	2.37	16.72
ETH2	Ethanol Haul Route	AREA	342217.79	4400267.80	257.86	1.127E-06	1.014E-04	8.050E-04	2.55	16.73	10	32.81	9	29.53	-56	2.37	16.72
ETH3	Ethanol Haul Route	AREA	342211.98	4400271.72	257.86	8.820E-07	1.014E-04	8.050E-04	2.55	16.73	10	32.81	11.5	37.73	-61.5	2.37	16.72
ETH4	Ethanol Haul Route	AREA	342211.62	4400271.43	257.86	3.828E-07	1.014E-04	8.050E-04	2.55	16.73	10	32.81	26.5	86.94	-133	2.37	16.72
ETH5	Ethanol Haul Route	AREA	342192.24	4400253.36	257.86	1.951E-07	1.014E-04	8.050E-04	2.55	16.73	10	32.81	52	170.60	-83.5	2.37	16.72
ETH6	Ethanol Haul Route	AREA	342140.57	4400259.24	257.86	1.951E-07	1.014E-04	8.050E-04	2.55	16.73	10	32.81	52	170.60	-80	2.37	16.72
ETH7	Ethanol Haul Route	AREA	342089.36	4400268.27	257.86	2.070E-07	1.014E-04	8.050E-04	2.55	16.73	10	32.81	49	160.76	-81	2.37	16.72
ETH8	Ethanol Haul Route	AREA	342040.97	4400275.94	257.86	2.070E-07	1.014E-04	8.050E-04	2.55	16.73	10	32.81	49	160.76	-79	2.37	16.72
ETH9	Ethanol Haul Route	AREA	341991.92	4400275.33	257.86	5.072E-07	1.014E-04	8.050E-04	2.55	16.73	10	32.81	20	65.62	10	2.37	16.72
ETH10	Ethanol Haul Route	AREA	341991.23	4400227.18	257.86	2.113E-07	1.014E-04	8.050E-04	2.55	16.73	10	32.81	48	157.48	0	2.37	16.72
ETH11	Ethanol Haul Route	AREA	341991.23	4400237.18	257.86	4.610E-07	1.014E-04	8.050E-04	2.55	16.73	10	32.81	22	72.18	95	2.37	16.72
ETH12	Ethanol Haul Route	AREA	342013.15	4400235.26	257.86	4.410E-07	1.014E-04	8.050E-04	2.55	16.73	10	32.81	23	75.46	96.5	2.37	16.72
ETH13	Ethanol Haul Route	AREA	342035.00	4400232.77	257.86	5.20154E-07	0.00010143	0.000805018	2.55	16.73	10	32.81	19.5	63.98	88.5	2.37	16.72
ETH14	Ethanol Haul Route	AREA	342054.50	4400233.28	257.86	3.75667E-07	0.00010143	0.000805018	2.55	16.73	10	32.81	27	88.58	89	2.37	16.72
ETH15	Ethanol Haul Route	AREA	342081.49	4400233.75	257.86	3.6225E-07	0.00010143	0.000805018	2.55	16.73	10	32.81	28	91.86	85.5	2.37	16.72
ETH16	Ethanol Haul Route	AREA	342109.41	4400235.95	257.86	4.61046E-07	0.00010143	0.000805018	2.55	16.73	10	32.81	22	72.18	85.3	2.37	16.72
ETH17	Ethanol Haul Route	AREA	342127.35	4400237.42	257.86	7.245E-07	0.00010143	0.000805018	2.55	16.73	10	32.81	14	45.93	66	2.37	16.72
ETH18	Ethanol Haul Route	AREA	342136.48	4400241.49	257.86	6.762E-07	0.00010143	0.000805018	2.55	16.73	10	32.81	15	49.21	48	2.37	16.72
ETH19	Ethanol Haul Route	AREA	342147.63	4400251.53	257.86	7.80231E-07	0.00010143	0.000805018	2.55	16.73	10	32.81	13	42.65	52	2.37	16.72
ETH20	Ethanol Haul Route	AREA	342157.87	4400259.53	257.86	3.07364E-07	0.00010143	0.000805018	2.55	16.73	10	32.81	33	108.27	83	2.37	16.72

Attachment O – Lifeline Foods Proposed Unit Emissions

Point ID	Source Description	Throughput/Input				Uncontrolled		controlled		Comments	
		units	Pollutant	Emission Factor	Units	Control	Hours per year	lbs/hr	lbs/hr		tons/year
I08	HEX BINS-RAILCAR FLOUR LOADOUT (SCC30200506) REACTIVATE VENTS INSIDE	9 tons/hr	PM	0.032	lbs/ton	99%	8760	0.28800	0.00202	0.00883	AP-42 Sect 9.9.1-1 Rail car Reactivate - vents emissions inside. No release to ambient air.
			PM10	0.0078	lbs/ton			0.07020	0.00049	0.00215	
			PM2.5	0.0013	lbs/ton			0.01170	0.00008	0.00036	
J06 REACTIVATE	Aux Corn Mill 30200760 Vents Inside no emissions	9 tons/hr	PM	0.075	lbs/ton	99%	8760	0.6750	0.0068	0.0296	AP-42 Sect.9.9.1
			PM10	0.019	lbs/ton			0.1710	0.0017	0.0075	
			PM2.5	0.0032	lbs/ton			0.0288	0.0003	0.0013	
S37	New Baghouse (22,500 cfm) previously permitted as S37	43.5 tons/hr	PM	0.012	lbs/ton	99.4%	8760	0.5220	0.0031	0.0137	9.9.1-2-milling bh CEIDERS
			PM10	0.00648	lbs/ton			0.2819	0.0017	0.0074	
			PM2.5	0.0048	lbs/ton			0.2088	0.0013	0.0055	
S39	New Buhler Baghouse (6,800 cfm) 135' 14"	21.5 tons/hr	PM	0.012	lbs/ton	99.4%	8760	0.2580	0.0015	0.0068	9.9.1-2-milling bh CEIDERS
			PM10	0.00648	lbs/ton			0.1393	0.0008	0.0037	
			PM2.5	0.0048	lbs/ton			0.1032	0.0006	0.0027	

Attachment P – ICM Biofuels, LLC Proposed Unit Emissions

			Throughput/Input				Uncontrolled	controlled				
			units	Pollutant	Emission Factor	Units	Hours per year	lbs/hr	lbs/hr	tons/year	Comments	Type of Control
S105	S105	Ash Storage	5,000 acfm	PM	0.171 lb/hr		8760		0.171	0.751	Recommissioned for DDGS from prior ash storage. Emission factors based on previous stack testing.	Baghouse
		DDGS Storage	0.004 gr/scf	PM10	0.043 lb/hr			0.0429	0.188			
				PM2.5	0.007 lb/hr			0.0073	0.032			

Attachment Q – Haul Road Emissions

24 HOUR DAILY ROADS										
Haul Roads			denat	denat EtOH	#1 grain receiving	#2 grain receiving	DDGS	corn oil /caustic /acid	Wet DGS	CO2
Daily limit hauled =	tons/day		54	700	6,020	6,020	600	150	1,200	150
Maximum hourly amount hauled =	tons/hr		2.3	29.2	250.8	250.8	25.0	6.3	50.0	6.3
Weight of material per load =	tons		25	25	26	26	26	25	25	25
Unloaded Truck Weight	tons		15	15	15	15	15	15	15	15
Avg. Loaded Truck Weight	tons		40	40	41	41	41	40	40	40
Length of road =	miles		0.4	0.4	0.4	0.8	0.8	0.8	0.1	0.1
k = particle size multiplier for PM =	lb/vmt		0.011	0.011	0.011	0.011	0.011	0.011	0.011	0.011
k = particle size multiplier for PM10 =	lb/vmt		0.0022	0.0022	0.0022	0.0022	0.0022	0.0022	0.0022	0.0022
k = particle size multiplier for PM2.5 =	lb/vmt		0.00054	0.00054	0.00054	0.00054	0.00054	0.00054	0.00054	0.00054
sL = silt loading for road	g/m2		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
W = loaded weight + empty Weight(ton)	tons		27.5	27.5	28	28	28	27.5	27.5	27.5
Coefficients	a		0.91							
	b		1.02							
PM Emission Factor =	lb/VMT		0.17	0.17	0.18	0.18	0.18	0.17	0.17	0.17
PM10 Emission Factor =	lb/VMT		0.03	0.03	0.04	0.04	0.04	0.03	0.03	0.03
PM2.5 Emission Factor =	lb/VMT		0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
MHDR	VMT/hr		0.036	0.46666667	3.85897436	7.71794872	0.76923077	0.2	0.2	0.025
Potential Emissions	PM	lb/hr	0.00619266	0.08027522	0.6761273	1.35225461	0.13477621	0.03440367	0.03440367	0.00430046
	PM10	lb/hr	0.00123853	0.01605504	0.13522546	0.27045092	0.02695524	0.00688073	0.00688073	0.00086009
	PM2.5	lb/hr	0.000304	0.00394078	0.0331917	0.06638341	0.00661629	0.00168891	0.00168891	0.00021111
	PM	tpy	0.02712385	0.35160547	2.96143759	5.92287518	0.59031979	0.15068806	0.15068806	0.01883601
	PM10	tpy	0.00542477	0.07032109	0.59228752	1.18457504	0.11806396	0.03013761	0.03013761	0.0037672
	PM2.5	tpy	0.00133153	0.01726063	0.14537966	0.29075933	0.02897933	0.00739741	0.00739741	0.00092468
ANNUAL ROADS										
Haul Roads			denat	denat EtOH	#1 grain receiving	#2 grain receiving	DDGS	corn oil /caustic /acid	Wet DGS	CO2
Annual amount hauled =	tons/yr		3,300	165,000	1,133,333	1,133,333	162,218	10,100	415,613	32,177
Maximum hourly amount hauled =	tons/hr		0	19	129.4	129.4	19	1	47	4
Weight of material per load =	tons		25	25	26	26	26	25	25	25
Unloaded Truck Weight	tons		15	15	15	15	15	15	15	15
Avg. Loaded Truck Weight	tons		40	40	41	41	41	40	40	40
Length of road =	miles		0.4	0.4	0.4	0.8	0.8	0.8	0.1	0.1
k = particle size multiplier for PM =	lb/vmt		0.011	0.011	0.011	0.011	0.011	0.011	0.011	0.011
k = particle size multiplier for PM10 =	lb/vmt		0.0022	0.0022	0.0022	0.0022	0.0022	0.0022	0.0022	0.0022
k = particle size multiplier for PM2.5 =	lb/vmt		0.00054	0.00054	0.00054	0.00054	0.00054	0.00054	0.00054	0.00054
sL = silt loading for road	g/m2		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
W = loaded weight + empty Weight(ton)	tons		27.5	27.5	28	28	28	27.5	27.5	27.5
Coefficients	a		0.91							
	b		1.02							
PM10 Emission Factor =	lb/VMT		0.17	0.17	0.18	0.18	0.18	0.17	0.17	0.17
	lb/VMT		0.03	0.03	0.04	0.04	0.04	0.03	0.03	0.03
	lb/VMT		0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
MHDR	VMT/hr		0.0060274	0.30136986	1.99039867	3.98079733	0.56978574	0.03689498	0.18977763	0.01469269
Potential Emissions	PM	lb/hr	0.00103682	0.05184114	0.3487359	0.69747179	0.09983163	0.00634661	0.03264523	0.00252741
	PM10	lb/hr	0.00020736	0.01036823	0.06974718	0.13949436	0.01996633	0.00126932	0.00652905	0.00050548
	PM2.5	lb/hr	5.0899E-05	0.00254493	0.01711976	0.03423952	0.00490083	0.00031156	0.00160258	0.00012407
	PM	tpy	0.00454128	0.2270642	1.52746323	3.05492645	0.43726253	0.02779816	0.14298611	0.01107007
	PM10	tpy	0.00090826	0.04541284	0.30549265	0.61098529	0.08745251	0.00555963	0.02859722	0.00221401
	PM2.5	tpy	0.00022294	0.01114679	0.07498456	0.14996912	0.02146562	0.00136464	0.00701932	0.00054344

Attachment R – 10 CSR 10-6.400 Analysis

EU	Description	Process Weight Rate (ton/hr)	PM Emission Factor (lb/ton)	Capture Device Efficiency (%)	Control Device Efficiency (%)	Uncontrolled Emission Rate (lb/hr)	Controlled Emission Rate (lb/hr)	Allowable Emission Rate (lb/hr)	PTE is less than 0.5 lbs per hour? (with control / without control)	Is unit in compliance without controls?	Is the Control Efficiency Greater Than 90%?	Is unit in compliance with controls?	PTE as percentage of Allowable
I08	HEX BINS-RAILCAR FLOUR LOADOUT (SCC30200506) REACTIVATE VENTS INSIDE	9.000	0.03200	100	99.0	0.29	0.0029	17.87	YES/wo	YES	YES	YES	0%
J06	Aux Corn Mill (SCC 30200760)	9.000	0.07500	100	99.0	0.68	0.0068	17.87	YES/w	YES	YES	YES	0%
S37	New Baghouse (22,500 cfm)	43.500	0.01200	100	99.4	0.52	0.0031	43.29	YES/w	YES	YES	YES	0%
S39	New Buhler Baghouse (6,800 cfm)	21.500	0.01200	100	99.4	0.26	0.0015	32.03	YES/wo	YES	YES	YES	0%
S105	DDGS Storage	0.750	38.00000	100	99.4	28.50	0.1710	3.38	YES/w	NO	YES	YES	5%

APPENDIX A

Abbreviations and Acronyms

%	percent	m/s	meters per second
°F	degrees Fahrenheit	Mgal	1,000 gallons
acfm	actual cubic feet per minute	MW	megawatt
BACT	Best Available Control Technology	MHDR	maximum hourly design rate
BMPs	Best Management Practices	MMBtu	Million British thermal units
Btu	British thermal unit	MMCF	million cubic feet
CAM	Compliance Assurance Monitoring	MSDS	Material Safety Data Sheet
CAS	Chemical Abstracts Service	NAAQS ...	National Ambient Air Quality Standards
CEMS	Continuous Emission Monitor System	NESHAPs	National Emissions Standards for Hazardous Air Pollutants
CFR	Code of Federal Regulations	NO_x	nitrogen oxides
CO	carbon monoxide	NSPS	New Source Performance Standards
CO₂	carbon dioxide	NSR	New Source Review
CO_{2e}	carbon dioxide equivalent	PM	particulate matter
COMS	Continuous Opacity Monitoring System	PM_{2.5}	particulate matter less than 2.5 microns in aerodynamic diameter
CSR	Code of State Regulations	PM₁₀	particulate matter less than 10 microns in aerodynamic diameter
dscf	dry standard cubic feet	ppm	parts per million
EQ	Emission Inventory Questionnaire	PSD	Prevention of Significant Deterioration
EP	Emission Point	PTE	potential to emit
EPA	Environmental Protection Agency	RACT	Reasonable Available Control Technology
EU	Emission Unit	RAL	Risk Assessment Level
fps	feet per second	SCC	Source Classification Code
ft	feet	scfm	standard cubic feet per minute
GACT	Generally Available Control Technology	SDS	Safety Data Sheet
GHG	Greenhouse Gas	SIC	Standard Industrial Classification
gpm	gallons per minute	SIP	State Implementation Plan
gr	grains	SMAL	Screening Model Action Levels
GWP	Global Warming Potential	SO_x	sulfur oxides
HAP	Hazardous Air Pollutant	SO₂	sulfur dioxide
hr	hour	tph	tons per hour
hp	horsepower	tpy	tons per year
lb	pound	VMT	vehicle miles traveled
lbs/hr	pounds per hour	VOC	Volatile Organic Compound
MACT	Maximum Achievable Control Technology		
µg/m³	micrograms per cubic meter		

Mr. Mike Sobetski
Director of Technical Services
Lifeline Foods, Inc./ICM Biofuels, LLC
2811 South 11th Street
St. Joseph, MO 64503

RE: New Source Review Permit - Project Number: 2014-11-053

Dear Mr. Sobetski:

Enclosed with this letter is your permit to construct. Please study it carefully and refer to Appendix A for a list of common abbreviations and acronyms used in the permit. Also, note the special conditions on the accompanying pages. The document entitled, "Review of Application for Authority to Construct," is part of the permit and should be kept with this permit in your files. Operation in accordance with these conditions and your new source review permit application is necessary for continued compliance. The reverse side of your permit certificate has important information concerning standard permit conditions and your rights and obligations under the laws and regulations of the State of Missouri.

If you were adversely affected by this permit decision, you may be entitled to pursue an appeal before the administrative hearing commission pursuant to Sections 621.250 and 643.075.6 RSMo. To appeal, you must file a petition with the administrative hearing commission within thirty days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed; if it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the administrative hearing commission, whose contact information is: Administrative Hearing Commission, Truman State Office Building, Room 640, 301 W. High Street, P.O. Box 1557, Jefferson City, Missouri 65102, phone: 573-751-2422, fax: 573-751-5018, website: www.oa.mo.gov/ahc.

If you have any questions regarding this permit, please do not hesitate to contact Randy Raymond, at the Department of Natural Resources' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102 or at (573) 751-4817. Thank you for your attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Susan Heckenkamp
New Source Review Unit Chief

SH:rerl

Enclosures

c: Kansas City Regional Office
PAMS File: 2014-11-053

Permit Number: