Indiana Department of Environmental Management
We Protect Hoosiers and Our Environment.
100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

Carol S. Comer
Commissioner

NOTICE OF 30-DAY PERIOD
FOR PUBLIC COMMENT

Preliminary Findings Regarding a
Signficant Modification to a
Part 70 Operating Permit
for Cargill, Inc. in Tippecanoe County

Significant Permit Modification No.: 157-36605-00038

The Indiana Department of Environmental Management (IDEM) has received an application from Cargill, Inc., located at 1502 Wabash Avenue, Lafayette, IN, 47905, for a significant modification of its Part 70 Operating Permit Renewal issued on January 12, 2015. If approved by IDEM's Office of Air Quality (OAQ), this proposed modification would allow Cargill, Inc. to make certain changes at its existing source. Cargill, Inc. has applied to increase their grain receiving limit by fifty-thousand (50,000) tons per twelve (12) consecutive month period.

This draft permit type does not contain any new equipment that would emit air pollutants; however, some conditions from previously issued permits/approvals have been corrected, changed, or removed. These corrections, changes, and removals may include Title I changes (e.g., changes that add or modify synthetic minor emission limits). This notice fulfills the public notice procedures to which those conditions are subject. IDEM has reviewed this application and has developed preliminary findings, consisting of a draft permit and several supporting documents, which would allow for these changes.

A copy of the permit application and IDEM's preliminary findings are available at:

Tippecanoe County Public Library
627 South Street
Lafayette, IN 47901

A copy of the preliminary findings is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/.

How can you participate in this process?

The date that this notice is published in a newspaper marks the beginning of a 30-day public comment period. If the 30th day of the comment period falls on a day when IDEM offices are closed for business, all comments must be postmarked or delivered in person on the next business day that IDEM is open.

You may request that IDEM hold a public hearing about this draft permit. If adverse comments concerning the **air pollution impact** of this draft permit are received, with a request for a public hearing, IDEM will decide whether or not to hold a public hearing. IDEM could also decide to hold a public meeting instead of, or in addition to, a public hearing. If a public hearing or meeting is held, IDEM will make a separate announcement of the date, time, and location of that hearing or meeting. At a hearing, you would have an opportunity to submit written comments and make verbal comments. At a meeting, you would have an opportunity to submit written comments, ask questions, and discuss any air pollution concerns with IDEM staff.

Comments and supporting documentation, or a request for a public hearing should be sent in writing to IDEM at the address below. If you comment via e-mail, please include your full U.S. mailing address so that you can be added to IDEM's mailing list to receive notice of future action related to this permit. If you do not want to comment at this time, but would like to receive notice of future action related to this permit application, please contact IDEM at the address below. Please refer to permit number SPM 157-36605-00038 in all correspondence.

Comments should be sent to:

Tamera Wessel
IDEM, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
(800) 451-6027, ask for extension 4-8530
Or dial directly: (317) 234-8530
Fax: (317) 232-6749 attn: Tamera Wessel
E-mail: twessel@idem.IN.gov

All comments will be considered by IDEM when we make a decision to issue or deny the permit. Comments that are most likely to affect final permit decisions are those based on the rules and laws governing this permitting process (326 IAC 2), air quality issues, and technical issues. IDEM does not have legal authority to regulate zoning, odor, or noise. For such issues, please contact your local officials.

For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: http://www.in.gov/idem/5881.htm; and the Citizens' Guide to IDEM on the Internet at: http://www.in.gov/idem/6900.htm.

What will happen after IDEM makes a decision?

Following the end of the public comment period, IDEM will issue a Notice of Decision stating whether the permit has been issued or denied. If the permit is issued, it may be different than the draft permit because of comments that were received during the public comment period. If comments are received during the public notice period, the final decision will include a document that summarizes the comments and IDEM's response to those comments. If you have submitted comments or have asked to be added to the mailing list, you will receive a Notice of the Decision. The notice will provide details on how you may appeal IDEM's decision, if you disagree with that decision. The final decision will also be available on the Internet at the address indicated above, at the local library indicated above, and the IDEM public file room on the 12th floor of the Indiana Government Center North, 100 N. Senate Avenue, Indianapolis, Indiana 46204-2251.

If you have any questions, please contact Tamera Wessel of my staff at the above address.

Jason R. Krawczyk, Section Chief
Permits Branch
Office of Air Quality

Indiana Department of Environmental Management
We Protect Hoosiers and Our Environment.
100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

Carol S. Comer
Commissioner

DRAFT

Mr. John Zoss
Cargill, Inc.
1502 Wabash Avenue
Lafayette, IN 47905

Re: 157-36605-00038
Significant Permit Modification to
Part 70 Renewal No.: T157-34376-00038

Dear Mr. Zoss:

Cargill, Inc. was issued Part 70 Operating Permit Renewal No. T157-34376-00038 on January 12, 2015 for a stationary soybean oil extraction plant located at 1502 Wabash Avenue, Lafayette, IN, 47905. An application requesting changes to this permit was received on December 11, 2015. Pursuant to the provisions of 326 IAC 2-7-12, a Significant Permit Modification to this permit is hereby approved as described in the attached Technical Support Document.

Please find attached the entire Part 70 Operating Permit as modified. The permit references the below listed attachments. Since these attachments have been provided in previously issued approvals for this source, IDEM OAQ has not included a copy of these attachments with this modification:

Attachment A: 40 CFR 60, Subpart DD, New Source Performance Standards for Grain Elevators
Attachment B: 40 CFR 60, Subpart Dc, New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units
Attachment C: 40 CFR 63, Subpart GGGG, National Emission Standards for Hazardous Air Pollutants: Solvent Extractions for Vegetable Oil Production
Attachment D: 40 CFR 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

Previously issued approvals for this source containing these attachments are available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/.

Federal rules under Title 40 of United States Code of Federal Regulations may also be found on the U.S. Government Printing Office's Electronic Code of Federal Regulations (eCFR) website, located on the Internet at: http://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title40/40tab_02.tpl.

A copy of the permit is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/. For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: http://www.in.gov/idem/5881.htm; and the Citizens' Guide to IDEM on the Internet at: http://www.in.gov/idem/6900.htm.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5.

DRAFT

If you have any questions on this matter, please contact Tamera Wessel, of my staff, OAQ, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana, 46204-2251 at 317-234-8530 or 1-800-451-6027, and ask for extension 4-8530.

Sincerely,

Jason R. Krawczyk, Section Chief
Permits Branch
Office of Air Quality

Attachments: Modified Permit and Technical Support Document

cc: File - Tippecanoe County
Tippecanoe County Health Department
U.S. EPA, Region 5
Compliance and Enforcement Branch

Indiana Department of Environmental Management
We Protect Hoosiers and Our Environment.
100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

Carol S. Comer
Commissioner

Part 70 Operating Permit Renewal
OFFICE OF AIR QUALITY

DRAFT

Cargill, Inc. - Soybean Processing Division
1502 Wabash Avenue
Lafayette, Indiana 47905

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. Noncompliance with any provision of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T157-34376-00038	
Issued by: / *Original Signed by:* Jason R. Krawczyk, Section Chief Permits Branch, Office of Air Quality	Issuance Date: January 12, 2015 Expiration Date: January 12, 2020

Significant Permit Modification No.: 157-36605-00038	
Issued by: Jason R. Krawczyk, Section Chief Permits Branch Office of Air Quality	Issuance Date: Expiration Date: January 12, 2020

DRAFT

TABLE OF CONTENTS

SECTION A SOURCE SUMMARY 6

A.1 General Information [326 IAC 2-7-4(c)][326 IAC 2-7-5(14)][326 IAC 2-7-1(22)]
A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)][326 IAC 2-7-5(14)]
A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-7-4(c)][326 IAC 2-7-5(14)]
A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

SECTION B GENERAL CONDITIONS 15

B.1 Definitions [326 IAC 2-7-1]
B.2 Permit Term [326 IAC 2-7-5(2)][326 IAC 2-1.1-9.5][326 IAC 2-7-4(a)(1)(D)][IC 13-15-3-6(a)]
B.3 Term of Conditions [326 IAC 2-1.1-9.5]
B.4 Enforceability [326 IAC 2-7-7] [IC 13-17-12]
B.5 Severability [326 IAC 2-7-5(5)]
B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]
B.7 Duty to Provide Information [326 IAC 2-7-5(6)(E)]
B.8 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]
B.9 Annual Compliance Certification [326 IAC 2-7-6(5)]
B.10 Preventive Maintenance Plan [326 IAC 2-7-5(12)][326 IAC 1-6-3]
B.11 Emergency Provisions [326 IAC 2-7-16]
B.12 Permit Shield [326 IAC 2-7-15][326 IAC 2-7-20][326 IAC 2-7-12]
B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5][326 IAC 2-7-10.5]
B.14 Termination of Right to Operate [326 IAC 2-7-10][326 IAC 2-7-4(a)]
B.15 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)][326 IAC 2-7-8(a)][326 IAC 2-7-9]
B.16 Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]
B.17 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12]
B.18 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)][326 IAC 2-7-12(b)(2)]
B.19 Operational Flexibility [326 IAC 2-7-20][326 IAC 2-7-10.5]
B.20 Source Modification Requirement [326 IAC 2-7-10.5]
B.21 Inspection and Entry [326 IAC 2-7-6][IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]
B.22 Transfer of Ownership or Operational Control [326 IAC 2-7-11]
B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)][326 IAC 2-1.1-7]
B.24 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314] [326 IAC 1-1-6]

SECTION C SOURCE OPERATION CONDITIONS 26

Emission Limitations and Standards [326 IAC 2-7-5(1)] 26

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]
C.2 Opacity [326 IAC 5-1]
C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]
C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2]
C.5 Fugitive Dust Emissions [326 IAC 6-4]
C.6 Stack Height [326 IAC 1-7]
C.7 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]
C.8 Performance Testing [326 IAC 3-6]
C.9 Compliance Requirements [326 IAC 2-1.1-11]
C.10 Compliance Monitoring [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)][40 CFR 64][326 IAC 3-8]
C.11 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

DRAFT

Corrective Actions and Response Steps [326 IAC 2-7-5][326 IAC 2-7-6] 29
C.12 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]
C.13 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]
C.14 Response to Excursions or Exceedances [40 CFR 64][326 IAC 3-8][326 IAC 2-7-5] [326 IAC 2-7-6]
C.15 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19] 32
C.16 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]
C.17 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2][326 IAC 2-3]
C.18 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2][326 IAC 2-3] [40 CFR 64][326 IAC 3-8]

Stratospheric Ozone Protection 36
C.19 Compliance with 40 CFR 82 and 326 IAC 22-1

SECTION D.0 EMISSIONS UNIT OPERATION CONDITIONS - Source Wide Limitations 37

Emission Limitations and Standards [326 IAC 2-7-5(1)] 37
D.0.1 Consent Decree Limitations
D.0.2 State Implementation Plan

Compliance Determination Requirements 37
D.0.3 Volatile Organic Compounds (VOC)

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19] 37
D.0.4 Record Keeping Requirement
D.0.5 Reporting Requirements

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS - Soybean Processing Facilities 39

Emission Limitations and Standards [326 IAC 2-7-5(1)] 44
D.1.1 PSD Minor Limit [326 IAC 2-2]
D.1.2 Best Available Control Technology (BACT) [326 IAC 2-2-3] [326 IAC 8-1-6]
D.1.3 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]
D.1.4 Preventive Maintenance Plan [326 IAC 2-7-5(12)][326 IAC 1-6-3]

Compliance Determination Requirements 49
D.1.5 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11] [40 CFR 60, Subpart DD]
D.1.6 VOC (BACT) Compliance [326 IAC 2-2]
D.1.7 Solvent Loss Ratio [326 IAC 2-2] [40 CFR 64]
D.1.8 Particulate Matter (PM) and Particulate Matter 10 (PM_{10})

Compliance Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)] 50
D.1.9 Visible Emissions Notations
D.1.10 Broken or Failed Bag Detection
D.1.11 Cyclone Failure
D.1.12 Mineral Oil Absorber [40 CFR 64]

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19] 52
D.1.13 Record Keeping Requirements
D.1.14 Reporting Requirements

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS - Boiler 54

Emission Limitations and Standards [326 IAC 2-7-5(1)] 54
D.2.1 Particulate Matter Emissions [326 IAC 6-2-3] [326 IAC 6-2-4]

D.2.2 PSD Minor Limit [326 IAC 2-2]
D.2.3 Sulfur Dioxide (SO_2) [326 IAC 7-1.1-1][326 IAC 7-1.1-2]
D.2.4 Preventive Maintenance Plan [326 IAC 2-7-5(12)][326 IAC 1-6-3]

Compliance Determination Requirements 55
D.2.5 Sulfur Dioxide Emissions and Sulfur Content
D.2.6 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]
D.2.7 Maintenance of Continuous Opacity Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

Compliance Monitoring Requirements [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)] 57
D.2.8 Visible Emissions Notations

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-19] 57
D.2.9 Record Keeping Requirements
D.2.10 Reporting Requirements

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS 59

Emission Limitations and Standards [326 IAC 2-7-5(1)] 59
D.3.1 Fugitive Dust Emissions [326 IAC 6-4-2]

Compliance Determination Requirements 59
D.3.2 Control Measures

SECTION D.4 EMISSIONS UNIT OPERATION CONDITIONS 60

Emission Limitations and Standards [326 IAC 2-7-5(1)] 60
D.4.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]
D.4.2 Material Requirements for Cold Cleaner Degreasers [326 IAC 8-3-8]

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-19] 61
D.4.3 Record Keeping Requirements

SECTION E.1 FACILITY OPERATION CONDITIONS 62

New Source Performance Standards (NSPS) Requirements 64
E.1.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR 60, Subpart A]
E.1.2 Standards of Performance for Grain Elevators [40 CFR 60, Subpart DD] [326 IAC 12]

SECTION E.2 FACILITY OPERATION CONDITIONS 65

New Source Performance Standards (NSPS) Requirements 65
E.2.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR 60, Subpart A]
E.2.2 Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units [40 CFR 60, Subpart Dc] [326 IAC 12]

SECTION E.3 FACILITY OPERATION CONDITIONS 66

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements 66
E.3.1 General Provisions Relating to NESHAP GGGG [326 IAC 20-1] [40 CFR Part 63, Subpart A]
E.3.2 Solvent Extraction for Vegetable Oil Production NESHAP [326 IAC 20-60][40 CFR Part 63, Subpart GGGG]

SECTION E.4 FACILITY OPERATION CONDITIONS 68

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements 68
E.4.1 General Provisions Relating to NESHAP ZZZZ [326 IAC 12-1] [40 CFR 63, Subpart A]

DRAFT

E.4.2 National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines [40 CFR Part 63, Subpart ZZZZ] [326 IAC 20]

CERTIFICATION 70

EMERGENCY OCCURRENCE REPORT 71

SEMI-ANNUAL NATURAL GAS FIRED BOILER CERTIFICATION 73

Part 70 Quarterly Report 74

Part 70 Quarterly Report 75

Part 70 Quarterly Report 76

Part 70 Quarterly Report 77

Part 70 Quarterly Report 78

Part 70 Quarterly Report 79

QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT 80

Attachment A - New Source Performance Standards for Grain Elevators [40 CFR 60, Subpart DD]

Attachment B - New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units [40 CFR 60, Subpart Dc]

Attachment C - National Emission Standards for Hazardous Air Pollutants: Solvent Extractions for Vegetable Oil Production [40 CFR 63, Subpart GGGG]

Attachment D - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines [40 CFR 63, Subpart ZZZZ]

DRAFT

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)][326 IAC 2-7-5(14)][326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary soybean oil extraction plant.

Source Address:	1502 Wabash Avenue, Lafayette, Indiana 47905
General Source Phone Number:	(765) 420 - 6612
SIC Code:	2075 (Soybean Oil Mills)
County Location:	Tippecanoe
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Operating Permit Program Major Source, under PSD Rules Major Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)][326 IAC 2-7-5(14)]

This stationary source consists of the following emission units and pollution control devices:

(a) One (1) truck soybean receiving pit, constructed in 1989, with a maximum capacity of 25,000 bushels per hour, controlled by a receiving area baghouse #4 and exhausting at stack point # S-13.

(b) One (1) totally enclosed truck soybean receiving pit drag conveyor (DC-431), constructed in 1989, with a maximum capacity of 25,000 bushels per hour, aspirated to baghouse #10, and exhausting at stack point # S-2.

(c) One (1) totally enclosed soybean receiving pit drag conveyor (DC-432), constructed in 1989, with a maximum capacity of 25,000 bushels per hour, aspirated to baghouse #10, and exhausting at stack point # S-2.

(d) One (1) rail soybean unloading system, constructed in 1956, with a maximum unloading capacity of 12,000 bushels per hour, controlled by baghouse #10 and exhausted at stack point S-2.

(e) One (1) soybean receiving bucket elevator #301, constructed in 1989, with a maximum capacity of 25,000 bushels per hour, controlled by a baghouse #10 and exhausting at stack point # S-2.

(f) Three (3) totally enclosed soybean drag conveyors (DC-441, 442, & 443) operated in series, constructed in 1988, each with a maximum capacity of 25,000 bushels per hour, each aspirated to baghouse #9 and exhausting at stack point # S-1.

DRAFT

(g) One (1) totally enclosed soybean drag conveyor (DC-434), constructed in 1988, with a maximum capacity of 25,000 bushels per hour, aspirated to baghouse #10 and exhausting at stack point # S-2.

(h) Four (4) soybean storage tanks, constructed in the 1950's, with a total capacity of 1,213,000 bushels.

(i) Two (2) totally enclosed soybean drag conveyors (DC-436, & 437) operated in series, constructed in 1988, each with a maximum capacity of 5,000 bushels per hour, each aspirated to baghouse #10 and exhausting at stack point # S-2.

(j) Two (2) totally enclosed soybean drag conveyors (DC-444, & 446) operated in series, constructed in 1988, each with a maximum capacity of 5,000 bushels per hour, each aspirated to baghouse #10 and exhausting at stack point # S-2.

(k) One (1) soybean transfer bucket elevator #303, constructed in 1956, with a maximum capacity of 5,000 bushels per hour, controlled by a baghouse #10 and exhausting at stack point # S-2.

(l) One (1) Texas shaker #2 screener, constructed in 1988, with a maximum capacity of 5,000 bushels per hour, controlled by a baghouse #1 and exhausting at stack point # S-3.

(m) One (1) weed seed Kice, constructed in 1988, with a maximum capacity of 150 bushels per hour, controlled by a baghouse #1 and exhausting at stack point # S-3.

(n) One (1) Kice #1, constructed in 1988, with a maximum capacity of 5,000 bushels per hour, controlled by a baghouse #1 and exhausting at stack point # S-3.

(o) Two (2) totally enclosed soybean drag conveyors (DC-448, & 448A) operated in series, constructed in 1986 (DC-448) and 1996 (DC-448A), each with a maximum capacity of 5,000 bushels per hour, each aspirated to baghouse #1 and exhausting at stack point # S-3.

(p) One (1) totally enclosed soybean screw conveyor (SC212), constructed in 1989 with a maximum capacity of 150 bushels per hour.

(q) One (1) 29 MMBtu natural gas fired soybean column dryer, constructed in 1986, with a maximum capacity of 5,000 bushels per hour and exhausting at stack point # S-20.

(r) Two (2) totally enclosed soybean drag conveyors (DC-449, & 450) operated in series, constructed in 1986, each with a maximum capacity of 5,000 bushels per hour, each aspirated to baghouse #10 and exhausting at stack point # S-2.

(s) One (1) dry soybean transfer bucket elevator #307, constructed in 1986, with a maximum capacity of 5,000 bushels per hour, controlled by a baghouse #9 and exhausting at stack point # S-1.

(t) One (1) totally enclosed dry soybean drag conveyor (DC-453), constructed in 1988, with a maximum capacity of 5,000 bushels per hour, aspirated to baghouse #9 and exhausting at stack point # S-1.

(u) Eighteen (18) soybean bins (501, 502, 503, 506, 507, 508, 511, 512, 513, 516, 517, 518, 521, 522, 523, 526, 527, and 528), constructed in the 1930's, with a maximum total capacity of 261,000 bushels.

DRAFT

(v) Two (2) totally enclosed soybean drag conveyors (DC-454, & 447) operated in series, constructed in 1986, each with a maximum capacity of 5,000 bushels per hour each, each aspirated to baghouse #10 and exhausting at stack point # S-2.

(w) One (1) dry soybean transfer bucket elevator #304, constructed in 1956, with a maximum capacity of 5,000 bushels per hour, controlled by a baghouse #10 and exhausting at stack point # S-2.

(x) One (1) totally enclosed dry soybean drag conveyor (DC-400A), constructed in 1986, with a maximum capacity of 5,000 bushels per hour, aspirated to baghouse #3 and exhausting at stack point # S-7.

(y) One (1) soybean Thayer scale, constructed in 1986, with a maximum capacity of 5000 bushels per hour, controlled by a baghouse #3 and exhausting at stack point # S-7.

(z) Two (2) weed seed bins (#207 & 208) constructed in 1930, with a maximum storage capacity of 14,000 bushels each, a total nominal throughput of 5,000 bushels per day.

(aa) Two (2) totally enclosed soybean screw conveyors (SC 213 & 214), operated in series, constructed in 1986, each with a maximum capacity of 150 bushels per hour.

(bb) Three (3) totally enclosed soybean meal drag conveyors (DC-427, 428, & 429) operated in series, constructed in 1988, each with a maximum capacity of 5,000 bushels per hour each.

(cc) One (1) totally enclosed dry soybean drag conveyor (DC-400), constructed in 1986, with a maximum capacity of 5,000 bushels per hour, aspirated to baghouse #3 and exhausting at stack point # S-7.

(dd) Five (5) soybean surge bins, constructed in 1930, with a total maximum capacity of 22,000 bushels, and a total maximum throughput of 3,350 bushels per hour.

(ee) Five (5) sets of cracking rolls (EU-6), constructed between 1986 and 2004, with a total maximum capacity of 3,350 bushels per hour (100.5 tons per hour), controlled by bag house #3 and exhausted at stack point S-7.

(ff) Two (2) totally enclosed cracked soybean drag conveyor (DC-401 & 403) operated in series, constructed in 1986, each with a maximum capacity of 3350 bushels per hour, aspirated to baghouse #3 and exhausting at stack point # S-7.

(gg) One (1) primary Kice #1, constructed in 1986, with a maximum capacity of 3350 bushels per hour, aspirated to baghouse #3 and exhausting at stack point # S-7.

(hh) Two (2) totally enclosed cracked soybean screw conveyors (SC-201 & 202) operated in series, constructed in 1986, each with a maximum capacity of 3350 bushels per hour, aspirated to baghouse #3 and exhausting at stack point # S-7.

(ii) One (1) triple S shaker, constructed in 1994, with a maximum capacity of 3350 bushels per hour, controlled by a baghouse #3 and exhausting at stack point # S-7.

(jj) One (1) hull grinder, constructed in 1986, with a maximum capacity of 6 tons per hour, controlled by a cyclone #3 and a baghouse #3 and exhausting at stack point # S-7.

(kk) One (1) coarse cut aspiration, constructed in 1994, with a maximum capacity of 150 bushels per hour, controlled by a cyclone #1 and a baghouse #3 and exhausting at stack point # S-7.

(ll) One (1) fine cut aspiration, constructed in 1994, with a maximum capacity of 150 bushels per hour, controlled by a cyclone #2 and a baghouse #3 and exhausting at stack point # S-7.

(mm) One (1) rotary conditioner, constructed in 1982, with a maximum capacity of 3350 bushels per hour, controlled by a cyclone #4 and exhausting at stack point # S-5.

(nn) Four (4) totally enclosed conditioned soybean drag conveyor (DC-404, 405, 406 & 407), constructed in 1986, each with a maximum capacity of 3350 bushels per hour, controlled by a cyclone #4 and exhausting at stack point # S-5.

(oo) Two (2) flaker banks #1 & 2, constructed in 1986, with a maximum total capacity of 100.5 tons per hour, controlled by a cyclone #4 and exhausting at stack point # S-5.

(pp) Two (2) totally enclosed soybean flake screw conveyors (SC-206 & 207), constructed in 1986, with a total maximum capacity of 100.5 tons per hour, controlled by a cyclone #4 and exhausting at stack point # S-5.

(qq) Two (2) expanders (EU-12), constructed in 1986, with a total maximum capacity of 833 bushels per hour (25 ton per hour), controlled by cyclone #4 and exhausted at stack point S-5.

(rr) One (1) totally enclosed soybean flake drag conveyor (DC-409), constructed in 2005, with a maximum capacity 3350 bushels per hour, controlled by a cyclone #4 and exhausting at stack point # S-5.

(ss) One (1) totally enclosed soybean flake drag conveyor (DC-410), constructed in 1986, with a maximum capacity of 100.5 tons per hour and exhausting at steam vents.

(tt) One (1) totally enclosed soybean flake drag conveyor (DC-411), constructed in 1986, with a maximum capacity of 100.5 tons per hour and exhausting at safety vent.

(uu) Two (2) fully enclosed, sealed conveyors, DC-412, and DC-413, and DT seal screw, constructed in 2006, with a maximum total capacity of 3,350 bushels per hour.

(vv) One (1) totally enclosed soybean flake screw conveyor (SC-209), constructed in 1986, with a maximum capacity of 100.5 tons per hour.

(ww) One (1) desolventizer/toaster (EU-16), constructed in 2006 with a maximum capacity of 3,350 bushels per hour controlled by the mineral oil system and exhausted at stack points S-15.

Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.

(xx) One (1) dryer/cooler with three (3) dryer decks and one (1) cooler deck; constructed in 1988 (cooler deck), 1990 (1st dryer deck), 2006 (2nd & 3rd dryer decks), with a maximum total capacity of 3350 bushels per hour, controlled by four (4) integral cyclones identified as # 6, 7, 8, and 9, and exhausted at stack points # S-11, S-12, S-21, and S-25.

Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.

(yy) One (1) totally enclosed soybean meal drag conveyor (DC-414), constructed in 1986, with a maximum capacity of 100.5 tons per hour.

DRAFT

(zz) Two (2) totally enclosed soybean meal drag conveyors (DC 414A & 415), in series, constructed in 1986, each with a maximum capacity of 100.5 tons per hour controlled by a baghouse #2 and exhausting at stack point # S-6.

(aaa) Three (3) meal sifters, constructed in 1986, with a maximum total capacity of 100.5 tons per hour.

(bbb) One (1) totally enclosed oversized soybean meal drag conveyor (DC 416), constructed by 1986, with a maximum capacity of 100.5 tons per hour controlled by a baghouse #2 and exhausting at stack point # S-6.

(ccc) One (1) totally enclosed soybean meal screw conveyor (SC 223), constructed in 1986, with a maximum capacity of 100.5 tons per hour controlled by a baghouse #2 and exhausting at stack point # S-6.

(ddd) Three soybean meal grinders, constructed in 1986, with a maximum total capacity of 100.5 tons per hour controlled by a baghouse #2 and exhausting at stack point # S-6.

(eee) One (1) totally enclosed soybean meal screw conveyor (SC 221), constructed in 1986, with a maximum capacity of 100.5 tons per hour controlled by a baghouse #2 and exhausting at stack point # S-6.

(fff) One (1) totally enclosed soybean meal drag conveyor (DC 417), constructed in 1986, with a maximum capacity of 100.5 tons per hour controlled by a baghouse #2 and exhausting at stack point # S-6.

(ggg) One (1) dry soybean meal transfer bucket elevator (BE 300), constructed in 1986, with a maximum capacity of 100.5 tons per hour controlled by a baghouse #2 and exhausting at stack point # S-6.

(hhh) Two (2) totally enclosed dry soybean meal drag conveyors (DC 418 & 419), in series, constructed in 1986, each with a maximum capacity of 100.5 tons per hour aspirated to a baghouse #2 and exhausting at stack point # S-6.

(iii) One (1) 48% meal tank constructed in 1986 with a maximum capacity of 1,000 tons.

(jjj) One (1) 44% meal tank constructed in 1986 with a maximum capacity of 500 tons.

(kkk) One (1) truck soybean meal and hull loadout system, constructed in 1986, with a maximum capacity of 200 tons per hour and controlled by a baghouse #5 and exhausting at stack point # S-14.

(lll) One (1) rail soybean meal and hull loadout system, constructed in 1986, with a maximum capacity of 200 tons per hour controlled by a baghouse #5 and exhausting at stack point # S-14.

(mmm) One (1) pod grinder, constructed in 1990, with a maximum capacity of 3 tons per hour controlled by baghouse # 10 and exhausted at stack point # S-2.

(nnn) One (1) pneumatic hull conveying system consisting of one material handling filter separator, constructed in 1986, with a maximum capacity of 6 tons per hour and exhausting at stack point # S-4.

(ooo) One (1) first stage rising film evaporator associated with the solvent extraction equipment (EU-13), constructed in 2006, with a maximum capacity of 20 tons of soybean oil per hour and controlled by the mineral oil system and exhausted at stack point S-15.

Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.

(ppp) One (1) Iso-hexane conversion system (involving a rotocell condenser, a refrigerant type cooler with condenser and an additional cooling tower cell and pump),constructed in 2002, and controlled by the mineral oil system and exhausted at stack point S-15.

Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.

(qqq) One (1) mineral oil absorber system, constructed in 1982, with a maximum capacity of 150 pounds of hexane per hour and exhausted at stack point S-15.

Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.

(rrr) One (1) solvent/water separator, constructed in 2002, with a maximum capacity of 600 gallons per minute and controlled by the mineral oil system and exhausted at stack point S-15.

Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.

(sss) One (1) boiler, identified as Boiler #2, constructed in 1996, with a heat input capacity of 75.0 MMBtu per hour, firing natural gas, distillate fuel oil, residual fuel oil, vegetable oil, animal fats ("tallow"), animal oils ("grease") or blends of these fuels. Emissions are exhausted to stack S-17.

Under NSPS, Subpart Dc, this unit is considered to be an affected facility.
Under NESHAP, Subpart DDDDD, this unit is considered to be an affected facility.

(ttt) Two (2) hexane tanks #809 A & B, constructed in 2002 and 2009, with a capacity of 18,800 and 18,800 gallons respectively, vented to the process for control except under emergency conditions when they are vented through the relief valve.

Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.

A.3 Specifically Regulated Insignificant Activities
[326 IAC 2-7-1(21)][326 IAC 2-7-4(c)][326 IAC 2-7-5(14)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

(a) An emission unit or activity whose potential uncontrolled emissions meet the exemption levels specified in 326 IAC 2-1.1-3(e)(1) or the exemption levels specified in the following, whichever is lower:

(1) For volatile organic compounds (VOC), the exemption limit is three (3) pounds per hour or fifteen (15) pounds per day.

And

For units with potential uncontrolled emissions of HAPs, that are not listed as insignificant in clauses (D) through (G) or defined as trivial in subdivision (40), an insignificant activity is any of the following:

(1) Any unit, not regulated by a NESHAP, emitting greater than one (1) pound per day but less than five (5) pounds per day or one (1) ton per year of a single HAP.

DRAFT

Storage tanks emitting less than one (1) ton per year of a single HAP and less than fifteen (15) pounds per day of VOC.

(1) One (1) fuel oil storage tank #815, constructed in 1960, and with a maximum capacity of 125,000 gallons.

(2) One (1) fuel oil storage tank #860, constructed in 2010, with a maximum capacity of 15,000 gallons.

(b) Emissions from a laboratory as defined in this clause. As used in this clause, “laboratory” means a place or activity devoted to experimental study or teaching, or to the testing and analysis of drugs, chemicals, chemical compounds or other substances, or similar activities, provided that the activities described in this clause are conducted on a laboratory scale. Activities are conducted on a laboratory scale if the containers used for reactions, transfers, and other handling of substances are designed to be easily and safely manipulated by one (1) person. If a facility manufactures or produces products for profit in any quantity, it shall not be considered to be a laboratory under this clause. Support activities necessary to the operation of the laboratory are considered to be part of the laboratory. Support activities do not include the provision of power to the laboratory from sources that provide power to multiple projects or from sources that would otherwise require permitting, such as boilers that provide power to an entire facility.

(c) Combustion related activities, including the following:

(1) Space heaters, process heaters, heat treat furnaces, or boilers using the following fuels:
(A) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour.
(B) Propane or liquified petroleum gas or butane-fired combustion sources with heat input equal to or less than six million (6,000,000) British thermal units per hour.

(2) Combustion source flame safety purging on startup.

(3) Equipment powered by diesel fuel fired or natural gas fired internal combustion engines of capacity equal to or less than five hundred thousand (500,000) Btu/hour, except where total capacity of equipment operated by one stationary source exceeds two million (2,000,000) Btu/hour.

(A) One (1) sixty-six (66) horsepower, non-emergency diesel powered air compressor, constructed in 2002, using a maximum of 8.8 gallons of #2 diesel fuel per hour.

Under NESHAP, Subpart ZZZZ, this unit is considered to be an affected facility.

(d) The following VOC and HAP storage containers:

(1) Storage tanks with capacity less than or equal to one thousand (1,000) gallons and annual throughputs equal to or less than twelve thousand (12,000) gallons.

(2) Vessels storing the following:
(A) Lubricating oils.
(B) Hydraulic oils.
(C) Machining fluids.

DRAFT

(e) Cleaners and solvents characterized as:

(1) having a vapor pressure equal to or less than two (2.0) kilo Pascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pound per square inch) measured at thirty-eight (38) degrees Centigrade (one hundred (100) degrees Fahrenheit); or

(2) having a vapor pressure equal to or less than seven-tenths (0.7) kilo Pascal (five (5) millimeters of mercury or one-tenth (0.1) pound per square inch) measured at twenty (20) degrees Centigrade (sixty-eight (68) degrees Fahrenheit);

(3) One (1) parts washing station, constructed in 2002, with a maximum capacity of 145 gallons per year and exhausting inside.

(f) Closed loop heating and cooling systems.

(g) Water based activities, including the following:

(1) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to one percent (1%) by volume.
(A) Noncontact cooling tower systems with either of the following:
(i) Forced and induced draft cooling tower systems not regulated under a NESHAP.

(h) Repair activities, including the following:

(1) Replacement or repair of electrostatic precipitators, bags in baghouses, and filters in other air filtration equipment.

(2) Heat exchanger cleaning and repair.

(3) Process vessel degassing and cleaning to prepare for internal repairs.

(i) Asbestos abatement projects regulated by 326 IAC 14-10.

(j) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including the following:

(1) Catch tanks.

(2) Temporary liquid separators.

(3) Tanks.

(4) Fluid handling equipment.

(k) Blowdown for the following:

(1) Sight glass.

(2) Boiler.

(3) Cooling tower.

(4) Compressors.

DRAFT

(5) Pumps.

(l) Activities associated with emergencies, including the following:

(1) One (1) stationary electronically driven fire pump engine manufactured in the 1960s.

(m) Purge double block and bleed valves.

(n) Paved and unpaved roads and parking lots with public access.

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

(a) It is a major source, as defined in 326 IAC 2-7-1(22);

(b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

DRAFT

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-7-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

B.2 Permit Term [326 IAC 2-7-5(2)][326 IAC 2-1.1-9.5][326 IAC 2-7-4(a)(1)(D)][IC 13-15-3-6(a)]

(a) This permit, T157-34376-00038, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

(b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

B.3 Term of Conditions [326 IAC 2-1.1-9.5]

Notwithstanding the permit term of a permit to construct, a permit to operate, or a permit modification, any condition established in a permit issued pursuant to a permitting program approved in the state implementation plan shall remain in effect until:

(a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or

(b) the emission unit to which the condition pertains permanently ceases operation.

B.4 Enforceability [326 IAC 2-7-7] [IC 13-17-12]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.5 Severability [326 IAC 2-7-5(5)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]

This permit does not convey any property rights of any sort or any exclusive privilege.

B.7 Duty to Provide Information [326 IAC 2-7-5(6)(E)]

(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.

(b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.8 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]

(a) A certification required by this permit meets the requirements of 326 IAC 2-7-6(1) if:

(1) it contains a certification by a "responsible official" as defined by 326 IAC 2-7-1(35), and

(2) the certification states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) The Permittee may use the attached Certification Form, or its equivalent with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.

(c) A "responsible official" is defined at 326 IAC 2-7-1(35).

B.9 Annual Compliance Certification [326 IAC 2-7-6(5)]

(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than July 1 of each year to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

(b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

(c) The annual compliance certification report shall include the following:

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

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and

(5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

DRAFT

The submittal by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

B.10 Preventive Maintenance Plan [326 IAC 2-7-5(12)][326 IAC 1-6-3]

(a) A Preventive Maintenance Plan meets the requirements of 326 IAC 1-6-3 if it includes, at a minimum:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

The Permittee shall implement the PMPs.

(b) If required by specific condition(s) in Section D of this permit where no PMP was previously required, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee’s control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The PMP extension notification does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

The Permittee shall implement the PMPs.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions. The PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(d) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.11 Emergency Provisions [326 IAC 2-7-16]

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

(1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

(2) The permitted facility was at the time being properly operated;

(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance and Enforcement Branch), or
Telephone Number: 317-233-0178 (ask for Office of Air Quality, Compliance and Enforcement Branch)
Facsimile Number: 317-233-6865

(5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

(A) A description of the emergency;

(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

DRAFT

The notification which shall be submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(6) The Permittee immediately took all reasonable steps to correct the emergency.

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

(e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(8) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.

(g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

B.12 Permit Shield [326 IAC 2-7-15][326 IAC 2-7-20][326 IAC 2-7-12]

(a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.

(b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.

(c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.

(d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:

(1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;

(2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;

(3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and

(4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.

(e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).

(f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]

(g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5][326 IAC 2-7-10.5]

(a) All terms and conditions of permits established prior to T157-34376-00038 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

(2) revised under 326 IAC 2-7-10.5, or

(3) deleted under 326 IAC 2-7-10.5.

(b) Provided that all terms and conditions are accurately reflected in this combined permit, all previous registrations and permits are superseded by this combined new source review and part 70 operating permit.

B.14 Termination of Right to Operate [326 IAC 2-7-10][326 IAC 2-7-4(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).

B.15 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)][326 IAC 2-7-8(a)][326 IAC 2-7-9]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or

DRAFT

anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:

(1) That this permit contains a material mistake.

(2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]

(c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.16 Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(42). The renewal application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(b) A timely renewal application is one that is:

(1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and

(2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

(c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes

DRAFT

final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, pursuant to 326 IAC 2-7-4(a)(2)(D), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.17 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12]

(a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.18 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)][326 IAC 2-7-12(b)(2)]

(a) No Part 70 permit revision or notice shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.

(b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

B.19 Operational Flexibility [326 IAC 2-7-20][326 IAC 2-7-10.5]

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b) or (c) without a prior permit revision, if each of the following conditions is met:

(1) The changes are not modifications under any provision of Title I of the Clean Air Act;

(2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;

(3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

DRAFT

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

(5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-7-20(b)(1) and (c)(1). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-7-20(b)(1) and (c)(1).

(b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(37)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

(1) A brief description of the change within the source;

(2) The date on which the change will occur;

(3) Any change in emissions; and

(4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).

(d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ or U.S. EPA is required.

DRAFT

(e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

B.20 Source Modification Requirement [326 IAC 2-7-10.5]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2.

B.21 Inspection and Entry [326 IAC 2-7-6][IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy any records that must be kept under the conditions of this permit;

(c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.22 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

(a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

DRAFT

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)][326 IAC 2-1.1-7]

(a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.

(b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.

(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.24 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314] [326 IAC 1-1-6]

For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.

DRAFT

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-7-5(1)]

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

C.2 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-1 (Applicability) and 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

The Permittee shall not operate an incinerator except as provided in 326 IAC 4-2 or in this permit. The Permittee shall not operate a refuse incinerator or refuse burning equipment except as provided in 326 IAC 9-1-2 or in this permit.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.6 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted. The provisions of 326 IAC 1-7-1(3), 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4, and 326 IAC 1-7-5(a), (b), and (d) are not federally enforceable.

C.7 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least

thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

(1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

(2) If there is a change in the following:

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

(f) Demolition and Renovation
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).

(g) Indiana Licensed Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to

thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

Testing Requirements [326 IAC 2-7-6(1)]

C.8 Performance Testing [326 IAC 3-6]

(a) For performance testing required by this permit, a test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.9 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)]

C.10 Compliance Monitoring [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)][40 CFR 64][326 IAC 3-8]

(a) For new units:
Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units shall be implemented on and after the date of initial start-up.

(b) For existing units:
Unless otherwise specified in this permit, for all monitoring requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance to begin such monitoring. If, due to circumstances beyond the Permittee's control, any monitoring equipment required by this permit cannot be installed and operated no later than ninety (90) days after permit issuance, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality

100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(c) For monitoring required by CAM, at all times, the Permittee shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

(d) For monitoring required by CAM, except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the Permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

C.11 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

(a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale. The analog instrument shall be capable of measuring values outside of the normal range.

(b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

Corrective Actions and Response Steps [326 IAC 2-7-5][326 IAC 2-7-6]

C.12 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

(a) The Permittee shall maintain the most recently submitted written emergency reduction plans (ERPs) consistent with safe operating procedures.

(b) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.13 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]

If a regulated substance, as defined in 40 CFR 68, is present at a source in more than a threshold quantity, the Permittee must comply with the applicable requirements of 40 CFR 68.

C.14 Response to Excursions or Exceedances [40 CFR 64][326 IAC 3-8][326 IAC 2-7-5] [326 IAC 2-7-6]

(I) Upon detecting an excursion where a response step is required by the D Section, or an exceedance of a limitation, not subject to CAM, in this permit:

(a) The Permittee shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.

(b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:

(1) initial inspection and evaluation;

(2) recording that operations returned or are returning to normal without operator action (such as through response by a computerized distribution control system); or

(3) any necessary follow-up actions to return operation to normal or usual manner of operation.

(c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:

(1) monitoring results;

(2) review of operation and maintenance procedures and records; and/or

(3) inspection of the control device, associated capture system, and the process.

(d) Failure to take reasonable response steps shall be considered a deviation from the permit.

(e) The Permittee shall record the reasonable response steps taken.

(II)

(a) CAM *Response to excursions or exceedances.*

(1) Upon detecting an excursion or exceedance, subject to CAM, the Permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized

DRAFT

distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

(2) Determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

(b) If the Permittee identifies a failure to achieve compliance with an emission limitation, subject to CAM, or standard, subject to CAM, for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the Permittee shall promptly notify the IDEM, OAQ and, if necessary, submit a proposed significant permit modification to this permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

(c) Based on the results of a determination made under paragraph (II)(a)(2) of this condition, the EPA or IDEM, OAQ may require the Permittee to develop and implement a QIP. The Permittee shall develop and implement a QIP if notified to in writing by the EPA or IDEM, OAQ.

(d) Elements of a QIP:
The Permittee shall maintain a written QIP, if required, and have it available for inspection. The plan shall conform to 40 CFR 64.8 b (2).

(e) If a QIP is required, the Permittee shall develop and implement a QIP as expeditiously as practicable and shall notify the IDEM, OAQ if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined.

(f) Following implementation of a QIP, upon any subsequent determination pursuant to paragraph (II)(a)(2) of this condition the EPA or the IDEM, OAQ may require that the Permittee make reasonable changes to the QIP if the QIP is found to have:

(1) Failed to address the cause of the control device performance problems; or

(2) Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

(g) Implementation of a QIP shall not excuse the Permittee from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act.

(h) *CAM recordkeeping requirements.*

(1) The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality

improvement plan required pursuant to paragraph (II)(a)(2) of this condition and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this condition (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). Section C - General Record Keeping Requirements of this permit contains the Permittee's obligations with regard to the records required by this condition.

(2) Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements

C.15 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall submit a description of its response actions to IDEM, OAQ no later than seventy-five (75) days after the date of the test.

(b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) days is not practicable, IDEM, OAQ may extend the retesting deadline.

(c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

C.16 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]

Pursuant to 326 IAC 2-6-3(a)(1), the Permittee shall submit by July 1 of each year an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:

(1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);

(2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(33) ("Regulated pollutant, which is used only for purposes of Section 19 of this rule") from the source, for purpose of fee assessment.

The statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue
MC 61-50 IGCN 1003
Indianapolis, Indiana 46204-2251

The emission statement does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

C.17 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2][326 IAC 2-3]

(a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. Support information includes the following, where applicable:

(AA) All calibration and maintenance records.
(BB) All original strip chart recordings for continuous monitoring instrumentation.
(CC) Copies of all reports required by the Part 70 permit.

Records of required monitoring information include the following, where applicable:

(AA) The date, place, as defined in this permit, and time of sampling or measurements.
(BB) The dates analyses were performed.
(CC) The company or entity that performed the analyses.
(DD) The analytical techniques or methods used.
(EE) The results of such analyses.
(FF) The operating conditions as existing at the time of sampling or measurement.

These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Unless otherwise specified in this permit, for all record keeping requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.

(c) If there is a reasonable possibility (as defined in 326 IAC 2-2-8 (b)(6)(A), 326 IAC 2-2-8 (b)(6)(B), 326 IAC 2-3-2 (l)(6)(A), and/or 326 IAC 2-3-2 (l)(6)(B)) that a “project” (as defined in 326 IAC 2-2-1(oo) and/or 326 IAC 2-3-1(jj)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a “major modification” (as defined in 326 IAC 2-2-1(dd) and/or 326 IAC 2-3-1(y)) may result in significant emissions increase and the Permittee elects to utilize the “projected actual emissions” (as defined in 326 IAC 2-2-1(pp) and/or 326 IAC 2-3-1(kk)), the Permittee shall comply with following:

(1) Before beginning actual construction of the “project” (as defined in 326 IAC 2-2-1(oo) and/or 326 IAC 2-3-1(jj)) at an existing emissions unit, document and maintain the following records:

(A) A description of the project.

(B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.

(C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:

(i) Baseline actual emissions;

(ii) Projected actual emissions;

(iii) Amount of emissions excluded under section 326 IAC 2-2-1(pp)(2)(A)(iii) and/or 326 IAC 2-3-1 (kk)(2)(A)(iii); and

(iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.

(d) If there is a reasonable possibility (as defined in 326 IAC 2-2-8 (b)(6)(A) and/or 326 IAC 2-3-2 (l)(6)(A)) that a "project" (as defined in 326 IAC 2-2-1(oo) and/or 326 IAC 2-3-1(jj)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(dd) and/or 326 IAC 2-3-1(y)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(pp) and/or 326 IAC 2-3-1(kk)), the Permittee shall comply with following:

(1) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emissions unit identified in (1)(B) above; and

(2) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity of or the potential to emit that regulated NSR pollutant at the emissions unit.

C.18 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2][326 IAC 2-3] [40 CFR 64][326 IAC 3-8]

(a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of this paragraph. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

On and after the date by which the Permittee must use monitoring that meets the requirements of 40 CFR Part 64 and 326 IAC 3-8, the Permittee shall submit CAM reports to the IDEM, OAQ.

A report for monitoring under 40 CFR Part 64 and 326 IAC 3-8 shall include, at a minimum, the information required under paragraph (a) of this condition and the following information, as applicable:

(1) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;

(2) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime

DRAFT

associated with zero and span or other daily calibration checks, if applicable); and

(3) A description of the actions taken to implement a QIP during the reporting period as specified in Section C-Response to Excursions or Exceedances. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

The Permittee may combine the Quarterly Deviation and Compliance Monitoring Report and a report pursuant to 40 CFR 64 and 326 IAC 3-8.

(b) The address for report submittal is:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

(d) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit “calendar year” means the twelve (12) month period from January 1 to December 31 inclusive.

(e) If the Permittee is required to comply with the recordkeeping provisions of (d) in Section C - General Record Keeping Requirements for any “project” (as defined in 326 IAC 2-2-1 (oo) and/or 326 IAC 2-3-1 (jj)) at an existing emissions unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:

(1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C- General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1 (ww) and/or 326 IAC 2-3-1 (pp), for that regulated NSR pollutant, and

(2) The emissions differ from the preconstruction projection as documented and maintained under Section C - General Record Keeping Requirements (c)(1)(C)(ii).

(f) The report for project at an existing emissions unit shall be submitted no later than sixty (60) days after the end of the year and contain the following:

(1) The name, address, and telephone number of the major stationary source.

(2) The annual emissions calculated in accordance with (d)(1) and (2) in Section C - General Record Keeping Requirements.

(3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3) and/or 326 IAC 2-3-2(c)(3).

DRAFT

(4) Any other information that the Permittee wishes to include in this report such as an explanation as to why the emissions differ from the preconstruction projection.

Reports required in this part shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(g) The Permittee shall make the information required to be documented and maintained in accordance with (c) in Section C- General Record Keeping Requirements available for review upon a request for inspection by IDEM, OAQ. The general public may request this information from the IDEM, OAQ under 326 IAC 17.1.

Stratospheric Ozone Protection

C.19 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with applicable standards for recycling and emissions reduction.

DRAFT

SECTION D.0EMISSIONS UNIT OPERATION CONDITIONS - Source Wide Limitations

Source-Wide Operations

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.0.1 Consent Decree Limitations

Pursuant to the Consent Decree entered by the United States District Court for the District of Minnesota on March 3, 2006 in United States v. Cargill, Inc. No. 05-2037 (D. Minn.), the Permittee shall comply with the following emission limitations:

The Compliance Ration shall be less than or equal to one (1).

D.0.2 State Implementation Plan

Pursuant to the Consent Decree entered by the United States District Court for the District of Minnesota on March 3, 2006 in United States v. Cargill, Inc. No. 05-2037 (D. Minn.), the Permittee shall apply to have the limitations in Condition D.0.1 incorporated into the State Implementation Plan

Compliance Determination Requirements

D.0.3 Volatile Organic Compounds (VOC)

The Permittee shall use the following equation to determine compliance with Condition D.0.1:

Specialty Solvent Loss Factor	Conventional Solvent Loss Factor
1.0 gal/ton	0.175 gal/ton

$$ComplianceRatio = \frac{ActualSolventLoss}{\sum_{i=1}^{n}\left(\left(Oilseed\right)_i * \left(SLF\right)_i\right)}$$

Where:

Actual Solvent Loss =	Gallons of actual solvent loss during previous 12 operating months.
Oilseed =	Tons of each oilseed type "i" (Specialty and Conventional) processed during the previous 12 operating months.
SLF =	The corresponding solvent loss ratio limit (gal/ton) for oilseed "i" listed in above Table.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.0.4 Record Keeping Requirement

(a) To document the compliance status with Condition D.0.1, the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken as stated below and shall be complete and sufficient to establish compliance with the Compliance Ratio established in Condition D.0.1.

(1) Gallons of actual solvent loss during previous 12 operating months.

(2) Types of oilseed processed during the previous 12 operating months.

DRAFT

(3) Tons of each oilseed type "i" (Specialty and Conventional) processed during the previous 12 operating months.

(b) Section C - General Record Keeping Requirements contains the Permittee's obligation with regard to the records required by this condition.

D.0.5 Reporting Requirements

(a) A semi-annual summary of the information to document the compliance status with Condition D.0.1 shall be submitted not later than thirty (30) days after the end of the six (6) month period being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The reports submitted by the Permittee do require a certification that meets the requirements of 326 IAC 2-7-6 by an "authorized individual" as defined by 326 IAC 2-7-1(35).

DRAFT

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS - Soybean Processing Facilities

Emissions Unit Description:

(a) One (1) truck soybean receiving pit, constructed in 1989, with a maximum capacity of 25,000 bushels per hour, controlled by a receiving area baghouse #4 and exhausting at stack point # S-13.

(b) One (1) totally enclosed truck soybean receiving pit drag conveyor (DC-431), constructed in 1989, with a maximum capacity of 25,000 bushels per hour, aspirated to baghouse #10, and exhausting at stack point # S-2.

(c) One (1) totally enclosed soybean receiving pit drag conveyor (DC-432), constructed in 1989, with a maximum capacity of 25,000 bushels per hour, aspirated to baghouse #10, and exhausting at stack point # S-2.

(d) One (1) rail soybean unloading system, constructed in 1956, with a maximum unloading capacity of 12,000 bushels per hour, controlled by baghouse #10 and exhausted at stack point S-2.

(e) One (1) soybean receiving bucket elevator #301, constructed in 1989, with a maximum capacity of 25,000 bushels per hour, controlled by a baghouse #10 and exhausting at stack point # S-2.

(f) Three (3) totally enclosed soybean drag conveyors (DC-441, 442, & 443) operated in series, constructed in 1988, each with a maximum capacity of 25,000 bushels per hour, each aspirated to baghouse #9 and exhausting at stack point # S-1.

(g) One (1) totally enclosed soybean drag conveyor (DC-434), constructed in 1988, with a maximum capacity of 25,000 bushels per hour, aspirated to baghouse #10 and exhausting at stack point # S-2.

(h) Four (4) soybean storage tanks, constructed in the 1950's, with a total capacity of 1,213,000 bushels.

(i) Two (2) totally enclosed soybean drag conveyors (DC-436, & 437) operated in series, constructed in 1988, each with a maximum capacity of 5,000 bushels per hour, each aspirated to baghouse #10 and exhausting at stack point # S-2.

(j) Two (2) totally enclosed soybean drag conveyors (DC-444, & 446) operated in series, constructed in 1988, each with a maximum capacity of 5,000 bushels per hour, each aspirated to baghouse #10 and exhausting at stack point # S-2.

(k) One (1) soybean transfer bucket elevator #303, constructed in 1956, with a maximum capacity of 5,000 bushels per hour, controlled by a baghouse #10 and exhausting at stack point # S-2.

(l) One (1) Texas shaker #2 screener, constructed in 1988, with a maximum capacity of 5,000 bushels per hour, controlled by a baghouse #1 and exhausting at stack point # S-3.

(m) One (1) weed seed Kice, constructed in 1988, with a maximum capacity of 150 bushels per hour, controlled by a baghouse #1 and exhausting at stack point # S-3.

(n) One (1) Kice #1, constructed in 1988, with a maximum capacity of 5,000 bushels per hour, controlled by a baghouse #1 and exhausting at stack point # S-3.

(o) Two (2) totally enclosed soybean drag conveyors (DC-448, & 448A) operated in series, constructed in 1986 (DC-448) and 1996 (DC-448A), each with a maximum capacity of 5,000 bushels per hour, each aspirated to baghouse #1 and exhausting at stack point # S-3.

(p) One (1) totally enclosed soybean screw conveyor (SC212), constructed in 1989 with a maximum capacity of 150 bushels per hour.

(q) One (1) 29 MMBtu natural gas fired soybean column dryer, constructed in 1986, with a maximum capacity of 5,000 bushels per hour and exhausting at stack point # S-20.

(r) Two (2) totally enclosed soybean drag conveyors (DC-449, & 450) operated in series, constructed in 1986, each with a maximum capacity of 5,000 bushels per hour, each aspirated to baghouse #10 and exhausting at stack point # S-2.

(s) One (1) dry soybean transfer bucket elevator #307, constructed in 1986, with a maximum capacity of 5,000 bushels per hour, controlled by a baghouse #9 and exhausting at stack point # S-1.

(t) One (1) totally enclosed dry soybean drag conveyor (DC-453), constructed in 1988, with a maximum capacity of 5,000 bushels per hour, aspirated to baghouse #9 and exhausting at stack point # S-1.

(u) Eighteen (18) soybean bins (501, 502, 503, 506, 507, 508, 511, 512, 513, 516, 517, 518, 521, 522, 523, 526, 527, and 528), constructed in the 1930's, with a maximum total capacity of 261,000 bushels.

(v) Two (2) totally enclosed soybean drag conveyors (DC-454, & 447) operated in series, constructed in 1986, each with a maximum capacity of 5,000 bushels per hour each, each aspirated to baghouse #10 and exhausting at stack point # S-2.

(w) One (1) dry soybean transfer bucket elevator #304, constructed in 1956, with a maximum capacity of 5,000 bushels per hour, controlled by a baghouse #10 and exhausting at stack point # S-2.

(x) One (1) totally enclosed dry soybean drag conveyor (DC-400A), constructed in 1986, with a maximum capacity of 5,000 bushels per hour, aspirated to baghouse #3 and exhausting at stack point # S-7.

(y) One (1) soybean Thayer scale, constructed in 1986, with a maximum capacity of 5000 bushels per hour, controlled by a baghouse #3 and exhausting at stack point # S-7.

(z) Two (2) weed seed bins (#207 & 208) constructed in 1930, with a maximum storage capacity of 14,000 bushels each, a total nominal throughput of 5,000 bushels per day.

(aa) Two (2) totally enclosed soybean screw conveyors (SC 213 & 214), operated in series, constructed in 1986, each with a maximum capacity of 150 bushels per hour.

(bb) Three (3) totally enclosed soybean meal drag conveyors (DC-427, 428, & 429) operated in series, constructed in 1988, each with a maximum capacity of 5,000 bushels per hour each.

(cc) One (1) totally enclosed dry soybean drag conveyor (DC-400), constructed in 1986, with a maximum capacity of 5,000 bushels per hour, aspirated to baghouse #3 and exhausting at stack point # S-7.

(dd) Five (5) soybean surge bins, constructed in 1930, with a total maximum capacity of 22,000

bushels, and a total maximum throughput of 3,350 bushels per hour.

(ee) Five (5) sets of cracking rolls (EU-6), constructed between 1986 and 2004, with a total maximum capacity of 3,350 bushels per hour (100.5 tons per hour), controlled by bag house #3 and exhausted at stack point S-7.

(ff) Two (2) totally enclosed cracked soybean drag conveyor (DC-401 & 403) operated in series, constructed in 1986, each with a maximum capacity of 3350 bushels per hour, aspirated to baghouse #3 and exhausting at stack point # S-7.

(gg) One (1) primary Kice #1, constructed in 1986, with a maximum capacity of 3350 bushels per hour, aspirated to baghouse #3 and exhausting at stack point # S-7.

(hh) Two (2) totally enclosed cracked soybean screw conveyors (SC-201 & 202) operated in series, constructed in 1986, each with a maximum capacity of 3350 bushels per hour, aspirated to baghouse #3 and exhausting at stack point # S-7.

(ii) One (1) triple S shaker, constructed in 1994, with a maximum capacity of 3350 bushels per hour, controlled by a baghouse #3 and exhausting at stack point # S-7.

(jj) One (1) hull grinder, constructed in 1986, with a maximum capacity of 6 tons per hour, controlled by a cyclone #3 and a baghouse #3 and exhausting at stack point # S-7.

(kk) One (1) coarse cut aspiration, constructed in 1994, with a maximum capacity of 150 bushels per hour, controlled by a cyclone #1 and a baghouse #3 and exhausting at stack point # S-7.

(ll) One (1) fine cut aspiration, constructed in 1994, with a maximum capacity of 150 bushels per hour, controlled by a cyclone #2 and a baghouse #3 and exhausting at stack point # S-7.

(mm) One (1) rotary conditioner, constructed in 1982, with a maximum capacity of 3350 bushels per hour, controlled by a cyclone #4 and exhausting at stack point # S-5.

(nn) Four (4) totally enclosed conditioned soybean drag conveyor (DC-404, 405, 406 & 407), constructed in 1986, each with a maximum capacity of 3350 bushels per hour, controlled by a cyclone #4 and exhausting at stack point # S-5.

(oo) Two (2) flaker banks #1 & 2, constructed in 1986, with a maximum total capacity of 100.5 tons per hour, controlled by a cyclone #4 and exhausting at stack point # S-5.

(pp) Two (2) totally enclosed soybean flake screw conveyors (SC-206 & 207), constructed in 1986, with a total maximum capacity of 100.5 tons per hour, controlled by a cyclone #4 and exhausting at stack point # S-5.

(qq) Two (2) expanders (EU-12), constructed in 1986, with a total maximum capacity of 833 bushels per hour (25 ton per hour), controlled by cyclone #4 and exhausted at stack point S-5.

(rr) One (1) totally enclosed soybean flake drag conveyor (DC-409), constructed in 2005, with a maximum capacity 3350 bushels per hour, controlled by a cyclone #4 and exhausting at stack point # S-5.

(ss) One (1) totally enclosed soybean flake drag conveyor (DC-410), constructed in 1986, with a maximum capacity of 100.5 tons per hour and exhausting at steam vents.

(tt) One (1) totally enclosed soybean flake drag conveyor (DC-411), constructed in 1986, with a maximum capacity of 100.5 tons per hour and exhausting at safety vent.

(uu) Two (2) fully enclosed, sealed conveyors, DC-412, and DC-413, and DT seal screw, constructed in 2006, with a maximum total capacity of 3,350 bushels per hour.

(vv) One (1) totally enclosed soybean flake screw conveyor (SC-209), constructed in 1986, with a maximum capacity of 100.5 tons per hour.

(ww) One (1) desolventizer/toaster (EU-16), constructed in 2006 with a maximum capacity of 3,350 bushels per hour controlled by the mineral oil system and exhausted at stack points S-15.

Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.

(xx) One (1) dryer/cooler with three (3) dryer decks and one (1) cooler deck; constructed in 1988 (cooler deck), 1990 (1st dryer deck), 2006 (2nd & 3rd dryer decks), with a maximum total capacity of 3350 bushels per hour, controlled by four (4) integral cyclones identified as # 6, 7, 8, and 9, and exhausted at stack points # S-11, S-12, S-21, and S-25.

Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.

(yy) One (1) totally enclosed soybean meal drag conveyor (DC-414), constructed in 1986, with a maximum capacity of 100.5 tons per hour.

(zz) Two (2) totally enclosed soybean meal drag conveyors (DC 414A & 415), in series, constructed in 1986, each with a maximum capacity of 100.5 tons per hour controlled by a baghouse #2 and exhausting at stack point # S-6.

(aaa) Three (3) meal sifters, constructed in 1986, with a maximum total capacity of 100.5 tons per hour.

(bbb) One (1) totally enclosed oversized soybean meal drag conveyor (DC 416), constructed by 1986, with a maximum capacity of 100.5 tons per hour controlled by a baghouse #2 and exhausting at stack point # S-6.

(ccc) One (1) totally enclosed soybean meal screw conveyor (SC 223), constructed in 1986, with a maximum capacity of 100.5 tons per hour controlled by a baghouse #2 and exhausting at stack point # S-6.

(ddd) Three soybean meal grinders, constructed in 1986, with a maximum total capacity of 100.5 tons per hour controlled by a baghouse #2 and exhausting at stack point # S-6.

(eee) One (1) totally enclosed soybean meal screw conveyor (SC 221), constructed in 1986, with a maximum capacity of 100.5 tons per hour controlled by a baghouse #2 and exhausting at stack point # S-6.

(fff) One (1) totally enclosed soybean meal drag conveyor (DC 417), constructed in 1986, with a maximum capacity of 100.5 tons per hour controlled by a baghouse #2 and exhausting at stack point # S-6.

(ggg) One (1) dry soybean meal transfer bucket elevator (BE 300), constructed in 1986, with a maximum capacity of 100.5 tons per hour controlled by a baghouse #2 and exhausting at stack point # S-6.

(hhh) Two (2) totally enclosed dry soybean meal drag conveyors (DC 418 & 419), in series, constructed in 1986, each with a maximum capacity of 100.5 tons per hour aspirated to a baghouse #2 and exhausting at stack point # S-6.

(iii) One (1) 48% meal tank constructed in 1986 with a maximum capacity of 1,000 tons.

(jjj) One (1) 44% meal tank constructed in 1986 with a maximum capacity of 500 tons.

(kkk) One (1) truck soybean meal and hull loadout system, constructed in 1986, with a maximum capacity of 200 tons per hour and controlled by a baghouse #5 and exhausting at stack point # S-14.

(lll) One (1) rail soybean meal and hull loadout system, constructed in 1986, with a maximum capacity of 200 tons per hour controlled by a baghouse #5 and exhausting at stack point # S-14.

(mmm) One (1) pod grinder, constructed in 1990, with a maximum capacity of 3 tons per hour controlled by baghouse # 10 and exhausted at stack point # S-2.

(nnn) One (1) pneumatic hull conveying system consisting of one material handling filter separator, constructed in 1986, with a maximum capacity of 6 tons per hour and exhausting at stack point # S-4.

(ooo) One (1) first stage rising film evaporator associated with the solvent extraction equipment (EU-13), constructed in 2006, with a maximum capacity of 20 tons of soybean oil per hour and controlled by the mineral oil system and exhausted at stack point S-15.

Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.

(ppp) One (1) Iso-hexane conversion system (involving a rotocell condenser, a refrigerant type cooler with condenser and an additional cooling tower cell and pump),constructed in 2002, and controlled by the mineral oil system and exhausted at stack point S-15.

Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.

(qqq) One (1) mineral oil absorber system, constructed in 1982, with a maximum capacity of 150 pounds of hexane per hour and exhausted at stack point S-15.

Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.

(rrr) One (1) solvent/water separator, constructed in 2002, with a maximum capacity of 600 gallons per minute and controlled by the mineral oil system and exhausted at stack point S-15.

Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.

(sss) One (1) boiler, identified as Boiler #2, constructed in 1996, with a heat input capacity of 75.0 MMBtu per hour, firing natural gas, distillate fuel oil, residual fuel oil, vegetable oil, animal fats ("tallow"), animal oils ("grease") or blends of these fuels. Emissions are exhausted to stack S-17.

Under NSPS, Subpart Dc, this unit is considered to be an affected facility.
Under NESHAP, Subpart DDDDD, this unit is considered to be an affected facility.

(ttt) Two (2) hexane tanks #809 A & B, constructed in 2002 and 2009, with a capacity of 18,800 and 18,800 gallons respectively, vented to the process for control except under emergency conditions when they are vented through the relief valve.

Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.

DRAFT

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 PSD Minor Limit [326 IAC 2-2]

Pursuant to SSM 157-11361-00038, issued on December 3, 2001 and as modified by SPM 157-36605-00038:

(a) The soybean received by the plant shall be limited to 871,250 tons per twelve (12) consecutive month period, with compliance demonstrated at the end of each month. This soybean limitation is required to limit the potential to emit of PM and PM_{10} emissions of 140.2 and 72.6 tons per twelve (12) consecutive months, respectively.

(b) The soybean processed by the plant shall be limited to 821,250 tons per twelve (12) consecutive month period, with compliance demonstrated at the end of each month. This soybean limitation is required to limit the potential to emit of PM and PM_{10} emissions of 140.2 and 72.6 tons per twelve (12) consecutive months, respectively.

(c) The soybean received by the dump bed trucks shall be limited to 82,125 tons per twelve (12) consecutive month period, with compliance demonstrated at the end of each month.

(d) The total natural gas or natural gas equivalent to Boiler no. 2 shall not exceed 794.13 million cubic feet per year.

(e) The following facilities' PM and PM_{10} emissions rates shall be limited as follows:

Facility	Control	Air Flow Rate Limit (dscfm)	Grain Loading Limit (gr/dscf)	PM Limit (lbs/hour)	PM_{10} Limit (lbs/hour)
Grain receiving system (Truck Soybean Receiving Pit)	Baghouse #4	14,000	0.003	0.360	0.360
Grain storage loading (bin vent emissions resulting from filling the four soybean storage tanks and 18 soybean storage bins from the grain receiving system)	No PM/PM10 control device	infinite	0.01	15.0	8.36
Grain storage unloading (DC-431, DC-432, rail soybean unloading system, bucket elevator #301, DC-434, DC-436, DC-437, DC-444, DC-446, bucket elevator #303, DC-454, DC-447, bucket elevator #304, DC-449, DC-450, and a pod grinder)	Baghouse #10	24,000	0.003	0.617	0.617
Bean screener (Texas shaker #2 screen, weed seed Kice, Kice #1, DC-448, and DC-448A)	Baghouse #1	14,000	0.0033	0.136	0.4

DRAFT

Facility	Control	Air Flow Rate Limit (dscfm)	Grain Loading Limit (gr/dscf)	PM Limit (lbs/hour)	PM_{10} Limit (lbs/hour)
Grain tanks and silos loading (bin vent emissions resulting from filling the four soybean storage tanks and 18 soybean storage bins from the column dryer)	No PM/PM10 control device	-	-	3.05	1.72
Grain tanks and silos unloading (DC-441, DC-442, DC-443, bucket elevator #307, and DC-453)	Baghouse #9	16,200	0.003	0.417	0.417
Soybean cracking & hulling system (Soybean Thayer scale, DC-400A, DC-400, EU-6, DC-401, DC-403, primary Kice #1, SC-201, SC-202, triple S shaker, hull grinder, coarse cut aspiration, and fine cut aspiration)	Baghouse #3	21,000	0.03	0.540	0.540
Soybean flaking (rotary conditioner, DC-404, DC-405, DC-406, DC-407, flaker banks 1 & 2, SC-206, SC-207, EU-12, and DC-409)	Cyclone #4	17,000	0.006	0.874	0.874
Hull transfer (pneumatic hull conveying system)	No PM/PM10 control device	320	0.003	0.008	0.008
DTDC meal dryers	Integral Cyclone #6	10,000	0.007	0.600	0.600
DTDC meal dryers	Integral Cyclone #7	10,000	0.007	0.600	0.600
Meal coolers	Integral Cyclone #8	8,000	0.015 (PM) 0.019(PM_{10})	1.029	1.30
Meal coolers	Integral Cyclone #9	8,000			
Meal sizing and grinding (DC-414A, DC-415, DC-416, SC-223, 3 soybean meal grinders, SC-221, DC-417, BE-300, DC-418, and DC-419)	Baghouse #2	5,500	0.005	0.236	0.236
Truck and Rail soybean meal and hull loadout systems	Baghouse #5	16,000	0.004	0.549	0.549
Hull blend back (pneumatic hull conveying system)	No PM/PM10 control device	320	0.01	0.027	0.027
Boiler no. 2	No PM/PM10 control device	794.13 Million cubic feet of natural gas or equivalent	-	7.60 lb per MMCF	7.60 lb per MMCF

DRAFT

Compliance with the above limits shall limit the PM and PM_{10} emissions from the project permitted under SSM 157-11361-00038 to less than twenty-five (25) and fifteen (15) tons per twelve (12) consecutive month period, respectively, and render the requirements of 326 IAC 2-2 not applicable to SSM 157-11361-00038 for PM and PM_{10}.

D.1.2 Best Available Control Technology (BACT) [326 IAC 2-2-3] [326 IAC 8-1-6]

Pursuant to 326 IAC 2-2-3 (BACT Requirements) as determined in SSM 157-11361-00038, the Permittee shall control volatile organic compound (VOC) emissions from the conventional and the specialty soybean oil extraction processes as follows:

(a)

Facility	Control	VOC (Hexane) Emission Limit
Oil extractor	Mineral oil absorber system	0.012 gal/ton soybean
Meal dryers	No VOC control device	0.0042 gal/ton soybean
Meal cooler	No VOC control device	0.0 gal/ton soybean
Whole soybean extraction plant		0.503 gals/ton soybean processed
Maximum annual soybean process throughput		821,250 tons

(b) BACT for fugitive hexane loss shall include an annual leak check in accordance with Cargill's standard operating procedures accompanied by continuous monitoring of the process area by flammable gas monitors. The leak check shall be conducted in conjunction with the annual maintenance shutdown of the facility.

For emergency repairs and/or maintenance completed between annual maintenance shutdowns, a leak check shall be completed on the affected system before hexane is reintroduced into the system. Any leaks detected shall be repaired prior to introducing hexane into the system.

(1) The Permittee shall immediately tag all detected leaks with a weatherproof and readily visible identification tag with a distinct number. Once a leaking component is detected, first-attempt repairs must be done within five days and be completed within 15 days of detecting the leaking components. If the repair can not be accomplished within 15 days, then the Permittee shall send a notice of inability to repair to the OAQ within 20 days of detecting the leak. The notice must be received by the Compliance Branch, Office of Air Quality, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, IN 46204-2251 within 20 days after the leak was detected. At a minimum the notice shall include the following:

(A) Equipment, operator, and instrument identification number, and date of leak detection

(B) Measured concentration (ppm) and background (ppm)

(C) Leak identification number associated with the corresponding tag

(D) Reason of inability to repair within 5 to 15 days of detection

D.1.3 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from each of following operations shall not exceed the pound per hour limit listed in the table below:

Unit	Process Weight Rate (ton/hr)	PM Limit (lb/hr)
Truck Soybean receiving pit	750	73.93
DC-431	750	73.93
DC-432	750	73.93
rail soybean unloading system	360	65.09
soybean receiving bucket elevator #301	750	73.93
DC-441	750	73.93
DC-442	750	73.93
DC-443	750	73.93
DC-434	750	73.93
DC-436	150	55.44
DC-437	150	55.44
DC-444	150	55.44
DC-446	150	55.44
soybean transfer bucket elevator #303	150	55.44
Texas shaker #2 screener	150	55.44
weed seed Kice	4.5	49.19
Kice #1	150	55.44
DC-448	150	55.44
DC-448A	150	55.44
DC-449	150	55.44
DC-450	150	55.44
soybean transfer bucket elevator #307	150	55.44
DC-453	150	55.44
DC-454	150	55.44
DC-447	150	55.44
dry soybean transfer bucket elevator #304	150	55.44
DC-400A	150	55.44
soybean Thayer scale	150	55.44
DC-400	150	55.44
Cracker Roll 1 (EU-6)	20.1	30.61
Cracker Roll 2 (EU 6)	20.1	30.61
Cracker Roll 3 (EU 6)	20.1	30.61
Cracker Roll 4 (EU 6)	20.1	30.61
Cracker Roll 5 (EU 6)	20.1	30.61
DC-401	100.5	51.33
DC-403	100.5	51.33
primary Kice #1	100.5	51.33
SC-201	100.5	51.33
SC-202	100.5	51.33
triple S shaker	100.5	51.33

DRAFT

Unit	Process Weight Rate (ton/hr)	PM Limit (lb/hr)
hull grinder	6	13.62
coarse cut aspiration	4.5	11.23
fine cut aspiration	4.5	11.23
DC-414A	100.5	51.33
DC-415	100.5	51.33
DC-416	100.5	51.33
SC-223	100.5	51.33
Meal grinder #1	33.5	40.93
Meal grinder #2	33.5	40.93
Meal grinder #3	33.5	40.93
SC-221	100.5	51.33
DC-417	100.5	51.33
BE-300	100.5	51.33
DC-418	100.5	51.33
DC-419	100.5	51.33
truck soybean meal & hull loadout system	200	58.51
rail soybean meal & hull loadout system	200	58.51
pod grinder	3	8.56
rotary conditioner	100.5	51.33
DC-404	100.5	51.33
DC-405	100.5	51.33
DC-406	100.5	51.33
DC-407	100.5	51.33
flaker bank #1 & #2	100.5	51.33
SC-206	100.5	51.33
SC-207	100.5	51.33
EU-12	25	35.43
DC-409	100.5	51.33
Column dryer	150	55.44
4 soybean storage tanks	93.75	50.63
SC-212	4.5	11.23
18 storage bins	93.75	50.63
2 weed seed bins (207 & 208)	150	55.44
SC-213	4.5	11.23
SC-214	4.5	11.23
DC-427	150	55.44
DC-428	150	55.44
DC-429	150	55.44
5 surge bins	100.5	51.33
DC-410	100.5	51.33
DC-411	100.5	51.33
DC-412, DC-413, DC seal screw	100.5	51.33
SC-209	100.5	51.33
DC-414	100.5	51.33
3 meal sifters	100.5	51.33
pneumatic hull conveying system	6	13.62

The pounds per hour limitations were calculated using the following equations:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 55.0\ P^{0.11} - 40$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

The baghouses and cyclones used for control shall be in operation at all times their associated units are in operation, in order to comply with these limits. The column dryer, DC-412, DC-413, DC seal screw, SC-209, DC-414, and the 3 meal sifters shall have a control device installed in order to comply with these limits.

D.1.4 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for this facility and any control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements [326 IAC 2-7-5(1)]

D.1.5 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11] [40 CFR 60, Subpart DD]

(a) In order to demonstrate compliance with Conditions D.1.1 and D.1.3 and 40 CFR 60, Subpart DD (New Source Performance Standards for Grain Elevators), the Permittee shall perform PM and PM_{10} testing of the following:

Receiving area (baghouse #4)
Receiving area (baghouse #10)
Storage tank area (baghouse #9)
Screening area (baghouse #1)
Cracking system (baghouse #3)
Meal sizing and screening (baghouse #2)
Flaking (Cyclone #4)
DTDC meal dryer #1 (Cyclone #6)
DTDC meal cooler #1 (Cyclone #8)
Hull storage (Cyclone #3)

utilizing methods approved by the Commissioner at least once every five (5) years from the date of the most recent valid compliance demonstration.

(b) In order to demonstrate compliance with Condition D.1.2, the Permittee shall perform VOC testing of the Mineral oil absorber utilizing methods approved by the Commissioner at least once every five (5) years from the date of the most recent valid compliance demonstration.

(c) Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

DRAFT

D.1.6 VOC (BACT) Compliance [326 IAC 2-2]

Compliance with Condition D.1.2 shall be demonstrated within 30 days of the end of each month by determining the average of twelve (12) consecutive month period of the followings:

(a) The amount of VOC (hexane) used per calendar month.

(b) The amounts of soybean processed by the conventional and specialty processes.

(c) The gallons of hexane used per ton of soybean processed by the conventional and specialty processes.

D.1.7 Solvent Loss Ratio [326 IAC 2-2] [40 CFR 64]

Compliance with Condition D.1.2 shall be demonstrated within 30 days of the end of each month by determining the average of twelve (12) consecutive month period in the following manner:

Calculate a compliance ratio, which compares the actual VOC loss to the allowable VOC loss for the previous twelve (12) months. The equation to calculate a compliance ratio follows:

(a) Compliance Ratio = (Actual VOC loss) / (Allowable VOC loss) (Eq. 1)

(b) Equation 1 can also be expressed as a function of total solvent loss as shown in Equation 2.

(c) Compliance Ratio = [f * Actual Solvent Loss] /
1.00[{(Soybean processed)$_C$ * (SLF_C)} +
{(Soybean processed)$_S$ * (SLF_S)}] (Eq. 2)

f = The weighted average volume fraction of VOC in solvent received during the previous twelve (12) operating months, dimensionless

1.00 = The average volume fraction of VOC in solvent in the baseline performance data, dimensionless

Actual Solvent Loss = Gallons of actual solvent loss during previous twelve (12) operating month

SLF_S = 1.5 gals/ton (for new source, specialty soybean process)

SLF_C = 0.2 gals/ton (for existing source, conventional soybean process)

D.1.8 Particulate Matter (PM) and Particulate Matter 10 (PM_{10})

In order to assure compliance with Conditions D.1.1 and D.1.3, the baghouses and cyclones shall be in operation and control emissions from the associated facilities at all times when the associated facilities are in operation.

Compliance Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)]

D.1.9 Visible Emissions Notations

(a) Visible emission notations of the stack exhaust S-13, S-2, S-1, S-3, S-20, S-7, S-5, S-11, S-12, S-21, S-25, S-6, S-14, and S-4 shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not

counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take reasonable response. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

D.1.10 Broken or Failed Bag Detection

(a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

(b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the process line. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Bag failure can be indicated by a significant drop in the baghouse's pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

D.1.11 Cyclone Failure

In the event that cyclone failure has been observed:

Failed units and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). Failure to take response steps shall be considered a deviation from this permit.

D.1.12 Mineral Oil Absorber [40 CFR 64]

(a) The absorber shall operate at all times the oil extractor process is in operation within the mineral oil flow rate range of five (5) to thirty (30) gallons per minute or the average flow rate determined during the latest VOC (hexane) compliance test.

(b) The Permittee shall monitor and record the mineral oil flow rate at least once per day. The Preventive Maintenance Plan for the absorber shall contain troubleshooting contingency and corrective actions for when the flow rate readings are outside of the normal range for any one reading.

(c) The instruments used for determining the flow rate shall be subject to approval by IDEM, OAQ, and shall be calibrated or replaced at least once every six (6) months.

DRAFT

(d) The gauge employed to take the mineral oil flow across the scrubber shall have a scale such that the expected normal reading shall be no less than 20 percent of full scale and be accurate within ± 10% of full scale reading. The instrument shall be quality assured and maintained as specified by the vendor.

(e) In the event that the absorber's failure has been observed, an inspection will be conducted. Based upon the findings of the inspection, any corrective actions will be devised within twenty-four (24) hours of discovery and will include a timetable for completion.

(f) The mineral oil to the mineral oil stripping column shall be kept at a minimum of 180^0F for adequate stripping of the absorbed hexane from the oil. When the process is in operation, an electronic data management system (EDMS) shall record the instantaneous temperature on a frequency of not less than every two hours. As an alternate to installing an EDMS, manual readings shall be taken every two hours.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.13 Record Keeping Requirements

(a) To document the compliance status with Conditions D.1.1 and D.1.3 the Permittee shall maintain daily records of the visible emission notations of the stack exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation (e.g. the process did not operate that day).

(b) To document the compliance status with Condition D.1.2(a), the Permittee shall maintain records of the following as required under Conditions D.1.6 and D.1.12:

(1) The amount of VOC (hexane) used per calendar month.

(2) The amounts of soybean processed by the conventional and specialty processes.

(3) The gallons of hexane used per ton of soybean processed by the conventional and specialty processes.

(4) The daily record of the mineral oil flow rate.

(5) The events of the absorber’s failure, findings of the inspections subsequent to absorber’s failure, the corrective actions taken, and the time table for completion.

(6) The operating temperatures of the mineral oil absorber.

(7) The temperature of the mineral oil stripping column.

(c) To document the compliance status with Condition D.1.2(b):

(1) The Permittee shall maintain records of the following to verify compliance with the enhanced inspection, maintenance, and repair program.

(A) Equipment inspected;

(B) Date of inspection; and

(C) Determination of whether a leak was detected.

DRAFT

(2) If a leak is detected, the Permittee shall record the following information to verify compliance with the enhanced inspection, maintenance, and repair program.

(A) The equipment, operator, and instrument identification number;

(B) Measured concentration;

(C) Leak identification number associated with the corresponding tag;

(D) Date of repair;

(E) Reason for non-repair if unable to repair within 5 to 15 days of detection;

(F) Maintenance recheck if repaired-date, concentration, background; and

(G) Any appropriate comments.

(d) To document the compliance status with Condition D.1.2(a), the Permittee shall maintain records of the solvent loss ratio and all information used to calculate the ratio as required under Condition D.1.7.

(e) Section C - General Record Keeping Requirements contains the Permittee's obligation with regard to the records required by this condition.

D.1.14 Reporting Requirements

(a) A quarterly summary of the information to document the compliance status with Conditions D.1.1(a), (b), and (c) shall be submitted not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6 by a "Responsible Official" as defined by 326 IAC 2-7-1(35).

(b) A quarterly summary of the information to document the compliance status with Condition D.1.2(a) shall be submitted not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6 by a "Responsible Official" as defined by 326 IAC 2-7-1(35).

DRAFT

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS - Boiler

Emissions Unit Description:

(sss) One (1) boiler, identified as Boiler #2, constructed in 1996, with a heat input capacity of 75.0 MMBtu per hour, firing natural gas, distillate fuel oil, residual fuel oil, vegetable oil, animal fats ("tallow"), animal oils ("grease") or blends of these fuels. Emissions are exhausted to stack S-17.

Under NSPS, Subpart Dc, this unit is considered to be an affected facility.
Under NESHAP, Subpart DDDDD, this unit is considered to be an affected facility.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.2.1 Particulate Matter Emissions [326 IAC 6-2-3] [326 IAC 6-2-4]

Pursuant to CP 157-5397, and 326 IAC 6-2-4 (Particulate Matter Emission Limitations for Sources of Indirect Heating), the PM emissions from Boiler #2 shall be limited to 0.304 pounds per MMBtu heat input.

D.2.2 PSD Minor Limit [326 IAC 2-2]

(a) The input of fuel oil no.2 fuel oil and no. 2 fuel oil equivalents to Boiler #2 shall be limited to 1042 Kgal measured as no. 2 fuel oil per twelve (12) consecutive month period, with compliance demonstrated at the end of each month. For compliance purposes, the following equivalencies shall be used.

1Kgal of no. 4 fuel oil = 1.00 Kgal of no. 2 fuel oil
1Kgal of no. 5 fuel oil = 1.16 Kgal of no. 2 fuel oil
1Kgal of no. 6 fuel oil = 1.16 Kgal of no. 2 fuel oil

This usage limit is equivalent to a potential to emit of 39.0 tons of sulfur dioxide per year.

(b) The input of natural gas and natural gas equivalents to Boiler #2 shall be limited to 657 MMCF of natural gas per twelve (12) consecutive month period, with compliance demonstrated at the end of each month. Compliance with these limits are necessary to restrict nitrogen oxide emissions from Boiler #2 to less than 46 tons per year.

(c) When burning vegetable oil, or blends of vegetable oil and distillate fuel oil, nitrogen oxide emissions shall not exceed 0.162 pounds per million Btu heat input.

(d) When burning grease, tallow, or blends of grease or tallow and fuels other than residual fuel oil, nitrogen oxide emissions shall not exceed 0.195 pounds per million Btu heat input.

(e) Pursuant to Condition D.1.1(c), the combined input of natural gas and natural gas equivalents to Boiler #2 shall be limited to 794.13 MMCF of natural gas per twelve (12) consecutive month period, with compliance demonstrated at the end of each month. Compliance with this limit is necessary to restrict nitrogen oxide emissions from Boiler #2 to less than 39.7 tons per year.

For compliance purposes, the following equivalencies shall be used.

DRAFT

1 Kgal of no. 2 fuel oil	= 0.143 MMCF of natural gas
1 Kgal of no. 4 fuel oil	= 0.143 MMCF of natural gas
1 Kgal of no. 5 fuel oil	= 0.393 MMCF of natural gas
1 Kgal of no. 6 fuel oil	= 0.393 MMCF of natural gas
1 Kgal of vegetable oil	= 0.209 MMCF of natural gas
1 Kgal of tallow	= 0.247 MMCF of natural gas
1 Kgal of grease	= 0.093 MMCF of natural gas

Compliance with this condition makes the Prevention of Significant Deterioration (PSD) rules (326 IAC 2-2) not applicable.

D.2.3 Sulfur Dioxide (SO_2) [326 IAC 7-1.1-1][326 IAC 7-1.1-2]

Pursuant to 326 IAC 7-1.1-2 (SO_2 Emissions Limitations):

(a) The SO2 emissions from the seventy-five (75) MMBtu per hour Boiler #2 shall not exceed five tenths (0.5) pounds per million Btu heat input when combusting distillate fuel oil; and

(b) The SO2 emissions from the seventy-five (75) MMBtu per hour Boiler #2 shall not exceed one and sixth tenths (1.6) pounds per million Btu heat input when combusting residual fuel oil.

(c) Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average.

D.2.4 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for the boilers. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements [326 IAC 2-7-5(1)]

D.2.5 Sulfur Dioxide Emissions and Sulfur Content

Compliance with Condition D.2.3 shall be determined utilizing one of the following options:

(a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions from Boiler #2 do not exceed five-tenths (0.5) pound per million Btu heat input by:

(1) Providing vendor analysis of fuel oil delivered, if accompanied by a vendor certification, or;

(2) Analyzing the fuel oil sample to determine the sulfur content of the fuel oil via the procedures in 40 CFR 60, Appendix A, Method 19.

(A) Fuel oil samples may be collected from the fuel oil tank immediately after the fuel oil tank is filled and before any fuel oil is combusted; and

(B) If a partially empty fuel oil tank is refilled, a new sample and analysis would be required upon filling.

(b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from Boiler #2 using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to any of the methods specified in (a) and (b) above

shall not be refuted by evidence of compliance pursuant to another method.

D.2.6 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

In order to demonstrate compliance with Condition D.2.2:

(a) No later than 180 days from the commencement of vegetable oil combustion, the Permittee shall conduct performance tests for nitrogen oxide emissions on Boiler #2 during vegetable oil combustion, and furnish the Commissioner a written report of the results of such performance tests.

(b) No later than 180 days from the commencement of tallow combustion, the Permittee shall conduct performance tests for nitrogen oxide emissions on Boiler #2 during tallow combustion, and furnish the Commissioner a written report of the results of such performance tests.

(c) No later than 180 days from the commencement of grease combustion, the Permittee shall conduct performance tests for nitrogen oxide emissions on Boiler #2 during grease combustion, and furnish the Commissioner a written report of the results of such performance tests.

D.2.7 Maintenance of Continuous Opacity Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

(a) Prior to combusting residual fuel oil (fuel oils #4, #5, and #6) in Boiler no. 2 (S-17), the Permittee shall install, calibrate, maintain, and operate a COMS for measuring the opacity of the emissions from Boiler no. 2 discharged to the atmosphere and record the output of the system when combusting residual fuel oil. In addition, prompt corrective action shall be initiated whenever indicated.

(b) All COMS shall meet the performance specifications of 40 CFR 60, Appendix B, Performance Specification No. 1, and are subject to monitor system certification requirements pursuant to 326 IAC 3-5.

(c) In the event that a breakdown of a COMS occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.

(d) Whenever a COMS is malfunctioning or is down for maintenance or repairs for a period of twenty-four (24) hours or more and a backup COMS is not online within twenty-four (24) hours of shutdown or malfunction of the primary COMS, the Permittee shall provide a certified opacity reader, who may be an employee of the Permittee or an independent contractor, to self-monitor the emissions from the emission unit stack.

(1) Visible emission readings shall be performed in accordance with 40 CFR 60, Appendix A, Method 9, for a minimum of five (5) consecutive six (6) minute averaging periods beginning not more than twenty-four (24) hours after the start of the malfunction or down time.

(2) Method 9 opacity readings shall be repeated for a minimum of five (5) consecutive six (6) minute averaging periods at least twice per day during daylight operations, with at least four (4) hours between each set of readings, until a COMS is online.

(3) Method 9 readings may be discontinued once a COMS is online.

(4) Any opacity exceedances determined by Method 9 readings shall be reported with the Quarterly Opacity Exceedances Reports.

DRAFT

(e) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous opacity monitoring system pursuant to 326 IAC 3-5, (and 40 CFR 60 and/or 40 CFR 63).

Compliance Monitoring Requirements [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

D.2.8 Visible Emissions Notations

(a) The Permittee shall perform visible emission notations of the Boiler #2 stack exhaust once per day during normal daylight operations, when combusting fuels other than natural gas, if there is no COMS installed or if the COMS is down for maintenance or under breakdown. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take reasonable response. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-19]

D.2.9 Record Keeping Requirements

(a) To document the compliance status with Condition D.2.2, the Permittee shall maintain the record of all the fuels burned in Boiler #2.

(b) To document the compliance status with Condition D.2.3, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken monthly and shall be complete and sufficient to establish compliance with the SO_2 emission limit established in Condition D.2.3.

(1) Calendar dates covered in the compliance determination period;

(2) Actual distillate fuel oil and residual fuel oil usage per month since last compliance determination period and equivalent SO_2 emissions;

(3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period; and

If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:

(4) Fuel supplier certifications.

(5) The name of the fuel supplier; and

(6) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

DRAFT

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

(c) To document the compliance status with Condition D.2.5 (a) (if selected), the Permittee shall keep a record of all fuel oil analysis.

(d) To document the compliance status with Condition D.2.8(a), the Permittee shall maintain a record of visible emission notations of the Boiler #2 stack exhaust if there is no COMS installed or if the COMS is malfunctioning or down for maintenance or repair. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a notation (e.g. the process did not operate that day).

(e) Section C - General Record Keeping Requirements contains the Permittee's obligation with regard to the records required by this condition.

D.2.10 Reporting Requirements

(a) The natural gas boiler certification shall be submitted not later than thirty (30) days after the end of the six (6) month period being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The natural gas-fired boiler certification submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a “responsible official” as defined by 326 IAC 2-7-1(35).

(b) A quarterly summary of the information to document the compliance status with Condition D.2.2 shall be submitted not later than thirty (30) days after the end of quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a “responsible official” as defined by 326 IAC 2-7-1(35).

DRAFT

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Insignificant Activities:

(a) Paved and unpaved roads and parking lots with public access.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.3.1 Fugitive Dust Emissions [326 IAC 6-4-2]

Pursuant to 326 IAC 6-4-2 (Fugitive Dust Emission Limitation), the fugitive dust shall not be visible crossing the boundary or property line of a source.

Compliance Determination Requirements [326 IAC 2-7-5(1)]

D.3.2 Control Measures

Fugitive particulate matter emissions resulting from paved roads, unpaved roads and parking lots shall be controlled by using one or more of the following measures:

(a) Paved roads and parking lots:

(1) Cleaning by sweeping.

(2) Flushing.

(3) An equivalent alternate measure.

(b) Unpaved roads and parking lots:

(1) Paving with a material such as asphalt or concrete.

(2) Treating with a suitable and effective oil or chemical dust suppressant approved by the commissioner. The frequency shall be as on a needed basis.

(3) Spraying with water, the frequency of application shall be on a needed basis.

(4) Double chip and seal the road surface and maintain on an as needed basis.

(5) An equivalent alternate measure.

DRAFT

SECTION D.4 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(3) One (1) parts washing station, constructed in 2002, with a maximum capacity of 145 gallons per year and exhausting inside.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.4.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

(a) Pursuant to 326 IAC 8-3-2(a) (Cold Cleaner Degreaser Control Equipment and Operating Requirements), the owner or operator of a cold cleaner degreaser shall ensure that the following control equipment and operating requirements are met:

(1) Equip the degreaser with a cover.

(2) Equip the degreaser with a device for draining cleaned parts.

(3) Close the degreaser cover whenever parts are not being handled in the degreaser.

(4) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases.

(5) Provide a permanent, conspicuous label that lists the operating requirements in subdivisions (3), (4), (6), and (7).

(6) Store waste solvent only in closed containers.

(7) Prohibit the disposal or transfer of waste solvent in such a manner that could allow greater than twenty percent (20%) of the waste solvent (by weight) to evaporate into the atmosphere.

(b) Pursuant to 326 IAC 8-3-2(b), the owner or operator of a cold cleaner degreaser subject to this subsection shall ensure the following additional control equipment and operating requirements are met:

(1) Equip the degreaser with one (1) of the following control devices if the solvent is heated to a temperature of greater than forty-eight and nine-tenths (48.9) degrees Celsius (one hundred twenty (120) degrees Fahrenheit):

(A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.

(B) A water cover when solvent used is insoluble in, and heavier than, water.

(C) A refrigerated chiller.

(D) Carbon adsorption.

(E) An alternative system of demonstrated equivalent or better control as those outlined in clauses (A) through (D) that is approved by the

DRAFT

department. An alternative system shall be submitted to the U.S. EPA as a SIP revision.

(2) Ensure the degreaser cover is designed so that it can be easily operated with one (1) hand if the solvent is agitated or heated.

(3) If used, solvent spray:

(A) must be a solid, fluid stream; and

(B) shall be applied at a pressure that does not cause excessive splashing.

D.4.2 Material Requirements for Cold Cleaner Degreasers [326 IAC 8-3-8]

Pursuant to 326 IAC 8-3-8 (Material Requirements for Cold Cleaner Degreasers), the Permittee shall not operate a cold cleaning degreaser with a solvent vapor pressure that exceeds one (1) millimeter of mercury (nineteen-thousandths (0.019) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-19]

D.4.3 Record Keeping Requirements

(a) To document the compliance status with Condition D.4.2, the Permittee shall maintain the following records for each purchase of solvent used in the cold cleaner degreasing operations. These records shall be retained on-site or accessible electronically for the most recent three (3) year period and shall be reasonably accessible for an additional two (2) year period.

(1) The name and address of the solvent supplier.

(2) The date of purchase.

(3) The type of solvent purchased.

(4) The total volume of the solvent purchased.

(5) The true vapor pressure of the solvent measured in millimeters of mercury at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

(b) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

DRAFT

SECTION E.1 **NSPS**

Emissions Unit Description:

(a) One (1) truck soybean receiving pit, constructed in 1989, with a maximum capacity of 25,000 bushels per hour, controlled by a receiving area baghouse #4 and exhausting at stack point # S-13.

(b) One (1) totally enclosed truck soybean receiving pit drag conveyor (DC-431), constructed in 1989, with a maximum capacity of 25,000 bushels per hour, aspirated to baghouse #10, and exhausting at stack point # S-2.

(c) One (1) totally enclosed soybean receiving pit drag conveyor (DC-432), constructed in 1989, with a maximum capacity of 25,000 bushels per hour, aspirated to baghouse #10, and exhausting at stack point # S-2.

(d) One (1) rail soybean unloading system, constructed in 1956, with a maximum unloading capacity of 12,000 bushels per hour, controlled by baghouse #10 and exhausted at stack point S-2.

(e) One (1) soybean receiving bucket elevator #301, constructed in 1989, with a maximum capacity of 25,000 bushels per hour, controlled by a baghouse #10 and exhausting at stack point # S-2.

(f) Three (3) totally enclosed soybean drag conveyors (DC-441, 442, & 443) operated in series, constructed in 1988, each with a maximum capacity of 25,000 bushels per hour, each aspirated to baghouse #9 and exhausting at stack point # S-1.

(g) One (1) totally enclosed soybean drag conveyor (DC-434), constructed in 1988, with a maximum capacity of 25,000 bushels per hour, aspirated to baghouse #10 and exhausting at stack point # S-2.

(h) Four (4) soybean storage tanks, constructed in the 1950's, with a total capacity of 1,213,000 bushels.

(i) Two (2) totally enclosed soybean drag conveyors (DC-436, & 437) operated in series, constructed in 1988, each with a maximum capacity of 5,000 bushels per hour, each aspirated to baghouse #10 and exhausting at stack point # S-2.

(j) Two (2) totally enclosed soybean drag conveyors (DC-444, & 446) operated in series, constructed in 1988, each with a maximum capacity of 5,000 bushels per hour, each aspirated to baghouse #10 and exhausting at stack point # S-2.

(k) One (1) soybean transfer bucket elevator #303, constructed in 1956, with a maximum capacity of 5,000 bushels per hour, controlled by a baghouse #10 and exhausting at stack point # S-2.

(l) One (1) Texas shaker #2 screener, constructed in 1988, with a maximum capacity of 5,000 bushels per hour, controlled by a baghouse #1 and exhausting at stack point # S-3.

(m) One (1) weed seed Kice, constructed in 1988, with a maximum capacity of 150 bushels per hour, controlled by a baghouse #1 and exhausting at stack point # S-3.

(n) One (1) Kice #1, constructed in 1988, with a maximum capacity of 5,000 bushels per hour, controlled by a baghouse #1 and exhausting at stack point # S-3.

(o) Two (2) totally enclosed soybean drag conveyors (DC-448, & 448A) operated in series, constructed in 1986 (DC-448) and 1996 (DC-448A), each with a maximum capacity of 5,000 bushels per hour, each aspirated to baghouse #1 and exhausting at stack point # S-3.

(p) One (1) totally enclosed soybean screw conveyor (SC212), constructed in 1989 with a maximum capacity of 150 bushels per hour.

(r) Two (2) totally enclosed soybean drag conveyors (DC-449, & 450) operated in series, constructed in 1986, each with a maximum capacity of 5,000 bushels per hour, each aspirated to baghouse #10 and exhausting at stack point # S-2.

(s) One (1) dry soybean transfer bucket elevator #307, constructed in 1986, with a maximum capacity of 5,000 bushels per hour, controlled by a baghouse #9 and exhausting at stack point # S-1.

(t) One (1) totally enclosed dry soybean drag conveyor (DC-453), constructed in 1988, with a maximum capacity of 5,000 bushels per hour, aspirated to baghouse #9 and exhausting at stack point # S-1.

(u) Eighteen (18) soybean bins (501, 502, 503, 506, 507, 508, 511, 512, 513, 516, 517, 518, 521, 522, 523, 526, 527, and 528), constructed in the 1930's, with a maximum total capacity of 261,000 bushels.

(v) Two (2) totally enclosed soybean drag conveyors (DC-454, & 447) operated in series, constructed in 1986, each with a maximum capacity of 5,000 bushels per hour each, each aspirated to baghouse #10 and exhausting at stack point # S-2.

(w) One (1) dry soybean transfer bucket elevator #304, constructed in 1956, with a maximum capacity of 5,000 bushels per hour, controlled by a baghouse #10 and exhausting at stack point # S-2.

(x) One (1) totally enclosed dry soybean drag conveyor (DC-400A), constructed in 1986, with a maximum capacity of 5,000 bushels per hour, aspirated to baghouse #3 and exhausting at stack point # S-7.

(y) One (1) soybean Thayer scale, constructed in 1986, with a maximum capacity of 5000 bushels per hour, controlled by a baghouse #3 and exhausting at stack point # S-7.

(z) Two (2) weed seed bins (#207 & 208) constructed in 1930, with a maximum storage capacity of 14,000 bushels each, a total nominal throughput of 5,000 bushels per day.

(aa) Two (2) totally enclosed soybean screw conveyors (SC 213 & 214), operated in series, constructed in 1986, each with a maximum capacity of 150 bushels per hour.

(bb) Three (3) totally enclosed soybean meal drag conveyors (DC-427, 428, & 429) operated in series, constructed in 1988, each with a maximum capacity of 5,000 bushels per hour each.

(cc) One (1) totally enclosed dry soybean drag conveyor (DC-400), constructed in 1986, with a maximum capacity of 5,000 bushels per hour, aspirated to baghouse #3 and exhausting at stack point # S-7.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

DRAFT

New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]

E.1.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR 60, Subpart A]

(a) The provisions of 40 CFR 60, Subpart A – General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to the facilities described in this Section E.1, except when otherwise specified in 40 CFR 60, Subpart DD.

(b) Pursuant to 40 CFR 60.19, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Ave.
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

E.1.2 Standards of Performance for Grain Elevators [40 CFR 60, Subpart DD] [326 IAC 12]

Pursuant to 40 CFR 60, Subpart DD, the Permittee shall comply with the provisions of Standards of Performance Standards of Performance for Grain Elevators, which are incorporated by reference as 326 IAC 12, (included as attachment A of this permit) as specified as follows:

(1) 40 CFR 60.300
(2) 40 CFR 60.301
(3) 40 CFR 60.302(b)(c)(1)(2)(3)
(4) 40 CFR 60.303
(5) 40 CFR 60.304

DRAFT

SECTION E.2 **NSPS**

Emissions Unit Description:

(1) One (1) boiler, identified as Boiler #2, constructed in 1996, with a heat input capacity of 75.0 MMBtu per hour, firing natural gas, distillate fuel oil, residual fuel oil, vegetable oil, animal fats ("tallow"), animal oils ("grease") or blends of these fuels. Emissions are exhausted to stack S-17.

Under NSPS, Subpart Dc, this unit is considered to be an affected facility.
Under NESHAP, Subpart DDDDD, this unit is considered to be an affected facility.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]

E.2.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR 60, Subpart A]

(a) The provisions of 40 CFR 60, Subpart A – General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to the facilities described in this SECTION E.1, except when otherwise specified in 40 CFR 60, Subpart Dc.

(b) Pursuant to 40 CFR 60.19, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Ave.
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

E.2.2 Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units [40 CFR 60, Subpart Dc] [326 IAC 12]

Pursuant to 40 CFR 60, Subpart Dc, the Permittee shall comply with the provisions of Standards of Performance Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, which are incorporated by reference as 326 IAC 12, (included as attachment B of this permit) as specified as follows:

(1) 40 CFR 60.40c
(2) 40 CFR 60.41c
(3) 40 CFR 60.42c(d)(e)(g)(h)(i)
(4) 40 CFR 60.43c(c)(d)
(5) 40 CFR 60.44c(a)(b)(c)(e)(g)(h)(i)(j)
(6) 40 CFR 60.45c(a)(c)
(7) 40 CFR 60.46c
(8) 40 CFR 60.47c
(9) 40 CFR 60.48c all except (f)(3)

SECTION E.3 NESHAP

Emissions Unit Description:

(ww) One (1) desolventizer/toaster (EU-16), constructed in 2006 with a maximum capacity of 3,350 bushels per hour controlled by the mineral oil system and exhausted at stack points S-15.

Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.

(xx) One (1) dryer/cooler with three (3) dryer decks and one (1) cooler deck; constructed in 1988 (cooler deck), 1990 (1st dryer deck), 2006 (2nd & 3rd dryer decks), with a maximum total capacity of 3350 bushels per hour, controlled by four (4) integral cyclones identified as # 6, 7, 8, and 9, and exhausted at stack points # S-11, S-12, S-21, and S-25.

Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.

(ooo) One (1) first stage rising film evaporator associated with the solvent extraction equipment (EU-13), constructed in 2006, with a maximum capacity of 20 tons of soybean oil per hour and controlled by the mineral oil system and exhausted at stack point S-15.

Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.

(ppp) One (1) Iso-hexane conversion system (involving a rotocell condenser, a refrigerant type cooler with condenser and an additional cooling tower cell and pump),constructed in 2002, and controlled by the mineral oil system and exhausted at stack point S-15.

Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.

(qqq) One (1) mineral oil absorber system, constructed in 1982, with a maximum capacity of 150 pounds of hexane per hour and exhausted at stack point S-15.

Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.

(rrr) One (1) solvent/water separator, constructed in 2002, with a maximum capacity of 600 gallons per minute and controlled by the mineral oil system and exhausted at stack point S-15.

Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.

(ttt) Two (2) hexane tanks #809 A & B, constructed in 2002 and 2009, with a capacity of 18,800 and 18,800 gallons respectively, vented to the process for control except under emergency conditions when they are vented through the flame arrester.

Under NESHAP, Subpart GGGG, this unit is considered to be an affected facility.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [326 IAC 2-7-5(1)]

E.3.1 General Provisions Relating to NESHAP GGGG [326 IAC 20-1] [40 CFR Part 63, Subpart A]

(a) Pursuant to 40 CFR 63.4480, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-1, as specified in 40 CFR Part 63, Subpart GGGG in accordance with schedule in 40 CFR 63 Subpart GGGG.

(b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

E.3.2 Solvent Extraction for Vegetable Oil Production NESHAP [326 IAC 20-60][40 CFR Part 63, Subpart GGGG]

The Permittee which engages in production of vegetable oil shall comply with the following provisions of 40 CFR 63, Subpart GGGG (included as Attachment C of this permit), as specified as follows:

(1) 40 CFR 63.2830
(2) 40 CFR 63.2831
(3) 40 CFR 63.2832(a)
(4) 40 CFR 63.2833
(5) 40 CFR 63.2834(a)
(6) 40 CFR 63.2840 all except (e)
(7) 40 CFR 63.2850(a)(b)(d)(e)(1)(i)(iii)(2)
(8) 40 CFR 63.2851
(9) 40 CFR 63.2852
(10) 40 CFR 63.2853
(11) 40 CFR 63.2854
(12) 40 CFR 63.2855
(13) 40 CFR 63.2860
(14) 40 CFR 63.2861
(15) 40 CFR 63.2862
(16) 40 CFR 63.2863
(17) 40 CFR 63.2870
(18) 40 CFR 63.2871
(19) 40 CFR 63.2872

SECTION E.4 NESHAP

Emissions Unit Description:

Insignificant Activity:

(A) One (1) sixty-six (66) horsepower, non-emergency diesel powered air compressor, constructed in 2002, using a maximum of 8.8 gallons of #2 diesel fuel per hour.

Under NESHAP, Subpart ZZZZ, this unit is considered to be an affected facility.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [326 IAC 2-7-5(1)]

E.4.1 General Provisions Relating to NESHAP ZZZZ [326 IAC 12-1] [40 CFR 63, Subpart A]

(a) The provisions of 40 CFR 63, Subpart A – General Provisions, which are incorporated by reference in 326 IAC 20-1, apply to the facilities described in this Section E.4, except when otherwise specified in 40 CFR 63, Subpart ZZZZ.

(b) Pursuant to 40 CFR 60.19, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Ave.
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

E.4.2 National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines [40 CFR Part 63, Subpart ZZZZ] [326 IAC 20]

The Permittee as an owner/operator of a Stationary Reciprocating Internal Combustion Engines shall comply with the following provisions of 40 CFR Part 63, Subpart ZZZZ

(1) 40 CFR 63.6580
(2) 40 CFR 63.6585
(3) 40 CFR 63.6590(a)(1)(ii)
(4) 40 CFR 63.6595(a)(1) and (c)
(5) 40 CFR 63.6602
(6) 40 CFR 63.6605
(7) 40 CFR 63.6612
(8) 40 CFR 63.6615
(9) 40 CFR 63.6620
(10) 40 CFR 63.6625 (e)(1), (h), (i)
(11) 40 CFR 63.6630
(12) 40 CFR 63.6635
(13) 40 CFR 63.6640
(14) 40 CFR 63.6645
(15) 40 CFR 63.6650
(16) 40 CFR 63.6655 (a), (d), (e)
(17) 40 CFR 63.6660
(18) 40 CFR 63.6665
(19) 40 CFR 63.6670

DRAFT

(20) 40 CFR 63.6675
(21) Table 2c (item 2)
(22) Table 6 (item 9)

DRAFT

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
PART 70 OPERATING PERMIT
CERTIFICATION

Source Name: Cargill, Inc. - Soybean Processing Division
Source Address: 1502 Wabash Avenue, Lafayette, Indiana 47905
Part 70 Permit No.: T157-34376-00038

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

☐ Annual Compliance Certification Letter

☐ Test Result (specify)

☐ Report (specify)

☐ Notification (specify)

☐ Affidavit (specify)

☐ Other (specify)

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
Signature:
Printed Name:
Title/Position:
Phone:
Date:

DRAFT

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: (317) 233-0178
Fax: (317) 233-6865

PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT

Source Name: Cargill, Inc. - Soybean Processing Division
Source Address: 1502 Wabash Avenue, Lafayette, Indiana 47905
Part 70 Permit No.: T157-34376-00038

This form consists of 2 pages **Page 1 of 2**

☐ This is an emergency as defined in 326 IAC 2-7-1(12)

- The Permittee must notify the Office of Air Quality (OAQ), within four (**4**) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and
- The Permittee must submit notice in writing or by facsimile within two (**2**) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16.

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

DRAFT

If any of the following are not applicable, mark N/A **Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N
Type of Pollutants Emitted: TSP, PM-10, SO_2, VOC, NO_X, CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by:_____

Title / Position: _____

Date:_____

Phone: _____

DRAFT

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

PART 70 OPERATING PERMIT
SEMI-ANNUAL NATURAL GAS FIRED BOILER CERTIFICATION

Source Name: Cargill, Inc. - Soybean Processing Division
Source Address: 1502 Wabash Avenue, Lafayette, Indiana 47905
Part 70 Permit No.: T157-34376-00038

☐ Natural Gas Only ☐ Alternate Fuel burned From:_____ To:_____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Signature:
Printed Name:
Title/Position:
Phone:
Date:

DRAFT

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

Part 70 Quarterly Report

Source Name: Cargill, Inc. - Soybean Processing Division
Source Address: 1502 Wabash Avenue, Lafayette, Indiana 47905
Part 70 Permit No.: T157-34376-00038
Facility: Entire Plant / Dump Bed Truck Unloading
Pollutant: PM and PM_{10}
Limits: Soybeans Processed by Plant: 821,250 tons per twelve (12) consecutive month period.

MONTHS _____ TO _____ YEAR:_____

Month	Soybean Product	Soybeans Processed By Plant (tons) This Month	Soybeans Processed By Plant (tons) Previous 11 Months	Soybeans Processed By Plant (tons) 12 Month Total
	Conventional:			
	Specialty:			
	Both Types:			
	Conventional:			
	Specialty:			
	Both Types:			
	Conventional:			
	Specialty:			
	Both Types:			

Submitted by: _____

Title/Position: _____

Signature: _____

Date: _____

Phone: _____

DRAFT

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

Part 70 Quarterly Report

Source Name: Cargill, Inc. - Soybean Processing Division
Source Address: 1502 Wabash Avenue, Lafayette, Indiana 47905
Part 70 Permit No.: T157-34376-00038
Facility: Entire Plant / Dump Bed Truck Unloading
Pollutant: PM and PM_{10}
Limits: Total Soybeans Received by Plant: 871,250 tons per twelve (12) consecutive month period.
Soybeans Received by Dump Bed Trucks: 82,125 tons per twelve (12) consecutive month period.

MONTHS _____ TO _____ YEAR:_____

Month	Soybeans Received By	Soybeans Received (tons) This Month	Soybeans Received (tons) Previous 11 Months	Soybeans Received (tons) 12 Month Total
	Dump Bed Truck			
	Bottom Dump Truck			
	Rail			
	Dump Bed Truck			
	Bottom Dump Truck			
	Rail			
	Dump Bed Truck			
	Bottom Dump Truck			
	Rail			

Submitted by: _____

Title/Position: _____

Signature: _____

Date: _____

Phone: _____

DRAFT

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

Part 70 Quarterly Report

Source Name: Cargill, Inc. - Soybean Processing Division
Source Address: 1502 Wabash Avenue, Lafayette, Indiana 47905
Part 70 Permit No.: T157-34376-00038
Facility: Boiler No. 2 (75 MMBtu/hr)
Parameter: SO_2
Limit: 1,042 Kgal as No. 2 fuel oil per twelve (12) consecutive months

QUARTER : _____YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	Total fuel usage as No. 2 fuel oil (Kgal) This Month	Total fuel usage as No. 2 fuel oil (Kgal) Previous 11 Months	Total fuel usage as No. 2 fuel oil (Kgal) 12 Month Total

Conversion:
1.00 Kgal no. 4 fuel oil = 1.00 Kgal no. 2 fuel oil
1.00 Kgal no. 5 fuel oil = 1.16 Kgal no. 2 fuel oil
1.00 Kgal no. 6 fuel oil = 1.16 Kgal no. 2 fuel oil

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.
Deviation has been reported on:

Submitted by: _____
Title / Position: _____
Signature:_____
Date: _____
Phone: _____

DRAFT

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

Part 70 Quarterly Report

Source Name: Cargill, Inc. - Soybean Processing Division
Source Address: 1502 Wabash Avenue, Lafayette, Indiana 47905
Part 70 Permit No.: T157-34376-00038
Facility: Boiler No. 2 (75 MMBTU/HR)
Pollutant: NOx
Limits: 657 MMCF per twelve (12) consecutive month period. (46 tons of NOx per year.)

QUARTER : _____YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	Natural Gas Usage (MMCF) This Month	Natural Gas Usage (MMCF) Previous 11 Months	12 Month Total

Conversion:

1 Kgal of no. 2 fuel oil = 0.143 MMCF of natural gas
1 Kgal of no. 4 fuel oil = 0.143 MMCF of natural gas
1 Kgal of no. 5 fuel oil = 0.393 MMCF of natural gas
1 Kgal of no. 6 fuel oil = 0.393 MMCF of natural gas
1 Kgal of vegetable oil = 0.209 MMCF of natural gas
1 Kgal of tallow = 0.247 MMCF of natural gas
1 Kgal of grease = 0.093 MMCF of natural gas

Submitted by:_____
Title/Position:_____
Signature:_____
Date:_____
Phone:_____

DRAFT

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

Part 70 Quarterly Report

Source Name: Cargill, Inc. - Soybean Processing Division
Source Address: 1502 Wabash Avenue, Lafayette, Indiana 47905
Part 70 Permit No.: T157-34376-00038
Facility: Boiler No. 2 (75 MMBTU/HR)
Pollutant: PM and PM_{10}
Limit: 794.13 MMCF of natural gas per 12 consecutive month period (7.60 lb of PM or PM_{10} per MMCF of natural gas)

QUARTER : _____YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	Total Natural Gas usage (MMCF) This Month	Total Natural Gas usage (MMCF) Previous 11 Months	12 Month Total

Conversion:

1.00 Kgal no. 2 fuel oil	=	0.434 MMCF natural gas
1.00 Kgal no. 4 fuel oil	=	1.12 MMCF natural gas
1.00 Kgal no. 5 fuel oil	=	[{9.19(S)+4.72}/7.6] MMCF natural gas
1.00 Kgal no. 6 fuel oil	=	1.513 MMCF natural gas

Submitted by:_____
Title/Position:_____
Signature:_____
Date:_____
Phone:_____

DRAFT

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

Part 70 Quarterly Report

Source Name: Cargill, Inc. - Soybean Processing Division
Source Address: 1502 Wabash Avenue, Lafayette, Indiana 47905
Part 70 Permit No.: T157-34376-00038
Facility: Whole Soybean Extraction Plant
Pollutant: VOC
Limit: 0.503 gal/ton soybean processed, according to either of the following equations:

Compliance Ratio = (Actual VOC loss)/(Allowable VOC loss) (Eq. 1)

Compliance Ratio = [f* Actual Solvent Loss]/
1.00[{(Soybean processed)$_C$ * (SLF$_C$)} +
{(Soybean processed)$_S$ * (SLF$_S$)}] (Eq. 2)

f = The weighted average volume fraction of VOC in solvent received during the previous twelve (12) operating months, dimensionless
1.00 = The average volume fraction of VOC in solvent in the baseline performance data, dimensionless
Actual Solvent Loss = Gallons of actual solvent loss during previous twelve (12) operating month
SLF$_S$ = 1.5 gals/ton (for new source, specialty soybean process)
SLF$_C$ = 0.2 gals/ton (for existing source, conventional soybean process)

QUARTER : _____YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	Solvent Loss Ratio This Month	Solvent Loss Ratio Previous 11 Months	Solvent Loss Ratio 12 Month Total

Submitted by:_____
Title/Position:_____
Signature:_____
Date:_____
Phone:_____

DRAFT

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Cargill, Inc. - Soybean Processing Division
Source Address: 1502 Wabash Avenue, Lafayette, Indiana 47905
Part 70 Permit No.: T157-34376-00038

Months: _____ to _____ Year: _____

This report shall be submitted quarterly based on a calendar year. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of paragraph (a) of Section C-General Reporting. Any deviation from the requirements of this permit, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".	
☐ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.	
☐ THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

DRAFT

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Form Completed by:_____

Title / Position: _____

Date:_____

Phone: _____

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Part 70 Significant Permit Modification

Source Description and Location

Source Name:	Cargill, Inc.
Source Location:	1502 Wabash Avenue, Lafayette, IN 47905
County:	Tippecanoe
SIC Code:	2075 (Soybean Oil Mills)
Operation Permit No.:	T 157-34376-00038
Operation Permit Issuance Date:	January 12, 2015
Significant Permit Modification No.:	157-36605-00038
Permit Reviewer:	Tamera Wessel

Existing Approvals

The source was issued Part 70 Operating Permit Renewal No. T157-34376-00038 on January 12, 2015. There have been no subsequent approvals issued.

County Attainment Status

The source is located in Tippecanoe County.

Pollutant	Designation
SO_2	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O_3	Unclassifiable or attainment effective July 20, 2012, for the 2008 8-hour ozone standard.[1]
$PM_{2.5}$	Unclassifiable or attainment effective April 5, 2005, for the annual $PM_{2.5}$ standard.
$PM_{2.5}$	Unclassifiable or attainment effective December 13, 2009, for the 24-hour $PM_{2.5}$ standard.
PM_{10}	Unclassifiable effective November 15, 1990.
NO_2	Cannot be classified or better than national standards.
Pb	Unclassifiable or attainment effective December 31, 2011.
[1]Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005.	

(a) Ozone Standards
Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to ozone. Tippecanoe County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) $PM_{2.5}$
Tippecanoe County has been classified as attainment for $PM_{2.5}$. Therefore, direct $PM_{2.5}$, SO_2, and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(c) Other Criteria Pollutants
Tippecanoe County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

This type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7, however, the grain handling operation is subject to a New Source Performance Standard that was in effect on August 7, 1980, therefore fugitive emissions, from the grain handling operations to which the New Source Performance Standard is applicable, are counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

Greenhouse Gas Emissions

On June 23, 2014, in the case of *Utility Air Regulatory Group v. EPA*, cause no. 12-1146, (available at http://www.supremecourt.gov/opinions/13pdf/12-1146_4g18.pdf) the United States Supreme Court ruled that the U.S. EPA does not have the authority to treat greenhouse gases (GHGs) as an air pollutant for the purpose of determining operating permit applicability or PSD Major source status. On July 24, 2014, the U.S. EPA issued a memorandum to the Regional Administrators outlining next steps in permitting decisions in light of the Supreme Court's decision. U.S. EPA's guidance states that U.S. EPA will no longer require PSD or Title V permits for sources "previously classified as 'Major' based solely on greenhouse gas emissions."

The Indiana Environmental Rules Board adopted the GHG regulations required by U.S. EPA at 326 IAC 2-2-1(zz), pursuant to Ind. Code § 13-14-9-8(h) (Section 8 rulemaking). A rule, or part of a rule, adopted under Section 8 is automatically invalidated when the corresponding federal rule, or part of the rule, is invalidated. Due to the United States Supreme Court Ruling, IDEM, OAQ cannot consider GHG emissions to determine operating permit applicability or PSD applicability to a source or modification.

Source Status - Existing Source

The table below summarizes the potential to emit of the entire source, prior to the proposed modification, after consideration of all enforceable limits established in the effective permits:

Pollutant	**Emissions** (ton/yr)
PM	682.48
PM_{10}	253.20
$PM_{2.5}$	171.27
SO_2	43.21
NO_X	60.66
VOC	45.55
CO	44.99
Highest Single HAP n-Hexane	27.59
Combined HAPs	27.64

(a) This existing source is a major stationary source, under PSD (326 IAC 2-2), because a PSD regulated pollutant, is emitted at a rate of 250 tons per year or more, and it is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1).

(b) This existing source is a major source of HAPs, as defined in 40 CFR 63.2, because HAP emissions are greater than ten (10) tons per year for a single HAP and greater than twenty-five (25) tons per year for a combination of HAPs. Therefore, this source is a major source under Section 112 of the Clean Air Act (CAA).

(c) These emissions are based upon calculations that can be found in Appendix A of the Second Part 70 Operating Permit Renewal No.: T157-34376-00038, issued on January 12, 2015.

Description of Proposed Modification

The Office of Air Quality (OAQ) has reviewed a permit modification application, submitted by Cargill, Inc. on December 11, 2015, relating to an increase to their grain receiving limit of fifty thousand (50,000) tons per twelve (12) consecutive month period.

Enforcement Issues

There are no pending enforcement actions related to this modification.

Emission Calculations

See Appendix A of this Technical Support Document for detailed emission calculations.

Permit Level Determination – Part 70 Modification to an Existing Source

Pursuant to 326 IAC 2-1.1-1(12), Potential to Emit is defined as "the maximum capacity of a stationary source or emission unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, IDEM, or the appropriate local air pollution control agency."

(a) Approval to Construct
This modification is not subject to the source modification requirements under 326 IAC 2-7-10.5. There will be no physical changes or change in the method of operation made to the source due to this modification. The source is requesting to increase their grain receiving limits. There is no increase to the uncontrolled, unlimited potential to emit due to this modification as the maximum throughput capacity will remain unchanged.

(b) Approval to Operate
The changes will be incorporated into the permit as a Significant Permit Modification under 326 IAC 2-7-12(d)(1), because it involves a case-by-case determination of an emission limitation.

Permit Level Determination – PSD

The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this Part 70 permit modification, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

The source is proposing to revise an existing PSD minor emission limit affecting the emissions units affected by Signfiicant Source Modification (SSM) No. 157-11361-00038, issued December 3, 2001. SSM No. 157-11361-00038 limited the amount of soybean processed by the plant to less than 821,250 tons per twelve (12) consecutive month period, which limited the affected units' PM emissions to 140.2 tons and PM10 emissions to 69.1 tons per twelve (12) consecutive month period. These emissions limits limited the potential increase in PM emissions from the modification to less than twenty-five (25) tons and PM10 emissions to less than fifteen (15) tons per twelve (12) consecutive month period, respectively. The limit on the amount of soybean processed by the plant also encompassed the amount of soybean received by the plant. The source is now requesting to add an emission limit specifically on the amount of soybean received, which would allow them to receive 50,000 tons more than the current soybean processed throughput limit of 821,250 tons per twelve (12) consecutive month period. The amount of soybean processed will continue to be limited to 821,250 tons per twelve (12) consecutive month period. This proposed modification only affects the amount of soybeans received by the plant.

See Appendix B of this Technical Support Document for a history of the modifications to the limits and emissions units permitted in SSM 157-11361-00038.

	Project Emissions (ton/yr)	
Process / Emission Unit	**PM**	**PM_{10}**
Truck soybean receiving pit (Dump Bed Trucks)	4.50	1.48
Grain storage unloading (Bottom Dump Trucks & Rail)	2.11	0.20
DC-434	1.52	0.85
Total for 2016 Modification	8.13	2.52
Modification limit at time of issuance of SSM 157-11361-00038	23.30	9.20
Affected units' emission increases since SSM 157-11361-00038 issued	12.93	8.48
Affected units' emission decreases since SSM 157-11361-00038 issued	107.39	39.81
Total for all modifications to affected units since SSM 157-11361-00038 was issued	-71.16	-22.13
Significant Thresholds	25	15

*The receiving operations were permitted in 2001. $PM_{2.5}$ emissions were not regulated at the time these operations were constructed. The source has requested a modification to the grain receiving limits. No emission units are being modified. Therefore, $PM_{2.5}$ emissions are not being evaluated for this modification.

This modification to an existing major PSD stationary source is not major because the emissions increase of each PSD regulated pollutant, are less than the PSD significant thresholds. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

Federal Rule Applicability Determination

The following federal rules are applicable to the source due to this modification:

New Source Performance Standards (NSPS):

(a) *40 CFR 60, Subpart DD*
The truck unloading station is still subject to the New Source Performance Standard for Grain Elevators (40 CFR 60.300, Subpart DD), which is incorporated by reference as 326 IAC 12, because a grain elevator, with a storage capacity greater than one million bushels, is located at the soybean extractor plant.

(1) Pursuant to 326 IAC 12 and 40 CFR 60.302(b), Subpart DD, the source shall not cause affected facilities to discharge into the atmosphere any process emissions which exhibit greater than zero (0) percent opacity.

(2) Pursuant to 326 IAC 12 and 40 CFR 60.302(c)(1), Subpart DD, fugitive emissions from

the truck unloading station shall not exceed five (5) percent opacity.

(3) Pursuant to 326 IAC 12 and 40 CFR 60.302(c)(2), Subpart DD, fugitive emissions from grain handling operations shall not exceed zero (0) percent opacity.

(4) Pursuant to 326 IAC 12 and 40 CFR 60.302(c)(3), Subpart DD, fugitive emissions from truck loading stations shall not exceed ten (10) percent opacity.

(5) The column grain dryer has 0.083-inch diameter screen openings in the column plate, which is less than 0.094 inch. Therefore the column grain dryer is not subject to New Source Performance Standards, 326 IAC 12 and 40 CFR 60.302(a), Subpart DD.

Nonapplicable portions of the NSPS will not be included in the permit. This source is subject to the following portions of Subpart DD.

(1) 40 CFR 60.300
(2) 40 CFR 60.301
(3) 40 CFR 60.302(b)(c)(1)(2)(3)
(4) 40 CFR 60.303
(5) 40 CFR 60.304

(b) There are no other New Source Performance Standards (NSPS)(40 CFR 60) applicable to this proposed modification.

National Emission Standards for Hazardous Air Pollutants (NESHAP):

(a) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) applicable to this proposed modification.

Compliance Assurance Monitoring (CAM):

(a) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to new or modified emission units that involve a pollutant-specific emission unit and meet the following criteria:

(1) has a potential to emit before controls equal to or greater than the Part 70 major source threshold for the pollutant involved;

(2) is subject to an emission limitation or standard for that pollutant; and

(3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

The following table is used to identify the applicability of each of the criteria, under 40 CFR 64.1, to each new or modified emission unit involved:

CAM Applicability Analysis								
Emission Unit	**Pollutant**	**Control Device Used**	**Emission Limitation** (Y/N)	**Uncontrolled PTE** (ton/yr)	**Controlled PTE** (ton/yr)	**Part 70 Major Source Threshold** (ton/yr)	**CAM Applicable** (Y/N)	**Large Unit** (Y/N)
Truck soybean receiving pit	PM	baghouse	Y	<100	The uncontrolled PTE of each pollutant is <100; therefore CAM is not applicable to this emission unit for these pollutants.			
	PM_{10}							
	$PM_{2.5}$							
Grain Storage Unloading	PM	baghouse	Y	<100	The uncontrolled PTE of each pollutant is <100; therefore CAM is not applicable to this emission unit for these pollutants.			
	PM_{10}							
	$PM_{2.5}$							
DC-434	PM	baghouse	Y	<100	The uncontrolled PTE of each pollutant is <100; therefore CAM is not applicable to this emission unit			
	PM_{10}							

CAM Applicability Analysis								
Emission Unit	**Pollutant**	**Control Device Used**	**Emission Limitation** (Y/N)	**Uncontrolled PTE** (ton/yr)	**Controlled PTE** (ton/yr)	**Part 70 Major Source Threshold** (ton/yr)	**CAM Applicable** (Y/N)	**Large Unit** (Y/N)
	$PM_{2.5}$				for these pollutants.			

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are not applicable to any of the modified units as part of this modification.

State Rule Applicability Determination

The following state rules are applicable to the source due to the modification:

326 IAC 2-2 (PSD)
PSD applicability is discussed under the Permit Level Determination – PSD section.

This source is considered a major PSD source and the unrestricted potential to emit of this modification as part of the original permitted units in SSM 157-11361-00038, is greater than twenty-five (25) tons of PM per twelve (12) consecutive month period and fifteen (15) tons of PM_{10} per twelve (12) consecutive month period. The source has elected to continue to limit the potential to emit of this modification to less than the PSD significant thresholds as follows:

(a) The soybean received by the plant shall be limited to 871,250 tons per twelve (12) consecutive month period, with compliance demonstrated at the end of each month. This soybean limitation is required to limit the potential to emit of PM and PM_{10} to 140.2 and 72.6 tons per twelve (12) consecutive months, respectively.

This is a new limit. This is a Title I change.

(b) The soybean processed by the plant shall be limited to 821,250 tons per twelve (12) consecutive month period, with compliance demonstrated at the end of each month. This soybean limitation is required to limit the potential to emit of PM and PM_{10} emissions of 140.2 and 72.6 tons per twelve (12) consecutive months, respectively.

(c) The soybean received by the dump bed trucks shall be limited to 82,125 tons per twelve- (12)-consecutive month period, with compliance demonstrated at the end of each month.

(d) The total natural gas or natural gas equivalent to Boiler #2 shall not exceed 794.13 million cubic feet per year.

(e) The following facilities' PM and PM_{10} emissions rates shall be limited as follows:

Facility	Control	Air Flow Rate Limit (dscfm)	Grain Loading Limit (gr/dscf)	PM Limit (lbs/hour)	PM_{10} Limit (lbs/hour)
Grain receiving system (Truck Soybean Receiving Pit)	Baghouse #4	14,000	0.003	0.360	0.360
Grain storage loading (bin vent emissions resulting from filling the four soybean storage tanks and 18 soybean storage bins from the grain receiving system)	No PM/PM10 control device	infinite	0.01	15.0	8.36
Grain storage unloading (DC-431, DC-432, rail soybean unloading system, bucket elevator #301, DC-434, DC-436, DC-437, DC-444, DC-446, bucket elevator #303, DC-454, DC-447, bucket elevator #304, DC-449, DC-450, and a pod grinder)	Baghouse #10	24,000	0.003	0.617	0.617

Facility	Control	Air Flow Rate Limit (dscfm)	Grain Loading Limit (gr/dscf)	PM Limit (lbs/hour)	PM_{10} Limit (lbs/hour)
Bean screener (Texas shaker #2 screen, weed seed Kice, Kice #1, DC-448, and DC-448A)	Baghouse #1	14,000	0.0033	0.136	0.4
Grain tanks and silos loading (bin vent emissions resulting from filling the four soybean storage tanks and 18 soybean storage bins from the column dryer)	No PM/PM10 control device	-	-	3.05	1.72
Grain tanks and silos unloading (DC-441, DC-442, DC-443, bucket elevator #307, and DC-453)	Baghouse #9	16,200	0.003	0.417	0.417
Soybean cracking & hulling system (Soybean Thayer scale, DC-400A, DC-400, EU-6, DC-401, DC-403, primary Kice #1, SC-201, SC-202, triple S shaker, hull grinder, coarse cut aspiration, and fine cut aspiration)	Baghouse #3	21,000	0.03	0.540	0.540
Soybean flaking (rotary conditioner, DC-404, DC-405, DC-406, DC-407, flaker banks 1 & 2, SC-206, SC-207, EU-12, and DC-409)	Cyclone #4	17,000	0.006	0.874	0.874
Hull transfer (pneumatic hull conveying system)	No PM/PM10 control device	320	0.003	0.008	0.008
DTDC meal dryers	Integral Cyclone #6	10,000	0.007	0.600	0.600
DTDC meal dryers	Integral Cyclone #7	10,000	0.007	0.600	0.600
Meal coolers	Integral Cyclone #8	8,000	0.015 (PM) 0.019(PM_{10})	1.029	1.30
Meal coolers	Integral Cyclone #9	8,000			
Meal sizing and grinding (DC-414A, DC-415, DC-416, SC-223, 3 soybean meal grinders, SC-221, DC-417, BE-300, DC-418, and DC-419)	Baghouse #2	5,500	0.005	0.236	0.236
Truck and Rail soybean meal and hull loadout systems	Baghouse #5	16,000	0.004	0.549	0.549
Hull blend back (pneumatic hull conveying system)	No PM/PM10 control device	320	0.01	0.027	0.027
Boiler no. 2	No PM/PM10 control device	794.13 Million cubic feet of natural gas or equivalent	-	7.60 lb per MMCF	7.60 lb per MMCF

Compliance with these emission limits will ensure that the potentials to emit from this modification are less than twenty-five (25) tons of PM per year and less than fifteen (15) tons of PM_{10} per year, and therefore will render the requirements of 326 IAC 2-2 not applicable.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
This source is subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Solvent Extraction for Vegetable Oil Production (40 CFR 63, Subpart GGGG), on and after April 12, 2004. Therefore, the existing source is exempt from the requirements of 326 IAC 2-4.1-1 on and after April 12, 2004.

326 IAC 2-6 (Emission Reporting)
This source is subject to 326 IAC 2-6 (Emission Reporting) because it is required to have an operating permit pursuant to 326 IAC 2-7 (Part 70). The potential to emit of PM10 is greater than 250 tons per year. Therefore, pursuant to 326 IAC 2-6-3(a)(1), annual reporting is required. An emission statement shall be submitted by July 1, 2015 and every year thereafter. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

326 IAC 2-7-6(5) (Annual Compliance Certification)
The U.S. EPA Federal Register 79 FR 54978 notice does not exempt Title V Permittees from the requirements of 40 CFR 70.6(c)(5)(iv) or 326 IAC 2-7-6(5)(D), but the submittal of the Title V annual compliance certification to IDEM satisfies the requirement to submit the Title V annual compliance certifications to EPA. IDEM does not intend to revise any permits since the requirements of 40 CFR 70.6(c)(5)(iv) or 326 IAC 2-7-6(5)(D) still apply, but Permittees can note on their Title V annual compliance certification that submission to IDEM has satisfied reporting to EPA per Federal Register 79 FR 54978. This only applies to Title V Permittees and Title V compliance certifications.

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
There are no changes to any process weight rates as part of this modification. The affected emission units shall continue to comply with the 326 IAC 6-3-2 allowable particulate emission rates as included in Part 70 Operating Permit Renewal No. T157-34376-00038, issued January 12, 2015.

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions; however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs, IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

If the Compliance Determination Requirements are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

There are no changes to the existing Compliance Determination and/or Compliance Monitoring Requirements as part of this modification.

Proposed Changes

The changes listed below have been made to Part 70 Operating Permit No. T157-34376-00038. Deleted language appears as ~~strikethroughs~~ and new language appears in **bold**:

Modification No. 1:

The soybean receiving limit has been added to Condition D.1.1.

Modification No. 2:

The reference to $PM_{2.5}$ emissions has been removed from Condition D.1.1. $PM_{2.5}$ emissions were not regulated at the time of construction of the units. None of the emission units are being modified and therefore $PM_{2.5}$ emissions should not have been included for this condition.

Modification No. 3:

Part 70 Quarterly Report forms have been revised to include reporting requirements for the modified grain receiving limit.

Modification No. 4:

Typographical errors have been corrected.

...

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 PSD Minor Limit [326 IAC 2-2]

Pursuant to SSM 157-11361-00038, issued on December 3, 2001 **and as modified by SPM 157-36605-00038**:

(a) The soybean received by the plant shall be limited to 871,250 tons per twelve (12) consecutive month period, with compliance demonstrated at the end of each month. This soybean limitation is required to limit the potential to emit of PM and PM_{10} emissions of 140.2 and 72.6 tons per twelve (12) consecutive months, respectively.

(~~a~~**b**) The soybean processed by the plant shall be limited to 821~~.~~**,**250 tons per twelve (12) consecutive month period, with compliance demonstrated at the end of each month. ~~t~~**T**his soybean limitation is required to limit the potential to emit of PM~~,~~ **and** PM_{10} ~~and~~ ~~$PM_{2.5}$~~ emissions of 140.2~~,~~ **and** 72.6 ~~and 170.12~~ tons per twelve (12) consecutive months, respectively.

(~~b~~**c**) The soybean received by the dump bed trucks shall be limited to 82,125 tons per twelve (12) consecutive month period, with compliance demonstrated at the end of each month.

(~~c~~**d**) The total natural gas or natural gas equivalent to Boiler no. 2 shall not exceed 794.13 million cubic feet per year.

(~~d~~**e**) The following facilities' PM and PM_{10} emissions rates shall be limited as follows:

Facility	Control	Air Flow Rate Limit (dscfm)	Grain Loading Limit (gr/dscf)	PM Limit (lbs/hour)	PM_{10} Limit (lbs/hour)
Grain receiving system (Truck Soybean Receiving Pit)	Baghouse #4	14,000	0.003	0.360	0.360
Grain storage loading (bin vent emissions resulting from filling the four soybean storage tanks and 18 soybean storage bins from the grain receiving system)	No PM/PM10 control device	infinite	0.01	15.0	8.36
Grain storage unloading (DC-431, DC-432, rail soybean unloading system, bucket elevator #301, DC-434, DC-436, DC-437, DC-444, DC-446, bucket elevator #303, DC-454, DC-447, bucket elevator #304, DC-449, DC-450, and a pod grinder)	Baghouse #10	24,000	0.003	0.617	0.617
...					

...

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

Part 70 Quarterly Report

Source Name: Cargill, Inc. - Soybean Processing Division
Source Address: 1502 Wabash Avenue, Lafayette, Indiana 47905
Part 70 Permit No.: T157-34376-00038
Facility: Entire Plant~~/ Dump Bed Truck Unloading~~
Pollutant: PM and PM_{10}
Limits: Soybeans Processed by Plant: 821,250 tons per **twelve (**12**) consecutive** month period.
~~Soybeans Received by Trucks: 82,125 tons per 12 month period.~~

MONTHS _____ TO _____ YEAR:_____

Month	Soybean Product	Soybeans Processed By Plant (tons) This Month	Soybeans Processed By Plant (tons) Previous 11 Months	Soybeans Processed By Plant (tons) 12 Month Total
	Conventional:			
	Specialty:			
	Both Types:			
	Conventional:			
	Specialty:			
	Both Types:			
	Conventional:			
	Specialty:			
	Both Types:			

~~Month~~	~~Soybeans Received By Trucks (tons) This Month~~	~~Soybeans Received By Trucks (tons) Previous 11 Months~~	~~Soybeans Received By Trucks (tons) 12 Month Total~~

Submitted by: _____

Title/Position: _____

Signature: _____

Date: _____

Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

Part 70 Quarterly Report

Source Name: **Cargill, Inc. - Soybean Processing Division**
Source Address: **1502 Wabash Avenue, Lafayette, Indiana 47905**
Part 70 Permit No.: **T157-34376-00038**
Facility: **Entire Plant / Dump Bed Truck Unloading**
Pollutant: **PM and PM_{10}**
Limits: **Total Soybeans Received by Plant: 871,250 tons per twelve (12) consecutive month period.**
Soybeans Received by Dump Bed Trucks: 82,125 tons per twelve (12) consecutive month period.

MONTHS _____ TO _____ YEAR: _____

Month	Soybeans Received By	Soybeans Received (tons) This Month	Soybeans Received (tons) Previous 11 Months	Soybeans Received (tons) 12 Month Total
	Dump Bed Truck			
	Bottom Dump Truck			
	Rail			
	Dump Bed Truck			
	Bottom Dump Truck			
	Rail			
	Dump Bed Truck			
	Bottom Dump Truck			
	Rail			

Submitted by: _____

Title/Position: _____

Signature: _____

Date: _____

Phone: _____

...

Additional Changes

IDEM, OAQ made additional changes to the permit as described below in order to update the language to match the most current version of the applicable rule, to eliminate redundancy within the permit, and to provide clarification regarding the requirements of these conditions.

...

D.1.4 Preventive Maintenance Plan [326 IAC 2-7-5(12)]~~[326 IAC 1-6-3]~~

A Preventive Maintenance Plan is required for this facility and any control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements **[326 IAC 2-7-5(1)]**

...

D.1.8 Particulate Matter (PM) and Particulate Matter 10 (PM_{10})

In order to **assure compliance** ~~comply~~ with Conditions D.1.1 and D.1.3, the baghouses and cyclones shall be in operation and control emissions from the associated facilities at all times when the associated facilities are in operation.

...

D.2.4 Preventive Maintenance Plan [326 IAC 2-7-5(12)]~~[326 IAC 1-6-3]~~

A Preventive Maintenance Plan is required for the boilers. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements **[326 IAC 2-7-5(1)]**

...

D.3.1 Fugitive Dust Emissions [326 IAC 6-4-2]

Pursuant to 326 IAC 6-4-2 (Fugitive Dust Emission Limitation), the fugitive dust shall not be visible crossing the boundary or property line of a source.

Compliance Determination Requirements **[326 IAC 2-7-5(1)]**

...

D.4.2 Material Requirements for Cold Cleaner Degreasers [326 IAC 8-3-8]

Pursuant to 326 IAC 8-3-8 (Material Requirements for Cold Cleaner Degreasers), ~~on and after January 1, 2015,~~ the Permittee shall not operate a cold cleaning degreaser with a solvent vapor pressure that exceeds one (1) millimeter of mercury (nineteen-thousandths (0.019) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

...

D.4.3 Record Keeping Requirements

(a) To document the compliance status with Condition D.4.2, ~~on and after January 1, 2015,~~ the Permittee shall maintain the following records for each purchase of solvent used in the cold cleaner degreasing operations. These records shall be retained on-site or accessible electronically for the most recent three (3) year period and shall be reasonably accessible for an additional two (2) year period.

(**1**~~a~~) The name and address of the solvent supplier.

(**2**~~b~~) The date of purchase.

(**3**~~c~~) The type of solvent purchased.

(**4**~~d~~) The total volume of the solvent purchased.

(**5**~~e~~) The true vapor pressure of the solvent measured in millimeters of mercury at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

(b) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

...

SECTION E.1 ~~FACILITY OPERATION CONDITIONS~~ **NSPS**

...

~~Facility Description [326 IAC 2-7-5(15)]~~ **Emissions Unit Description:**

...

New Source Performance Standards (NSPS) Requirements **[326 IAC 2-7-5(1)]**

...

SECTION E.2 ~~FACILITY OPERATION CONDITIONS~~ **NSPS**

...

~~Facility Description [326 IAC 2-7-5(15)]~~ **Emissions Unit Description:**

...

New Source Performance Standards (NSPS) Requirements **[326 IAC 2-7-5(1)]**

...

SECTION E.3 ~~FACILITY OPERATION CONDITIONS~~ **NESHAP**

...

~~Facility Description [326 IAC 2-7-5(15)]~~ **Emissions Unit Description:**

...

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements **[326 IAC 2-7-5(1)]**

E.3.1 General Provisions Relating to NESHAP GGGG [326 IAC 20-1] [40 CFR Part 63, Subpart A]

(a) Pursuant to 40 CFR 63.4480, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-1, as specified in 40 CFR Part 63, Subpart GGGG in accordance with schedule in 40 CFR 63 Subpart GGGG.

(b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

~~and~~

~~United States Environmental Protection Agency, Region V~~
~~Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)~~
~~77 West Jackson Boulevard~~
~~Chicago, Illinois 60604-3590~~

...

SECTION E.4 ~~FACILITY OPERATION CONDITIONS~~ **NEHSAP**

...

~~Facility Description [326 IAC 2-7-5(15)]~~ **Emissions Unit Description:**

...

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements **[326 IAC 2-7-5(1)]**

...

Conclusion and Recommendation

The operation of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Permit Modification No. 157-36605-00038.

The staff recommend to the Commissioner that this Part 70 Significant Permit Modification be approved.

IDEM Contact

(a) Questions regarding this proposed permit can be directed to Tamera Wessel at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-8530 or toll free at 1-800-451-6027 extension 4-8530.

(b) A copy of the findings is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/

(c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: http://www.in.gov/idem/5881.htm; and the Citizens' Guide to IDEM on the Internet at: http://www.in.gov/idem/6900.htm.

Appendix A: Emissions Calculations
Summary

Company Name: Cargill, Inc. - Soybean Processing Division
Address: 1503 Wabash Avenue, Lafayette, Indiana 47905
Permit Number: 157-36605-00038
Reviewer: Tamera Wessel

Potential to Emit (ton/yr)									
Process / Control	**PM**	**PM_{10}**	**$PM_{2.5}$**	**SO_2**	**NO_x**	**VOC**	**CO**	**HAPs**	**n-Hexane**
Units Controlled by Baghouses	3,455.18	1,086.71	710.22	-	-	-	-	-	-
Units Controlled by Cyclone	480.02	196.07	115.02	-	-	-	-	-	-
Column Dryer	90.58	23.55	4.83	3.62	12.70	0.70	10.67	0.24	0.23
Uncontrolled Units	539.17	174.48	106.37	-	-	-	-	-	-
Units Routed to MOS with PM Emissions	0.14	0.14	0.14	-	-	-	-	-	-
Source Wide Hexane / Also VOC	-	-		-	-	1157.83	-	741.01	741.01
Boiler	18.47	18.47	18.47	164.25	111.08	1.81	32.39	0.63	0.59
Air Compressor	0.64	0.64	0.64	0.59	8.96	0.73	1.93	0.01	-
Parts Washer	-	-		-	-	0.49	-	-	-
Total	4,584.18	1,500.05	955.68	168.46	132.74	1,161.55	44.99	741.89	741.83
Fugitives									
Paved Roads	8.33	1.67	0.41	-	-	-	-	-	-
Total	8.33	1.67	0.41						

Controlled Potential to Emit (ton/yr)									
Process / Control	**PM**	**PM_{10}**	**$PM_{2.5}$**	**SO_2**	**NO_x**	**VOC**	**CO**	**HAPs**	**n-Hexane**
Units Controlled by Baghouses	14.09	12.91	12.57	-	-	-	-	-	-
Units Controlled by Cyclone	18.10	20.53	20.53	-	-	-	-	-	-
Column Dryer	90.58	23.55	4.83	3.62	12.70	0.70	10.67	0.24	0.23
Uncontrolled Units	539.17	174.48	106.37	-	-	-	-	-	-
Units Routed to MOS with PM Emissions	0.14	0.14	0.14	-	-	-	-	-	-
Source Wide Hexane / Also VOC	-	-	-	-	-	144.92	-	92.75	92.75
Boiler	18.47	18.47	18.47	164.25	111.08	1.81	32.39	0.63	0.59
Air Compressor	0.64	0.64	0.64	0.59	8.96	0.73	1.93	0.01	-
Parts Washer	-	-		-	-	0.49	-	-	-
Total	681.17	250.71	163.54	168.46	132.74	148.63	44.99	93.62	93.57

Limited Potential to Emit (ton/yr)									
Process / Control	**PM**	**PM_{10}**	**$PM_{2.5}$**	**SO_2**	**NO_x**	**VOC**	**CO**	**HAPs**	**n-Hexane**
Units Controlled by Baghouses	14.09	14.07	13.73	-	-	-	-	-	-
Units Controlled by Cyclone	18.10	20.50	20.50	-	-	-	-	-	-
Column Dryer	90.58	23.55	4.83	3.62	12.70	0.70	10.67	0.24	0.23
Uncontrolled Units	539.17	174.48	106.37	-	-	-	-	-	-
Units Routed to MOS with PM Emissions	6.75	6.75	6.75	-	-	-	-	-	-
Source Wide Hexane / Also VOC	-	-	-	-	-	41.83	-	26.77	26.77
Boilers	13.23	13.23	18.47	39.00	39.00	1.81	32.39	0.63	0.59
Air Compressor	0.64	0.64	0.64	0.59	8.96	0.73	1.93	0.01	-
Parts Washer	-	-		-	-	0.49	-	-	-
Total	682.55	253.21	171.28	43.21	60.66	45.55	44.99	27.64	27.59

Appendix A: Emissions Calculations
Summary

Company Name: Cargill, Inc. - Soybean Processing Division
Address: 1503 Wabash Avenue, Lafayette, Indiana 47905
Permit Number: 157-36605-00038
Reviewer: Tamera Wessel

Limited Potential to Emit (ton/yr)									
Process / Units		**Throughput (ton/hr)**	**PM EF (lb/ton)**	**PM_{10} EF (lb/ton)**	**$PM_{2.5}$ EF (lb/ton)**	**Potential to Emit PM (ton/yr)**	**Potential to Emit PM_{10} (ton/yr)**	**Potential to Emit $PM_{2.5}$ (ton/yr)**	**EF Source**
Modified Limited Potential to Emit									
Truck soybean receiving pit	Dump Bed Truck	99.46	0.18	0.059	0.010	78.41	25.70	4.36	AP-42, Table 9.9.1-1
	Bottom Dump Truck/ Rail soybean unloading system*	99.46	0.035	0.0078	0.0013	15.25	3.40	0.57	AP-42, Table 9.9.1-1
DC-434		99.46	0.061	0.034	0.0058	26.57	14.81	2.53	AP-42, Table 9.9.1-1
					Total	**120.23**	**43.91**	**7.45**	
Pre-Modification Limited Potential to Emit									
Truck soybean receiving pit	Dump Bed Truck	93.75	0.18	0.059	0.010	73.91	24.23	4.11	AP-42, Table 9.9.1-1
	Rail soybean unloading system**	93.75	0.032	0.0078	0.0013	13.14	3.20	0.53	AP-42, Table 9.9.1-1
DC-434		93.75	0.061	0.034	0.0058	25.05	13.96	2.38	AP-42, Table 9.9.1-1
					Total	**112.10**	**41.39**	**7.02**	
					Increase due to Modification	**8.13**	**2.52**	**0.43**	

Notes:

*Rail Soybean Unloading System emissions factors (AP-42 Table 9.9.1-1) are the same or lower than the truck receiving emissions factors. Therefore the emissions calculations assume 100% of soybeans are received by hopper truck.

**In Part 70 Operating Permit Renewal T157-34376-00038, issued January 12, 2015, Rail Soybean Unloading System emissions were calculated using the less conservative rail receiving factor (AP-42 Table 9.9.1-1).

Methodology:

Limited PM/PM_{10} (ton/hr) = Limited Throughput (ton/hr) * EF (lb/ton) * 8760 (hr/yr) * 1 ton/2000lb

Increae due to Modification PM/PM_{10} = Modified Limited Potential to Emit (tons/yr) - Pre-Modification Limited Potential to Emit (tons/yr)

Appendix A: Emissions Calculations
Baghouses

Company Name: Cargill, Inc. - Soybean Processing Division
Address: 1503 Wabash Avenue, Lafayette, Indiana 47905
Permit Number: 157-36605-00038
Reviewer: Tamera Wessel

Process / Units	Baghouse ID #	Flow Rate (dscfm)	PM Outlet Grain Loading (gr/dscf)	Control Efficiency %	Controlled PM (lb/hr)	Controlled PM (ton/yr)	Limited PM (ton/yr)	Limited PM_{10} (ton/yr)	Limited $PM_{2.5}$ (ton/yr)
Receiving Area Baghouse (Truck Soybean Receiving Pit)	4	14000	0.003	99%	0.360	1.577	1.58	1.58	1.58
Bean Screener Baghouse (Texas shaker #2 screen, weed seed Kice, Kice #1, DC-448, and DC-448A)	1	11000	0.00144	99%	0.136	0.595	0.60	1.75	1.75
Cracking System Baghouse (Soybean Thayer scale, DC-400A, DC-400, EU-6, DC-401, DC-403, primary Kice #1, SC-201, SC-202, triple S shaker, hull grinder, coarse cut aspiration, and fine cut aspiration)	3	21000	0.003	99%	0.540	2.365	2.37	2.37	2.37
Receiving Area Baghouse[b] (DC-431, DC-432, rail soybean unloading system, bucket elevator #301, DC-434, DC-436, DC-437, DC-444, DC-446, bucket elevator #303, DC-454, DC-447, bucket elevator #304, DC-449, DC-450, and a pod grinder)	10	24000	0.003	99%	0.617	2.703	2.70	2.70	2.70
Storage Tank Area Baghouse (DC-441, DC-442, DC-443, bucket elevator #307, and DC-453)	9	16200	0.003	99%	0.417	1.825	1.83	1.83	1.83
Meal Sizing and Screening (DC-414A, DC-415, DC-416, SC-223, 3 soybean meal grinders, SC-221, DC-417, BE-300, DC-418, and DC-419)	2	5500	0.005	99%	0.236	1.032	1.03	1.03	1.03
Truck and Rail soybean meal and hull loadout systems	5	16000	0.004	99%	0.549	2.403	2.40	2.40	2.40
				Total:	**2.85**	**12.50**	**12.50**	**13.66**	**13.66**

Methodology:
PM_{10} and $PM_{2.5}$ assumed to be equal to PM.
Controlled PM (ton/yr) = Flow rate (dscfm) x Grain Loading (gr/dscf) x 1 lb/7000 grains x 60 minutes/hr x 8760 hr/yr x 1 ton/2000 lb

Process / Units	Limited Throughput (ton/hr)	PM EF (lb/ton)	PM_{10} EF (lb/ton)	$PM_{2.5}$ EF (lb/ton)	Capture Efficiency %	Fugitive PM Emissions (ton/yr)	Fugitive PM_{10} Emissions (ton/yr)	Fugitive $PM_{2.5}$ Emissions (ton/yr)	EF Source
Straight Truck	9.38	0.18	0.059	0.01	92.5%	0.55	0.18	0.03	AP-42, Table 9.9.1-1
Hopper Truck and Rail Receiving System	90.08	0.035	0.0078	0.0013	92.5%	1.04	0.23	0.04	AP-42, Table 9.9.1-1
					Total:	**1.59**	**0.41**	**0.07**	

Methodology:
Fugitive PM/PM_{10} (ton/hr) = Limited Throughput (ton/hr) * EF (lb/ton) * 8760 (hr/yr) * 1 ton/2000lb * (1 - Capture Efficiency (%))

Appendix A: Emissions Calculations
Baghouses

Company Name: Cargill, Inc. - Soybean Processing Division
Address: 1503 Wabash Avenue, Lafayette, Indiana 47905
Permit Number: 157-36605-00038
Reviewer: Tamera Wessel

Process / Units		Throughput (ton/hr)	PM EF (lb/ton)	PM_{10} EF (lb/ton)	$PM_{2.5}$ EF (lb/ton)	Potential to Emit PM (ton/yr)	Potential to Emit PM_{10} (ton/yr)	Potential to Emit $PM_{2.5}$ (ton/yr)	EF Source
Truck soybean receiving pit	Dump Bed Truck	99.46	0.18	0.059	0.010	78.41	25.70	4.36	AP-42, Table 9.9.1-1
	Bottom Dump Truck/ Rail soybean unloading system****	99.46	0.035	0.0078	0.0013	15.25	3.40	0.57	AP-42, Table 9.9.1-1
DC-431		93.75	0.061	0.034	0.0058	25.05	13.96	2.38	AP-42, Table 9.9.1-1
DC-432		93.75	0.061	0.034	0.0058	25.05	13.96	2.38	AP-42, Table 9.9.1-1
soybean receiving bucket elevator #301		93.75	0.061	0.034	0.0058	25.05	13.96	2.38	AP-42, Table 9.9.1-1
DC-441		93.75	0.061	0.034	0.0058	25.05	13.96	2.38	AP-42, Table 9.9.1-1
DC-442		93.75	0.061	0.034	0.0058	25.05	13.96	2.38	AP-42, Table 9.9.1-1
DC-443		93.75	0.061	0.034	0.0058	25.05	13.96	2.38	AP-42, Table 9.9.1-1
DC-434		99.46	0.061	0.034	0.0058	26.57	14.81	2.53	AP-42, Table 9.9.1-1
DC-436		93.75	0.061	0.034	0.0058	25.05	13.96	2.38	AP-42, Table 9.9.1-1
DC-437		93.75	0.061	0.034	0.0058	25.05	13.96	2.38	AP-42, Table 9.9.1-1
DC-444		93.75	0.061	0.034	0.0058	25.05	13.96	2.38	AP-42, Table 9.9.1-1
DC-446		93.75	0.061	0.034	0.0058	25.05	13.96	2.38	AP-42, Table 9.9.1-1
soybean transfer bucket elevator #303		93.75	0.061	0.034	0.0058	25.05	13.96	2.38	AP-42, Table 9.9.1-1
Texas shaker #2 screener		93.75	0.075	0.019	0.0032	30.80	7.80	1.31	AP-42, Table 9.9.1-1
weed seed Kice		4.5	0.075	0.019	0.0032	1.48	0.37	0.06	AP-42, Table 9.9.1-1
Kice #1		93.75	0.075	0.019	0.0032	30.80	7.80	1.31	AP-42, Table 9.9.1-1
DC-448		93.75	0.061	0.034	0.0058	25.05	13.96	2.38	AP-42, Table 9.9.1-1
DC-448A		93.75	0.061	0.034	0.0058	25.05	13.96	2.38	AP-42, Table 9.9.1-1
DC-449		93.75	0.061	0.034	0.0058	25.05	13.96	2.38	AP-42, Table 9.9.1-1
DC-450		93.75	0.061	0.034	0.0058	25.05	13.96	2.38	AP-42, Table 9.9.1-1
soybean transfer bucket elevator #307		93.75	0.061	0.034	0.0058	25.05	13.96	2.38	AP-42, Table 9.9.1-1
DC-453		93.75	0.061	0.034	0.0058	25.05	13.96	2.38	AP-42, Table 9.9.1-1
DC-454		93.75	0.061	0.034	0.0058	25.05	13.96	2.38	AP-42, Table 9.9.1-1
DC-447		93.75	0.061	0.034	0.0058	25.05	13.96	2.38	AP-42, Table 9.9.1-1
dry soybean transfer bucket elevator #304		93.75	0.061	0.034	0.0058	25.05	13.96	2.38	AP-42, Table 9.9.1-1
DC-400A		93.75	0.061	0.034	0.0058	25.05	13.96	2.38	AP-42, Table 9.9.1-1
soybean Thayer scale		93.75	0.061	0.034	0.0058	25.05	13.96	2.38	AP-42, Table 9.9.1-1
DC-400		93.75	0.061	0.034	0.0058	25.05	13.96	2.38	AP-42, Table 9.9.1-1
Cracker Roll 1 (EU-6)		18.75	3.3	0.825	0.825	271.01	67.75	67.75	FIRE SCC 3-02-007-85**
Cracker Roll 2 (EU-6)		18.75	3.3	0.825	0.825	271.01	67.75	67.75	FIRE SCC 3-02-007-85**
Cracker Roll 3 (EU-6)		18.75	3.3	0.825	0.825	271.01	67.75	67.75	FIRE SCC 3-02-007-85**
Cracker Roll 4 (EU-6)		18.75	3.3	0.825	0.825	271.01	67.75	67.75	FIRE SCC 3-02-007-85**
Cracker Roll 5 (EU-6)		18.75	3.3	0.825	0.825	271.01	67.75	67.75	FIRE SCC 3-02-007-85**
DC-401		93.75	0.061	0.034	0.0058	25.05	13.96	2.38	AP-42, Table 9.9.1-1
DC-403		93.75	0.061	0.034	0.0058	25.05	13.96	2.38	AP-42, Table 9.9.1-1
primary Kice #1		93.75	0.075	0.019	0.0032	30.80	7.80	1.31	AP-42, Table 9.9.1-1
SC-201		93.75	0.061	0.034	0.0058	25.05	13.96	2.38	AP-42, Table 9.9.1-1
SC-202		93.75	0.061	0.034	0.0058	25.05	13.96	2.38	AP-42, Table 9.9.1-1
triple S shaker		93.75	0.075	0.019	0.0032	30.80	7.80	1.31	AP-42, Table 9.9.1-1
hull grinder*		6	NA	NA	NA	0.04	0.04	0.04	See note
coarse cut aspiration		4.5	0.061	0.034	0.0058	1.20	0.67	0.11	AP-42, Table 9.9.1-1
fine cut aspiration		4.5	0.061	0.034	0.0058	1.20	0.67	0.11	AP-42, Table 9.9.1-1
DC-414A		76.56	0.27	0.068	0.068	90.54	22.63	22.63	AP-42, Table 9.9.1-1
DC-415		76.56	0.27	0.068	0.068	90.54	22.63	22.63	AP-42, Table 9.9.1-1
DC-416		76.56	0.27	0.068	0.068	90.54	22.63	22.63	AP-42, Table 9.9.1-1
SC-223		38.28	0.27	0.068	0.068	45.27	11.32	11.32	AP-42, Table 9.9.1-1
Meal grinder #1		12.76	2	0.5	0.5	111.78	27.94	27.94	FIRE SCC 3-02-007-86**
Meal grinder #2		12.76	2	0.5	0.5	111.78	27.94	27.94	FIRE SCC 3-02-007-86**
Meal grinder #3		12.76	2	0.5	0.5	111.78	27.94	27.94	FIRE SCC 3-02-007-86**
SC-221		38.28	0.27	0.068	0.068	45.27	11.32	11.32	AP-42, Table 9.9.1-1
DC-417		76.56	0.27	0.068	0.068	90.54	22.63	22.63	AP-42, Table 9.9.1-1
BE-300		76.56	0.27	0.068	0.068	90.54	22.63	22.63	AP-42, Table 9.9.1-1
DC-418		76.56	0.27	0.068	0.068	90.54	22.63	22.63	AP-42, Table 9.9.1-1
DC-419		76.56	0.27	0.068	0.068	90.54	22.63	22.63	AP-42, Table 9.9.1-1
truck soybean meal and hull loadout system		76.56	0.27	0.068	0.068	90.54	22.63	22.63	AP-42, Table 9.9.1-1
pod grinder		3	2	0.5	0.5	26.28	6.57	6.57	FIRE SCC 3-02-007-86**
					Total:	**3,455.18**	**1,086.71**	**710.22**	

Notes:

*This unit has an integral control device, therefore potential to emit is evaluated post control.

**No data is given on PM_{10} emission factor. Therefore, per AP-42 9.9.1-1 Note h, a conservative estimate that PM10 = 25% of PM has been used. Assumed $PM_{2.5} = PM_{10}$

****Rail Soybean Unloading System emissions factors (AP-42 Table 9.9.1-1) are the same or lower than the truck receiving emissions factors. Therefore the emissions calculations assume 100% of soybeans are received by hopper truck.

Methodology:

Uncontrolled PM/PM_{10} (ton/hr) = Throughput (ton/hr) * EF (lb/ton) * 8760 (hr/yr) * 1 ton/2000lb

***Uncontrolled PM/PM_{10}(ton/hr) = Controlled PM / (1 - Control Efficiency (%))

Note: The Permittee has provided the throughputs based on the federally enforceable source wide throughput limit and the amount of product actually processed at each step of the operation.

1) Conservative estimate that PM10 = 25% of PM per AP-42 9.9.1-1 Note h

Appendix A: Emissions Calculations
Cyclones

Company Name: Cargill, Inc. - Soybean Processing Division
Address: 1503 Wabash Avenue, Lafayette, Indiana 47905
Permit Number: 157-36605-00038
Reviewer: Tamera Wessel

Process / Units	Control Device ID#	Flow Rate (dscfm)	PM Outlet Grain Loading (gr/dscf)	PM_{10} Outlet Grain Loading (gr/dscf)	$PM_{2.5}$ Outlet Grain Loading (gr/dscf)	Controlled PM (lb/hr)	Controlled PM_{10} (lb/hr)	Controlled $PM_{2.5}$ (lb/hr)	Controlled PM (ton/yr)	Controlled PM_{10} (ton/yr)	Controlled $PM_{2.5}$ (ton/yr)	Limited PM (ton/yr)	Limited PM_{10} (ton/yr)	Limited $PM_{2.5}$ (ton/yr)
Flaking Cyclone (rotary conditioner, DC-404, DC-405, DC-406, DC-407, flaker banks 1 & 2, SC-206, SC-207, EU-12, and DC-409)	Cyclone#4	17000	0.006	0.006	0.006	0.87	0.87	0.87	3.83	3.83	3.83	3.83	3.83	3.83
The following control devices are considered integral to the process:														
DTDC Meal Dryer	Cyclone#6	10000	0.007	0.007	0.007	0.60	0.60	0.60	2.63	2.63	2.63	2.63	2.63	2.63
DTDC Meal Dryer	Cyclone#7	10000	0.007	0.007	0.007	0.60	0.60	0.60	2.63	2.63	2.63	2.63	2.63	2.63
DTDC Meal Cooler	Cyclone#8	8000	0.015	0.019	0.019	1.03	1.30	1.30	4.51	5.71	5.71	4.51	5.71	5.71
DTDC Meal Cooler	Cyclone#9	8000	0.015	0.019	0.019	1.03	1.30	1.30	4.51	5.71	5.71	4.51	5.71	5.71
Hull Storage (hull grinder)*	Cyclone#3	320	0.003	0.003	0.003	0.01	0.01	0.01	0.04	0.04	0.04	N/A	N/A	N/A
					Total:	**4.13**	**4.68**	**4.68**	**18.10**	**20.53**	**20.53**	**18.10**	**20.50**	**20.50**

Methodology:
Controlled PM/PM_{10} (ton/yr) = Flow rate (dscfm) x Grain Loading (gr/dscf) x 1 lb/7000 grains x 60 minutes/hr x 8760 hr/yr x 1 ton/2000 lb

Process / Units	Control Device ID#	Throughput (ton/hr)	PM EF (lb/ton)	PM_{10} EF (lb/ton)	$PM_{2.5}$ EF (lb/ton)	Control Efficiency (%)	Controlled PM (ton/yr)	Controlled PM_{10} (ton/yr)	Controlled $PM_{2.5}$ (ton/yr)	EF Source
Coarse Cut Aspiration*	Cyclone #1	4.5	0.061	0.034	0.0058	99.6%	0.0048	0.0027	0.0005	AP-42, Table 9.9.1-1
Fine Cut Aspiration*	Cyclone #2	4.5	0.061	0.034	0.0058	99.6%	0.0048	0.0027	0.0005	AP-42, Table 9.9.1-1
						Total:	**0.0096**	**0.0054**	**0.0009**	

Methodology:
Controlled $PM/PM_{10}/PM_{2.5}$ (ton/hr) = Throughput (ton/hr) * EF (lb/ton) * 8760 (hr/yr) * 1 ton/2000lb * (1 - Control Efficiency)

*Cyclones #1, #2, and #3 route to baghouse #3. Emissions from these units are counted towards total emissions after baghouse #3 on Baghouses page.

Appendix A: Emissions Calculations
Cyclones

Company Name: Cargill, Inc. - Soybean Processing Division
Address: 1503 Wabash Avenue, Lafayette, Indiana 47905
Permit Number: 157-36605-00038
Reviewer: Tamera Wessel

Process / Units	Throughput (ton/hr)	PM EF (lb/ton)	PM_{10} EF (lb/ton)	$PM_{2.5}$ EF (lb/ton)	Potential to Emit PM (ton/yr)	Potential to Emit PM_{10} (ton/yr)	Potential to Emit $PM_{2.5}$ (ton/yr)	EF Source
Rotary Conditioner	93.75	0.1	0.025	0.025	41.06	10.27	10.27	FIRE 3-02-007-87*
DC-404	93.75	0.061	0.034	0.0058	25.05	13.96	2.38	AP-42, Table 9.9.1-1
DC-405	93.75	0.061	0.034	0.0058	25.05	13.96	2.38	AP-42, Table 9.9.1-1
DC-406	93.75	0.061	0.034	0.0058	25.05	13.96	2.38	AP-42, Table 9.9.1-1
DC-407	93.75	0.061	0.034	0.0058	25.05	13.96	2.38	AP-42, Table 9.9.1-1
flaker bank #1 & #2	93.75	0.57	0.143	0.143	234.06	58.51	58.51	FIRE 3-02-007-88*
SC-206	93.75	0.061	0.034	0.0058	25.05	13.96	2.38	AP-42, Table 9.9.1-1
SC-207	93.75	0.061	0.034	0.0058	25.05	13.96	2.38	AP-42, Table 9.9.1-1
EU-12	25	0.27	0.27	0.27	29.57	29.57	29.57	AP-42, Table 9.9.1-1
DC-409	93.75	0.061	0.034	0.0058	25.05	13.96	2.38	AP-42, Table 9.9.1-1
Coarse Cut Aspiration	4.5	0.061	0.034	0.0058	Calculated in Baghouses			AP-42, Table 9.9.1-1
Fine Cut Aspiration	4.5	0.061	0.034	0.0058	Calculated in Baghouses			AP-42, Table 9.9.1-1
				Total:	**480.02**	**196.07**	**115.02**	

Methodology:

Uncontrolled $PM/PM_{10}/PM_{2.5}$ (ton/hr) = Throughput (ton/hr) * EF (lb/ton) * 8760 (hr/yr) * 1 ton/2000lb

Note: The Permittee has provided the throughputs based on the federally enforceable source wide throughput limit and the amount of product actually processed at each step of the operation.

*No data is given on PM_{10} emission factor. Therefore, per AP-42 9.9.1-1 Note h a conservative estimate that PM10 = 25% of PM has been used. $PM_{2.5}$ = PM_{10} has also been used.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
Column Dryer

Company Name: Cargill, Inc. - Soybean Processing Division
Address: 1503 Wabash Avenue, Lafayette, Indiana 47905
Permit Number: 157-36605-00038
Reviewer: Tamera Wessel

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
29.0	254.0

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	28.5	100 **see below	5.5	84
Potential Emission in tons/yr	0.2	1.0	1.0	3.6	12.7	0.7	10.7

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

PM2.5 emission factor is filterable and condensable PM2.5 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology
All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

HAPS Calculations

	HAPs - Organics					
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	**Total - Organics**
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Potential Emission in tons/yr	2.667E-04	1.524E-04	9.527E-03	2.286E-01	4.319E-04	**2.390E-01**

	HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel	**Total - Metals**
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	6.351E-05	1.397E-04	1.778E-04	4.827E-05	2.667E-04	**6.961E-04**
					Total HAPs	**2.397E-01**
					Worst HAP	**2.286E-01**

Methodology is the same as above.
The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Process / Units	**Throughput (ton/hr)**	**PM EF (lb/ton)**	**PM_{10} EF (lb/ton)**	**$PM_{2.5}$ EF (lb/ton)**	**Potential to Emit PM (ton/yr)**	**Potential to Emit PM_{10} (ton/yr)**	**Potential to Emit $PM_{2.5}$ (ton/yr)**
Column dryer *	93.75	0.22	0.055	0.0094	90.34	22.58	3.86

Methodology:
*Process emissions only.
Uncontrolled PM/PM_{10}(ton/hr) = Throughput (ton/hr) * EF (lb/ton) * 8760 (hr/yr) * 1 ton/2000lb
Emission Factor from AP-42, Table 9.9.1-1.
Note: The Permittee has provided the throughputs based on the federally enforceable source wide throughput limit and the amount of product actually processed at each step of the operation.

Column Dryer	**PM**	**PM_{10}**	**$PM_{2.5}$**	**SO_2**	**NO_x**	**VOC**	**CO**	**HAPs**	**Hexane**
Total	90.58	23.55	4.83	3.62	12.7	0.70	10.7	0.24	0.23

Appendix A: Emissions Calculations
Uncontrolled Units

Company Name: Cargill, Inc. - Soybean Processing Division
Address: 1503 Wabash Avenue, Lafayette, Indiana 47905
Permit Number: 157-36605-00038
Reviewer: Tamera Wessel

Process / Unties	Throughput (ton/hr)	PM EF (lb/ton)	PM_{10} EF (lb/ton)	$PM_{2.5}$ EF (lb/ton)	Potential to Emit PM (ton/yr)	Potential to Emit PM_{10} (ton/yr)	Potential to Emit $PM_{2.5}$ (ton/yr)
4 soybean storage tanks	93.75	0.025	0.0063	0.0011	10.27	2.59	0.45
SC-212	4.50	0.061	0.0340	0.0058	1.20	0.67	0.11
18 storage bins (501 -503, 506-508, 511-513, 516-518, 521-523, 526-528)	93.75	0.025	0.0063	0.0011	10.27	2.59	0.45
2 weed seed bins (207 and 208)	93.75	0.025	0.0063	0.0011	10.27	2.59	0.45
SC-213	4.50	0.061	0.034	0.0058	1.20	0.67	0.11
SC-214	4.50	0.061	0.034	0.0058	1.20	0.67	0.11
DC-427	93.75	0.061	0.034	0.0058	25.05	13.96	2.38
DC-428	93.75	0.061	0.034	0.0058	25.05	13.96	2.38
DC-429	93.75	0.061	0.034	0.0058	25.05	13.96	2.38
5 surge bins	93.75	0.025	0.0063	0.0011	10.27	2.59	0.45
DC-410	93.75	0.061	0.034	0.0058	25.05	13.96	2.38
DC-411	93.75	0.061	0.034	0.0058	25.05	13.96	2.38
DC-412, DC-413, and DC seal screw	76.56	0.27	0.068	0.068	90.54	22.63	22.63
SC-209	76.56	0.27	0.068	0.068	90.54	22.63	22.63
DC-414	76.56	0.27	0.068	0.068	90.54	22.63	22.63
3 meal sifters	76.56	0.27	0.068	0.068	90.54	22.63	22.63
pneumatic hull conveying system	6.00	0.27	0.068	0.068	7.10	1.77	1.77
			Total:		**539.17**	**174.48**	**106.37**

Methodology:

Uncontrolled $PM/PM_{10}/PM_{2.5}$(lb/hr) = Throughput (ton/hr) * EF (lb/ton)

Uncontrolled $PM/PM_{10}/PM_{2.5}$(ton/hr) = Throughput (ton/hr) * EF (lb/ton) * 8760 (hr/yr) * 1 ton/2000lb

Emission Factors from AP-42, Table 9.9.1-1.

Note: The Permittee has provided the throughputs based on the federally enforceable source wide throughput limit and the amount of product actually processed at each step of the operation.

Appendix A: Emissions Calculations
Particulate Emissions from Units Vented to the Mineral Oil Absorber System

Company Name: **Cargill, Inc. - Soybean Processing Division**
Address: **1503 Wabash Avenue, Lafayette, Indiana 47905**
Permit Number: **157-36605-00038**
Reviewer: **Tamera Wessel**

48% Meal Tank

Given: 0.1 gr/dscf
1.02E+07 cubic feet of displacement per year

0.1	/	7,000	x	1.02E+07	/	8760	=	0.02
(gr/dscf)		(gr/lb)		(cf/yr)		(hr/yr)		(lb/hr)

0.02	x	8760	/	2000	=	0.07
(lb/hr)		(hr/yr)		(lb/ton)		(ton/year)

44% Meal Tank

Given: 0.1 gr/dscf
8.75E+06 cubic feet of displacement per year

0.1	/	7,000	x	8.75E+06	/	8760	=	0.01
(gr/dscf)		(gr/lb)		(cf/yr)		(hr/yr)		(lb/hr)

0.01	x	8760	/	2000	=	0.06
(lb/hr)		(hr/yr)		(lb/ton)		(ton/year)

The gr/dscf are based on engineering estimates and process knowledge provided by the source.
The cubic feet of air displaced per year was calculated by the source by converting the potential throughput of meal in tons/year to a volume assuming an average density of 40 pounds per cubic feet.

Appendix A: Emissions Calculations
Hexane Emissions

Company Name: Cargill, Inc. - Soybean Processing Division
Address: 1503 Wabash Avenue, Lafayette, Indiana 47905
Permit Number: 157-36605-00038
Reviewer: Tamera Wessel

Hexane (VOC) emissions

Density of hexane	=	5.6	lb /gal
Process limit of soybean	=	821,250	tons/yr
	=	100.50	tons/hr

Hexane is lost from the extraction and desolventizing operations in soybean extraction and in refining plants. These include:

Point sources

a) Vent system gas during normal operation
b) Meal dryers
c) Meal cooler

Fugitive emissions

d) Solvent samples

Bound in product/by-product

e) Desolventized flakes (meal)
f) Process wastewater

Main gas vent (Mineral Oil Absorber System) - controls EU-16, EU-13, iso-hexane conversion system, and solvent/water separator

Given:	3000	ppm outlet from vent - provided by the source in SSM No. 157-11361-00038
	300	cubic feet per minute flowrate
	8760	hours per year operating rate
	95%	control efficiency based on AP-24 Chapter 9.11

3000	x	86.17	/	3.82E+08	=	6.76E-04	
(ppm)		(lb/lbmol)		(cf ppm / lbmol)		(lb/cf)	
6.76E-04	x	300	x	60	=	12.17	
(lb/cf)		(cf/min)		(min/hr)		(lb/hr)	
12.17	x	8760	/	2000	=	53.31	controlled emissions
(lb/hr)		(hr/yr)		(lb/ton)		(ton/year)	
53.31	/	(1 - 95%)	=	1066.23	uncontrolled emissions		
(ton/year)				(ton/year)			

Dryer/Cooler

Given:	20	ppm outlet from vent - provided by the source in SSM No. 157-11361-00038
	8500	cubic feet per minute flowrate
	8760	hours per year operating rate

20	x	86.17	/	3.82E+08	=	4.51E-06
(ppm)		(lb/lbmol)		(cf ppm / lbmol)		(lb/cf)
4.51E-06	x	8500	x	60	=	2.30
(lb/cf)		(cf/min)		(min/hr)		(lb/hr)
2.30	x	8760	/	2000	=	10.07
(lb/hr)		(hr/yr)		(lb/ton)		(ton/year)

48% Meal Tank

Given:	200	ppm outlet from vent - provided by the source in SSM No. 157-11361-00038				
	1.02E+07	cubic feet of displacement per year				
200	x	86.17	/	3.82E+08	=	4.51E-05
(ppm)		(lb/lbmol)		(cf ppm / lbmol)		(lb/cf)
4.51E-05	x	1.02E+07	/	2000	=	0.23
(lb/cf)		(cf/yr)		(lb/ton)		(lb/hr)
0.23	x	8760	/	2000	=	1.01
(lb/hr)		(hr/yr)		(lb/ton)		(ton/year)

44% Meal Tank

Given:	70	ppm outlet from vent - provided by the source in SSM No. 157-11361-00038				
	8.75E+06	cubic feet of displacement per year				
70	x	86.17	/	3.82E+08	=	1.58E-05
(ppm)		(lb/lbmol)		(cf ppm / lbmol)		(lb/cf)
1.58E-05	x	8.75E+06	/	2000	=	0.07
(lb/cf)		(cf/yr)		(lb/ton)		(lb/hr)
0.07	x	8760	/	2000	=	0.30
(lb/hr)		(hr/yr)		(lb/ton)		(ton/year)

Air Emissions - Products and Byproducts

Soybean Meal

Given:	30	ppm hexane concentration in product - provided by the source in SSM No. 157-11361-00038				
	323299	tons meal produced per year				
30	x	323299	/	1000000	=	9.70
(ppm)		(tons/yr)		(ppm)		(ton/year)

Soybean Oil

Given:	90	ppm hexane concentration in product - provided by the source in SSM No. 157-11361-00038				
	162608	tons soy oil produced per year				
90	x	162608	/	1000000	=	14.63
(ppm)		(tons/yr)		(ppm)		(ton/yr)

Process Wastewater

Given:	10	ppm hexane concentration in water - provided by the source in SSM No. 157-11361-00038				
	40	gpm flowrate				
40	x	8.345	x	60	=	20028
(gal/min)		(lb/gal)		(min/hr)		(lb/hr)
20028	x	10	/	1000000	=	0.20
(lb/hr)		(ppm)		(ppm)		(lb/hr)
0.20	x	8760	/	2000	=	0.88
(lb/hr)		(hr/yr)		(lb/ton)		(ton/year)

Air Emissions - Fugitives

Sampling/Hexane Unloading

Given:	53	Hexane samples are collected per year - provided by the source in SSM No. 157-11361-00038				
	0.1	gallon volume sample collected				
	5.5	pounds per gallon (density of hexane)				
53	x	0.1	x	5.5	=	29
(sample/yr)		(gallon/sample)		(lb/gal)		(lb/yr)
29	/	2000	=	0.01		
(lb/yr)		(lb/ton)		(ton/year)		

Cargill, Inc.
Lafayette, Indiana

General Fugitives

Based on past experience and knowledge of the process Cargill estimates an additional 55 tons of hexane will be lost through various other fugitive sources.

Process Weight Based Losses Controlled	
Type of Hexane Loss	**Annual Average (lb/ton)**
Air Emissions - Point Sources	
MOS Final Vent	0.130
Dryer/Cooler	0.025
48% Meal Tank	0.002
44% Meal Tank	0.001
SUBTOTAL	0.16
Air Emissions - Fugitive	
Sampling/Hexane Unloading	0.00004
General	0.1339
SUBTOTAL	0.1340
Products and Byproducts	
Meal	0.024
Oil	0.036
Proc. Wastewater	0.002
SUBTOTAL	0.061
TOTAL	0.35

Assumptions: 821,250 tons of soybeans processed per year

Process Weight Based Losses Controlled	
Type of Hexane Loss	**Annual Average (gal/ton)**
Air Emissions - Point Sources	
MOS Final Vent	0.02
Dryer/Cooler	0.004
48% Meal Tank	0.0004
44% Meal Tank	0.0001
SUBTOTAL	0.028
Air Emissions - Fugitive	
Sampling/Hexane Unloading	0.00001
General	0.02392
SUBTOTAL	0.0239
Products and Byproducts	
Meal	0.0042
Oil	0.0064
Decanted Water	0.0004
SUBTOTAL	0.011
TOTAL	0.063

Assumptions: 821,250 tons of soybeans processed per year

Type of Hexane Loss	**Total Controlled Hexane Loss (ton/yr)**
Air Emissions - Point Sources	
MOS Final Vent	53.31
Dryer/Cooler	10.07
48% Meal Tank	1.01
44% Meal Tank	0.30
SUBTOTAL	65
Air Emissions - Fugitive	
Sampling/Hexane Unloading	0.01
General	55.00
SUBTOTAL	55.01
Products and Byproducts	
Meal	9.70
Oil	14.63
Proc. Wastewater	0.88
SUBTOTAL	25.21
TOTAL	144.92

Type of Hexane Loss	**Total Uncontrolled Hexane Loss (ton/yr)**
Air Emissions - Point Sources	
Mos Final Vent	1066.23
Dryer/Cooler	10.07
48% Meal Tank	1.01
44%Meal Tank	0.30
SUBTOTAL	1077.61
Air Emissions - Fugitive	
Sampling/Hexane Unloading	0.01
General	55.00
SUBTOTAL	55.01
Products and Byproducts	
Meal	9.70
Oil	14.63
Proc. Wastewater	0.88
SUBTOTAL	25.21
TOTAL	1157.83

Note: The Permittee has provided the throughputs based on the federally enforceable source wide throughput limit and the amount of product actually processed at each step of the operation.

HAP Fraction (n-Hexane) = 64% wt. % Industry standard factor (for example, see 40 CFR 63, Subpart GGGG)

Total Controlled n-Hexane Loss (ton/yr)	92.75
Total Uncontrolled n-Hexane Loss (ton/yr)	741.01

Appendix A: Emissions Calculations
Boilers When Using Vegetable Oil

Company Name: **Cargill, Inc. - Soybean Processing Division**
Address: **1503 Wabash Avenue, Lafayette, Indiana 47905**
Permit Number: **157-36605-00038**
Reviewer: **Tamera Wessel**

2nd Boiler	75	MMBtu/hr
V.O. Flow rate:	4441.2751	lb/hr
Density:	7.702	lb/gal
Fuel Use:	576.63919	gal/hr
Heat Value:	130064	Btu/gal
Heat by V.O.:	75000000	Btu/hr

Maximum % vegetable oil: 100.00%

Linear scaling of test data:

100.00% maximum / 85.78% as tested = 1.17 (scaling factor)

	NG / #2 oil / #6 oil emission factor		NG / #2 oil / #6 oil ton / year		85.8% veg. oil emission factor		100.0% veg. oil emission factor		100.0% veg. oil ton / year		Worst Case PTE ton / year	
PM:	0.0562	lb/MMBtu	18.47	tons/year	0.0185	lb/MMBtu	0.0122	lb/MMBtu	4.02	tons/year	18.47	tons/year
$PM_{10}/PM_{2.5}$:	0.0562	lb/MMBtu	18.47	tons/year	0.0185	lb/MMBtu	0.0122	lb/MMBtu	4.02	tons/year	18.47	tons/year
SO_2:	0.5000	lb/MMBtu	164.25	tons/year	0.0250	lb/MMBtu	0.0000	lb/MMBtu	0.00	tons/year	164.25	tons/year
NOx:	0.3381	lb/MMBtu	111.08	tons/year	0.1618	lb/MMBtu	0.1326	lb/MMBtu	43.55	tons/year	111.08	tons/year
VOC:	0.0055	lb/MMBtu	1.81	tons/year	0.0024	lb/MMBtu	0.0019	lb/MMBtu	0.62	tons/year	1.81	tons/year
CO:	0.0840	lb/MMBtu	27.59	tons/year	0.0965	lb/MMBtu	0.0986	lb/MMBtu	32.39	tons/year	32.39	tons/year

The vegetable oil emission calculations are based on emission tests conducted January 18 and January 23, 2001 on the EP#26 stack at the Cargill facility in Iowa Falls, IA. Baseline emission factors are from EPA document AP-42.

Methodology:

(baseline emission at 0% vegetable oil) + ((change in emission between 0% and tested % vegetable oil) * (scaling factor)) = (emission at the desired % vegetable oil)

Note:

In cases where linear scaling of an emission decrease results in a negative emission factor, the emission factor is listed as zero lb/MMBtu.

Appendix A: Emissions Calculations
Boilers When using Tallow

Company Name: **Cargill, Inc. - Soybean Processing Division**
Address: **1503 Wabash Avenue, Lafayette, Indiana 47905**
Permit Number: **157-36605-00038**
Reviewer: **Tamera Wessel**

2nd Boiler	75	MMBtu/hr
T. Flow rate:	4437.8698	lb/hr
Density:	7.51	lb/gal
Fuel Use:	590.92807	gal/hr
Heat Value:	126919	Btu/gal
Heat by T.:	75000000	Btu/hr

Maximum % tallow: 100.00%

Linear scaling of test data:

100.00% maximum / 50.00% estimated = 2.00 (scaling factor)

	NG / #2 oil / #6 oil emission factor		NG / #2 oil / #6 oil ton / year		50.0% tallow emission factor		100.0% tallow emission factor		100.0% tallow ton / year		Worst Case PTE ton / year	
PM:	0.0562	lb/MMBtu	18.47	tons/year	0.0540	lb/MMBtu	0.0518	lb/MMBtu	17.01	tons/year	18.47	tons/year
$PM_{10}/PM_{2.5}$:	0.0562	lb/MMBtu	18.47	tons/year	0.0540	lb/MMBtu	0.0518	lb/MMBtu	17.01	tons/year	18.47	tons/year
SO_2:	0.5000	lb/MMBtu	164.25	tons/year	0.0000	lb/MMBtu	0.0000	lb/MMBtu	0.00	tons/year	164.25	tons/year
NOx:	0.3381	lb/MMBtu	111.08	tons/year	0.1950	lb/MMBtu	0.0519	lb/MMBtu	17.04	tons/year	111.08	tons/year
VOC:	0.0055	lb/MMBtu	1.81	tons/year	0.0050	lb/MMBtu	0.0045	lb/MMBtu	1.48	tons/year	1.81	tons/year
CO:	0.0840	lb/MMBtu	27.59	tons/year	0.0160	lb/MMBtu	0.0000	lb/MMBtu	0.00	tons/year	27.59	tons/year

The tallow emission calculations are based on emission tests conducted in Wapello County, IA, which indicated the highest emission results for tallow combustion. Baseline emission factors are from EPA document AP-42

Methodology:

(baseline emission at 0% tallow) + ((change in emission between 0% and tested % tallow) * (scaling factor)) = (emission at the desired % tallow)

Note:

In cases where linear scaling of an emission decrease results in a negative emission factor, the emission factor is listed as zero lb/MMBtu.

Appendix A: Emissions Calculations
Boilers When Using Grease

Company Name: **Cargill, Inc. - Soybean Processing Division**
Address: **1503 Wabash Avenue, Lafayette, Indiana 47905**
Permit Number: **157-36605-00038**
Reviewer: **Tamera Wessel**

2nd Boiler	75	MMBtu/hr
G. Flow rate:	4293.0738	lb/hr
Density:	7.506	lb/gal
Fuel Use:	571.95228	gal/hr
Heat Value:	131129.82	Btu/gal
Heat by G.:	75000000	Btu/hr

Maximum % grease: 100.00%

Linear scaling of test data:

100.00% maximum / 50.00% estimated = 2.00 (scaling factor)

	NG / #2 oil / #6 oil emission factor	NG / #2 oil / #6 oil ton / year	50.0% grease emission factor	100.0% grease emission factor	100.0% grease ton / year	Worst Case PTE ton / year
PM:	0.0562 lb/MMBtu	18.47 tons/year	0.0410 lb/MMBtu	0.0258 lb/MMBtu	8.47 tons/year	18.47 tons/year
$PM_{10}/PM_{2.5}$:	0.0562 lb/MMBtu	18.47 tons/year	0.0410 lb/MMBtu	0.0258 lb/MMBtu	8.47 tons/year	18.47 tons/year
SO_2:	0.5000 lb/MMBtu	164.25 tons/year	0.0020 lb/MMBtu	0.0000 lb/MMBtu	0.00 tons/year	164.25 tons/year
NOx:	0.3381 lb/MMBtu	111.08 tons/year	0.0710 lb/MMBtu	0.0000 lb/MMBtu	0.00 tons/year	111.08 tons/year
VOC:	0.0055 lb/MMBtu	1.81 tons/year	0.0020 lb/MMBtu	0.0000 lb/MMBtu	0.00 tons/year	1.81 tons/year
CO:	0.0840 lb/MMBtu	27.59 tons/year	0.0220 lb/MMBtu	0.0000 lb/MMBtu	0.00 tons/year	27.59 tons/year

The grease emission calculations are based on emission tests conducted in Wapello County, IA, which indicated the highest emission results for grease combustion. Baseline emission factors are from EPA document AP-42.

Methodology:

(baseline emission at 0% grease) + ((change in emission between 0% and tested % grease) * (scaling factor)) = (emission at the desired % grease)

Note:

In cases where linear scaling of an emission decrease results in a negative emission factor, the emission factor is listed as zero lb/MMBtu.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100

Company Name: **Cargill, Inc. - Soybean Processing Division**
Address: **1503 Wabash Avenue, Lafayette, Indiana 47905**
Permit Number: **157-36605-00038**
Reviewer: **Tamera Wessel**

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
75.0	657.0

	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	6.899E-04	3.942E-04	2.464E-02	5.913E-01	1.117E-03

	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	1.643E-04	3.614E-04	4.599E-04	1.248E-04	6.899E-04

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emissions Calculations
Commercial/Institutional/Residential Combustors (< 100 mmBtu/hr)
#2 Fuel Oil

Company Name: **Cargill, Inc. - Soybean Processing Division**
Address: **1503 Wabash Avenue, Lafayette, Indiana 47905**
Permit Number: **157-36605-00038**
Reviewer: **Tamera Wessel**

Heat Input Capacity MMBtu/hr	Potential Throughput kgals/year
75	4692.86

	HAPs - Metals				
	Arsenic	Beryllium	Cadmium	Chromium	Lead
Emission Factor in lb/mmBtu	4.0E-06	3.0E-06	3.0E-06	3.0E-06	9.0E-06
Potential Emission in tons/yr	1.31E-03	9.86E-04	9.86E-04	9.86E-04	2.96E-03

	HAPs - Metals (continued)			
	Mercury	Manganese	Nickel	Selenium
Emission Factor in lb/mmBtu	3.0E-06	6.0E-06	3.0E-06	1.5E-05
Potential Emission in tons/yr	9.86E-04	1.97E-03	9.86E-04	4.93E-03

Methodology
No data was available in AP-42 for organic HAPs.
Potential Emissions (tons/year) = Throughput (mmBtu/hr)*Emission Factor (lb/mmBtu)*8,760 hrs/yr / 2,000 lb/ton
No HAP data was available in AP-42 for #6 fuel oil for boilers with capacities less than 100 MMBtu/hr.
Natural Gas combustion has the highest organic HAPs and #2 fuel oil combustion has the highest metallic HAPs.

Appendix A: Emissions Calculations
Boiler Limits for NOx emissions from various fuels

Company Name: Cargill, Inc. - Soybean Processing Division
Address: 1503 Wabash Avenue, Lafayette, Indiana 47905
Permit Number: 157-36605-00038
Reviewer: Tamera Wessel

Veg. Oil: 0.161818 lb NOx / MMBtu * 130064 Btu / gal * MM gal / 1000 Kgal = 21.04672 lb NOx / Kgal NG: 100 lb NOx / MMcf

1 Kgal = 21.04672 lb/NOx / 100 lb/NOx = 0.210467 MMcf

657 MMcf / yr * 1000 gal / 0.210467 MMcf * 130064 Btu / gal * 0.161818 lb NOx / 1000000 Btu * ton / 2000 lb = 32.85 ton NOx / yr

794 MMcf / yr * 1000 gal / 0.210467 MMcf * 130064 Btu / gal * 0.161818 lb NOx / 1000000 Btu * ton / 2000 lb = 39.7 ton NOx / yr

Tallow: 0.195 lb NOx / MMBtu * 126919 Btu / gal * MM gal / 1000 Kgal = 24.74921 lb NOx / Kgal NG: 100 lb NOx / MMcf

1 Kgal = 24.74921 lb/NOx / 100 lb/NOx = 0.247492 MMcf

657 MMcf / yr * 1000 gal / 0.247492 MMcf * 126919 Btu / gal * 0.195 lb NOx / 1000000 Btu * ton / 2000 lb = 32.85 ton NOx / yr

794 MMcf / yr * 1000 gal / 0.247492 MMcf * 126919 Btu / gal * 0.195 lb NOx / 1000000 Btu * ton / 2000 lb = 39.7 ton NOx / yr

Grease: 0.071 lb NOx / MMBtu * 131129.8 Btu / gal * MM gal / 1000 Kgal = 9.310217 lb NOx / Kgal NG: 100 lb NOx / MMcf

1 Kgal = 9.310217 lb/NOx / 100 lb/NOx = 0.093102 MMcf

657 MMcf / yr * 1000 gal / 0.093102 MMcf * 131129.8 Btu / gal * 0.071 lb NOx / 1000000 Btu * ton / 2000 lb = 32.85 ton NOx / yr

794 MMcf / yr * 1000 gal / 0.093102 MMcf * 131129.8 Btu / gal * 0.071 lb NOx / 1000000 Btu * ton / 2000 lb = 39.7 ton NOx / yr

Appendix A: Emission Calculations
Reciprocating Internal Combustion Engines - Diesel Fuel
Output Rating (<=600 HP)
Maximum Input Rate (<=4.2 MMBtu/hr)

Company Name: **Cargill, Inc. - Soybean Processing Division**
Address: **1503 Wabash Avenue, Lafayette, Indiana 47905**
Permit Number: **157-36605-00038**
Reviewer: **Tamera Wessel**

Emissions calculated based on output rating (hp)

Output Horsepower Rating (hp)	66.0	Non Emergency Diesel powered air compressor
Maximum Hours Operated per Year	8760	
Potential Throughput (hp-hr/yr)	578,160	

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/hp-hr	0.0022	0.0022	0.0022	0.0021	0.0310	0.0025	0.0067
Potential Emission in tons/yr	0.64	0.64	0.64	0.59	8.96	0.73	1.93

*PM and PM2.5 emission factors are assumed to be equivalent to PM10 emission factors. No information was given regarding which method was used to determine the factor or the fraction of PM10 which is condensable.

Hazardous Air Pollutants (HAPs)

	Pollutant							
	Benzene	Toluene	Xylene	1,3-Butadiene	Formaldehyde	Acetaldehyde	Acrolein	Total PAH HAPs***
Emission Factor in lb/hp-hr****	6.53E-06	2.86E-06	2.00E-06	2.74E-07	8.26E-06	5.37E-06	6.48E-07	1.18E-06
Potential Emission in tons/yr	0.002	0.001	0.001	0.000	0.002	0.002	0.000	0.000

***PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)
****Emission factors in lb/hp-hr were calculated using emission factors in lb/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).

Potential Emission of Total HAPs (tons/yr)	**7.84E-03**

Appendix A: Emission Calculations
VOC and HAP Emissions from Parts Washer

Company Name: Cargill, Inc. - Soybean Processing Division
Address: 1503 Wabash Avenue, Lafayette, Indiana 47905
Permit Number: 157-36605-00038
Reviewer: Tamera Wessel

Material	Density (lbs/gal)	Maximum Usage (gal/yr)	Weight % VOC	Weight % Xylene	Weight % Cumene	Weight % Perchloroethylene	PTE VOC (tons/yr)	PTE Xylene (tons/yr)	PTE Cumene (tons/yr)	PTE Perchloroethylene (tons/yr)
Safety-Kleen Premium Solvent	6.70	145	100%	0.00%	0.00%	0.00%	0.49	0.00	0.00	0.00
						Total:	**0.49**	**0.00**	**0.00**	**0.00**

Note:
As a worst-case scenario, the calculations above assume a solvent usage rate of 145 gallons per year for the parts washer station.
The source reuses the solvent used for cleaning and expects to use less than 145 gallons per year.

Methodology
PTE VOC/HAP (tons/yr) = Density (lbs/gal) x Maximum Usage (gal/yr) x Weight % VOC or HAP x 1 ton/2,000 lbs

Appendix A: Emission Calculations
Fugitive Dust Emissions - Paved Roads

Company Name: **Cargill, Inc. - Soybean Processing Division**
Source Address: **1503 Wabash Avenue, Lafayette, Indiana 47905**
Permit Number: **157-36605-00038**
Reviewer: **Tamera Wessel**

Paved Roads at Industrial Site
The following calculations determine the amount of emissions created by paved roads, based on 8,760 hours of use and AP-42, Ch 13.2.1 (1/2011).

Vehicle Information (provided by source)

Type	Maximum number of vehicles per day	Number of one-way trips per day per vehicle	Maximum trips per day (trip/day)	Maximum Weight Loaded (tons/trip)	Total Weight driven per day (ton/day)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/day)	Maximum one-way miles (miles/yr)
Meal - to loadout	100.0	1.0	100.0	15.0	1500.0	1600	0.303	30.30	11060.6
Meal - from loadout	100.0	1.0	100.0	40.0	4000.0	1225	0.232	23.20	8468.3
Beans - to dump pit	290.0	1.0	290.0	40.0	11600.0	1100	0.208	60.42	22052.1
Beans - from dump pit	290.0	1.0	290.0	15.0	4350.0	450	0.085	24.72	9021.3
Oil - to loadout	25.0	1.0	25.0	15.0	375.0	100	0.019	0.47	172.8
Oil - from loadout	25.0	1.0	25.0	40.0	1000.0	450	0.085	2.13	777.7
Hexane - to receiving	1.0	1.0	1.0	40.0	40.0	100	0.019	0.02	6.9
Hexane - from receiving	1.0	1.0	1.0	15.0	15.0	100	0.019	0.02	6.9
Chemical/Acid - to receiving	1.0	1.0	1.0	40.0	40.0	325	0.062	0.06	22.5
Chemical/Acid - from receiving	1.0	1.0	1.0	15.0	15.0	325	0.062	0.06	22.5
Limestone/Salt - to receiving	1.0	1.0	1.0	40.0	40.0	660	0.125	0.13	45.6
Limestone/Salt - from receiving	1.0	1.0	1.0	15.0	15.0	660	0.125	0.13	45.6
		Totals	**836.0**		**22990.0**			**141.7**	**51702.8**

Average Vehicle Weight Per Trip = 27.5 tons/trip
Average Miles Per Trip = 0.17 miles/trip

Unmitigated Emission Factor, Ef = [k * (sL)^0.91 * (W)^1.02] (Equation 1 from AP-42 13.2.1)

	PM	PM10	PM2.5	
where k =	0.011	0.0022	0.00054	lb/VMT = particle size multiplier (AP-42 Table 13.2.1-1)
W =	27.5	27.5	27.5	tons = average vehicle weight (provided by source)
sL =	1.1	1.1	1.1	g/m^2 = silt loading value for paved roads at corn wet mills facilities - Table 13.2.1-3)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, Eext = E * [1 - (p/4N)] (Equation 2 from AP-42 13.2.1)
Mitigated Emission Factor, Eext = Ef * [1 - (p/4N)]
where p = 125 days of rain greater than or equal to 0.01 inches (see Fig. 13.2.1-2)
N = 365 days per year

	PM	PM10	PM2.5	
Unmitigated Emission Factor, Ef =	0.353	0.071	0.0173	lb/mile
Mitigated Emission Factor, Eext =	0.322	0.064	0.0158	lb/mile

Process	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)
Meal - to loadout	1.95	0.39	0.10	1.78	0.36	0.09
Meal - from loadout	1.49	0.30	0.07	1.36	0.27	0.07
Beans - to dump pit	3.89	0.78	0.19	3.55	0.71	0.17
Beans - from dump pit	1.59	0.32	0.08	1.45	0.29	0.07
Oil - to loadout	0.03	0.01	1.50E-03	0.03	0.01	1.37E-03
Oil - from loadout	0.14	0.03	0.01	0.13	0.03	0.01
Hexane - to receiving	1.22E-03	2.44E-04	5.98E-05	1.11E-03	2.23E-04	5.47E-05
Hexane - from receiving	1.22E-03	2.44E-04	5.98E-05	1.11E-03	2.23E-04	5.47E-05
Chemical/Acid - from receiving	3.96E-03	7.92E-04	1.94E-04	3.62E-03	7.24E-04	1.78E-04
Limestone/Salt - to receiving	3.96E-03	7.92E-04	1.94E-04	3.62E-03	7.24E-04	1.78E-04
Limestone/Salt - to receiving	0.01	1.61E-03	3.95E-04	0.01	1.47E-03	3.61E-04
Limestone/Salt - from receiving	0.01	1.61E-03	3.95E-04	0.01	1.47E-03	3.61E-04
Totals	**9.11**	**1.82**	**0.45**	**8.33**	**1.67**	**0.41**

Methodology
Total Weight driven per day (ton/day) = [Maximum Weight Loaded (tons/trip)] * [Maximum trips per day (trip/day)]
Maximum one-way distance (mi/trip) = [Maximum one-way distance (feet/trip) / [5280 ft/mile]
Maximum one-way miles (miles/day) = [Maximum trips per year (trip/day)] * [Maximum one-way distance (mi/trip)]
Average Vehicle Weight Per Trip (ton/trip) = SUM[Total Weight driven per day (ton/day)] / SUM[Maximum trips per day (trip/day)]
Average Miles Per Trip (miles/trip) = SUM[Maximum one-way miles (miles/day)] / SUM[Maximum trips per year (trip/day)]
Unmitigated PTE (tons/yr) = [Maximum one-way miles (miles/yr)] * [Unmitigated Emission Factor (lb/mile)] * (ton/2000 lbs)
Mitigated PTE (tons/yr) = [Maximum one-way miles (miles/yr)] * [Mitigated Emission Factor (lb/mile)] * (ton/2000 lbs)

Abbreviations
PM = Particulate Matter
PM10 = Particulate Matter (<10 um)
PM2.5 = Particle Matter (<2.5 um)
PTE = Potential to Emit

Appendix B: SSM157-11361-00038 PSD Applicability Re-Evaluation

Company Name: Cargill, Inc. - Soybean Processing Division
Source Address: 1503 Wabash Avenue, Lafayette, Indiana 479050
Part 70 Operating Permit Renewal No.: 157-36605-00038
Reviewer: Tamera Wessel

PTE of SSM No. 157-11361-00038					
Description	PM (Tons/Yr)	PM10 (Tons/Yr)	Year Permitted/ Limited	Permit Number	Note
PTE After Modification*	140.20	69.10	2001	11361	Emission limits were included in SSM157-11361-00038, issued on December 3, 2011 to keep the modification minor under 326 IAC 2-2 (PSD).
Actual Emissions (1997 & 1998) Prior to Mod.	116.90	59.90			
Total Emissions Increase of Modification:	***23.30***	***9.20***			

Emissions Increases					
Description	PM	PM10	Year Permitted/ Limited	Permit Number	Note
Bean Screener (Baghouse #1)	-	1.16	2004	19644	The PM10 limit was revised from 0.136 lbs/hr to 0.4 lbs/hr.
Soybean flaking (Cyclone #4)	2.17	2.17	2005	20830	The PM and PM10 limits were each revised from 0.378 lbs/hr to 0.874 lbs/hr.
DTDC meal dryer (Cyclone #7)	2.63	2.63	2005	20830	The PM and PM10 limits were included for DTDC meal dryer (Cyclone #7). Previously both DTDC meal dryers combined were limited to 0.654 lbs/hr of PM and PM10. With this SPM, each limited to 0.600 lbs/hr.
Grain Receiving	8.13	2.52	2016	36605	Potential emissions from grain receiving limit increase from 821,250 tons/yr to 871,250.
	12.93	8.48			

Emissions Decreases					
Description	PM (Tons/Yr)	PM10 (Tons/Yr)	Year Permitted/ Limited	Permit Number	Note
Grain Receiving System (Baghouse #4)	0.73	0.73	2005	20830	The PM and PM10 limits were each revised from 0.526 lbs/hr to 0.360 lbs/hr.
Grain Storage Unloading (Baghouse #10)	1.90	1.90	2005	20830	The PM and PM10 limits were each revised from 1.05 lbs/hr to 0.617 lbs/hr.
Grain tanks and silos unloading (Baghouse #9)	1.82	1.82	2005	20830	The PM and PM10 limits were each revised from 0.833 lbs/hr to 0.417 lbs/hr.
Soybean cracking & hulling system (Baghouse #3)	0.64	0.64	2005	20830	The PM and PM10 limits were each revised from "0.686" lbs/hr to 0.540 lbs/hr.**
Hull transfer	0.08	0.08	2005	20830	The PM and PM10 limits were each revised from 0.027 lbs/hr to 0.008 lbs/hr.
DTDC meal dryer (Cyclone #6)	0.24	0.24	2005	20830	The PM and PM10 limits were each revised from 0.654 lbs/hr to 0.600 lbs/hr.
Meal Sizing and grinding (Baghouse #2)	2.64	2.64	2005	20830	The PM and PM10 limits were each revised from 0.84 lbs/hr to 0.236 lbs/hr.
DTDC meal coolers (Cyclones #8 and #9)	1.27	0.0876	2006	21911	The PM and PM10 limits were included for DTDC meal cooler (Cyclone #9). Previously both DTDC meal coolers combined were limited to 1.029 lbs/hr of PM and 1.30 lbs/hr of PM10. With this SPM, each limited to 1.029 lbs/hr PM and 1.30 lbs/hr PM10.
			2005	20830	The PM limit was revised from 1.32 lbs/hr to 1.029 lbs/ hr. The PM10 limit was revised from 1.32 lbs/hr to 1.30 lbs/hr.
			2010	25200	The PM and PM10 limits for DTDC meal coolers (Cyclones #8 and #9) were revised from individual limits to both coolers combined limited to 1.029 lb/hr PM and 1.30 lbs/hr PM10.
Grain Dryer	88.5	22.1	2010	25200	Grain dryer was either removed or never built according to TSD for renewal T157-25200-00038. Had been permitted at 49.5 lbs/hr PM and 12.4 lbs/hr PM10. However, PTE calculations included with SSM157-11361-00038 show the maximum potential annual emissions to be 88.5 tons/yr for PM and 22.1 tons/yr for PM10 to establish the 140.2 tons/yr limit to keep the modification minor under 326 IAC 2-2 (PSD)
FDS cooler collector (Baghouse #6)	6.61	6.61	2015	34376	Unit ruled inoperable. PM and PM10 emission limitations were removed. Had been limited at 1.51 lbs/hr each for PM and PM10.
Flake loadout (Baghouse #7)	1.50	1.50	2015	34376	Unit ruled inoperable. PM and PM10 emission limitations were removed. Had been limited at 0.343 lbs/hr each for PM and PM10.
Reject flake storage (Baghouse #8)	1.46	1.46	2015	34376	Unit ruled inoperable. PM and PM10 emission limitations were removed. Had been limited at 0.334 lbs/hr each for PM and PM10.
	107.39	39.81			
Total PTE of Modification:	***-71.16***	***-22.13***			
PSD Threshold:	25.00	15.00			

* Calculations take into account base limit of PM and PM10 of Soybean cracking & hulling system (Baghouse #3) equal to 0.686 lbs/hr as determined in AA No. 157-17769-00038 which corrected the typo of 0.137 lbs/hr to 0.686 lbs/hr.

** The permit was modified in SPM 157-20830-00038 to increase the PM and PM10 limits from 0.137 lbs/hr, each to 0.54 lbs/hr, each. However, AA No. 157-17769-00038 corrected the typographical error of the listed 0.137 lbs/hr limit for the soybean cracking & hulling system (baghouse #3) to the intended PM and PM10 limit of 0.686 lbs/hr. Although this error was corrected in AA 157-17769-00038, the value was inadvertantly listed as the incorrect 0.137 lbs/hr limit in permit modifications that followed.

Indiana Department of Environmental Management
We Protect Hoosiers and Our Environment.
100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

Carol S. Comer
Commissioner

July 7, 2016

Mr. John Zoss
Cargill, Inc. Soybean Processing Div.
1502 Wabash Avenue
Lafayette, Indiana 47905

Re: Public Notice
Cargill, Inc.
Permit Level: Title V Significant Permit Modification
Permit Number: 157-36605-00038

Dear Mr. Zoss:

Enclosed is a copy of your draft Title V – Significant Permit Modification, Technical Support Document, emission calculations, and the Public Notice which will be printed in your local newspaper.

The Office of Air Quality (OAQ) has prepared two versions of the Public Notice Document. The abbreviated version will be published in the newspaper, and the more detailed version will be made available on the IDEM's website and provided to interested parties. Both versions are included for your reference. The OAQ has requested that the Journal & Courier in Lafayette, Indiana publish the abbreviated version of the public notice no later than July 9, 2016. You will not be responsible for collecting any comments, nor are you responsible for having the notice published in the newspaper.

OAQ has submitted the draft permit package to the Tippecanoe County Public Library, 627 South Street in Lafayette, Indiana. As a reminder, you are obligated by 326 IAC 2-1.1-6(c) to place a copy of the complete permit application at this library no later than ten (10) days after submittal of the application or additional information to our department. We highly recommend that even if you have already placed these materials at the library, that you confirm with the library that these materials are available for review and request that the library keep the materials available for review during the entire permitting process.

Please review the enclosed documents carefully. This is your opportunity to comment on the draft permit and notify the OAQ of any corrections that are needed before the final decision. Questions or comments about the enclosed documents should be directed to Tamara Wessel, Indiana Department of Environmental Management, Office of Air Quality, 100 N. Senate Avenue, Indianapolis, Indiana, 46204 or call (800) 451-6027, and ask for extension 4-8530 or dial (317) 234-8530.

Sincerely,

Vicki Biddle

Vicki Biddle
Permits Branch
Office of Air Quality

Enclosures
PN Applicant Cover letter 2/17/2016

Indiana Department of Environmental Management
We Protect Hoosiers and Our Environment.
100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

Carol S. Comer
Commissioner

ATTENTION: PUBLIC NOTICES, LEGAL ADVERTISING

July 7, 2016

Journal & Courier
217 N. Sixth Street
Lafayette, Indiana 47901-1420

Enclosed, please find one Indiana Department of Environmental Management Notice of Public Comment for Cargill, Inc., Tippecanoe County, Indiana.

Since our agency must comply with requirements which call for a Notice of Public Comment, we request that you print this notice one time, no later than July 9, 2016.

Please send a notarized form, clippings showing the date of publication, and the billing to the Indiana Department of Environmental Management, Accounting, Room N1345, 100 North Senate Avenue, Indianapolis, Indiana, 46204.

To ensure proper payment, please reference account # 100174737.

We are required by the Auditor's Office to request that you place the Federal ID Number on all claims. If you have any conflicts, questions, or problems with the publishing of this notice or if you do not receive complete public notice information for this notice, please call Vicki Biddle at 800-451-6027 and ask for extension 3-6867 or dial 317-233-6867.

Sincerely,

Vicki Biddle

Vicki Biddle
Permit Branch
Office of Air Quality

Permit Level: Title V – Significant Permit Modification
Permit Number: 157-36605-00038

Enclosure

PN Newspaper.dot 2/17/2016

Indiana Department of Environmental Management
We Protect Hoosiers and Our Environment.
100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

Carol S. Comer
Commissioner

July 7, 2016

To: Tippecanoe County Public Library

From: Matthew Stuckey, Branch Chief
Permits Branch
Office of Air Quality

Subject: **Important Information to Display Regarding a Public Notice for an Air Permit**

Applicant Name: Cargill, Inc.
Permit Number: 157-36605-00038

Enclosed is a copy of important information to make available to the public. This proposed project is regarding a source that may have the potential to significantly impact air quality. Librarians are encouraged to educate the public to make them aware of the availability of this information. The following information is enclosed for public reference at your library:

- Notice of a 30-day Period for Public Comment
- Request to publish the Notice of 30-day Period for Public Comment
- Draft Permit and Technical Support Document

You will not be responsible for collecting any comments from the citizens. Please refer all questions and request for the copies of any pertinent information to the person named below.

Members of your community could be very concerned in how these projects might affect them and their families. **Please make this information readily available until you receive a copy of the final package.**

If you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185. Questions pertaining to the permit itself should be directed to the contact listed on the notice.

Enclosures
PN Library.dot 2/16/2016

Indiana Department of Environmental Management
We Protect Hoosiers and Our Environment.
100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

Carol S. Comer
Commissioner

Notice of Public Comment

July 7, 2016
Cargill, Inc.
157-36605-00038

Dear Concerned Citizen(s):

You have been identified as someone who could potentially be affected by this proposed air permit. The Indiana Department of Environmental Management, in our ongoing efforts to better communicate with concerned citizens, invites your comment on the draft permit.

Enclosed is a Notice of Public Comment, which has been placed in the Legal Advertising section of your local newspaper. The application and supporting documentation for this proposed permit have been placed at the library indicated in the Notice. These documents more fully describe the project, the applicable air pollution control requirements and how the applicant will comply with these requirements.

If you would like to comment on this draft permit, please contact the person named in the enclosed Public Notice. Thank you for your interest in the Indiana's Air Permitting Program.

Please Note: *If you feel you have received this Notice in error, or would like to be removed from the Air Permits mailing list, please contact Patricia Pear with the Air Permits Administration Section at 1-800-451-6027, ext. 3-6875 or via e-mail at PPEAR@IDEM.IN.GOV. If you have recently moved and this Notice has been forwarded to you, please notify us of your new address and if you wish to remain on the mailing list. Mail that is returned to IDEM by the Post Office with a forwarding address in a different county will be removed from our list unless otherwise requested.*

Enclosure
PN AAA Cover.dot 2/17/2016

Indiana Department of Environmental Management
We Protect Hoosiers and Our Environment.
100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

Carol S. Comer
Commissioner

AFFECTED STATE NOTIFICATION OF PUBLIC COMMENT PERIOD
DRAFT INDIANA AIR PERMIT

July 7, 2016

A 30-day public comment period has been initiated for:

Permit Number: **157-36605-00038**
Applicant Name: **Cargill, Inc.**
Location: **Lafayette, Tippecanoe County, Indiana**

The public notice, draft permit and technical support documents can be accessed via the **IDEM Air Permits Online** site at:
http://www.in.gov/ai/appfiles/idem-caats/

Questions or comments on this draft permit should be directed to the person identified in the public notice by telephone or in writing to:

Indiana Department of Environmental Management
Office of Air Quality, Permits Branch
100 North Senate Avenue
Indianapolis, IN 46204

Questions or comments regarding this email notification or access to this information from the EPA Internet site can be directed to Chris Hammack at chammack@idem.IN.gov or (317) 233-2414.

Affected States Notification.dot 2/17/2016

Mail Code 61-53

IDEM Staff	VBIDDLE 7/7/2016 Cargill, Inc - Soybean Processing Div 157-36605-00038 DRAFT			AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender	▶	Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail: **CERTIFICATE OF MAILING ONLY**	

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee Remarks
1		John Zoss Cargill, Inc - Soybean Processing Div 1502 Wabash Avenue Lafayette IN 47905 (Source CAATS)									
2		West Lafayette City Council and Mayors Office 609 W. Navajo West Lafayette IN 47906 *(Local Official)*									
3		Mr. Allen Hoffman 4740 Masons Ridge Rd. Lafayette IN 47909 *(Affected Party)*									
4		Aaron Clotts AECOM 800 LaSalle Ave. Minneapolis MN 55402 *(Consultant)*									
5		Tippecanoe County Commissioners 20 N 3rd St, County Office Building Lafayette IN 47901 *(Local Official)*									
6		Tippecanoe County Health Department 20 N. 3rd St Lafayette IN 47901-1211 *(Health Department)*									
7		Lafayette City Council and Mayors Office 20 North 6th Street Lafayette IN 47901-1411 *(Local Official)*									
8		Tippecanoe County Public Library 627 South Street Lafayette IN 47901-1470 *(Library)*									
9		Ms. Geneva Werner 3212 Longlois Drive Lafayette IN 47904-1718 *(Affected Party)*									
10		Mrs. Phyllis Owens 3600 Cypress Lane Lafayette IN 47905 *(Affected Party)*									
11		Mr. Jerry White 4317 Amesbury Drive West Lafayette IN 47906 *(Affected Party)*									
12		Ms. Rose Filley 5839 Lookout Drive West Lafayette IN 47906 *(Affected Party)*									
13		Mr. William Cramer 128 Seminole Drive West Lafayette IN 47906 (Affected Party)									
14											
15											

Total number of pieces Listed by Sender	Total number of Pieces Received at Post Office	Postmaster, Per (Name of Receiving employee)	The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is $50,000 per piece subject to a limit of $50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is $500. The maximum indemnity payable is $25,000 for registered mail, sent with optional postal insurance. See ***Domestic Mail Manual*** **R900, S913**, and **S921** for limitations of coverage on inured and COD mail. See ***International Mail Manual*** for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.
13			

FACSIMILIE OF PS Form 3877