From:	Conkright, Kevin
To:	Mohamed, Hind I
Subject:	RE: IDEM OAQ Contact Information for Application No. 129-47826-000021for AstraZeneca Pharmaceuticals LP
Date:	Friday, May 17, 2024 11:50:05 AM
Attachments:	image001.png image002.png 43243per_TempBoiler_admin04172024.docx AZ_SignificantModRequest_05072024.pdf Checklist_AZ_04252024.doc GSD Cover form 50639 AZ 2024 SPM.doc GSD-01_AZ_TB1_04192024.doc GSD12_TB1_05062024.doc GSD15_TB1_05062024.doc Notification_MTVMayor_05062024.docx PI02B_TB1_05062024.doc PI02F_TB1_05062024.doc TB1_APPLICATION_04292024.docx 43243calcs_rev04172024.xlsx 43243per_TempBoiler_admin04172024.docx

Good Morning Hind,

I am looking forward to working with you on this application. I believe it is straight forward, and will be glad to communicate directly with you anytime needed. Please find attached all of the files that I used for the application as well as a proposed "mark-up" of the permit that may be useful.

Again, should you need anything, please contact me via email or cell phone (270.903.5181) anytime.

Sincerely,

Kevin Conkright
Environmental & Sustainability Lead

AstraZeneca – Mt Vernon
4601 Highway 62 East - Mount Vernon, Indiana 47620
Work: 812.307.2218
mailto:kevin.conkright@astrazeneca.com

Please consider the environment before printing this e-mail

From: Mohamed, Hind I <HMohamed@idem.IN.gov>
Sent: Friday, May 17, 2024 9:22 AM
To: Conkright, Kevin <kevin.conkright@astrazeneca.com>
Subject: IDEM OAQ Contact Information for Application No. 129-47826-000021for AstraZeneca

Pharmaceuticals LP

Dear Kevin Conkright,

I am the permit writer assigned to the current application No. 129-47826-000021 for AstraZeneca Pharmaceuticals LP. I would like to extend to you my contact information so that we may have continued communication until your new permit is issued. Please keep this information at hand. It is common for questions to arise, and oftentimes, further clarification is needed during the permit review process.

To expedite the review process, please e-mail me the electronic copy of your calculations (preferably in excel format) and other supporting documents used as part of your application.

IDEM, OAQ will notify you when a draft permit has been submitted for public notice and/or when a final permit has been issued. As part of the notification, IDEM, OAQ will provide information on how to access the draft and/or final permit electronically on IDEM's website. If AstraZeneca Pharmaceuticals LP would prefer to receive paper copies of the entire draft and/or final permit, please let me know prior to the end of the applicant review period. If you prefer to receive paper copies of the entire permit, IDEM, OAQ will mail a paper copy of the draft permit and/or original signed final permit to the source contact. If you do not request to receive paper copies of the entire permit, IDEM, OAQ will only mail a paper copy of the original signed final permit signature page to the source contact.

Please feel free to contact me at any time if you have questions, concerns, or important information regarding your permit. For your convenience, my section chief (Ghassan Shalabi) may be contacted at 317-233-7622 or GShalabi@idem.IN.gov.

Thank you in advance for your time and assistance. I look forward to working with you.

Sincerely,

_ _

Indiana Department of
Environmental Management
Hind Mohamed
Environmental manager | Office of Air Quality
• (317)234-6543 • HMohamed]@idem.IN.gov

Help us improve!
IDEM values your feedback

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

Eric J. Holcomb
Governor

Bruno Pigott
Commissioner

Federally Enforceable State Operating Permit Renewal
OFFICE OF AIR QUALITY

AstraZeneca Pharmaceuticals LP
4601 Highway 62 East
Mt. Vernon, Indiana 47620

(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. 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 2-8 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.

Indiana statutes from IC 13 and rules from 326 IAC, quoted 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 FESOP under 326 IAC 2-8.

Operation Permit No.: F129-36688-00021 Master Agency Interest ID: 53313	
Issued by: Tripurari P. Sinha, Ph. D., Section Chief Permits Branch Office of Air Quality	Issuance Date: April 18, 2016 Expiration Date: April 18, 2026

Minor Permit Revision No.: 129-37120-00021, issued June 14, 2016
Administrative Amendment No.: 129-38325-00021, issued April 24, 2017
Administrative Amendment No.: 129-40490-00021, issued November 19, 2018

Significant Permit Revision No.: 129-43243-00021	
Issued by: Ghassan Shalabi, Section Chief Permits Branch Office of Air Quality	Issuance Date: Expiration Date: April 18, 2026

TABLE OF CONTENTS

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 2-8-3(b)]

The Permittee owns and operates a stationary pharmaceutical formulation and packaging source.

Source Address:	4601 Highway 62 East, Mt. Vernon, Indiana 47620
General Source Phone Number:	812-307-3018
SIC Code:	2834 (Pharmaceutical Preparations)
County Location:	Posey
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit Program Minor Source, under PSD Rules Minor 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 2-8-3(c)(3)]

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

(a) ~~Two (2) natural gas fired boilers installed in 1970, identified as Boiler #1 (S1) and Boiler #2 (S2), each with a maximum heat input rate of 30.64 million (MM) British thermal units (Btu) per hour, and exhausting through stacks S-1 and S-2, respectively. Boilers #1 and #2 use No. 2 fuel oil as back-up fuel.~~ One (1) natural gas fired temporary boiler station (TB1) with maximum operating input rate of 60 million (MM) British thermal units (Btu) that may include No. 2 fuel oil as back up fuel.

(b) One (1) natural gas fired boiler installed in 2005, identified as Boiler #3 (S27), with a maximum heat input rate of 60.8 MMBtu per hour, using low NOx burners and Flue Gas Recirculation, and exhausting through stack S-27. Boiler #3 uses No. 2 fuel oil as back-up fuel.

[Under 40 CFR 60, Subpart Dc, this is an affected source.]

(c) One (1) tablet core press machines, located in Building 122, Room 1109, installed in 2016, with maximum capacity of 425 pounds per hour, controlled by a common Henlex pre-filter dust collector and Henlex HEPA filter.

(d) One (1) tablet core press machines, located in Building 122, Room 1111, installed in 2016, with maximum capacity of 425 pounds per hour, controlled by a common Henlex pre-filter dust collector and Henlex HEPA filter.

(e) One (1) Granulator and one (1) GEA fluid-bed dryer for aqueous wet granulations located in Building 123, Room 1202, constructed in 2013, with a maximum capacity of 290 lbs/hr. Granulator and fluid-bed dryer controlled by a common Flanders pre-filter and Flanders HEPA filter.

(f) One (1) Granulator and one (1) GEA fluid-bed dryer for aqueous wet granulations located in Building 123, Room 1235, constructed in 2016, with a maximum capacity of 290 lbs/hr.

Granulator and fluid-bed dryer controlled by a common Flanders pre-filter and Flanders HEPA filter.

(g) One (1) 1,400kW diesel engine-driven emergency generator, identified as S-3, located outside southwest of Building 104, with maximum capacity of 1,400 kW, and exhausting through stack S-3. This generator was constructed before July 11, 2005 and manufactured before April 1, 2006.

[Under 40 CFR 63, Subpart ZZZZ, this is considered an affected source.]

(h) One (1) 1,500kW diesel engine-driven emergency generator, identified as S32, located outside on southeast of Building 104, constructed in 2009, with a maximum capacity of 1,500kW, and exhausting to Stack S-32.

[Under 40 CFR 60, Subpart IIII, this is considered an affected source.]
[Under 40 CFR 63, Subpart ZZZZ, this is considered a new affected source.]

(i) One (1) 3,000 kW diesel engine-driven emergency generator located outside of Building 122, identified as S35, constructed in 2011, with a maximum capacity of 3,000 kW, and exhausting to Stack S-35.

[Under 40 CFR 60, Subpart IIII, this is considered an affected source.]
[Under 40 CFR 63, Subpart ZZZZ, this is considered a new affected source.]

(j) One (1) 3,000 kW diesel engine-driven emergency generator, identified as S45, located outside northwest of Building 104, constructed in 2015, with a maximum capacity of 3,000 kW, and exhausting to stack S-45.

[Under 40 CFR 60, Subpart IIII, this is considered an affected source.]
[Under 40 CFR 63, Subpart ZZZZ, this is considered a new affected source.]

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-8-3(c)(3)(l)]

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

(a) The following emission units located in Building 122:

(1) One (1) tablet core press machine, located in Building 122, Room 1113, installed in 1998, with maximum capacity of 165 pounds per hour, and controlled by a fabric dust collector.

(2) One (1) powder encapsulator machine, located in Building 122, Room 1124, installed in 2009, with a maximum powder throughput of 185 pounds per hour, and controlled by a fabric filter dust collector.

(b) The following emission units located in Building 123:

(1) One (1) tablet coating unit (Thomas Flex 500) located in Building 123, Room 1151, with a maximum capacity (spray rate) of 106 lbs/hr, constructed in 2013, and controlled by Torit fabric filter dust collector.

(2) One (1) Central Vacuum System, located in Building 123, and controlled by existing Torit fabric filter dust collector, installed in 2008 and relocated in 2014.

(c) One (1) 350kW diesel engine-driven emergency generator, identified as S34, located outside west of Building 106, constructed in 2011, with a maximum capacity of 350 kW and exhausting to Stack S-34.

[Under 40 CFR 60, Subpart IIII, this is considered an affected source]
[Under 40 CFR 63, Subpart ZZZZ, this is considered an affected source]

(d) One (1) 200 kW diesel engine-driven emergency generator, identified as S44, located outside of Building 113, constructed in 2015, with a maximum capacity of 200 kW, and exhausting to stack S-44.

[Under 40 CFR 60, Subpart IIII, this is considered an affected source]
[Under 40 CFR 63, Subpart ZZZZ, this is considered an affected source]

(e) One (1) 246 hp diesel-fired emergency pump engine, identified as S7, located in Building 103, constructed in 2014, permitted in 2015, and exhausting to stack S-7.

[Under 40 CFR 60, Subpart IIII, this is considered an affected source]
[Under 40 CFR 63, Subpart ZZZZ, this is considered an affected source]

(f) One (1) 350 kW diesel engine-driven emergency generator engine, identified as S46, located outside southeast of Building 123, with a brake HP rating of 539.0, constructed in 2021, and using no control.

[Under 40 CFR 60, Subpart IIII, this is considered an affected source]
[Under 40 CFR 63, Subpart ZZZZ, this is considered an affected source]

(g) Cold solvent cleaning station (2 square feet) installed in 1970.

A.4 Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities:

(a) Two (2) Bohle Table Coaters, each consisting of a single pan tablet coating machine and three coating suspension prep tanks, each with a maximum production capacity of 880 lbs of tablets per 36-hour batch, and using voluntary Torit Model DFT 2-16-R fabric filter dust collector for particulate control during tablet charging and voluntary scrubbers.

Emission Unit	Year Constructed	Exhaust Stack	Charging Exhaust Stack
Bohle Tablet Coater #1	2006	S-30	S-30a
Bohle Tablet Coater #2	2006	S-33	S-33a

(b) Seven (7) Bohle Table Coaters, each consisting of a single pan tablet coating machine and three coating suspension prep tanks, with a maximum production capacity of 1,540 lbs of tablets per 36-hour batch, and using voluntary scrubbers.

Emission Unit	Year Constructed	Exhaust Stack
Bohle Tablet Coater #3	2011	S-36
Bohle Tablet Coater #4	2011	S-37
Bohle Tablet Coater #5	2012	S-38
Bohle Tablet Coater #6	2012	S-39
Bohle Tablet Coater #7	2012	S-40
Bohle Tablet Coater #8	2012	S-41
Bohle Tablet Coater #9	2013	S-42

(c) Three (3) Fette tablet core press machines and room exhausts, constructed in 2013, and each controlled by voluntary Camfil-Farr dust collectors and voluntary Camfil-Farr HEPA filters.

Emission Unit	Location	Maximum Capacity (lb/hr)
Fette 64	Building 123, Room 1142	844
Fette 65	Building 123, Room 1144	840
Fette 65	Building 123, Room 1205	840

(d) The following emission units located in Building 121:

(1) Tablet core press machine located in Building 121, Room 116c, installed in 2001, with a maximum capacity of 80 lbs/hr, controlled by Torit fabric filter/dust collector.

(2) Tablet core press machine and room exhaust located in Building 121, Room 1014, installed in 2004, with a maximum capacity of 80 lbs/hr, and controlled by Mac fabric filter/dust collector.

(3) Tablet coating unit (1-pan coater) located in Building 121, Room 116c, installed in 2001, with a maximum capacity of 50 lbs/hr, and controlled by Torit fabric filter/dust collector.

(4) Tablet coating unit (1-pan coater) located in Building 121, Room 1023, installed in 2004, with a maximum capacity of 50 lbs/hr, and controlled by Torit fabric filter/dust collector.

(5) Tablet coating unit (1-pan coater) located in Building 121, Room 1032, installed in 2021, with a maximum capacity of 50 lbs/hr, and controlled by fabric filter/dust collector.

(6) One (1) Mac Central Vacuum System, located in Building 121 mezzanine, and controlled by fabric filter dust collector, installed in 2004.

(e) The following emission units located in Building 122:

(1) One (1) Granulator and one (1) Glatt 120 fluid-bed dryer for aqueous wet granulations located in Building 122, Room 1119, installed in 1999, with a maximum capacity of 98 lbs/hr. Granulator controlled by Torit fabric filter/dust collector and fluid-bed dryer controlled by Torit fabric filter/dust collector.

(2) One (1) Powder encapsulator machine, located in Building 122, Room 1123, installed in 2009, with a maximum powder throughput of 110 pounds per hour, and controlled by a common fabric filter dust collector.

(3) One (1) Spencer Central Vacuum System, located at Building 122, and controlled by a fabric filter dust collector, installed in 1998.

(f) The following emission units located in Building 123:

(1) Bin Charging system located in Building 123, Room 1227, with a maximum capacity of 800 lbs/hr, constructed in 2013, and controlled by Torit fabric filter dust collector and Flanders HEPA filter.

(2) Four (4) tablet printers located in Building 123, each with a maximum capacity of 3,000 lbs/day, constructed in 2013 and modified in 2015.

(3) Four (4) rooms for dry material weighing and dispensing, located in Building 123, each with a maximum capacity of 1,237 lbs/hr, and controlled by fabric filters.

(4) One (1) weigh room, identified as Building 123, Room 1228, permitted in 2017, with a maximum capacity of 1,323 pounds per hour. The material input into the vacuum transfer system is controlled with a HEPA filter prior to exhausting to atmosphere. The vacuum transfer into the receiver source vents indoors.

(g) The following emission units located in Building 124:

(1) Pharmaceutical packaging line 20 (previously line 3), located in Building 124, installed in 2004, with a maximum capacity of 442 lbs/hr, and controlled by a dust collector for PM.

(2) Pharmaceutical packaging lines 8, 9, 11, 12 (installed in 2004) and line 10 (installed in 2016), located in Building 124, with a maximum capacity of 3,236 lbs/hr. Packaging lines 8, 9, 11, and 10 are controlled by a common dust collector for PM and line 12 is controlled by a separate dust collector for PM.

(3) One (1) pharmaceutical packaging line, identified as line 15, located in Building 124, constructed in 2015, with a maximum capacity of 200 lb/hr, controlled by a common dust collector for particulate control.

(4) One (1) pharmaceutical packaging line, identified as line 16, located in Building 124, constructed in 2018, with a maximum capacity of 200 lbs/hr, controlled by a common dust collector for particulate control.

(5) One (1) pharmaceutical packaging line, identified as line 17, located in Building 124, constructed in 2021, with a maximum capacity of 200 lbs/hr, controlled by a common dust collector for particulate control.

(6) Six (6) warm air tray electric dryers used to dry water-based granulations, located in Building 124, Room 1130, installed in 2009, with a maximum total capacity of 1,830 pounds per batch. These units have no emissions.

(7) One (1) Central Vacuum System, located in Building 124, and controlled by Torit fabric filter dust collector, installed in 2013.

(h) The following diesel storage tanks:

(1) One (1) 20,000 gallon aboveground VOC storage tank containing diesel fuel oil, installed in 1997, located at Building 104 and connected to ~~Boiler S1, Boiler S2~~, Boiler S27, emergency generator S3, emergency generator S32, and emergency generator S45. This storage tank can also be used as alternative fuel source for temporary boiler (TB1).

(2) One (1) 100 gallon aboveground VOC storage tank containing diesel fuel oil, located at Building 104 and connected to emergency generator S3.

(3) One (1) 270 gallon aboveground VOC storage tank containing diesel fuel oil, located at Building 103 and connected to fire pump engine S7.

(4) One (1) 775 gallon aboveground VOC storage tank containing diesel fuel oil that is part of Building 106 emergency generator S34, installed in 2011.

(5) One (1) 5,200 gallon aboveground VOC storage tank containing diesel fuel oil, constructed in 2011, located at Building 122, and connected to Building 122 emergency generator S35.

(6) One (1) diesel storage tank, located at Building 104 and connected to Building 104 emergency generator S32, constructed in 2015, with a maximum capacity of 100 gallons.

(7) One (1) diesel storage tank that is part of Building 113 emergency generator S44, constructed in 2015, with a maximum capacity of 395 gallons.

(8) One (1) diesel storage tank, located at Building 104 and connected to Building 104 emergency generator S45, constructed in 2015, with a maximum capacity of 200 gallons.

(i) Paved and unpaved roads and parking lots with public access, installed in 1970.

A.5 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) to renew a Federally Enforceable State Operating Permit (FESOP).

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-8-1]

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 2-8-4(2)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

(a) This permit, F129-36688-00021, is issued for a fixed term of ten (10) 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, 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 2-8-6][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 2-8-4(4)]

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 2-8-4(5)(D)]

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

B.7 Duty to Provide Information [326 IAC 2-8-4(5)(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 2-8-3(d)][326 IAC 2-8-4(3)(C)(i)][326 IAC 2-8-5(1)]

(a) A certification required by this permit meets the requirements of 326 IAC 2-8-5(a)(1) if:

(1) it contains a certification by an "authorized individual", as defined by 326 IAC 2-1.1-1(1), 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) An "authorized individual" is defined at 326 IAC 2-1.1-1(1).

B.9 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

(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

(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 2-8-4(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.

The submittal by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.10 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.11 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)]

(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 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(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.12 Emergency Provisions [326 IAC 2-8-12]

(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 except as provided in 326 IAC 2-8-12.

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or 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 or Southwest Regional Office 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
Southwest Regional Office phone: (812) 380-2305; fax: (812) 380-2304.

(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 2-8-4(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.

The notification which shall be submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(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 2-8-3(c)(6) 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 2-8 and any other applicable rules.

(g) Operations may continue during an emergency only if the following conditions are met:

(1) 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.

(2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:

(A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and

(B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

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

(a) All terms and conditions of permits established prior to F129-36688-00021 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

(2) revised, or

(3) deleted.

(b) All previous registrations and permits are superseded by this permit.

B.14 Termination of Right to Operate [326 IAC 2-8-9][326 IAC 2-8-3(h)]

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 2-8-3(h) and 326 IAC 2-8-9.

B.15 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)][326 IAC 2-8-7(a)][326 IAC 2-8-8]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Federally Enforceable State Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(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 2-8-8(a)]

(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 2-8-8(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-8-8(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 2-8-8(c)]

B.16 Permit Renewal [326 IAC 2-8-3(h)]

(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 2-8-3. 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 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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 2-8 until IDEM, OAQ takes 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 2-8-3(g), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.17 Permit Amendment or Revision [326 IAC 2-8-10][326 IAC 2-8-11.1]

(a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 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 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.18 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-8-15(b) and (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 approval required by 326 IAC 2-8-11.1 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:

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 2-8-15(b)(1) and (c). 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 2-8-15(b)(1) and (c).

(b) Emission Trades [326 IAC 2-8-15(b)]
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 2-8-15(b).

(c) Alternative Operating Scenarios [326 IAC 2-8-15(c)]
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 2-8-4(7). No prior notification of IDEM, OAQ or U.S. EPA is required.

(d) 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.19 Source Modification Requirement [326 IAC 2-8-11.1]

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

B.20 Inspection and Entry [326 IAC 2-8-5(a)(2)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]

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 FESOP 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, at reasonable times, 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, at reasonable times, 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, at reasonable times, 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.21 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

(a) The Permittee must comply with the requirements of 326 IAC 2-8-10 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 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.22 Annual Fee Payment [326 IAC 2-7-19][326 IAC 2-8-4(6)][326 IAC 2-8-16][326 IAC 2-1.1-7]

(a) The Permittee shall pay annual fees to IDEM, OAQ no later than 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) 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 317-233-8590 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.23 Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][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.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-8-4(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 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

(1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one hundred (100) tons per twelve (12) consecutive month period.

(2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and

(3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) Pursuant to 326 IAC 2-2 (PSD), potential to emit particulate matter (PM) from the entire source shall be limited to less than one hundred (100) tons per twelve (12) consecutive month period.

(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.

(d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.3 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.4 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.5 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.6 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).

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(c).

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

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 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(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.

Testing Requirements [326 IAC 2-8-4(3)]

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 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(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 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(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 2-8-4(1)][326 IAC 2-8-5(a)(1)]

C.10 Compliance Monitoring [326 IAC 2-8-4(3)][326 IAC 2-8-5(a)(1)]

(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 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

C.11 Instrument Specifications [326 IAC 2-1.1-11][326 IAC 2-8-4(3)][326 IAC 2-8-5(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 2-8-4][326 IAC 2-8-5(a)(1)]

C.12 Risk Management Plan [326 IAC 2-8-4][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.13 Response to Excursions or Exceedances [326 IAC 2-8-4][326 IAC 2-8-5]

Upon detecting an excursion where a response step is required by the D Section or an exceedance of a limitation 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.

C.14 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4][326 IAC 2-8-5]

(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 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

C.15 General Record Keeping Requirements [326 IAC 2-8-4(3)][326 IAC 2-8-5]

(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 FESOP.

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.16 General Reporting Requirements [326 IAC 2-8-4(3)(C)][326 IAC 2-1.1-11]

(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 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

(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 a member of IDEM's Environmental Stewardship Program (ESP), the Permittee may report in the manner below for any reporting requirement except for Paragraph A of this condition:

(1) Each report shall be submitted semi-annually, covering the period from April 1 to September 30 or October 1 to March 31.

(2) Each report, 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.

(3) Each report shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(4) The Permittee shall use the attached reporting forms or their equivalent.

(5) Each report shall be submitted to the address listed in paragraph (b) of this condition.

If the Permittee is removed from or withdraws from the ESP, the Permittee shall begin quarterly reporting according to paragraphs (a) through (e) of this condition and the condition(s) requiring the reporting. If the Permittee is removed from or withdraws from the ESP during the second quarter of a semi-annual period, the Permittee shall submit all reports for the first quarter of the period within thirty (30) days of the removal or withdrawal.

Stratospheric Ozone Protection

C.17 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.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(a) ~~Two (2) natural gas fired boilers installed in 1970, identified as Boiler #1 (S1) and Boiler #2 (S2), each with a maximum heat input rate of 30.64 million (MM) British thermal units (Btu) per hour, and exhausting through stacks S-1 and S-2, respectively. Boilers #1 and #2 use No. 2 fuel oil as back-up fuel~~. One (1) natural gas fired temporary boiler station (TB1) with maximum operating input rate of 60 million (MM) British thermal units (Btu) that may include No. 2 fuel oil as back up fuel.

(b) One (1) natural gas fired boiler installed in 2005, identified as Boiler #3 (S27), with a maximum heat input rate of 60.8 MMBtu per hour, using low NOx Burners and Flue Gas Recirculation, and exhausting through stack S-27. Boiler #3 uses No. 2 fuel oil as back-up fuel.

[This is an affected source under 40 CFR 60, Subpart Dc.]

(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 2-8-4(1)]

D.1.1 FESOP Minor Limits [326 IAC 2-8-4]

Pursuant to 326 IAC 2-8-4 (FESOP) and in order to render the requirements of 326 IAC 2-7 (Part 70 Permits) not applicable, the Permittee shall comply with the following:

(a) The total input of fuel oil No. 2 and fuel oil No. 2 equivalents to temporary boiler station (S?) ~~two (2) 30.64 MMBtu/hr boilers #1 (S1) and #2 (S2)~~, and one (1) 60.8 MMBtu/hr boiler #3 (S27), shall be limited to less than 1,057,500 U.S. gallons per twelve (12) consecutive month period with compliance determined at the end of each month.

(b) The sulfur content of distillate fuel oil No. 2 shall not exceed 0.3% by weight.

(c) For purposes of determining compliance with paragraph (a) of this condition, the following shall apply:

Every one (1) million cubic feet of natural gas burned shall be equivalent to 14 gallons of No. 2 distillate fuel oil burned based on SO_2 emissions, such that the total usage of No. 2 distillate fuel oil with a maximum sulfur content of 0.3% and No. 2 oil equivalent input does not exceed the limit specified.

(d) NOx emissions shall not exceed 20.0 lb/kgal of fuel oil.

Compliance with these limits, combined with the potential to emit SO_2 and NOx from all other emission units at this source, shall limit the source-wide total potential to emit of SO_2 and NOx to less than one-hundred (100) tons per twelve (12) consecutive month period, each, and shall render the requirements of 326 IAC 2-7 (Part 70 Permits) not applicable.

D.1.2 Particulate Emission Limitations [326 IAC 6-2-3]

(a) ~~Pursuant to 326 IAC 6-2-3 (b) (Particulate Emission Limitations for Sources of Indirect Heating), PM emissions from Boilers #1 (S1) and #2 (S2), which were existing and in operation on or before June 8, 1972, shall be limited to 0.51 lbs/MMBtu.~~ Pursuant to 326 IAC 6-2-4(a) (Particulate Matter Emission Limitations for Sources of Indirect Heating), PM emissions from Temporary Boiler (TB1) shall be limited to 0.312 lbs/MMBtu.

(b) Pursuant to 326 IAC 6-2-4(a) (Particulate Matter Emission Limitations for Sources of Indirect Heating), PM emissions from Boiler ~~#3~~3 (S27) shall be limited to 0.312 lbs/MMBtu.

D.1.3 Sulfur Dioxide (SO2) Limits [326 IAC 7-1.1-2]

Pursuant to 326 IAC 7-1.1-2(a)(3) (Sulfur dioxide emission limitations) the SO_2 emissions from the ~~Boilers #1 (S1), #2 (S2)~~ Temporary Boiler (TB1), and #3 (S27), shall not exceed five tenths (0.5) pounds per MMBtu heat input for distillate oil combustion. SO2 emissions will be determined based on monthly average.

D.1.4 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan is required for these facilities. 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 2-8-4(1)]

D.1.5 Sulfur Dioxide Emissions and Sulfur Content

In order to assure compliance with Conditions D.1.1(b) and D.1.3**,** the Permittee shall comply with the following:

(a) Pursuant to 326 IAC 7-2-1(d)(2), compliance shall be determined using a calendar month average sulfur dioxide emission rate in pounds per MMBtu.

(b) Compliance shall be determined using one of the following options:

(1) Pursuant to 326 IAC 7-2-1(h)(3) and (4), the Permittee shall demonstrate compliance by:

(A) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification, in accordance with 326 IAC 3-7; or

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

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

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

(2) Pursuant to 326 IAC 7-2-1(h)(1), compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the boilers S-1, S-2, and S-27 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 (1) or (2) above shall not be refuted by evidence of compliance pursuant to the other method.

Compliance Monitoring Requirements [326 IAC 2-8-4(1)][326 IAC 2-8-5(a)(1)]

D.1.6 Visible Emission Notations

(a) Visible emission notations of Boiler~~s #1 (S1), #2 (S2), and~~ #3 (S27) stack exhausts shall be performed once per day during normal daylight operations when combusting fuel oil.

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 a reasonable response. Section C - Response to Excursions and 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 2-8-4(3)]

D.1.7 Record Keeping Requirement

(a) To document the compliance status with Conditions D.1.1(a), D.1.1(b) and D.1.3, 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 limits in Conditions D.1.1(a), D.1.1(b), and D.1.3.

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

(2) Actual fuel oil usage and fuel oil equivalents for the month and twelve (12) consecutive month period;

(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

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

(i) Fuel supplier certifications.

(ii) The name of the fuel supplier; and

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

(5) If oil sampling is used to determine the sulfur content of the oil and to demonstrate compliance, analysis of the oil sample shall be maintained.

(6) If conducting a stack test for sulfur dioxide emissions is used to demonstrate compliance, the stack test results, as a minimum, shall be maintained.

(b) To document the compliance status with Condition D.1.6, the Permittee shall maintain records of daily visible emission notations of stack exhausts when combusting fuel oil. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emissions notation (e.g. the process did not operate that day).

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

D.1.8 Reporting Requirements

(a) If the Permittee is a member of IDEM's Environmental Stewardship Program (ESP) program, the Permittee may submit reports summarizing the information to document compliance with Condition D.1.1 according to the provisions of paragraph (e) of Section C General Reporting Requirements.

(b) A quarterly report of No. 2 fuel oil and No. 2 oil equivalent usage and a quarterly summary of the information to document the compliance status with D.1.1(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 does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(c) One (1) tablet core press machines, located in Building 122, Room 1109, installed in 2016, with maximum capacity of 425 pounds per hour, controlled by a common Henlex pre-filter dust collector and Henlex HEPA filter.

(d) One (1) tablet core press machines, located in Building 122, Room 1111, installed in 2016, with maximum capacity of 425 pounds per hour, controlled by a common Henlex pre-filter dust collector and Henlex HEPA filter.

(e) One (1) Granulator and one (1) GEA fluid-bed dryer for aqueous wet granulations located in Building 123, Room 1202, constructed in 2013, with a maximum capacity of 290 lbs/hr. Granulator and fluid-bed dryer controlled by a common Flanders pre-filter and Flanders HEPA filter.

(f) One (1) Granulator and one (1) GEA fluid-bed dryer for aqueous wet granulations located in Building 123, Room 1235, constructed in 2016, with a maximum capacity of 290 lbs/hr. Granulator and fluid-bed dryer controlled by a common Flanders pre-filter and Flanders HEPA filter.

Insignificant activities:

(a) The following emission units located in Building 122:

(1) One (1) tablet core press machine, located in Building 122, Room 1113, installed in 1998, with maximum capacity of 165 pounds per hour, and controlled by a common fabric dust collector.

(2) One (1) Powder encapsulator machine, located in Building 122, Room 1124, installed in 2009, with a maximum powder throughput of 185 pounds per hour, and controlled by a common fabric filter dust collector.

(b) The following emission units located in Building 123:

(1) One (1) tablet coating unit (Thomas Flex 500) located in Building 123, Room 1151, with a maximum capacity (spray rate) of 106 lbs/hr, constructed in 2013, and controlled by Torit fabric filter dust collector.

(2) One (1) Central Vacuum System, located in Building 123, and controlled by existing Torit Model DFT 2-4 fabric filter dust collector, installed in 2008 and relocated in 2014.

(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 2-8-4(1)]

D.2.1 Particulate Emission Limitation [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emission rate from the following emission units shall be limited as follows:

Emission Unit	Process Weight Rate (P) (tons/hr)	Allowable PM Emissions (E) (326 IAC 6-3-2) (lb/hr)
Tablet Core Press Machine (Building 122, Room 1109)	0.21	1.44
Tablet Core Press Machine (Building 122, Room 1111)	0.21	1.44
GEA fluid bed dryer (Building 123, Room 1202)	0.15	0.32
GEA fluid bed dryer (Building 123, Room 1229)	0.15	1.15
Tablet Core Press machine (Building 122, Room 1113)	0.08	0.77
Powder Encapsulator machine (Building 122, Room 1124)	0.09	0.83
Tablet Core Press (Building 123, Room 1144)	0.099	0.87
Central Vacuum System (Building 123)	<100 lb/hr	0.551

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

Interpolation and extrapolation of the data for the process weight rate up to 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.

(b) Pursuant to 326 IAC 6-3-2(d), the particulate from the tablet coating unit (Thomas Flex 500) located in Building 123, shall be controlled by a fabric filter/dust collector, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

D.2.2 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan is required for these facilities and their 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 2-8-4(1)]

D.2.3 Particulate Control

In order to assure compliance with Condition D.2.1, the Permittee shall operate the following control devices for particulate control at all times the respective emission units are in operation:

Emission Unit	Location	Control Device(s)
Tablet core press machine	Building 122, Rooms 1109	Pre-filter dust collector and HEPA filter
Tablet core press machine	Building 122, Rooms 1111	Pre-filter dust collector and HEPA filter
GEA fluid-bed dryer	Building 123, Room 1202	Pre-filter and HEPA filter
GEA fluid-bed dryer	Building 123, Room 1229	Pre-filter and HEPA filter
Tablet coating (Thomas Flex 500)	Building 123, Room 1151	Fabric filter dust collector
Central Vacuum System	Building 123	Fabric filter dust collector

Compliance Monitoring Requirements [326 IAC 2-8-4(1)][326 IAC 2-8-5(a)(1)]

D.2.4 Semi-Annual Filter Inspections

The Permittee shall perform semi-annual inspections of the filters listed in Condition D.3.3 controlling particulate emissions from the respective emission units to verify that they are being operated and maintained in accordance with the manufacturer's specifications. Inspections required by this condition shall not be performed in consecutive months. All defective bags and/or filters shall be replaced.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

D.2.5 Record Keeping Requirement

(a) To document the compliance status with Condition D.2.4, the Permittee shall maintain records of the dates and results of the semi-annual inspections required under Condition D.2.4**.**

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

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Insignificant activities:

(g) Cold solvent cleaning station (2 square feet) installed in 1970.

(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 2-8-4(1)]

D.3.1 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 that has a VOC composite partial 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.3.2 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

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

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)]

D.3.3 Record Keeping Requirements

(a) To document the compliance status with Condition D.3.1, 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 (or invoice/bill dates of contract servicer indicating service date).

(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.

SECTION E.1 NSPS

Emissions Unit Description:

(b) One (1) natural gas fired boiler installed in 2005, identified as Boiler #3 (S27), with a maximum heat input rate of 60.8 MMBtu per hour, using low NOx burners and Flue Gas Recirculation, and exhausting through stack S-27. Boiler #3 uses No. 2 fuel oil as back-up fuel.

[Under 40 CFR 60, Subpart Dc, this is an affected source.]

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

New Source Performance Standards (NSPS) Requirements [326 IAC 2-8-4(1)]

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

(a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 12-1, for the emission unit(s) listed above, except as otherwise specified in 40 CFR Part 60, Subpart Dc.

(b) Pursuant to 40 CFR 60.4, 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.1.2 New Source Performance Standard for Small Industrial-Commercial-Institutional Steam Generating Units NSPS [326 IAC 12][40 CFR Part 60, Subpart Dc]

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart Dc (included as Attachment A to the operating permit), which are incorporated by reference as 326 IAC 12, for the emission unit(s) listed above:

(1) 40 CFR 60.40c(a) through (d), and (g)
(2) 40 CFR 60.41c
(3) 40 CFR 60.42c(d), (f), through (j)
(4) 40 CFR 60.43c(c) and (d)
(5) 40 CFR 60.44c(c), (g), and (h)
(6) 40 CFR 60.45c(c)
(7) 40 CFR 60.46c(e)
(8) 40 CFR 60.47c(c)
(9) 40 CFR 60.48c(a)(1) through (a)(4), (d), (e)(1) through (e)(3), (e)(11), and (f) through (j)

SECTION E.2 NSPS

Emissions Unit Description:

(h) One (1) 1,500kW diesel engine-driven emergency generator, identified as S32, located outside on southeast of Building 104, constructed in 2009, with a maximum capacity of 1,500kW, and exhausting to Stack S-32.

[[Under 40 CFR 60, Subpart IIII, this is considered an affected source]
[Under 40 CFR 63, Subpart ZZZZ, this is considered a new affected source.]

(i) One (1) 3,000 kW diesel engine-driven emergency generator located outside of Building 122, identified as S35, constructed in 2011, with a maximum capacity of 3,000 kW, and exhausting to Stack S-35.

[Under 40 CFR 60, Subpart IIII, this is considered an affected source]
[Under 40 CFR 63, Subpart ZZZZ, this is considered a new affected source.]

(j) One (1) 3,000 kW diesel engine-driven emergency generator, identified as S45, located outside northwest of Building 104, constructed in 2015, with a maximum capacity of 3,000 kW, and exhausting to stack S-45

[Under 40 CFR 60, Subpart IIII, this is considered an affected source]
[Under 40 CFR 63, Subpart ZZZZ, this is considered a new affected source.]

Insignificant Activities:

(c) One (1) 350kW diesel engine-driven emergency generator, identified as S34, located outside west of Building 106, constructed in 2011, with a maximum capacity of 350 kW and exhausting to Stack S-34.

[Under 40 CFR 60, Subpart IIII, this is considered an affected source]
[Under 40 CFR 63, Subpart ZZZZ, this is considered an affected source]

(d) One (1) 200 kW diesel engine-driven emergency generator, identified as S44, located outside of Building 113, constructed in 2015, with a maximum capacity of 200 kW, and exhausting to stack S-44.

[Under 40 CFR 60, Subpart IIII, this is considered an affected source]
[Under 40 CFR 63, Subpart ZZZZ, this is considered an affected source]

(e) One (1) 246 hp diesel-fired emergency pump engine, identified as S7, located in Building 103, constructed in 2014, permitted in 2015, and exhausting to stack S-7.

[Under 40 CFR 60, Subpart IIII, this is considered an affected source]
[Under 40 CFR 63, Subpart ZZZZ, this is considered an affected source]

(f) One (1) 350 kW diesel engine-driven emergency generator engine, identified as S46, located outside southeast of Building 123, with a brake HP rating of 539.0, constructed in 2021, and using no control.

[Under 40 CFR 60, Subpart IIII, this is considered an affected source]
[Under 40 CFR 63, Subpart ZZZZ, this is considered an affected source]

(The information describing the process contained in this emissions unit description box is descriptive

information and does not constitute enforceable conditions.)

New Source Performance Standards (NSPS) Requirements [326 IAC 2-8-4(1)]

E.2.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1][40 CFR Part 60, Subpart A]

(a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 12-1, for the emission unit(s) listed above, except as otherwise specified in 40 CFR Part 60, Subpart IIII.

(b) Pursuant to 40 CFR 60.4, 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.2.2 New Source Performance Standard for Stationary Compression Ignition Internal Combustion Engines NSPS [326 IAC 12][40 CFR Part 60, Subpart IIII]

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart IIII (included as Attachment B to the operating permit), which are incorporated by reference as 326 IAC 12.

(a) The three (3) diesel emergency generators, identified as S32, S34, and S35:
(1) 40 CFR 60.4200(a)(2)(i) and (c)
(2) 40 CFR 60.4205
(3) 40 CFR 60.4206
(4) 40 CFR 60.4207(a), (b), and (c)
(5) 40 CFR 60.4208
(6) 40 CFR 60.4209(a)
(7) 40 CFR 60.4211(a) through (e), (f)(1), (f)(2)(i), (f)(3), (g), and (h)
(8) 40 CFR 60.4214(b)
(9) 40 CFR 60.4218
(10) 40 CFR 60.4219
(11) Table 1 to 40 CFR 60, Subpart IIII
(12) Table 8 to 40 CFR 60, Subpart IIII

(b) The diesel emergency fire pump engine (S7):
(1) 40 CFR 60.4200(a)(2)(ii) and (c)
(2) 40 CFR 60.4205(c)
(3) 40 CFR 60.4206
(4) 40 CFR 60.4207(b)
(5) 40 CFR 60.4208
(6) 40 CFR 60.4209
(7) 40 CFR 60.4211(a), (c), (f)(1), (f)(2)(i), and (f)(3)
(8) 40 CFR 60.4214(b)
(9) 40 CFR 60.4218
(10) 40 CFR 60.4219
(11) Table 4 to 40 CFR 60, Subpart IIII
(12) Table 8 to 40 CFR 60, Subpart IIII

(c) The three (3) diesel emergency generators, identified as S44, S45, and S46:
(1) 40 CFR 60.4200(a)(2)(i) and (c)

(2) 40 CFR 60.4205(b)
(3) 40 CFR 60.4206
(4) 40 CFR 60.4207(b)
(5) 40 CFR 60.4208
(6) 40 CFR 60.4209
(7) 40 CFR 60.4211(a), (c), (f)(1), (f)(2)(i), and (f)(3)
(8) 40 CFR 60.4214(b)
(9) 40 CFR 60.4218
(10) 40 CFR 60.4219
(11) Table 8 to 40 CFR 60, Subpart IIII

SECTION E.3 NESHAP

Emissions Unit Description:

(g) One (1) 1,400 kW diesel engine-driven emergency generator, identified as S-3, located outside southwest of Building 104, with capacity of 1,400 kW, and exhausting through stack S-3. This generator was constructed before July 11, 2005 and manufactured before April 1, 2006.

[Under 40 CFR 63, Subpart ZZZZ, this is considered an affected source.]

(h) One (1) 1,500kW diesel engine-driven emergency generator, identified as S32, located outside on southeast of Building 104, constructed in 2009, with a maximum capacity of 1,500kW, and exhausting to Stack S-32.

[Under 40 CFR 60, Subpart IIII, this is considered an affected source]
[Under 40 CFR 63, Subpart ZZZZ, this is considered a new affected source.]

(i) One (1) 3,000 kW diesel engine-driven emergency generator located outside of Building 122, identified as S35, constructed in 2011, with a maximum capacity of 3,000 kW, and exhausting to Stack S-35.

[Under 40 CFR 60, Subpart IIII, this is considered an affected source]
[Under 40 CFR 63, Subpart ZZZZ, this is considered a new affected source.]

(j) One (1) diesel engine-driven emergency generator, identified as S45, located outside northwest of Building 104, constructed in 2015, with a maximum capacity of 3,000 kW, and exhausting to stack S-45.

[Under 40 CFR 60, Subpart IIII, this is considered an affected source]
[Under 40 CFR 63, Subpart ZZZZ, this is considered a new affected source.]

Insignificant Activities:

(c) One (1) diesel engine-driven emergency generator, identified as S34, located outside west of Building 106, constructed in 2011, with a maximum capacity of 350 kW and exhausting to Stack S-34.

[Under 40 CFR 60, Subpart IIII, this is considered an affected source]
[Under 40 CFR 63, Subpart ZZZZ, this is considered an affected source]

(d) One (1) diesel engine-driven emergency generator, identified as S44, located outside of Building 113, constructed in 2015, with a maximum capacity of 200 kW, and exhausting to stack S-44.

[Under 40 CFR 60, Subpart IIII, this is considered an affected source]
[Under 40 CFR 63, Subpart ZZZZ, this is considered an affected source]

(e) One (1) 246 hp diesel-fired emergency pump engine, identified as S7, located in Building 103, constructed in 2014, permitted in 2015, and exhausting to stack S-7.

[Under 40 CFR 60, Subpart IIII, this is considered an affected source]
[Under 40 CFR 63, Subpart ZZZZ, this is considered an affected source]

(f) One (1) 350 kW diesel engine-driven emergency generator engine, identified as S46, located southeast of Building 123, with a brake HP rating of 539.0, constructed in 2021, and using no control.

[Under 40 CFR 60, Subpart IIII, this is considered an affected source]
[Under 40 CFR 63, Subpart ZZZZ, this is considered an affected source]

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

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [326 IAC 2-8-4(1)]

E.3.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63 [326 IAC 20-1][40 CFR Part 63, Subpart A]

(a) Pursuant to 40 CFR 63.1 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, for the emission unit(s) listed above, except as otherwise specified in 40 CFR Part 63, Subpart ZZZZ.

(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 National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines NESHAP [40 CFR Part 63, Subpart ZZZZ][326 IAC 20-82]

The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart ZZZZ (included as Attachment C to the operating permit), which are incorporated by reference as 326 IAC 20-82;

(a) The diesel emergency generator (S-3):
(1) 40 CFR 63.6580
(2) 40 CFR 63.6585
(3) 40 CFR 63.6590(a)(1)(iii) and (iv)
(4) 40 CFR 63.6595(a)(1), (b), and (c)
(5) 40 CFR 63.6603(a)
(6) 40 CFR 63.6605
(7) 40 CFR 63.6625(e)(3), (f), (h), and (i)
(8) 40 CFR 63.6635
(9) 40 CFR 63.6640(a) through (e), (f)(1), (f)(2)(i), (f)(3), and (f)(4)
(10) 40 CFR 63.6645(a)(5)
(11) 40 CFR 63.6650
(12) 40 CFR 63.6655
(13) 40 CFR 63.6660
(14) 40 CFR 63.6665
(15) 40 CFR 63.6670
(16) 40 CFR 63.6675
(17) Table 2d (item 4)
(18) Table 6 (item 9)
(19) Table 8

(b) The diesel emergency generators, identified as S45, S44, S46, S32, S,34, S35, and diesel fire pump, identified as S7:

(1) 40 CFR 63.6580
(2) 40 CFR 63.6585
(3) 40 CFR 63.6590(a)(2)(iii) and (c)(1)
(4) 40 CFR 63.6595(a)(7)
(5) 40 CFR 63.6665
(6) 40 CFR 63.6670
(7) 40 CFR 63.6675

E.3.3 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

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

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) CERTIFICATION

Source Name: AstraZeneca Pharmaceuticals LP
Source Address: 4601 Highway 62 East, Mt. Vernon, Indiana 47620
FESOP Permit No.: F129-36688-00021

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:

Date:

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

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
EMERGENCY OCCURRENCE REPORT

Source Name: AstraZeneca Pharmaceuticals LP
Source Address: 4601 Highway 62 East, Mt. Vernon, Indiana 47620
FESOP Permit No.: F129-36688-00021

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**) daytime 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 2-8-12

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:

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 Describe:
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: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

FESOP Usage Report

Source Name: AstraZeneca Pharmaceuticals LP
Source Address: 4601 Highway 62 East, Mt. Vernon, Indiana 47620
FESOP Permit No.: F129-36688-00021
Facility: ~~Two (2) 30.64 MMBtu/hr boilers #1 (S1) and #2 (S2), and~~ One (1) 60.8 MMBtu/hr Boiler #3 (S27) and one Temporary Boiler (TB1)
Parameter: Fuel oil no. 2 equivalent usage
Limit: Total input of distillate fuel oil no. 2 distillate fuel oil equivalents to boilers ~~#1 (S1), #2 (S2), and~~ #3 (S27) and temporary boiler (TB1) shall be limited to 1,057,500 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Quarter: _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	No. 2 Distillate Fuel Oil Equivalent Usage This Month (gallons)	No. 2 Distillate Fuel Oil Equivalent Usage Previous 11 Months (gallons)	12 Month Total No. 2 Distillate Fuel Oil Equivalent Usage (gallons)

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: AstraZeneca Pharmaceuticals LP
Source Address: 4601 Highway 62 East, Mt. Vernon, Indiana 47620
FESOP Permit No.: F129-36688-00021

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:	

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: _____

APPLICATION FOR

SIGNIFICANT PERMIT MODIFICATION

AstraZeneca Pharmaceuticals, LP

Mt. Vernon, Indiana

Submitted to:

IDEM Office of Air Quality Permits Branch

100N. Senate Avenue, MC61-53 Room 1003

Indianapolis, Indiana 46204-2251

May 7, 2024

IDEM APPLICATION FOR SIGNIFICANT PERMIT MODIFICATION OF F129-36688-00021
ASTRAZENECA PHARMACEUTICALS, LP

1.0 INTRODUCTION

AstraZeneca Pharmaceutical LP (AstraZeneca) operates its facility located at 4601 Highway 62 East in Mt. Vernon, Posey County under FESOP F129-36688-00021 with significant permit revision 129-43243-00021 (issued 4/23/21), minor permit revision 129-37120-00021 (issued 6/14/16), and administrative amendments F129-38325-00021 (issued 4/24/2017) and F129-40490-00021 (issued 11/19/2018).

As AstraZeneca continues to work towards our ambition to reduce our carbon emissions to zero, we are removing boiler #1 and boiler #2 and replacing these combustion units with two electric boilers that are scheduled to start operating in 2025. The deconstruction and construction phase for this portion of the project will begin April 2024 and continue through December 2024. (Please note that the electric boilers will be placed within the existing footprint of boiler #1 and boiler #2.)

To maintain our steam loop consistency/redundancy in case of primary boiler failure, AstraZeneca must bring onsite a temporary boiler with similar steam capacity of boiler #1 and boiler #2 [60 million British thermal units (MMBTUs)]. We prepared and notified IDEM of the installation and operation of this temporary boiler in a letter dated March 27, 2024. Due to the length of time that this temporary boiler will be required to remain on our campus, AstraZeneca has agreed with IDEM to request a significant permit modification to allow for the continued use of this temporary boiler through the remainder of 2024 (until January 31, 2025).

2.0 SIGNIFICANT MODIFICATION RATIONALE

The significant modification requested herein is to remove Boiler #1 (FESOP ID: S1) and Boiler #2 (FESOP ID: S2) from our FESOP and replace this combustion equipment with one temporary boiler (TB1) using the revised potential to emit (PTE) calculations: natural gas as a fuel source and no.2 fuel oil (diesel) as an alternative fuel source.

AstraZeneca has decommissioned Boiler #1 (FESOP ID: S1) and Boiler #2 (FESOP ID: S2) on April 12, 2024, and is currently in the process of dismantling this equipment to allow for the installation of two (2) electric boilers that will reside within their previous physical footprint. As the facility infrastructure will require significant modification to the facility and building electric power infrastructure, the temporary placement of a mobile boiler (Proposed FESOP ID: TB1) with similar steam capacity (60 MMBTUs) is required to provide secondary source for steam generation when Boiler #3 (FESOP ID: S27) goes offline.

Boilers #1 (S1) and #2 (S2) each have a maximum heat input rate of 30.64 MMBTUs, which is equivalent to a combined maximum heat input rate of 61.28 MMBTUs. Using the same applicable AP42 emission factors for boilers, with the temporary boiler (TB1) with a

maximum heat input rate of 60 MMBTUs, results in a slightly reduced potential to emit (PTE) for AstraZeneca. These calculations are summarized below:

Emission Unit ID	Heat Input Capacity (MMBtu/hr)
TB1	60
S27	60.8
Total	120.8

Unlimited Heat Input Capacity @ 8760 hrs/yr (MMBtu/yr)
1,058,208

		Emission Factor (lbs/MMCF)						
NOx Burner Type	Fuel Heat Value (MMBtu/MMCF)	PM*	PM10*	direct PM2.5	SO_2	NOx**	VOC	CO
Ordinary Burners	1,020	1.9	7.6	7.6	0.6	100	5.5	84.0
Low Nox Burners (Boiler S27)						32		

* PM emission factor is for filterable PM only. PM10 emission factor is for condensable PM10 and filterable PM combined.
** Emission factors for NOx: Uncontrolled = 100 lbs/MMCF, Low NOx Burners = 50 lbs/MMCF, Low Nox Burners + FGR = 32 lbs/MMCF
Emission factors are from AP 42, Chapter 1.4, Tables 1.4-1, and 1.4-2, SCC 1-01-006-02, 1-02-006-02, 1-03-006-02, 1-03-006-03. (7/98)

		Potential To Emit (tons/yr)						
Emission Unit ID	Potential Throughput (MMCF/yr)	PM	PM10	direct PM2.5	SO_2	NOx	VOC	CO
TB1	515.3	0.49	1.96	1.96	0.15	25.76	1.42	21.64
S27	522.2	0.50	1.98	1.98	0.16	8.35	1.44	21.93
Total	1037.5	1.0	3.9	3.9	0.3	34.1	2.9	43.6

Methodology
Maximum Potential Throughput (MMCF/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 (hrs/yr) x 1 MMCF/1,000 MMBtu
Potential To Emit (tons/year) = Throughput (MMCF/yr) x Emission Factor (lbs/MMCF) x 1 ton/2,000 lbs

As the period of time for the temporary boiler (TB1) is longer than 30 days, we are also intent to have the option to use an alternative fuel source (e.g., no.2 heating fuel) in case of natural gas curtailment. Again, we have compared and revised the PTE for AstraZeneca using the TB1 maximum heat input rate of 60 MMBTUs. These calculations are summarized below:

Emission Unit ID	Heat Input Capacity (MMBtu/hr)	Oil Sulfur Content (%)
TB1	60	0.3
S27	60.8	
Total	120.8	

Limited Throughput (kgal/yr)	Fuel Heat Value (MMBtu/kgal)	Limited Heat Input (MMBtu/year)
1,058	140	148,050

		Emission Factor (lb/kgal)						
Fuel Type	Fuel Heat Value (MMBtu/kgal)	PM	PM10	direct PM2.5	SO_2 (142S)	NOx	VOC	CO
No. 2 Distillate Oil	140	2.00	2.30	1.55	42.6	20.0	0.34	5.00

Emission factors from AP 42, Chapter 1.3, Tables 1.3-1, 1.3-2, 1.3-3, 1.3-6, 1.3-10, and 1.3-11. (9/98)

		Potential to Emit (ton/yr)						
Emission Unit ID	Potential Throughput (kgal/yr)	PM	PM10	direct PM2.5	SO_2	NOx	VOC	CO
TB1	3,754	3.75	4.32	2.91	80.0	37.54	0.64	9.39
S27	3,804	3.80	4.37	2.95	81.0	38.04	0.65	9.51
Total	7,559	7.56	8.69	5.86	161.0	75.6	1.28	18.9

		Limited Potential to Emit (ton/yr)						
Emission Unit ID	Limited Throughput (kgal/yr)	PM	PM10	direct PM2.5	SO_2	NOx	VOC	CO
Boilers TB1 & S27	1,058	-	-	-	22.52	10.58	-	-
Total	1,058	-	-	-	22.52	10.58	-	-

Methodology
Potential Throughput (kgal/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 hr/yr x 1/Fuel Heat Value (MMBtu/kgal)
Potential to Emit (ton/yr) = Throughput (kgal/yr) x Emission Factor (lb/kgal) x 1 ton/2,000 lb

In 2025, AstraZeneca will begin the renewal process for our current FESOP. During this renewal process, AstraZeneca plans to convert our FESOP to an MSOP.

3.0 PERMIT APPLICATION

This permit application contains the following IDEM forms and calculations:

- GSD Cover Form 50639
- GSD-01 Basic Source Level Information
- GSD-12 Affidavit of Nonapplicability
- GSD-15 Government Officials Notified
- PI-02B Combustion – Boilers, Process Heaters & Furnaces
- PI-02F Combustion – Fuel Use
- Site Potential to Emit Calculations
- Boiler Calculations (Fuel Oil and Natural Gas)

FORMS

AIR PERMIT APPLICATION COVER SHEET

State Form 50639 (R4 / 1-10)
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

IDEM – Office of Air Quality – Permits Branch
100 N. Senate Avenue, MC 61-53 Room 1003
Indianapolis, IN 46204-2251
Telephone: (317) 233-0178 or
Toll Free: 1-800-451-6027 x30178 (within Indiana)
Facsimile Number: (317) 232-6749
www.IN.gov/idem

NOTES:

- The purpose of this cover sheet is to obtain the core information needed to process the air permit application. This cover sheet is required for all air permit applications submitted to IDEM, OAQ. Place this cover sheet on top of all subsequent forms and attachments that encompass your air permit application packet.
- Submit the completed air permit application packet, including all forms and attachments, to **IDEM Air Permits Administration** using the address in the upper right hand corner of this page.
- IDEM will send a bill to collect the filing fee and any other applicable fees.
- Detailed instructions for this form are available on the Air Permit Application Forms website.

FOR OFFICE USE ONLY

PERMIT NUMBER:

DATE APPLICATION WAS RECEIVED:

1. Tax ID Number: 23-2967016

PART A: Purpose of Application

Part A identifies the purpose of this air permit application. For the purposes of this form, the term "source" refers to the plant site as a whole and NOT to individual emissions units.

2. Source / Company Name: AstraZeneca Pharmaceuticals LP **3. Plant ID:** 129 – 00021

4. Billing Address: 4601 Highway 62 East

City: Mt. Vernon **State:** IN **ZIP Code:** 47620 –

5. Permit Level: ☐ Exemption ☐ Registration ☐ SSOA ☐ MSOP ☒ FESOP ☐ TVOP ☐ PBR

6. Application Summary: *Check all that apply. Multiple permit numbers may be assigned as needed based on the choices selected below.*

☐ Initial Permit
☐ Review Request
☐ Interim Approval
☐ Site Closure
☐ Renewal of Operating Permit
☐ Revocation of Operating Permit
☐ Relocation of Portable Source
☐ Emission Reduction Credit Registry
☐ Asphalt General Permit
☐ Alternate Emission Factor Request
☐ Acid Deposition (Phase II)

☐ Transition (between permit levels) *From:* *To:*

☐ Administrative Amendment:
☐ *Company Name Change*
☐ *Correction to Non-Technical Information*
☐ *Other (specify):*
☐ *Change of Responsible Official*
☐ *Notice Only Change*

☒ Modification:
☐ *New Emission Unit or Control Device*
☐ *New Applicable Permit Requirement*
☐ *Prevention of Significant Deterioration*
☐ *Minor Source Modification*
☐ *Minor Permit Modification*
☐ *Other (specify):*
☐ *Modified Emission Unit or Control Device*
☐ *Change to Applicability of a Permit Requirement*
☐ *Emission Offset*
☐ *Significant Source Modification*
☒ *Significant Permit Modification*
☐ *MACT Preconstruction Review*

7. Is this an application for an initial construction and/or operating permit for a **"Greenfield" Source**? ☐ Yes ☒ No

8. Is this an application for construction of a new emissions unit at an **Existing Source**? ☐ Yes ☒ No

Continued on Next Page

PART B: Pre-Application Meeting

Part B specifies whether a meeting was held or is being requested to discuss the permit application.

9. Was a meeting held between the company and IDEM prior to submitting this application to discuss the details of the project?

☒ No ☐ Yes: *Date:*

10. Would you like to schedule a meeting with IDEM management and your permit writer to discuss the details of this project?

☐ No ☒ Yes: *Proposed Date for Meeting:* May 16, 2024 (if needed)

PART C: Confidential Business Information

Part C identifies permit applications that require special care to ensure that confidential business information is kept separate from the public file.

Claims of confidentiality must be made at the time the information is submitted to IDEM, and must follow the requirements set out in the Indiana Administrative Code (IAC). To ensure that your information remains confidential, refer to the IDEM, OAQ information regarding submittal of confidential business information. For more information on confidentiality for certain types of business information, please review IDEM's Nonrule Policy Document Air-031-NPD regarding Emission Data.

11. Is any of the information contained within this application being claimed as **Confidential Business Information**?

☒ No ☐ Yes

PART D: Certification Of Truth, Accuracy, and Completeness

Part D is the official certification that the information contained within the air permit application packet is truthful, accurate, and complete. Any air permit application packet that we receive without a signed certification will be deemed incomplete and may result in denial of the permit.

For a Part 70 Operating Permit (TVOP) or a Source Specific Operating Agreement (SSOA), a "responsible official" as defined in 326 IAC 2-7-1(34) must certify the air permit application. For all other applicants, this person is an "authorized Individual" as defined in 326 IAC 2-1.1-1(1).

☒ *I certify under penalty of law that, based on information and belief formed after reasonable inquiry, the statements and information contained in this application are true, accurate, and complete.*

Femi D-Etti
Name *(typed)*

Vice President & General Manager Mt. Vernon
Title

Signature

5/7/2024
Date

OAQ AIR PERMIT APPLICATION – FORMS CHECKLIST

State Form 51607 (R5 / 1-10)
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

IDEM – Office of Air Quality – Permits Branch
100 N. Senate Avenue, MC 61-53 Room 1003
Indianapolis, IN 46204-2251
Telephone: (317) 233-0178 or
Toll Free: 1-800-451-6027 x30178 (within Indiana)
Facsimile Number: (317) 232-6749
www.IN.gov/idem

NOTES:

- The purpose of this checklist is to help the applicant and IDEM, OAQ ensure that the air permit application packet is administratively complete. This checklist is a required form.
- Check the appropriate box indicating whether each application form is applicable for the current permit application. The source must submit only those forms pertinent to the current permit application.
- Place this checklist between the cover sheet and all subsequent forms and attachments that encompass your air permit application packet.

Part A: General Source Data

Applicable?	Form ID	Title of Form	State Form Number	When should this form be included in my application packet?
☒ Y ☐ N	COVER	Application Cover Sheet	50639	Include for every application, modification, and renewal, including source specific operating agreements (SSOA).
☒ Y ☐ N	CHECKLIST	Forms Checklist	51607	Include for every application, modification, and renewal, including SSOA.
☒ Y ☐ N	GSD-01	Basic Source Level Information	50640	Include for every application, modification, and renewal, including SSOA.
☐ Y ☐ N	GSD-02	Plant Layout Diagram	51605	Include for every new source application, and modification.
☐ Y ☐ N	GSD-03	Process Flow Diagram	51599	Include one for every process covered by the application.
☐ Y ☐ N	GSD-04	Stack / Vent Information	51606	Include for every new source application, and modification.
☐ Y ☐ N	GSD-05	Emissions Unit Information	51610	Include for every process covered by the application.
☐ Y ☐ N	GSD-06	Particulate Emissions Summary	51612	Include if the process has particulate emissions (PM).
☐ Y ☐ N	GSD-07	Criteria Pollutant Emissions Summary	51602	Include if the process has criteria pollutant emissions.
☐ Y ☐ N	GSD-08	HAP Emissions Summary	51604	Include if the process has hazardous air pollutant emissions (HAP).
☐ Y ☐ N	GSD-09	Summary of Additional Information	51611	Include if the additional information is included.
☐ Y ☐ N	GSD-10	Insignificant Activities	51596	Include if there are unpermitted insignificant activities.
☐ Y ☐ N	GSD-11	Alternative Operating Scenario	51601	Include if an AOS is requested.
☒ Y ☐ N	GSD-12	Affidavit of Nonapplicability	51600	Include if the standard notification requirements do not apply.
☐ Y ☐ N	GSD-13	Affidavit of Applicability	51603	Include if the standard notification requirements apply.
☐ Y ☐ N	GSD-14	Owners and Occupants Notified	51609	Include if the standard notification requirements apply.
☐ Y ☐ N	GSD-15	Government Officials Notified	51608	Include if the standard notification requirements apply.
☐ Y ☐ N	RENEWAL	Renewal Checklist	51755	Include with every operating permit renewal packet.

Continued on Next Page

Part B: Process Information				
Applicable?	**Form ID**	**Title of Form**	**State Form Number**	**When should this form be included in my application packet?**
☐ Y ☐ N	AEF-01	Alternate Emission Factor Request	51860	Submit if you are requesting to use an emission factor other than AP-42.
☐ Y ☐ N	PI-01	Miscellaneous Processes	52534	Include one form for each process for which there is not a specific PI form.
☐ Y ☐ N	PI-02A	Combustion Unit Summary	52535	Include one form to summarize all combustion units *(unless SSOA)*.
☒ Y ☐ N	PI-02B	*Combustion:* Boilers, Process Heaters, & Furnaces	52536	Include one form for each boiler, process heater, or furnace *(unless SSOA)*.
☐ Y ☐ N	PI-02C	*Combustion:* Turbines & Internal Combustion Engines	52537	Include one form for each turbine or internal combustion engine *(unless SSOA)*.
☐ Y ☐ N	PI-02D	*Combustion:* Incinerators & Combustors	52538	Include one form for each incinerator or combustor *(unless SSOA)*.
☐ Y ☐ N	PI-02E	*Combustion:* Kilns	52539	Include one form for each kiln *(unless SSOA)*.
☒ Y ☐ N	PI-02F	*Combustion:* Fuel Use	52540	Include one form for each combustion unit *(unless SSOA)*.
☐ Y ☐ N	PI-02G	*Combustion:* Emission Factors	52541	Include one form for each combustion unit *(unless SSOA)*.
☐ Y ☐ N	PI-02H	*Combustion:* Federal Rule Applicability	52542	Include one form for each combustion unit *(unless SSOA)*.
☐ Y ☐ N	PI-03	Storage and Handling of Bulk Material	52543	Include if the process involves the storage and handling of bulk materials.
☐ Y ☐ N	PI-04	Asphalt Plants	52544	Include for each asphalt plant process (*unless general permit*).
☐ Y ☐ N	PI-05	Brick / Clay Products	52545	Include for each brick and/or clay products process.
☐ Y ☐ N	PI-06	Electroplating Operations	52546	Include for each electroplating process.
☐ Y ☐ N	PI-07	Welding Operations	52547	Include for each welding process.
☐ Y ☐ N	PI-08	Concrete Batchers	52548	Include for each concrete batcher *(unless SSOA)*.
☐ Y ☐ N	PI-09	Degreasing	52549	Include for each degreasing process *(unless SSOA)*.
☐ Y ☐ N	PI-10	Dry Cleaners	52550	Include for each dry cleaning process
☐ Y ☐ N	PI-11	Foundry Operations	52551	Include for each foundry process
☐ Y ☐ N	PI-12	Grain Elevators	52552	Include for each grain elevator *(unless SSOA)*.
☐ Y ☐ N	PI-13	Lime Manufacturing	52553	Include for each lime manufacturing process.
☐ Y ☐ N	PI-14	Liquid Organic Compound Storage	52554 (doc)	Include if the process involves the storage of liquid organic compounds.
☐ Y ☐ N	PI-14ALT	Alternate version of Liquid Organic Compound Storage	52555 (xls)	Include if the process involves the storage of liquid organic compounds and there are several storage vessels.
☐ Y ☐ N	PI-15	Portland Cement Manufacturing	52556	Include for each Portland cement manufacturing process.
☐ Y ☐ N	PI-16	Reinforced Plastics & Composites	52557	Include for each reinforced plastics and composites process.

Continued on Next Page

Part B: Process Information				
Applicable?	**Form ID**	**Title of Form**	**State Form Number**	**When should this form be included in my application packet?**
☐ Y ☐ N	PI-17	Blasting Operations	52558	Include for each blasting process *(unless SSOA)*.
☐ Y ☐ N	PI-18	Mineral Processing	52559	Include if the process involves mineral processing *(unless SSOA)*.
☐ Y ☐ N	PI-19	Surface Coating & Printing Operations	52560	Include for each surface coating or printing process *(unless SSOA)*.
☐ Y ☐ N	PI-20	Woodworking / Plastic Machining	52561	Include for each woodworking or plastic machining process *(unless SSOA)*.
☐ Y ☐ N	PI-21	Site Remediation	52570	Include for each soil remediation process.
☐ Y ☐ N	PI-22	Ethanol Plants ***(Under Development)***	None	Include for each ethanol plant.

Part C: Control Equipment				
Applicable?	**Form ID**	**Title of Form**	**State Form Number**	**When should this form be included in my application packet?**
☐ Y ☐ N	CE-01	Control Equipment Summary	51904	Include if add-on control equipment will be used for the process.
☐ Y ☐ N	CE-02	Particulates – Baghouse / Fabric Filter	51953	Include for each baghouse or fabric filter.
☐ Y ☐ N	CE-03	Particulates – Cyclone	52620	Include for each cyclone.
☐ Y ☐ N	CE-04	Particulates – Electrostatic Precipitator	52621	Include for each electrostatic precipitator.
☐ Y ☐ N	CE-05	Particulates – Wet Collector / Scrubber / Absorber	52622	Include for each wet collector, scrubber, or absorber.
☐ Y ☐ N	CE-06	Organics – Flare / Oxidizer / Incinerator	52623	Include for each flare, oxidizer, or incinerator.
☐ Y ☐ N	CE-07	Organics – Adsorbers	52624	Include for each adsorber.
☐ Y ☐ N	CE-08	Organics – Condenser	52625	Include for each condenser.
☐ Y ☐ N	CE-09	Reduction Technology	52626	Include for each control device using reduction technology (e.g., SCR, SNCR).
☐ Y ☐ N	CE-10	Miscellaneous Control Equipment	52436	Include one form for equipment for which there is not a specific CE form.

Continued on Next Page

Part D: Compliance Determination for Part 70 Sources				
Applicable?	**Form ID**	**Title of Form**	**State Form Number**	**When should this form be included in my application packet?**
☐ Y ☐ N	CD-01	Emissions Unit Compliance Status	51861	Include for every Title V application, including modifications.
☐ Y ☐ N	CD-02	Compliance Plan by Applicable Requirement	51862	Include for every Title V application, including modifications.
☐ Y ☐ N	CD-03	Compliance Plan by Emissions Unit	51863	Include for every Title V application, including modifications.
☐ Y ☐ N	CD-04	Compliance Schedule and Certification	51864	Include for every Title V application, including modifications and renewal.
☐ Y ☐ N	FED-03	Compliance Assurance Monitoring	53377	Include for every Title V application, including modifications.

Part E: Best Available Control Technology				
Applicable?	**Form ID**	**Title of Form**	**State Form Number**	**When should this form be included in my application packet?**
☐ Y ☐ N	BACT-01	Analysis of Best Available Control Technology	None	Include for every BACT application.
☐ Y ☐ N	BACT-01a	Background Search: Existing BACT Determinations	None	Include for every BACT application.
☐ Y ☐ N	BACT-01b	Cost/Economic Impact Analysis	None	Include for every BACT application.
☐ Y ☐ N	BACT-02	Summary of Best Available Control Technology	None	Include for every BACT application.
☐ Y ☐ N	PSD / EO-01	PSD / Emission Offset Checklist	None	Include for every PSD application and every NSR application that requires emission offsets.

Part F: Emission Credit Registry				
Applicable?	**Form ID**	**Title of Form**	**State Form Number**	**When should this form be included in my application packet?**
☐ Y ☐ N	EC-01	Generation of Emission Credits	51783	Include if the modification results in emission reductions.
☐ Y ☐ N	EC-02	Transfer of Emission Credits	51784	Submit whenever registered emission credits are transferred.
☐ Y ☐ N	EC-03	Use of Emission Credits	51785	Include if the modification requires the use of emission credits for offsets.
☐ Y ☐ N	EC-04	Emission Credit Request	51906	Submit if you are looking for emission credits for offsets.

Continued on Next Page

Part G: Plantwide Applicability Limits				
Applicable?	**Form ID**	**Title of Form**	**State Form Number**	**When should this form be included in my application packet?**
☐ Y ☐ N	PAL-01	Actuals Plantwide Applicability Limit	52451	Include if the modification results in emission reductions.
☐ Y ☐ N	PAL-02	Revised Plantwide Applicability Limit	52452	Submit whenever registered emission credits are transferred.
☐ Y ☐ N	PAL-03	Plantwide Applicability Limit Renewal	52453	Include if the modification requires the use of emission credits for offsets.
☐ Y ☐ N	PAL-04	Request for Termination of Plantwide Applicability Limit	52454	Submit if you are looking for emission credits for offsets.

Part H: Air Toxics				
Applicable?	**Form ID**	**Title of Form**	**State Form Number**	**When should this form be included in my application packet?**
☐ Y ☐ N	FED-01	Summary of Federal Requirements – NSPS & NESHAP	53512	Include for each 40 CFR Part 60 NSPS, 40 CFR Part 61 NESHAP, and 40 CFR Part 63 NESHAP applicable to the process.
☐ Y ☐ N	FED-02	MACT Pre-Construction Review	51905	Include if constructing or modifying a process subject to a Part 63 NESHAP.
☐ Y ☐ N	No Form ID	MACT Initial Notification	None	This form is available on the U.S. EPA website. Completed notifications should be submitted to the IDEM Compliance Branch.

Part I: Special Permits				
Applicable?	**Form ID**	**Title of Form**	**State Form Number**	**When should this form be included in my application packet?**
☐ Y ☐ N	INTERIM	Interim Approval	None	Submit if you are applying for interim operating approval.
☐ Y ☐ N	ASPHALT	Asphalt General Permit	None	Submit if you are applying for or modifying an asphalt plant general permit.
☐ Y ☐ N	NOXBTP	NO_x Budget Permit	None	Submit if you are a power plant or if you have opted in to the NO_x budget trading program.
☐ Y ☐ N	ACIDRAIN	Phase 2 Acid Rain Permit	None	Submit if you are applying for, modifying, or renewing a Phase 2 Acid Rain permit.

Continued on Next Page

Part J: Source Specific Operating Agreements (SSOA)				
Applicable?	**Form ID**	**Title of Form**	**State Form Number**	**When should this form be included in my application packet?**
☐ Y ☐ N	OA-01	Summary of Application and Existing Agreements	53438	Submit if you are applying for or modifying a Source Specific Operating Agreement.
☐ Y ☐ N	OA-02	Industrial / Commercial Surface Coating Operations -OR- Graphic Arts Operations (326 IAC 2-9-2.5)	53439	Submit if you are applying for or modifying a SSOA for industrial or commercial surface coating operations not subject to 326 IAC 8-2; or graphic arts operations not subject to 326 IAC 8-5-5.
☐ Y ☐ N	OA-03	Surface Coating or Graphic Arts Operations (326 IAC 2-9-3)	53440	Submit if you are applying for or modifying a SSOA for surface coating or graphic arts operations.
☐ Y ☐ N	OA-04	Woodworking Operations (326 IAC 2-9-4)	53441	Submit if you are applying for or modifying a SSOA for woodworking operations.
☐ Y ☐ N	OA-05	Abrasive Cleaning Operations (326 IAC 2-9-5)	53442	Submit if you are applying for or modifying a SSOA for abrasive cleaning operations.
☐ Y ☐ N	OA-06	Grain Elevators (326 IAC 2-9-6)	53443	Submit if you are applying for or modifying a SSOA for grain elevators.
☐ Y ☐ N	OA-07	Sand And Gravel Plants (326 IAC 2-9-7)	53444	Submit if you are applying for or modifying a SSOA for sand and gravel plants.
☐ Y ☐ N	OA-08	Crushed Stone Processing Plants (326 IAC 2-9-8)	53445	Submit if you are applying for or modifying a SSOA for crushed stone processing plants.
☐ Y ☐ N	OA-09	Ready-Mix Concrete Batch Plants (326 IAC 2-9-9)	53446	Submit if you are applying for or modifying a SSOA for ready-mix concrete batch plants.
☐ Y ☐ N	OA-10	Coal Mines And Coal Preparation Plants (326 IAC 2-9-10)	53447	Submit if you are applying for or modifying a SSOA for coal mines and coal preparation plants.
☐ Y ☐ N	OA-11	Automobile Refinishing Operations (326 IAC 2-9-11)	53448	Submit if you are applying for or modifying a SSOA for automobile refinishing operations.
☐ Y ☐ N	OA-12	Degreasing Operations (326 IAC 2-9-12)	53449	Submit if you are applying for or modifying a SSOA for degreasing operations.
☐ Y ☐ N	OA-13	External Combustion Sources (326 IAC 2-9-13)	53450	Submit if you are applying for or modifying a SSOA for external combustion sources.
☐ Y ☐ N	OA-14	Internal Combustion Sources (326 IAC 2-9-14)	53451	Submit if you are applying for or modifying a SSOA for internal combustion sources.

OAQ GENERAL SOURCE DATA APPLICATION
GSD-01: Basic Source Level Information

State Form 50640 (R5 / 1-10)
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

IDEM – Office of Air Quality – Permits Branch
100 N. Senate Avenue, MC 61-53 Room 1003
Indianapolis, IN 46204-2251
Telephone: (317) 233-0178 or
Toll Free: 1-800-451-6027 x30178 (within Indiana)
Facsimile Number: (317) 232-6749
www.IN.gov/idem

NOTES:

- The purpose of GSD-01 is to provide essential information about the entire source of air pollutant emissions. GSD-01 is a required form.
- Detailed instructions for this form are available on the Air Permit Application Forms website.
- All information submitted to IDEM will be made available to the public unless it is submitted under a claim of confidentiality. Claims of confidentiality must be made at the time the information is submitted to IDEM, and must follow the requirements set out in 326 IAC 17.1-4-1. Failure to follow these requirements exactly will result in your information becoming a public record, available for public inspection.

PART A: Source / Company Location Information

1. **Source / Company Name**: AstraZeneca Pharmaceuticals, LP
2. **Plant ID**: 129 –
3. **Location Address**: 4601 Highway 62 East
   City: Mt. Vernon
   State: IN
   ZIP Code: 47620 –
4. **County Name**: Posey
5. **Township Name**:
6. **Geographic Coordinates**:
   Latitude: 37.940439
   Longitude: -87.838782
7. **Universal Transferal Mercadum Coordinates** *(if known)*:
   Zone: 16
   Horizontal: 426,129 m
   Vertical: 4,199,735 m
8. **Adjacent States**: Is the source located within 50 miles of an adjacent state?
   ☐ No ☒ Yes – *Indicate Adjacent State(s):* ☒ Illinois (IL) ☐ Michigan (MI) ☐ Ohio (OH) ☒ Kentucky (KY)
9. **Attainment Area Designation**: Is the source located within a non-attainment area for any of the criteria air pollutants?
   ☒ No ☐ Yes – *Indicate Nonattainment Pollutant(s):* ☐ CO ☐ Pb ☐ NO_x ☐ O_3 ☐ PM ☐ PM_{10} ☐ $PM_{2.5}$ ☐ SO_2
10. **Portable / Stationary**: Is this a portable or stationary source? ☐ Portable ☒ Stationary

PART B: Source Summary

11. **Company Internet Address** *(optional)*: www.astrazeneca.com
12. **Company Name History**: Has this source operated under any other name(s)?
    ☐ No ☒ Yes – *Provide information regarding past company names in Part I, Company Name History.*
13. **Portable Source Location History**: Will the location of the portable source be changing in the near future?
    ☐ Not Applicable ☒ No ☐ Yes – *Complete Part J, Portable Source Location History, and Part K, Request to Change Location of Portable Source.*
14. **Existing Approvals**: Have any exemptions, registrations, or permits been issued to this source?
    ☐ No ☒ Yes – *List these permits and their corresponding emissions units in Part M, Existing Approvals.*
15. **Unpermitted Emissions Units**: Does this source have any unpermitted emissions units?
    ☒ No ☐ Yes – *List all unpermitted emissions units in Part N, Unpermitted Emissions Units.*
16. **New Source Review**: Is this source proposing to construct or modify any emissions units?
    ☐ No ☒ Yes – *List all proposed new construction in Part O, New or Modified Emissions Units.*
17. **Risk Management Plan**: Has this source submitted a Risk Management Plan?
    ☒ Not Required ☐ No ☐ Yes → Date submitted: EPA Facility Identifier: – –

Continued on Next Page

PART C: Source Contact Information

IDEM will send the original, signed permit decision to the person identified in this section. This person MUST be an employee of the permitted source.

18. Name of Source Contact Person: Kevin Conkright

19. Title *(optional)*: Sr. SHE Lead Environmental & Sustainability

20. Mailing Address: 4601 Highway 62 East

City: Mount Vernon	**State**: IN	**ZIP Code**: 47620 –

21. Electronic Mail Address *(optional)*: kevin.conkright@astrazeneca.com

22. Telephone Number: (812) 317 – 2218	**23. Facsimile Number** *(optional)*: ( ) –

PART D: Authorized Individual/Responsible Official Information

IDEM will send a copy of the permit decision to the person indicated in this section, if the Authorized Individual or Responsible Official is different from the Source Contact specified in Part C.

24. Name of Authorized Individual or Responsible Official: Femi D-Etti

25. Title: VP & General Manager

26. Mailing Address: 4601 Highway 62 East

City: Mount Vernon	**State**: IN	**ZIP Code**: 47620 –

27. Telephone Number: (812) 317 – 2000	**28. Facsimile Number** *(optional)*: ( ) –

29. Request to Change the Authorized Individual or Responsible Official: Is the source officially requesting to change the person designated as the Authorized Individual or Responsible Official in the official documents issued by IDEM, OAQ? *The permit may list the title of the Authorized Individual or Responsible Official in lieu of a specific name.*

☒ No ☐ Yes – ***Change Responsible Official to***:

PART E: Owner Information

30. Company Name of Owner: AstraZeneca Pharmaceuticals, LP

31. Name of Owner Contact Person:

32. Mailing Address: 4610 Highway 62 East

City: Mount Vernon	**State**: IN	**ZIP Code**: 47620 –

33. Telephone Number: (812) 317 – 2000	**34. Facsimile Number** *(optional)*: ( ) –

34. Operator: Does the "Owner" company also operate the source to which this application applies?

☒ No – *Proceed to Part F below.*	☐ Yes – *Enter "SAME AS OWNER" on line 35 and proceed to Part G below.*

PART F: Operator Information

35. Company Name of Operator: SAME AS OWNER

36. Name of Operator Contact Person:

37. Mailing Address:

City:	**State**:	**ZIP Code**: –

38. Telephone Number: ( ) –	**39. Facsimile Number** *(optional)*: ( ) –

Continued on Next Page

PART G: Agent Information

40. Company Name of Agent: NOT APPLICABLE

41. Type of Agent: ☐ Environmental Consultant ☐ Attorney ☐ Other (specify):

42. Name of Agent Contact Person:

43. Mailing Address:

City: | **State**: | **ZIP Code**: –

44. Electronic Mail Address *(optional)*:

45. Telephone Number: ( ) – | **46. Facsimile Number** *(optional)*: ( ) –

47. Request for Follow-up: Does the "Agent" wish to receive a copy of the preliminary findings during the public notice period (if applicable) and a copy of the final determination? ☐ No ☐ Yes

PART H: Local Library Information

48. Date application packet was filed with the local library:

49. Name of Library: Alexandrian Public Library

50. Name of Librarian *(optional)*:

51. Mailing Address: 115 W 5th Street

City: Mt. Vernon | **State**: IN | **ZIP Code**: 47620 –

52. Internet Address *(optional)*:

53. Electronic Mail Address *(optional)*:

54. Telephone Number: (812) 838 – 3286 | **55. Facsimile Number** *(optional)*: ( ) –

PART I: Company Name History *(if applicable)*

Complete this section only if the source has previously operated under a legal name that is different from the name listed above in Section A.

56. Legal Name of Company	57. Dates of Use
Mead Johnson & Company	to 12/31/1968
Bristol Myers Squibb	12/31/1968 to 7/31/2015
AstraZeneca Pharmaceuticals, LP	7/31/2015 to
	to
	to
	to
	to
	to
	to
	to

58. Company Name Change Request: Is the source officially requesting to change the legal name that will be printed on all official documents issued by IDEM, OAQ?

☒ No ☐ Yes – ***Change Company Name to***:

Continued on Next Page

PART J: Portable Source Location History *(if applicable)*

Complete this section only if the source is portable and the location has changed since the previous permit was issued. The current location of the source should be listed in Section A.

59. Plant ID	60. Location of the Portable Source	61. Dates at this Location
–		to
–		to
–		to
–		to
–		to
–		to
–		to
–		to
–		to
–		to
–		to
–		to
–		to
–		to
–		to
–		to
–		to
–		to
–		to
–		to
–		to

PART K: Request to Change Location of Portable Source *(if applicable)*

Complete this section to request a change of location for a portable source.

62. Current Location:

Address:

City: **State**: **ZIP Code**: –

County Name:

63. New Location:

Address:

City: **State**: **ZIP Code**: –

County Name:

Continued on Next Page

PART L: Source Process Description

Complete this section to summarize the main processes at the source.

64. Process Description	65. Products	66. SIC Code	67. NAICS Code
Pharmaceutical Formulations/Preparations	Pharmaceutical Products	2834	325412

PART M: Existing Approvals *(if applicable)*

Complete this section to summarize the approvals issued to the source since issuance of the main operating permit.

68. Permit ID	69. Emissions Unit IDs	70. Expiration Date
36688	FESOP renewal	4/18/2026
38325	Dry material weight room Administrative Amendment	4/18/2026
40490	Packaging line #16 Administrative Amendment	4/18/2026
43243	Significant Revision (add emergency generator, packaging Line; revise Fettes, Bohles, fuel oil emission calculations)	4/18/2026

PART N: Unpermitted Emissions Units *(if applicable)*

Complete this section only if the source has emission units that are not listed in any permit issued by IDEM, OAQ.

71. Emissions Unit ID	72. Type of Emissions Unit	73. Actual Dates		
		Began Construction	Completed Construction	Began Operation
	Not Applicable			

PART O: New or Modified Emissions Units *(if applicable)*

Complete this section only if the source is proposing to add new emission units or modify existing emission units.

74. Emissions Unit ID	75. NEW	76. MOD	77. Type of Emissions Unit	78. Estimated Dates		
				Begin Construction	Complete Construction	Begin Operation
TB1		X	Boiler			4/13/2024

Continued on Next Page

OAQ GENERAL SOURCE DATA APPLICATION
GSD-12: Affidavit of Nonapplicability

State Form 51600 (R3 / 1-10)
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

IDEM – Office of Air Quality – Permits Branch
100 N. Senate Avenue, MC 61-53 Room 1003
Indianapolis, IN 46204-2251
Telephone: (317) 233-0178 or
Toll Free: 1-800-451-6027 x30178 (within Indiana)
Facsimile Number: (317) 232-6749
www.IN.gov/idem

NOTES:

- The purpose of GSD-12 is to certify that the requirement to notify adjacent landowners and occupants is not applicable to the source of air pollutant emissions.
- Detailed instructions for this form are available on the Air Permit Application Forms website.
- All information submitted to IDEM will be made available to the public unless it is submitted under a claim of confidentiality. Claims of confidentiality must be made at the time the information is submitted to IDEM, and must follow the requirements set out in 326 IAC 17.1-4-1. Failure to follow these requirements exactly will result in your information becoming a public record, available for public inspection.

PART A: Affidavit Of Nonapplicability

Complete this form to certify that the requirement to notify adjacent landowners and occupants pursuant to Indiana Code (IC) 13-15-8 is not applicable to the source of air pollutant emissions. This form must be notarized by a public notary.

Chad Burnett, being first duly sworn upon oath, deposes and says:

1. I live in Vanderburgh County, State of Indiana, and being of sound mind and over twenty-one (21) years of age, I am competent to give this affidavit.
2. I hold the position of SHE Manager for AstraZeneca Pharmaceuticals, LP (permit applicant's or facility's name).
3. By virtue of my position with AstraZeneca Pharmaceuticals LP (permit applicant's name), I am authorized to make the representation contained in this affidavit on behalf of the facility.
4. I understand that the notice requirements of Ind. Code § 13-15-8 do not apply to AstraZeneca Pharmaceuticals, LP permit applicant's or facility's name) for purposes of the accompanying permit application.
5. **Further Affiant Saith Not.**

☒ I affirm under the penalty for perjury that the representations contained in this affidavit are true, to the best of my information and belief.

Chad Burnett
Name (typed)

SHE Manager
Title

Chad Burnett
Signature

5/7/2024
Date

STATE OF Indiana

COUNTY OF Posey

PART B: Notarization

This section must be completed by a Public Notary.

Before me a notary Public in and for said County and State, personally appeared Chad Burnett, and being first duly sworn by me upon oath, says that the fact stated in the foregoing instrument are true. Signed and sealed this 7 of May, 2024

Printed: Cynthia K Staples

My Commission Expires: 19-JUN-2024

Residence of Indiana

County Vanderburgh

CYNTHIA K STAPLES
Resident of Vanderburgh County, IN
Commission Expires: June 19, 2024
Commission # 687021

OAQ GENERAL SOURCE DATA APPLICATION
GSD-15: Government Officials Notified

State Form 51608 (R3 / 1-10)
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

IDEM – Office of Air Quality – Permits Branch
100 N. Senate Avenue, MC 61-53 Room 1003
Indianapolis, IN 46204-2251
Telephone: (317) 233-0178 or
Toll Free: 1-800-451-6027 x30178 (within Indiana)
Facsimile Number: (317) 232-6749
www.IN.gov/idem

NOTES:

- The purpose of GSD-15 is to identify local government officials that are to be notified that an air permit application has been submitted.
- Detailed instructions for this form are available on the Air Permit Application Forms website.
- All information submitted to IDEM will be made available to the public unless it is submitted under a claim of confidentiality. Claims of confidentiality must be made at the time the information is submitted to IDEM, and must follow the requirements set out in 326 IAC 17.1-4-1. Failure to follow these requirements exactly will result in your information becoming a public record, available for public inspection.

Government Officials Notified		
Use this table to identify local government officials that should be notified pursuant to Indiana Code (IC) 13-15-3-1 that an air permit application has been submitted. If you need additional space, you may make copies of this form.		
1. **Name**: Steve Loehr		2. **Date Notified**:
3. **Title**: Mayor		
4. **Address**: 520 Main Street, City Hall Annex		
City: Mt. Vernon	**State**: IN	**ZIP Code**: 47620 –
5. **Electronic Mail**: sloehr@mountvernon-in.com	6. **Telephone Number**: (812) 838 - 5576	
7. **Method of Notification**: ☐ Telephone ☒ Electronic Mail ☐ Standard Mail ☐ Other *(specify)*:		
Name:		**Date Notified**:
Title:		
Address:		
City:	**State**:	**ZIP Code**: –
Electronic Mail:	**Telephone Number**: ( ) -	
Method of Notification: ☐ Telephone ☐ Electronic Mail ☐ Standard Mail ☐ Other *(specify)*:		
Name:		**Date Notified**:
Title:		
Address:		
City:	**State**:	**ZIP Code**: –
Electronic Mail:	**Telephone Number**: ( ) -	
Method of Notification: ☐ Telephone ☐ Electronic Mail ☐ Standard Mail ☐ Other *(specify)*:		
Name:		**Date Notified**:
Title:		
Address:		
City:	**State**:	**ZIP Code**: –
Electronic Mail:	**Telephone Number**: ( ) -	
Method of Notification: ☐ Telephone ☐ Electronic Mail ☐ Standard Mail ☐ Other *(specify)*:		

AstraZeneca
4601 Highway 62 East
Mt. Vernon, Indiana 47620
T: 812-307-2500
astrazeneca.com

May 7, 2024

Mayor Steve Loehr
520 Main Street, City Hall Annex
Mt. Vernon, Indiana 47620

Dear Mayor Loehr:

Pursuant to Indiana Code 13-15-3-1, this letter serves as notification that AstraZeneca Pharmaceuticals, LP submitted an application to the Indiana Department of Environmental Management (IDEM) for a significant permit modification on May 8, 2024.

A copy of the application will be placed at the Alexandrian Public Library at 115 West 5th Street, Mt. Vernon, IN 47620, and will be available for review during normal business hours. You may contact IDEM for further details regarding AstraZeneca's application.
Sincerely,

Should you have any questions regarding this communication, please contact me at 812.307.2218.

Sincerely,

AstraZeneca Pharmaceuticals LP

Kevin D. Conkright
Environmental & Sustainability Lead

OAQ PROCESS INFORMATION APPLICATION
PI-02B: Combustion – Boilers, Process Heaters & Furnaces

State Form 52536 (R2 / 1-10)
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

IDEM – Office of Air Quality – Permits Branch
100 N. Senate Avenue, MC 61-53 Room 1003
Indianapolis, IN 46204-2251
Telephone: (317) 233-0178 or
Toll Free: 1-800-451-6027 x30178 (within Indiana)
Facsimile Number: (317) 232-6749
www.IN.gov/idem

NOTES:

- The purpose of this form is to specify details that pertain only to boilers, process heaters and furnaces.
- For the purposes of this form, a process heater is any combustion unit that provides heat directly or indirectly to the process.
- Complete one PI-02B form for each emissions unit. If there are multiple emission units that are identical in nature, capacity, and use, you may use one PI-02B form to summarize the units.
- Detailed instructions for this form are available on the Air Permit Application Forms website.
- All information submitted to IDEM will be made available to the public unless it is submitted under a claim of confidentiality. Claims of confidentiality must be made at the time the information is submitted to IDEM, and must follow the requirements set out in 326 IAC 17.1-4-1. Failure to follow these requirements exactly will result in your information becoming a public record, available for anyone to inspect and photocopy.

PART A: Process Unit Details

Part A specifies operating information that is unique to boilers, process heaters and furnaces. Definitions and additional explanation of terminology are included in the instructions for this form.

1. Unit ID: TB1

2. Type of Combustion Unit

☒ Boiler:	☒ Industrial Boiler	☐ Commercial Boiler
	☐ Institutional Boiler	☐ Horseshoe Boiler
☐ Process Heater:	☐ Dutch Oven	☐ Drying Oven
	☐ Fuel Cell	☐ Space Heater
☐ Furnace:	☐ Crucible	☐ Crucible Pot
	☐ Cupola	☐ Electric Arc
	☐ Electric Induction	☐ Open Hearth
	☐ Open Hearth, Oxygen Lanced	☐ Pot
	☐ Reverberatory	☐ Sweat

3. Combustion Process

☒ Cyclone Burner	☐ Fluidized Bed – *Circulating*	☐ Fluidized Bed – *Bubbling*
☐ Overfeed Stoker / Traveling Grate	☐ Pulverized – *Dry Bottom*	☐ Pulverized – *Wet Bottom*
☐ Spreader Stoker	☐ Underfeed Stoker	☐ Other *(specify)*: _____

4. Heat Transfer Method: ☒ Watertube ☐ Firetube ☐ Cast Iron

5. Transfer Surface Arrangement *(check all that apply)*:

☐ Horizontal	☐ Straight
☐ Vertical	☒ Bent Tube

6. Firing Configuration:

☒ Cyclone	☐ Fluidized Bed Combustor	☐ Front Wall
☐ Horizontally Opposed	☐ Normal	☐ Stoker
☐ Suspension	☐ Tangential	

7. Heat Transfer Method *(process heaters only)*: ☐ Direct ☐ Indirect

8. Fuel Used: ☒ Natural Gas Only ☒ Other – *Attach completed PI-02F.*

Continued on Next Page

PART B: Emission Controls and Limitations

Part B identifies control technology, control techniques or other process limitations that impact air emissions.

9. Add-On Control Technology: *Identify all control technologies used for this process. Attach completed CE-01 (unless "none").*

- ☒ None
- ☐ Baghouse / Fabric Filter – *Attach CE-02.*
- ☐ Cyclone – *Attach CE-03.*
- ☐ Electrostatic Precipitator – *Attach CE-04.*
- ☐ Absorption / Wet Collector / Scrubber – *Attach CE-05.*
- ☐ NO_X Reduction – *Attach CE-09.*
- ☐ Other *(specify)*: – *Attach CE-10.*

10. Control Techniques: *Identify all control techniques used for this process.*

- ☒ None *(explain)*:
- ☐ Ammonia Injection
- ☐ Biased Burner Firing
- ☐ Burning Oil / Water Emulsions
- ☐ Burners Out Of Service
- ☐ Duct Injection
- ☐ Flue Gas Recirculation
- ☐ Flyash Reinjection
- ☐ Furnace Injection
- ☐ Load Reduction
- ☐ Low Excess Air
- ☐ Low NO_X Burners
- ☐ Overfire Air
- ☐ Reburn
- ☐ Reduced Air Preheat
- ☐ Spray Drying
- ☐ Staged Combustion
- ☐ Other *(specify)*: – *Attach completed GSD-09.*

11. Process Limitations / Additional Information: *Identify any acceptable process limitations. Attach additional information if necessary.*

Boiler process limitations for use of alternative fuel source (No.2 fuel oil) is presented in current permit with no modifications requested.

PART C: Previously Installed Boilers

Part C identifies all boilers that were installed prior to submitting this application.

12. Are there any **Previously Installed Boilers** present at this source?

- ☐ No – Proceed to Part D.
- ☒ Yes → ☐ Information attached. ☒ Information is contained in operating permit: 129-42343-00021

PART D: Furnace Details

Part D identifies details that pertain only to furnaces. If there are no furnaces identified with this application, completion of this table is not required.

13. Material Melted:

14. Maximum Melt Rate *(specify units)*:

15. Flux Type: ☐ MSDS attached.

16. Flux Amount *(specify units)*:

17. Oven Throughput Material:

OAQ PROCESS INFORMATION APPLICATION
PI-02F: Combustion – Fuel Use

State Form 52540 (R2 / 1-10)
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

IDEM – Office of Air Quality – Permits Branch
100 N. Senate Avenue, MC 61-53 Room 1003
Indianapolis, IN 46204-2251
Telephone: (317) 233-0178 or
Toll Free: 1-800-451-6027 x30178 (within Indiana)
Facsimile Number: (317) 232-6749
www.IN.gov/idem

NOTES:

- The purpose of this form is to identify each fuel that will be used in the combustion unit. Definitions and additional explanation of terminology are included in the instructions for this form.
- Complete one form PI-02F for each combustion unit. If the unit has any capability of using a fuel, even if on a backup or intermittent basis, complete the applicable section. Using a fuel that is not specified in the permit is a violation of the permit.
- Detailed instructions for this form are available on the Air Permit Application Forms website.
- All information submitted to IDEM will be made available to the public unless it is submitted under a claim of confidentiality. Claims of confidentiality must be made at the time the information is submitted to IDEM, and must follow the requirements set out in 326 IAC 17.1-4-1. Failure to follow these requirements exactly will result in your information becoming a public record, available for anyone to inspect and photocopy.

PART A: Process Unit Identification

1. Unit ID: TB-1

PART B: Gaseous Fuels

Part B identifies the gaseous fuels that will be used in the combustion unit.

2. Fuel Type:	3. Percent of Fuel Use *(by volume)*	4. Primary or Secondary Fuel?	5. Component Percentages:	6. Heating Value:
☒ Natural Gas		☒ Primary ☐ Secondary	Sulfur:	1020.00 *(Btu/ft³)*
☐ Liquefied Petroleum Gas ☐ *Commercial- Propane* ☐ *Engine Fuel Propane (HD-5)* ☐ *Commercial- Butane*		☐ Primary ☐ Secondary	Sulfur: Butane: Propane:	*(Btu/ft³)*
☐ Process Gas *		☐ Primary ☐ Secondary	Sulfur:	*(Btu/ft³)*
☐ Landfill Gas *		☐ Primary ☐ Secondary	Sulfur:	*(Btu/ft³)*
☐ Other *(specify)*:		☐ Primary ☐ Secondary	:	*(Btu/ft³)*

* Indicate the source of the process or landfill gas:

Continued on Next Page

PART C: Liquid Fuels

Part C identifies the liquid fuels that will be used in the combustion unit.

7. Fuel Type:	8. Percent of Fuel Use *(by volume)*	9. Primary or Secondary Fuel?	10. Component Percentages:	11. Heating Value:	12. Percent Heat:
☐ Residual Fuel Oil ☐ *No. 5 – Heavy* ☐ *No. 5 – Light* ☐ *No. 6 (Bunker C)*		☐ Primary ☐ Secondary	Sulfur:	*(Btu/gal)*	
☒ Distillate Fuel Oil ☐ *No. 1* ☒ *No. 2 (Diesel)* ☐ *No. 4*		☐ Primary ☒ Secondary	Sulfur: 0.30%	140000.00 *(Btu/gal)*	
☐ Gasoline		☐ Primary ☐ Secondary	Sulfur:	*(Btu/gal)*	
☐ Waste Oil		☐ Primary ☐ Secondary	Sulfur: Ash: Lead Chlorine:	*(Btu/gal)*	
☐ Liquid Waste *		☐ Primary ☐ Secondary	Sulfur: Fluorine: Chlorine:	*(Btu/gal)*	
☐ Other *(specify)*:		☐ Primary ☐ Secondary	: :	*(Btu/gal)*	

* RCRA alpha-numeric codes for Special or Hazardous Waste to be Burned:

This space was intentionally left blank.

Continued on Next Page

PART D1: Solid Fuels – Coal

Part D1 identifies all variations of coal that will be used in the combustion unit.

13. Fuel Type:	14. Percent of Fuel Use *(by volume)*	15. Primary or Secondary Fuel?	16. Component Percentages:	17. Heating Value:	18. Basis:
☐ Anthracite Coal ☐ *Anthracite* ☐ *Culm*		☐ Primary ☐ Secondary	Sulfur: Ash: Moisture:	*(Btu/lb)*	☐ Dry ☐ Moist
☐ Bituminous Coal		☐ Primary ☐ Secondary	Sulfur: Ash: Moisture:	*(Btu/lb)*	☐ Dry ☐ Moist
☐ Sub-bituminous Coal		☐ Primary ☐ Secondary	Sulfur: Ash: Moisture:	*(Btu/lb)*	☐ Dry ☐ Moist
☐ Lignite Coal		☐ Primary ☐ Secondary	Sulfur: Ash: Moisture:	*(Btu/lb)*	☐ Dry ☐ Moist
☐ Coke		☐ Primary ☐ Secondary	Sulfur: Ash: Moisture:	*(Btu/lb)*	☐ Dry ☐ Moist
☐ Other Coal *(specify)*:		☐ Primary ☐ Secondary	Sulfur: Ash: Moisture:	*(Btu/gal)*	☐ Dry ☐ Moist

This space was intentionally left blank.

Continued on Next Page

PART D2: Other Solid Fuels

Part D2 identifies the solid fuels, other than coal, that will be used in the combustion unit.

19. Fuel Type:	20. Percent of Fuel Use *(by volume)*	21. Primary or Secondary Fuel?	22. Component Percentages:	23. Heating Value:	24. Percent Heat:
☐ Wood or Wood Waste ☐ *Wood Only* ☐ *Wood Residue Only* ☐ *Wood and Wood Residue*		☐ Primary ☐ Secondary	Moisture:	*(Btu/ton)*	
☐ Tires or Tire Derived Fuel ☐ *Whole Tires* ☐ *Tire Derived Fuel*		☐ Primary ☐ Secondary	Sulfur: Chromium: Chlorine:	*(Btu/lb)*	
☐ Bagasse		☐ Primary ☐ Secondary	Ash: Moisture:	*(Btu/lb)*	
☐ Solid Waste *		☐ Primary ☐ Secondary	: :	*(Btu/lb)*	
☐ Other *(specify)*:		☐ Primary ☐ Secondary	: :	*(Btu/lb)*	

*RCRA alpha-numeric codes for Special or Hazardous Waste to be Burned:

PART E: Fuel Consumption Limitations

Use the space provided to specify any fuel consumption limitations that are acceptable for the combustion unit.

Liquified fuel oil (No. 2 heating fuel) consumption will be limited to 1,057,500 U.S. gallons per twelve (12) consecutive month period with compliance determined at the end of each month. Liquified fuel oil sulfur content shall not exceed 0.3% by weight. NOx emissions shall not exceed 20 lb/kgal of fuel oil. Compliance with these limits, combined with the potential to emit SO2 and NOx from all other emission units at this source, shall limit the source-wide total potential to emit of SO2 and NOx to less than one-hundred (100) tons per twelve (12) consecutive month period.

IDEM APPLICATION FOR SIGNIFICANT PERMIT MODIFICATION OF F129-36688-00021
ASTRAZENECA PHARMACEUTICALS, LP

SITE POTENTIAL TO EMIT CALCULATIONS

IDEM APPLICATION FOR SIGNIFICANT PERMIT MODIFICATION OF F129-36688-00021
ASTRAZENECA PHARMACEUTICALS, LP

Uncontrolled Potential to Emit (tons/yr)

Emission Unit	PM	PM10	PM2.5 *	SO_2	NOx	VOC	CO	Total HAPs	Highest Single HAP	
Worst Case Fuel Combustion Boilers TB1 & S27	7.56	8.69	5.86	161.00	75.59	1.28	43.57	0.98	0.93	Hexane
Tablet Core Press Machine, Building 122, Room 1109	7.26	7.26	7.26	-	-	-	-	-	-	-
Tablet Core Press Machine, Building 122, Room 1111	7.26	7.26	7.26	-	-	-	-	-	-	-
Granulator, Building 123, Room 1202	1.33	1.33	1.33	-	-	-	-	-	-	-
GEA Fluid-Bed Dryer, Building 123, Room 1202	6.35	6.35	6.35	-	-	-	-	-	-	-
Granulator, Building 123, Room 1229	1.33	1.33	1.33	-	-	-	-	-	-	-
GEA Fluid-Bed Dryer, Building 123, Room 1229	6.35	6.35	6.35	-	-	-	-	-	-	-
Diesel Emergency Generator S3	0.11	0.06	0.06	0.0017	3.52	0.10	0.94	1.73E-03	8.54E-04	Formaldehyde
Diesel Emergency Generator S32	0.15	0.15	0.15	0.01	5.29	0.53	2.89	5.29E-03	2.76E-03	Benzene
Diesel Emergency Generator S35	0.08	0.08	0.08	0.01	12.65	0.24	1.54	1.22E-02	6.01E-03	Benzene
Diesel Emergency Generator S45	0.36	0.44	0.44	0.01	11.63	0.78	6.36	1.22E-02	6.01E-03	Benzene
Insignificant Activities										
Building 121 Mixing, Pressing, and Coating	5.77	5.77	5.77	-	-	-	-	-	-	-
Press and Encapsulate, Building 122	7.86	7.86	7.86	-	-	-	-	-	-	-
Building 123 Coating Facilities	4.99	4.99	4.99	-	-	-	-	-	-	-
Tablet Printing, Building 123	-	-	-	-	-	8.18	-	-	-	-
Diesel Fire Pump S7	0.14	0.14	0.14	0.13	1.91	0.15	0.41	1.67E-03	5.08E-04	Formaldehyde
Diesel Emergency Generator S34	0.03	0.03	0.03	0.001	1.23	0.12	0.68	1.44E-03	7.55E-04	Benzene
Diesel Emergency Generator S44	0.03	0.17	0.17	0.16	0.52	0.20	0.45	2.14E-03	6.50E-04	Formaldehyde
Diesel Emergency Generator S46	0.04	0.30	0.30	0.28	0.89	0.34	0.78	3.65E-03	1.11E-03	Formaldehyde
Cold Cleaners	-	-	-	-	-	0.02	-	-	-	-
Bohle Tablet Coating Lines #1-9	18.23	18.23	18.23	-	-	-	-	1.23	1.23	HCl
Fette 64, 65, 66 Tablet Core Press Machines, Building 123	5.92	5.92	5.92	-	-	-	-	-	-	-
Weighing and Dispensing Rooms, Building 123	2.17	2.17	2.17	-	-	-	-	-	-	-
Weigh Room - Building 123, Room 1228	1.16	1.16	1.16	-	-	-	-	-	-	-
Bld 124 Packaging	0.19	0.19	0.19	-	-	-	-	-	-	-
Four (4) Vacuum Systems	5.31	5.31	5.31	-	-	-	-	-	-	-
Storage Tanks	-	-	-	-	-	7E-04	-	8E-06	3.53E-06	Xylene
Total	**89.99**	**91.55**	**88.72**	**161.60**	**113.23**	**11.96**	**57.61**	**2.25**	**1.23**	**HCl**
Paved Roads	2.95	0.59	0.14	-	-	-	-	-	-	-
Unpaved Roads	1.21	0.32	0.03	-	-	-	-	-	-	-

Potential to Emit after Control (tons/yr)

Emission Unit	PM	PM10	PM2.5 *	SO_2	NOx	VOC	CO	Total HAPs	Highest Single HAP	
Worst Case Fuel Combustion Boilers TB1 & S27	7.56	8.69	5.86	161.00	75.59	1.28	43.57	0.98	0.93	Hexane
Tablet Core Press Machine, Building 122, Room 1109	1.81	1.81	1.81	-	-	-	-	-	-	-
Tablet Core Press Machine, Building 122, Room 1111	1.81	1.81	1.81							
Granulator, Building 123, Room 1202	1.33	1.33	1.33	-	-	-	-	-	-	-
GEA Fluid-Bed Dryer, Building 123, Room 1202	1.59	1.59	1.59	-	-	-	-	-	-	-
Granulator, Building 123, Room 1229	0.01	0.01	0.01	-	-	-	-	-	-	-
GEA Fluid-Bed Dryer, Building 123, Room 1229	1.59	1.59	1.59	-	-	-	-	-	-	-
Diesel Emergency Generator S3	0.11	0.06	0.06	0.0017	3.52	0.10	0.94	0.002	8.54E-04	Formaldehyde
Diesel Emergency Generator S32	0.15	0.15	0.15	0.01	5.29	0.53	2.89	0.01	2.76E-03	Benzene
Diesel Emergency Generator S35	0.08	0.08	0.08	0.01	12.65	0.24	1.54	0.01	6.01E-03	Benzene
Diesel Emergency Generator S45	0.36	0.44	0.44	0.01	11.63	0.78	6.36	0.01	6.01E-03	Benzene
Insignificant Activities										
Building 121 Mixing, Pressing, and Coating	0.06	0.06	0.06	-	-	-	-	-	-	-
Press and Encapsulate, Building 122	0.079	0.079	0.079	-	-	-	-	-	-	-
Building 123 Pressing and Coating Facilities	0.05	0.05	0.05	-	-	-	-	-	-	-
Tablet Printing, Building 123	-	-	-	-	-	8.18	-	-	-	-
Diesel Fire Pump S7	0.14	0.14	0.14	0.13	1.91	0.15	0.41	0.002	0.001	Formaldehyde
Diesel Emergency Generator S34	0.03	0.03	0.03	0.00	1.23	0.12	0.68	0.001	7.55E-04	Benzene
Diesel Emergency Generator S44	0.03	0.17	0.17	0.16	0.52	0.20	0.45	0.002	0.001	Formaldehyde
Diesel Emergency Generator S46	0.04	0.30	0.30	0.28	0.89	0.34	0.78	0.004	0.001	Formaldehyde
Cold Cleaners	-	-	-	-	-	0.02	-	-	-	-
Bohle Tablet Coating Lines #1-9	0.18	0.18	0.18	-	-	-	-	1.23	1.23	HCl
Fette 64, 65, 66 Tablet Core Press Machines, Building 123	0.06	0.06	0.06	-	-	-	-	-	-	-
Weighing and Dispensing Rooms, Building 123	1.08	1.08	1.08	-	-	-	-	-	-	-
Weigh Room - Building 123, Room 1228	0.29	0.29	0.29	-	-	-	-	-	-	-
Bld 124 Packaging	0.002	0.002	0.002	-	-	-	-	-	-	-
Four (4) Vacuum Systems	5.31	5.31	5.31	-	-	-	-	-	-	-
Storage Tanks	-	-	-	-	-	7.05E-04	-	8.48E-06	3.53E-06	Xylene
Total	**23.77**	**25.34**	**22.51**	**161.60**	**113.23**	**11.96**	**57.61**	**2.25**	**1.23**	**HCl**
Paved Roads	2.95	0.59	0.14	-	-	-	-	-	-	-
Unpaved Roads	1.21	0.32	0.03	-	-	-	-	-	-	-

Limited Potential to Emit (tons/yr)

Emission Unit	PM	PM10	PM2.5 *	SO_2	NOx	VOC	CO	Total HAPs	Highest Single HAP	
Worst Case Fuel Combustion Boilers TB1 & S27	7.56	8.69	5.86	22.79	42.37	1.28	43.57	0.98	0.93	Hexane
Tablet Core Press Machine, Building 122, Room 1109	7.26	7.26	7.26	-	-	-	-	-	-	-
Tablet Core Press Machine, Building 122, Room 1111	7.26	7.26	7.26	-	-	-	-	-	-	-
Granulator, Building 123, Room 1202	1.33	1.33	1.33	-	-	-	-	-	-	-
GEA Fluid-Bed Dryer, Building 123, Room 1202	6.35	6.35	6.35	-	-	-	-	-	-	-
Granulator, Building 123, Room 1229	1.33	1.33	1.33	-	-	-	-	-	-	-
GEA Fluid-Bed Dryer, Building 123, Room 1229	6.35	6.35	6.35	-	-	-	-	-	-	-
Diesel Emergency Generator S3	0.11	0.06	0.06	0.0017	3.52	0.10	0.94	1.73E-03	8.54E-04	Formaldehyde
Diesel Emergency Generator S32	0.15	0.15	0.15	0.01	5.29	0.53	2.89	5.29E-03	2.76E-03	Benzene
Diesel Emergency Generator S35	0.08	0.08	0.08	0.01	12.65	0.24	1.54	1.22E-02	6.01E-03	Benzene
Diesel Emergency Generator S45	0.36	0.44	0.44	0.01	11.63	0.78	6.36	1.22E-02	6.01E-03	Benzene
Insignificant Activities										
Building 121 Mixing, Pressing, and Coating	5.77	5.77	5.77	-	-	-	-	-	-	-
Press and Encapsulate, Building 122	7.86	7.86	7.86	-	-	-	-	-	-	-
Building 123 Coating Facilities	4.99	4.99	4.99	-	-	-	-	-	-	-
Tablet Printing, Building 123	-	-	-	-	-	8.18	-	-	-	-
Diesel Fire Pump S7	0.14	0.14	0.14	0.13	1.91	0.15	0.41	1.67E-03	5.08E-04	Formaldehyde
Diesel Emergency Generator S34	0.03	0.03	0.03	0.00	1.23	0.12	0.68	1.44E-03	7.55E-04	Benzene
Diesel Emergency Generator S44	0.03	0.17	0.17	0.16	0.52	0.20	0.45	2.14E-03	6.50E-04	Formaldehyde
Diesel Emergency Generator S46	0.04	0.30	0.30	0.28	0.89	0.34	0.78	0.004	0.001	Formaldehyde
Cold Cleaners	-	-	-	-	-	0.02	-	-	-	-
Bohle Tablet Coating Lines #1-9	18.23	18.23	18.23	-	-	-	-	1.23	1.23	HCl
Fette 64, 65, 66 Tablet Core Press Machines, Building 123	5.92	5.92	5.92	-	-	-	-	-	-	-
Weighing and Dispensing Rooms, Building 123	2.17	2.17	2.17	-	-	-	-	-	-	-
Weigh Room - Building 123, Room 1228	1.16	1.16	1.16	-	-	-	-	-	-	-
Bld 124 Packaging	0.19	0.19	0.19	-	-	-	-	-	-	-
Four (4) Vacuum Systems	5.31	5.31	5.31	-	-	-	-	-	-	-
Storage Tanks	-	-	-	-	-	7E-04	-	8E-06	3.53E-06	Xylene
Total	**89.99**	**91.55**	**88.72**	**23.39**	**80.01**	**11.96**	**57.61**	**2.25**	**1.23**	**HCl**
Paved Roads	2.95	0.59	0.14	-	-	-	-	-	-	-
Unpaved Roads	1.21	0.32	0.03	-	-	-	-	-	-	-

** PM2.5 listed is direct PM2.5*

Note: FESOP limits

IDEM APPLICATION FOR SIGNIFICANT PERMIT MODIFICATION OF F129-36688-00021
ASTRAZENECA PHARMACEUTICALS, LP

BOILER CALCULATIONS

(Natural Gas (Limited/Unlimited), Fuel Oil

IDEM APPLICATION FOR SIGNIFICANT PERMIT MODIFICATION OF F129-36688-00021
ASTRAZENECA PHARMACEUTICALS, LP

No. 2 Fuel Oil – Boilers Calculation

No. 2 Fuel Oil Combustion Only
MM BTU/HR <100

Company Name: AstraZeneca Pharmaceuticals LP
Address City IN Zip: 4601 Highway 62 East, Mt. Vernon, IN 47620
Permit No: SPR 129-43243-00021
Reviewer: Tamara Havics

Emission Unit ID	Heat Input Capacity (MMBtu/hr)	Oil Sulfur Content (%)
TB1	60	0.3
S27	60.8	
Total	120.8	

Limited Throughput (kgal/yr)	Fuel Heat Value (MMBtu/kgal)	Limited Heat Input (MMBtu/year)
1,058	140	148,050

		Emission Factor (lb/kgal)						
Fuel Type	Fuel Heat Value (MMBtu/kgal)	PM	PM10	direct PM2.5	SO_2 (142S)	NOx	VOC	CO
No. 2 Distillate Oil	140	2.00	2.30	1.55	42.6	20.0	0.34	5.00

Emission factors from AP 42, Chapter 1.3, Tables 1.3-1, 1.3-2, 1.3-3, 1.3-6, 1.3-10, and 1.3-11. (9/98)

		Potential to Emit (ton/yr)						
Emission Unit ID	Potential Throughput (kgal/yr)	PM	PM10	direct PM2.5	SO_2	NOx	VOC	CO
TB1	3,754	3.75	4.32	2.91	80.0	37.54	0.64	9.39
S27	3,804	3.80	4.37	2.95	81.0	38.04	0.65	9.51
Total	7,559	7.56	8.69	5.86	161.0	75.6	1.28	18.9

		Limited Potential to Emit (ton/yr)						
Emission Unit ID	Limited Throughput (kgal/yr)	PM	PM10	direct PM2.5	SO_2	NOx	VOC	CO
Boilers TB1 & S27	1,058	-	-	-	22.52	10.58	-	-
Total	1,058	-	-	-	22.52	10.58	-	-

Methodology
Potential Throughput (kgal/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 hr/yr x 1/Fuel Heat Value (MMBtu/kgal)
Potential to Emit (ton/yr) = Throughput (kgal/yr) x Emission Factor (lb/kgal) x 1 ton/2,000 lb

	Emission Factor (lbs/mmBtu)								
Fuel Type	Arsenic	Beryllium	Cadmium	Chromium	Lead	Mercury	Manganese	Nickel	Selenium
No. 2 Distillate Oil	4.0E-06	3.0E-06	3.0E-06	3.0E-06	9.0E-06	3.0E-06	6.0E-06	3.0E-06	1.5E-05

Emission factors from AP 42, Chapter 1.3, Tables 1.3-9 and 1.3-11. (9/98)

	Potential To Emit (tons/yr)								
Emission Unit ID	Arsenic	Beryllium	Cadmium	Chromium	Lead	Mercury	Manganese	Nickel	Selenium
TB1	1.05E-03	7.88E-04	7.88E-04	7.88E-04	2.37E-03	7.88E-04	1.58E-03	7.88E-04	3.94E-03
S27	1.07E-03	7.99E-04	7.99E-04	7.99E-04	2.40E-03	7.99E-04	1.60E-03	7.99E-04	3.99E-03
Total	2.12E-03	1.59E-03	1.59E-03	1.59E-03	4.76E-03	1.59E-03	3.17E-03	1.59E-03	7.94E-03
								Total HAPs	0.03

Methodology
Potential To Emit (tons/year) = Throughput (kgal/yr) x Emission Factor (lbs/kgal) x 1 ton/2,000 lbs

IDEM APPLICATION FOR SIGNIFICANT PERMIT MODIFICATION OF F129-36688-00021
ASTRAZENECA PHARMACEUTICALS, LP

NATURAL GAS UNLIMITED – Boilers Calculation

Company Name: AstraZeneca Pharmaceuticals LP
Address City IN Zip: 4601 Highway 62 East, Mt. Vernon, IN 47620
Permit No: SPR 129-43243-00021
Reviewer: Tamara Havics

Emission Unit ID	Heat Input Capacity (MMBtu/hr)
TB1	60
S27	60.8
Total	**120.8**

Unlimited Heat Input Capacity @ 8760 hrs/yr (MMBtu/yr)
1,058,208

		Emission Factor (lbs/MMCF)						
NOx Burner Type	Fuel Heat Value (MMBtu/MMCF)	PM*	PM10*	direct PM2.5	SO_2	NOx**	VOC	CO
Ordinary Burners	1,020	1.9	7.6	7.6	0.6	100	5.5	84.0
Low Nox Burners (Boiler S27)						32		

* PM emission factor is for filterable PM only PM10 emission factor is for condensable PM10 and filterable PM combined.
** Emission factors for NOx: Uncontrolled = 100 lbs/MMCF, Low NOx Burners = 50 lbs/MMCF, Low Nox Burners + FGR = 32 lbs/MMCF
Emission factors are from AP 42, Chapter 1.4, Tables 1.4-1, and 1.4-2, SCC 1-01-006-02, 1-02-006-02, 1-03-006-02, 1-03-006-03. (7/98)

		Potential To Emit (tons/yr)						
Emission Unit ID	Potential Throughput (MMCF/yr)	PM	PM10	direct PM2.5	SO_2	NOx	VOC	CO
TB1	515.3	0.49	1.96	1.96	0.15	25.76	1.42	21.64
S27	522.2	0.50	1.98	1.98	0.16	8.35	1.44	21.93
Total	**1037.5**	**1.0**	**3.9**	**3.9**	**0.3**	**34.1**	**2.9**	**43.6**

Methodology
Maximum Potential Throughput (MMCF/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 (hrs/yr) x 1 MMCF/1,000 MMBtu
Potential To Emit (tons/year) = Throughput (MMCF/yr) x Emission Factor (lbs/MMCF) x 1 ton/2,000 lbs

	Emission Factor (lbs/MMCF)									
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	Cadmium	Chromium	Manganese	Mercury	Nickel
	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	1.1E-03	1.4E-03	3.8E-04	2.6E-04	2.1E-03

	Potential To Emit (tons/yr) - Scenario #1									
Emission Unit ID	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	Cadmium	Chromium	Manganese	Mercury	Nickel
TB1	5.41E-04	3.09E-04	1.93E-02	4.64E-01	8.76E-04	2.83E-04	3.61E-04	9.79E-05	6.70E-05	5.41E-04
S27	5.48E-04	3.13E-04	1.96E-02	4.70E-01	8.88E-04	2.87E-04	3.66E-04	9.92E-05	6.79E-05	5.48E-04
Total	**1.09E-03**	**6.22E-04**	**3.89E-02**	**9.34E-01**	**1.76E-03**	**5.71E-04**	**7.26E-04**	**1.97E-04**	**1.35E-04**	**1.09E-03**
									Total HAP	0.98

HAP emission factors are from AP 42, Chapter 1.4, Tables 1.4-3 and 1.4-4. (7/98)

Methodology
Potential To Emit (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lbs/MMCF) x 1 ton/2,000 lbs

IDEM APPLICATION FOR SIGNIFICANT PERMIT MODIFICATION OF F129-36688-00021
ASTRAZENECA PHARMACEUTICALS, LP

NATURAL GAS LIMITED – BOILERS

Company Name: AstraZeneca Pharmaceuticals LP
Address City IN Zip: 4601 Highway 62 East, Mt. Vernon, IN 47620
Permit No: SPR 129-43243-00021
Reviewer: Tamara Havics

Emission Unit ID	Heat Input Capacity (MMBtu/hr)
TB1	60
S27	60.8
Total	**120.8**

Unlimited Heat Input Capacity (MMBtu/yr)
1,058,208

FO Limited Heat Input (MMBtu/year)	NG Heat Input (MMBtu/year)	NG Fuel use (MMCF/year)
148,050	**910,158**	**892.3**

		Emission Factor (lbs/MMCF)						
NOx Burner Type	**Fuel Heat Value (MMBtu/MMCF)**	**PM***	**PM10***	**direct PM2.5**	**SO_2**	**NOx****	**VOC**	**CO**
Ordinary Burners	1,020	1.9	7.6	7.6	0.6	100	5.5	84.0
Low Nox Burners (Boiler S27)						32		

* PM emission factor is for filterable PM only. PM10 emission factor is for condensable PM10 and filterable PM combined.
** Emission factors for NOx: Uncontrolled = 100 lbs/MMCF, Low NOx Burners = 50 lbs/MMCF, Low Nox Burners + FGR = 32 lbs/MMCF
Emission factors are from AP 42, Chapter 1.4, Tables 1.4-1, and 1.4-2, SCC 1-01-006-02, 1-02-006-02, 1-03-006-02, 1-03-006-03. (7/98)

		Potential To Emit (tons/yr)						
Emission Unit ID	**Limited Throughput (MMCF/yr)**	**PM**	**PM10**	**direct PM2.5**	**SO_2**	**NOx**	**VOC**	**CO**
TB1	515.3	0.49	1.96	1.96	0.15	25.76	1.42	21.64
S27	377.0	0.36	1.43	1.43	0.11	6.03	1.04	15.83
Total	**892.3**	**0.85**	**3.39**	**3.39**	**0.27**	**31.80**	**2.45**	**37.48**

Methodology
Limited NG Throughput (MMCF/yr) = NG limited annual Heat Input Capacity (MMBtu/yr) x 1 MMCF/1,020 MMBtu
Limited NG Potential To Emit (tons/year) = Limited NG Throughput (MMCF/yr) x Emission Factor (lbs/MMCF) x 1 ton/2,000 lbs

	Emission Factor (lbs/MMCF)									
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	Cadmium	Chromium	Manganese	Mercury	Nickel
	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	1.1E-03	1.4E-03	3.8E-04	2.6E-04	2.1E-03

	Potential To Emit (tons/yr) - Scenario #1									
Emission Unit ID	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	Cadmium	Chromium	Manganese	Mercury	Nickel
TB1	5.41E-04	3.09E-04	1.93E-02	4.64E-01	8.76E-04	2.83E-04	3.61E-04	9.79E-05	6.70E-05	5.41E-04
S27	3.96E-04	2.26E-04	1.41E-02	3.39E-01	6.41E-04	2.07E-04	2.64E-04	7.16E-05	4.90E-05	3.96E-04
Total	**9.37E-04**	**5.35E-04**	**3.35E-02**	**8.03E-01**	**1.52E-03**	**4.91E-04**	**6.25E-04**	**1.70E-04**	**1.16E-04**	**9.37E-04**
									Total HAP	**0.84**

HAP emission factors are from AP 42, Chapter 1.4, Tables 1.4-3 and 1.4-4. (7/98)

Methodology
NG Limited Potential To Emit (tons/yr) = Limited NG Throughput (MMCF/yr) x Emission Factor (lbs/MMCF) x 1 ton/2,000 lbs

OAQ AIR PERMIT APPLICATION – FORMS CHECKLIST

State Form 51607 (R5 / 1-10)
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

IDEM – Office of Air Quality – Permits Branch
100 N. Senate Avenue, MC 61-53 Room 1003
Indianapolis, IN 46204-2251
Telephone: (317) 233-0178 or
Toll Free: 1-800-451-6027 x30178 (within Indiana)
Facsimile Number: (317) 232-6749
www.IN.gov/idem

NOTES:

- The purpose of this checklist is to help the applicant and IDEM, OAQ ensure that the air permit application packet is administratively complete. This checklist is a required form.
- Check the appropriate box indicating whether each application form is applicable for the current permit application. The source must submit only those forms pertinent to the current permit application.
- Place this checklist between the cover sheet and all subsequent forms and attachments that encompass your air permit application packet.

Part A: General Source Data

Applicable?	Form ID	Title of Form	State Form Number	When should this form be included in my application packet?
☒ Y ☐ N	COVER	Application Cover Sheet	50639	Include for every application, modification, and renewal, including source specific operating agreements (SSOA).
☒ Y ☐ N	CHECKLIST	Forms Checklist	51607	Include for every application, modification, and renewal, including SSOA.
☒ Y ☐ N	GSD-01	Basic Source Level Information	50640	Include for every application, modification, and renewal, including SSOA.
☐ Y ☐ N	GSD-02	Plant Layout Diagram	51605	Include for every new source application, and modification.
☐ Y ☐ N	GSD-03	Process Flow Diagram	51599	Include one for every process covered by the application.
☐ Y ☐ N	GSD-04	Stack / Vent Information	51606	Include for every new source application, and modification.
☐ Y ☐ N	GSD-05	Emissions Unit Information	51610	Include for every process covered by the application.
☐ Y ☐ N	GSD-06	Particulate Emissions Summary	51612	Include if the process has particulate emissions (PM).
☐ Y ☐ N	GSD-07	Criteria Pollutant Emissions Summary	51602	Include if the process has criteria pollutant emissions.
☐ Y ☐ N	GSD-08	HAP Emissions Summary	51604	Include if the process has hazardous air pollutant emissions (HAP).
☐ Y ☐ N	GSD-09	Summary of Additional Information	51611	Include if the additional information is included.
☐ Y ☐ N	GSD-10	Insignificant Activities	51596	Include if there are unpermitted insignificant activities.
☐ Y ☐ N	GSD-11	Alternative Operating Scenario	51601	Include if an AOS is requested.
☒ Y ☐ N	GSD-12	Affidavit of Nonapplicability	51600	Include if the standard notification requirements do not apply.
☐ Y ☐ N	GSD-13	Affidavit of Applicability	51603	Include if the standard notification requirements apply.
☐ Y ☐ N	GSD-14	Owners and Occupants Notified	51609	Include if the standard notification requirements apply.
☐ Y ☐ N	GSD-15	Government Officials Notified	51608	Include if the standard notification requirements apply.
☐ Y ☐ N	RENEWAL	Renewal Checklist	51755	Include with every operating permit renewal packet.

Continued on Next Page

Part B: Process Information				
Applicable?	**Form ID**	**Title of Form**	**State Form Number**	**When should this form be included in my application packet?**
☐ Y ☐ N	AEF-01	Alternate Emission Factor Request	51860	Submit if you are requesting to use an emission factor other than AP-42.
☐ Y ☐ N	PI-01	Miscellaneous Processes	52534	Include one form for each process for which there is not a specific PI form.
☐ Y ☐ N	PI-02A	Combustion Unit Summary	52535	Include one form to summarize all combustion units *(unless SSOA).*
☒ Y ☐ N	PI-02B	*Combustion:* Boilers, Process Heaters, & Furnaces	52536	Include one form for each boiler, process heater, or furnace *(unless SSOA).*
☐ Y ☐ N	PI-02C	*Combustion:* Turbines & Internal Combustion Engines	52537	Include one form for each turbine or internal combustion engine *(unless SSOA).*
☐ Y ☐ N	PI-02D	*Combustion:* Incinerators & Combustors	52538	Include one form for each incinerator or combustor *(unless SSOA).*
☐ Y ☐ N	PI-02E	*Combustion:* Kilns	52539	Include one form for each kiln *(unless SSOA).*
☒ Y ☐ N	PI-02F	*Combustion:* Fuel Use	52540	Include one form for each combustion unit *(unless SSOA).*
☐ Y ☐ N	PI-02G	*Combustion:* Emission Factors	52541	Include one form for each combustion unit *(unless SSOA).*
☐ Y ☐ N	PI-02H	*Combustion:* Federal Rule Applicability	52542	Include one form for each combustion unit *(unless SSOA).*
☐ Y ☐ N	PI-03	Storage and Handling of Bulk Material	52543	Include if the process involves the storage and handling of bulk materials.
☐ Y ☐ N	PI-04	Asphalt Plants	52544	Include for each asphalt plant process (*unless general permit*).
☐ Y ☐ N	PI-05	Brick / Clay Products	52545	Include for each brick and/or clay products process.
☐ Y ☐ N	PI-06	Electroplating Operations	52546	Include for each electroplating process.
☐ Y ☐ N	PI-07	Welding Operations	52547	Include for each welding process.
☐ Y ☐ N	PI-08	Concrete Batchers	52548	Include for each concrete batcher *(unless SSOA).*
☐ Y ☐ N	PI-09	Degreasing	52549	Include for each degreasing process *(unless SSOA).*
☐ Y ☐ N	PI-10	Dry Cleaners	52550	Include for each dry cleaning process
☐ Y ☐ N	PI-11	Foundry Operations	52551	Include for each foundry process
☐ Y ☐ N	PI-12	Grain Elevators	52552	Include for each grain elevator *(unless SSOA).*
☐ Y ☐ N	PI-13	Lime Manufacturing	52553	Include for each lime manufacturing process.
☐ Y ☐ N	PI-14	Liquid Organic Compound Storage	52554 (doc)	Include if the process involves the storage of liquid organic compounds.
☐ Y ☐ N	PI-14ALT	Alternate version of Liquid Organic Compound Storage	52555 (xls)	Include if the process involves the storage of liquid organic compounds and there are several storage vessels.
☐ Y ☐ N	PI-15	Portland Cement Manufacturing	52556	Include for each Portland cement manufacturing process.
☐ Y ☐ N	PI-16	Reinforced Plastics & Composites	52557	Include for each reinforced plastics and composites process.

Continued on Next Page

Part B: Process Information				
Applicable?	**Form ID**	**Title of Form**	**State Form Number**	**When should this form be included in my application packet?**
☐ Y ☐ N	PI-17	Blasting Operations	52558	Include for each blasting process *(unless SSOA).*
☐ Y ☐ N	PI-18	Mineral Processing	52559	Include if the process involves mineral processing *(unless SSOA)*.
☐ Y ☐ N	PI-19	Surface Coating & Printing Operations	52560	Include for each surface coating or printing process *(unless SSOA).*
☐ Y ☐ N	PI-20	Woodworking / Plastic Machining	52561	Include for each woodworking or plastic machining process *(unless SSOA).*
☐ Y ☐ N	PI-21	Site Remediation	52570	Include for each soil remediation process.
☐ Y ☐ N	PI-22	Ethanol Plants ***(Under Development)***	None	Include for each ethanol plant.

Part C: Control Equipment				
Applicable?	**Form ID**	**Title of Form**	**State Form Number**	**When should this form be included in my application packet?**
☐ Y ☐ N	CE-01	Control Equipment Summary	51904	Include if add-on control equipment will be used for the process.
☐ Y ☐ N	CE-02	Particulates – Baghouse / Fabric Filter	51953	Include for each baghouse or fabric filter.
☐ Y ☐ N	CE-03	Particulates – Cyclone	52620	Include for each cyclone.
☐ Y ☐ N	CE-04	Particulates – Electrostatic Precipitator	52621	Include for each electrostatic precipitator.
☐ Y ☐ N	CE-05	Particulates – Wet Collector / Scrubber / Absorber	52622	Include for each wet collector, scrubber, or absorber.
☐ Y ☐ N	CE-06	Organics – Flare / Oxidizer / Incinerator	52623	Include for each flare, oxidizer, or incinerator.
☐ Y ☐ N	CE-07	Organics – Adsorbers	52624	Include for each adsorber.
☐ Y ☐ N	CE-08	Organics – Condenser	52625	Include for each condenser.
☐ Y ☐ N	CE-09	Reduction Technology	52626	Include for each control device using reduction technology (e.g., SCR, SNCR).
☐ Y ☐ N	CE-10	Miscellaneous Control Equipment	52436	Include one form for equipment for which there is not a specific CE form.

Continued on Next Page

Part D: Compliance Determination for Part 70 Sources				
Applicable?	**Form ID**	**Title of Form**	**State Form Number**	**When should this form be included in my application packet?**
☐ Y ☐ N	CD-01	Emissions Unit Compliance Status	51861	Include for every Title V application, including modifications.
☐ Y ☐ N	CD-02	Compliance Plan by Applicable Requirement	51862	Include for every Title V application, including modifications.
☐ Y ☐ N	CD-03	Compliance Plan by Emissions Unit	51863	Include for every Title V application, including modifications.
☐ Y ☐ N	CD-04	Compliance Schedule and Certification	51864	Include for every Title V application, including modifications and renewal.
☐ Y ☐ N	FED-03	Compliance Assurance Monitoring	53377	Include for every Title V application, including modifications.

Part E: Best Available Control Technology				
Applicable?	**Form ID**	**Title of Form**	**State Form Number**	**When should this form be included in my application packet?**
☐ Y ☐ N	BACT-01	Analysis of Best Available Control Technology	None	Include for every BACT application.
☐ Y ☐ N	BACT-01a	Background Search: Existing BACT Determinations	None	Include for every BACT application.
☐ Y ☐ N	BACT-01b	Cost/Economic Impact Analysis	None	Include for every BACT application.
☐ Y ☐ N	BACT-02	Summary of Best Available Control Technology	None	Include for every BACT application.
☐ Y ☐ N	PSD / EO-01	PSD / Emission Offset Checklist	None	Include for every PSD application and every NSR application that requires emission offsets.

Part F: Emission Credit Registry				
Applicable?	**Form ID**	**Title of Form**	**State Form Number**	**When should this form be included in my application packet?**
☐ Y ☐ N	EC-01	Generation of Emission Credits	51783	Include if the modification results in emission reductions.
☐ Y ☐ N	EC-02	Transfer of Emission Credits	51784	Submit whenever registered emission credits are transferred.
☐ Y ☐ N	EC-03	Use of Emission Credits	51785	Include if the modification requires the use of emission credits for offsets.
☐ Y ☐ N	EC-04	Emission Credit Request	51906	Submit if you are looking for emission credits for offsets.

Continued on Next Page

Part G: Plantwide Applicability Limits				
Applicable?	**Form ID**	**Title of Form**	**State Form Number**	**When should this form be included in my application packet?**
☐ Y ☐ N	PAL-01	Actuals Plantwide Applicability Limit	52451	Include if the modification results in emission reductions.
☐ Y ☐ N	PAL-02	Revised Plantwide Applicability Limit	52452	Submit whenever registered emission credits are transferred.
☐ Y ☐ N	PAL-03	Plantwide Applicability Limit Renewal	52453	Include if the modification requires the use of emission credits for offsets.
☐ Y ☐ N	PAL-04	Request for Termination of Plantwide Applicability Limit	52454	Submit if you are looking for emission credits for offsets.

Part H: Air Toxics				
Applicable?	**Form ID**	**Title of Form**	**State Form Number**	**When should this form be included in my application packet?**
☐ Y ☐ N	FED-01	Summary of Federal Requirements – NSPS & NESHAP	53512	Include for each 40 CFR Part 60 NSPS, 40 CFR Part 61 NESHAP, and 40 CFR Part 63 NESHAP applicable to the process.
☐ Y ☐ N	FED-02	MACT Pre-Construction Review	51905	Include if constructing or modifying a process subject to a Part 63 NESHAP.
☐ Y ☐ N	No Form ID	MACT Initial Notification	None	This form is available on the U.S. EPA website. Completed notifications should be submitted to the IDEM Compliance Branch.

Part I: Special Permits				
Applicable?	**Form ID**	**Title of Form**	**State Form Number**	**When should this form be included in my application packet?**
☐ Y ☐ N	INTERIM	Interim Approval	None	Submit if you are applying for interim operating approval.
☐ Y ☐ N	ASPHALT	Asphalt General Permit	None	Submit if you are applying for or modifying an asphalt plant general permit.
☐ Y ☐ N	NOXBTP	NO_X Budget Permit	None	Submit if you are a power plant or if you have opted in to the NO_X budget trading program.
☐ Y ☐ N	ACIDRAIN	Phase 2 Acid Rain Permit	None	Submit if you are applying for, modifying, or renewing a Phase 2 Acid Rain permit.

Continued on Next Page

Part J: Source Specific Operating Agreements (SSOA)				
Applicable?	**Form ID**	**Title of Form**	**State Form Number**	**When should this form be included in my application packet?**
☐ Y ☐ N	OA-01	Summary of Application and Existing Agreements	53438	Submit if you are applying for or modifying a Source Specific Operating Agreement.
☐ Y ☐ N	OA-02	Industrial / Commercial Surface Coating Operations -OR- Graphic Arts Operations (326 IAC 2-9-2.5)	53439	Submit if you are applying for or modifying a SSOA for industrial or commercial surface coating operations not subject to 326 IAC 8-2; or graphic arts operations not subject to 326 IAC 8-5-5.
☐ Y ☐ N	OA-03	Surface Coating or Graphic Arts Operations (326 IAC 2-9-3)	53440	Submit if you are applying for or modifying a SSOA for surface coating or graphic arts operations.
☐ Y ☐ N	OA-04	Woodworking Operations (326 IAC 2-9-4)	53441	Submit if you are applying for or modifying a SSOA for woodworking operations.
☐ Y ☐ N	OA-05	Abrasive Cleaning Operations (326 IAC 2-9-5)	53442	Submit if you are applying for or modifying a SSOA for abrasive cleaning operations.
☐ Y ☐ N	OA-06	Grain Elevators (326 IAC 2-9-6)	53443	Submit if you are applying for or modifying a SSOA for grain elevators.
☐ Y ☐ N	OA-07	Sand And Gravel Plants (326 IAC 2-9-7)	53444	Submit if you are applying for or modifying a SSOA for sand and gravel plants.
☐ Y ☐ N	OA-08	Crushed Stone Processing Plants (326 IAC 2-9-8)	53445	Submit if you are applying for or modifying a SSOA for crushed stone processing plants.
☐ Y ☐ N	OA-09	Ready-Mix Concrete Batch Plants (326 IAC 2-9-9)	53446	Submit if you are applying for or modifying a SSOA for ready-mix concrete batch plants.
☐ Y ☐ N	OA-10	Coal Mines And Coal Preparation Plants (326 IAC 2-9-10)	53447	Submit if you are applying for or modifying a SSOA for coal mines and coal preparation plants.
☐ Y ☐ N	OA-11	Automobile Refinishing Operations (326 IAC 2-9-11)	53448	Submit if you are applying for or modifying a SSOA for automobile refinishing operations.
☐ Y ☐ N	OA-12	Degreasing Operations (326 IAC 2-9-12)	53449	Submit if you are applying for or modifying a SSOA for degreasing operations.
☐ Y ☐ N	OA-13	External Combustion Sources (326 IAC 2-9-13)	53450	Submit if you are applying for or modifying a SSOA for external combustion sources.
☐ Y ☐ N	OA-14	Internal Combustion Sources (326 IAC 2-9-14)	53451	Submit if you are applying for or modifying a SSOA for internal combustion sources.

AIR PERMIT APPLICATION COVER SHEET

State Form 50639 (R4 / 1-10)
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

IDEM – Office of Air Quality – Permits Branch
100 N. Senate Avenue, MC 61-53 Room 1003
Indianapolis, IN 46204-2251
Telephone: (317) 233-0178 or
Toll Free: 1-800-451-6027 x30178 (within Indiana)
Facsimile Number: (317) 232-6749
www.IN.gov/idem

NOTES:

- The purpose of this cover sheet is to obtain the core information needed to process the air permit application. This cover sheet is required for all air permit applications submitted to IDEM, OAQ. Place this cover sheet on top of all subsequent forms and attachments that encompass your air permit application packet.
- Submit the completed air permit application packet, including all forms and attachments, to **IDEM Air Permits Administration** using the address in the upper right hand corner of this page.
- IDEM will send a bill to collect the filing fee and any other applicable fees.
- Detailed instructions for this form are available on the Air Permit Application Forms website.

FOR OFFICE USE ONLY
PERMIT NUMBER:
____ _____ – _____ – _____
DATE APPLICATION WAS RECEIVED:

1. Tax ID Number: 23-2967016

PART A: Purpose of Application

Part A identifies the purpose of this air permit application. For the purposes of this form, the term "source" refers to the plant site as a whole and NOT to individual emissions units.

2. Source / Company Name: AstraZeneca Pharmaceuticals LP **3. Plant ID:** 129 ─ 00021

4. Billing Address: 4601 Highway 62 East

City: Mt. Vernon **State:** IN **ZIP Code:** 47620 –

5. Permit Level: ☐ Exemption ☐ Registration ☐ SSOA ☐ MSOP ☒ FESOP ☐ TVOP ☐ PBR

6. Application Summary: *Check all that apply. Multiple permit numbers may be assigned as needed based on the choices selected below.*

☐ Initial Permit ☐ Renewal of Operating Permit ☐ Asphalt General Permit
☐ Review Request ☐ Revocation of Operating Permit ☐ Alternate Emission Factor Request
☐ Interim Approval ☐ Relocation of Portable Source ☐ Acid Deposition (Phase II)
☐ Site Closure ☐ Emission Reduction Credit Registry

☐ Transition (between permit levels) *From:* *To:*

☐ Administrative Amendment: ☐ *Company Name Change* ☐ *Change of Responsible Official*
☐ *Correction to Non-Technical Information* ☐ *Notice Only Change*
☐ *Other (specify):*

☒ Modification: ☐ *New Emission Unit or Control Device* ☐ *Modified Emission Unit or Control Device*
☐ *New Applicable Permit Requirement* ☐ *Change to Applicability of a Permit Requirement*
☐ *Prevention of Significant Deterioration* ☐ *Emission Offset* ☐ *MACT Preconstruction Review*
☐ *Minor Source Modification* ☐ *Significant Source Modification*
☐ *Minor Permit Modification* ☒ *Significant Permit Modification*
☐ *Other (specify):*

7. Is this an application for an initial construction and/or operating permit for a **"Greenfield" Source**? ☐ Yes ☒ No

8. Is this an application for construction of a new emissions unit at an **Existing Source**? ☐ Yes ☒ No

Continued on Next Page

PART B: Pre-Application Meeting

Part B specifies whether a meeting was held or is being requested to discuss the permit application.

9. Was a meeting held between the company and IDEM prior to submitting this application to discuss the details of the project?

☒ No ☐ Yes: *Date:*

10. Would you like to schedule a meeting with IDEM management and your permit writer to discuss the details of this project?

☐ No ☒ Yes: *Proposed Date for Meeting:* May 16, 2024 (if needed)

PART C: Confidential Business Information

Part C identifies permit applications that require special care to ensure that confidential business information is kept separate from the public file.

Claims of confidentiality must be made at the time the information is submitted to IDEM, and must follow the requirements set out in the Indiana Administrative Code (IAC). To ensure that your information remains confidential, refer to the IDEM, OAQ information regarding submittal of confidential business information. For more information on confidentiality for certain types of business information, please review IDEM's Nonrule Policy Document Air-031-NPD regarding Emission Data.

11. Is any of the information contained within this application being claimed as **Confidential Business Information**?

☒ No ☐ Yes

PART D: Certification Of Truth, Accuracy, and Completeness

Part D is the official certification that the information contained within the air permit application packet is truthful, accurate, and complete. Any air permit application packet that we receive without a signed certification will be deemed incomplete and may result in denial of the permit.

For a Part 70 Operating Permit (TVOP) or a Source Specific Operating Agreement (SSOA), a "responsible official" as defined in 326 IAC 2-7-1(34) must certify the air permit application. For all other applicants, this person is an "authorized Individual" as defined in 326 IAC 2-1.1-1(1).

☒ *I certify under penalty of law that, based on information and belief formed after reasonable inquiry, the statements and information contained in this application are true, accurate, and complete.*

Femi D-Etti	Vice President & General Manager Mt. Vernon
Name *(typed)*	Title
	5/7/2024
Signature	Date

OAQ GENERAL SOURCE DATA APPLICATION
GSD-01: Basic Source Level Information

State Form 50640 (R5 / 1-10)
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

IDEM – Office of Air Quality – Permits Branch
100 N. Senate Avenue, MC 61-53 Room 1003
Indianapolis, IN 46204-2251
Telephone: (317) 233-0178 or
Toll Free: 1-800-451-6027 x30178 (within Indiana)
Facsimile Number: (317) 232-6749
www.IN.gov/idem

NOTES:

- The purpose of GSD-01 is to provide essential information about the entire source of air pollutant emissions. GSD-01 is a required form.
- Detailed instructions for this form are available on the Air Permit Application Forms website.
- All information submitted to IDEM will be made available to the public unless it is submitted under a claim of confidentiality. Claims of confidentiality must be made at the time the information is submitted to IDEM, and must follow the requirements set out in 326 IAC 17.1-4-1. Failure to follow these requirements exactly will result in your information becoming a public record, available for public inspection.

PART A: Source / Company Location Information

1. **Source / Company Name**: AstraZeneca Pharmaceuticals, LP
2. **Plant ID**: 129 –
3. **Location Address**: 4601 Highway 62 East
   - **City**: Mt. Vernon
   - **State**: IN
   - **ZIP Code**: 47620 –
4. **County Name**: Posey
5. **Township Name**:
6. **Geographic Coordinates**:
   - **Latitude**: 37.940439
   - **Longitude**: -87.838782
7. **Universal Transferal Mercadum Coordinates** *(if known)*:
   - **Zone**: 16
   - **Horizontal**: 426,129 m
   - **Vertical**: 4,199,735 m
8. **Adjacent States**: Is the source located within 50 miles of an adjacent state?
   ☐ No ☒ Yes – *Indicate Adjacent State(s):* ☒ Illinois (IL) ☐ Michigan (MI) ☐ Ohio (OH) ☒ Kentucky (KY)
9. **Attainment Area Designation**: Is the source located within a non-attainment area for any of the criteria air pollutants?
   ☒ No ☐ Yes – *Indicate Nonattainment Pollutant(s):* ☐ CO ☐ Pb ☐ NO_x ☐ O_3 ☐ PM ☐ PM_{10} ☐ $PM_{2.5}$ ☐ SO_2
10. **Portable / Stationary**: Is this a portable or stationary source? ☐ Portable ☒ Stationary

PART B: Source Summary

11. **Company Internet Address** *(optional)*: www.astrazeneca.com
12. **Company Name History**: Has this source operated under any other name(s)?
    ☐ No ☒ Yes – *Provide information regarding past company names in Part I, Company Name History.*
13. **Portable Source Location History**: Will the location of the portable source be changing in the near future?
    ☐ Not Applicable ☒ No ☐ Yes – *Complete Part J, Portable Source Location History, and Part K, Request to Change Location of Portable Source.*
14. **Existing Approvals**: Have any exemptions, registrations, or permits been issued to this source?
    ☐ No ☒ Yes – *List these permits and their corresponding emissions units in Part M, Existing Approvals.*
15. **Unpermitted Emissions Units**: Does this source have any unpermitted emissions units?
    ☒ No ☐ Yes – *List all unpermitted emissions units in Part N, Unpermitted Emissions Units.*
16. **New Source Review**: Is this source proposing to construct or modify any emissions units?
    ☐ No ☒ Yes – *List all proposed new construction in Part O, New or Modified Emissions Units.*
17. **Risk Management Plan**: Has this source submitted a Risk Management Plan?
    ☒ Not Required ☐ No ☐ Yes → Date submitted: EPA Facility Identifier: – –

Continued on Next Page

PART C: Source Contact Information

IDEM will send the original, signed permit decision to the person identified in this section. This person MUST be an employee of the permitted source.

18. Name of Source Contact Person: Kevin Conkright

19. Title *(optional)*: Sr. SHE Lead Environmental & Sustainability

20. Mailing Address: 4601 Highway 62 East

City: Mount Vernon	**State**: IN	**ZIP Code**: 47620 –

21. Electronic Mail Address *(optional)*: kevin.conkright@astrazeneca.com

22. Telephone Number: (812) 317 – 2218	**23. Facsimile Number** *(optional)*: ( ) –

PART D: Authorized Individual/Responsible Official Information

IDEM will send a copy of the permit decision to the person indicated in this section, if the Authorized Individual or Responsible Official is different from the Source Contact specified in Part C.

24. Name of Authorized Individual or Responsible Official: Femi D-Etti

25. Title: VP & General Manager

26. Mailing Address: 4601 Highway 62 East

City: Mount Vernon	**State**: IN	**ZIP Code**: 47620 –

27. Telephone Number: (812) 317 – 2000	**28. Facsimile Number** *(optional)*: ( ) –

29. Request to Change the Authorized Individual or Responsible Official: Is the source officially requesting to change the person designated as the Authorized Individual or Responsible Official in the official documents issued by IDEM, OAQ? *The permit may list the title of the Authorized Individual or Responsible Official in lieu of a specific name.*

☒ No ☐ Yes – ***Change Responsible Official to:***

PART E: Owner Information

30. Company Name of Owner: AstraZeneca Pharmaceuticals, LP

31. Name of Owner Contact Person:

32. Mailing Address: 4610 Highway 62 East

City: Mount Vernon	**State**: IN	**ZIP Code**: 47620 –

33. Telephone Number: (812) 317 – 2000	**34. Facsimile Number** *(optional)*: ( ) –

34. Operator: Does the "Owner" company also operate the source to which this application applies?

☒ No – *Proceed to Part F below.*	☐ Yes – *Enter "SAME AS OWNER" on line 35 and proceed to Part G below.*

PART F: Operator Information

35. Company Name of Operator: SAME AS OWNER

36. Name of Operator Contact Person:

37. Mailing Address:

City:	**State**:	**ZIP Code**: –

38. Telephone Number: ( ) –	**39. Facsimile Number** *(optional)*: ( ) –

Continued on Next Page

PART G: Agent Information

40. Company Name of Agent: NOT APPLICABLE

41. Type of Agent: ☐ Environmental Consultant ☐ Attorney ☐ Other (specify):

42. Name of Agent Contact Person:

43. Mailing Address:

City:	**State**:	**ZIP Code**: –

44. Electronic Mail Address *(optional)*:

45. Telephone Number: ( ) –	**46. Facsimile Number** *(optional)*: ( ) –

47. Request for Follow-up: Does the "Agent" wish to receive a copy of the preliminary findings during the public notice period (if applicable) and a copy of the final determination? ☐ No ☐ Yes

PART H: Local Library Information

48. Date application packet was filed with the local library:

49. Name of Library: Alexandrian Public Library

50. Name of Librarian *(optional)*:

51. Mailing Address: 115 W 5th Street

City: Mt. Vernon	**State**: IN	**ZIP Code**: 47620 –

52. Internet Address *(optional)*:

53. Electronic Mail Address *(optional)*:

54. Telephone Number: (812) 838 – 3286	**55. Facsimile Number** *(optional)*: ( ) –

PART I: Company Name History *(if applicable)*

Complete this section only if the source has previously operated under a legal name that is different from the name listed above in Section A.

56. Legal Name of Company	**57. Dates of Use**
Mead Johnson & Company	to 12/31/1968
Bristol Myers Squibb	12/31/1968 to 7/31/2015
AstraZeneca Pharmaceuticals, LP	7/31/2015 to
	to
	to
	to
	to
	to
	to
	to

58. Company Name Change Request: Is the source officially requesting to change the legal name that will be printed on all official documents issued by IDEM, OAQ?

☒ No ☐ Yes – ***Change Company Name to***:

Continued on Next Page

PART J: Portable Source Location History *(if applicable)*

Complete this section only if the source is portable and the location has changed since the previous permit was issued. The current location of the source should be listed in Section A.

59. Plant ID	60. Location of the Portable Source	61. Dates at this Location
–		to
–		to
–		to
–		to
–		to
–		to
–		to
–		to
–		to
–		to
–		to
–		to
–		to
–		to
–		to
–		to
–		to
–		to
–		to
–		to
–		to

PART K: Request to Change Location of Portable Source *(if applicable)*

Complete this section to request a change of location for a portable source.

62. Current Location:

Address:

City:	**State**:	**ZIP Code**: –

County Name:

63. New Location:

Address:

City:	**State**:	**ZIP Code**: –

County Name:

Continued on Next Page

PART L: Source Process Description

Complete this section to summarize the main processes at the source.

64. Process Description	65. Products	66. SIC Code	67. NAICS Code
Pharmaceutical Formulations/Preparations	Pharmaceutical Products	2834	325412

PART M: Existing Approvals *(if applicable)*

Complete this section to summarize the approvals issued to the source since issuance of the main operating permit.

68. Permit ID	69. Emissions Unit IDs	70. Expiration Date
36688	FESOP renewal	4/18/2026
38325	Dry material weight room Administrative Amendment	4/18/2026
40490	Packaging line #16 Administrative Amendment	4/18/2026
43243	Significant Revision (add emergency generator, packaging Line; revise Fettes, Bohles, fuel oil emission calculations)	4/18/2026

PART N: Unpermitted Emissions Units *(if applicable)*

Complete this section only if the source has emission units that are not listed in any permit issued by IDEM, OAQ.

71. Emissions Unit ID	72. Type of Emissions Unit	73. Actual Dates		
		Began Construction	Completed Construction	Began Operation
	Not Applicable			

PART O: New or Modified Emissions Units *(if applicable)*

Complete this section only if the source is proposing to add new emission units or modify existing emission units.

74. Emissions Unit ID	75. NEW	76. MOD	77. Type of Emissions Unit	78. Estimated Dates		
				Begin Construction	Complete Construction	Begin Operation
TB1		X	Boiler			4/13/2024

Continued on Next Page

OAQ GENERAL SOURCE DATA APPLICATION
GSD-12: Affidavit of Nonapplicability

State Form 51600 (R3 / 1-10)
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

IDEM – Office of Air Quality – Permits Branch
100 N. Senate Avenue, MC 61-53 Room 1003
Indianapolis, IN 46204-2251
Telephone: (317) 233-0178 or
Toll Free: 1-800-451-6027 x30178 (within Indiana)
Facsimile Number: (317) 232-6749
www.IN.gov/idem

NOTES:

- The purpose of GSD-12 is to certify that the requirement to notify adjacent landowners and occupants is not applicable to the source of air pollutant emissions.
- Detailed instructions for this form are available on the Air Permit Application Forms website.
- All information submitted to IDEM will be made available to the public unless it is submitted under a claim of confidentiality. Claims of confidentiality must be made at the time the information is submitted to IDEM, and must follow the requirements set out in 326 IAC 17.1-4-1. Failure to follow these requirements exactly will result in your information becoming a public record, available for public inspection.

PART A: Affidavit Of Nonapplicability

Complete this form to certify that the requirement to notify adjacent landowners and occupants pursuant to Indiana Code (IC) 13-15-8 is not applicable to the source of air pollutant emissions. This form must be notarized by a public notary.

Chad Burnett , being first duly sworn upon oath, deposes and says:

1. I live in Vanderburgh County, State of Indiana, and being of sound mind and over twenty-one (21) years of age, I am competent to give this affidavit.
2. I hold the position of SHE Manager for AstraZeneca Pharmaceuticals, LP (permit applicant's or facility's name).
3. By virtue of my position with AstraZeneca Pharmaceuticals LP (permit applicant's name), I am authorized to make the representation contained in this affidavit on behalf of the facility.
4. I understand that the notice requirements of Ind. Code § 13-15-8 do not apply to AstraZeneca Pharmaceuticals, LP
permit applicant's or facility's name) for purposes of the accompanying permit application.
5. **Further Affiant Saith Not.**

☒ I affirm under the penalty for perjury that the representations contained in this affidavit are true, to the best of my information and belief.

Chad Burnett Name *(typed)*	SHE Manager Title
 Signature	5/7/2024 Date
STATE OF Indiana	COUNTY OF Posey

PART B: Notarization

This section must be completed by a Public Notary.

Before me a notary Public in and for said County and State, personally appeared _____, and being first duly sworn by me upon oath, says that the fact stated in the foregoing instrument are true. Signed and sealed this _____ of _____, 20___

Printed: _____ My Commission Expires: _____

Residence of _____ County _____

OAQ GENERAL SOURCE DATA APPLICATION
GSD-15: Government Officials Notified
State Form 51608 (R3 / 1-10)
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

IDEM – Office of Air Quality – Permits Branch
100 N. Senate Avenue, MC 61-53 Room 1003
Indianapolis, IN 46204-2251
Telephone: (317) 233-0178 or
Toll Free: 1-800-451-6027 x30178 (within Indiana)
Facsimile Number: (317) 232-6749
www.IN.gov/idem

NOTES:

- The purpose of GSD-15 is to identify local government officials that are to be notified that an air permit application has been submitted.
- Detailed instructions for this form are available on the Air Permit Application Forms website.
- All information submitted to IDEM will be made available to the public unless it is submitted under a claim of confidentiality. Claims of confidentiality must be made at the time the information is submitted to IDEM, and must follow the requirements set out in 326 IAC 17.1-4-1. Failure to follow these requirements exactly will result in your information becoming a public record, available for public inspection.

Government Officials Notified		
Use this table to identify local government officials that should be notified pursuant to Indiana Code (IC) 13-15-3-1 that an air permit application has been submitted. If you need additional space, you may make copies of this form.		
1. Name: Steve Loehr		**2. Date Notified**:
3. Title: Mayor		
4. Address: 520 Main Street, City Hall Annex		
City: Mt. Vernon	**State**: IN	**ZIP Code**: 47620 –
5. Electronic Mail: sloehr@mountvernon-in.com	**6. Telephone Number**: (812) 838 - 5576	
7. Method of Notification: ☐ **Telephone** ☒ **Electronic Mail** ☐ **Standard Mail** ☐ **Other** *(specify)*:		
Name:		**Date Notified**:
Title:		
Address:		
City:	**State**:	**ZIP Code**: –
Electronic Mail:	**Telephone Number**: ( ) -	
Method of Notification: ☐ **Telephone** ☐ **Electronic Mail** ☐ **Standard Mail** ☐ **Other** *(specify)*:		
Name:		**Date Notified**:
Title:		
Address:		
City:	**State**:	**ZIP Code**: –
Electronic Mail:	**Telephone Number**: ( ) -	
Method of Notification: ☐ **Telephone** ☐ **Electronic Mail** ☐ **Standard Mail** ☐ **Other** *(specify)*:		
Name:		**Date Notified**:
Title:		
Address:		
City:	**State**:	**ZIP Code**: –
Electronic Mail:	**Telephone Number**: ( ) -	
Method of Notification: ☐ **Telephone** ☐ **Electronic Mail** ☐ **Standard Mail** ☐ **Other** *(specify)*:		

AstraZeneca
4601 Highway 62 East
Mt. Vernon, Indiana 47620
T: 812-307-2500
astrazeneca.com

May 7, 2024

Mayor Steve Loehr
520 Main Street, City Hall Annex
Mt. Vernon, Indiana 47620

Dear Mayor Loehr:

Pursuant to Indiana Code 13-15-3-1, this letter serves as notification that AstraZeneca Pharmaceuticals, LP submitted an application to the Indiana Department of Environmental Management (IDEM) for a significant permit modification on May 8, 2024.

A copy of the application will be placed at the Alexandrian Public Library at 115 West 5th Street, Mt. Vernon, IN 47620, and will be available for review during normal business hours. You may contact IDEM for further details regarding AstraZeneca's application.
Sincerely,

Should you have any questions regarding this communication, please contact me at 812.307.2218.

Sincerely,

AstraZeneca Pharmaceuticals LP

Kevin D. Conkright
Environmental & Sustainability Lead

OAQ PROCESS INFORMATION APPLICATION
PI-02B: Combustion – Boilers, Process Heaters & Furnaces

State Form 52536 (R2 / 1-10)
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

IDEM – Office of Air Quality – Permits Branch
100 N. Senate Avenue, MC 61-53 Room 1003
Indianapolis, IN 46204-2251
Telephone: (317) 233-0178 or
Toll Free: 1-800-451-6027 x30178 (within Indiana)
Facsimile Number: (317) 232-6749
www.IN.gov/idem

NOTES:

- The purpose of this form is to specify details that pertain only to boilers, process heaters and furnaces.
- For the purposes of this form, a process heater is any combustion unit that provides heat directly or indirectly to the process.
- Complete one PI-02B form for each emissions unit. If there are multiple emission units that are identical in nature, capacity, and use, you may use one PI-02B form to summarize the units.
- Detailed instructions for this form are available on the Air Permit Application Forms website.
- All information submitted to IDEM will be made available to the public unless it is submitted under a claim of confidentiality. Claims of confidentiality must be made at the time the information is submitted to IDEM, and must follow the requirements set out in 326 IAC 17.1-4-1. Failure to follow these requirements exactly will result in your information becoming a public record, available for anyone to inspect and photocopy.

PART A: Process Unit Details

Part A specifies operating information that is unique to boilers, process heaters and furnaces. Definitions and additional explanation of terminology are included in the instructions for this form.

1. Unit ID: TB1

2. Type of Combustion Unit

☒ Boiler:	☒ Industrial Boiler	☐ Commercial Boiler
	☐ Institutional Boiler	☐ Horseshoe Boiler
☐ Process Heater:	☐ Dutch Oven	☐ Drying Oven
	☐ Fuel Cell	☐ Space Heater
☐ Furnace:	☐ Crucible	☐ Crucible Pot
	☐ Cupola	☐ Electric Arc
	☐ Electric Induction	☐ Open Hearth
	☐ Open Hearth, Oxygen Lanced	☐ Pot
	☐ Reverberatory	☐ Sweat

3. Combustion Process

☒ Cyclone Burner	☐ Fluidized Bed – *Circulating*	☐ Fluidized Bed – *Bubbling*
☐ Overfeed Stoker / Traveling Grate	☐ Pulverized – *Dry Bottom*	☐ Pulverized – *Wet Bottom*
☐ Spreader Stoker	☐ Underfeed Stoker	☐ Other *(specify)*: _____

4. Heat Transfer Method: ☒ Watertube ☐ Firetube ☐ Cast Iron

5. Transfer Surface Arrangement *(check all that apply)*:

☐ Horizontal	☐ Straight
☐ Vertical	☒ Bent Tube

6. Firing Configuration:

☒ Cyclone	☐ Fluidized Bed Combustor	☐ Front Wall
☐ Horizontally Opposed	☐ Normal	☐ Stoker
☐ Suspension	☐ Tangential	

7. Heat Transfer Method *(process heaters only)*: ☐ Direct ☐ Indirect

8. Fuel Used: ☒ Natural Gas Only ☒ Other – *Attach completed PI-02F.*

Continued on Next Page

PART B: Emission Controls and Limitations

Part B identifies control technology, control techniques or other process limitations that impact air emissions.

9. Add-On Control Technology: *Identify all control technologies used for this process. Attach completed CE-01 (unless "none").*

☒ None

☐ Baghouse / Fabric Filter – *Attach CE-02.*
☐ Cyclone – *Attach CE-03.*
☐ Electrostatic Precipitator – *Attach CE-04.*
☐ Absorption / Wet Collector / Scrubber – *Attach CE-05.*
☐ NO_X Reduction – *Attach CE-09.*
☐ Other *(specify)*: – *Attach CE-10.*

10. Control Techniques: *Identify all control techniques used for this process.*

☒ None *(explain)*:

☐ Ammonia Injection
☐ Biased Burner Firing
☐ Burning Oil / Water Emulsions
☐ Burners Out Of Service
☐ Duct Injection
☐ Flue Gas Recirculation
☐ Flyash Reinjection
☐ Furnace Injection
☐ Load Reduction
☐ Low Excess Air
☐ Low NO_X Burners
☐ Overfire Air
☐ Reburn
☐ Reduced Air Preheat
☐ Spray Drying
☐ Staged Combustion
☐ Other *(specify)*: – *Attach completed GSD-09.*

11. Process Limitations / Additional Information: *Identify any acceptable process limitations. Attach additional information if necessary.*

Boiler process limitations for use of alternative fuel source (No.2 fuel oil) is presented in current permit with no modifications requested.

PART C: Previously Installed Boilers

Part C identifies all boilers that were installed prior to submitting this application.

12. Are there any **Previously Installed Boilers** present at this source?

☐ No – Proceed to Part D.

☒ Yes → ☐ Information attached. ☒ Information is contained in operating permit: 129-42343-00021

PART D: Furnace Details

Part D identifies details that pertain only to furnaces. If there are no furnaces identified with this application, completion of this table is not required.

13. Material Melted:	
14. Maximum Melt Rate *(specify units)*:	
15. Flux Type:	☐ MSDS attached.
16. Flux Amount *(specify units)*:	
17. Oven Throughput Material:	

OAQ PROCESS INFORMATION APPLICATION
PI-02F: Combustion – Fuel Use

State Form 52540 (R2 / 1-10)
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

IDEM – Office of Air Quality – Permits Branch
100 N. Senate Avenue, MC 61-53 Room 1003
Indianapolis, IN 46204-2251
Telephone: (317) 233-0178 or
Toll Free: 1-800-451-6027 x30178 (within Indiana)
Facsimile Number: (317) 232-6749
www.IN.gov/idem

NOTES:

- The purpose of this form is to identify each fuel that will be used in the combustion unit. Definitions and additional explanation of terminology are included in the instructions for this form.
- Complete one form PI-02F for each combustion unit. If the unit has any capability of using a fuel, even if on a backup or intermittent basis, complete the applicable section. Using a fuel that is not specified in the permit is a violation of the permit.
- Detailed instructions for this form are available on the Air Permit Application Forms website.
- All information submitted to IDEM will be made available to the public unless it is submitted under a claim of confidentiality. Claims of confidentiality must be made at the time the information is submitted to IDEM, and must follow the requirements set out in 326 IAC 17.1-4-1. Failure to follow these requirements exactly will result in your information becoming a public record, available for anyone to inspect and photocopy.

PART A: Process Unit Identification

1. Unit ID: TB-1

PART B: Gaseous Fuels

Part B identifies the gaseous fuels that will be used in the combustion unit.

2. Fuel Type:	3. Percent of Fuel Use *(by volume)*	4. Primary or Secondary Fuel?	5. Component Percentages:	6. Heating Value:
☒ Natural Gas		☒ Primary ☐ Secondary	Sulfur:	1020.00 *(Btu/ft³)*
☐ Liquefied Petroleum Gas ☐ *Commercial- Propane* ☐ *Engine Fuel Propane (HD-5)* ☐ *Commercial- Butane*		☐ Primary ☐ Secondary	Sulfur: Butane: Propane:	*(Btu/ft³)*
☐ Process Gas *		☐ Primary ☐ Secondary	Sulfur:	*(Btu/ft³)*
☐ Landfill Gas *		☐ Primary ☐ Secondary	Sulfur:	*(Btu/ft³)*
☐ Other *(specify)*:		☐ Primary ☐ Secondary	:	*(Btu/ft³)*

* Indicate the source of the process or landfill gas:

Continued on Next Page

PART C: Liquid Fuels

Part C identifies the liquid fuels that will be used in the combustion unit.

7. Fuel Type:	8. Percent of Fuel Use *(by volume)*	9. Primary or Secondary Fuel?	10. Component Percentages:	11. Heating Value:	12. Percent Heat:
☐ Residual Fuel Oil ☐ *No. 5 – Heavy* ☐ *No. 5 – Light* ☐ *No. 6 (Bunker C)*		☐ Primary ☐ Secondary	Sulfur:	*(Btu/gal)*	
☒ Distillate Fuel Oil ☐ *No. 1* ☒ *No. 2 (Diesel)* ☐ *No. 4*		☐ Primary ☒ Secondary	Sulfur: 0.30%	140000.00 *(Btu/gal)*	
☐ Gasoline		☐ Primary ☐ Secondary	Sulfur:	*(Btu/gal)*	
☐ Waste Oil		☐ Primary ☐ Secondary	Sulfur: Ash: Lead Chlorine:	*(Btu/gal)*	
☐ Liquid Waste *		☐ Primary ☐ Secondary	Sulfur: Fluorine: Chlorine:	*(Btu/gal)*	
☐ Other *(specify)*:		☐ Primary ☐ Secondary	: :	*(Btu/gal)*	

* RCRA alpha-numeric codes for Special or Hazardous Waste to be Burned*:*

This space was intentionally left blank.

Continued on Next Page

PART D1: Solid Fuels – Coal

Part D1 identifies all variations of coal that will be used in the combustion unit.

13. Fuel Type:	14. Percent of Fuel Use *(by volume)*	15. Primary or Secondary Fuel?	16. Component Percentages:	17. Heating Value:	18. Basis:
☐ Anthracite Coal ☐ *Anthracite* ☐ *Culm*		☐ Primary ☐ Secondary	Sulfur: Ash: Moisture:	*(Btu/lb)*	☐ Dry ☐ Moist
☐ Bituminous Coal		☐ Primary ☐ Secondary	Sulfur: Ash: Moisture:	*(Btu/lb)*	☐ Dry ☐ Moist
☐ Sub-bituminous Coal		☐ Primary ☐ Secondary	Sulfur: Ash: Moisture:	*(Btu/lb)*	☐ Dry ☐ Moist
☐ Lignite Coal		☐ Primary ☐ Secondary	Sulfur: Ash: Moisture:	*(Btu/lb)*	☐ Dry ☐ Moist
☐ Coke		☐ Primary ☐ Secondary	Sulfur: Ash: Moisture:	*(Btu/lb)*	☐ Dry ☐ Moist
☐ Other Coal *(specify)*:		☐ Primary ☐ Secondary	Sulfur: Ash: Moisture:	*(Btu/gal)*	☐ Dry ☐ Moist

This space was intentionally left blank.

Continued on Next Page

PART D2: Other Solid Fuels

Part D2 identifies the solid fuels, other than coal, that will be used in the combustion unit.

19. Fuel Type:	20. Percent of Fuel Use *(by volume)*	21. Primary or Secondary Fuel?	22. Component Percentages:	23. Heating Value:	24. Percent Heat:
☐ Wood or Wood Waste ☐ *Wood Only* ☐ *Wood Residue Only* ☐ *Wood and Wood Residue*		☐ Primary ☐ Secondary	Moisture:	*(Btu/ton)*	
☐ Tires or Tire Derived Fuel ☐ *Whole Tires* ☐ *Tire Derived Fuel*		☐ Primary ☐ Secondary	Sulfur: Chromium: Chlorine:	*(Btu/lb)*	
☐ Bagasse		☐ Primary ☐ Secondary	Ash: Moisture:	*(Btu/lb)*	
☐ Solid Waste *		☐ Primary ☐ Secondary	: :	*(Btu/lb)*	
☐ Other *(specify)*:		☐ Primary ☐ Secondary	: :	*(Btu/lb)*	

RCRA alpha-numeric codes for Special or Hazardous Waste to be Burned:*

PART E: Fuel Consumption Limitations

Use the space provided to specify any fuel consumption limitations that are acceptable for the combustion unit.

Liquified fuel oil (No. 2 heating fuel) consumption will be limited to 1,057,500 U.S. gallons per twelve (12) consecutive month period with compliance determined at the end of each month. Liquified fuel oil sulfur content shall not exceed 0.3% by weight. NOx emissions shall not exceed 20 lb/kgal of fuel oil. Compliance with these limits, combined with the potential to emit SO2 and NOx from all other emission units at this source, shall limit the source-wide total potential to emit of SO2 and NOx to less than one-hundred (100) tons per twelve (12) consecutive month period.

APPLICATION FOR

SIGNIFICANT PERMIT MODIFICATION

AstraZeneca Pharmaceuticals, LP

Mt. Vernon, Indiana

Submitted to:

IDEM Office of Air Quality Permits Branch

100N. Senate Avenue, MC61-53 Room 1003

Indianapolis, Indiana 46204-2251

May 7, 2024

IDEM APPLICATION FOR SIGNIFICANT PERMIT MODIFICATION OF F129-36688-00021
ASTRAZENECA PHARMACEUTICALS, LP

1.0 INTRODUCTION

AstraZeneca Pharmaceutical LP (AstraZeneca) operates its facility located at 4601 Highway 62 East in Mt. Vernon, Posey County under FESOP F129-36688-00021 with significant permit revision 129-43243-00021 (issued 4/23/21), minor permit revision 129-37120-00021 (issued 6/14/16), and administrative amendments F129-38325-00021 (issued 4/24/2017) and F129-40490-00021 (issued 11/19/2018).

As AstraZeneca continues to work towards our ambition to reduce our carbon emissions to zero, we are removing boiler #1 and boiler #2 and replacing these combustion units with two electric boilers that are scheduled to start operating in 2025. The deconstruction and construction phase for this portion of the project will begin April 2024 and continue through December 2024. (Please note that the electric boilers will be placed within the existing footprint of boiler #1 and boiler #2.)

To maintain our steam loop consistency/redundancy in case of primary boiler failure, AstraZeneca must bring onsite a temporary boiler with similar steam capacity of boiler #1 and boiler #2 [60 million British thermal units (MMBTUs)]. We prepared and notified IDEM of the installation and operation of this temporary boiler in a letter dated March 27, 2024. Due to the length of time that this temporary boiler will be required to remain on our campus, AstraZeneca has agreed with IDEM to request a significant permit modification to allow for the continued use of this temporary boiler through the remainder of 2024 (until January 31, 2025).

2.0 SIGNIFICANT MODIFICATION RATIONALE

The significant modification requested herein is to remove Boiler #1 (FESOP ID: S1) and Boiler #2 (FESOP ID: S2) from our FESOP and replace this combustion equipment with one temporary boiler (TB1) using the revised potential to emit (PTE) calculations: natural gas as a fuel source and no.2 fuel oil (diesel) as an alternative fuel source.

AstraZeneca has decommissioned Boiler #1 (FESOP ID: S1) and Boiler #2 (FESOP ID: S2) on April 12, 2024, and is currently in the process of dismantling this equipment to allow for the installation of two (2) electric boilers that will reside within their previous physical footprint. As the facility infrastructure will require significant modification to the facility and building electric power infrastructure, the temporary placement of a mobile boiler (Proposed FESOP ID: TB1) with similar steam capacity (60 MMBTUs) is required to provide secondary source for steam generation when Boiler #3 (FESOP ID: S27) goes offline.

Boilers #1 (S1) and #2 (S2) each have a maximum heat input rate of 30.64 MMBTUs, which is equivalent to a combined maximum heat input rate of 61.28 MMBTUs. Using the same applicable AP42 emission factors for boilers, with the temporary boiler (TB1) with a

maximum heat input rate of 60 MMBTUs, results in a slightly reduced potential to emit (PTE) for AstraZeneca. These calculations are summarized below:

Emission Unit ID	Heat Input Capacity (MMBtu/hr)
TB1	60
S27	60.8
Total	**120.8**

Unlimited Heat Input Capacity @ 8760 hrs/yr (MMBtu/yr)
1,058,208

		Emission Factor (lbs/MMCF)						
NOx Burner Type	Fuel Heat Value (MMBtu/MMCF)	PM*	PM10*	direct PM2.5	SO_2	NOx**	VOC	CO
Ordinary Burners	1,020	1.9	7.6	7.6	0.6	100	5.5	84.0
Low Nox Burners (Boiler S27)						32		

* PM emission factor is for filterable PM only. PM10 emission factor is for condensable PM10 and filterable PM combined.
** Emission factors for NOx: Uncontrolled = 100 lbs/MMCF, Low NOx Burners = 50 lbs/MMCF, Low Nox Burners + FGR = 32 lbs/MMCF
Emission factors are from AP 42, Chapter 1.4, Tables 1.4-1, and 1.4-2, SCC 1-01-006-02, 1-02-006-02, 1-03-006-02, 1-03-006-03. (7/98)

		Potential To Emit (tons/yr)						
Emission Unit ID	Potential Throughput (MMCF/yr)	PM	PM10	direct PM2.5	SO_2	NOx	VOC	CO
TB1	515.3	0.49	1.96	1.96	0.15	25.76	1.42	21.64
S27	522.2	0.50	1.98	1.98	0.16	8.35	1.44	21.93
Total	**1037.5**	**1.0**	**3.9**	**3.9**	**0.3**	**34.1**	**2.9**	**43.6**

Methodology
Maximum Potential Throughput (MMCF/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 (hrs/yr) x 1 MMCF/1,000 MMBtu
Potential To Emit (tons/year) = Throughput (MMCF/yr) x Emission Factor (lbs/MMCF) x 1 ton/2,000 lbs

As the period of time for the temporary boiler (TB1) is longer than 30 days, we are also intent to have the option to use an alternative fuel source (e.g., no.2 heating fuel) in case of natural gas curtailment. Again, we have compared and revised the PTE for AstraZeneca using the TB1 maximum heat input rate of 60 MMBTUs. These calculations are summarized below:

Emission Unit ID	Heat Input Capacity (MMBtu/hr)	Oil Sulfur Content (%)
TB1	60	0.3
S27	60.8	
Total	**120.8**	

Limited Throughput (kgal/yr)	Fuel Heat Value (MMBtu/kgal)	Limited Heat Input (MMBtu/year)
1,058	**140**	**148,050**

		Emission Factor (lb/kgal)						
Fuel Type	Fuel Heat Value (MMBtu/kgal)	PM	PM10	direct PM2.5	SO_2 *(142S)*	NOx	VOC	CO
No. 2 Distillate Oil	140	2.00	2.30	1.55	42.6	20.0	0.34	5.00

Emission factors from AP 42, Chapter 1.3, Tables 1.3-1, 1.3-2, 1.3-3, 1.3-6, 1.3-10, and 1.3-11. (9/98)

		Potential to Emit (ton/yr)						
Emission Unit ID	Potential Throughput (kgal/yr)	PM	PM10	direct PM2.5	SO_2	NOx	VOC	CO
TB1	3,754	3.75	4.32	2.91	80.0	37.54	0.64	9.39
S27	3,804	3.80	4.37	2.95	81.0	38.04	0.65	9.51
Total	**7,559**	**7.56**	**8.69**	**5.86**	**161.0**	**75.6**	**1.28**	**18.9**

		Limited Potential to Emit (ton/yr)						
Emission Unit ID	Limited Throughput (kgal/yr)	PM	PM10	direct PM2.5	SO_2	NOx	VOC	CO
Boilers TB1 & S27	1,058	-	-	-	22.52	10.58	-	-
Total	**1,058**	-	-	-	**22.52**	**10.58**	-	-

Methodology
Potential Throughput (kgal/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 hr/yr x 1/Fuel Heat Value (MMBtu/kgal)
Potential to Emit (ton/yr) = Throughput (kgal/yr) x Emission Factor (lb/kgal) x 1 ton/2,000 lb

In 2025, AstraZeneca will begin the renewal process for our current FESOP. During this renewal process, AstraZeneca plans to convert our FESOP to an MSOP.

3.0 PERMIT APPLICATION

This permit application contains the following IDEM forms and calculations:

- GSD Cover Form 50639
- GSD-01 Basic Source Level Information
- GSD-12 Affidavit of Nonapplicability
- GSD-15 Government Officials Notified
- PI-02B Combustion – Boilers, Process Heaters & Furnaces
- PI-02F Combustion – Fuel Use
- Site Potential to Emit Calculations
- Boiler Calculations (Fuel Oil and Natural Gas)

FORMS

CALCULATIONS

(Excel Spreadsheet will be provided for review)

IDEM APPLICATION FOR SIGNIFICANT PERMIT MODIFICATION OF F129-36688-00021
ASTRAZENECA PHARMACEUTICALS, LP

SITE POTENTIAL TO EMIT CALCULATIONS

IDEM APPLICATION FOR SIGNIFICANT PERMIT MODIFICATION OF F129-36688-00021
ASTRAZENECA PHARMACEUTICALS, LP

Uncontrolled Potential to Emit (tons/yr)

Emission Unit	PM	PM10	PM2.5 *	SO_2	NOx	VOC	CO	Total HAPs	Highest Single HAP	
Worst Case Fuel Combustion Boilers TB1 & S27	7.56	8.69	5.86	161.00	75.59	1.28	43.57	0.98	0.93	Hexane
Tablet Core Press Machine, Building 122, Room 1109	7.26	7.26	7.26	-	-	-	-	-	-	-
Tablet Core Press Machine, Building 122, Room 1111	7.26	7.26	7.26	-	-	-	-	-	-	-
Granulator, Building 123, Room 1202	1.33	1.33	1.33	-	-	-	-	-	-	-
GEA Fluid-Bed Dryer, Building 123, Room 1202	6.35	6.35	6.35	-	-	-	-	-	-	-
Granulator, Building 123, Room 1229	1.33	1.33	1.33	-	-	-	-	-	-	-
GEA Fluid-Bed Dryer, Building 123, Room 1229	6.35	6.35	6.35	-	-	-	-	-	-	-
Diesel Emergency Generator S3	0.11	0.06	0.06	0.0017	3.52	0.10	0.94	1.73E-03	8.54E-04	Formaldehyde
Diesel Emergency Generator S32	0.15	0.15	0.15	0.01	5.29	0.53	2.89	5.29E-03	2.76E-03	Benzene
Diesel Emergency Generator S35	0.08	0.08	0.08	0.01	12.65	0.24	1.54	1.22E-02	6.01E-03	Benzene
Diesel Emergency Generator S45	0.36	0.44	0.44	0.01	11.63	0.78	6.36	1.22E-02	6.01E-03	Benzene
Insignificant Activities										
Building 121 Mixing, Pressing, and Coating	5.77	5.77	5.77	-	-	-	-	-	-	-
Press and Encapsulate, Building 122	7.86	7.86	7.86	-	-	-	-	-	-	-
Building 123 Coating Facilities	4.99	4.99	4.99	-	-	-	-	-	-	-
Tablet Printing, Building 123	-	-	-	-	-	8.18	-	-	-	-
Diesel Fire Pump S7	0.14	0.14	0.14	0.13	1.91	0.15	0.41	1.67E-03	5.08E-04	Formaldehyde
Diesel Emergency Generator S34	0.03	0.03	0.03	0.001	1.23	0.12	0.68	1.44E-03	7.55E-04	Benzene
Diesel Emergency Generator S44	0.03	0.17	0.17	0.16	0.52	0.20	0.45	2.14E-03	6.50E-04	Formaldehyde
Diesel Emergency Generator S46	0.04	0.30	0.30	0.28	0.89	0.34	0.78	3.65E-03	1.11E-03	Formaldehyde
Cold Cleaners	-	-	-	-	-	0.02	-	-	-	-
Bohle Tablet Coating Lines #1-9	18.23	18.23	18.23	-	-	-	-	1.23	1.23	HCl
Fette 64, 65, 66 Tablet Core Press Machines, Building 123	5.92	5.92	5.92	-	-	-	-	-	-	-
Weighing and Dispensing Rooms, Building 123	2.17	2.17	2.17	-	-	-	-	-	-	-
Weigh Room - Building 123, Room 1228	1.16	1.16	1.16	-	-	-	-	-	-	-
Bld 124 Packaging	0.19	0.19	0.19	-	-	-	-	-	-	-
Four (4) Vacuum Systems	5.31	5.31	5.31	-	-	-	-	-	-	-
Storage Tanks	-	-	-	-	-	7E-04	-	8E-06	3.53E-06	Xylene
Total	**89.99**	**91.55**	**88.72**	**161.60**	**113.23**	**11.96**	**57.61**	**2.25**	**1.23**	**HCl**
Paved Roads	2.95	0.59	0.14	-	-	-	-	-	-	-
Unpaved Roads	1.21	0.32	0.03	-	-	-	-	-	-	-

Potential to Emit after Control (tons/yr)

Emission Unit	PM	PM10	PM2.5 *	SO_2	NOx	VOC	CO	Total HAPs	Highest Single HAP	
Worst Case Fuel Combustion Boilers TB1 & S27	7.56	8.69	5.86	161.00	75.59	1.28	43.57	0.98	0.93	Hexane
Tablet Core Press Machine, Building 122, Room 1109	1.81	1.81	1.81	-	-	-	-	-	-	-
Tablet Core Press Machine, Building 122, Room 1111	1.81	1.81	1.81							
Granulator, Building 123, Room 1202	1.33	1.33	1.33	-	-	-	-	-	-	-
GEA Fluid-Bed Dryer, Building 123, Room 1202	1.59	1.59	1.59	-	-	-	-	-	-	-
Granulator, Building 123, Room 1229	0.01	0.01	0.01	-	-	-	-	-	-	-
GEA Fluid-Bed Dryer, Building 123, Room 1229	1.59	1.59	1.59	-	-	-	-	-	-	-
Diesel Emergency Generator S3	0.11	0.06	0.06	0.0017	3.52	0.10	0.94	0.002	8.54E-04	Formaldehyde
Diesel Emergency Generator S32	0.15	0.15	0.15	0.01	5.29	0.53	2.89	0.01	2.76E-03	Benzene
Diesel Emergency Generator S35	0.08	0.08	0.08	0.01	12.65	0.24	1.54	0.01	6.01E-03	Benzene
Diesel Emergency Generator S45	0.36	0.44	0.44	0.01	11.63	0.78	6.36	0.01	6.01E-03	Benzene
Insignificant Activities										
Building 121 Mixing, Pressing, and Coating	0.06	0.06	0.06	-	-	-	-	-	-	-
Press and Encapsulate, Building 122	0.079	0.079	0.079	-	-	-	-	-	-	-
Building 123 Pressing and Coating Facilities	0.05	0.05	0.05	-	-	-	-	-	-	-
Tablet Printing, Building 123	-	-	-	-	-	8.18	-	-	-	-
Diesel Fire Pump S7	0.14	0.14	0.14	0.13	1.91	0.15	0.41	0.002	0.001	Formaldehyde
Diesel Emergency Generator S34	0.03	0.03	0.03	0.00	1.23	0.12	0.68	0.001	7.55E-04	Benzene
Diesel Emergency Generator S44	0.03	0.17	0.17	0.16	0.52	0.20	0.45	0.002	0.001	Formaldehyde
Diesel Emergency Generator S46	0.04	0.30	0.30	0.28	0.89	0.34	0.78	0.004	0.001	Formaldehyde
Cold Cleaners	-	-	-	-	-	0.02	-	-	-	-
Bohle Tablet Coating Lines #1-9	0.18	0.18	0.18	-	-	-	-	1.23	1.23	HCl
Fette 64, 65, 66 Tablet Core Press Machines, Building 123	0.06	0.06	0.06	-	-	-	-	-	-	-
Weighing and Dispensing Rooms, Building 123	1.08	1.08	1.08	-	-	-	-	-	-	-
Weigh Room - Building 123, Room 1228	0.29	0.29	0.29	-	-	-	-	-	-	-
Bld 124 Packaging	0.002	0.002	0.002	-	-	-	-	-	-	-
Four (4) Vacuum Systems	5.31	5.31	5.31	-	-	-	-	-	-	-
Storage Tanks	-	-	-	-	-	7.05E-04	-	8.46E-06	3.53E-06	Xylene
Total	**23.77**	**25.34**	**22.51**	**161.60**	**113.23**	**11.96**	**57.61**	**2.25**	**1.23**	**HCl**
Paved Roads	2.95	0.59	0.14	-	-	-	-	-	-	-
Unpaved Roads	1.21	0.32	0.03	-	-	-	-	-	-	-

Limited Potential to Emit (tons/yr)

Emission Unit	PM	PM10	PM2.5 *	SO_2	NOx	VOC	CO	Total HAPs	Highest Single HAP	
Worst Case Fuel Combustion Boilers TB1 & S27	7.56	8.69	5.86	22.79	42.37	1.28	43.57	0.98	0.93	Hexane
Tablet Core Press Machine, Building 122, Room 1109	7.26	7.26	7.26	-	-	-	-	-	-	-
Tablet Core Press Machine, Building 122, Room 1111	7.26	7.26	7.26	-	-	-	-	-	-	-
Granulator, Building 123, Room 1202	1.33	1.33	1.33	-	-	-	-	-	-	-
GEA Fluid-Bed Dryer, Building 123, Room 1202	6.35	6.35	6.35	-	-	-	-	-	-	-
Granulator, Building 123, Room 1229	1.33	1.33	1.33	-	-	-	-	-	-	-
GEA Fluid-Bed Dryer, Building 123, Room 1229	6.35	6.35	6.35	-	-	-	-	-	-	-
Diesel Emergency Generator S3	0.11	0.06	0.06	0.0017	3.52	0.10	0.94	1.73E-03	8.54E-04	Formaldehyde
Diesel Emergency Generator S32	0.15	0.15	0.15	0.01	5.29	0.53	2.89	5.29E-03	2.76E-03	Benzene
Diesel Emergency Generator S35	0.08	0.08	0.08	0.01	12.65	0.24	1.54	1.22E-02	6.01E-03	Benzene
Diesel Emergency Generator S45	0.36	0.44	0.44	0.01	11.63	0.78	6.36	1.22E-02	6.01E-03	Benzene
Insignificant Activities										
Building 121 Mixing, Pressing, and Coating	5.77	5.77	5.77	-	-	-	-	-	-	-
Press and Encapsulate, Building 122	7.86	7.86	7.86	-	-	-	-	-	-	-
Building 123 Coating Facilities	4.99	4.99	4.99	-	-	-	-	-	-	-
Tablet Printing, Building 123	-	-	-	-	-	8.18	-	-	-	-
Diesel Fire Pump S7	0.14	0.14	0.14	0.13	1.91	0.15	0.41	1.67E-03	5.08E-04	Formaldehyde
Diesel Emergency Generator S34	0.03	0.03	0.03	0.00	1.23	0.12	0.68	1.44E-03	7.55E-04	Benzene
Diesel Emergency Generator S44	0.03	0.17	0.17	0.16	0.52	0.20	0.45	2.14E-03	6.50E-04	Formaldehyde
Diesel Emergency Generator S46	0.04	0.30	0.30	0.28	0.89	0.34	0.78	0.004	0.001	Formaldehyde
Cold Cleaners	-	-	-	-	-	0.02	-	-	-	-
Bohle Tablet Coating Lines #1-9	18.23	18.23	18.23	-	-	-	-	1.23	1.23	HCl
Fette 64, 65, 66 Tablet Core Press Machines, Building 123	5.92	5.92	5.92	-	-	-	-	-	-	-
Weighing and Dispensing Rooms, Building 123	2.17	2.17	2.17	-	-	-	-	-	-	-
Weigh Room - Building 123, Room 1228	1.16	1.16	1.16	-	-	-	-	-	-	-
Bld 124 Packaging	0.19	0.19	0.19	-	-	-	-	-	-	-
Four (4) Vacuum Systems	5.31	5.31	5.31	-	-	-	-	-	-	-
Storage Tanks	-	-	-	-	-	7E-04	-	8E-06	3.53E-06	Xylene
Total	**89.99**	**91.55**	**88.72**	**23.39**	**80.01**	**11.96**	**57.61**	**2.25**	**1.23**	**HCl**
Paved Roads	2.95	0.59	0.14	-	-	-	-	-	-	-
Unpaved Roads	1.21	0.32	0.03	-	-	-	-	-	-	-

** PM2.5 listed is direct PM2.5*

Note: FESOP limits

IDEM APPLICATION FOR SIGNIFICANT PERMIT MODIFICATION OF F129-36688-00021
ASTRAZENECA PHARMACEUTICALS, LP

BOILER CALCULATIONS

(Natural Gas (Limited/Unlimited), Fuel Oil

IDEM APPLICATION FOR SIGNIFICANT PERMIT MODIFICATION OF F129-36688-00021
ASTRAZENECA PHARMACEUTICALS, LP

No. 2 Fuel Oil – Boilers Calculation

No. 2 Fuel Oil Combustion Only
MM BTU/HR <100

Company Name: AstraZeneca Pharmaceuticals LP
Address City IN Zip: 4601 Highway 62 East, Mt. Vernon, IN 47620
Permit No: SPR 129-43243-00021
Reviewer: Tamara Havics

Emission Unit ID	Heat Input Capacity (MMBtu/hr)	Oil Sulfur Content (%)
TB1	60	0.3
S27	60.8	
Total	**120.8**	

Limited Throughput (kgal/yr)	Fuel Heat Value (MMBtu/kgal)	Limited Heat Input (MMBtu/year)
1,058	**140**	**148,050**

		Emission Factor (lb/kgal)						
Fuel Type	**Fuel Heat Value (MMBtu/kgal)**	**PM**	**PM10**	**direct PM2.5**	**SO_2 *(142S)***	**NOx**	**VOC**	**CO**
No. 2 Distillate Oil	140	2.00	2.30	1.55	42.6	20.0	0.34	5.00

Emission factors from AP 42, Chapter 1.3, Tables 1.3-1, 1.3-2, 1.3-3, 1.3-6, 1.3-10, and 1.3-11. (9/98)

		Potential to Emit (ton/yr)						
Emission Unit ID	**Potential Throughput (kgal/yr)**	**PM**	**PM10**	**direct PM2.5**	**SO_2**	**NOx**	**VOC**	**CO**
TB1	3,754	3.75	4.32	2.91	80.0	37.54	0.64	9.39
S27	3,804	3.80	4.37	2.95	81.0	38.04	0.65	9.51
Total	**7,559**	**7.56**	**8.69**	**5.86**	**161.0**	**75.6**	**1.28**	**18.9**

		Limited Potential to Emit (ton/yr)						
Emission Unit ID	**Limited Throughput (kgal/yr)**	**PM**	**PM10**	**direct PM2.5**	**SO_2**	**NOx**	**VOC**	**CO**
Boilers TB1 & S27	1,058	-	-	-	22.52	10.58	-	-
Total	**1,058**	-	-	-	**22.52**	**10.58**	-	-

Methodology
Potential Throughput (kgal/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 hr/yr x 1/Fuel Heat Value (MMBtu/kgal)
Potential to Emit (ton/yr) = Throughput (kgal/yr) x Emission Factor (lb/kgal) x 1 ton/2,000 lb

	Emission Factor (lbs/mmBtu)								
Fuel Type	Arsenic	Beryllium	Cadmium	Chromium	Lead	Mercury	Manganese	Nickel	Selenium
No. 2 Distillate Oil	4.0E-06	3.0E-06	3.0E-06	3.0E-06	9.0E-06	3.0E-06	6.0E-06	3.0E-06	1.5E-05

Emission factors from AP 42, Chapter 1.3, Tables 1.3-9 and 1.3-11. (9/98)

	Potential To Emit (tons/yr)								
Emission Unit ID	Arsenic	Beryllium	Cadmium	Chromium	Lead	Mercury	Manganese	Nickel	Selenium
TB1	1.05E-03	7.88E-04	7.88E-04	7.88E-04	2.37E-03	7.88E-04	1.58E-03	7.88E-04	3.94E-03
S27	1.07E-03	7.99E-04	7.99E-04	7.99E-04	2.40E-03	7.99E-04	1.60E-03	7.99E-04	3.99E-03
Total	**2.12E-03**	**1.59E-03**	**1.59E-03**	**1.59E-03**	**4.76E-03**	**1.59E-03**	**3.17E-03**	**1.59E-03**	**7.94E-03**
								Total HAPs	**0.03**

Methodology
Potential To Emit (tons/year) = Throughput (kgal/yr) x Emission Factor (lbs/kgal) x 1 ton/2,000 lbs

IDEM APPLICATION FOR SIGNIFICANT PERMIT MODIFICATION OF F129-36688-00021
ASTRAZENECA PHARMACEUTICALS, LP

NATURAL GAS UNLIMITED – Boilers Calculation

Company Name: AstraZeneca Pharmaceuticals LP
Address City IN Zip: 4601 Highway 62 East, Mt. Vernon, IN 47620
Permit No: SPR 129-43243-00021
Reviewer: Tamara Havics

Emission Unit ID	Heat Input Capacity (MMBtu/hr)
TB1	60
S27	60.8
Total	**120.8**

Unlimited Heat Input Capacity @ 8760 hrs/yr (MMBtu/yr)
1,058,208

		Emission Factor (lbs/MMCF)						
NOx Burner Type	**Fuel Heat Value (MMBtu/MMCF)**	**PM***	**PM10***	**direct PM2.5**	**SO_2**	**NOx****	**VOC**	**CO**
Ordinary Burners	1,020	1.9	7.6	7.6	0.6	100	5.5	84.0
Low Nox Burners (Boiler S27)						32		

* PM emission factor is for filterable PM only. PM10 emission factor is for condensable PM10 and filterable PM combined.
** Emission factors for NOx: Uncontrolled = 100 lbs/MMCF, Low NOx Burners = 50 lbs/MMCF, Low Nox Burners + FGR = 32 lbs/MMCF
Emission factors are from AP 42, Chapter 1.4, Tables 1.4-1, and 1.4-2, SCC 1-01-006-02, 1-02-006-02, 1-03-006-02, 1-03-006-03. (7/98)

		Potential To Emit (tons/yr)						
Emission Unit ID	**Potential Throughput (MMCF/yr)**	**PM**	**PM10**	**direct PM2.5**	**SO_2**	**NOx**	**VOC**	**CO**
TB1	515.3	0.49	1.96	1.96	0.15	25.76	1.42	21.64
S27	522.2	0.50	1.98	1.98	0.16	8.35	1.44	21.93
Total	**1037.5**	**1.0**	**3.9**	**3.9**	**0.3**	**34.1**	**2.9**	**43.6**

Methodology
Maximum Potential Throughput (MMCF/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 (hrs/yr) x 1 MMCF/1,000 MMBtu
Potential To Emit (tons/year) = Throughput (MMCF/yr) x Emission Factor (lbs/MMCF) x 1 ton/2,000 lbs

	Emission Factor (lbs/MMCF)									
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	Cadmium	Chromium	Manganese	Mercury	Nickel
	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	1.1E-03	1.4E-03	3.8E-04	2.6E-04	2.1E-03

	Potential To Emit (tons/yr) - Scenario #1									
Emission Unit ID	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	Cadmium	Chromium	Manganese	Mercury	Nickel
TB1	5.41E-04	3.09E-04	1.93E-02	4.64E-01	8.76E-04	2.83E-04	3.61E-04	9.79E-05	6.70E-05	5.41E-04
S27	5.48E-04	3.13E-04	1.96E-02	4.70E-01	8.88E-04	2.87E-04	3.66E-04	9.92E-05	6.79E-05	5.48E-04
Total	**1.09E-03**	**6.22E-04**	**3.89E-02**	**9.34E-01**	**1.76E-03**	**5.71E-04**	**7.26E-04**	**1.97E-04**	**1.35E-04**	**1.09E-03**
HAP emission factors are from AP 42, Chapter 1.4, Tables 1.4-3 and 1.4-4. (7/98)									**Total HAP**	**0.98**

Methodology
Potential To Emit (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lbs/MMCF) x 1 ton/2,000 lbs

IDEM APPLICATION FOR SIGNIFICANT PERMIT MODIFICATION OF F129-36688-00021
ASTRAZENECA PHARMACEUTICALS, LP

NATURAL GAS LIMITED – BOILERS

Company Name: AstraZeneca Pharmaceuticals LP
Address City IN Zip: 4601 Highway 62 East, Mt. Vernon, IN 47620
Permit No: SPR 129-43243-00021
Reviewer: Tamara Havics

Emission Unit ID	Heat Input Capacity (MMBtu/hr)
TB1	60
S27	60.8
Total	**120.8**

Unlimited Heat Input Capacity (MMBtu/yr)
1,058,208

FO Limited Heat Input (MMBtu/year)	NG Heat Input (MMBtu/year)	NG Fuel use (MMCF/year)
148,050	**910,158**	**892.3**

		Emission Factor (lbs/MMCF)						
NOx Burner Type	Fuel Heat Value (MMBtu/MMCF)	PM*	PM10*	direct PM2.5	SO_2	NOx**	VOC	CO
Ordinary Burners	1,020	1.9	7.6	7.6	0.6	100	5.5	84.0
Low Nox Burners (Boiler S27)						32		

* PM emission factor is for filterable PM only. PM10 emission factor is for condensable PM10 and filterable PM combined.
** Emission factors for NOx: Uncontrolled = 100 lbs/MMCF, Low NOx Burners = 50 lbs/MMCF, Low Nox Burners + FGR = 32 lbs/MMCF
Emission factors are from AP 42, Chapter 1.4, Tables 1.4-1, and 1.4-2, SCC 1-01-006-02, 1-02-006-02, 1-03-006-02, 1-03-006-03. (7/98)

		Potential To Emit (tons/yr)						
Emission Unit ID	Limited Throughput (MMCF/yr)	PM	PM10	direct PM2.5	SO_2	NOx	VOC	CO
TB1	515.3	0.49	1.96	1.96	0.15	25.76	1.42	21.64
S27	377.0	0.36	1.43	1.43	0.11	6.03	1.04	15.83
Total	**892.3**	**0.85**	**3.39**	**3.39**	**0.27**	**31.80**	**2.45**	**37.48**

Methodology
Limited NG Throughput (MMCF/yr) = NG limited annual Heat Input Capacity (MMBtu/yr) x 1 MMCF/1,020 MMBtu
Limited NG Potential To Emit (tons/year) = Limited NG Throughput (MMCF/yr) x Emission Factor (lbs/MMCF) x 1 ton/2,000 lbs

	Emission Factor (lbs/MMCF)									
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	Cadmium	Chromium	Manganese	Mercury	Nickel
	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	1.1E-03	1.4E-03	3.8E-04	2.6E-04	2.1E-03

	Potential To Emit (tons/yr) - Scenario #1									
Emission Unit ID	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	Cadmium	Chromium	Manganese	Mercury	Nickel
TB1	5.41E-04	3.09E-04	1.93E-02	4.64E-01	8.76E-04	2.83E-04	3.61E-04	9.79E-05	6.70E-05	5.41E-04
S27	3.96E-04	2.26E-04	1.41E-02	3.39E-01	6.41E-04	2.07E-04	2.64E-04	7.16E-05	4.90E-05	3.96E-04
Total	**9.37E-04**	**5.35E-04**	**3.35E-02**	**8.03E-01**	**1.52E-03**	**4.91E-04**	**6.25E-04**	**1.70E-04**	**1.16E-04**	**9.37E-04**
HAP emission factors are from AP 42, Chapter 1.4, Tables 1.4-3 and 1.4-4. (7/98)									**Total HAP**	**0.84**

Methodology
NG Limited Potential To Emit (tons/yr) = Limited NG Throughput (MMCF/yr) x Emission Factor (lbs/MMCF) x 1 ton/2,000 lbs

Appendix A: Emission Calculations
PTE Summary

Company Name: AstraZeneca Pharmaceuticals LP
Address City IN Zip: 4601 Highway 62 East, Mt. Vernon, IN 47620
Permit No: SPR 129-43243-00021
Reviewer: Tamara Havics

Uncontrolled Potential to Emit (tons/yr)

Emission Unit	PM	PM10	PM2.5 *	SO_2	NOx	VOC	CO	Total HAPs	Highest Single HAP	
Worst Case Fuel Combustion Boilers S1, S2, & S27	7.64	8.78	5.92	162.70	76.39	1.44	44.03	0.99	0.94	Hexane
Tablet Core Press Machine, Building 122, Room 1109	7.26	7.26	7.26	-	-	-	-	-	-	-
Tablet Core Press Machine, Building 122, Room 1111	7.26	7.26	7.26	-	-	-	-	-	-	-
Granulator, Building 123, Room 1202	1.33	1.33	1.33	-	-	-	-	-	-	-
GEA Fluid-Bed Dryer, Building 123, Room 1202	6.35	6.35	6.35	-	-	-	-	-	-	-
Granulator, Building 123, Room 1229	1.33	1.33	1.33	-	-	-	-	-	-	-
GEA Fluid-Bed Dryer, Building 123, Room 1229	6.35	6.35	6.35	-	-	-	-	-	-	-
Diesel Emergency Generator S3	0.11	0.06	0.06	0.0017	3.52	0.10	0.94	1.73E-03	8.54E-04	Formaldehyde
Diesel Emergency Generator S32	0.15	0.15	0.15	0.01	5.29	0.53	2.89	5.29E-03	2.76E-03	Benzene
Diesel Emergency Generator S35	0.08	0.08	0.08	0.01	12.65	0.24	1.54	1.22E-02	6.01E-03	Benzene
Diesel Emergency Generator S45	0.36	0.44	0.44	0.01	11.63	0.78	6.36	1.22E-02	6.01E-03	Benzene
Insignificant Activities										
Building 121 Mixing, Pressing, and Coating	5.77	5.77	5.77	-	-	-	-	-	-	-
Press and Encapsulate, Building 122	7.86	7.86	7.86	-	-	-	-	-	-	-
Building 123 Coating Facilities	4.99	4.99	4.99	-	-	-	-	-	-	-
Tablet Printing, Building 123	-	-	-	-	-	8.18	-	-	-	-
Diesel Fire Pump S7	0.14	0.14	0.14	0.13	1.91	0.15	0.41	1.67E-03	5.08E-04	Formaldehyde
Diesel Emergency Generator S34	0.03	0.03	0.03	0.001	1.23	0.12	0.68	1.44E-03	7.55E-04	Benzene
Diesel Emergency Generator S44	0.03	0.17	0.17	0.16	0.52	0.20	0.45	2.14E-03	6.50E-04	Formaldehyde
Diesel Emergency Generator S46	0.04	0.30	0.30	0.28	0.89	0.34	0.78	3.65E-03	1.11E-03	Formaldehyde
Cold Cleaners	-	-	-	-	-	0.02	-	-	-	-
Bohle Tablet Coating Lines #1-9	18.23	18.23	18.23	-	-	-	-	1.23	1.23	HCl
Fette 64, 65, 66 Tablet Core Press Machines, Building 123	5.92	5.92	5.92	-	-	-	-	-	-	-
Weighing and Dispensing Rooms, Building 123	2.17	2.17	2.17	-	-	-	-	-	-	-
Weigh Room - Building 123, Room 1228	1.16	1.16	1.16	-	-	-	-	-	-	-
Bld 124 Packaging	0.19	0.19	0.19	-	-	-	-	-	-	-
Four (4) Vacuum Systems	5.31	5.31	5.31	-	-	-	-	-	-	-
Storage Tanks	-	-	-	-	-	7E-04	-	8E-06	3.53E-06	Xylene
Total	**90.07**	**91.65**	**88.78**	**163.30**	**114.03**	**12.11**	**58.08**	**2.26**	**1.23**	**HCl**
Paved Roads	2.95	0.59	0.14	-	-	-	-	-	-	-
Unpaved Roads	1.21	0.32	0.03	-	-	-	-	-	-	-

Potential to Emit after Control (tons/yr)

Emission Unit	PM	PM10	PM2.5 *	SO_2	NOx	VOC	CO	Total HAPs	Highest Single HAP	
Worst Case Fuel Combustion Boilers S1, S2, & S27	7.64	8.78	5.92	162.70	76.39	1.44	44.03	0.99	0.94	Hexane
Tablet Core Press Machine, Building 122, Room 1109	1.81	1.81	1.81	-	-	-	-	-	-	-
Tablet Core Press Machine, Building 122, Room 1111	1.81	1.81	1.81							
Granulator, Building 123, Room 1202	1.33	1.33	1.33	-	-	-	-	-	-	-
GEA Fluid-Bed Dryer, Building 123, Room 1202	1.59	1.59	1.59	-	-	-	-	-	-	-
Granulator, Building 123, Room 1229	0.01	0.01	0.01	-	-	-	-	-	-	-
GEA Fluid-Bed Dryer, Building 123, Room 1229	1.59	1.59	1.59	-	-	-	-	-	-	-
Diesel Emergency Generator S3	0.11	0.06	0.06	0.0017	3.52	0.10	0.94	0.002	8.54E-04	Formaldehyde
Diesel Emergency Generator S32	0.15	0.15	0.15	0.01	5.29	0.53	2.89	0.01	2.76E-03	Benzene
Diesel Emergency Generator S35	0.08	0.08	0.08	0.01	12.65	0.24	1.54	0.01	6.01E-03	Benzene
Diesel Emergency Generator S45	0.36	0.44	0.44	0.01	11.63	0.78	6.36	0.01	6.01E-03	Benzene
Insignificant Activities										
Building 121 Mixing, Pressing, and Coating	0.06	0.06	0.06	-	-	-	-	-	-	-
Press and Encapsulate, Building 122	0.079	0.079	0.079	-	-	-	-	-	-	-
Building 123 Pressing and Coating Facilities	0.05	0.05	0.05	-	-	-	-	-	-	-
Tablet Printing, Building 123	-	-	-	-	-	8.18	-	-	-	-
Diesel Fire Pump S7	0.14	0.14	0.14	0.13	1.91	0.15	0.41	0.002	0.001	Formaldehyde
Diesel Emergency Generator S34	0.03	0.03	0.03	0.00	1.23	0.12	0.68	0.001	7.55E-04	Benzene
Diesel Emergency Generator S44	0.03	0.17	0.17	0.16	0.52	0.20	0.45	0.002	0.001	Formaldehyde
Diesel Emergency Generator S46	0.04	0.30	0.30	0.28	0.89	0.34	0.78	0.004	0.001	Formaldehyde
Cold Cleaners	-	-	-	-	-	0.02	-	-	-	-
Bohle Tablet Coating Lines #1-9	0.18	0.18	0.18	-	-	-	-	1.23	1.23	HCl
Fette 64, 65, 66 Tablet Core Press Machines, Building 123	0.06	0.06	0.06	-	-	-	-	-	-	-
Weighing and Dispensing Rooms, Building 123	1.08	1.08	1.08	-	-	-	-	-	-	-
Weigh Room - Building 123, Room 1228	0.29	0.29	0.29	-	-	-	-	-	-	-
Bld 124 Packaging	0.002	0.002	0.002	-	-	-	-	-	-	-
Four (4) Vacuum Systems	5.31	5.31	5.31	-	-	-	-	-	-	-
Storage Tanks	-	-	-	-	-	7.05E-04	-	8.46E-06	3.53E-06	Xylene
Total	**23.85**	**25.43**	**22.57**	**163.30**	**114.03**	**12.11**	**58.08**	**2.26**	**1.23**	**HCl**
Paved Roads	2.95	0.59	0.14	-	-	-	-	-	-	-
Unpaved Roads	1.21	0.32	0.03	-	-	-	-	-	-	-

Limited Potential to Emit (tons/yr)

Emission Unit	PM	PM10	PM2.5 *	SO_2	NOx	VOC	CO	Total HAPs	Highest Single HAP	
Worst Case Fuel Combustion Boilers S1, S2, & S27	7.64	8.78	5.92	22.80	42.92	1.44	44.03	0.99	0.94	Hexane
Tablet Core Press Machine, Building 122, Room 1109	7.26	7.26	7.26	-	-	-	-	-	-	-
Tablet Core Press Machine, Building 122, Room 1111	7.26	7.26	7.26	-	-	-	-	-	-	-
Granulator, Building 123, Room 1202	1.33	1.33	1.33	-	-	-	-	-	-	-
GEA Fluid-Bed Dryer, Building 123, Room 1202	6.35	6.35	6.35	-	-	-	-	-	-	-
Granulator, Building 123, Room 1229	1.33	1.33	1.33	-	-	-	-	-	-	-
GEA Fluid-Bed Dryer, Building 123, Room 1229	6.35	6.35	6.35	-	-	-	-	-	-	-
Diesel Emergency Generator S3	0.11	0.06	0.06	0.0017	3.52	0.10	0.94	1.73E-03	8.54E-04	Formaldehyde
Diesel Emergency Generator S32	0.15	0.15	0.15	0.01	5.29	0.53	2.89	5.29E-03	2.76E-03	Benzene
Diesel Emergency Generator S35	0.08	0.08	0.08	0.01	12.65	0.24	1.54	1.22E-02	6.01E-03	Benzene
Diesel Emergency Generator S45	0.36	0.44	0.44	0.01	11.63	0.78	6.36	1.22E-02	6.01E-03	Benzene
Insignificant Activities										
Building 121 Mixing, Pressing, and Coating	5.77	5.77	5.77	-	-	-	-	-	-	-
Press and Encapsulate, Building 122	7.86	7.86	7.86	-	-	-	-	-	-	-
Building 123 Coating Facilities	4.99	4.99	4.99	-	-	-	-	-	-	-
Tablet Printing, Building 123	-	-	-	-	-	8.18	-	-	-	-
Diesel Fire Pump S7	0.14	0.14	0.14	0.13	1.91	0.15	0.41	1.67E-03	5.08E-04	Formaldehyde
Diesel Emergency Generator S34	0.03	0.03	0.03	0.00	1.23	0.12	0.68	1.44E-03	7.55E-04	Benzene
Diesel Emergency Generator S44	0.03	0.17	0.17	0.16	0.52	0.20	0.45	2.14E-03	6.50E-04	Formaldehyde
Diesel Emergency Generator S46	0.04	0.30	0.30	0.28	0.89	0.34	0.78	0.004	0.001	Formaldehyde
Cold Cleaners	-	-	-	-	-	0.02	-	-	-	-
Bohle Tablet Coating Lines #1-9	18.23	18.23	18.23	-	-	-	-	1.23	1.23	HCl
Fette 64, 65, 66 Tablet Core Press Machines, Building 123	5.92	5.92	5.92	-	-	-	-	-	-	-
Weighing and Dispensing Rooms, Building 123	2.17	2.17	2.17	-	-	-	-	-	-	-
Weigh Room - Building 123, Room 1228	1.16	1.16	1.16	-	-	-	-	-	-	-
Bld 124 Packaging	0.19	0.19	0.19	-	-	-	-	-	-	-
Four (4) Vacuum Systems	5.31	5.31	5.31	-	-	-	-	-	-	-
Storage Tanks	-	-	-	-	-	7E-04	-	8E-06	3.53E-06	Xylene
Total	**90.07**	**91.65**	**88.78**	**23.39**	**80.56**	**12.11**	**58.08**	**2.26**	**1.23**	**HCl**
Paved Roads	2.95	0.59	0.14	-	-	-	-	-	-	-
Unpaved Roads	1.21	0.32	0.03	-	-	-	-	-	-	-

** PM2.5 listed is direct PM2.5*

Note: FESOP limits

Appendix A: Emission Calculations
PTE Summary

Company Name: AstraZeneca Pharmaceuticals LP
Address City IN Zip: 4601 Highway 62 East, Mt. Vernon, IN 47620
Permit No: SPR 129-43243-00021
Reviewer: Tamara Havics

Uncontrolled Potential to Emit (tons/yr)										
Emission Unit	**PM**	**PM10**	**PM2.5 ***	**SO_2**	**NOx**	**VOC**	**CO**	**Total HAPs**	**Highest Single HAP**	
Worst Case Fuel Combustion Boilers TB1 & S27	7.56	8.69	5.86	161.00	75.59	1.28	43.57	0.98	0.93	Hexane
Tablet Core Press Machine, Building 122, Room 1109	7.26	7.26	7.26	-	-	-	-	-	-	-
Tablet Core Press Machine, Building 122, Room 1111	7.26	7.26	7.26	-	-	-	-	-	-	-
Granulator, Building 123, Room 1202	1.33	1.33	1.33	-	-	-	-	-	-	-
GEA Fluid-Bed Dryer, Building 123, Room 1202	6.35	6.35	6.35	-	-	-	-	-	-	-
Granulator, Building 123, Room 1229	1.33	1.33	1.33	-	-	-	-	-	-	-
GEA Fluid-Bed Dryer, Building 123, Room 1229	6.35	6.35	6.35	-	-	-	-	-	-	-
Diesel Emergency Generator S3	0.11	0.06	0.06	0.0017	3.52	0.10	0.94	1.73E-03	8.54E-04	Formaldehyde
Diesel Emergency Generator S32	0.15	0.15	0.15	0.01	5.29	0.53	2.89	5.29E-03	2.76E-03	Benzene
Diesel Emergency Generator S35	0.08	0.08	0.08	0.01	12.65	0.24	1.54	1.22E-02	6.01E-03	Benzene
Diesel Emergency Generator S45	0.36	0.44	0.44	0.01	11.63	0.78	6.36	1.22E-02	6.01E-03	Benzene
Insignificant Activities										
Building 121 Mixing, Pressing, and Coating	5.77	5.77	5.77	-	-	-	-	-	-	-
Press and Encapsulate, Building 122	7.86	7.86	7.86	-	-	-	-	-	-	-
Building 123 Coating Facilities	4.99	4.99	4.99	-	-	-	-	-	-	-
Tablet Printing, Building 123	-	-	-	-	-	8.18	-	-	-	-
Diesel Fire Pump S7	0.14	0.14	0.14	0.13	1.91	0.15	0.41	1.67E-03	5.08E-04	Formaldehyde
Diesel Emergency Generator S34	0.03	0.03	0.03	0.001	1.23	0.12	0.68	1.44E-03	7.55E-04	Benzene
Diesel Emergency Generator S44	0.03	0.17	0.17	0.16	0.52	0.20	0.45	2.14E-03	6.50E-04	Formaldehyde
Diesel Emergency Generator S46	0.04	0.30	0.30	0.28	0.89	0.34	0.78	3.65E-03	1.11E-03	Formaldehyde
Cold Cleaners	-	-	-	-	-	0.02	-	-	-	-
Bohle Tablet Coating Lines #1-9	18.23	18.23	18.23	-	-	-	-	1.23	1.23	HCl
Fette 64, 65, 66 Tablet Core Press Machines, Building 123	5.92	5.92	5.92	-	-	-	-	-	-	-
Weighing and Dispensing Rooms, Building 123	2.17	2.17	2.17	-	-	-	-	-	-	-
Weigh Room - Building 123, Room 1228	1.16	1.16	1.16	-	-	-	-	-	-	-
Bld 124 Packaging	0.19	0.19	0.19	-	-	-	-	-	-	-
Four (4) Vacuum Systems	5.31	5.31	5.31	-	-	-	-	-	-	-
Storage Tanks	-	-	-	-	-	7E-04	-	8E-06	3.53E-06	Xylene
Total	**89.99**	**91.55**	**88.72**	**161.60**	**113.23**	**11.96**	**57.61**	**2.25**	**1.23**	**HCl**
Paved Roads	2.95	0.59	0.14	-	-	-	-	-	-	-
Unpaved Roads	1.21	0.32	0.03	-	-	-	-	-	-	-

Potential to Emit after Control (tons/yr)										
Emission Unit	**PM**	**PM10**	**PM2.5 ***	**SO_2**	**NOx**	**VOC**	**CO**	**Total HAPs**	**Highest Single HAP**	
Worst Case Fuel Combustion Boilers TB1 & S27	7.56	8.69	5.86	161.00	75.59	1.28	43.57	0.98	0.93	Hexane
Tablet Core Press Machine, Building 122, Room 1109	1.81	1.81	1.81	-	-	-	-	-	-	-
Tablet Core Press Machine, Building 122, Room 1111	1.81	1.81	1.81							
Granulator, Building 123, Room 1202	1.33	1.33	1.33	-	-	-	-	-	-	-
GEA Fluid-Bed Dryer, Building 123, Room 1202	1.59	1.59	1.59	-	-	-	-	-	-	-
Granulator, Building 123, Room 1229	0.01	0.01	0.01	-	-	-	-	-	-	-
GEA Fluid-Bed Dryer, Building 123, Room 1229	1.59	1.59	1.59	-	-	-	-	-	-	-
Diesel Emergency Generator S3	0.11	0.06	0.06	0.0017	3.52	0.10	0.94	0.002	8.54E-04	Formaldehyde
Diesel Emergency Generator S32	0.15	0.15	0.15	0.01	5.29	0.53	2.89	0.01	2.76E-03	Benzene
Diesel Emergency Generator S35	0.08	0.08	0.08	0.01	12.65	0.24	1.54	0.01	6.01E-03	Benzene
Diesel Emergency Generator S45	0.36	0.44	0.44	0.01	11.63	0.78	6.36	0.01	6.01E-03	Benzene
Insignificant Activities										
Building 121 Mixing, Pressing, and Coating	0.06	0.06	0.06	-	-	-	-	-	-	-
Press and Encapsulate, Building 122	0.079	0.079	0.079	-	-	-	-	-	-	-
Building 123 Pressing and Coating Facilities	0.05	0.05	0.05	-	-	-	-	-	-	-
Tablet Printing, Building 123	-	-	-	-	-	8.18	-	-	-	-
Diesel Fire Pump S7	0.14	0.14	0.14	0.13	1.91	0.15	0.41	0.002	0.001	Formaldehyde
Diesel Emergency Generator S34	0.03	0.03	0.03	0.00	1.23	0.12	0.68	0.001	7.55E-04	Benzene
Diesel Emergency Generator S44	0.03	0.17	0.17	0.16	0.52	0.20	0.45	0.002	0.001	Formaldehyde
Diesel Emergency Generator S46	0.04	0.30	0.30	0.28	0.89	0.34	0.78	0.004	0.001	Formaldehyde
Cold Cleaners	-	-	-	-	-	0.02	-	-	-	-
Bohle Tablet Coating Lines #1-9	0.18	0.18	0.18	-	-	-	-	1.23	1.23	HCl
Fette 64, 65, 66 Tablet Core Press Machines, Building 123	0.06	0.06	0.06	-	-	-	-	-	-	-
Weighing and Dispensing Rooms, Building 123	1.08	1.08	1.08	-	-	-	-	-	-	-
Weigh Room - Building 123, Room 1228	0.29	0.29	0.29	-	-	-	-	-	-	-
Bld 124 Packaging	0.002	0.002	0.002	-	-	-	-	-	-	-
Four (4) Vacuum Systems	5.31	5.31	5.31	-	-	-	-	-	-	-
Storage Tanks	-	-	-	-	-	7.05E-04	-	8.46E-06	3.53E-06	Xylene
Total	**23.77**	**25.34**	**22.51**	**161.60**	**113.23**	**11.96**	**57.61**	**2.25**	**1.23**	**HCl**
Paved Roads	2.95	0.59	0.14	-	-	-	-	-	-	-
Unpaved Roads	1.21	0.32	0.03	-	-	-	-	-	-	-

Limited Potential to Emit (tons/yr)										
Emission Unit	**PM**	**PM10**	**PM2.5 ***	**SO_2**	**NOx**	**VOC**	**CO**	**Total HAPs**	**Highest Single HAP**	
Worst Case Fuel Combustion Boilers TB1 & S27	7.56	8.69	5.86	22.79	42.37	1.28	43.57	0.98	0.93	Hexane
Tablet Core Press Machine, Building 122, Room 1109	7.26	7.26	7.26	-	-	-	-	-	-	-
Tablet Core Press Machine, Building 122, Room 1111	7.26	7.26	7.26	-	-	-	-	-	-	-
Granulator, Building 123, Room 1202	1.33	1.33	1.33	-	-	-	-	-	-	-
GEA Fluid-Bed Dryer, Building 123, Room 1202	6.35	6.35	6.35	-	-	-	-	-	-	-
Granulator, Building 123, Room 1229	1.33	1.33	1.33	-	-	-	-	-	-	-
GEA Fluid-Bed Dryer, Building 123, Room 1229	6.35	6.35	6.35	-	-	-	-	-	-	-
Diesel Emergency Generator S3	0.11	0.06	0.06	0.0017	3.52	0.10	0.94	1.73E-03	8.54E-04	Formaldehyde
Diesel Emergency Generator S32	0.15	0.15	0.15	0.01	5.29	0.53	2.89	5.29E-03	2.76E-03	Benzene
Diesel Emergency Generator S35	0.08	0.08	0.08	0.01	12.65	0.24	1.54	1.22E-02	6.01E-03	Benzene
Diesel Emergency Generator S45	0.36	0.44	0.44	0.01	11.63	0.78	6.36	1.22E-02	6.01E-03	Benzene
Insignificant Activities										
Building 121 Mixing, Pressing, and Coating	5.77	5.77	5.77	-	-	-	-	-	-	-
Press and Encapsulate, Building 122	7.86	7.86	7.86	-	-	-	-	-	-	-
Building 123 Coating Facilities	4.99	4.99	4.99	-	-	-	-	-	-	-
Tablet Printing, Building 123	-	-	-	-	-	8.18	-	-	-	-
Diesel Fire Pump S7	0.14	0.14	0.14	0.13	1.91	0.15	0.41	1.67E-03	5.08E-04	Formaldehyde
Diesel Emergency Generator S34	0.03	0.03	0.03	0.00	1.23	0.12	0.68	1.44E-03	7.55E-04	Benzene
Diesel Emergency Generator S44	0.03	0.17	0.17	0.16	0.52	0.20	0.45	2.14E-03	6.50E-04	Formaldehyde
Diesel Emergency Generator S46	0.04	0.30	0.30	0.28	0.89	0.34	0.78	0.004	0.001	Formaldehyde
Cold Cleaners	-	-	-	-	-	0.02	-	-	-	-
Bohle Tablet Coating Lines #1-9	18.23	18.23	18.23	-	-	-	-	1.23	1.23	HCl
Fette 64, 65, 66 Tablet Core Press Machines, Building 123	5.92	5.92	5.92	-	-	-	-	-	-	-
Weighing and Dispensing Rooms, Building 123	2.17	2.17	2.17	-	-	-	-	-	-	-
Weigh Room - Building 123, Room 1228	1.16	1.16	1.16	-	-	-	-	-	-	-
Bld 124 Packaging	0.19	0.19	0.19	-	-	-	-	-	-	-
Four (4) Vacuum Systems	5.31	5.31	5.31	-	-	-	-	-	-	-
Storage Tanks	-	-	-	-	-	7E-04	-	8E-06	3.53E-06	Xylene
Total	**89.99**	**91.55**	**88.72**	**23.39**	**80.01**	**11.96**	**57.61**	**2.25**	**1.23**	**HCl**
Paved Roads	2.95	0.59	0.14	-	-	-	-	-	-	-
Unpaved Roads	1.21	0.32	0.03	-	-	-	-	-	-	-

** PM2.5 listed is direct PM2.5*

Note: FESOP limits

Appendix A: Emission Calculations
Boilers #1, #2, and #3

No. 2 Fuel Oil Combustion Only
MM BTU/HR <100

Company Name: AstraZeneca Pharmaceuticals LP
Address City IN Zip: 4601 Highway 62 East, Mt. Vernon, IN 47620
Permit No: SPR 129-43243-00021
Reviewer: Tamara Havics

Emission Unit ID	Heat Input Capacity (MMBtu/hr)	Oil Sulfur Content (%)
S1	30.64	0.3
S2	30.64	
S27	60.8	
Total	**122.08**	

Limited Throughput (kgal/yr)	Fuel Heat Value (MMBtu/kgal)	Limited Heat Input (MMBtu/year)
1,058	**140**	**148,050**

		Emission Factor (lb/kgal)						
Fuel Type	**Fuel Heat Value (MMBtu/kgal)**	**PM**	**PM10**	**direct PM2.5**	**SO_2** *(142S)*	**NOx**	**VOC**	**CO**
No. 2 Distillate Oil	140	2.00	2.30	1.55	42.6	20.0	0.34	5.00

Emission factors from AP 42, Chapter 1.3, Tables 1.3-1, 1.3-2, 1.3-3, 1.3-6, 1.3-10, and 1.3-11. (9/98)

		Potential to Emit (ton/yr)						
Emission Unit ID	**Potential Throughput (kgal/yr)**	**PM**	**PM10**	**direct PM2.5**	**SO_2**	**NOx**	**VOC**	**CO**
S1	1,917	1.92	2.20	1.49	40.8	19.17	0.33	4.79
S2	1,917	1.92	2.20	1.49	40.8	19.17	0.33	4.79
S27	3,804	3.80	4.37	2.95	81.0	38.04	0.65	9.51
Total	**7,639**	**7.64**	**8.78**	**5.92**	**162.7**	**76.4**	**1.30**	**19.1**

	Limited Potential to Emit (ton/yr)							
Emission Unit ID	**Limited Throughput (kgal/yr)**	**PM**	**PM10**	**direct PM2.5**	**SO_2**	**NOx**	**VOC**	**CO**
Boilers S1, S2, & S27	1,058	-	-	-	22.52	10.58	-	-
Total	**1,058**	-	-	-	**22.52**	**10.58**	-	-

Methodology
Potential Throughput (kgal/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 hr/yr x 1/Fuel Heat Value (MMBtu/kgal)
Potential to Emit (ton/yr) = Throughput (kgal/yr) x Emission Factor (lb/kgal) x 1 ton/2,000 lb

	Emission Factor (lbs/mmBtu)								
Fuel Type	Arsenic	Beryllium	Cadmium	Chromium	Lead	Mercury	Manganese	Nickel	Selenium
No. 2 Distillate Oil	4.0E-06	3.0E-06	3.0E-06	3.0E-06	9.0E-06	3.0E-06	6.0E-06	3.0E-06	1.5E-05

Emission factors from AP 42, Chapter 1.3, Tables 1.3-9 and 1.3-11. (9/98)

	Potential To Emit (tons/yr)								
Emission Unit ID	Arsenic	Beryllium	Cadmium	Chromium	Lead	Mercury	Manganese	Nickel	Selenium
S1	5.37E-04	4.03E-04	4.03E-04	4.03E-04	1.21E-03	4.03E-04	8.05E-04	4.03E-04	2.01E-03
S2	5.37E-04	4.03E-04	4.03E-04	4.03E-04	1.21E-03	4.03E-04	8.05E-04	4.03E-04	2.01E-03
S27	1.07E-03	7.99E-04	7.99E-04	7.99E-04	2.40E-03	7.99E-04	1.60E-03	7.99E-04	3.99E-03
Total	**2.14E-03**	**1.60E-03**	**1.60E-03**	**1.60E-03**	**4.81E-03**	**1.60E-03**	**3.21E-03**	**1.60E-03**	**8.02E-03**
								Total HAPs	**0.03**

Methodology
Potential To Emit (tons/year) = Throughput (kgal/yr) x Emission Factor (lbs/kgal) x 1 ton/2,000 lbs

Appendix A: Emission Calculations
Boilers #3 and TB1

No. 2 Fuel Oil Combustion Only
MM BTU/HR <100

Company Name: AstraZeneca Pharmaceuticals LP
Address City IN Zip: 4601 Highway 62 East, Mt. Vernon, IN 47620
Permit No: SPR 129-43243-00021
Reviewer: Tamara Havics

Emission Unit ID	Heat Input Capacity (MMBtu/hr)	Oil Sulfur Content (%)
TB1	60	0.3
S27	60.8	
Total	**120.8**	

Limited Throughput (kgal/yr)	Fuel Heat Value (MMBtu/kgal)	Limited Heat Input (MMBtu/year)
1,058	**140**	**148,050**

		Emission Factor (lb/kgal)						
Fuel Type	Fuel Heat Value (MMBtu/kgal)	PM	PM10	direct PM2.5	SO_2 *(142S)*	NOx	VOC	CO
No. 2 Distillate Oil	140	2.00	2.30	1.55	42.6	20.0	0.34	5.00

Emission factors from AP 42, Chapter 1.3, Tables 1.3-1, 1.3-2, 1.3-3, 1.3-6, 1.3-10, and 1.3-11. (9/98)

		Potential to Emit (ton/yr)						
Emission Unit ID	Potential Throughput (kgal/yr)	PM	PM10	direct PM2.5	SO_2	NOx	VOC	CO
TB1	3,754	3.75	4.32	2.91	80.0	37.54	0.64	9.39
S27	3,804	3.80	4.37	2.95	81.0	38.04	0.65	9.51
Total	**7,559**	**7.56**	**8.69**	**5.86**	**161.0**	**75.6**	**1.28**	**18.9**

		Limited Potential to Emit (ton/yr)						
Emission Unit ID	Limited Throughput (kgal/yr)	PM	PM10	direct PM2.5	SO_2	NOx	VOC	CO
Boilers TB1 & S27	1,058	-	-	-	22.52	10.58	-	-
Total	**1,058**	-	-	-	**22.52**	**10.58**	-	-

Methodology
Potential Throughput (kgal/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 hr/yr x 1/Fuel Heat Value (MMBtu/kgal)
Potential to Emit (ton/yr) = Throughput (kgal/yr) x Emission Factor (lb/kgal) x 1 ton/2,000 lb

	Emission Factor (lbs/mmBtu)								
Fuel Type	Arsenic	Beryllium	Cadmium	Chromium	Lead	Mercury	Manganese	Nickel	Selenium
No. 2 Distillate Oil	4.0E-06	3.0E-06	3.0E-06	3.0E-06	9.0E-06	3.0E-06	6.0E-06	3.0E-06	1.5E-05

Emission factors from AP 42, Chapter 1.3, Tables 1.3-9 and 1.3-11. (9/98)

	Potential To Emit (tons/yr)								
Emission Unit ID	Arsenic	Beryllium	Cadmium	Chromium	Lead	Mercury	Manganese	Nickel	Selenium
TB1	1.05E-03	7.88E-04	7.88E-04	7.88E-04	2.37E-03	7.88E-04	1.58E-03	7.88E-04	3.94E-03
S27	1.07E-03	7.99E-04	7.99E-04	7.99E-04	2.40E-03	7.99E-04	1.60E-03	7.99E-04	3.99E-03
Total	**2.12E-03**	**1.59E-03**	**1.59E-03**	**1.59E-03**	**4.76E-03**	**1.59E-03**	**3.17E-03**	**1.59E-03**	**7.94E-03**
								Total HAPs	**0.03**

Methodology
Potential To Emit (tons/year) = Throughput (kgal/yr) x Emission Factor (lbs/kgal) x 1 ton/2,000 lbs

Appendix A: Emission Calc
Boilers #1, #2, and #

Natural Gas Combustion Only - NG fired afte
MM BTU/HR <100

Company Name: AstraZeneca Pharm
Address City IN Zip: 4601 Highway 62 E
Permit No: SPR 129-43243-00
Reviewer: Tamara Havics

Emission Unit ID	Heat Input Capacity (MMBtu/hr)
S1	30.64
S2	30.64
S27	60.8
Total	**122.1**

Unlimited Heat Input Capacity (MMBtu/yr)
1,069,421

NOx Burner Type	Fuel Heat Value (MMBtu/MMCF)	PM*	PM10*
Ordinary Burners	1,020	1.9	7.6
Low Nox Burners (Boiler S27)			

* PM emission factor is for filterable PM only. PM10 emission factor is for condensable PM10 and filte
** Emission factors for NOx: Uncontrolled = 100 lbs/MMCF, Low NOx Burners = 50 lbs/MMCF, Low N
Emission factors are from AP 42, Chapter 1.4, Tables 1.4-1, and 1.4-2, SCC 1-01-006-02, 1-02-006-0

Emission Unit ID	Limited Throughput (MMCF/yr)	PM	PM10
S1	263.1	0.25	1.00
S2	263.1	0.25	1.00
S27	377.0	0.36	1.43
Total	**903.3**	**0.86**	**3.43**

Methodology
Limited NG Throughput (MMCF/yr) = NG limited annual Heat Input Capacity (MMBtu/yr) x 1 MMCF/1,
Limited NG Potential To Emit (tons/year) = Limited NG Throughput (MMCF/yr) x Emission Factor (lbs

Benzene	Dichlorobenzene	Formaldehyde
2.1E-03	1.2E-03	7.5E-02

Emission Unit ID	Benzene	Dichlorobenzene	Formaldehyde
S1	2.76E-04	1.58E-04	9.87E-03
S2	2.76E-04	1.58E-04	9.87E-03
S27	3.96E-04	2.26E-04	1.41E-02
Total	**9.48E-04**	**5.42E-04**	**3.39E-02**

HAP emission factors are from AP 42, Chapter 1.4, Tables 1.4-3 and 1.4-4. (7/98)

Methodology
NG Limited Potential To Emit (tons/yr) = Limited NG Throughput (MMCF/yr) x Emission Factor (lbs/MI

ulations
3

r Maximum Fuel Oil Fired

aceuticals LP
ast, Mt. Vernon, IN 47620
021

FO Limited Heat Input (MMBtu/year)	NG Heat Input (MMBtu/year)	NG Fuel use (MMCF/year)
148,000	**921,371**	**903.3**

Emission Factor (lbs/MMCF)				
direct PM2.5	**SO_2**	**NOx****	**VOC**	**CO**
7.6	0.6	100	5.5	84.0
		32		

erable PM combined.
Nox Burners + FGR = 32 lbs/MMCF
2, 1-03-006-02, 1-03-006-03. (7/98)

Potential To Emit (tons/yr)				
direct PM2.5	**SO_2**	**NOx**	**VOC**	**CO**
1.00	0.08	13.16	0.72	11.05
1.00	0.08	13.16	0.72	11.05
1.43	0.11	6.03	1.04	15.83
3.43	**0.27**	**32.35**	**2.48**	**37.94**

,020 MMBtu
s/MMCF) x 1 ton/2,000 lbs

Emission Factor (lbs/MMCF)					
Hexane	Toluene	Cadmium	Chromium	Manganese	Mercury
1.8E+00	3.4E-03	1.1E-03	1.4E-03	3.8E-04	2.6E-04

Potential To Emit (tons/yr) - Scenario #1					
Hexane	Toluene	Cadmium	Chromium	Manganese	Mercury
2.37E-01	4.47E-04	1.45E-04	1.84E-04	5.00E-05	3.42E-05
2.37E-01	4.47E-04	1.45E-04	1.84E-04	5.00E-05	3.42E-05
3.39E-01	6.41E-04	2.07E-04	2.64E-04	7.16E-05	4.90E-05
8.13E-01	**1.54E-03**	**4.97E-04**	**6.32E-04**	**1.72E-04**	**1.17E-04**

	Total HAP

MCF) x 1 ton/2,000 lbs

Nickel
2.1E-03

Nickel
2.76E-04
2.76E-04
3.96E-04
9.48E-04

0.85

Appendix A: Emission Calculations
Boilers #3 & TB1

Natural Gas Combustion Only - NG fired after Maximum Fuel Oil Fired
MM BTU/HR <100

Company Name: AstraZeneca Pharmaceuticals LP
Address City IN Zip: 4601 Highway 62 East, Mt. Vernon, IN 47620
Permit No: SPR 129-43243-00021
Reviewer: Tamara Havics

Emission Unit ID	Heat Input Capacity (MMBtu/hr)
TB1	60
S27	60.8
Total	**120.8**

Unlimited Heat Input Capacity (MMBtu/yr)
1,058,208

FO Limited Heat Input (MMBtu/year)	NG Heat Input (MMBtu/year)	NG Fuel use (MMCF/year)
148,050	**910,158**	**892.3**

		Emission Factor (lbs/MMCF)						
NOx Burner Type	**Fuel Heat Value (MMBtu/MMCF)**	**PM***	**PM10***	**direct PM2.5**	**SO_2**	**NOx****	**VOC**	**CO**
Ordinary Burners	1,020	1.9	7.6	7.6	0.6	100	5.5	84.0
Low Nox Burners (Boiler S27)						32		

* PM emission factor is for filterable PM only. PM10 emission factor is for condensable PM10 and filterable PM combined.
** Emission factors for NOx: Uncontrolled = 100 lbs/MMCF, Low NOx Burners = 50 lbs/MMCF, Low Nox Burners + FGR = 32 lbs/MMCF
Emission factors are from AP 42, Chapter 1.4, Tables 1.4-1, and 1.4-2, SCC 1-01-006-02, 1-02-006-02, 1-03-006-02, 1-03-006-03. (7/98)

		Potential To Emit (tons/yr)						
Emission Unit ID	**Limited Throughput (MMCF/yr)**	**PM**	**PM10**	**direct PM2.5**	**SO_2**	**NOx**	**VOC**	**CO**
TB1	515.3	0.49	1.96	1.96	0.15	25.76	1.42	21.64
S27	377.0	0.36	1.43	1.43	0.11	6.03	1.04	15.83
Total	**892.3**	**0.85**	**3.39**	**3.39**	**0.27**	**31.80**	**2.45**	**37.48**

Methodology
Limited NG Throughput (MMCF/yr) = NG limited annual Heat Input Capacity (MMBtu/yr) x 1 MMCF/1,020 MMBtu
Limited NG Potential To Emit (tons/year) = Limited NG Throughput (MMCF/yr) x Emission Factor (lbs/MMCF) x 1 ton/2,000 lbs

	Emission Factor (lbs/MMCF)									
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	Cadmium	Chromium	Manganese	Mercury	Nickel
	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	1.1E-03	1.4E-03	3.8E-04	2.6E-04	2.1E-03

	Potential To Emit (tons/yr) - Scenario #1									
Emission Unit ID	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	Cadmium	Chromium	Manganese	Mercury	Nickel
TB1	5.41E-04	3.09E-04	1.93E-02	4.64E-01	8.76E-04	2.83E-04	3.61E-04	9.79E-05	6.70E-05	5.41E-04
S27	3.96E-04	2.26E-04	1.41E-02	3.39E-01	6.41E-04	2.07E-04	2.64E-04	7.16E-05	4.90E-05	3.96E-04
Total	**9.37E-04**	**5.35E-04**	**3.35E-02**	**8.03E-01**	**1.52E-03**	**4.91E-04**	**6.25E-04**	**1.70E-04**	**1.16E-04**	**9.37E-04**
									Total HAP	**0.84**

HAP emission factors are from AP 42, Chapter 1.4, Tables 1.4-3 and 1.4-4. (7/98)

Methodology
NG Limited Potential To Emit (tons/yr) = Limited NG Throughput (MMCF/yr) x Emission Factor (lbs/MMCF) x 1 ton/2,000 lbs

Appendix A: Emission Calc
Boilers #1, #2, and #

Natural Gas Combustion
MM BTU/HR <100

Company Name: AstraZeneca Pharm
Address City IN Zip: 4601 Highway 62 E
Permit No: SPR 129-43243-00
Reviewer: Tamara Havics

Emission Unit ID	Heat Input Capacity (MMBtu/hr)
S1	30.64
S2	30.64
S27	60.8
Total	**122.1**

Unlimited Heat Input Capacity @ 8760 hrs/yr (MMBtu/yr)
1,069,421

NOx Burner Type	Fuel Heat Value (MMBtu/MMCF)	PM*	PM10*
Ordinary Burners	1,020	1.9	7.6
Low Nox Burners (Boiler S27)			

* PM emission factor is for filterable PM only. PM10 emission factor is for condensable PM10 and filte
** Emission factors for NOx: Uncontrolled = 100 lbs/MMCF, Low NOx Burners = 50 lbs/MMCF, Low N
Emission factors are from AP 42, Chapter 1.4, Tables 1.4-1, and 1.4-2, SCC 1-01-006-02, 1-02-006-0

Emission Unit ID	Potential Throughput (MMCF/yr)	PM	PM10
S1	263.1	0.25	1.00
S2	263.1	0.25	1.00
S27	522.2	0.50	1.98
Total	**1048.5**	**1.00**	**3.98**

Methodology
Maximum Potential Throughput (MMCF/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 (hrs/yr) x 1 MM
Potential To Emit (tons/year) = Throughput (MMCF/yr) x Emission Factor (lbs/MMCF) x 1 ton/2,000 lb

Benzene	Dichlorobenzene	Formaldehyde
2.1E-03	1.2E-03	7.5E-02

Emission Unit ID	Benzene	Dichlorobenzene	Formaldehyde
S1	2.76E-04	1.58E-04	9.87E-03
S2	2.76E-04	1.58E-04	9.87E-03
S27	5.48E-04	3.13E-04	1.96E-02
Total	**1.10E-03**	**6.29E-04**	**3.93E-02**

HAP emission factors are from AP 42, Chapter 1.4, Tables 1.4-3 and 1.4-4. (7/98)

Methodology
Potential To Emit (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lbs/MMCF) x 1 ton/2,000 lbs

ulations
3

ı Only

ıaceuticals LP
ast, Mt. Vernon, IN 47620
021

Emission Factor (lbs/MMCF)				
direct PM2.5	**SO_2**	**NOx****	**VOC**	**CO**
7.6	0.6	100	5.5	84.0
		32		

erable PM combined.
Nox Burners + FGR = 32 lbs/MMCF
2, 1-03-006-02, 1-03-006-03. (7/98)

Potential To Emit (tons/yr)				
direct PM2.5	**SO_2**	**NOx**	**VOC**	**CO**
1.00	0.08	13.16	0.72	11.05
1.00	0.08	13.16	0.72	11.05
1.98	0.16	8.35	1.44	21.93
3.98	**0.31**	**34.67**	**2.88**	**44.03**

CF/1,000 MMBtu
s

Emission Factor (lbs/MMCF)					
Hexane	Toluene	Cadmium	Chromium	Manganese	Mercury
1.8E+00	3.4E-03	1.1E-03	1.4E-03	3.8E-04	2.6E-04

Potential To Emit (tons/yr) - Scenario #1					
Hexane	Toluene	Cadmium	Chromium	Manganese	Mercury
2.37E-01	4.47E-04	1.45E-04	1.84E-04	5.00E-05	3.42E-05
2.37E-01	4.47E-04	1.45E-04	1.84E-04	5.00E-05	3.42E-05
4.70E-01	8.88E-04	2.87E-04	3.66E-04	9.92E-05	6.79E-05
9.44E-01	**1.78E-03**	**5.77E-04**	**7.34E-04**	**1.99E-04**	**1.36E-04**
					Total HAP

Nickel
2.1E-03

Nickel
2.76E-04
2.76E-04
5.48E-04
1.10E-03
0.99

Appendix A: Emission Calculations
Boilers #3 & TB1

Natural Gas Combustion Only
MM BTU/HR <100

Company Name: AstraZeneca Pharmaceuticals LP
Address City IN Zip: 4601 Highway 62 East, Mt. Vernon, IN 47620
Permit No: SPR 129-43243-00021
Reviewer: Tamara Havics

Emission Unit ID	Heat Input Capacity (MMBtu/hr)
TB1	60
S27	60.8
Total	**120.8**

Unlimited Heat Input Capacity @ 8760 hrs/yr (MMBtu/yr)
1,058,208

		Emission Factor (lbs/MMCF)						
NOx Burner Type	**Fuel Heat Value (MMBtu/MMCF)**	**PM***	**PM10***	**direct PM2.5**	**SO_2**	**NOx****	**VOC**	**CO**
Ordinary Burners	1,020	1.9	7.6	7.6	0.6	100	5.5	84.0
Low Nox Burners (Boiler S27)						32		

* PM emission factor is for filterable PM only. PM10 emission factor is for condensable PM10 and filterable PM combined.
** Emission factors for NOx: Uncontrolled = 100 lbs/MMCF, Low NOx Burners = 50 lbs/MMCF, Low Nox Burners + FGR = 32 lbs/MMCF
Emission factors are from AP 42, Chapter 1.4, Tables 1.4-1, and 1.4-2, SCC 1-01-006-02, 1-02-006-02, 1-03-006-02, 1-03-006-03. (7/98)

		Potential To Emit (tons/yr)						
Emission Unit ID	**Potential Throughput (MMCF/yr)**	**PM**	**PM10**	**direct PM2.5**	**SO_2**	**NOx**	**VOC**	**CO**
TB1	515.3	0.49	1.96	1.96	0.15	25.76	1.42	21.64
S27	522.2	0.50	1.98	1.98	0.16	8.35	1.44	21.93
Total	**1037.5**	**1.0**	**3.9**	**3.9**	**0.3**	**34.1**	**2.9**	**43.6**

Methodology
Maximum Potential Throughput (MMCF/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 (hrs/yr) x 1 MMCF/1,000 MMBtu
Potential To Emit (tons/year) = Throughput (MMCF/yr) x Emission Factor (lbs/MMCF) x 1 ton/2,000 lbs

	Emission Factor (lbs/MMCF)									
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	Cadmium	Chromium	Manganese	Mercury	Nickel
	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	1.1E-03	1.4E-03	3.8E-04	2.6E-04	2.1E-03

	Potential To Emit (tons/yr) - Scenario #1									
Emission Unit ID	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	Cadmium	Chromium	Manganese	Mercury	Nickel
TB1	5.41E-04	3.09E-04	1.93E-02	4.64E-01	8.76E-04	2.83E-04	3.61E-04	9.79E-05	6.70E-05	5.41E-04
S27	5.48E-04	3.13E-04	1.96E-02	4.70E-01	8.88E-04	2.87E-04	3.66E-04	9.92E-05	6.79E-05	5.48E-04
Total	**1.09E-03**	**6.22E-04**	**3.89E-02**	**9.34E-01**	**1.76E-03**	**5.71E-04**	**7.26E-04**	**1.97E-04**	**1.35E-04**	**1.09E-03**
									Total HAP	**0.98**

HAP emission factors are from AP 42, Chapter 1.4, Tables 1.4-3 and 1.4-4. (7/98)

Methodology
Potential To Emit (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lbs/MMCF) x 1 ton/2,000 lbs

Appendix A: Emission Calculations
Fuel Equivalency for Boilers #1, #2, and #3

Company Name: AstraZeneca Pharmaceuticals LP
Address City IN Zip: 4601 Highway 62 East, Mt. Vernon, IN 47620
Permit No: SPR 129-43243-00021
Reviewer: Tamara Havics

Fuel equivalence limit for natural gas based on SO2 emissions from #2 distillate fuel oil:

$$0.31 \frac{\text{n.g. potential emissions (ton/yr)}}{1037.46 \text{ n.g. potential usage (MMCF/yr)}} \Big/ \frac{162.70 \text{ \#2 fuel oil potential emissions (ton/yr)}}{7.64E+03 \text{ \#2 fuel oil potential usage (kgal/yr)}}$$

$$= 0.014 \frac{\text{No. 2 distillate fuel oil (kgal)}}{\text{MMCF n.g. burned}}$$

326 IAC 7 Compliance Calculations:

The following calculations determine the maximum sulfur content of distillate fuel oil (No. 2 Oil) allowable by 326 IAC 7:

0.5 lb/MMBtu x 140,000 Btu/gal= 70 lb/1000gal

70 lb/1000gal / 144 lb/1000 gal = 0.5 %

Sulfur content must be less than or equal to 0.5% to comply with 326 IAC 7.

Appendix A: Emission Calculations
Pressing and Granulation Facilities
Bld 122 Presses and Bld 123 Granulation

Company Name: AstraZeneca Pharmaceuticals LP
Address City IN Zip: 4601 Highway 62 East, Mt. Vernon, IN 47620
Permit No: SPR 129-43243-00021
Reviewer: Tamara Havics

Particulate Matter Emissions from mixing, weighing, pressing, and coating facilities

Unit ID	Max. Process Weight Rate	Emission Factor	Source of	Control Efficiency	Potential Uncontrolled	Potential Uncontrolled	Potential Controlled
	lb/hr	lb PM / 1000 lb solids	Emission Factor *	(%)	PM Emissions	PM Emissions	PM Emissions
					lbs/hr	tons/yr	tons/yr
Tablet Core Presses (Building 122, Room 1109)	425.00	3.90	Emission factor developed from stack testing study conducted at Mead Johnson - Evansville (March 1993)	75%	**1.66**	7.26	1.81
Tablet Core Presses (Building 122, Room 1111)	425.00	3.90	Emission factor developed from stack testing study conducted at Mead Johnson - Evansville (March 1993)	75%	**1.66**	7.26	1.81
Granulator: Aqueous wet Granulations (Building 123, Room1202)	290.00	2.10	Emission factor developed from stack testing study conducted at Mead Johnson - Evansville (March 1993)	99%	0.30	1.33	0.01
GEA fluid bed dryer: Aqueous wet Granulations (Building 123, Room 1202)	290.00	10.00	Worse case engineering estimate - amount lost to product recovery bag filter from materials	75%	**1.45**	6.35	1.59
Granulator: Aqueous wet Granulations (Building 123, Room 1229)	290.00	2.10	Emission factor developed from stack testing study conducted at Mead Johnson - Evansville (March 1993)	99%	0.30	1.33	0.01
GEA fluid bed dryer: Aqueous wet Granulations (Building 123, Room 1229)	290.00	10.00	Worse case engineering estimate - amount lost to product recovery bag filter from materials	75%	**1.45**	6.35	1.59

Methodology
Throughput (lb/hr) * EF (lb PM / 1000 lb solids) * 8760 hr/yr * ton/2000 lb = throughput (ton/yr)
* Emission factors are provided by the source; PM, PM10, PM2.5 presumed same.

Appendix A: Emission Calculations
Building 121 Granulation, Pressing, and Coating
Particulate Matter Emissions

Company Name: AstraZeneca Pharmaceuticals LP
Address City IN Zip: 4601 Highway 62 East, Mt. Vernon, IN 47620
Permit No: SPR 129-43243-00021
Reviewer: Tamara Havics

Unit ID	Max. Process Weight Rate	Emission Factor	Source of	Control Efficiency	Potential Uncontrolled	Potential Uncontrolled	Potential Controlled
	lb/hr	lb PM / 2000 lb solids	Emission Factor *	(%)	PM Emissions	PM Emissions	PM Emissions
					lbs/hr	tons/yr	tons/yr ***
Granulator: Aqueous Granulations (Building 121, Room 1119)	98.00	2.10	Emission factor developed from stack testing study conducted at Mead Johnson - Evansville (March 1993)	99%	0.10	0.45	0.005
Glatt 120 fluid bed dryer: Aqueous Granulations (Building 121, Room 1119)	98.00	10.00	Worse case engineering estimate - amount lost to product recovery bag filter from materials	99%	0.49	2.15	0.02
Tablet Core Press (Building 121, Room 116c)	80.00	7.80	Emission factor developed from stack testing study conducted at Mead Johnson - Evansville (March 1993)	99%	0.31	1.37	0.01
Tablet Coater (Building 121, Room 116c)	50.00	2.00	Emission factor developed from stack testing study conducted at Mead Johnson - Evansville (March 1993)	99%	0.05	0.22	0.00
Tablet Core Press (Building 121, Room 1014)	80.00	7.80	Emission factor developed from stack testing study conducted at Mead Johnson - Evansville (March 1993)	99%	0.31	1.37	0.01
Tablet Coater (Building 121, Room 1023)	50.00	2.00	Emission factor developed from stack testing study conducted at Mead Johnson - Evansville (March 1993)	99%	0.05	0.22	0.00
				Total Potential PM Emissions (tons/yr):		**5.77**	**0.06**

Methodology
Throughput (lb/hr) * EF (lb PM / 2000 lb solids) * 8760 hr/yr * ton/2000 lb = throughput (ton/yr)
* Emission factors are provided by the source; PM, PM10, PM2.5 presumed same.
** Evansville Stack Test, 3/93, approved by IDEM.

Appendix A: Emission Calculations
Building 122 Tablet Press and Encapsulate
Particulate Matter Emissions

Company Name: AstraZeneca Pharmaceuticals LP
Address City IN Zip: 4601 Highway 62 East, Mt. Vernon, IN 47620
Permit No: SPR 129-43243-00021
Reviewer: Tamara Havics

Particulate Matter Emissions from mixing, weighing, pressing, and coating facilities

Unit ID	Max. Process Weight Rate	Emission Factor	Source of	Control Efficiency	Potential Uncontrolled	Potential Uncontrolled	Potential Controlled
	lb/hr	lb PM / 1000 lb solids	Emission Factor *	(%)	PM Emissions	PM Emissions	PM Emissions
					lbs/hr	tons/yr	tons/yr ***
Tablet Core Press (Building 122, Room 1113)	165.00	3.90	Emission factor developed from stack testing study conducted at Mead Johnson - Evansville (March 1993)	99.00	**0.64**	2.82	0.0282
Encapsulator Machine (Building 122, Room 1123)	110.00	3.90	Emission factor developed from stack testing study conducted at Mead Johnson - Evansville (March 1993)	99.00	0.43	1.88	0.0188
Encapsulator Machine (Building 122, Room 1124)	185.00	3.90	Emission factor developed from stack testing study conducted at Mead Johnson - Evansville (March 1993)	99.00	**0.72**	3.16	0.0316
				Total Potential PM Emissions (tons/yr):		**7.86**	**0.08**

Methodology
Throughput (lb/hr) * EF (lb PM / 1000 lb solids) * 8760 hr/yr * ton/2000 lb = throughput (ton/yr)
* Emission factors are provided by the source; PM, PM10, PM2.5 presumed same.
** Evansville Stack Test, 3/93, approved by IDEM.

Appendix A: Emission Calculations
Building 123 Pressing and Coating Facilities

Company Name: AstraZeneca Pharmaceuticals LP
Address City IN Zip: 4601 Highway 62 East, Mt. Vernon, IN 47620
Permit No: SPR 129-43243-00021
Reviewer: Tamara Havics

Unit ID	Max. Process Weight Rate lb/hr	Emission Factor lb PM / 2000 lb solids	Source of Emission Factor *	Control Efficiency(%)	Potential Uncontrolled (lbs/hr)	Potential Uncontrolled (tons/yr)	Potential Controlled (tons/yr)
Bin Charging System (Building 123)	800	0.2	Engineering Estimate. Total enclosure, dust generation is negligible	0.99	0.08	0.35	0.004
Tablet Coater (Thomas Flex) (Building 123, Room 1023)	106.00	20.00	Emission factor based on 20 pct. solids coating and 95 pct. transfer efficiency onto tablets.	0.99	**1.06**	4.64	0.05
					Total	**4.99**	**0.05**

Methodology
Throughput (lb/hr) * EF (lb PM / 1000 lb solids) * 8760 hr/yr * ton/2000 lb = throughput (ton/yr)
* Emission factors are provided by the source; PM, PM10, PM2.5 presumed same.

Appendix A: Emission Calculations
VOC Emissions
Tablet Printing, Building 123

Company Name: AstraZeneca Pharmaceuticals LP
Address City IN Zip: 4601 Highway 62 East, Mt. Vernon, IN 47620
Permit No: SPR 129-43243-00021
Reviewer: Tamara Havics

VOC Potential to Emit:

Tablet Printing Ink

4 printers x 3000 lb througput per printer per day x 365 day/yr x 4.5 kg ink per 3000 lb throughput = 6570 kg/yr ink

6,570 kg/yr ink x 63 wt% VOC x 2.20462 lb/kg = 9125 lb/yr VOC from ink
9125 lb/yr x 1 ton/2000 lb = 4.56 ton/yr VOC from ink

IPA Usage

4 printers x 1.5 batches per day per printer x 365 day/yr x 1.5 kg IPA per batch = 3285 kg/yr IPA

3,285 kg/yr IPA x 100 wt% VOC x 2.20462 lb/kg = 7242 lb/yr VOC from IPA
7242 lb/yr x 1 ton/2000 lb = 3.62 ton/yr VOC from IPA

Total VOC Potential to Emit:

16367 lbs/yr VOC (Ink usage + IPA usage)
8.18 tons/yr VOC = 16,367 lb/yr x 1 ton/2000 lbs

Appendix A: Emission Calculations
Particulate Matter Emissions
Four Weighing and Dispensing Rooms, Building 123

Company Name: AstraZeneca Pharmaceuticals LP
Address City IN Zip: 4601 Highway 62 East, Mt. Vernon, IN 47620
Permit No: SPR 129-43243-00021
Reviewer: Tamara Havics

Unit ID	Number of Units	Max. Process Weight Rate, each	Emission Factor	Source of	Control Efficiency	Potential Uncontrolled	Potential Uncontrolled	Potential Controlled
		lb/hr	lb PM / 2000 lb solids	Emission Factor *	(%)	PM Emissions	PM Emissions	PM Emissions
						lbs/hr	tons/yr	tons/yr
Dry Material Weighing and Dispensing	4	1237	0.20	Engineering estimate. Closed Room, dust generation is negligible.	50%	0.49	2.17	1.084
							2.17	**1.08**

Methodology
Potential uncontrolled emissions are a conservative engineering estimate, based on mixing and blending operations.
Throughput (lb/hr) * EF (lb PM / 2000 lb solids) * 8760 hr/yr * ton/2000 lb = throughput (ton/yr)
*PM, PM10, PM2.5 presumed same.

Emission Calculations
Weigh Room - Building 123, Room 1228
Particulate Matter Emissions

Company Name: AstraZeneca Pharmaceuticals LP
Address City IN Zip: 4601 Highway 62 East, Mt. Vernon, IN 47620
Permit No: SPR 129-43243-00021
Reviewer: Tamara Havics

Particulate Matter Emissions from dry material

Unit ID	Max. Process Weight Rate[1] (lb/hr)	Emission Factor[2] (lb PM / 2000 lb solids)	Source of Emission Factor	Control Efficiency[3] (%)	Potential Uncontrolled PM Emissions (lbs/hr)	Potential Uncontrolled PM Emissions[4] (tons/yr)	Potential Controlled PM Emissions[5] (tons/yr)
Material Input into Vacuum Transfer System: Weigh Room 1228	1,323	0.20	Engineering estimate. Closed Room, dust generation is negligible.	99.99%	0.13	0.58	5.79E-05
Vacuum Transfer into Receiver: Weigh Room 1228	1,323	0.20	Engineering estimate. Closed Room, dust generation is negligible.	50%	0.13	0.58	0.29
				Total Potential PM Emissions (tons/yr):	**1.16**		**0.29**

Methodology and Notes:
[1] The maximum throughput is 10 Kg/min when batching materials and 750 Kg per day.
[2] Emission factors are provided by the source; PM, PM10, PM2.5 presumed same.
Emission factor based on other similar sources (Small Weigh Room, bin charging system, etc.)
[3] Material input emissions are controlled by a prefilter and H14 HEPA filter prior to exhausting to atmosphere. The H14 HEPA filter has a 99.99% efficiency.
Transfer into receiver emissions are vented indoors. 50% control for venting indoors.
[4] Throughput (lb/hr) * EF (lb PM / 2000 lb solids) * 8760 hr/yr * ton/2000 lb = potential uncontrolled emissions (ton/yr)
[5] Potential uncontrolled emissions (ton/yr) * (1 - control efficiency) = potential controlled emissions (ton/yr)

Appendix A: Emission Calculations
Particulate Matter Emissions
Building 124 Pharmaceutical Packaging Line

Company Name: AstraZeneca Pharmaceuticals LP
Address City IN Zip: 4601 Highway 62 East, Mt. Vernon, IN 47620
Permit No: SPR 129-43243-00021
Reviewer: Tamara Havics

Unit ID	Max. Process Weight Rate	Emission Factor	Source of	Control Efficiency	Potential Uncontrolled	Potential Uncontrolled	Potential Controlled
	lb/hr	lb PM / 2000 lb solids	Emission Factor *	(%)	PM Emissions	PM Emissions	PM Emissions
					lbs/hr	tons/yr	tons/yr ***
Pharmaceutical packaging lines Packaging line 20 (Formerly line 3)	442.00	0.02	Engineering estimate. The materials handled are coated solid tablets; dust generation is negligible.	99%	0.004	0.019	0.0002
Pharmaceutical packaging lines Packaging lines 8, 9, 11, 12,and 10	3236.00	0.02	Engineering estimate. The materials handled are coated solid tablets; dust generation is negligible.	99%	0.032	0.142	0.0014
Pharmaceutical Packaging Line 15	200	0.02	Engineering estimate. The materials handled are coated solid tablets; dust generation is negligible.	99%	0.002	0.009	0.00009
Pharmaceutical Packaging Line 16	200	0.02	Engineering estimate. The materials handled are coated solid tablets; dust generation is negligible.	99%	0.002	0.009	0.0001
Pharmaceutical Packaging Line 17	200	0.02	Engineering estimate. The materials handled are coated solid tablets; dust generation is negligible.	99%	0.002	0.009	0.0001
					Total	**0.187**	**1.87E-03**

Methodology:
Throughput (lb/hr) * EF (lb PM/2,000 lbs solids) * 8,760 hrs/yr * ton/2,000 lbs = emissions (ton/yr)
*PM, PM_{10} and $PM_{2.5}$ are presumed to be the same

Appendix A: Emission Calculations
Bohle Tablet Coaters #1 through #9

Company Name: AstraZeneca Pharmaceuticals LP
Address City IN Zip: 4601 Highway 62 East, Mt. Vernon, IN 47620
Permit No: SPR 129-43243-00021
Reviewer: Tamara Havics

Tablet Coating Process comprised of three coating suspension prep tanks (coating solids, water, hydrochloric acid mixed into solution) and a single pan tablet coating machine (coating suspension sprayed onto uncoated tablets). Exhausts from prep tanks and pan coater are combined in a vent header with a local exhaust over HCl storage drums, and vented to a packed-bed scrubber for HCl fume and particulate control.

Potential to Emit:

				Uncontrolled			**Controlled**	
Emission Unit	Description	PM/PM10/PM2.5 Emission Rate from Site Test plus 25% Safety Factor[1]	HCl Emission Rate from Site Test plus 30% Safety Factor[1]	Uncontrolled $PM/PM_{10}PM_{2.5}$	Uncontrolled HCl	Dust Filter PM/PM10/PM2.5 Control Efficiency[2]	Controlled $PM/PM_{10}PM_{2.5}$	Controlled HCl
		lb/hr	lb/hr	ton/yr	ton/yr	%	ton/yr	ton/yr
Bohle Tablet Coater #1	S-30 - Building 121	0.46	0.03	2.03	0.14	99%	0.02	0.14
Bohle Tablet Coater #2	S-33	0.46	0.03	2.03	0.14	99%	0.02	0.14
Bohle Tablet Coater #3	S-36 - Building 122	0.46	0.03	2.03	0.14	99%	0.02	0.14
Bohle Tablet Coater #4	S-37 - Building 122	0.46	0.03	2.03	0.14	99%	0.02	0.14
Bohle Tablet Coater #5	S-38 - Building 122	0.46	0.03	2.03	0.14	99%	0.02	0.14
Bohle Tablet Coater #6	S-39 - Building 122	0.46	0.03	2.03	0.14	99%	0.02	0.14
Bohle Tablet Coater #7	S-40 - Building 122	0.46	0.03	2.03	0.14	99%	0.02	0.14
Bohle Tablet Coater #8	S-41 - Building 122	0.46	0.03	2.03	0.14	99%	0.02	0.14
Bohle Tablet Coater #9	S-42 - Building 122	0.46	0.03	2.03	0.14	99%	0.02	0.14
				18.23	**1.23**		**0.18**	**1.23**

[1] Data from Worst Case Site Test conducted on Bohe Coater #4 on January 6, 2021. Accepted by IDEM.
[2] Nominal equipment performance assumed (Manufacturer's guaranteed control efficiency is 99.97%)

Methodology
Uncontrolled PTE (ton/yr) = worst-case test result (lb/hr) x safety factor x (8760 hr/year) x (1 ton/2000lbs)
Controlled PTE (ton/yr) = Uncontrolled PTE (ton/yr) x (1-controll efficiency%)

Appendix A: Emission Calculations
Fette 64, 65, and 66: Tablet Core Press Machine Building 123, Room 1142

Company Name: AstraZeneca Pharmaceuticals LP
Address City IN Zip: 4601 Highway 62 East, Mt. Vernon, IN 47620
Permit No: SPR 129-43243-00021
Reviewer: Tamara Havics

Maximum Tablet Core Press Throughput =	844	lb/hr	*(design capacity)*
=	0.422	ton/hr	*(844 lb/hr / 2,000 lbs per ton)*
Total Weight of Fette container (per Fette) =	15,503	lbs.	*(Container Weight study Jan '19 to July '20)**
Total Number of Containers (per Fette) =	296	cont.	*(Container Weight study Jan '19 to July '20)**
Average weight of container (per Fette) =	52.4	lbs./cont.	*(15,503 lbs. / 296 cont.)*
Containers used during study (per Fette) =	1.0	cont. /wk	*(Container Weight study Jan '19 to July '20)**
Capacity during Container Wt Study =	90	%	*(Container Weight study Jan '19 to July '20)**
Safety Factor =	30	%	*(engineering judgement)*
Particulate Control Efficency (CE) =	99	%	*engineering estimate for Camfil-Farr dust collectors*

Particulate Emissions

Uncontrolled PM Emissions (per Fette) = Wt of container * containers per week / hrs per week * scale up * safety factor
= 52.4 lbs./cont. * 1.0 cont. /wk / 168 hrs/week * 100/90 * safety factor 1.3
= 0.450 lb/hr
= 1.97 tons/yr
Total Uncontrolled PM Emissions for Fette 64, Fette 65, & Fette 66 = **5.92** tons/yr

Controlled PM Emissions (per Fette) = Uncontrolled Emissions * (1 - CE)
= 0.45 lb/hr * (1 - 99/100)
= 0.0045 lb/hr
= 0.020 tons/yr
Total Controlled PM Emissions for Fette 64, Fette 65, & Fette 66 = **0.059** tons/yr

Allowable Particulate Matter Emissions (326 IAC 6-3-2(e))

Allowable rate of emission (E) = $4.10(P)^{0.67}$
= 4.10 * (0.422 ton/hr) ^ 0.67
= 2.30 lb/hr

Where:
E = allowable rate of emissions (lb/hr)
P = process weight rate (tons/hr)

*AstraZeneca conducted a Fette 64 and 66 tablet core press machines disposal container weight study from January 2019 through July 2020. The weights collected by the particulate controls represents uncontrolled particulate emissions. The weights recorded in the study are very conservative in that the weight not only is the dust collected, but the weight of the containers, pallets, controlled particulate collected in downstream HEPA filter, and the HEPA bags. Since the Fettes did not operate at capacity during the period of the weight study, emissions were scaled up to capacity.

Appendix A: Emission Calculations
Vacuum Systems

Company Name: AstraZeneca Pharmaceuticals LP
Address City IN Zip: 4601 Highway 62 East, Mt. Vernon, IN 47620
Permit No: SPR 129-43243-00021
Reviewer: Tamara Havics

Central Vacuum System, Building 123

Source info:

4	ports ties to central vacuum system =	1	kg/day =	2.2	lbs/day of dust is vacuum
1	port =	0.25	kg/day =	0.55	lbs/day of dust is vacuum
38	ports thru out blg 123			20.9	lbs/day of dust is vacuum
	PM PTE (ton/yr)			**3.81**	ton/yr

PM PTE (ton/yr) = lbs/day of dust is vacuum * 365 (day/yr) / 2000(lb/ton)

Max air flow rate =	2312	acfm	**2 blowers combined**
Hi-eff filter rating =	0.01	gr/ft3	
unit conversion=	7000	gr/lb	
	60	min/hr	
Control Coefficient =	99%		
PM/PM10/PM2.5 emissions =	0.20	lb/hr	
	0.87	ton/yr	

6-3-2	
0.02 lb/hr <	0.551 lb/hr

Max. Process Weight Rate of less than 100 lbs/hr is limited to 0.551 lbs/hr

Central Vacuum Systems, Buildings 121, 122, and 124
The vacuum systems in Bldg 121, 122 and 124 are tied into the granulation and compression systems, so they function primarily as control equipment. Therefore, their emissions would already be included as a portion of the granulation and presses in those buildings. For secondary processes, a conservatitive engineering estimate of 0.5 tons has been added for each of these three units.

	ton/yr
Mac Central Vacuum System, Building 121	0.5
Spencer Central Vacuum System, Building 122	0.5
Central Vacuum System, Building 124	0.5

Total for all vacuum systems (ton/yr) = 5.31

Appendix A: Emission Calculations
Emergency Fire Pump Engine, S7

Reciprocating Internal Combustion Engines - Diesel Fuel
Output Rating (<=600 HP)
Maximum Input Rate (<=4.2 MMBtu/hr)

Company Name: AstraZeneca Pharmaceuticals LP
Address City IN Zip: 4601 Highway 62 East, Mt. Vernon, IN 47620
Permit No: SPR 129-43243-00021
Reviewer: Tamara Havics

Emissions calculated based on output rating (hp)

Output Horsepower Rating (hp)	246
Maximum Hours Operated per Year	500
Potential Throughput (hp-hr/yr)	123,000

	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	**0.14**	**0.14**	**0.14**	**0.13**	**1.91**	**0.15**	**0.41**

*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	4.02E-04	1.76E-04	1.23E-04	1.68E-05	5.08E-04	3.30E-04	3.98E-05	7.23E-05

***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)	**1.67E-03**

Methodology
Emission Factors are from AP 42 (Supplement B 10/96) Tables 3.3-1 and 3.3-2.
Potential Throughput (hp-hr/yr) = [Output Horsepower Rating (hp)] * [Maximum Hours Operated per Year]
Potential Emission (tons/yr) = [Potential Throughput (hp-hr/yr)] * [Emission Factor (lb/hp-hr)] / [2,000 lb/ton]

Appendix A: Emission Calculations
Emergency Generator S-3

Large Reciprocating Internal Combustion Engines - Diesel Fuel
Output Rating (>600 HP)
Maximum Input Rate (>4.2 MMBtu/hr)

Company Name: AstraZeneca Pharmaceuticals LP
Address City IN Zip: 4601 Highway 62 East, Mt. Vernon, IN 47620
Permit No: SPR 129-43243-00021
Reviewer: Tamara Havics

Emissions calculated based on heat input capacity (MMBtu/hr)

Emergency diesel generater (S-3)	4.4

Total Heat Input Capacity (MMBtu/hr)	4.4
Maximum Hours Operated per Year	500
Potential Throughput (MMBtu/yr)	2,200
Sulfur Content (S) of Fuel (% by weight)	0.0015

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMBtu	0.10	0.0573	0.0573	0.002 *(1.01S)*	3.2 **see below	0.09	0.85
Potential Emission in tons/yr	**0.11**	**0.06**	**0.06**	**0.0017**	**3.52**	**0.10**	**0.94**

*No information was given regarding which method was used to determine the PM emission factor or whether condensable PM is included. The PM10 emission factor is filterable and condensable PM10 combined. The PM2.5 emissions were assumed to be equal to PM10.

**NOx emissions: uncontrolled = 3.2 lb/MMBtu, controlled with ignition timing retard = 1.9 lb/MMBtu

Hazardous Air Pollutants (HAPs)

	Pollutant						
	Benzene	Toluene	Xylene	Formaldehyde	Acetaldehyde	Acrolein	Total PAH HAPs***
Emission Factor in lb/MMBtu	7.76E-04	2.81E-04	1.93E-04	7.89E-05	2.52E-05	7.88E-06	2.12E-04
Potential Emission in tons/yr	8.54E-04	3.09E-04	2.12E-04	8.68E-05	2.77E-05	8.67E-06	2.33E-04

***PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)

Potential Emission of Total HAPs (tons/yr)	**1.73E-03**

Methodology
Potential Throughput (MMBtu/yr) = [Heat Input Capacity (MMBtu/hr)] * [Maximum Hours Operated per Year]
Potential Emission (tons/yr) = [Potential Throughput (MMBtu/yr)] * [Emission Factor (lb/MMBtu)] / [2,000 lb/ton]

Appendix A: Emission Calculations
Emergency Generator S32

Internal Combustion Engines - Diesel Fuel
Reciprocating Ignition Internal Combustion Engines (> 4.2 MMBtu/hr)

Company Name: AstraZeneca Pharmaceuticals LP
Address City IN Zip: 4601 Highway 62 East, Mt. Vernon, IN 47620
Permit No: SPR 129-43243-00021
Reviewer: Tamara Havics

Potential Emissions calculated based on 500 hours per year.

	Generator Capacity			
Emergency diesel generator of 1500kW (S32)	14.25	MMBtu/hr	1,500.00	kW-hr
Total Heat Input Capacity	14.25	MMBtu/hr	1,500.00	Total kW-hr
Maximum Hours Operated per Year	500			
Potential Throughput	7,125.00	MMBtu/yr		

	Pollutant						
	PM**	PM10**	PM2.5**	SO2*	NOx**	VOC**	CO**
Emission Factor in lb/MMBtu Emission Factor in g/kW-hr	0.18	0.18	0.18	0.0015	6.40	0.64	3.50
Potential Emissions (tons per year)	**0.15**	**0.15**	**0.15**	**0.005**	**5.29**	**0.53**	**2.89**

Methodology
*Emission Factors are from AP42 (October 1996), Table 3.4-1 and 3.4-3
**Emission Factors are provided by source based on Tier II FEL stds - NSPS Subpart IIII applicable to this source
Potential Emission (tons/yr) = [Generator Capacity (MMBtu/hr) x Emission Factor (lb/MMBtu)] * 500 hr/yr / (2,000 lb/ton)
Potential Emission (tons/yr) = [Kilowatt per hour x Emission Factor (g/kW-hr)] * 500 hr/yr *(.0000011023)
Conversion factor is 1 gram=0.0000011023 short tons

HAPs - Organics

	Benzene	Acetaldehyde	Xylenes	Toluene	Napthalene	Formaldehyde	**TOTAL**
Emission Factor in lb/MMBtu	7.76E-04	2.52E-05	1.93E-04	2.81E-04	1.30E-04	7.89E-05	
Potential Emissions (tons per year)	2.76E-03	8.98E-05	6.88E-04	1.00E-03	4.63E-04	2.81E-04	**5.29E-03**

Methodology is the same as above.
The six highest organic HAPs emission factors are provided above.
HAPs emission factors are available in AP-42, Chapter 3.4-3 and 3.4-4.

Appendix A: Emission Calculations
Emergency Generator S34

Internal Combustion Engines - Diesel Fuel
Reciprocating Ignition Internal Combustion Engines (> 4.2 MMBtu/hr)

Company Name: AstraZeneca Pharmaceuticals LP
Address City IN Zip: 4601 Highway 62 East, Mt. Vernon, IN 47620
Permit No: SPR 129-43243-00021
Reviewer: Tamara Havics

Potential Emissions calculated based on 500 hours per year.

	Generator Capacity			
Emergency diesel generator of 350kW (S34)	3.89	MMBtu/hr	350.00	kW-hr
Total Heat Input Capacity	3.89	MMBtu/hr	350.00	Total kW-hr
Maximum Hours Operated per Year	500			
Potential Throughput	1,945.00	MMBtu/yr		

	Pollutant						
	PM**	PM10**	PM2.5**	SO2*	NOx**	VOC**	CO**
Emission Factor in lb/MMBtu Emission Factor in g/kW-hr	0.18	0.18	0.18	0.0015	6.40	0.64	3.50
Potential Emissions (tons per year)	0.03	0.03	0.03	0.0015	1.23	0.12	0.68

Methodology
*Emission Factors are from AP42 (October 1996), Table 3.4-1 and 3.4-3
**Emission Factors are provided by source based on Tier II FEL stds - NSPS Subpart IIII applicable to this source
Potential Emission (tons/yr) = [Generator Capacity (MMBtu/hr) x Emission Factor (lb/MMBtu)] * 500 hr/yr / (2,000 lb/ton)
Potential Emission (tons/yr) = [Kilowatt per hour x Emission Factor (g/kW-hr)] * 500 hr/yr *(.0000011023)
Conversion factor is 1 gram=0.0000011023 short tons

HAPs - Organics

	Benzene	Acetaldehyde	Xylenes	Toluene	Napthalene	Formaldehyde	**TOTAL**
Emission Factor in lb/MMBtu	7.76E-04	2.52E-05	1.93E-04	2.81E-04	1.30E-04	7.89E-05	
Potential Emissions (tons per year)	7.55E-04	2.45E-05	1.88E-04	2.73E-04	1.26E-04	7.67E-05	**1.44E-03**

Methodology is the same as above.
The six highest organic HAPs emission factors are provided above.
HAPs emission factors are available in AP-42, Chapter 3.4-3 and 3.4-4.

Appendix A: Emission Calculations
Emergency Generator S35

Internal Combustion Engines - Diesel Fuel
Reciprocating Ignition Internal Combustion Engines (> 10 MMBtu/hr)

Company Name: AstraZeneca Pharmaceuticals LP
Address City IN Zip: 4601 Highway 62 East, Mt. Vernon, IN 47620
Permit No: SPR 129-43243-00021
Reviewer: Tamara Havics

Emergency diesel generator (S35)

Output Horsepower Rating (hp)	4423.0
Maximum Hours Operated per Year	500
Potential Throughput (hp-hr/yr)	2,211,500
Sulfur Content (S) of Fuel (% by weight)	0.0015

	Pollutant						
	PM*	PM10*	PM2.5*	SO2	NOx*	VOC*	CO*
Emission Factor in lb/hp-hr	7.50E-05	7.50E-05	7.50E-05	1.21E-05 *(.00809S)*	0.011	0.0002	0.0014
Potential Emissions (tons per year)	0.08	0.08	0.08	0.01	12.65	0.24	1.54

Methodology

*Emission Factors from generator manufacturer. The generator manufacturer has certified that the emergency generator is in compliance with the emission standards in NSPS Subpart IIII and 40 CFR 89. All other emission factors are from AP 42 (Supplement B 10/96) Tables 3.4-1 , 3.4-2, 3.4-3, and 3.4-4.
Potential Throughput (hp-hr/yr) = [Output Horsepower Rating (hp)] * [Maximum Hours Operated per Year]
Potential Emission (tons/yr) = [Potential Throughput (hp-hr/yr)] * [Emission Factor (lb/hp-hr)] / [2,000 lb/ton]

Hazardous Air Pollutants (HAPs)

	Pollutant						
	Benzene	Toluene	Xylene	Formaldehyde	Acetaldehyde	Acrolein	Total PAH HAPs**
Emission Factor in lb/hp-hr***	5.43E-06	1.97E-06	1.35E-06	5.52E-07	1.76E-07	5.52E-08	1.48E-06
Potential Emission in tons/yr	6.01E-03	2.18E-03	1.49E-03	6.11E-04	1.95E-04	6.10E-05	1.64E-03

**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)	**1.22E-02**

Appendix A: Emission Calculations
Emergency Generator, S44

Reciprocating Internal Combustion Engines - Diesel Fuel
Output Rating (<=600 HP)
Maximum Input Rate (<=4.2 MMBtu/hr)

Company Name: AstraZeneca Pharmaceuticals LP
Address City IN Zip: 4601 Highway 62 East, Mt. Vernon, IN 47620
Permit No: SPR 129-43243-00021
Reviewer: Tamara Havics

Emissions calculated based on output rating (hp)

Output Horsepower Rating (hp)	315
Output Rating (kW)	235
Maximum Hours Operated per Year	500
Potential Throughput (hp-hr/yr)	157,500
Potential Throughput (kW-hr/yr)	117,448

	Pollutant						
	PM*	PM10**	direct PM2.5**	SO2	NOx*	VOC	CO*
Emission Factor in lb/hp-hr		0.0022	0.0022	0.0021		0.0025	
Emission Factor in g/kW-hr	0.2				4.0		3.5
Potential Emission in tons/yr	**0.03**	**0.17**	**0.17**	**0.16**	**0.52**	**0.20**	**0.45**

*Emission factors from 40 CFR 89.112, Table 1. Engine is EPA certified to Tier 3 (225≤kW<450), Certificate Number FPKXL07.0PW1-007.
**PM2.5 emission factor is assumed to be equivalent to PM10 emission factor. 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	**5.14E-04**	**2.25E-04**	**1.57E-04**	**2.16E-05**	**6.50E-04**	**4.23E-04**	**5.10E-05**	**9.26E-05**

***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)	**2.14E-03**

Methodology
Emission Factors are from AP 42 (Supplement B 10/96) Tables 3.3-1 and 3.3-2.
Potential Throughput (hp-hr/yr) = [Output Horsepower Rating (hp)] * [Maximum Hours Operated per Year]
Potential Emission (tons/yr) = [Potential Throughput (hp-hr/yr)] * [Emission Factor (lb/hp-hr)] / [2,000 lb/ton]

Appendix A: Emission Calculations
Emergency Generator, S45

Large Reciprocating Internal Combustion Engines - Diesel Fuel
Output Rating (>600 HP)
Maximum Input Rate (>4.2 MMBtu/hr)

Company Name: AstraZeneca Pharmaceuticals LP
Address City IN Zip: 4601 Highway 62 East, Mt. Vernon, IN 47620
Permit No: SPR 129-43243-00021
Reviewer: Tamara Havics

Emissions calculated based on output rating (hp)

Output Horsepower Rating (hp)	4423
Output Rating (kW)	3298
Maximum Hours Operated per Year	500
Potential Throughput (hp-hr/yr)	2,211,500
Potential Throughput (kW-hr/yr)	1,649,115
Sulfur Content (S) of Fuel (% by weight)	0.0015

	Pollutant						
	PM*	PM10**	direct PM2.5**	SO2	NOx*	VOC	CO*
Emission Factor in lb/hp-hr		4.01E-04	4.01E-04	1.21E-05 *(.00809S)*		7.05E-04	
Emission Factor in g/kW-hr	0.20				6.4		3.5
Potential Emission in tons/yr	0.36	0.44	0.44	0.01	11.63	0.78	6.36

*Emission factors from 40 CFR 89.112, Table 1. Engine is EPA certified to Tier 2 (560<kW≤2237), Certificate Number FCPXL106.NZS-004.
**PM10 emission factor in lb/hp-hr was calculated using the emission factor in lb/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).

Hazardous Air Pollutants (HAPs)

	Pollutant						
	Benzene	Toluene	Xylene	Formaldehyde	Acetaldehyde	Acrolein	Total PAH HAPs***
Emission Factor in lb/hp-hr****	5.43E-06	1.97E-06	1.35E-06	5.52E-07	1.76E-07	5.52E-08	1.48E-06
Potential Emission in tons/yr	6.01E-03	2.18E-03	1.49E-03	6.11E-04	1.95E-04	6.10E-05	1.64E-03

***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).

Methodology
Emission Factors are from AP 42 (Supplement B 10/96) Tables 3.4-1 , 3.4-2, 3.4-3, and 3.4-4.
Potential Throughput (hp-hr/yr) = [Output Horsepower Rating (hp)] * [Maximum Hours Operated per Year]
Potential Emission (tons/yr) = [Potential Throughput (hp-hr/yr)] * [Emission Factor (lb/hp-hr)] / [2,000 lb/ton]

Potential Emission of Total HAPs (tons/yr)	**1.22E-02**

Appendix A: Emission Calculations
Emergency Generator, S46

Reciprocating Internal Combustion Engines - Diesel Fuel
Output Rating (<=600 HP)
Maximum Input Rate (<=4.2 MMBtu/hr)

Company Name: AstraZeneca Pharmaceuticals LP
Address City IN Zip: 4601 Highway 62 East, Mt. Vernon, IN 47620
Permit No: SPR 129-43243-00021
Reviewer: Tamara Havics

Emissions calculated based on output rating (hp)

Output Horsepower Rating (hp)	539
Output Rating (kW)	402
Maximum Hours Operated per Year	500
Potential Throughput (hp-hr/yr)	269,500
Potential Throughput (kW-hr/yr)	200,966

	Pollutant						
	PM*	PM10**	direct PM2.5**	SO2	NOx*	VOC	CO*
Emission Factor in lb/hp-hr		0.0022	0.0022	0.0021		0.0025	
Emission Factor in g/kW-hr	0.2				4.0		3.5
Potential Emission in tons/yr	**0.04**	**0.30**	**0.30**	**0.28**	**0.89**	**0.34**	**0.78**

*Emission factors from 40 CFR 89.112, Table 1. Engine is EPA certified to Tier 3 (225≤kW<450), Certificate Number FPKXL07.0PW1-007.
**PM2.5 emission factor is assumed to be equivalent to PM10 emission factor. 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	**8.80E-04**	**3.86E-04**	**2.69E-04**	**3.69E-05**	**1.11E-03**	**7.23E-04**	**8.73E-05**	**1.58E-04**

***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)	**3.65E-03**

Methodology
Emission Factors are from AP 42 (Supplement B 10/96) Tables 3.3-1 and 3.3-2.
Potential Throughput (hp-hr/yr) = [Output Horsepower Rating (hp)] * [Maximum Hours Operated per Year]
Potential Emission (tons/yr) = [Potential Throughput (hp-hr/yr)] * [Emission Factor (lb/hp-hr)] / [2,000 lb/ton]

Appendix A: Emission Calculations
VOC
From Cold Cleaning Operation

Company Name: AstraZeneca Pharmaceuticals LP
Address City IN Zip: 4601 Highway 62 East, Mt. Vernon, IN 47620
Permit No: SPR 129-43243-00021
Reviewer: Tamara Havics

Insignificant Activity: One (1) cold cleaner/degreaser

Potential Emissions:											
Material (as applied)	Process	Density (lb/gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Vol (solids)	Gal of Mat. Lost (gal/day)*	Potential VOC Pounds per hour	Potential VOC pounds per day	Potential VOC tons per year
Safety-Kleen Premium Gold Solvent	Cold Cleaners (Building 122)	6.80	100.00%	0.00%	100.00%	0.00%	0.00%	0.016	0.0045	0.11	0.02
Total Potential Emissions:										**0.11**	**0.020**

Note: * Gallons of material lost is based on actual material usage in 2015. According to records, in 2015 a total of 32 gallons of clean solvent was supplied and 26 gallons (of solvent after adjusting for the volume of sludge, dirt, etc.) was returned or is still in inventory.
HAP content of the solvent is negligible.

Methodology:
Potential VOC Pounds per Hour = Density (lb/gal) * Gal of Material (gal/day) / 24 hrs/day
Potential VOC Pounds per Day = Density (lb/gal) * Gal of Material (gal/day)
Potential VOC Tons per Year = Density (lb/gal) * Gal of Material (gal/day) * (365 days/yr) * (1 ton/2000 lbs)

Appendix A: Emission Calculations
VOC and HAP Emissions
Fuel Storage Tanks

Company Name: AstraZeneca Pharmaceuticals LP
Address City IN Zip: 4601 Highway 62 East, Mt. Vernon, IN 47620
Permit No: SPR 129-43243-00021
Reviewer: Tamara Havics

Volatile Organic Compound (VOC) Emissions From Storage Tanks (Working and Breathing Losses) Using US EPA TANKS Version 4.09 program

Storage Tank ID	Product Stored	Tank Type	Tank Color/Shade	Tank Dimensions (nominal)	Maximum Liquid Volume (gallons)	Turnovers per year	Product Throughput (gallons/yr)	VOC Working Losses (lbs/yr)	VOC Breathing Losses (lbs/yr)	Total VOC Losses (lbs/yr)	VOC Working Losses (tons/yr)	VOC Breathing Losses (tons/yr)	Total VOC Losses (tons/yr)
Building 104, S32	No. 2 Fuel Oil	horizontal fixed roof	dull gray	2.0 ft. dia., 4.25 ft. long	100	516	51,630	0.27	0.11	0.38	1.4E-04	5.5E-05	1.9E-04
Building 113, S44	No. 2 Fuel Oil	horizontal fixed roof	dull gray	3.5 ft. dia., 5.75 ft. long	395	19	7,750	0.18	0.17	0.35	9.0E-05	8.5E-05	1.8E-04
Building 104, S45	No. 2 Fuel Oil	horizontal fixed roof	dull gray	2.5 ft. dia., 5.5 ft. long	200	533	106,520	0.56	0.12	0.68	2.8E-04	6.0E-05	3.4E-04
									Totals	1.41			**7.1E-04**

Hazardous Air Pollutant (HAP) Emissions

Storage Tank ID	Product Stored	Total PTE of VOC (tons/yr)	Total HAP Content (weight %)*	PTE of Total HAPs (tons/yr)	Worst Single HAP Content (weight %)*		PTE of Worst Single HAP (tons/yr)
Building 104, S32	No. 2 Fuel Oil	1.9E-04	1.2%	2.3E-06	0.5%	Xylenes	9.5E-07
Building 113, S44	No. 2 Fuel Oil	1.8E-04	1.2%	2.1E-06	0.5%	Xylenes	8.8E-07
Building 104, S45	No. 2 Fuel Oil	3.4E-04	1.2%	4.1E-06	0.5%	Xylenes	1.7E-06
		Total		**8.5E-06**			**3.5E-06**

*Source: Petroleum Liquids. Potter, T.L. and K.E. Simmons. 1998. Total Petroleum Hydrocarbon Criteria Working Group Series, Volume 2. Composition of Petroleum Mixtures. The Association for Environmental Health and Science.

Methodology
PTE of Total HAPs (tons/yr) = [Total HAP Content (% by weight)] * [PTE of VOC (tons/yr)]
PTE of Worst Single HAP (tons/yr) = [Worst Single HAP Content (% by weight)] * [PTE of VOC (tons/yr)]

Abbreviations
PTE = Potential to Emit

Appendix A: Emission Calculations
Fugitive Dust Emissions - Paved Roads

Company Name: AstraZeneca Pharmaceuticals LP
Source Address: 4601 Highway 62 East, Mt. Vernon, IN 47620
Permit No: SPR 129-43243-00021
Reviewer: Tamara Havics

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 Informtation (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 of Loaded Vehicle (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)
Box or Semi Trucks - product out	14.0	2.0	28.0	7.0	196.0	2640.0	0.500	14.0	5110.0
Box or Semi Trucks - deliveries	2.0	2.0	4.0	15.0	60.0	2640.0	0.500	2.0	730.0
Maintenance traffic	10.0	3.0	30.0	2.0	60.0	2640.0	0.500	15.0	5475.0
Cars	20.0	2.0	40.0	2.0	80.0	2640.0	0.500	20.0	7300.0
		Totals	**102.0**		**396.0**			**51.0**	**18615.0**

Average Vehicle Weight Per Trip = 3.9 tons/trip
Average Miles Per Trip = 0.50 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 =	3.9	3.9	3.9	tons = average vehicle weight
sL =	9.7	9.7	9.7	g/m^2 = silt loading value for paved roads at iron and steel production 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 =	0.347	0.069	0.0170	lb/mile
Mitigated Emission Factor, Eext =	0.317	0.063	0.0156	lb/mile

Process	Mitigated PTE of PM (Before Control) (tons/yr)	Mitigated PTE of PM10 (Before Control) (tons/yr)	Mitigated PTE of PM2.5 (Before Control) (tons/yr)
Box or Semi Trucks - product out	0.81	0.16	0.04
Box or Semi Trucks - deliveries	0.12	0.02	0.01
Maintenance traffic	0.87	0.17	0.04
Cars	1.16	0.23	0.06
Totals	**2.95**	**0.59**	**0.14**

Methodology

Total Weight driven per day (ton/day)	= [Maximum Weight of Loaded Vehicle (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 (Before Control) (tons/yr)	= [Maximum one-way miles (miles/yr)] * [Mitigated Emission Factor (lb/mile)] * (ton/2000 lbs)
Mitigated PTE (After Control) (tons/yr)	= [Mitigated PTE (Before Control) (tons/yr)] * [1 - Dust Control Efficiency]

Abbreviations
PM = Particulate Matter
PM10 = Particulate Matter (<10 um)
PM2.5 = Particle Matter (<2.5 um)
PTE = Potential to Emit

Appendix A: Emission Calculations
Fugitive Dust Emissions - Unpaved Roads

Company Name: AstraZeneca Pharmaceuticals LP
Source Address: 4601 Highway 62 East, Mt. Vernon, IN 47620
Permit No: SPR 129-43243-00021
Reviewer: Tamara Havics

Unpaved Roads at Industrial Site
The following calculations determine the amount of emissions created by unpaved roads, based on 8,760 hours of use and AP-42, Ch 13.2.2 (11/2006).

Vehicle Information (provided by source)

Type	Maximum number of vehicles	Number of one-way trips per day per vehicle	Maximum trips per day (trip/day)	Maximum Weight of Loaded Vehicle (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)
Contractor Cars	10.0	4.0	40.0	2.0	80.0	528	0.100	4.0	1460.0
		Totals	**40.0**		**80.0**			**4.0**	**1460.0**

Average Vehicle Weight Per Trip = 2.0 tons/trip
Average Miles Per Trip = 0.10 miles/trip

Unmitigated Emission Factor, Ef = k*[(s/12)^a]*[(W/3)^b] (Equation 1a from AP-42 13.2.2)

	PM	PM10	PM2.5	
where k =	4.9	1.5	0.15	lb/mi = particle size multiplier (AP-42 Table 13.2.2-2 for Industrial Roads)
s =	6.0	6.0	6.0	% = mean % silt content of unpaved roads (AP-42 Table 13.2.2-1 Iron and Steel Production)
a =	0.7	0.9	0.9	= constant (AP-42 Table 13.2.2-2 for Industrial Roads)
W =	2.0	2.0	2.0	tons = average vehicle weight
b =	0.45	0.45	0.45	= constant (AP-42 Table 13.2.2-2 for Industrial Roads)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, Eext = E * [(365 - P)/365] (Equation 2 from AP-42 13.2.2)

Mitigated Emission Factor, Eext = E * [(365 - P)/365]
where P = 125 days of rain greater than or equal to 0.01 inches (see Fig. 13.2.2-1)

	PM	PM10	PM2.5	
Unmitigated Emission Factor, Ef =	2.51	0.67	0.07	lb/mile
Mitigated Emission Factor, Eext =	1.65	0.44	0.04	lb/mile

Process	Mitigated PTE of PM (Before Control) (tons/yr)	Mitigated PTE of PM10 (Before Control) (tons/yr)	Mitigated PTE of PM2.5 (Before Control) (tons/yr)
Contractor Cars	1.21	0.32	0.03
Totals	**1.21**	**0.32**	**0.03**

Methodology

Total Weight driven per day (ton/day)	= [Maximum Weight of Loaded Vehicle (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)]
Mitigated PTE (Before Control) (tons/yr)	= (Maximum one-way miles (miles/yr)) * (Mitigated Emission Factor (lb/mile)) * (ton/2000 lbs)
Mitigated PTE (After Control) (tons/yr)	= (Mitigated PTE (Before Control) (tons/yr)) * (1 - Dust Control Efficiency)

Abbreviations
PM = Particulate Matter
PM10 = Particulate Matter (<10 um)
PM2.5 = Particulate Matter (<2.5 um)
PTE = Potential to Emit

Appendix A: Emission Calculations
326 IAC 6-3-2, Particulate Emission Limitations

Company Name: AstraZeneca Pharmaceuticals LP
Address City IN Zip: 4601 Highway 62 East, Mt. Vernon, IN 47620
Permit No: SPR 129-43243-00021
Reviewer: Tamara Havics

Process Description	Process Weight Rate (ton/hr)	Process Weight Rate (lb/hr)	326 IAC 6-3-2 Limit (lb/hr)	Uncontrolled PM Emissions (lb/hr)	Controlled PM Emissions (lb/hr)	Capable of Compliance with 326 IAC 6-3-2
Bld 122-123 Gran-Press						
Granulator: Aqueous wet Granulations (Building 123, Room1202)	0.15	290.00	1.12	0.30	0.003	exempt
GEA fluid bed dryer: Aqueous wet Granulations (Building 123, Room 1202)	0.15	290.00	1.12	1.45	0.36	**Yes, with Control**
Granulator: Aqueous wet Granulations (Building 123, Room 1229)	0.15	290.00	1.12	0.30	0.003	exempt
GEA fluid bed dryer: Aqueous wet Granulations (Building 123, Room 1229)	0.15	290.00	1.12	1.45	0.36	**Yes, with Control**
Tablet Core Presses (Building 122, Room 1109)	0.21	425.00	1.45	1.66	0.41	**Yes, with Control**
Tablet Core Presses (Building 122, Room 1111)	0.21	425.00	1.45	1.66	0.41	**Yes, with Control**
Bld 121 Gran-Press-Coat						
Granulator: Aqueous Granulations (Building 121, Room 1119)	0.05	98.00	0.55	0.10	0.001	exempt
Glatt 120 fluid bed dryer: Aqueous Granulations (Building 121, Room 1119)	0.05	98.00	0.55	0.49	0.005	exempt
Tablet Core Press (Building 121, Room 116c)	0.04	80.00	0.55	0.31	0.003	exempt
Tablet Core Press (Building 121, Room 1014)	0.04	80.00	0.55	0.31	0.003	exempt
Tablet Coater (Building 121, Room 116c)	0.03	50.00	0.55	0.05	0.001	exempt
Tablet Coater (Building 121, Room 1023)	0.03	50.00	0.55	0.05	0.001	exempt
Bld 122 Press-Encap						
Tablet Core Press (Building 122, Room 1113)	0.08	165.00	0.77	0.64	0.006	**Yes**
Encapsulator Machine (Building 122, Room 1123)	0.06	110.00	0.59	0.43	0.004	exempt
Encapsulator Machine (Building 122, Room 1124)	0.09	185.00	0.83	0.72	0.007	**Yes**
Bld 123 Coat						
Bin Charging System (Building 123)	0.40	800.00	2.22	0.08	0.001	exempt
Tablet Coater (Thomas Flex) (Building 123, Room 1023)	0.05	106.00	0.57	1.06	0.011	**Yes, with Control**
Bld 123 Weigh-Dispense						
Four Weighing and Dispensing Rooms, Building 123	0.62	1237.00	2.97	0.12	0.062	exempt
Weigh Room - Building 123, Room 1228						
Material Input into Vacuum Transfer System: Weigh Room 1228	0.66	1322.76	3.11	0.13	0.00001	exempt
Vacuum Transfer into Receiver: Weigh Room 1228	0.66	1322.76	3.11	0.13	0.066	exempt
Bld 124 Packaging						
Pharmaceutical packaging lines Packaging line 20 (Formerly line 3)	0.22	442.00	1.49	0.004	0.00004	exempt
Pharmaceutical packaging lines Packaging lines 8, 9, 11, 12,and 10	1.62	3236.00	5.66	0.032	0.00032	exempt
Pharmaceutical Packaging Line 15	0.10	200.00	0.88	0.002	0.00002	exempt
Pharmaceutical Packaging Line 16	0.10	200.00	0.88	0.002	0.00002	exempt
Fette 64, 65, and 66						
Fette 64, 65, and 66: Tablet Core Press Machine Building 123, Room 1142	0.42	844	2.30	0.45	0.005	exempt
Vacuum Systems						
Central Vacuum System, Building 123	0.0004	0.87	0.551	0.87	0.20	**Yes, with Control**
Mac Central Vacuum System, Building 121				0.11		exempt
Spencer Central Vacuum System, Building 122				0.11		exempt
Central Vacuum System, Building 124				0.11		exempt

Emission Limit Calculation Notes:
Pursuant to 326 IAC 6-3-1(b), manufacturing processes with potential emissions less than 0.551 lbs/hour are exempt.

When the process weight rate is less than one hundred (100) pounds per hour, the allowable rate of emission is five hundred fifty-one thousandths (0.551) pound per hour.
Emission limitations for process weight rates up to sixty thousdand pounds per hour shall be calculated with the following equation:

$$E\ (lb/hr) = 4.10\ P^{0.67}$$

Where: E = Rate of emission in pounds per hour
P = Process Weight Rate in tons per hour

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

Eric J. Holcomb
Governor

Bruno Pigott
Commissioner

Federally Enforceable State Operating Permit Renewal
OFFICE OF AIR QUALITY

AstraZeneca Pharmaceuticals LP
4601 Highway 62 East
Mt. Vernon, Indiana 47620

(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. 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 2-8 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.

Indiana statutes from IC 13 and rules from 326 IAC, quoted 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 FESOP under 326 IAC 2-8.

Operation Permit No.: F129-36688-00021 Master Agency Interest ID: 53313	
Issued by: Tripurari P. Sinha, Ph. D., Section Chief Permits Branch Office of Air Quality	Issuance Date: April 18, 2016 Expiration Date: April 18, 2026

Minor Permit Revision No.: 129-37120-00021, issued June 14, 2016
Administrative Amendment No.: 129-38325-00021, issued April 24, 2017
Administrative Amendment No.: 129-40490-00021, issued November 19, 2018

Significant Permit Revision No.: 129-43243-00021	
Issued by: Ghassan Shalabi, Section Chief Permits Branch Office of Air Quality	Issuance Date: Expiration Date: April 18, 2026

TABLE OF CONTENTS

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 2-8-3(b)]

The Permittee owns and operates a stationary pharmaceutical formulation and packaging source.

Source Address:	4601 Highway 62 East, Mt. Vernon, Indiana 47620
General Source Phone Number:	812-307-3018
SIC Code:	2834 (Pharmaceutical Preparations)
County Location:	Posey
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit Program Minor Source, under PSD Rules Minor 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 2-8-3(c)(3)]

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

(a) ~~Two (2) natural gas fired boilers installed in 1970, identified as Boiler #1 (S1) and Boiler #2 (S2), each with a maximum heat input rate of 30.64 million (MM) British thermal units (Btu) per hour, and exhausting through stacks S-1 and S-2, respectively. Boilers #1 and #2 use No. 2 fuel oil as back-up fuel.~~ One (1) natural gas fired temporary boiler station (TB1) with maximum operating input rate of 60 million (MM) British thermal units (Btu) that may include No. 2 fuel oil as back up fuel.

(b) One (1) natural gas fired boiler installed in 2005, identified as Boiler #3 (S27), with a maximum heat input rate of 60.8 MMBtu per hour, using low NOx burners and Flue Gas Recirculation, and exhausting through stack S-27. Boiler #3 uses No. 2 fuel oil as back-up fuel.

[Under 40 CFR 60, Subpart Dc, this is an affected source.]

(c) One (1) tablet core press machines, located in Building 122, Room 1109, installed in 2016, with maximum capacity of 425 pounds per hour, controlled by a common Henlex pre-filter dust collector and Henlex HEPA filter.

(d) One (1) tablet core press machines, located in Building 122, Room 1111, installed in 2016, with maximum capacity of 425 pounds per hour, controlled by a common Henlex pre-filter dust collector and Henlex HEPA filter.

(e) One (1) Granulator and one (1) GEA fluid-bed dryer for aqueous wet granulations located in Building 123, Room 1202, constructed in 2013, with a maximum capacity of 290 lbs/hr. Granulator and fluid-bed dryer controlled by a common Flanders pre-filter and Flanders HEPA filter.

(f) One (1) Granulator and one (1) GEA fluid-bed dryer for aqueous wet granulations located in Building 123, Room 1235, constructed in 2016, with a maximum capacity of 290 lbs/hr.

Granulator and fluid-bed dryer controlled by a common Flanders pre-filter and Flanders HEPA filter.

(g) One (1) 1,400kW diesel engine-driven emergency generator, identified as S-3, located outside southwest of Building 104, with maximum capacity of 1,400 kW, and exhausting through stack S-3. This generator was constructed before July 11, 2005 and manufactured before April 1, 2006.

[Under 40 CFR 63, Subpart ZZZZ, this is considered an affected source.]

(h) One (1) 1,500kW diesel engine-driven emergency generator, identified as S32, located outside on southeast of Building 104, constructed in 2009, with a maximum capacity of 1,500kW, and exhausting to Stack S-32.

[Under 40 CFR 60, Subpart IIII, this is considered an affected source.]
[Under 40 CFR 63, Subpart ZZZZ, this is considered a new affected source.]

(i) One (1) 3,000 kW diesel engine-driven emergency generator located outside of Building 122, identified as S35, constructed in 2011, with a maximum capacity of 3,000 kW, and exhausting to Stack S-35.

[Under 40 CFR 60, Subpart IIII, this is considered an affected source.]
[Under 40 CFR 63, Subpart ZZZZ, this is considered a new affected source.]

(j) One (1) 3,000 kW diesel engine-driven emergency generator, identified as S45, located outside northwest of Building 104, constructed in 2015, with a maximum capacity of 3,000 kW, and exhausting to stack S-45.

[Under 40 CFR 60, Subpart IIII, this is considered an affected source.]
[Under 40 CFR 63, Subpart ZZZZ, this is considered a new affected source.]

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-8-3(c)(3)(l)]

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

(a) The following emission units located in Building 122:

(1) One (1) tablet core press machine, located in Building 122, Room 1113, installed in 1998, with maximum capacity of 165 pounds per hour, and controlled by a fabric dust collector.

(2) One (1) powder encapsulator machine, located in Building 122, Room 1124, installed in 2009, with a maximum powder throughput of 185 pounds per hour, and controlled by a fabric filter dust collector.

(b) The following emission units located in Building 123:

(1) One (1) tablet coating unit (Thomas Flex 500) located in Building 123, Room 1151, with a maximum capacity (spray rate) of 106 lbs/hr, constructed in 2013, and controlled by Torit fabric filter dust collector.

(2) One (1) Central Vacuum System, located in Building 123, and controlled by existing Torit fabric filter dust collector, installed in 2008 and relocated in 2014.

(c) One (1) 350kW diesel engine-driven emergency generator, identified as S34, located outside west of Building 106, constructed in 2011, with a maximum capacity of 350 kW and exhausting to Stack S-34.

[Under 40 CFR 60, Subpart IIII, this is considered an affected source]
[Under 40 CFR 63, Subpart ZZZZ, this is considered an affected source]

(d) One (1) 200 kW diesel engine-driven emergency generator, identified as S44, located outside of Building 113, constructed in 2015, with a maximum capacity of 200 kW, and exhausting to stack S-44.

[Under 40 CFR 60, Subpart IIII, this is considered an affected source]
[Under 40 CFR 63, Subpart ZZZZ, this is considered an affected source]

(e) One (1) 246 hp diesel-fired emergency pump engine, identified as S7, located in Building 103, constructed in 2014, permitted in 2015, and exhausting to stack S-7.

[Under 40 CFR 60, Subpart IIII, this is considered an affected source]
[Under 40 CFR 63, Subpart ZZZZ, this is considered an affected source]

(f) One (1) 350 kW diesel engine-driven emergency generator engine, identified as S46, located outside southeast of Building 123, with a brake HP rating of 539.0, constructed in 2021, and using no control.

[Under 40 CFR 60, Subpart IIII, this is considered an affected source]
[Under 40 CFR 63, Subpart ZZZZ, this is considered an affected source]

(g) Cold solvent cleaning station (2 square feet) installed in 1970.

A.4 Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities:

(a) Two (2) Bohle Table Coaters, each consisting of a single pan tablet coating machine and three coating suspension prep tanks, each with a maximum production capacity of 880 lbs of tablets per 36-hour batch, and using voluntary Torit Model DFT 2-16-R fabric filter dust collector for particulate control during tablet charging and voluntary scrubbers.

Emission Unit	Year Constructed	Exhaust Stack	Charging Exhaust Stack
Bohle Tablet Coater #1	2006	S-30	S-30a
Bohle Tablet Coater #2	2006	S-33	S-33a

(b) Seven (7) Bohle Table Coaters, each consisting of a single pan tablet coating machine and three coating suspension prep tanks, with a maximum production capacity of 1,540 lbs of tablets per 36-hour batch, and using voluntary scrubbers.

Emission Unit	Year Constructed	Exhaust Stack
Bohle Tablet Coater #3	2011	S-36
Bohle Tablet Coater #4	2011	S-37
Bohle Tablet Coater #5	2012	S-38
Bohle Tablet Coater #6	2012	S-39
Bohle Tablet Coater #7	2012	S-40
Bohle Tablet Coater #8	2012	S-41
Bohle Tablet Coater #9	2013	S-42

(c) Three (3) Fette tablet core press machines and room exhausts, constructed in 2013, and each controlled by voluntary Camfil-Farr dust collectors and voluntary Camfil-Farr HEPA filters.

Emission Unit	Location	Maximum Capacity (lb/hr)
Fette 64	Building 123, Room 1142	844
Fette 65	Building 123, Room 1144	840
Fette 65	Building 123, Room 1205	840

(d) The following emission units located in Building 121:

(1) Tablet core press machine located in Building 121, Room 116c, installed in 2001, with a maximum capacity of 80 lbs/hr, controlled by Torit fabric filter/dust collector.

(2) Tablet core press machine and room exhaust located in Building 121, Room 1014, installed in 2004, with a maximum capacity of 80 lbs/hr, and controlled by Mac fabric filter/dust collector.

(3) Tablet coating unit (1-pan coater) located in Building 121, Room 116c, installed in 2001, with a maximum capacity of 50 lbs/hr, and controlled by Torit fabric filter/dust collector.

(4) Tablet coating unit (1-pan coater) located in Building 121, Room 1023, installed in 2004, with a maximum capacity of 50 lbs/hr, and controlled by Torit fabric filter/dust collector.

(5) Tablet coating unit (1-pan coater) located in Building 121, Room 1032, installed in 2021, with a maximum capacity of 50 lbs/hr, and controlled by fabric filter/dust collector.

(6) One (1) Mac Central Vacuum System, located in Building 121 mezzanine, and controlled by fabric filter dust collector, installed in 2004.

(e) The following emission units located in Building 122:

(1) One (1) Granulator and one (1) Glatt 120 fluid-bed dryer for aqueous wet granulations located in Building 122, Room 1119, installed in 1999, with a maximum capacity of 98 lbs/hr. Granulator controlled by Torit fabric filter/dust collector and fluid-bed dryer controlled by Torit fabric filter/dust collector.

(2) One (1) Powder encapsulator machine, located in Building 122, Room 1123, installed in 2009, with a maximum powder throughput of 110 pounds per hour, and controlled by a common fabric filter dust collector.

(3) One (1) Spencer Central Vacuum System, located at Building 122, and controlled by a fabric filter dust collector, installed in 1998.

(f) The following emission units located in Building 123:

(1) Bin Charging system located in Building 123, Room 1227, with a maximum capacity of 800 lbs/hr, constructed in 2013, and controlled by Torit fabric filter dust collector and Flanders HEPA filter.

(2) Four (4) tablet printers located in Building 123, each with a maximum capacity of 3,000 lbs/day, constructed in 2013 and modified in 2015.

(3) Four (4) rooms for dry material weighing and dispensing, located in Building 123, each with a maximum capacity of 1,237 lbs/hr, and controlled by fabric filters.

(4) One (1) weigh room, identified as Building 123, Room 1228, permitted in 2017, with a maximum capacity of 1,323 pounds per hour. The material input into the vacuum transfer system is controlled with a HEPA filter prior to exhausting to atmosphere. The vacuum transfer into the receiver source vents indoors.

(g) The following emission units located in Building 124:

(1) Pharmaceutical packaging line 20 (previously line 3), located in Building 124, installed in 2004, with a maximum capacity of 442 lbs/hr, and controlled by a dust collector for PM.

(2) Pharmaceutical packaging lines 8, 9, 11, 12 (installed in 2004) and line 10 (installed in 2016), located in Building 124, with a maximum capacity of 3,236 lbs/hr. Packaging lines 8, 9, 11, and 10 are controlled by a common dust collector for PM and line 12 is controlled by a separate dust collector for PM.

(3) One (1) pharmaceutical packaging line, identified as line 15, located in Building 124, constructed in 2015, with a maximum capacity of 200 lb/hr, controlled by a common dust collector for particulate control.

(4) One (1) pharmaceutical packaging line, identified as line 16, located in Building 124, constructed in 2018, with a maximum capacity of 200 lbs/hr, controlled by a common dust collector for particulate control.

(5) One (1) pharmaceutical packaging line, identified as line 17, located in Building 124, constructed in 2021, with a maximum capacity of 200 lbs/hr, controlled by a common dust collector for particulate control.

(6) Six (6) warm air tray electric dryers used to dry water-based granulations, located in Building 124, Room 1130, installed in 2009, with a maximum total capacity of 1,830 pounds per batch. These units have no emissions.

(7) One (1) Central Vacuum System, located in Building 124, and controlled by Torit fabric filter dust collector, installed in 2013.

(h) The following diesel storage tanks:

(1) One (1) 20,000 gallon aboveground VOC storage tank containing diesel fuel oil, installed in 1997, located at Building 104 and connected to ~~Boiler S1, Boiler S2~~, Boiler S27, emergency generator S3, emergency generator S32, and emergency generator S45. This storage tank can also be used as alternative fuel source for temporary boiler (TB1).

(2) One (1) 100 gallon aboveground VOC storage tank containing diesel fuel oil, located at Building 104 and connected to emergency generator S3.

(3) One (1) 270 gallon aboveground VOC storage tank containing diesel fuel oil, located at Building 103 and connected to fire pump engine S7.

(4) One (1) 775 gallon aboveground VOC storage tank containing diesel fuel oil that is part of Building 106 emergency generator S34, installed in 2011.

(5) One (1) 5,200 gallon aboveground VOC storage tank containing diesel fuel oil, constructed in 2011, located at Building 122, and connected to Building 122 emergency generator S35.

(6) One (1) diesel storage tank, located at Building 104 and connected to Building 104 emergency generator S32, constructed in 2015, with a maximum capacity of 100 gallons.

(7) One (1) diesel storage tank that is part of Building 113 emergency generator S44, constructed in 2015, with a maximum capacity of 395 gallons.

(8) One (1) diesel storage tank, located at Building 104 and connected to Building 104 emergency generator S45, constructed in 2015, with a maximum capacity of 200 gallons.

(i) Paved and unpaved roads and parking lots with public access, installed in 1970.

A.5 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) to renew a Federally Enforceable State Operating Permit (FESOP).

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-8-1]

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 2-8-4(2)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

(a) This permit, F129-36688-00021, is issued for a fixed term of ten (10) 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, 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 2-8-6][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 2-8-4(4)]

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 2-8-4(5)(D)]

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

B.7 Duty to Provide Information [326 IAC 2-8-4(5)(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 2-8-3(d)][326 IAC 2-8-4(3)(C)(i)][326 IAC 2-8-5(1)]

(a) A certification required by this permit meets the requirements of 326 IAC 2-8-5(a)(1) if:

(1) it contains a certification by an "authorized individual", as defined by 326 IAC 2-1.1-1(1), 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) An "authorized individual" is defined at 326 IAC 2-1.1-1(1).

B.9 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

(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

(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 2-8-4(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.

The submittal by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.10 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.11 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)]

(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 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(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.12 Emergency Provisions [326 IAC 2-8-12]

(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 except as provided in 326 IAC 2-8-12.

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or 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 or Southwest Regional Office 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
Southwest Regional Office phone: (812) 380-2305; fax: (812) 380-2304.

(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 2-8-4(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.

The notification which shall be submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(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 2-8-3(c)(6) 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 2-8 and any other applicable rules.

(g) Operations may continue during an emergency only if the following conditions are met:

(1) 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.

(2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:

(A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and

(B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

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

(a) All terms and conditions of permits established prior to F129-36688-00021 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

(2) revised, or

(3) deleted.

(b) All previous registrations and permits are superseded by this permit.

B.14 Termination of Right to Operate [326 IAC 2-8-9][326 IAC 2-8-3(h)]

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 2-8-3(h) and 326 IAC 2-8-9.

B.15 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)][326 IAC 2-8-7(a)][326 IAC 2-8-8]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Federally Enforceable State Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(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 2-8-8(a)]

(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 2-8-8(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-8-8(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 2-8-8(c)]

B.16 Permit Renewal [326 IAC 2-8-3(h)]

(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 2-8-3. 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 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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 2-8 until IDEM, OAQ takes 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 2-8-3(g), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.17 Permit Amendment or Revision [326 IAC 2-8-10][326 IAC 2-8-11.1]

(a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 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 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.18 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-8-15(b) and (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 approval required by 326 IAC 2-8-11.1 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:

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 2-8-15(b)(1) and (c). 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 2-8-15(b)(1) and (c).

(b) Emission Trades [326 IAC 2-8-15(b)]
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 2-8-15(b).

(c) Alternative Operating Scenarios [326 IAC 2-8-15(c)]
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 2-8-4(7). No prior notification of IDEM, OAQ or U.S. EPA is required.

(d) 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.19 Source Modification Requirement [326 IAC 2-8-11.1]

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

B.20 Inspection and Entry [326 IAC 2-8-5(a)(2)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]

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 FESOP 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, at reasonable times, 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, at reasonable times, 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, at reasonable times, 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.21 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

(a) The Permittee must comply with the requirements of 326 IAC 2-8-10 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 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.22 Annual Fee Payment [326 IAC 2-7-19][326 IAC 2-8-4(6)][326 IAC 2-8-16][326 IAC 2-1.1-7]

(a) The Permittee shall pay annual fees to IDEM, OAQ no later than 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) 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 317-233-8590 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.23 Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][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.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-8-4(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 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

(1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one hundred (100) tons per twelve (12) consecutive month period.

(2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and

(3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) Pursuant to 326 IAC 2-2 (PSD), potential to emit particulate matter (PM) from the entire source shall be limited to less than one hundred (100) tons per twelve (12) consecutive month period.

(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.

(d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.3 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.4 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.5 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.6 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).

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(c).

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

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 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(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.

Testing Requirements [326 IAC 2-8-4(3)]

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 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(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 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(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 2-8-4(1)][326 IAC 2-8-5(a)(1)]

C.10 Compliance Monitoring [326 IAC 2-8-4(3)][326 IAC 2-8-5(a)(1)]

(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 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

C.11 Instrument Specifications [326 IAC 2-1.1-11][326 IAC 2-8-4(3)][326 IAC 2-8-5(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 2-8-4][326 IAC 2-8-5(a)(1)]

C.12 Risk Management Plan [326 IAC 2-8-4][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.13 Response to Excursions or Exceedances [326 IAC 2-8-4][326 IAC 2-8-5]

Upon detecting an excursion where a response step is required by the D Section or an exceedance of a limitation 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.

C.14 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4][326 IAC 2-8-5]

(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 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

C.15 General Record Keeping Requirements [326 IAC 2-8-4(3)][326 IAC 2-8-5]

(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 FESOP.

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.16 General Reporting Requirements [326 IAC 2-8-4(3)(C)][326 IAC 2-1.1-11]

(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 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

(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 a member of IDEM's Environmental Stewardship Program (ESP), the Permittee may report in the manner below for any reporting requirement except for Paragraph A of this condition:

(1) Each report shall be submitted semi-annually, covering the period from April 1 to September 30 or October 1 to March 31.

(2) Each report, 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.

(3) Each report shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(4) The Permittee shall use the attached reporting forms or their equivalent.

(5) Each report shall be submitted to the address listed in paragraph (b) of this condition.

If the Permittee is removed from or withdraws from the ESP, the Permittee shall begin quarterly reporting according to paragraphs (a) through (e) of this condition and the condition(s) requiring the reporting. If the Permittee is removed from or withdraws from the ESP during the second quarter of a semi-annual period, the Permittee shall submit all reports for the first quarter of the period within thirty (30) days of the removal or withdrawal.

Stratospheric Ozone Protection

C.17 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.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(a) ~~Two (2) natural gas fired boilers installed in 1970, identified as Boiler #1 (S1) and Boiler #2 (S2), each with a maximum heat input rate of 30.64 million (MM) British thermal units (Btu) per hour, and exhausting through stacks S-1 and S-2, respectively. Boilers #1 and #2 use No. 2 fuel oil as back-up fuel~~. One (1) natural gas fired temporary boiler station (TB1) with maximum operating input rate of 60 million (MM) British thermal units (Btu) that may include No. 2 fuel oil as back up fuel.

(b) One (1) natural gas fired boiler installed in 2005, identified as Boiler #3 (S27), with a maximum heat input rate of 60.8 MMBtu per hour, using low NOx Burners and Flue Gas Recirculation, and exhausting through stack S-27. Boiler #3 uses No. 2 fuel oil as back-up fuel.

[This is an affected source under 40 CFR 60, Subpart Dc.]

(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 2-8-4(1)]

D.1.1 FESOP Minor Limits [326 IAC 2-8-4]

Pursuant to 326 IAC 2-8-4 (FESOP) and in order to render the requirements of 326 IAC 2-7 (Part 70 Permits) not applicable, the Permittee shall comply with the following:

(a) The total input of fuel oil No. 2 and fuel oil No. 2 equivalents to temporary boiler station (S?) ~~two (2) 30.64 MMBtu/hr boilers #1 (S1) and #2 (S2)~~, and one (1) 60.8 MMBtu/hr boiler #3 (S27), shall be limited to less than 1,057,500 U.S. gallons per twelve (12) consecutive month period with compliance determined at the end of each month.

(b) The sulfur content of distillate fuel oil No. 2 shall not exceed 0.3% by weight.

(c) For purposes of determining compliance with paragraph (a) of this condition, the following shall apply:

Every one (1) million cubic feet of natural gas burned shall be equivalent to 14 gallons of No. 2 distillate fuel oil burned based on SO_2 emissions, such that the total usage of No. 2 distillate fuel oil with a maximum sulfur content of 0.3% and No. 2 oil equivalent input does not exceed the limit specified.

(d) NOx emissions shall not exceed 20.0 lb/kgal of fuel oil.

Compliance with these limits, combined with the potential to emit SO_2 and NOx from all other emission units at this source, shall limit the source-wide total potential to emit of SO_2 and NOx to less than one-hundred (100) tons per twelve (12) consecutive month period, each, and shall render the requirements of 326 IAC 2-7 (Part 70 Permits) not applicable.

D.1.2 Particulate Emission Limitations [326 IAC 6-2-3]

(a) ~~Pursuant to 326 IAC 6-2-3 (b) (Particulate Emission Limitations for Sources of Indirect Heating), PM emissions from Boilers #1 (S1) and #2 (S2), which were existing and in operation on or before June 8, 1972, shall be limited to 0.51 lbs/MMBtu.~~ Pursuant to 326 IAC 6-2-4(a) (Particulate Matter Emission Limitations for Sources of Indirect Heating), PM emissions from Temporary Boiler (TB1) shall be limited to 0.312 lbs/MMBtu.

(b) Pursuant to 326 IAC 6-2-4(a) (Particulate Matter Emission Limitations for Sources of Indirect Heating), PM emissions from Boiler ~~#3~~3 (S27) shall be limited to 0.312 lbs/MMBtu.

D.1.3 Sulfur Dioxide (SO2) Limits [326 IAC 7-1.1-2]

Pursuant to 326 IAC 7-1.1-2(a)(3) (Sulfur dioxide emission limitations) the SO_2 emissions from the ~~Boilers #1 (S1), #2 (S2)~~ Temporary Boiler (TB1), and #3 (S27), shall not exceed five tenths (0.5) pounds per MMBtu heat input for distillate oil combustion. SO2 emissions will be determined based on monthly average.

D.1.4 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan is required for these facilities. 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 2-8-4(1)]

D.1.5 Sulfur Dioxide Emissions and Sulfur Content

In order to assure compliance with Conditions D.1.1(b) and D.1.3**,** the Permittee shall comply with the following:

(a) Pursuant to 326 IAC 7-2-1(d)(2), compliance shall be determined using a calendar month average sulfur dioxide emission rate in pounds per MMBtu.

(b) Compliance shall be determined using one of the following options:

(1) Pursuant to 326 IAC 7-2-1(h)(3) and (4), the Permittee shall demonstrate compliance by:

(A) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification, in accordance with 326 IAC 3-7; or

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

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

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

(2) Pursuant to 326 IAC 7-2-1(h)(1), compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the boilers S-1, S-2, and S-27 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 (1) or (2) above shall not be refuted by evidence of compliance pursuant to the other method.

Compliance Monitoring Requirements [326 IAC 2-8-4(1)][326 IAC 2-8-5(a)(1)]

D.1.6 Visible Emission Notations

(a) Visible emission notations of Boiler~~s #1 (S1), #2 (S2), and~~ #3 (S27) stack exhausts shall be performed once per day during normal daylight operations when combusting fuel oil.

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 a reasonable response. Section C - Response to Excursions and 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 2-8-4(3)]

D.1.7 Record Keeping Requirement

(a) To document the compliance status with Conditions D.1.1(a), D.1.1(b) and D.1.3, 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 limits in Conditions D.1.1(a), D.1.1(b), and D.1.3.

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

(2) Actual fuel oil usage and fuel oil equivalents for the month and twelve (12) consecutive month period;

(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

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

(i) Fuel supplier certifications.

(ii) The name of the fuel supplier; and

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

(5) If oil sampling is used to determine the sulfur content of the oil and to demonstrate compliance, analysis of the oil sample shall be maintained.

(6) If conducting a stack test for sulfur dioxide emissions is used to demonstrate compliance, the stack test results, as a minimum, shall be maintained.

(b) To document the compliance status with Condition D.1.6, the Permittee shall maintain records of daily visible emission notations of stack exhausts when combusting fuel oil. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emissions notation (e.g. the process did not operate that day).

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

D.1.8 Reporting Requirements

(a) If the Permittee is a member of IDEM's Environmental Stewardship Program (ESP) program, the Permittee may submit reports summarizing the information to document compliance with Condition D.1.1 according to the provisions of paragraph (e) of Section C General Reporting Requirements.

(b) A quarterly report of No. 2 fuel oil and No. 2 oil equivalent usage and a quarterly summary of the information to document the compliance status with D.1.1(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 does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(c) One (1) tablet core press machines, located in Building 122, Room 1109, installed in 2016, with maximum capacity of 425 pounds per hour, controlled by a common Henlex pre-filter dust collector and Henlex HEPA filter.

(d) One (1) tablet core press machines, located in Building 122, Room 1111, installed in 2016, with maximum capacity of 425 pounds per hour, controlled by a common Henlex pre-filter dust collector and Henlex HEPA filter.

(e) One (1) Granulator and one (1) GEA fluid-bed dryer for aqueous wet granulations located in Building 123, Room 1202, constructed in 2013, with a maximum capacity of 290 lbs/hr. Granulator and fluid-bed dryer controlled by a common Flanders pre-filter and Flanders HEPA filter.

(f) One (1) Granulator and one (1) GEA fluid-bed dryer for aqueous wet granulations located in Building 123, Room 1235, constructed in 2016, with a maximum capacity of 290 lbs/hr. Granulator and fluid-bed dryer controlled by a common Flanders pre-filter and Flanders HEPA filter.

Insignificant activities:

(a) The following emission units located in Building 122:

(1) One (1) tablet core press machine, located in Building 122, Room 1113, installed in 1998, with maximum capacity of 165 pounds per hour, and controlled by a common fabric dust collector.

(2) One (1) Powder encapsulator machine, located in Building 122, Room 1124, installed in 2009, with a maximum powder throughput of 185 pounds per hour, and controlled by a common fabric filter dust collector.

(b) The following emission units located in Building 123:

(1) One (1) tablet coating unit (Thomas Flex 500) located in Building 123, Room 1151, with a maximum capacity (spray rate) of 106 lbs/hr, constructed in 2013, and controlled by Torit fabric filter dust collector.

(2) One (1) Central Vacuum System, located in Building 123, and controlled by existing Torit Model DFT 2-4 fabric filter dust collector, installed in 2008 and relocated in 2014.

(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 2-8-4(1)]

D.2.1 Particulate Emission Limitation [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emission rate from the following emission units shall be limited as follows:

Emission Unit	Process Weight Rate (P) (tons/hr)	Allowable PM Emissions (E) (326 IAC 6-3-2) (lb/hr)
Tablet Core Press Machine (Building 122, Room 1109)	0.21	1.44
Tablet Core Press Machine (Building 122, Room 1111)	0.21	1.44
GEA fluid bed dryer (Building 123, Room 1202)	0.15	0.32
GEA fluid bed dryer (Building 123, Room 1229)	0.15	1.15
Tablet Core Press machine (Building 122, Room 1113)	0.08	0.77
Powder Encapsulator machine (Building 122, Room 1124)	0.09	0.83
Tablet Core Press (Building 123, Room 1144)	0.099	0.87
Central Vacuum System (Building 123)	<100 lb/hr	0.551

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

Interpolation and extrapolation of the data for the process weight rate up to 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.

(b) Pursuant to 326 IAC 6-3-2(d), the particulate from the tablet coating unit (Thomas Flex 500) located in Building 123, shall be controlled by a fabric filter/dust collector, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

D.2.2 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan is required for these facilities and their 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 2-8-4(1)]

D.2.3 Particulate Control

In order to assure compliance with Condition D.2.1, the Permittee shall operate the following control devices for particulate control at all times the respective emission units are in operation:

Emission Unit	Location	Control Device(s)
Tablet core press machine	Building 122, Rooms 1109	Pre-filter dust collector and HEPA filter
Tablet core press machine	Building 122, Rooms 1111	Pre-filter dust collector and HEPA filter
GEA fluid-bed dryer	Building 123, Room 1202	Pre-filter and HEPA filter
GEA fluid-bed dryer	Building 123, Room 1229	Pre-filter and HEPA filter
Tablet coating (Thomas Flex 500)	Building 123, Room 1151	Fabric filter dust collector
Central Vacuum System	Building 123	Fabric filter dust collector

Compliance Monitoring Requirements [326 IAC 2-8-4(1)][326 IAC 2-8-5(a)(1)]

D.2.4 Semi-Annual Filter Inspections

The Permittee shall perform semi-annual inspections of the filters listed in Condition D.3.3 controlling particulate emissions from the respective emission units to verify that they are being operated and maintained in accordance with the manufacturer's specifications. Inspections required by this condition shall not be performed in consecutive months. All defective bags and/or filters shall be replaced.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

D.2.5 Record Keeping Requirement

(a) To document the compliance status with Condition D.2.4, the Permittee shall maintain records of the dates and results of the semi-annual inspections required under Condition D.2.4**.**

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

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Insignificant activities:

(g) Cold solvent cleaning station (2 square feet) installed in 1970.

(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 2-8-4(1)]

D.3.1 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 that has a VOC composite partial 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.3.2 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

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

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)]

D.3.3 Record Keeping Requirements

(a) To document the compliance status with Condition D.3.1, 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 (or invoice/bill dates of contract servicer indicating service date).

(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.

SECTION E.1 NSPS

Emissions Unit Description:

(b) One (1) natural gas fired boiler installed in 2005, identified as Boiler #3 (S27), with a maximum heat input rate of 60.8 MMBtu per hour, using low NOx burners and Flue Gas Recirculation, and exhausting through stack S-27. Boiler #3 uses No. 2 fuel oil as back-up fuel.

[Under 40 CFR 60, Subpart Dc, this is an affected source.]

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

New Source Performance Standards (NSPS) Requirements [326 IAC 2-8-4(1)]

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

(a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 12-1, for the emission unit(s) listed above, except as otherwise specified in 40 CFR Part 60, Subpart Dc.

(b) Pursuant to 40 CFR 60.4, 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.1.2 New Source Performance Standard for Small Industrial-Commercial-Institutional Steam Generating Units NSPS [326 IAC 12][40 CFR Part 60, Subpart Dc]

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart Dc (included as Attachment A to the operating permit), which are incorporated by reference as 326 IAC 12, for the emission unit(s) listed above:

(1) 40 CFR 60.40c(a) through (d), and (g)
(2) 40 CFR 60.41c
(3) 40 CFR 60.42c(d), (f), through (j)
(4) 40 CFR 60.43c(c) and (d)
(5) 40 CFR 60.44c(c), (g), and (h)
(6) 40 CFR 60.45c(c)
(7) 40 CFR 60.46c(e)
(8) 40 CFR 60.47c(c)
(9) 40 CFR 60.48c(a)(1) through (a)(4), (d), (e)(1) through (e)(3), (e)(11), and (f) through (j)

SECTION E.2 NSPS

Emissions Unit Description:

(h) One (1) 1,500kW diesel engine-driven emergency generator, identified as S32, located outside on southeast of Building 104, constructed in 2009, with a maximum capacity of 1,500kW, and exhausting to Stack S-32.

[[Under 40 CFR 60, Subpart IIII, this is considered an affected source]
[Under 40 CFR 63, Subpart ZZZZ, this is considered a new affected source.]

(i) One (1) 3,000 kW diesel engine-driven emergency generator located outside of Building 122, identified as S35, constructed in 2011, with a maximum capacity of 3,000 kW, and exhausting to Stack S-35.

[Under 40 CFR 60, Subpart IIII, this is considered an affected source]
[Under 40 CFR 63, Subpart ZZZZ, this is considered a new affected source.]

(j) One (1) 3,000 kW diesel engine-driven emergency generator, identified as S45, located outside northwest of Building 104, constructed in 2015, with a maximum capacity of 3,000 kW, and exhausting to stack S-45

[Under 40 CFR 60, Subpart IIII, this is considered an affected source]
[Under 40 CFR 63, Subpart ZZZZ, this is considered a new affected source.]

Insignificant Activities:

(c) One (1) 350kW diesel engine-driven emergency generator, identified as S34, located outside west of Building 106, constructed in 2011, with a maximum capacity of 350 kW and exhausting to Stack S-34.

[Under 40 CFR 60, Subpart IIII, this is considered an affected source]
[Under 40 CFR 63, Subpart ZZZZ, this is considered an affected source]

(d) One (1) 200 kW diesel engine-driven emergency generator, identified as S44, located outside of Building 113, constructed in 2015, with a maximum capacity of 200 kW, and exhausting to stack S-44.

[Under 40 CFR 60, Subpart IIII, this is considered an affected source]
[Under 40 CFR 63, Subpart ZZZZ, this is considered an affected source]

(e) One (1) 246 hp diesel-fired emergency pump engine, identified as S7, located in Building 103, constructed in 2014, permitted in 2015, and exhausting to stack S-7.

[Under 40 CFR 60, Subpart IIII, this is considered an affected source]
[Under 40 CFR 63, Subpart ZZZZ, this is considered an affected source]

(f) One (1) 350 kW diesel engine-driven emergency generator engine, identified as S46, located outside southeast of Building 123, with a brake HP rating of 539.0, constructed in 2021, and using no control.

[Under 40 CFR 60, Subpart IIII, this is considered an affected source]
[Under 40 CFR 63, Subpart ZZZZ, this is considered an affected source]

(The information describing the process contained in this emissions unit description box is descriptive

information and does not constitute enforceable conditions.)

New Source Performance Standards (NSPS) Requirements [326 IAC 2-8-4(1)]

E.2.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1][40 CFR Part 60, Subpart A]

(a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 12-1, for the emission unit(s) listed above, except as otherwise specified in 40 CFR Part 60, Subpart IIII.

(b) Pursuant to 40 CFR 60.4, 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.2.2 New Source Performance Standard for Stationary Compression Ignition Internal Combustion Engines NSPS [326 IAC 12][40 CFR Part 60, Subpart IIII]

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart IIII (included as Attachment B to the operating permit), which are incorporated by reference as 326 IAC 12.

(a) The three (3) diesel emergency generators, identified as S32, S34, and S35:
(1) 40 CFR 60.4200(a)(2)(i) and (c)
(2) 40 CFR 60.4205
(3) 40 CFR 60.4206
(4) 40 CFR 60.4207(a), (b), and (c)
(5) 40 CFR 60.4208
(6) 40 CFR 60.4209(a)
(7) 40 CFR 60.4211(a) through (e), (f)(1), (f)(2)(i), (f)(3), (g), and (h)
(8) 40 CFR 60.4214(b)
(9) 40 CFR 60.4218
(10) 40 CFR 60.4219
(11) Table 1 to 40 CFR 60, Subpart IIII
(12) Table 8 to 40 CFR 60, Subpart IIII

(b) The diesel emergency fire pump engine (S7):
(1) 40 CFR 60.4200(a)(2)(ii) and (c)
(2) 40 CFR 60.4205(c)
(3) 40 CFR 60.4206
(4) 40 CFR 60.4207(b)
(5) 40 CFR 60.4208
(6) 40 CFR 60.4209
(7) 40 CFR 60.4211(a), (c), (f)(1), (f)(2)(i), and (f)(3)
(8) 40 CFR 60.4214(b)
(9) 40 CFR 60.4218
(10) 40 CFR 60.4219
(11) Table 4 to 40 CFR 60, Subpart IIII
(12) Table 8 to 40 CFR 60, Subpart IIII

(c) The three (3) diesel emergency generators, identified as S44, S45, and S46:
(1) 40 CFR 60.4200(a)(2)(i) and (c)

(2) 40 CFR 60.4205(b)
(3) 40 CFR 60.4206
(4) 40 CFR 60.4207(b)
(5) 40 CFR 60.4208
(6) 40 CFR 60.4209
(7) 40 CFR 60.4211(a), (c), (f)(1), (f)(2)(i), and (f)(3)
(8) 40 CFR 60.4214(b)
(9) 40 CFR 60.4218
(10) 40 CFR 60.4219
(11) Table 8 to 40 CFR 60, Subpart IIII

SECTION E.3 NESHAP

Emissions Unit Description:

(g) One (1) 1,400 kW diesel engine-driven emergency generator, identified as S-3, located outside southwest of Building 104, with capacity of 1,400 kW, and exhausting through stack S-3. This generator was constructed before July 11, 2005 and manufactured before April 1, 2006.

[Under 40 CFR 63, Subpart ZZZZ, this is considered an affected source.]

(h) One (1) 1,500kW diesel engine-driven emergency generator, identified as S32, located outside on southeast of Building 104, constructed in 2009, with a maximum capacity of 1,500kW, and exhausting to Stack S-32.

[Under 40 CFR 60, Subpart IIII, this is considered an affected source]
[Under 40 CFR 63, Subpart ZZZZ, this is considered a new affected source.]

(i) One (1) 3,000 kW diesel engine-driven emergency generator located outside of Building 122, identified as S35, constructed in 2011, with a maximum capacity of 3,000 kW, and exhausting to Stack S-35.

[Under 40 CFR 60, Subpart IIII, this is considered an affected source]
[Under 40 CFR 63, Subpart ZZZZ, this is considered a new affected source.]

(j) One (1) diesel engine-driven emergency generator, identified as S45, located outside northwest of Building 104, constructed in 2015, with a maximum capacity of 3,000 kW, and exhausting to stack S-45.

[Under 40 CFR 60, Subpart IIII, this is considered an affected source]
[Under 40 CFR 63, Subpart ZZZZ, this is considered a new affected source.]

Insignificant Activities:

(c) One (1) diesel engine-driven emergency generator, identified as S34, located outside west of Building 106, constructed in 2011, with a maximum capacity of 350 kW and exhausting to Stack S-34.

[Under 40 CFR 60, Subpart IIII, this is considered an affected source]
[Under 40 CFR 63, Subpart ZZZZ, this is considered an affected source]

(d) One (1) diesel engine-driven emergency generator, identified as S44, located outside of Building 113, constructed in 2015, with a maximum capacity of 200 kW, and exhausting to stack S-44.

[Under 40 CFR 60, Subpart IIII, this is considered an affected source]
[Under 40 CFR 63, Subpart ZZZZ, this is considered an affected source]

(e) One (1) 246 hp diesel-fired emergency pump engine, identified as S7, located in Building 103, constructed in 2014, permitted in 2015, and exhausting to stack S-7.

[Under 40 CFR 60, Subpart IIII, this is considered an affected source]
[Under 40 CFR 63, Subpart ZZZZ, this is considered an affected source]

(f) One (1) 350 kW diesel engine-driven emergency generator engine, identified as S46, located southeast of Building 123, with a brake HP rating of 539.0, constructed in 2021, and using no control.

[Under 40 CFR 60, Subpart IIII, this is considered an affected source]
[Under 40 CFR 63, Subpart ZZZZ, this is considered an affected source]

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

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [326 IAC 2-8-4(1)]

E.3.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63 [326 IAC 20-1][40 CFR Part 63, Subpart A]

(a) Pursuant to 40 CFR 63.1 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, for the emission unit(s) listed above, except as otherwise specified in 40 CFR Part 63, Subpart ZZZZ.

(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 National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines NESHAP [40 CFR Part 63, Subpart ZZZZ][326 IAC 20-82]

The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart ZZZZ (included as Attachment C to the operating permit), which are incorporated by reference as 326 IAC 20-82;

(a) The diesel emergency generator (S-3):
(1) 40 CFR 63.6580
(2) 40 CFR 63.6585
(3) 40 CFR 63.6590(a)(1)(iii) and (iv)
(4) 40 CFR 63.6595(a)(1), (b), and (c)
(5) 40 CFR 63.6603(a)
(6) 40 CFR 63.6605
(7) 40 CFR 63.6625(e)(3), (f), (h), and (i)
(8) 40 CFR 63.6635
(9) 40 CFR 63.6640(a) through (e), (f)(1), (f)(2)(i), (f)(3), and (f)(4)
(10) 40 CFR 63.6645(a)(5)
(11) 40 CFR 63.6650
(12) 40 CFR 63.6655
(13) 40 CFR 63.6660
(14) 40 CFR 63.6665
(15) 40 CFR 63.6670
(16) 40 CFR 63.6675
(17) Table 2d (item 4)
(18) Table 6 (item 9)
(19) Table 8

(b) The diesel emergency generators, identified as S45, S44, S46, S32, S,34, S35, and diesel fire pump, identified as S7:

(1) 40 CFR 63.6580
(2) 40 CFR 63.6585
(3) 40 CFR 63.6590(a)(2)(iii) and (c)(1)
(4) 40 CFR 63.6595(a)(7)
(5) 40 CFR 63.6665
(6) 40 CFR 63.6670
(7) 40 CFR 63.6675

E.3.3 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

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

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) CERTIFICATION

Source Name: AstraZeneca Pharmaceuticals LP
Source Address: 4601 Highway 62 East, Mt. Vernon, Indiana 47620
FESOP Permit No.: F129-36688-00021

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:

Date:

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

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
EMERGENCY OCCURRENCE REPORT

Source Name: AstraZeneca Pharmaceuticals LP
Source Address: 4601 Highway 62 East, Mt. Vernon, Indiana 47620
FESOP Permit No.: F129-36688-00021

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**) daytime 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 2-8-12

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:

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 Describe:
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: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

FESOP Usage Report

Source Name: AstraZeneca Pharmaceuticals LP
Source Address: 4601 Highway 62 East, Mt. Vernon, Indiana 47620
FESOP Permit No.: F129-36688-00021
Facility: ~~Two (2) 30.64 MMBtu/hr boilers #1 (S1) and #2 (S2), and~~ One (1) 60.8 MMBtu/hr Boiler #3 (S27) and one Temporary Boiler (TB1)
Parameter: Fuel oil no. 2 equivalent usage
Limit: Total input of distillate fuel oil no. 2 distillate fuel oil equivalents to boilers ~~#1 (S1), #2 (S2), and~~ #3 (S27) and temporary boiler (TB1) shall be limited to 1,057,500 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Quarter: _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	No. 2 Distillate Fuel Oil Equivalent Usage This Month (gallons)	No. 2 Distillate Fuel Oil Equivalent Usage Previous 11 Months (gallons)	12 Month Total No. 2 Distillate Fuel Oil Equivalent Usage (gallons)

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: AstraZeneca Pharmaceuticals LP
Source Address: 4601 Highway 62 East, Mt. Vernon, Indiana 47620
FESOP Permit No.: F129-36688-00021

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:	

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:_____

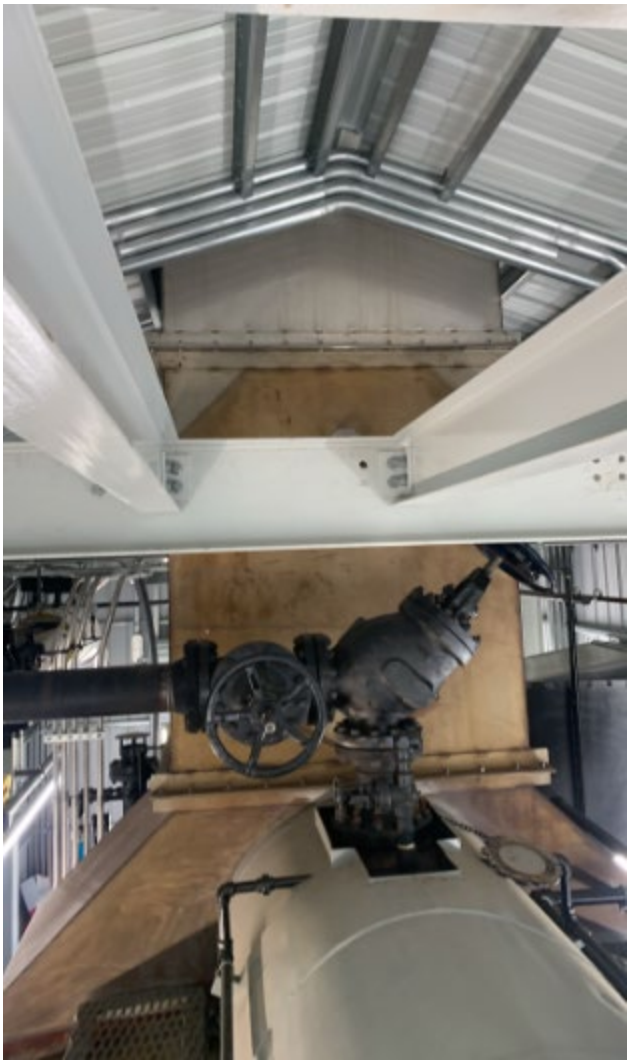
Phone: _____

From: Conkright, Kevin
To: Mohamed, Hind I
Cc: Fritts, Derek (PCI Skanska Inc.)
Subject: RE: IDEM OAQ Contact Information for Application No. 129-47826-000021for AstraZeneca Pharmaceuticals LP
Date: Friday, May 31, 2024 1:33:33 PM
Attachments: image001.png
image002.png
image003.png
image004.emz
image005.png

Hi Hind,

The exhaust on the boiler is very short, so we have added an extension with the following dimensions:

40”d x 60”w x 120” tall



Any questions, please let me know.

Thanks,
Kevin

From: Mohamed, Hind I <HMohamed@idem.IN.gov>
Sent: Friday, May 17, 2024 9:22 AM
To: Conkright, Kevin <kevin.conkright@astrazeneca.com>
Subject: IDEM OAQ Contact Information for Application No. 129-47826-000021for AstraZeneca Pharmaceuticals LP

Dear Kevin Conkright,

I am the permit writer assigned to the current application No. 129-47826-000021 for AstraZeneca Pharmaceuticals LP. I would like to extend to you my contact information so that we may have continued communication until your new permit is issued. Please keep this information at hand. It is common for questions to arise, and oftentimes, further clarification is needed during the permit review process.

To expedite the review process, please e-mail me the electronic copy of your calculations (preferably in excel format) and other supporting documents used as part of your application.

IDEM, OAQ will notify you when a draft permit has been submitted for public notice and/or when a final permit has been issued. As part of the notification, IDEM, OAQ will provide information on how to access the draft and/or final permit electronically on IDEM's website. If AstraZeneca Pharmaceuticals LP would prefer to receive paper copies of the entire draft and/or final permit, please let me know prior to the end of the applicant review period. If you prefer to receive paper copies of the entire permit, IDEM, OAQ will mail a paper copy of the draft permit and/or original signed final permit to the source contact. If you do not request to receive paper copies of the entire permit, IDEM, OAQ will only mail a paper copy of the original signed final permit signature page to the source contact.

Please feel free to contact me at any time if you have questions, concerns, or important information regarding your permit. For your convenience, my section chief (Ghassan Shalabi) may be contacted at 317-233-7622 or GShalabi@idem.IN.gov.

Thank you in advance for your time and assistance. I look forward to working with you.

Sincerely,

Indiana Department of
Environmental Management
Hind Mohamed
Environmental manager | Office of Air Quality
• (317)234-6543 • HMohamed]@idem.IN.gov

Help us improve!
IDEM values your feedback

From: Conkright, Kevin
To: Mohamed, Hind I
Subject: Re: IDEM OAQ Contact Information for Application No. 129-47826-000021for AstraZeneca Pharmaceuticals LP
Date: Thursday, June 13, 2024 2:13:37 PM
Attachments: image004.png
image005.png
image006.png
image002.png

I intend to have them listed in the next permit as we should have them installed when we are renewing the current permit. I suspect that we
Will move to a standard operating permit.

As they will have no air emissions, I am assuming they will be exempt units. If I am incorrect, please let me know.

Thanks,
Kevin

From: Mohamed, Hind I <HMohamed@idem.IN.gov>
Sent: Thursday, June 13, 2024 2:10:12 PM
To: Conkright, Kevin <kevin.conkright@astrazeneca.com>
Subject: RE: IDEM OAQ Contact Information for Application No. 129-47826-000021for AstraZeneca Pharmaceuticals LP

Another question, Do you want to add the electrical boilers under emission units?

Indiana Department of
Environmental Management

Hind Mohamed
Environmental manager | Office of Air Quality
• (317)234-6543 • HMohamed]@idem.IN.gov

_ _

Help us improve!
IDEM values your feedback

From: Mohamed, Hind I
Sent: Thursday, June 13, 2024 2:00 PM
To: Conkright, Kevin <kevin.conkright@astrazeneca.com>
Subject: RE: IDEM OAQ Contact Information for Application No. 129-47826-000021for AstraZeneca Pharmaceuticals LP

Hello, for No.2 Fuel calculation, is the 4230 Kgal/yr the actual throughput ? if yes , could you please explain to me why not limit the ptential throughput(7,559) instead of the actual ?

Thank you

_ _

Indiana Department of
Environmental Management

Hind Mohamed
Environmental manager | Office of Air Quality
• (317)234-6543 • HMohamed]@idem.IN.gov

_ _

Help us improve!
IDEM values your feedback

From: Conkright, Kevin <kevin.conkright@astrazeneca.com>
Sent: Friday, May 17, 2024 11:43 AM
To: Mohamed, Hind I <HMohamed@idem.IN.gov>
Subject: RE: IDEM OAQ Contact Information for Application No. 129-47826-000021for AstraZeneca Pharmaceuticals LP

Good Morning Hind,

I am looking forward to working with you on this application. I believe it is straight forward, and will be glad to communicate directly with you anytime needed. Please find attached all of the files that I used for the application as well as a proposed "mark-up" of the permit that may be useful.

Again, should you need anything, please contact me via email or cell phone (270.903.5181) anytime.

Sincerely,

Kevin Conkright
Environmental & Sustainability Lead

AstraZeneca – Mt Vernon
4601 Highway 62 East - Mount Vernon, Indiana 47620
Work: 812.307.2218
mailto:kevin.conkright@astrazeneca.com

Please consider the environment before printing this e-mail

From: Mohamed, Hind I <HMohamed@idem.IN.gov>
Sent: Friday, May 17, 2024 9:22 AM
To: Conkright, Kevin <kevin.conkright@astrazeneca.com>
Subject: IDEM OAQ Contact Information for Application No. 129-47826-000021for AstraZeneca Pharmaceuticals LP

Dear Kevin Conkright,

I am the permit writer assigned to the current application No. 129-47826-000021 for

AstraZeneca Pharmaceuticals LP. I would like to extend to you my contact information so that we may have continued communication until your new permit is issued. Please keep this information at hand. It is common for questions to arise, and oftentimes, further clarification is needed during the permit review process.

To expedite the review process, please e-mail me the electronic copy of your calculations (preferably in excel format) and other supporting documents used as part of your application.

IDEM, OAQ will notify you when a draft permit has been submitted for public notice and/or when a final permit has been issued. As part of the notification, IDEM, OAQ will provide information on how to access the draft and/or final permit electronically on IDEM's website. If AstraZeneca Pharmaceuticals LP would prefer to receive paper copies of the entire draft and/or final permit, please let me know prior to the end of the applicant review period. If you prefer to receive paper copies of the entire permit, IDEM, OAQ will mail a paper copy of the draft permit and/or original signed final permit to the source contact. If you do not request to receive paper copies of the entire permit, IDEM, OAQ will only mail a paper copy of the original signed final permit signature page to the source contact.

Please feel free to contact me at any time if you have questions, concerns, or important information regarding your permit. For your convenience, my section chief (Ghassan Shalabi) may be contacted at 317-233-7622 or GShalabi@idem.IN.gov.

Thank you in advance for your time and assistance. I look forward to working with you.

Sincerely,

_ _

Indiana Department of
Environmental Management

Hind Mohamed
Environmental manager | Office of Air Quality
• (317)234-6543 • HMohamed]@idem.IN.gov

Help us improve!
IDEM values your feedback

Confidentiality Notice: This message is private and may contain confidential and proprietary information. If you have received this message in error, please notify us and remove it from your system and note that you must not copy, distribute or take any action in reliance on it. Any unauthorized use or disclosure of the contents of this message is not permitted and may be unlawful.

From: Mohamed, Hind I
To: kevin.conkright@astrazeneca.com
Subject: Applicant Review for FESOP/SPR No. 129-47826-000021 for AstraZeneca Pharmaceuticals LP
Date: Friday, June 21, 2024 1:41:00 PM
Attachments: image003.png
47826bill.xlsx
47826calcs.xlsx
47826let.docx
47826per.docx
47826PN.docx
47826TSD.docx
image004.png
Importance: High

Dear Kevin Conkright:

Attached is the draft FESOP/SPR and supporting documents for review. As a courtesy, this draft is being provided to you for an opportunity to review and provide comments prior to posting the public notice on IDEM's website. This supplemental step of providing you the draft permit does not take away your legal right to provide comments during the thirty (30) day comment period.

The time clock for FESOP/SPR No.: 129-47826-000021 will be stopped during your review until you either provide comments or indicate that you do not have any comments. Due to permit accountability and IDEM's intention to public notice the permit in a timely manner, you are being allotted two (2) weeks from today to provide comments in writing, email is sufficient. If you have any conflicts or special circumstances that would impede your review process during the time allotted, please notify me directly at the email address or phone number listed below as soon as possible. If you have not responded on or before July 05, 2024, IDEM will assume that you have no comments pertaining to this draft and all files will be forwarded for public notice.

During this review period, I will be available to address your concerns, answer any questions that you may have, or make necessary revisions to this draft.

Please send a reply email to me immediately confirming that you have received this draft version of the permit for review and that you are able to access these files in their current format.

The following documents are not included in this review but will be included during the public notice period:

Attachment A: 40 CFR Part 60, Subpart Dc
Attachment B: 40 CFR Part 60, Subpart IIII
Attachment C: 40 CFR Part 63, Subpart ZZZZ

Pursuant to 326 IAC 2-1.1-7, the fee for this permitting action is expected to be $6,349, which is based on the following:

$5,556	FESOP Significant Permit Revision (Minor for PSD)
$1,586	NSPS Review: $793 (Subparts Dc)

Please note: This is not a bill. This represents the anticipated fee and is subject to change if additional review is required or the permit level changes for some reason (e.g. an additional NESHAP review is required). You will receive a final bill from the OAQ Permits Administration and Support Section.

Sincerely,

Indiana Department of
Environmental Management
Hind Mohamed
Environmental manager | Office of Air Quality
• (317)234-6543 • HMohamed]@idem.IN.gov

From: Conkright, Kevin
To: Mohamed, Hind I
Cc: Burnett, Chad James
Subject: RE: Applicant Review for FESOP/SPR No. 129-47826-000021 for AstraZeneca Pharmaceuticals LP
Date: Wednesday, June 26, 2024 2:21:52 PM
Attachments: image001.png
image002.png

Hi Hind,

I have reviewed the draft permit and I have nothing to change from technical perspective. I did note where some paragraph spacing was removed that now causes sentences to have no spacing but that may just be my word document; thus, I am not adding a revision to this email. (These are minor (OCD) changes that have no affect on the document.)

I appreciate all of your assistance relating to this permit revision. Should you have any questions or comments, please let me know.

Sincerely,

Kevin Conkright
Environmental & Sustainability Lead

AstraZeneca – Mt Vernon
4601 Highway 62 East - Mount Vernon, Indiana 47620
Work: 812.307.2218
mailto:kevin.conkright@astrazeneca.com

Please consider the environment before printing this e-mail

From: Mohamed, Hind I <HMohamed@idem.IN.gov>
Sent: Friday, June 21, 2024 12:42 PM
To: Conkright, Kevin <kevin.conkright@astrazeneca.com>
Subject: Applicant Review for FESOP/SPR No. 129-47826-000021 for AstraZeneca Pharmaceuticals LP
Importance: High

Dear Kevin Conkright:

Attached is the draft FESOP/SPR and supporting documents for review. As a courtesy, this draft is being provided to you for an opportunity to review and provide comments prior to posting the public notice on IDEM's website. This supplemental step of providing you the draft permit does not take away your legal right to provide comments during the thirty (30) day comment period.

The time clock for FESOP/SPR No.: 129-47826-000021 will be stopped during your review until you either provide comments or indicate that you do not have any comments. Due to permit accountability and IDEM's intention to public notice the permit in a timely manner, you are being allotted two (2) weeks from today to provide comments in writing, email is sufficient. If you have any conflicts or special circumstances that would impede your review process during the time allotted, please notify me directly at the email address or phone number listed below as soon as possible. If you have not responded on or before July 05, 2024, IDEM will assume that you have no comments pertaining to this draft and all files will be forwarded for public notice.

During this review period, I will be available to address your concerns, answer any questions that you may have, or make necessary revisions to this draft.

Please send a reply email to me immediately confirming that you have received this draft version of the permit for review and that you are able to access these files in their current format.

The following documents are not included in this review but will be included during the public notice period:

Attachment A: 40 CFR Part 60, Subpart Dc
Attachment B: 40 CFR Part 60, Subpart IIII
Attachment C: 40 CFR Part 63, Subpart ZZZZ

Pursuant to 326 IAC 2-1.1-7, the fee for this permitting action is expected to be $6,349, which is based on the following:

$5,556	FESOP Significant Permit Revision (Minor for PSD)
$1,586	NSPS Review: $793 (Subparts Dc)

Please note: This is not a bill. This represents the anticipated fee and is subject to change if additional review is required or the permit level changes for some reason (e.g. an additional NESHAP review is required). You will receive a final bill from the OAQ Permits Administration and Support Section.

Sincerely,

_ _

Indiana Department of
Environmental Management
Hind Mohamed
Environmental manager | Office of Air Quality
• (317)234-6543 • HMohamed]@idem.IN.gov

Help us improve!
IDEM values your feedback