

April 25, 2023

Colorado Department of Public Health & Environment
Air Pollution Control Division
APCD-SS-B1
4300 Cherry Creek Drive South
Denver, CO 80246-1530

via FedEx 7719 8161 5737

**Subject: Synthetic Minor Construction Permit Application to Avoid Major Source Requirements
Plant AIRS ID 005-1711
JP Morgan Chase & Co., Project Sycamore - Aurora
23505 E. 6th Avenue
Aurora, CO 80018**

To Whom It May Concern:

JP Morgan Chase & Co. (JPMC) is submitting the enclosed synthetic minor construction permit application to the Colorado Department of Public Health & Environment (CDPHE) Air Pollution Control Division (APCD) for JPMC's Project Sycamore – Aurora (Facility) located near Aurora, Colorado in Arapahoe County. The synthetic minor construction permit application is being submitted in order to avoid major source permitting requirements.

This synthetic minor construction permit application includes the following:

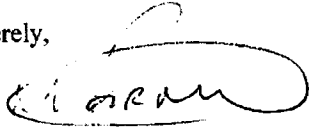
- Attachment A contains a copy of the APEN Filing Fee receipt and the Completeness Checklist Form APCD-100a;
- Attachment B contains Air Pollutant Emission Notices (APENs) Forms APCD-233 and New Source Performance Standards (NSPS) 40 CFR Part 60, Subpart IIII Applicability APEN Addendum Form for Diesel Engines Forms APCD-214;
- Attachment C presents emission rate calculations;
- Attachment D contains the Company Contact Information Form APCD-101;
- Attachment E contains the approved Permit Modeling Determination;
- Attachment F contains the Facility Emissions Inventory Form APCD-102a; and
- Attachment G presents the process description and area map.

Please note Phase 3 construction of generators AIRS Points 001, 002, 003, and 004 has not yet begun. JPMC will make reasonable efforts to release procurement of this next phase of generators during the anticipated synthetic minor permit construction timeframe and will provide prior notification and an extension request to CDPHE if an extension is needed due to unexpected delays.

The application fee was paid online in the amount of \$3,872 (\$242*16) to cover the APEN filing fees. A copy of the receipt is shown in Attachment A.

Thank you in advance for your review and concurrence with this synthetic minor construction permit application. If you have any questions regarding the information presented in this letter and attachments, please do not hesitate to contact me at (303) 607-1409 or via email at michael.firmin@jpmchase.com.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael Firmin", with a large, sweeping flourish at the end.

Michael Firmin
Vice President, Global Real Estate
JP Morgan Chase & Co

CC email:

Geraldine Tan, JPMC
Kathryn Wolken, JPMC
Denise Campo, JPMC
Rob Tapper, JPMC

ATTACHMENT A

**A COPY OF APEN FILING FEE
CONSTRUCTION PERMIT APPLICATION COMPLETENESS CHECKLIST
FORM APCD-100a**

SYNTHETIC MINOR CONSTRUCTION PERMIT APPLICATION

PROJECT SYCAMORE - AURORA

JP MORGAN CHASE & CO.



Non-Oil & Gas Industry
Construction Permit Application Completeness Checklist
Form APCD-100a
Air Pollution Control Division

Company Name: JP Morgan Chase & Co.

Source Name: Project Sycamore - Aurora Plant AIRS ID 005-1711, AIRS Points 001-016

Date: 04/17/2023

Are you requesting a facility wide permit for multiple emissions points? ☒ ☐

In order to have a complete application, the following attachments must be provided, unless stated otherwise.
If application is incomplete, it will be returned to sender and filing fees will not be refunded.

Attachment	Application Element	Attached?
A	APEN Filing Fee(s)	☒
B	Air Pollutant Emission Notice(s) (APENs) - APCD Form Series 200	☒
C	Emissions Calculations and Supporting Documentation	☒
D	Company Contact Information - Form APCD-101 ☐ Check here if there will only be one point of contact (Attachment D not required)	☒
E	Ambient Air Impact Analysis (One of the following MUST be selected in order for the application to be considered complete) ☐ Check here if source is exempt from modeling determination requirements per "Interim Colorado Modeling Guideline for Air Quality Permits" and/or "Permitting Section Addendum to the Modeling Guideline". ☐ Check here if operator submitted a request for modeling determination (Form APCD-114) to the Division's Permit Modeling Unit (PMU) prior to application submittal, and the Division determined that modeling was not required. (Include the version of form APCD-114 that was approved and returned by the PMU.) ☒ Check here if operator submitted a modeling analysis to the Division which was approved by the Division prior to application submittal. (Include form APCD-114, operator's approved modeling analysis, and the PMU Modeling Review Report provided by the Division which documents compliance with the NAAQS and conditions of approval for proposed source.) Per CDPHE APCD guidance see attached approved Modeling Determination. ☐ Check here if operator is submitting a modeling analysis to the Division concurrently with the application submittal, or if the already-submitted modeling analysis has not yet been approved by the Division.	☒
F	Facility Emissions Inventory - Form APCD-102a ☐ Check here if single emissions point source (Attachment F not required)	☒
G	Process description, flow diagram, plot plan of emissions unit and/or facility ☐ Check here if single emissions point source (Attachment G not required)	☒
H	Regulatory Analysis ☒ Check here to request APCD to complete regulatory analysis (Attachment H not required)	☐
Additional attachments		
Certain sources may require additional forms. Refer to https://www.colorado.gov/pacific/cdphe/air/air-permit to check if any APEN supplement forms are required for your source.		
Send Complete Application to: Colorado Department of Public Health & Environment APCD-SS-B1 4300 Cherry Creek Drive South Denver, Colorado 80246-1530		
Check box if facility is an existing Title V source: ☐ Send an additional application copy		
Check box if refined modeling analysis included: ☐ Send an additional application copy		
Check box if application is for major NANSR or PSD permit: NANSR = Nonattainment Area New Source Review ☐ Send eight (8) total application copies PSD = Prevention of Significant Deterioration		

ATTACHMENT B

**AIR POLLUTANT EMISSION NOTICES (APENS) FORMS APCD-233
NSPS 40 CFR PART 60, SUBPART IIII APPLICABILITY APEN ADDENDUM FORM
FOR DIESEL ENGINES FORM APCD-214**

SYNTHETIC MINOR CONSTRUCTION PERMIT APPLICATION

PROJECT SYCAMORE - AURORA

JP MORGAN CHASE & CO.



COLORADO
Air Pollution Control Division
Department of Public Health & Environment

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**New Source Performance Standards (NSPS) – 40 CFR Part 60, Subpart IIII Applicability
Air Pollutant Emission Notice (APEN) Addendum Form for Diesel Engines**

Company Name: JP Morgan Chase & Co.

Engine Information¹

Make: Cummins Model: QSK78-G12 SN: _____

1. Date of Engine Manufacture: installation is pending
2. Has this engine operated outside of the state of Colorado?
☐ Yes
☒ No
3. If you answered "Yes" to question 2, please answer the following question. (If you answered "No" to question 2, please leave this field blank.) What is the date of first entry into Colorado? _____
4. This engine was manufactured to meet the following tier level standards¹ (e.g., Tier 1, Tier 2): Tier 2

Permit #: 18AR0855

AIRS ID: 005 / 1711 / 001

A copy of this form, along with appropriate supporting documentation¹, shall be maintained on-site or at a local field office, with stationary source responsibility, with a copy of the construction permit, exemption letter or general permit approval letter issued by the Colorado Air Pollution Control Division (the Division) for this emissions source. These records may be kept in either electronic or hard copy format provided that they can be promptly supplied to the Division or agents thereof upon request.

This engine shall comply with the New Source Performance Standards (NSPS) requirements of Colorado Air Quality Control Commission Regulation No. 6, Part A, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE) including, but not limited to, the following:

[The requirements below reflect the rule language of 40 CFR Part 60 Subpart IIII published in the Federal Register on 01/30/2013. However, if revisions to this Subpart are published at a later date, the owner or operator is subject to the requirements contained in the revised version of 40 CFR Part 60, Subpart IIII.]

- I. All fuel used shall meet the following specifications:
 - A. Sulfur content shall not exceed 15 ppm
 - B. Have a minimum cetane index of 40 or have a maximum aromatic compound content of 35% by volume
 - C. Compliance shall be demonstrated by maintaining copies of the fuel specifications provided by the supplier on-site or in a readily accessible location and made available to the Division for inspection upon request.
- II. The engine and control devices must be installed, configured, operated and maintained according to the specifications and instructions provided by the engine manufacturer.
- III. If the engine is equipped with a diesel particulate filter, the filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached. Records shall be kept of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit is approached.
- IV. If the engine is used for emergency purposes, a non-resettable hour meter must be installed prior to start-up.
- V. If the diesel fuel-fired engine referenced herein avoids tier 4 or 4i requirements by being an emergency generator, the engine shall not be used for any purpose except emergency power generation and for the purpose of maintenance

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FORM APCD-214

checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. Emergency stationary ICE may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in this section, is prohibited.

VI. Emission Standards:

- A. The engine referenced herein shall meet all the emissions standards applicable to the engine.
- B. Compliance with the NSPS Subpart IIII Emissions Standards for Non-Methane Hydrocarbons (NMHC), Nitrogen Oxides (NOx), Carbon Monoxide (CO) and Particulate Matter (PM) shall be demonstrated by filing a copy of the unit's certification documentation of compliance with the NSPS Subpart IIII emissions standards, with the associated application.

VII. The following requirements of Regulation No. 6, Part A, Subpart A, General Provisions, shall apply:

- A. At all times, including periods of start-up, shutdown, and malfunction, the engine and control equipment shall, to the extent practicable, be maintained and operated in a manner consistent with good air pollution control practices for minimizing emissions. Determination of whether or not acceptable operating and maintenance procedures are being used will be based on information available to the Division, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. (Reference: Regulation No. 6, Part A, General Provisions from 40 CFR 60.11)
- B. No article, machine, equipment or process shall be used to conceal an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. (§ 60.12)
- C. Written notification of construction and initial startup dates shall be submitted to the Division as required under § 60.7.
- D. Records of startups, shutdowns, and malfunctions shall be maintained, as required under § 60.7.

VIII. This engine meets all the requirements in New Source Performance Standard (NSPS) Subpart IIII as applicable to the specific engine, including the standards required for relocating into Colorado as set forth in Regulation No. 6, Part B, Section I.C.

I hereby certify that all information contained herein is complete, true and correct. I certify that this source is and will be operated in full compliance with the applicable tier standards of Colorado Air Quality Control Commission Regulation No. 6, Part A, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE) as well as all other requirements referenced herein.

Michael Firmin

Vice President - Global Real Estate

Name of Legally Authorized Person (Please Print)

Title

Signature of Legally Authorized Person

Date

¹ If the engine has not been selected or ordered as of the date of submission of the construction permit application, this form must be completed and submitted to the Colorado Air Pollution Control Division, for an affected engine, within one hundred and eighty (180) days after the commencement of construction/operation.

² This information can be obtained from the engine manufacturer.

³ Please enter this information if this form is being submitted after the date of submission of the construction permit application and a permit number and AIRS ID number have been assigned. Otherwise, leave these fields blank.

⁴ Supporting documentation includes: document(s) proving the date of first entry into Colorado (purchase receipt, delivery receipt, etc.) and tier standard certification information from the manufacturer, as applicable.



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**New Source Performance Standards (NSPS) – 40 CFR Part 60, Subpart IIII Applicability
Air Pollutant Emission Notice (APEN) Addendum Form for Diesel Engines**

Company Name: JP Morgan Chase & Co.

Engine Information¹

Make: Cummins Model: QSK78-G12 SN: _____

1. Date of Engine Manufacture: installation is pending
2. Has this engine operated outside of the state of Colorado?
☐ Yes
☒ No
3. If you answered "Yes" to question 2, please answer the following question. (If you answered "No" to question 2, please leave this field blank.) What is the date of first entry into Colorado? _____
4. This engine was manufactured to meet the following tier level standards² (e.g., Tier 1, Tier 2): Tier 2

Permit #³: 18AR0855

AIRS ID³: 005 , 1711 , 002

A copy of this form, along with appropriate supporting documentation⁴, shall be maintained on-site or at a local field office, with stationary source responsibility, with a copy of the construction permit, exemption letter or general permit approval letter issued by the Colorado Air Pollution Control Division (the Division) for this emissions source. These records may be kept in either electronic or hard copy format provided that they can be promptly supplied to the Division or agents thereof upon request.

This engine shall comply with the New Source Performance Standards (NSPS) requirements of Colorado Air Quality Control Commission Regulation No. 6, Part A, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE) including, but not limited to, the following:

[The requirements below reflect the rule language of 40 CFR Part 60 Subpart IIII published in the Federal Register on 01/30/2013. However, if revisions to this Subpart are published at a later date, the owner or operator is subject to the requirements contained in the revised version of 40 CFR Part 60, Subpart IIII.]

- I. All fuel used shall meet the following specifications:
 - A. Sulfur content shall not exceed 15 ppm
 - B. Have a minimum cetane index of 40 or have a maximum aromatic compound content of 35% by volume
 - C. Compliance shall be demonstrated by maintaining copies of the fuel specifications provided by the supplier on-site or in a readily accessible location and made available to the Division for inspection upon request.
- II. The engine and control devices must be installed, configured, operated and maintained according to the specifications and instructions provided by the engine manufacturer.
- III. If the engine is equipped with a diesel particulate filter, the filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached. Records shall be kept of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit is approached.
- IV. If the engine is used for emergency purposes, a non-resettable hour meter must be installed prior to start-up.
- V. If the diesel fuel-fired engine referenced herein avoids tier 4 or 4f requirements by being an emergency generator, the engine shall not be used for any purpose except emergency power generation and for the purpose of maintenance

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FORM APCD-214

checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. Emergency stationary ICE may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in this section, is prohibited.

VI.

Emission Standards:

- A. The engine referenced herein shall meet all the emissions standards applicable to the engine.
- B. Compliance with the NSPS Subpart IIII Emissions Standards for Non-Methane Hydrocarbons (NMHC), Nitrogen Oxides (NOx), Carbon Monoxide (CO) and Particulate Matter (PM) shall be demonstrated by filing a copy of the unit's certification documentation of compliance with the NSPS Subpart IIII emissions standards, with the associated application.

VII.

The following requirements of Regulation No. 6, Part A, Subpart A, General Provisions, shall apply:

- A. At all times, including periods of start-up, shutdown, and malfunction, the engine and control equipment shall, to the extent practicable, be maintained and operated in a manner consistent with good air pollution control practices for minimizing emissions. Determination of whether or not acceptable operating and maintenance procedures are being used will be based on information available to the Division, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. (Reference: Regulation No. 6, Part A, General Provisions from 40 CFR 60.11)
- B. No article, machine, equipment or process shall be used to conceal an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. (§ 60.12)
- C. Written notification of construction and initial startup dates shall be submitted to the Division as required under § 60.7.
- D. Records of startups, shutdowns, and malfunctions shall be maintained, as required under § 60.7.

VIII.

This engine meets all the requirements in New Source Performance Standard (NSPS) Subpart IIII as applicable to the specific engine, including the standards required for relocating into Colorado as set forth in Regulation No. 6, Part B, Section I.C.

I hereby certify that all information contained herein is complete, true and correct. I certify that this source is and will be operated in full compliance with the applicable tier standards of Colorado Air Quality Control Commission Regulation No. 6, Part A, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE) as well as all other requirements referenced herein.

Michael Firmin

Vice President - Global Real Estate

Name of Legally Authorized Person (Please Print)

Title

Signature of Legally Authorized Person

Date

¹ If the engine has not been selected or ordered as of the date of submission of the construction permit application, this form must be completed and submitted to the Colorado Air Pollution Control Division, for an affected engine, within one hundred and eighty (180) days after the commencement of construction/operation.

² This information can be obtained from the engine manufacturer.

³ Please enter this information if this form is being submitted after the date of submission of the construction permit application and a permit number and AIRS ID number have been assigned. Otherwise, leave these fields blank.

⁴ Supporting documentation includes: document(s) proving the date of first entry into Colorado (purchase receipt, delivery receipt, etc.) and tier standard certification information from the manufacturer, as applicable.



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**New Source Performance Standards (NSPS) – 40 CFR Part 60, Subpart IIII Applicability
Air Pollutant Emission Notice (APEN) Addendum Form for Diesel Engines**

Company Name: JP Morgan Chase & Co.

Engine Information

Make: Cummins Model: QSK78-G12 SN: _____

1. Date of Engine Manufacture: installation is pending
2. Has this engine operated outside of the state of Colorado?
☐ Yes
☒ No
3. If you answered "Yes" to question 2, please answer the following question. (If you answered "No" to question 2, please leave this field blank.) What is the date of first entry into Colorado? _____
4. This engine was manufactured to meet the following tier level standards² (e.g., Tier 1, Tier 2): Tier 2

Permit #: 18AR0855

AIRS ID¹: 005 / 1711 / 003

A copy of this form, along with appropriate supporting documentation⁴, shall be maintained on-site or at a local field office, with stationary source responsibility, with a copy of the construction permit, exemption letter or general permit approval letter issued by the Colorado Air Pollution Control Division (the Division) for this emissions source. These records may be kept in either electronic or hard copy format provided that they can be promptly supplied to the Division or agents thereof upon request.

This engine shall comply with the New Source Performance Standards (NSPS) requirements of Colorado Air Quality Control Commission Regulation No. 6, Part A, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CIICE) including, but not limited to, the following:

[The requirements below reflect the rule language of 40 CFR Part 60 Subpart IIII published in the Federal Register on 01/30/2013. However, if revisions to this Subpart are published at a later date, the owner or operator is subject to the requirements contained in the revised version of 40 CFR Part 60, Subpart IIII.]

- I. All fuel used shall meet the following specifications:
 - A. Sulfur content shall not exceed 15 ppm
 - B. Have a minimum cetane index of 40 or have a maximum aromatic compound content of 35% by volume
 - C. Compliance shall be demonstrated by maintaining copies of the fuel specifications provided by the supplier on-site or in a readily accessible location and made available to the Division for inspection upon request.
- II. The engine and control devices must be installed, configured, operated and maintained according to the specifications and instructions provided by the engine manufacturer.
- III. If the engine is equipped with a diesel particulate filter, the filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached. Records shall be kept of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit is approached.
- IV. If the engine is used for emergency purposes, a non-resettable hour meter must be installed prior to start-up.
- V. If the diesel fuel-fired engine referenced herein avoids tier 4 or 4f requirements by being an emergency generator, the engine shall not be used for any purpose except emergency power generation and for the purpose of maintenance

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FORM APCD-214

checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. Emergency stationary ICE may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in this section, is prohibited.

- VI. Emission Standards:
- A. The engine referenced herein shall meet all the emissions standards applicable to the engine.
 - B. Compliance with the NSPS Subpart IIII Emissions Standards for Non-Methane Hydrocarbons (NMHC), Nitrogen Oxides (NOx), Carbon Monoxide (CO) and Particulate Matter (PM) shall be demonstrated by filing a copy of the unit's certification documentation of compliance with the NSPS Subpart IIII emissions standards, with the associated application.
- VII. The following requirements of Regulation No. 6, Part A, Subpart A, General Provisions, shall apply:
- A. At all times, including periods of start-up, shutdown, and malfunction, the engine and control equipment shall, to the extent practicable, be maintained and operated in a manner consistent with good air pollution control practices for minimizing emissions. Determination of whether or not acceptable operating and maintenance procedures are being used will be based on information available to the Division, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. (Reference: Regulation No. 6, Part A, General Provisions from 40 CFR 60.11)
 - B. No article, machine, equipment or process shall be used to conceal an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. (§ 60.12)
 - C. Written notification of construction and initial startup dates shall be submitted to the Division as required under § 60.7.
 - D. Records of startups, shutdowns, and malfunctions shall be maintained, as required under § 60.7.
- VIII. This engine meets all the requirements in New Source Performance Standard (NSPS) Subpart IIII as applicable to the specific engine, including the standards required for relocating into Colorado as set forth in Regulation No. 6, Part B, Section I.C.

I hereby certify that all information contained herein is complete, true and correct. I certify that this source is and will be operated in full compliance with the applicable tier standards of Colorado Air Quality Control Commission Regulation No. 6, Part A, Subpart IIII. Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE) as well as all other requirements referenced herein.

Michael Firmin

Vice President - Global Real Estate

Name of Legally Authorized Person (Please Print)

Title

Signature of Legally Authorized Person

Date

¹ If the engine has not been selected or ordered as of the date of submission of the construction permit application, this form must be completed and submitted to the Colorado Air Pollution Control Division, for an affected engine, within one hundred and eighty (180) days after the commencement of construction/operation.

² This information can be obtained from the engine manufacturer.

³ Please enter this information if this form is being submitted after the date of submission of the construction permit application and a permit number and AIRS ID number have been assigned. Otherwise, leave these fields blank.

⁴ Supporting documentation includes: document(s) proving the date of first entry into Colorado (purchase receipt, delivery receipt, etc.) and tier standard certification information from the manufacturer, as applicable.



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**New Source Performance Standards (NSPS) – 40 CFR Part 60, Subpart IIII Applicability
Air Pollutant Emission Notice (APEN) Addendum Form for Diesel Engines**

Company Name: JP Morgan Chase & Co.

Engine Information

Make: Cummins Model: QSK78-G12 SN: _____

1. Date of Engine Manufacture: installation is pending
2. Has this engine operated outside of the state of Colorado?
☐ Yes
☒ No
3. If you answered "Yes" to question 2, please answer the following question. (If you answered "No" to question 2, please leave this field blank.) What is the date of first entry into Colorado? _____
4. This engine was manufactured to meet the following tier level standards* (e.g., Tier 1, Tier 2): Tier 2

Permit #: 18AR0855

AIRS ID: 005 / 1711 / 004

A copy of this form, along with appropriate supporting documentation⁴, shall be maintained on-site or at a local field office, with stationary source responsibility, with a copy of the construction permit, exemption letter or general permit approval letter issued by the Colorado Air Pollution Control Division (the Division) for this emissions source. These records may be kept in either electronic or hard copy format provided that they can be promptly supplied to the Division or agents thereof upon request.

This engine shall comply with the New Source Performance Standards (NSPS) requirements of Colorado Air Quality Control Commission Regulation No. 6, Part A, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE) including, but not limited to, the following:

[The requirements below reflect the rule language of 40 CFR Part 60 Subpart IIII published in the Federal Register on 01/30/2013. However, if revisions to this Subpart are published at a later date, the owner or operator is subject to the requirements contained in the revised version of 40 CFR Part 60, Subpart IIII.]

- I. All fuel used shall meet the following specifications:
 - A. Sulfur content shall not exceed 15 ppm
 - B. Have a minimum cetane index of 40 or have a maximum aromatic compound content of 35% by volume
 - C. Compliance shall be demonstrated by maintaining copies of the fuel specifications provided by the supplier on-site or in a readily accessible location and made available to the Division for inspection upon request.
- II. The engine and control devices must be installed, configured, operated and maintained according to the specifications and instructions provided by the engine manufacturer.
- III. If the engine is equipped with a diesel particulate filter, the filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached. Records shall be kept of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit is approached.
- IV. If the engine is used for emergency purposes, a non-resettable hour meter must be installed prior to start-up.
- V. If the diesel fuel-fired engine referenced herein avoids tier 4 or 4i requirements by being an emergency generator, the engine shall not be used for any purpose except emergency power generation and for the purpose of maintenance

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John W. Hickenlooper, Governor Larry Wolk, MD, MSPH, Executive Director and Chief Medical Officer



FORM APCD-214

checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. Emergency stationary ICE may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in this section, is prohibited.

VI. Emission Standards:

- A. The engine referenced herein shall meet all the emissions standards applicable to the engine.
- B. Compliance with the NSPS Subpart IIII Emissions Standards for Non-Methane Hydrocarbons (NMHC), Nitrogen Oxides (NOx), Carbon Monoxide (CO) and Particulate Matter (PM) shall be demonstrated by filing a copy of the unit's certification documentation of compliance with the NSPS Subpart IIII emissions standards, with the associated application.

VII. The following requirements of Regulation No. 6, Part A, Subpart A, General Provisions, shall apply:

- A. At all times, including periods of start-up, shutdown, and malfunction, the engine and control equipment shall, to the extent practicable, be maintained and operated in a manner consistent with good air pollution control practices for minimizing emissions. Determination of whether or not acceptable operating and maintenance procedures are being used will be based on information available to the Division, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. (Reference: Regulation No. 6, Part A, General Provisions from 40 CFR 60.11)
- B. No article, machine, equipment or process shall be used to conceal an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. (§ 60.12)
- C. Written notification of construction and initial startup dates shall be submitted to the Division as required under § 60.7.
- D. Records of startups, shutdowns, and malfunctions shall be maintained, as required under § 60.7.

VIII. This engine meets all the requirements in New Source Performance Standard (NSPS) Subpart IIII as applicable to the specific engine, including the standards required for relocating into Colorado as set forth in Regulation No. 6, Part B, Section I.C.

I hereby certify that all information contained herein is complete, true and correct. I certify that this source is and will be operated in full compliance with the applicable tier standards of Colorado Air Quality Control Commission Regulation No. 6, Part A, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE) as well as all other requirements referenced herein.

Michael Firmin

Vice President - Global Real Estate

Name of Legally Authorized Person (Please Print)

Title

Signature of Legally Authorized Person

Date

¹ If the engine has not been selected or ordered at the date of submission of the construction permit application, this form must be completed and submitted to the Colorado Air Pollution Control Division, for an affected engine, within one hundred and eighty (180) days after the commencement of construction/operation.

² This information can be obtained from the engine manufacturer.

³ Please enter this information if this form is being submitted after the date of submission of the construction permit application and a permit number and AIRS ID number have been assigned. Otherwise, leave these fields blank.

⁴ Supporting documentation includes: document(s) proving the date of first entry into Colorado (purchase receipt, delivery receipt, etc.) and tier standard certification information from the manufacturer, as applicable.



COLORADO
Air Pollution Control Division
Department of Public Health & Environment

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**New Source Performance Standards (NSPS) – 40 CFR Part 60, Subpart IIII Applicability
Air Pollutant Emission Notice (APEN) Addendum Form for Diesel Engines**

Company Name: JP Morgan Chase & Co.

Engine Information

Make: Cummins Model: QSK78-G12 SN: F180374867

1. Date of Engine Manufacture: 2018
2. Has this engine operated outside of the state of Colorado?
☐ Yes
☒ No
3. If you answered "Yes" to question 2, please answer the following question. (If you answered "No" to question 2, please leave this field blank.) What is the date of first entry into Colorado? _____
4. This engine was manufactured to meet the following tier level standards² (e.g., Tier 1, Tier 2): Tier 2

Permit #: 18AR0855

AIRS ID: 005 / 1711 / 005

A copy of this form, along with appropriate supporting documentation⁴, shall be maintained on-site or at a local field office, with stationary source responsibility, with a copy of the construction permit, exemption letter or general permit approval letter issued by the Colorado Air Pollution Control Division (the Division) for this emissions source. These records may be kept in either electronic or hard copy format provided that they can be promptly supplied to the Division or agents thereof upon request.

This engine shall comply with the New Source Performance Standards (NSPS) requirements of Colorado Air Quality Control Commission Regulation No. 6, Part A, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE) including, but not limited to, the following:

[The requirements below reflect the rule language of 40 CFR Part 60 Subpart IIII published in the Federal Register on 01/30/2013. However, if revisions to this Subpart are published at a later date, the owner or operator is subject to the requirements contained in the revised version of 40 CFR Part 60, Subpart IIII.]

- I. All fuel used shall meet the following specifications:
 - A. Sulfur content shall not exceed 15 ppm
 - B. Have a minimum cetane index of 40 or have a maximum aromatic compound content of 35% by volume
 - C. Compliance shall be demonstrated by maintaining copies of the fuel specifications provided by the supplier on-site or in a readily accessible location and made available to the Division for inspection upon request.
- II. The engine and control devices must be installed, configured, operated and maintained according to the specifications and instructions provided by the engine manufacturer.
- III. If the engine is equipped with a diesel particulate filter, the filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached. Records shall be kept of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit is approached.
- IV. If the engine is used for emergency purposes, a non-resettable hour meter must be installed prior to start-up.
- V. If the diesel fuel-fired engine referenced herein avoids tier 4 or 4i requirements by being an emergency generator, the engine shall not be used for any purpose except emergency power generation and for the purpose of maintenance

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checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. Emergency stationary ICE may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in this section, is prohibited.

- VI. Emission Standards:
- A. The engine referenced herein shall meet all the emissions standards applicable to the engine.
 - B. Compliance with the NSPS Subpart IIII Emissions Standards for Non-Methane Hydrocarbons (NMHC), Nitrogen Oxides (NOx), Carbon Monoxide (CO) and Particulate Matter (PM) shall be demonstrated by filing a copy of the unit's certification documentation of compliance with the NSPS Subpart IIII emissions standards, with the associated application.
- VII. The following requirements of Regulation No. 6, Part A, Subpart A, General Provisions, shall apply:
- A. At all times, including periods of start-up, shutdown, and malfunction, the engine and control equipment shall, to the extent practicable, be maintained and operated in a manner consistent with good air pollution control practices for minimizing emissions. Determination of whether or not acceptable operating and maintenance procedures are being used will be based on information available to the Division, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. (Reference: Regulation No. 6, Part A, General Provisions from 40 CFR 60.11)
 - B. No article, machine, equipment or process shall be used to conceal an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. (§ 60.12)
 - C. Written notification of construction and initial startup dates shall be submitted to the Division as required under § 60.7.
 - D. Records of startups, shutdowns, and malfunctions shall be maintained, as required under § 60.7.
- VIII. This engine meets all the requirements in New Source Performance Standard (NSPS) Subpart IIII as applicable to the specific engine, including the standards required for relocating into Colorado as set forth in Regulation No. 6, Part B, Section I.C.

I hereby certify that all information contained herein is complete, true and correct. I certify that this source is and will be operated in full compliance with the applicable tier standards of Colorado Air Quality Control Commission Regulation No. 6, Part A, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE) as well as all other requirements referenced herein.

Michael Firmin

Vice President - Global Real Estate

Name of Legally Authorized Person (Please Print)

Title

Signature of Legally Authorized Person

Date

¹ If the engine has not been selected or ordered as of the date of submission of the construction permit application, this form must be completed and submitted to the Colorado Air Pollution Control Division, for an affected engine, within one hundred and eighty (180) days after the commencement of construction/operation.

² This information can be obtained from the engine manufacturer.

³ Please enter this information if this form is being submitted after the date of submission of the construction permit application and a permit number and AIRS ID number have been assigned. Otherwise, leave these fields blank.

⁴ Supporting documentation includes: document(s) proving the date of first entry into Colorado (purchase receipt, delivery receipt, etc.) and tier standard certification information from the manufacturer, if applicable.



COLORADO

Air Pollution Control Division

Department of Public Health & Environment

Dedicated to protecting and improving the health and environment of the people of Colorado

New Source Performance Standards (NSPS) – 40 CFR Part 60, Subpart IIII Applicability Air Pollutant Emission Notice (APEN) Addendum Form for Diesel Engines

Company Name: JP Morgan Chase & Co.

Engine Information¹

Make: Cummins Model: QSK78-G12 SN: G180386986

1. Date of Engine Manufacture: 2018
2. Has this engine operated outside of the state of Colorado?
☐ Yes
☒ No
3. If you answered "Yes" to question 2, please answer the following question. (If you answered "No" to question 2, please leave this field blank.) What is the date of first entry into Colorado? _____
4. This engine was manufactured to meet the following tier level standards² (e.g., Tier 1, Tier 2): Tier 2

Permit #³: 18AR0855

AIRS ID³: 005 , 1711 , 006

A copy of this form, along with appropriate supporting documentation⁴, shall be maintained on-site or at a local field office, with stationary source responsibility, with a copy of the construction permit, exemption letter or general permit approval letter issued by the Colorado Air Pollution Control Division (the Division) for this emissions source. These records may be kept in either electronic or hard copy format provided that they can be promptly supplied to the Division or agents thereof upon request.

This engine shall comply with the New Source Performance Standards (NSPS) requirements of Colorado Air Quality Control Commission Regulation No. 6, Part A, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE) including, but not limited to, the following:

[The requirements below reflect the rule language of 40 CFR Part 60 Subpart IIII published in the Federal Register on 01/30/2013. However, if revisions to this Subpart are published at a later date, the owner or operator is subject to the requirements contained in the revised version of 40 CFR Part 60, Subpart IIII.]

- I. All fuel used shall meet the following specifications:
 - A. Sulfur content shall not exceed 15 ppm
 - B. Have a minimum cetane index of 40 or have a maximum aromatic compound content of 35% by volume
 - C. Compliance shall be demonstrated by maintaining copies of the fuel specifications provided by the supplier on-site or in a readily accessible location and made available to the Division for inspection upon request.
- II. The engine and control devices must be installed, configured, operated and maintained according to the specifications and instructions provided by the engine manufacturer.
- III. If the engine is equipped with a diesel particulate filter, the filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached. Records shall be kept of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit is approached.
- IV. If the engine is used for emergency purposes, a non-resettable hour meter must be installed prior to start-up.
- V. If the diesel fuel-fired engine referenced herein avoids tier 4 or 4f requirements by being an emergency generator, the engine shall not be used for any purpose except emergency power generation and for the purpose of maintenance

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checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. Emergency stationary ICE may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in this section, is prohibited.

VI. Emission Standards:

- A. The engine referenced herein shall meet all the emissions standards applicable to the engine.
- B. Compliance with the NSPS Subpart IIII Emissions Standards for Non-Methane Hydrocarbons (NMHC), Nitrogen Oxides (NOx), Carbon Monoxide (CO) and Particulate Matter (PM) shall be demonstrated by filing a copy of the unit's certification documentation of compliance with the NSPS Subpart IIII emissions standards, with the associated application.

VII. The following requirements of Regulation No. 6, Part A, Subpart A, General Provisions, shall apply:

- A. At all times, including periods of start-up, shutdown, and malfunction, the engine and control equipment shall, to the extent practicable, be maintained and operated in a manner consistent with good air pollution control practices for minimizing emissions. Determination of whether or not acceptable operating and maintenance procedures are being used will be based on information available to the Division, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. (Reference: Regulation No. 6, Part A, General Provisions from 40 CFR 60.11)
- B. No article, machine, equipment or process shall be used to conceal an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. (§ 60.12)
- C. Written notification of construction and initial startup dates shall be submitted to the Division as required under § 60.7.
- D. Records of startups, shutdowns, and malfunctions shall be maintained, as required under § 60.7.

VIII. This engine meets all the requirements in New Source Performance Standard (NSPS) Subpart IIII as applicable to the specific engine, including the standards required for relocating into Colorado as set forth in Regulation No. 6, Part B, Section I.C.

I hereby certify that all information contained herein is complete, true and correct. I certify that this source is and will be operated in full compliance with the applicable tier standards of Colorado Air Quality Control Commission Regulation No. 6, Part A, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE) as well as all other requirements referenced herein.

Michael Firmin

Vice President - Global Real Estate

Name of Legally Authorized Person (Please Print)

Title

Signature of Legally Authorized Person

Date

4/27/23

¹ If the engine has not been selected or ordered as of the date of submission of the construction permit application, this form must be completed and submitted to the Colorado Air Pollution Control Division, for an affected engine, within one hundred and eighty (180) days after the commencement of construction/operation.

² This information can be obtained from the engine manufacturer.

³ Please enter this information if the form is being submitted after the date of submission of the construction permit application and a permit number and AIRS ID number have been assigned. Otherwise, leave these fields blank.

⁴ Supporting documentation includes: document(s) proving the date of first entry into Colorado (purchase receipt, delivery receipt, etc.) and tier standard certification information from the manufacturer, as applicable.



COLORADO
Air Pollution Control Division
Department of Public Health & Environment

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**New Source Performance Standards (NSPS) – 40 CFR Part 60, Subpart IIII Applicability
Air Pollutant Emission Notice (APEN) Addendum Form for Diesel Engines**

Company Name: JP Morgan Chase & Co.

Engine Information¹

Make: Cummins Model: QSK78-G12 SN: K180448520

1. Date of Engine Manufacture: 2018
2. Has this engine operated outside of the state of Colorado?
☐ Yes
☒ No
3. If you answered "Yes" to question 2, please answer the following question. (If you answered "No" to question 2, please leave this field blank.) What is the date of first entry into Colorado? _____
4. This engine was manufactured to meet the following tier level standards² (e.g., Tier 1, Tier 2): Tier 2

Permit #: 18AR0855

AIRS ID³: 005 / 1711 / 007

A copy of this form, along with appropriate supporting documentation⁴, shall be maintained on-site or at a local field office, with stationary source responsibility, with a copy of the construction permit, exemption letter or general permit approval letter issued by the Colorado Air Pollution Control Division (the Division) for this emissions source. These records may be kept in either electronic or hard copy format provided that they can be promptly supplied to the Division or agents thereof upon request.

This engine shall comply with the New Source Performance Standards (NSPS) requirements of Colorado Air Quality Control Commission Regulation No. 6, Part A, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE) including, but not limited to, the following:

[The requirements below reflect the rule language of 40 CFR Part 60 Subpart IIII published in the Federal Register on 01/30/2013. However, if revisions to this Subpart are published at a later date, the owner or operator is subject to the requirements contained in the revised version of 40 CFR Part 60, Subpart IIII.]

- I. All fuel used shall meet the following specifications:
 - A. Sulfur content shall not exceed 15 ppm
 - B. Have a minimum cetane index of 40 or have a maximum aromatic compound content of 35% by volume
 - C. Compliance shall be demonstrated by maintaining copies of the fuel specifications provided by the supplier on-site or in a readily accessible location and made available to the Division for inspection upon request.
- II. The engine and control devices must be installed, configured, operated and maintained according to the specifications and instructions provided by the engine manufacturer.
- III. If the engine is equipped with a diesel particulate filter, the filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached. Records shall be kept of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit is approached.
- IV. If the engine is used for emergency purposes, a non-resettable hour meter must be installed prior to start-up.
- V. If the diesel fuel-fired engine referenced herein avoids tier 4 or 4i requirements by being an emergency generator, the engine shall not be used for any purpose except emergency power generation and for the purpose of maintenance

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checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. Emergency stationary ICE may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in this section, is prohibited.

VI. Emission Standards:

- A. The engine referenced herein shall meet all the emissions standards applicable to the engine.
- B. Compliance with the NSPS Subpart IIII Emissions Standards for Non-Methane Hydrocarbons (NMHC), Nitrogen Oxides (NOx), Carbon Monoxide (CO) and Particulate Matter (PM) shall be demonstrated by filing a copy of the unit's certification documentation of compliance with the NSPS Subpart IIII emissions standards, with the associated application.

VII. The following requirements of Regulation No. 6, Part A, Subpart A, General Provisions, shall apply:

- A. At all times, including periods of start-up, shutdown, and malfunction, the engine and control equipment shall, to the extent practicable, be maintained and operated in a manner consistent with good air pollution control practices for minimizing emissions. Determination of whether or not acceptable operating and maintenance procedures are being used will be based on information available to the Division, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. (Reference: Regulation No. 6, Part A, General Provisions from 40 CFR 60.11)
- B. No article, machine, equipment or process shall be used to conceal an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. (§ 60.12)
- C. Written notification of construction and initial startup dates shall be submitted to the Division as required under § 60.7.
- D. Records of startups, shutdowns, and malfunctions shall be maintained, as required under § 60.7.

VIII. This engine meets all the requirements in New Source Performance Standard (NSPS) Subpart IIII as applicable to the specific engine, including the standards required for relocating into Colorado as set forth in Regulation No. 6, Part B, Section I.C.

I hereby certify that all information contained herein is complete, true and correct. I certify that this source is and will be operated in full compliance with the applicable tier standards of Colorado Air Quality Control Commission Regulation No. 6, Part A, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE) as well as all other requirements referenced herein.

Michael Firmin

Vice President - Global Real Estate

Name of Legally Authorized Person (Please Print)

Title

Signature of Legally Authorized Person

Date

4/27/23

¹ If the engine has not been selected or ordered as of the date of submission of the construction permit application, this form must be completed and submitted to the Colorado Air Pollution Control Division, for an affected engine, within one hundred and eighty (180) days after the commencement of construction/operation.

² This information can be obtained from the engine manufacturer.

³ Please enter this information if this form is being submitted after the date of submission of the construction permit application and a permit number and AIRS ID number have been assigned. Otherwise, leave these fields blank.

⁴ Supporting documentation includes: document(s) proving the date of first entry into Colorado (purchase receipt, delivery receipt, etc.) and tier standard certification information from the manufacturer, as applicable.



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New Source Performance Standards (NSPS) – 40 CFR Part 60, Subpart IIII Applicability Air Pollutant Emission Notice (APEN) Addendum Form for Diesel Engines

Company Name: JP Morgan Chase & Co.

Engine Information¹

Make: Cummins Model: QSK78-G12 SN: G180386526

1. Date of Engine Manufacture: 2018
2. Has this engine operated outside of the state of Colorado?
☐ Yes
☒ No
3. If you answered "Yes" to question 2, please answer the following question. (If you answered "No" to question 2, please leave this field blank.) What is the date of first entry into Colorado? _____
4. This engine was manufactured to meet the following tier level standards² (e.g., Tier 1, Tier 2): Tier 2

Permit #³: 18AR0855

AIRS ID⁴: 005 / 1711 / 008

A copy of this form, along with appropriate supporting documentation⁴, shall be maintained on-site or at a local field office, with stationary source responsibility, with a copy of the construction permit, exemption letter or general permit approval letter issued by the Colorado Air Pollution Control Division (the Division) for this emissions source. These records may be kept in either electronic or hard copy format provided that they can be promptly supplied to the Division or agents thereof upon request.

This engine shall comply with the New Source Performance Standards (NSPS) requirements of Colorado Air Quality Control Commission Regulation No. 6, Part A, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE) including, but not limited to, the following:

[The requirements below reflect the rule language of 40 CFR Part 60 Subpart IIII published in the Federal Register on 01/30/2013. However, if revisions to this Subpart are published at a later date, the owner or operator is subject to the requirements contained in the revised version of 40 CFR Part 60, Subpart IIII.]

- I. All fuel used shall meet the following specifications:
 - A. Sulfur content shall not exceed 15 ppm
 - B. Have a minimum cetane index of 40 or have a maximum aromatic compound content of 35% by volume
 - C. Compliance shall be demonstrated by maintaining copies of the fuel specifications provided by the supplier on-site or in a readily accessible location and made available to the Division for inspection upon request.
- II. The engine and control devices must be installed, configured, operated and maintained according to the specifications and instructions provided by the engine manufacturer.
- III. If the engine is equipped with a diesel particulate filter, the filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached. Records shall be kept of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit is approached.
- IV. If the engine is used for emergency purposes, a non-resettable hour meter must be installed prior to start-up.
- V. If the diesel fuel-fired engine referenced herein avoids tier 4 or 4i requirements by being an emergency generator, the engine shall not be used for any purpose except emergency power generation and for the purpose of maintenance

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checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. Emergency stationary ICE may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in this section, is prohibited.

VI. Emission Standards:

- A. The engine referenced herein shall meet all the emissions standards applicable to the engine.
- B. Compliance with the NSPS Subpart IIII Emissions Standards for Non-Methane Hydrocarbons (NMHC), Nitrogen Oxides (NOx), Carbon Monoxide (CO) and Particulate Matter (PM) shall be demonstrated by filing a copy of the unit's certification documentation of compliance with the NSPS Subpart IIII emissions standards, with the associated application.

VII. The following requirements of Regulation No. 6, Part A, Subpart A, General Provisions, shall apply:

- A. At all times, including periods of start-up, shutdown, and malfunction, the engine and control equipment shall, to the extent practicable, be maintained and operated in a manner consistent with good air pollution control practices for minimizing emissions. Determination of whether or not acceptable operating and maintenance procedures are being used will be based on information available to the Division, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. (Reference: Regulation No. 6, Part A, General Provisions from 40 CFR 60.11)
- B. No article, machine, equipment or process shall be used to conceal an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. (§ 60.12)
- C. Written notification of construction and initial startup dates shall be submitted to the Division as required under § 60.7.
- D. Records of startups, shutdowns, and malfunctions shall be maintained, as required under § 60.7.

VIII. This engine meets all the requirements in New Source Performance Standard (NSPS) Subpart IIII as applicable to the specific engine, including the standards required for relocating into Colorado as set forth in Regulation No. 6, Part B, Section I.C.

I hereby certify that all information contained herein is complete, true and correct. I certify that this source is and will be operated in full compliance with the applicable tier standards of Colorado Air Quality Control Commission Regulation No. 6, Part A, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE) as well as all other requirements referenced herein.

Michael Firmin

Vice President - Global Real Estate

Name of Legally Authorized Person (Please Print)

Title

Signature of Legally Authorized Person

Date

¹ If the engine has not been selected or ordered as of the date of submission of the construction permit application, this form must be completed and submitted to the Colorado Air Pollution Control Division, for an affected engine, within one hundred and eighty (180) days after the commencement of construction/operation.

² This information can be obtained from the engine manufacturer.

³ Please enter this information if this form is being submitted after the date of submission of the construction permit application and a permit number and AIRS ID number have been assigned. Otherwise, leave these fields blank.

⁴ Supporting documentation includes: document(s) proving the date of first entry into Colorado (purchase receipt, delivery receipt, etc.) and tier standard certification information from the manufacturer, as applicable.



COLORADO

Air Pollution Control Division

Department of Public Health & Environment

Dedicated to protecting and improving the health and environment of the people of Colorado

New Source Performance Standards (NSPS) – 40 CFR Part 60, Subpart IIII Applicability Air Pollutant Emission Notice (APEN) Addendum Form for Diesel Engines

Company Name: JP Morgan Chase & Co.

Engine Information¹

Make: Cummins

Model: QSK78-G12

SN: F180381559

1. Date of Engine Manufacture: 2018
2. Has this engine operated outside of the state of Colorado?
☐ Yes
☒ No
3. If you answered "Yes" to question 2, please answer the following question. (If you answered "No" to question 2, please leave this field blank.) What is the date of first entry into Colorado? _____
4. This engine was manufactured to meet the following tier level standards² (e.g., Tier 1, Tier 2): Tier 2

Permit #: 18AR0855

AIRS ID³: 005 , 1711 , 009

A copy of this form, along with appropriate supporting documentation⁴, shall be maintained on-site or at a local field office, with stationary source responsibility, with a copy of the construction permit, exemption letter or general permit approval letter issued by the Colorado Air Pollution Control Division (the Division) for this emissions source. These records may be kept in either electronic or hard copy format provided that they can be promptly supplied to the Division or agents thereof upon request.

This engine shall comply with the New Source Performance Standards (NSPS) requirements of Colorado Air Quality Control Commission Regulation No. 6, Part A, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE) including, but not limited to, the following:

[The requirements below reflect the rule language of 40 CFR Part 60 Subpart IIII published in the Federal Register on 01/30/2013. However, if revisions to this Subpart are published at a later date, the owner or operator is subject to the requirements contained in the revised version of 40 CFR Part 60, Subpart IIII.]

- I. All fuel used shall meet the following specifications:
 - A. Sulfur content shall not exceed 15 ppm
 - B. Have a minimum cetane index of 40 or have a maximum aromatic compound content of 35% by volume
 - C. Compliance shall be demonstrated by maintaining copies of the fuel specifications provided by the supplier on-site or in a readily accessible location and made available to the Division for inspection upon request.
- II. The engine and control devices must be installed, configured, operated and maintained according to the specifications and instructions provided by the engine manufacturer.
- III. If the engine is equipped with a diesel particulate filter, the filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached. Records shall be kept of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit is approached.
- IV. If the engine is used for emergency purposes, a non-resettable hour meter must be installed prior to start-up.
- V. If the diesel fuel-fired engine referenced herein avoids tier 4 or 4i requirements by being an emergency generator, the engine shall not be used for any purpose except emergency power generation and for the purpose of maintenance

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checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. Emergency stationary ICE may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in this section, is prohibited.

- VI. Emission Standards:
- A. The engine referenced herein shall meet all the emissions standards applicable to the engine.
 - B. Compliance with the NSPS Subpart IIII Emissions Standards for Non-Methane Hydrocarbons (NMHC), Nitrogen Oxides (NOx), Carbon Monoxide (CO) and Particulate Matter (PM) shall be demonstrated by filing a copy of the unit's certification documentation of compliance with the NSPS Subpart IIII emissions standards, with the associated application.
- VII. The following requirements of Regulation No. 6, Part A, Subpart A, General Provisions, shall apply:
- A. At all times, including periods of start-up, shutdown, and malfunction, the engine and control equipment shall, to the extent practicable, be maintained and operated in a manner consistent with good air pollution control practices for minimizing emissions. Determination of whether or not acceptable operating and maintenance procedures are being used will be based on information available to the Division, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. (Reference: Regulation No. 6, Part A, General Provisions from 40 CFR 60.11)
 - B. No article, machine, equipment or process shall be used to conceal an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. (§ 60.12)
 - C. Written notification of construction and initial startup dates shall be submitted to the Division as required under § 60.7.
 - D. Records of startups, shutdowns, and malfunctions shall be maintained, as required under § 60.7.
- VIII. This engine meets all the requirements in New Source Performance Standard (NSPS) Subpart IIII as applicable to the specific engine, including the standards required for relocating into Colorado as set forth in Regulation No. 6, Part B, Section I.C.

I hereby certify that all information contained herein is complete, true and correct. I certify that this source is and will be operated in full compliance with the applicable tier standards of Colorado Air Quality Control Commission Regulation No. 6, Part A, Subpart IIII. Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE) as well as all other requirements referenced herein.

Michael Firmin

Vice President - Global Real Estate

Name of Legally Authorized Person (Please Print)

Title

Signature of Legally Authorized Person

Date

¹ If the engine has not been selected or ordered as of the date of submission of the construction permit application, the form must be completed and submitted to the Colorado Air Pollution Control Division, for an affected engine, within one hundred and eighty (180) days after the commencement of construction/operation.

² This information can be obtained from the engine manufacturer.

³ Please enter this information if this form is being submitted after the date of submission of the construction permit application and a permit number and AIRS ID number have been assigned. Otherwise, leave these fields blank.

⁴ Supporting documentation includes: document(s) proving the date of first entry into Colorado (purchase receipt, delivery receipt, etc.) and tier standard certification information from the manufacturer, as applicable.



COLORADO

Air Pollution Control Division

Department of Public Health & Environment

Dedicated to protecting and improving the health and environment of the people of Colorado

New Source Performance Standards (NSPS) – 40 CFR Part 60, Subpart IIII Applicability Air Pollutant Emission Notice (APEN) Addendum Form for Diesel Engines

Company Name: JP Morgan Chase & Co.

Engine Information¹

Make: Cummins

Model: QSK78-G12

SN: B210877318

1. Date of Engine Manufacture: 2018
2. Has this engine operated outside of the state of Colorado?
☐ Yes
☒ No
3. If you answered "Yes" to question 2, please answer the following question. (If you answered "No" to question 2, please leave this field blank.) What is the date of first entry into Colorado? _____
4. This engine was manufactured to meet the following tier level standards² (e.g., Tier 1, Tier 2): Tier 2

Permit #³: 18AR0855

AIRS ID³: 005 1711 010

A copy of this form, along with appropriate supporting documentation⁴, shall be maintained on-site or at a local field office, with stationary source responsibility, with a copy of the construction permit, exemption letter or general permit approval letter issued by the Colorado Air Pollution Control Division (the Division) for this emissions source. These records may be kept in either electronic or hard copy format provided that they can be promptly supplied to the Division or agents thereof upon request.

This engine shall comply with the New Source Performance Standards (NSPS) requirements of Colorado Air Quality Control Commission Regulation No. 6, Part A, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE) including, but not limited to, the following:

[The requirements below reflect the rule language of 40 CFR Part 60 Subpart IIII published in the Federal Register on 01/30/2013. However, if revisions to this Subpart are published at a later date, the owner or operator is subject to the requirements contained in the revised version of 40 CFR Part 60, Subpart IIII.]

- I. All fuel used shall meet the following specifications:
 - A. Sulfur content shall not exceed 15 ppm
 - B. Have a minimum cetane index of 40 or have a maximum aromatic compound content of 35% by volume
 - C. Compliance shall be demonstrated by maintaining copies of the fuel specifications provided by the supplier on-site or in a readily accessible location and made available to the Division for inspection upon request.
- II. The engine and control devices must be installed, configured, operated and maintained according to the specifications and instructions provided by the engine manufacturer.
- III. If the engine is equipped with a diesel particulate filter, the filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached. Records shall be kept of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit is approached.
- IV. If the engine is used for emergency purposes, a non-resettable hour meter must be installed prior to start-up.
- V. If the diesel fuel-fired engine referenced herein avoids tier 4 or 4i requirements by being an emergency generator, the engine shall not be used for any purpose except emergency power generation and for the purpose of maintenance

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checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. Emergency stationary ICE may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in this section, is prohibited.

VI. Emission Standards:

- A. The engine referenced herein shall meet all the emissions standards applicable to the engine.
- B. Compliance with the NSPS Subpart IIII Emissions Standards for Non-Methane Hydrocarbons (NMHC), Nitrogen Oxides (NOx), Carbon Monoxide (CO) and Particulate Matter (PM) shall be demonstrated by filing a copy of the unit's certification documentation of compliance with the NSPS Subpart IIII emissions standards, with the associated application.

VII. The following requirements of Regulation No. 6, Part A, Subpart A, General Provisions, shall apply:

- A. At all times, including periods of start-up, shutdown, and malfunction, the engine and control equipment shall, to the extent practicable, be maintained and operated in a manner consistent with good air pollution control practices for minimizing emissions. Determination of whether or not acceptable operating and maintenance procedures are being used will be based on information available to the Division, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. (Reference: Regulation No. 6, Part A, General Provisions from 40 CFR 60.11)
- B. No article, machine, equipment or process shall be used to conceal an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. (§ 60.12)
- C. Written notification of construction and initial startup dates shall be submitted to the Division as required under § 60.7.
- D. Records of startups, shutdowns, and malfunctions shall be maintained, as required under § 60.7.

VIII. This engine meets all the requirements in New Source Performance Standard (NSPS) Subpart IIII as applicable to the specific engine, including the standards required for relocating into Colorado as set forth in Regulation No. 6, Part B, Section I.C.

I hereby certify that all information contained herein is complete, true and correct. I certify that this source is and will be operated in full compliance with the applicable tier standards of Colorado Air Quality Control Commission Regulation No. 6, Part A, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE) as well as all other requirements referenced herein.

Michael Firmin

Vice President - Global Real Estate

Name of Legally Authorized Person (Please Print)

Title

Signature of Legally Authorized Person

Date

¹ If the engine has not been selected or ordered as of the date of submission of the construction permit application, this form must be completed and submitted to the Colorado Air Pollution Control Division, for an affected engine, within one hundred and eighty (180) days after the commencement of construction/operation.

² This information can be obtained from the engine manufacturer.

³ Please enter this information if this form is being submitted after the date of submission of the construction permit application. If a permit number and AIRS ID number have been assigned. Otherwise, leave these fields blank.

⁴ Supporting documentation includes: document(s) proving the date of first entry into Colorado (purchase receipt, delivery receipt, etc.) and tier standard certification information from the manufacturer, as applicable.



COLORADO
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**New Source Performance Standards (NSPS) – 40 CFR Part 60, Subpart IIII Applicability
Air Pollutant Emission Notice (APEN) Addendum Form for Diesel Engines**

Company Name: JP Morgan Chase & Co.

Engine Information

Make: Cummins Model: QSK78-G12 SN: B210877317

1. Date of Engine Manufacture: 2018
2. Has this engine operated outside of the state of Colorado?
☐ Yes
☒ No
3. If you answered "Yes" to question 2, please answer the following question. (If you answered "No" to question 2, please leave this field blank.) What is the date of first entry into Colorado? _____
4. This engine was manufactured to meet the following tier level standards' (e.g., Tier 1, Tier 2): Tier 2

Permit # 18AR0855

AIRS ID: 005 / 1711 / 011

A copy of this form, along with appropriate supporting documentation¹, shall be maintained on-site or at a local field office, with stationary source responsibility, with a copy of the construction permit, exemption letter or general permit approval letter issued by the Colorado Air Pollution Control Division (the Division) for this emissions source. These records may be kept in either electronic or hard copy format provided that they can be promptly supplied to the Division or agents thereof upon request.

This engine shall comply with the New Source Performance Standards (NSPS) requirements of Colorado Air Quality Control Commission Regulation No. 6, Part A, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE) including, but not limited to, the following:

[The requirements below reflect the rule language of 40 CFR Part 60 Subpart IIII published in the Federal Register on 01/30/2013. However, if revisions to this Subpart are published at a later date, the owner or operator is subject to the requirements contained in the revised version of 40 CFR Part 60, Subpart IIII.]

- I. All fuel used shall meet the following specifications:
 - A. Sulfur content shall not exceed 15 ppm
 - B. Have a minimum cetane index of 40 or have a maximum aromatic compound content of 35% by volume
 - C. Compliance shall be demonstrated by maintaining copies of the fuel specifications provided by the supplier on-site or in a readily accessible location and made available to the Division for inspection upon request.
- II. The engine and control devices must be installed, configured, operated and maintained according to the specifications and instructions provided by the engine manufacturer.
- III. If the engine is equipped with a diesel particulate filter, the filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached. Records shall be kept of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit is approached.
- IV. If the engine is used for emergency purposes, a non-resettable hour meter must be installed prior to start-up.
- V. If the diesel fuel-fired engine referenced herein avoids tier 4 or 4i requirements by being an emergency generator, the engine shall not be used for any purpose except emergency power generation and for the purpose of maintenance

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checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. Emergency stationary ICE may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in this section, is prohibited.

VI. Emission Standards:

- A. The engine referenced herein shall meet all the emissions standards applicable to the engine.
- B. Compliance with the NSPS Subpart IIII Emissions Standards for Non-Methane Hydrocarbons (NMHC), Nitrogen Oxides (NOx), Carbon Monoxide (CO) and Particulate Matter (PM) shall be demonstrated by filing a copy of the unit's certification documentation of compliance with the NSPS Subpart IIII emissions standards, with the associated application.

VII. The following requirements of Regulation No. 6, Part A, Subpart A, General Provisions, shall apply:

- A. At all times, including periods of start-up, shutdown, and malfunction, the engine and control equipment shall, to the extent practicable, be maintained and operated in a manner consistent with good air pollution control practices for minimizing emissions. Determination of whether or not acceptable operating and maintenance procedures are being used will be based on information available to the Division, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. (Reference: Regulation No. 6, Part A, General Provisions from 40 CFR 60.11)
- B. No article, machine, equipment or process shall be used to conceal an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. (§ 60.12)
- C. Written notification of construction and initial startup dates shall be submitted to the Division as required under § 60.7.
- D. Records of startups, shutdowns, and malfunctions shall be maintained, as required under § 60.7.

VIII. This engine meets all the requirements in New Source Performance Standard (NSPS) Subpart IIII as applicable to the specific engine, including the standards required for relocating into Colorado as set forth in Regulation No. 6, Part B, Section I.C.

I hereby certify that all information contained herein is complete, true and correct. I certify that this source is and will be operated in full compliance with the applicable tier standards of Colorado Air Quality Control Commission Regulation No. 6, Part A, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE) as well as all other requirements referenced herein.

Michael Firmin

Vice President - Global Real Estate

Name of Legally Authorized Person (Please Print)

Title

Signature of Legally Authorized Person

Date

¹ If the engine has not been selected or ordered as of the date of submission of the construction permit application, this form must be completed and submitted to the Colorado Air Pollution Control Division, for an affected engine, within one hundred and eighty (180) days after the commencement of construction/operation.

² This information can be obtained from the engine manufacturer.

³ Please enter this information if this form is being submitted after the date of submission of the construction permit application and a permit number and AIRS ID number have been assigned. Otherwise, leave these fields blank.

⁴ Supporting documentation includes: document(s) proving the date of first entry into Colorado (purchase receipt, delivery receipt, etc.) and tier standard certification information from the manufacturer, as applicable.



COLORADO

Air Pollution Control Division

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New Source Performance Standards (NSPS) – 40 CFR Part 60, Subpart IIII Applicability Air Pollutant Emission Notice (APEN) Addendum Form for Diesel Engines

Company Name: JP Morgan Chase & Co.

Engine Information

Make: Cummins Model: QSK78-G12 SN: F180373919

1. Date of Engine Manufacture: 2018
2. Has this engine operated outside of the state of Colorado?
☐ Yes
☒ No
3. If you answered "Yes" to question 2, please answer the following question. (If you answered "No" to question 2, please leave this field blank.) What is the date of first entry into Colorado? _____
4. This engine was manufactured to meet the following tier level standards² (e.g., Tier 1, Tier 2): Tier 2

Permit #: 18AR0855

AIRS ID³: 005 / 1711 / 012

A copy of this form, along with appropriate supporting documentation⁴, shall be maintained on-site or at a local field office, with stationary source responsibility, with a copy of the construction permit, exemption letter or general permit approval letter issued by the Colorado Air Pollution Control Division (the Division) for this emissions source. These records may be kept in either electronic or hard copy format provided that they can be promptly supplied to the Division or agents thereof upon request.

This engine shall comply with the New Source Performance Standards (NSPS) requirements of Colorado Air Quality Control Commission Regulation No. 6, Part A, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE) including, but not limited to, the following:

[The requirements below reflect the rule language of 40 CFR Part 60 Subpart IIII published in the Federal Register on 01/30/2013. However, if revisions to this Subpart are published at a later date, the owner or operator is subject to the requirements contained in the revised version of 40 CFR Part 60, Subpart IIII.]

- I. All fuel used shall meet the following specifications:
 - A. Sulfur content shall not exceed 15 ppm
 - B. Have a minimum cetane index of 40 or have a maximum aromatic compound content of 35% by volume
 - C. Compliance shall be demonstrated by maintaining copies of the fuel specifications provided by the supplier on-site or in a readily accessible location and made available to the Division for inspection upon request.
- II. The engine and control devices must be installed, configured, operated and maintained according to the specifications and instructions provided by the engine manufacturer.
- III. If the engine is equipped with a diesel particulate filter, the filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached. Records shall be kept of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit is approached.
- IV. If the engine is used for emergency purposes, a non-resettable hour meter must be installed prior to start-up.
- V. If the diesel fuel-fired engine referenced herein avoids tier 4 or 4i requirements by being an emergency generator, the engine shall not be used for any purpose except emergency power generation and for the purpose of maintenance

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checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. Emergency stationary ICE may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in this section, is prohibited.

VI. Emission Standards:

- A. The engine referenced herein shall meet all the emissions standards applicable to the engine.
- B. Compliance with the NSPS Subpart IIII Emissions Standards for Non-Methane Hydrocarbons (NMHC), Nitrogen Oxides (NOx), Carbon Monoxide (CO) and Particulate Matter (PM) shall be demonstrated by filing a copy of the unit's certification documentation of compliance with the NSPS Subpart IIII emissions standards, with the associated application.

VII. The following requirements of Regulation No. 6, Part A, Subpart A, General Provisions, shall apply:

- A. At all times, including periods of start-up, shutdown, and malfunction, the engine and control equipment shall, to the extent practicable, be maintained and operated in a manner consistent with good air pollution control practices for minimizing emissions. Determination of whether or not acceptable operating and maintenance procedures are being used will be based on information available to the Division, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. (Reference: Regulation No. 6, Part A, General Provisions from 40 CFR 60.11)
- B. No article, machine, equipment or process shall be used to conceal an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. (§ 60.12)
- C. Written notification of construction and initial startup dates shall be submitted to the Division as required under § 60.7.
- D. Records of startups, shutdowns, and malfunctions shall be maintained, as required under § 60.7.

VIII. This engine meets all the requirements in New Source Performance Standard (NSPS) Subpart IIII as applicable to the specific engine, including the standards required for relocating into Colorado as set forth in Regulation No. 6, Part B, Section I.C.

I hereby certify that all information contained herein is complete, true and correct. I certify that this source is and will be operated in full compliance with the applicable tier standards of Colorado Air Quality Control Commission Regulation No. 6, Part A, Subpart IIII. Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE) as well as all other requirements referenced herein.

Michael Firmin

Vice President - Global Real Estate

Name of Legally Authorized Person (Please Print)

Title

Signature of Legally Authorized Person

Date

4/27/23

¹ If the engine has not been selected or ordered as of the date of submission of the construction permit application, this form must be completed and submitted to the Colorado Air Pollution Control Division, for an affected engine, within one hundred and eighty (180) days after the commencement of construction/operation.

² This information can be obtained from the engine manufacturer.

³ Please enter this information if this form is being submitted after the date of submission of the construction permit application and a permit number and AIRS ID number have been assigned. Otherwise, leave these fields blank.

⁴ Supporting documentation includes: document(s) proving the date of first entry into Colorado (purchase receipt, delivery receipt, etc.) and tier standard certification information from the manufacturer, as applicable.



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Air Pollution Control Division

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New Source Performance Standards (NSPS) – 40 CFR Part 60, Subpart IIII Applicability Air Pollutant Emission Notice (APEN) Addendum Form for Diesel Engines

Company Name: JP Morgan Chase & Co.

Engine Information¹

Make: Cummins Model: QSK78-G12 SN: G180386506

1. Date of Engine Manufacture: 2018
2. Has this engine operated outside of the state of Colorado?
☐ Yes
☒ No
3. If you answered "Yes" to question 2, please answer the following question. (If you answered "No" to question 2, please leave this field blank.) What is the date of first entry into Colorado? _____
4. This engine was manufactured to meet the following tier level standards² (e.g., Tier 1, Tier 2): Tier 2

Permit #: 18AR0855

AIRS ID: 005 / 1711 / 013

A copy of this form, along with appropriate supporting documentation³, shall be maintained on-site or at a local field office, with stationary source responsibility, with a copy of the construction permit, exemption letter or general permit approval letter issued by the Colorado Air Pollution Control Division (the Division) for this emissions source. These records may be kept in either electronic or hard copy format provided that they can be promptly supplied to the Division or agents thereof upon request.

This engine shall comply with the New Source Performance Standards (NSPS) requirements of Colorado Air Quality Control Commission Regulation No. 6, Part A, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE) including, but not limited to, the following:

[The requirements below reflect the rule language of 40 CFR Part 60 Subpart IIII published in the Federal Register on 01/30/2013. However, if revisions to this Subpart are published at a later date, the owner or operator is subject to the requirements contained in the revised version of 40 CFR Part 60, Subpart IIII.]

- I. All fuel used shall meet the following specifications:
 - A. Sulfur content shall not exceed 15 ppm
 - B. Have a minimum cetane index of 40 or have a maximum aromatic compound content of 35% by volume
 - C. Compliance shall be demonstrated by maintaining copies of the fuel specifications provided by the supplier on-site or in a readily accessible location and made available to the Division for inspection upon request.
- II. The engine and control devices must be installed, configured, operated and maintained according to the specifications and instructions provided by the engine manufacturer.
- III. If the engine is equipped with a diesel particulate filter, the filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached. Records shall be kept of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit is approached.
- IV. If the engine is used for emergency purposes, a non-resettable hour meter must be installed prior to start-up.
- V. If the diesel fuel-fired engine referenced herein avoids tier 4 or 4i requirements by being an emergency generator, the engine shall not be used for any purpose except emergency power generation and for the purpose of maintenance

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checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. Emergency stationary ICE may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in this section, is prohibited.

VI. Emission Standards:

- A. The engine referenced herein shall meet all the emissions standards applicable to the engine.
- B. Compliance with the NSPS Subpart IIII Emissions Standards for Non-Methane Hydrocarbons (NMHC), Nitrogen Oxides (NOx), Carbon Monoxide (CO) and Particulate Matter (PM) shall be demonstrated by filing a copy of the unit's certification documentation of compliance with the NSPS Subpart IIII emissions standards, with the associated application.

VII. The following requirements of Regulation No. 6, Part A, Subpart A, General Provisions, shall apply:

- A. At all times, including periods of start-up, shutdown, and malfunction, the engine and control equipment shall, to the extent practicable, be maintained and operated in a manner consistent with good air pollution control practices for minimizing emissions. Determination of whether or not acceptable operating and maintenance procedures are being used will be based on information available to the Division, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. (Reference: Regulation No. 6, Part A, General Provisions from 40 CFR 60.11)
- B. No article, machine, equipment or process shall be used to conceal an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. (§ 60.12)
- C. Written notification of construction and initial startup dates shall be submitted to the Division as required under § 60.7.
- D. Records of startups, shutdowns, and malfunctions shall be maintained, as required under § 60.7.

VIII. This engine meets all the requirements in New Source Performance Standard (NSPS) Subpart IIII as applicable to the specific engine, including the standards required for relocating into Colorado as set forth in Regulation No. 6, Part B, Section I.C.

I hereby certify that all information contained herein is complete, true and correct. I certify that this source is and will be operated in full compliance with the applicable tier standards of Colorado Air Quality Control Commission Regulation No. 6, Part A, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE) as well as all other requirements referenced herein.

Michael Firmin

Vice President - Global Real Estate

Name of Legally Authorized Person (Please Print)

Title

Signature of Legally Authorized Person

Date

4/27/23

¹ If the engine has not been selected or ordered as of the date of submission of the construction permit application, this form must be completed and submitted to the Colorado Air Pollution Control Division, for an affected engine, within one hundred and eighty (180) days after the commencement of construction/operation.

² This information can be obtained from the engine manufacturer.

³ Please enter this information if this form is being submitted after the date of submission of the construction permit application and a permit number and AIRS ID number have been assigned. Otherwise, leave these fields blank.

⁴ Supporting documentation includes: document(s) proving the date of first entry into Colorado (purchase receipt, delivery receipt, etc.) and tier standard certification information from the manufacturer, as applicable.



COLORADO
Air Pollution Control Division
Department of Public Health & Environment

Dedicated to protecting and improving the health and environment of the people of Colorado

**New Source Performance Standards (NSPS) – 40 CFR Part 60, Subpart IIII Applicability
Air Pollutant Emission Notice (APEN) Addendum Form for Diesel Engines**

Company Name: JP Morgan Chase & Co.

Engine Information¹

Make: Cummins Model: QSK78-G12 SN: G180384827

1. Date of Engine Manufacture: 2018
2. Has this engine operated outside of the state of Colorado?
☐ Yes
☒ No
3. If you answered "Yes" to question 2, please answer the following question. (If you answered "No" to question 2, please leave this field blank.) What is the date of first entry into Colorado? _____
4. This engine was manufactured to meet the following tier level standards² (e.g., Tier 1, Tier 2): Tier 2

Permit #: 18AR0855

AIRS ID: 005 , 1711 , 014

A copy of this form, along with appropriate supporting documentation⁴, shall be maintained on-site or at a local field office, with stationary source responsibility, with a copy of the construction permit, exemption letter or general permit approval letter issued by the Colorado Air Pollution Control Division (the Division) for this emissions source. These records may be kept in either electronic or hard copy format provided that they can be promptly supplied to the Division or agents thereof upon request.

This engine shall comply with the New Source Performance Standards (NSPS) requirements of Colorado Air Quality Control Commission Regulation No. 6, Part A, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CICE) including, but not limited to, the following:

[The requirements below reflect the rule language of 40 CFR Part 60 Subpart IIII published in the Federal Register on 01/30/2013. However, if revisions to this Subpart are published at a later date, the owner or operator is subject to the requirements contained in the revised version of 40 CFR Part 60, Subpart IIII.]

- I. All fuel used shall meet the following specifications:
 - A. Sulfur content shall not exceed 15 ppm
 - B. Have a minimum cetane index of 40 or have a maximum aromatic compound content of 35% by volume
 - C. Compliance shall be demonstrated by maintaining copies of the fuel specifications provided by the supplier on-site or in a readily accessible location and made available to the Division for inspection upon request.
- II. The engine and control devices must be installed, configured, operated and maintained according to the specifications and instructions provided by the engine manufacturer.
- III. If the engine is equipped with a diesel particulate filter, the filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached. Records shall be kept of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit is approached.
- IV. If the engine is used for emergency purposes, a non-resettable hour meter must be installed prior to start-up.
- V. If the diesel fuel-fired engine referenced herein avoids tier 4 or 4i requirements by being an emergency generator, the engine shall not be used for any purpose except emergency power generation and for the purpose of maintenance

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checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. Emergency stationary ICE may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in this section, is prohibited.

VI. Emission Standards:

- A. The engine referenced herein shall meet all the emissions standards applicable to the engine.
- B. Compliance with the NSPS Subpart IIII Emissions Standards for Non-Methane Hydrocarbons (NMHC), Nitrogen Oxides (NOx), Carbon Monoxide (CO) and Particulate Matter (PM) shall be demonstrated by filing a copy of the unit's certification documentation of compliance with the NSPS Subpart IIII emissions standards, with the associated application.

VII. The following requirements of Regulation No. 6, Part A, Subpart A, General Provisions, shall apply:

- A. At all times, including periods of start-up, shutdown, and malfunction, the engine and control equipment shall, to the extent practicable, be maintained and operated in a manner consistent with good air pollution control practices for minimizing emissions. Determination of whether or not acceptable operating and maintenance procedures are being used will be based on information available to the Division, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. (Reference: Regulation No. 6, Part A, General Provisions from 40 CFR 60.11)
- B. No article, machine, equipment or process shall be used to conceal an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. (§ 60.12)
- C. Written notification of construction and initial startup dates shall be submitted to the Division as required under § 60.7.
- D. Records of startups, shutdowns, and malfunctions shall be maintained, as required under § 60.7.

VIII. This engine meets all the requirements in New Source Performance Standard (NSPS) Subpart IIII as applicable to the specific engine, including the standards required for relocating into Colorado as set forth in Regulation No. 6, Part B, Section I.C.

I hereby certify that all information contained herein is complete, true and correct. I certify that this source is and will be operated in full compliance with the applicable tier standards of Colorado Air Quality Control Commission Regulation No. 6, Part A, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE) as well as all other requirements referenced herein.

Michael Firmin

Vice President - Global Real Estate

Name of Legally Authorized Person (Please Print)

Title

Signature of Legally Authorized Person

Date

4/27/23

¹ If the engine has not been selected or ordered as of the date of submission of the construction permit application, this form must be completed and submitted to the Colorado Air Pollution Control Division, for an affected engine, within one hundred and eighty (180) days after the commencement of construction/operation.

² This information can be obtained from the engine manufacturer.

³ Please enter this information if this form is being submitted after the date of submission of the construction permit application and a permit number and AIRS ID number have been assigned. Otherwise, leave these fields blank.

⁴ Supporting documentation includes: document(s) proving the date of first entry into Colorado (purchase receipt, delivery receipt, etc.) and tier standard certification information from the manufacturer, as applicable.



COLORADO

Air Pollution Control Division

Department of Public Health & Environment

Dedicated to protecting and improving the health and environment of the people of Colorado

New Source Performance Standards (NSPS) – 40 CFR Part 60, Subpart IIII Applicability Air Pollutant Emission Notice (APEN) Addendum Form for Diesel Engines

Company Name: JP Morgan Chase & Co.

Engine Information¹

Make: Cummins Model: QSK78-G12 SN: G180382764

1. Date of Engine Manufacture: 2018
2. Has this engine operated outside of the state of Colorado?
☐ Yes
☒ No
3. If you answered "Yes" to question 2, please answer the following question. (If you answered "No" to question 2, please leave this field blank.) What is the date of first entry into Colorado? _____
4. This engine was manufactured to meet the following tier level standards² (e.g., Tier 1, Tier 2): Tier 2

Permit #: 18AR0855

AIRS ID: 005 / 1711 / 015

A copy of this form, along with appropriate supporting documentation³, shall be maintained on-site or at a local field office, with stationary source responsibility, with a copy of the construction permit, exemption letter or general permit approval letter issued by the Colorado Air Pollution Control Division (the Division) for this emissions source. These records may be kept in either electronic or hard copy format provided that they can be promptly supplied to the Division or agents thereof upon request.

This engine shall comply with the New Source Performance Standards (NSPS) requirements of Colorado Air Quality Control Commission Regulation No. 6, Part A, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE) including, but not limited to, the following:

[The requirements below reflect the rule language of 40 CFR Part 60 Subpart IIII published in the Federal Register on 01/30/2013. However, if revisions to this Subpart are published at a later date, the owner or operator is subject to the requirements contained in the revised version of 40 CFR Part 60, Subpart IIII.]

- I. All fuel used shall meet the following specifications:
 - A. Sulfur content shall not exceed 15 ppm
 - B. Have a minimum cetane index of 40 or have a maximum aromatic compound content of 35% by volume
 - C. Compliance shall be demonstrated by maintaining copies of the fuel specifications provided by the supplier on-site or in a readily accessible location and made available to the Division for inspection upon request.
- II. The engine and control devices must be installed, configured, operated and maintained according to the specifications and instructions provided by the engine manufacturer.
- III. If the engine is equipped with a diesel particulate filter, the filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached. Records shall be kept of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit is approached.
- IV. If the engine is used for emergency purposes, a non-resettable hour meter must be installed prior to start-up.
- V. If the diesel fuel-fired engine referenced herein avoids tier 4 or 4i requirements by being an emergency generator, the engine shall not be used for any purpose except emergency power generation and for the purpose of maintenance.

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checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. Emergency stationary ICE may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in this section, is prohibited.

VI. Emission Standards:

- A. The engine referenced herein shall meet all the emissions standards applicable to the engine.
- B. Compliance with the NSPS Subpart IIII Emissions Standards for Non-Methane Hydrocarbons (NMHC), Nitrogen Oxides (NOx), Carbon Monoxide (CO) and Particulate Matter (PM) shall be demonstrated by filing a copy of the unit's certification documentation of compliance with the NSPS Subpart IIII emissions standards, with the associated application.

VII. The following requirements of Regulation No. 6, Part A, Subpart A, General Provisions, shall apply:

- A. At all times, including periods of start-up, shutdown, and malfunction, the engine and control equipment shall, to the extent practicable, be maintained and operated in a manner consistent with good air pollution control practices for minimizing emissions. Determination of whether or not acceptable operating and maintenance procedures are being used will be based on information available to the Division, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. (Reference: Regulation No. 6, Part A, General Provisions from 40 CFR 60.11)
- B. No article, machine, equipment or process shall be used to conceal an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. (§ 60.12)
- C. Written notification of construction and initial startup dates shall be submitted to the Division as required under § 60.7.
- D. Records of startups, shutdowns, and malfunctions shall be maintained, as required under § 60.7.

VIII. This engine meets all the requirements in New Source Performance Standard (NSPS) Subpart IIII as applicable to the specific engine, including the standards required for relocating into Colorado as set forth in Regulation No. 6, Part B, Section I.C.

I hereby certify that all information contained herein is complete, true and correct. I certify that this source is and will be operated in full compliance with the applicable tier standards of Colorado Air Quality Control Commission Regulation No. 6, Part A, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE) as well as all other requirements referenced herein.

Michael Firmin

Vice President - Global Real Estate

Name of Legally Authorized Person (Please Print)

Title

Signature of Legally Authorized Person

Date

¹ If the engine has not been selected or ordered as of the date of submission of the construction permit application, this form must be completed and submitted to the Colorado Air Pollution Control Division, for an affected engine, within one hundred and eighty (180) days after the commencement of construction/operation.

² This information can be obtained from the engine manufacturer.

³ Please enter this information if this form is being submitted after the date of submission of the construction permit application and a permit number and AIRS ID number have been assigned. Otherwise, leave these fields blank.

⁴ Supporting documentation includes: document(s) proving the date of first entry into Colorado (purchase receipt, delivery receipt, etc.) and tier standard certification information from the manufacturer, as applicable.



COLORADO

Air Pollution Control Division

Department of Public Health & Environment

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New Source Performance Standards (NSPS) – 40 CFR Part 60, Subpart IIII Applicability Air Pollutant Emission Notice (APEN) Addendum Form for Diesel Engines

Company Name: JP Morgan Chase & Co.

Engine Information¹

Make: Cummins Model: QSK78-G12 SN: G180387386

1. Date of Engine Manufacture: 2018
2. Has this engine operated outside of the state of Colorado?
☐ Yes
☒ No
3. If you answered "Yes" to question 2, please answer the following question. (If you answered "No" to question 2, please leave this field blank.) What is the date of first entry into Colorado? _____
4. This engine was manufactured to meet the following tier level standards' (e.g., Tier 1, Tier 2): Tier 2

Permit #: 18AR0855

AIRS ID: 005 / 1711 / 016

A copy of this form, along with appropriate supporting documentation⁴, shall be maintained on-site or at a local field office, with stationary source responsibility, with a copy of the construction permit, exemption letter or general permit approval letter issued by the Colorado Air Pollution Control Division (the Division) for this emissions source. These records may be kept in either electronic or hard copy format provided that they can be promptly supplied to the Division or agents thereof upon request.

This engine shall comply with the New Source Performance Standards (NSPS) requirements of Colorado Air Quality Control Commission Regulation No. 6, Part A, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE) including, but not limited to, the following:

[The requirements below reflect the rule language of 40 CFR Part 60 Subpart IIII published in the Federal Register on 01/30/2013. However, if revisions to this Subpart are published at a later date, the owner or operator is subject to the requirements contained in the revised version of 40 CFR Part 60, Subpart IIII.]

- I. All fuel used shall meet the following specifications:
 - A. Sulfur content shall not exceed 15 ppm
 - B. Have a minimum cetane index of 40 or have a maximum aromatic compound content of 35% by volume
 - C. Compliance shall be demonstrated by maintaining copies of the fuel specifications provided by the supplier on-site or in a readily accessible location and made available to the Division for inspection upon request.
- II. The engine and control devices must be installed, configured, operated and maintained according to the specifications and instructions provided by the engine manufacturer.
- III. If the engine is equipped with a diesel particulate filter, the filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached. Records shall be kept of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit is approached.
- IV. If the engine is used for emergency purposes, a non-resettable hour meter must be installed prior to start-up.
- V. If the diesel fuel-fired engine referenced herein avoids tier 4 or 4i requirements by being an emergency generator, the engine shall not be used for any purpose except emergency power generation and for the purpose of maintenance

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checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. Emergency stationary ICE may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in this section, is prohibited.

VI. Emission Standards:

- A. The engine referenced herein shall meet all the emissions standards applicable to the engine.
- B. Compliance with the NSPS Subpart IIII Emissions Standards for Non-Methane Hydrocarbons (NMHC), Nitrogen Oxides (NO_x), Carbon Monoxide (CO) and Particulate Matter (PM) shall be demonstrated by filing a copy of the unit's certification documentation of compliance with the NSPS Subpart IIII emissions standards, with the associated application.

VII. The following requirements of Regulation No. 6, Part A, Subpart A, General Provisions, shall apply:

- A. At all times, including periods of start-up, shutdown, and malfunction, the engine and control equipment shall, to the extent practicable, be maintained and operated in a manner consistent with good air pollution control practices for minimizing emissions. Determination of whether or not acceptable operating and maintenance procedures are being used will be based on information available to the Division, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. (Reference: Regulation No. 6, Part A, General Provisions from 40 CFR 60.11)
- B. No article, machine, equipment or process shall be used to conceal an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. (§ 60.12)
- C. Written notification of construction and initial startup dates shall be submitted to the Division as required under § 60.7.
- D. Records of startups, shutdowns, and malfunctions shall be maintained, as required under § 60.7.

VIII. This engine meets all the requirements in New Source Performance Standard (NSPS) Subpart IIII as applicable to the specific engine, including the standards required for relocating into Colorado as set forth in Regulation No. 6, Part B, Section I.C.

I hereby certify that all information contained herein is complete, true and correct. I certify that this source is and will be operated in full compliance with the applicable tier standards of Colorado Air Quality Control Commission Regulation No. 6, Part A, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE) as well as all other requirements referenced herein.

Michael Firmin

Vice President - Global Real Estate

Name of Legally Authorized Person (Please Print)

Title

Signature of Legally Authorized Person

Date

4/27/23

¹ If the engine has not been selected or ordered as of the date of submission of the construction permit application, this form must be completed and submitted to the Colorado Air Pollution Control Division for an affected engine, within one hundred and eighty (180) days after the commencement of construction/operation.

² This information can be obtained from the engine manufacturer.

³ Please enter this information if this form is being submitted after the date of submission of the construction permit application and a permit number and AIRS ID number have been assigned. Otherwise, leave these fields blank.

⁴ Supporting documentation includes: document(s) proving the date of first entry into Colorado (purchase receipt, delivery receipt, etc.) and tier standard certification information from the manufacturer, as applicable.

ATTACHMENT C
EMISSION RATE CALCULATIONS
SYNTHETIC MINOR CONSTRUCTION PERMIT APPLICATION
PROJECT SYCAMORE - AURORA
JP MORGAN CHASE & CO.

DIESEL ENGINES - PTE EMISSIONS
JP MORGAN CHASE & CO.
PROJECT SYCAMORE - AURORA DATA CENTER

AIRS Point Number	Facility Equipment ID	Engine Type	Engine Horsepower Rating (hp)	Annual Operating Hours (hr/yr)	Pollutant	Emission Factors ^a	Units	PTE Emission Rates	
								Hourly ^b (lb/hr)	Annual ^c (T/yr)
001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012, 013, 014, 015, 016	GEN 01, GEN 02, GEN 03, GEN 04, GEN 05, GEN 06, GEN 07, GEN 08, GEN 09, GEN 10, GEN 11, GEN 12, GEN 13, GEN 14, GEN 15, GEN 16	Cummins QSK78-G12	3,705	60	CO	0.0015	lb/hp-hr	5.56	0.17
					NO _x	0.0137	lb/hp-hr	50.76	1.52
					PM	0.00022	lb/hp-hr	0.82	0.02
					PM ₁₀	0.00022	lb/hp-hr	0.82	0.02
					PM _{2.5}	0.00022	lb/hp-hr	0.82	0.02
					SO ₂	0.0000121	lb/hp-hr	0.04	0.001
					VOC	0.00071	lb/hp-hr	2.63	0.08

^a The emission factors for CO, NO_x, PM, PM₁₀, and PM_{2.5} are from the manufacture data sheets. The emission factors for SO₂ and VOC are from AP-42 Section 3.4 Table 3.4-1.

^b An example calculations for hourly CO emissions follow:

$$\text{CO (lb/hr)} = (\text{Engine Horsepower Rating, hp}) * (\text{Emission Factor, lb/hp-hr})$$

$$\text{CO (lb/hr)} = (3,705 \text{ hp}) * (0.0015 \text{ lb/hp-hr})$$

$$= \boxed{5.56 \text{ lb/hr CO}}$$

^c An example calculation for annual CO emissions follows:

$$\text{CO (T/yr)} = (\text{Hourly CO Emission Rate, lb/hr}) * (\text{Annual Operating Hours, hr/yr}) / (2,000 \text{ lb/T})$$

$$\text{CO (T/yr)} = (5.56 \text{ lb/hr}) * (60 \text{ hr/yr}) * (1 \text{ T} / 2,000 \text{ lb})$$

$$= \boxed{0.17 \text{ T/yr CO}}$$

DIESEL ENGINE - ACTUAL ANNUAL EMISSIONS
JP MORGAN CHASE & CO.
PROJECT SYCAMORE - AURORA DATA CENTER

EER Point Number	Facility Equipment ID	Engine Type	Engine Horsepower Rating (hp)	Actual Annual Operating Hours (hr/yr)	Pollutant	Emission Factor ^a	Units	Emission Rate	
								Hourly (lb/hr)	Annual (T/yr)
004	GEN 05	Cummins QSK78-G12	3,705	14.2	CO	0.0015	lb/hp-hr	5.56	0.04
					NO _x	0.0137	lb/hp-hr	50.76	0.36
					PM	0.00022	lb/hp-hr	0.82	0.006
					PM ₁₀	0.00022	lb/hp-hr	0.82	0.006
					PM _{2.5}	*** 1.1	lb/hp-hr	0.82	0.006
					SO _x	0.0000121	lb/hp-hr	0.04	0.0003
					VOC ^b	0.00071	lb/hp-hr	2.63	0.02
006	GEN 06	Cummins QSK78-G12	3,705	14.1	CO	0.0015	lb/hp-hr	5.56	0.04
					NO _x	0.0137	lb/hp-hr	50.76	0.36
					PM	0.00022	lb/hp-hr	0.82	0.006
					PM ₁₀	0.00022	lb/hp-hr	0.82	0.006
					PM _{2.5}	0.00022	lb/hp-hr	0.82	0.006
					SO _x	0.0000121	lb/hp-hr	0.04	0.0003
					VOC ^b	0.00071	lb/hp-hr	2.63	0.02
007	GEN 07	Cummins QSK78-G12	3,705	14.2	CO	0.0015	lb/hp-hr	5.56	0.04
					NO _x	0.0137	lb/hp-hr	50.76	0.36
					PM	0.00022	lb/hp-hr	0.82	0.01
					PM ₁₀	0.00022	lb/hp-hr	0.82	0.01
					PM _{2.5}	0.00022	lb/hp-hr	0.82	0.01
					SO _x	0.0000121	lb/hp-hr	0.04	0.0003
					VOC ^b	0.00071	lb/hp-hr	2.63	0.02
008	GEN 08	Cummins QSK78-G12	3,705	13.9	CO	0.0015	lb/hp-hr	5.56	0.04
					NO _x	0.0137	lb/hp-hr	50.76	0.36
					PM	0.00022	lb/hp-hr	0.82	0.01
					PM ₁₀	0.00022	lb/hp-hr	0.82	0.01
					PM _{2.5}	0.00022	lb/hp-hr	0.82	0.01
					SO _x	0.0000121	lb/hp-hr	0.04	0.0003
					VOC ^b	0.00071	lb/hp-hr	2.63	0.02
009	GEN 09	Cummins QSK78-G12	3,705	14.7	CO	0.0015	lb/hp-hr	5.56	0.04
					NO _x	0.0137	lb/hp-hr	50.76	0.37
					PM	0.00022	lb/hp-hr	0.82	0.006
					PM ₁₀	0.00022	lb/hp-hr	0.82	0.006
					PM _{2.5}	*** 1.1	lb/hp-hr	0.82	0.006
					SO _x	0.0000121	lb/hp-hr	0.04	0.0003
					VOC ^b	0.00071	lb/hp-hr	2.63	0.02
010	GEN 10	Cummins QSK78-G12	3,705	17.5	CO	0.0015	lb/hp-hr	5.56	0.05
					NO _x	0.0137	lb/hp-hr	50.76	0.44
					PM	0.00022	lb/hp-hr	0.82	0.06
					PM ₁₀	*** 1.1	lb/hp-hr	0.82	0.06
					PM _{2.5}	0.00022	lb/hp-hr	0.82	0.06
					SO _x	*** 1.1	lb/hp-hr	0.04	0.0004
					VOC ^b	0.00071	lb/hp-hr	2.63	0.02
011	GEN 011	Cummins QSK78-G12	3,705	20.1	CO	0.0015	lb/hp-hr	5.56	0.06
					NO _x	0.0137	lb/hp-hr	50.76	0.42
					PM	0.00022	lb/hp-hr	0.82	0.07
					PM ₁₀	0.00022	lb/hp-hr	0.82	0.07
					PM _{2.5}	0.00022	lb/hp-hr	0.82	0.07
					SO _x	*** 1.1	lb/hp-hr	0.04	0.0004
					VOC ^b	0.00071	lb/hp-hr	2.63	0.03
012	GEN 12	Cummins QSK78-G12	3,705	14.6	CO	0.0015	lb/hp-hr	5.56	0.04
					NO _x	0.0137	lb/hp-hr	50.76	0.37
					PM	0.00022	lb/hp-hr	0.82	0.01
					PM ₁₀	0.00022	lb/hp-hr	0.82	0.01
					PM _{2.5}	0.00022	lb/hp-hr	0.82	0.01
					SO _x	0.0000121	lb/hp-hr	0.04	0.0003
					VOC ^b	0.00071	lb/hp-hr	2.63	0.02
013	GEN 13	Cummins QSK78-G12	3,705	14.1	CO	0.0015	lb/hp-hr	5.56	0.04
					NO _x	0.0137	lb/hp-hr	50.76	0.36
					PM	0.00022	lb/hp-hr	0.82	0.01
					PM ₁₀	0.00022	lb/hp-hr	0.82	0.01
					PM _{2.5}	0.00022	lb/hp-hr	0.82	0.01
					SO _x	0.0000121	lb/hp-hr	0.04	0.0003
					VOC ^b	0.00071	lb/hp-hr	2.63	0.02
014	GEN 14	Cummins QSK78-G12	3,705	13.85	CO	0.0015	lb/hp-hr	5.56	0.04
					NO _x	0.0137	lb/hp-hr	50.76	0.35
					PM	0.00022	lb/hp-hr	0.82	0.01
					PM ₁₀	0.00022	lb/hp-hr	0.82	0.01
					PM _{2.5}	*** 1.1	lb/hp-hr	0.82	0.01
					SO _x	0.0000121	lb/hp-hr	0.04	0.0003
					VOC ^b	0.00071	lb/hp-hr	2.63	0.02
015	GEN 15	Cummins QSK78-G12	3,705	14.0	CO	0.0015	lb/hp-hr	5.56	0.04
					NO _x	0.0137	lb/hp-hr	50.76	0.36
					PM	0.00022	lb/hp-hr	0.82	0.01
					PM ₁₀	*** 1.1	lb/hp-hr	0.82	0.01
					PM _{2.5}	0.00022	lb/hp-hr	0.82	0.01
					SO _x	0.0000121	lb/hp-hr	0.04	0.0003
					VOC ^b	0.00071	lb/hp-hr	2.63	0.02
16	GEN 16	Cummins QSK78-G12	3,705	13.6	CO	0.0015	lb/hp-hr	5.56	0.04
					NO _x	0.0137	lb/hp-hr	50.76	0.35
					PM	0.00022	lb/hp-hr	0.82	0.01
					PM ₁₀	0.00022	lb/hp-hr	0.82	0.01
					PM _{2.5}	0.00022	lb/hp-hr	0.82	0.01
					SO _x	0.0000121	lb/hp-hr	0.04	0.0003
					VOC ^b	0.00071	lb/hp-hr	2.63	0.02

^a The emission factors for CO, NO_x, PM, PM₁₀, and PM_{2.5} are from the manufacturer data sheets. The emission factors for SO_x and VOC are from AP-42 Section 3.4 Table 3.4-1.

^b An example calculation for hourly CO emissions follows:

$$\text{CO (lb/hr)} = (\text{Engine Horsepower Rating, hp}) (\text{Emission Factor, lb/hp-hr})$$

$$\text{CO (lb/hr)} = (3,705 \text{ hp}) (0.0015 \text{ lb/hp-hr})$$

$$5.56 \text{ lb/hr (T)}$$

^c An example calculation for annual CO emissions follows:

$$\text{CO (T/yr)} = (\text{Hourly CO Emissions Rate, lb/hr}) (\text{Annual Operating Hours, hr/yr}) (2,000 \text{ lb-T})$$

$$\text{CO (T/yr)} = (5.56 \text{ lb/hr}) (14.2 \text{ hr/yr}) (2,000 \text{ lb-T})$$

$$0.04 \text{ T/yr CO}$$

ATTACHMENT D
COMPANY CONTACT INFORMATION FORM APCD-101
SYNTHETIC MINOR CONSTRUCTION PERMIT APPLICATION
PROJECT SYCAMORE - AURORA
JP MORGAN CHASE & CO.



Company Contact Information Form

Ver. September 10, 2008

Company Name: JP Morgan Chase & Co.Source Name: Project Sycamore - Aurora, Plant AIRS ID: 005-1711

Permit Contact¹:	Michael Firmin			
Address:	23505 East 6th Avenue			
	Street			
	Aurora	CO	80018	
	City	State	Zip	
Phone Number:	303-607-1409			
Fax Number:				
E-mail:	michael.firmin@jpmchase.com			

Compliance Contact²:	Michael Firmin			
Address:	23505 East 6th Avenue			
	Street			
	Aurora	CO	80018	
	City	State	Zip	
Phone Number:	303-607-1409			
Fax Number:				
E-mail:	michael.firmin@jpmchase.com			

Billing Contact: (Permit Fees)³	Michael Firmin			
Address:	23505 East 6th Avenue			
	Street			
	Aurora	CO	80018	
	City	State	Zip	
Phone Number:	303-607-1409			
Fax Number:				
E-mail:	michael.firmin@jpmchase.com			

Billing Contact: (Annual Fees)⁴	Michael Firmin			
Address:	23505 East 6th Avenue			
	Street			
	Aurora	CO	80018	
	City	State	Zip	
Phone Number:	303-607-1409			
Fax Number:				
E-mail:	michael.firmin@jpmchase.com			

Check how would you like to receive your permit fee invoice?

Mail: ☐E-mail: ☒Fax: ☐**Footnotes:**¹ The permit contact should be the point of contact for technical information contained in the permit application. This may be a company representative or a consultant.² The compliance contact should be the point of contact for discussing inspection and compliance at the permitted facility.³ The billing contact (Permit fees) should be the point of contact that should receive the invoice for fees associated with processing the permit application & issuing the permit. (Reg. 3, Part A, Section VI.B)⁴ The billing contact (Annual fees) should be the point of contact that should receive the invoices issued on an annual basis for fees associated with actual emissions reported on APENs for the facility. (Reg. 3, Part A, Section VI.C)

ATTACHMENT E
APPROVED PERMIT MODELING DETERMINATION
SYNTHETIC MINOR CONSTRUCTION PERMIT APPLICATION
PROJECT SYCAMORE - AURORA
JP MORGAN CHASE & CO.



Colorado Department of Public Health and Environment

Modeling Review Comments

APCD/TSP/MMEIU Project ID: 527-191217

Review Completed: 12/14/2019

Plant/Site Name: JP Morgan Chase Project Sycamore Aurora

Document Reviewed: JP Morgan Chase & Co. Project Sycamore - Aurora Air Dispersion Modeling Report (v 2.1)

Reviewed by: blr

blr

Summary

JPMC proposes to construct and operate sixteen (16) 2,500-kilowatt (kW) emergency generators. A brief description of the Emergency Engine "process" is as follows: diesel fuel-fired compression-ignition internal combustion engines are used to provide motive power to an integrated electrical generator; the power from the electricity to the load bank of the data center during periods of service interruption from the external power supply grid.

There are NAAQS and CAAQS currently in effect for the following pollutants and averaging periods: CO (1-hr and 8-hr), Pb (3-month rolling average), NO₂ (1-hr and annual), PM₁₀ (24-hr), PM_{2.5} (24-hr and annual), SO₂ (1-hr, and 3-hr), and ozone (8-hr). For this permit application, quantitative impact analyses are warranted to demonstrate compliance with the NAAQS/CAAQS for the following pollutants and averaging periods: CO (1-hr and 8-hr), NO₂ (1-hr and annual), PM₁₀ (24-hr), PM_{2.5} (24-hr), and SO₂ (1-hr and 3-hr).

On behalf of JPMC a modeling report was submitted by Environmental Resources Management, Inc., (ERM). ERM submitted a final modeling report in October 2019 for these pollutants and averaging intervals: 1hr and 8hr CO, 1hr and annual NO₂, 24hr PM₁₀, 1hr and 3hr SO₂, and 24hr PM_{2.5}. MEIU undertook additional modeling to demonstrate compliance with the Annual PM_{2.5} NAAQS.

A Modeling Summary is presented here:

Pollutant	Averaging Interval	Background Concentration (ug/m3)	Maximum Modeled Impact (ug/m3)	Impact With Background (ug/m3)	NAAQS/CAAQS (ug/m3)
CO	1 hr	n/a	523*	523	10307
CO	8 hr	n/a	292*	292	40082
PM10	24 hr	60	19.3*	79.3	150
PM2.5	24 hr	22	9.46	31.46	35
PM2.5	Annual	7	1.9*	8.9	12
SO2	1 hr	31.4	0.63*	32.03	196.6
SO2	3 hr	28.8	40.53*	69.32	700
NO2	1 hr	116.65	37.65	154.29	188.4
NO2	Annual	1.53	28.22*	29.76	99.7

*Note - The values with an asterisk were the modeled highest estimated impacts in any of the years modeled. The

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Modeling, Meteorology, and Emission Inventory Unit

Modeling Review Comments

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Reviewed by: blr

one hour NO₂ value compared to the standard is the highest five year average; the 24 hr PM_{2.5} value compared to the standard is the third highest five year average. In regards to the last two the correct form of the standard is the highest eighth high value.

Project emission rates were computed based on each engine's potential to emit and a testing and maintenance schedule not to exceed 100 hours per year per engine. CDPHE provided a meteorological data set generated from five years of Denver-Stapleton, met site, processed with AERMET v19191 for the years 1990 - 1994. For all modeling demonstrations a conservative background concentration for all pollutants/averaging intervals was provided to ERM by MEIU, identified in Appendix B of this report. The background concentrations provided by MEIU are meant to include contributions from nearby sources. Terrain elevations and hill heights were developed using AERMAP 18081 using Colorado's Elevation Tool

(https://www.colorado.gov/airquality/quad_selector_map.aspx), all building downwash effects for all emissions sources were computed using BPIPPRM v04274. The ambient impact analyses submitted by the applicant were altered as necessary and otherwise verified by the MEIU show that the permitted facility does not cause or contribute to a modeled violation of the following NAAQS/CAAQS: 1 hr CO, 8 hr CO, Annual NO₂, 1hr NO₂, 24 hr PM₁₀, 1 hr SO₂, 3 hr SO₂, Annual PM_{2.5} and 24 hr PM_{2.5}. This demonstration is valid under the following configuration (recommended permit conditions):

- 1) Hours of Operations. JPMC Broomfield must restrict the hours for maintenance and testing to no more than 100 hours per year per engine.
- 2) Fencing and Preclusion of Public Access: Impacts were estimated at ambient air receptors only (i.e., an ambient air boundary and fencing was assumed in the modeling). The permit should contain a condition that for the duration of the permit effectiveness, the source operator shall maintain continuous fencing along the boundary depicted in Appendix A of this modeling report. Public access to these areas shall be precluded.
- 3) Stack Heights: Modeled impacts were estimated assuming the stack heights indicated as release heights in Appendix B of this modeling report. The permit should contain a condition that the stack heights are as identified in this table.
- 4) Layout of Sources, Buildings and Roads: Modeled impacts were estimated assuming that the location of the sources, buildings and roads within the facility correspond to the layout depicted in Appendix A of this modeling report. The permit should contain a condition that the facility should be constructed with the layout depicted in Appendix A.

Review Checklist

1. Topographic Map with Site and Receptor Locations

☒ Satisfactory

Maps with receptors included on a number of scales including the entire grid down to the fenceline only. The entire grid is included in Appendix B of this report for reference

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Modeling Review Comments

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Reviewed by: blr

2. Plant/Site Plot Plan

Satisfactory

Plot plan with buildings, sources, fenceline (with receptors), and topography included. This material is included in Appendix B of this report for reference.

3. Building Dimension Data

Satisfactory

Site building plan extensively documented in the modeling report. The building plot (including sources and on-site walls) is included in Appendix B of this report for reference.

4. Determination of Fenceline

Satisfactory

The modeling report states that the project fenceline won't be the property line, consequently the modeling uses the security fence to define the ambient air boundary, included in Appendix B of this report for reference.

5. Identification of Nearby Nonattainment Areas

Satisfactory

The project site resides in Arapahoe County, within the DMNFR ozone nonattainment area.

6. Identification of Pollutants/Averaging Periods to Model

Satisfactory

Project Emission Rates:

Pollutant	Project Emission Thresholds Short Term (lb/hr)	
	Modeling Threshold	Proposed Emission Rate
CO	23	124.16
NOx	0.46	812.89
PM10	--	--
PM2.5	--	--
SO2	0.46	13.07

Pollutant	Project Emission Thresholds Short Term (lb/day)	
	Modeling Threshold	Proposed Emission Rate
CO	--	--

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NOx	--	--
PM10	82	260.33
PM2.5	11	260.33
SO2	--	--

Pollutant	Project Emission Thresholds Long Term (ton/year)	
	Modeling Threshold	Proposed Emission Rate
CO	--	--
NOx	40	40.64
PM10	--	--
PM2.5	5	0.52
SO2	40	0.65

It should be noted the emission rates are identical with those of a different project (Project 520-190730, JPMC Broomfield) and that those values were approved by the permit engineer. However, the values submitted in the modeling report reviewed by MEIU deviated from what was approved. The original modeled value submitted to MEIU was 0.082 g/s, MEIU used a value of 0.1033 g/s. There was no explanation for the lower emission rate submitted with the modeling. MEIU simply substituted the previously approved values for what was submitted. Those changes (PM2.5 emission rate(s)) were changed and modeled accurately.

7. On-Site NAAQS/Non-Criteria Pollutant Emission Inventory

Satisfactory

The modeling review engineer defers to the permit review engineer to verify the emission rates.

8. On-Site PSD Increment Emission Inventory

Not Applicable

A preliminary determination in June 1998 from the Colorado Attorney General's office suggests that rulemaking would be necessary before compliance with PSD increments is a requirement of permit issuance for minor sources and minor modifications. Therefore, increment consumption from minor source growth is assessed only during the modeling process for new sources and modifications subject to PSD rules and during periodic increment studies.

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Modeling Review Comments

APCD/TSP/MMEIU Project ID: 527-191217

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Plant/Site Name: JP Morgan Chase Project Sycamore Aurora

Document Reviewed: JP Morgan Chase & Co. Project Sycamore - Aurora Air Dispersion Modeling Report (v 2.1)

Reviewed by: blr

9. Off-Site NAAQS/Non-Criteria Pollutant Emission Inventory

Not Applicable

Conservative background values intending to include impacts from off-site sources were provided to the applicant by MEIU, they are presented here and included in Appendix A of this modeling report for reference:

Pollutant	Averaging Interval	Estimated Concentration	Basis for Estimate
SO2	1 hr	0.012 ppm	La Casa, 2016 - 2018
SO2	3 hr	0.011 ppm	La Casa, 2016 - 2018
NO2	1 hr	0.06 ppm	La Casa, 2016 - 2018
NO2	Annual	0.015 ppm	La Casa, 2016 - 2018
PM10	24 hr	60 ug/m3	La Casa, 2016 - 2018
PM2.5	24 hr	22 ug/m3	La Casa, 2016 - 2018
PM2.5	Annual	7 ug/m3	La Casa, 2016 - 2018

10. Off-Site PSD Increment Emission Inventory

Not Applicable

A preliminary determination in June 1998 from the Colorado Attorney General's office suggests that rulemaking would be necessary before compliance with PSD increments is a requirement of permit issuance for minor sources and minor modifications. Therefore, increment consumption from minor source growth is assessed only during the modeling process for new sources and modifications subject to PSD rules and during periodic increment studies.

11. Background Concentration(s)

Satisfactory

Conservative background values intending to include impacts from off-site sources were provided to the applicant by MEIU, they are presented here and included in Appendix A of this modeling report for reference:

Pollutant	Averaging Interval	Estimated Concentration	Basis for Estimate
SO2	1 hr	0.012 ppm	La Casa, 2016 - 2018
SO2	3 hr	0.011 ppm	La Casa, 2016 - 2018
NO2	1 hr	0.06 ppm	La Casa, 2016 - 2018

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Plant/Site Name: JP Morgan Chase Project Sycamore Aurora

Document Reviewed: *JP Morgan Chase & Co. Project Sycamore - Aurora Air Dispersion Modeling Report (v 2.1)*

Reviewed by: blr

NO2	Annual	0.015 ppm	La Casa, 2016 - 2018
PM10	24 hr	60 ug/m3	La Casa, 2016 - 2018
PM2.5	24 hr	22 ug/m3	La Casa, 2016 - 2018
PM2.5	Annual	7 ug/m3	La Casa, 2016 - 2018

12. Selection of Model(s)

Satisfactory

The applicant used the EPA regulatory model AERMOD v19191, the terrain data processors AERMAP v18081, and the building downwash parameters processor BPIPPRM v 04274. Meteorological data for the modeling was provided by MEIU (see Appendix A of this modeling report for the met determination) and compiled with AERMET v19191.

13. Selection of Modeling Parameters

Satisfactory

Regulatory default was used by the applicant for all pollutants and averaging periods. The applicant used Tier 1 NOx treatment, all NOx as NO2.

14. Receptor Network

Satisfactory

Original receptor network was generated by consultant and reviewed by MEIU. Receptors placed at every 50m along fenceline; every 100m beyond the fenceline out to 1km; every 250m beyond 1km to 3km; every 500m from 3km extending out to 15km, the entire grid can be viewed in Appendix B of this modeling report.

15. Treatment of Atmospheric Chemistry (NOx conversion)

Satisfactory

The modeling used the Tier 1 NO2 approach, assumes all NOx is NO2, MEIU's approval to use this approach is included in Appendix A of this report.

16. Standard Temperature Pressure Corrections

Not Applicable

The Division does not require correction of model results to STP. Thus, the approach used is consistent with current modeling guidance.

17. Meteorological Data for Model(s)

Satisfactory

Five years of data were provided to the consultant by MEIU from the Stapleton Met site in Denver from 1990 - 1994. The meteorological determination concluded the data was representative for the project site, included in Appendix A of this modeling report.

18. Other Modeling Data

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Modeling Review Comments

APCD/TSP/MMEIU Project ID: 527-191217

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Plant/Site Name: JP Morgan Chase Project Sycamore Aurora

Document Reviewed: JP Morgan Chase & Co. Project Sycamore - Aurora Air Dispersion Modeling Report (v 2.1)

Reviewed by: blr

Satisfactory

A worst-case operating scenario has been modeled with all sixteen turbines operating at the same time for their maximum potential hours of operating in a testing and maintenance mode.

19. Modeling Input/Output Files Provided Electronically

Satisfactory

All BPIP, AERMAP, and AERMOD (significance and cumulative) results were provided electronically.

20. Comparison of Impacts with Significance Levels

Satisfactory

Pollutant	Averaging Interval	Maximum Modeled Impact (ug/m3)	SIL (ug/m3)
CO	1 hr	523	2000
CO	8 hr	292	500
PM10	24 hr	19.3	5
PM2.5	24 hr	15.27	1.2
PM2.5	Annual	1.9	0.2
SO2	1 hr	0.63	4
SO2	3 hr	40.53	25
NO2	1 hr	37.65	7.5
NO2	Annual	1.537	1.0

21. Comparison of Impacts with Class I 24hr 1ug/m3 Rule

Not Applicable

Not required for non-PSD permitting actions such as minor sources and minor modifications.

22. Compliance with "75% of Applicable Increment" Rule

Not Applicable

Not required for non-PSD permitting actions such as minor sources and minor modifications.

23. Selection of Geographic Area for Full Impact Analysis

Satisfactory

The geographic extent of the receptor grid is satisfactory to capture maximum impacts and the significant impact area.

24. Compliance with Class I PSD Increments

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Plant/Site Name: JP Morgan Chase Project Sycamore Aurora

Document Reviewed: JP Morgan Chase & Co. Project Sycamore - Aurora Air Dispersion Modeling Report (v 2.1)

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Not Applicable

Not required for non-PSD permitting actions such as minor sources and minor modifications.

25. Compliance with Class II PSD Increments

Not Applicable

The proposed facility is not subject to PSD requirements.

26. Compliance with NAAQS and State Standards

Satisfactory

CO (1 hr and 8 hr)

The NAAQS compliance demonstration for CO was completed using AERMOD default options. The highest modeled impact (H1H) for the 1 hr demonstration for all five years of met data was 523 ug/m³, less than the significant impact level (SIL) of 2000 ug/m³. The 8 hr CO demonstration was accomplished using AERMOD default options. The H1H modeled impact for the 8 hr demonstration for all five years of met data was 292 ug/m³, less than the SIL of 500 ug/m³.

Based on these results this facility will not cause or contribute to a 1 hr or 8 hr CO NAAQS violation.

SO₂ (1 hr and 3 hr)

The NAAQS/CAAQS compliance demonstration for SO₂ was completed using AERMOD default options. The H1H five-year average modeled impact for the 1 hr demonstration 0.63 ug/m³, less than the SIL of 4 ug/m³.

The 3 hr SO₂ demonstration was accomplished using AERMOD default options. The H1H modeled impact for the 3 hr demonstration for all five years of met data was 41.47 ug/m³, in excess of the SIL of 25 ug/m³. MEIU determined the maximum radius of impact (ROI) was less than 600 m. As this ROI falls within the range of the 100 m grid no further grid refinement was necessary. A conservative background of 0.011 ppm (28.79 ug/m³) was added to the results yielding a H1H concentration of 70.26 ug/m³, well below the CAAQS of 700 ug/m³.

Based on these results this facility will not cause or contribute to a 1 hr SO₂ or 3 hr SO₂ NAAQS or CAAQS violation.

PM₁₀ (24 hr)

The NAAQS compliance demonstration for PM₁₀ was completed using AERMOD default options. The H1H modeled impact for the 24 hr demonstration for all five years of met data was 19.27 ug/m³, in excess of the SIL of 5 ug/m³. MEIU determined the ROI was less than 1 km (906 m). As this ROI falls within the range of the 100 m grid no

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Air Pollution Control Division / Technical Services Program
Modeling, Meteorology, and Emission Inventory Unit

Modeling Review Comments

APCD/TSP/MMEIU Project ID: 527-191217

Review Completed: 12/14/2019

Plant/Site Name: JP Morgan Chase Project Sycamore Aurora

Document Reviewed: *JP Morgan Chase & Co. Project Sycamore - Aurora Air Dispersion Modeling Report (v 2.1)*

Reviewed by: blr

further grid refinement was necessary. A conservative background of 60 ug/m³ was added to the results yielding a H1H concentration of 79.27 ug/m³, well below the NAAQS of 150 ug/m³.

Based on these results this facility will not cause or contribute to a 24 hr PM10 NAAQS violation.

NO₂ (1 hr and Annual)

The NAAQS compliance demonstration for 1 hr NO₂ was accomplished using AERMOD default options and Tier 1 NO_x treatment (all NO_x is NO₂). The H1H modeled impact for all five years of met data for the 1 hr demonstration was 39.65 ug/m³, in excess of the SIL of 7.5 ug/m³. MEIU determined the ROI was nearly 10 km (9412 m). MEIU generated a refined 10 km grid of 100m receptors. A conservative background of 0.062 ppm (116 ug/m³) was added to these results yielding a H1H five-year average concentration of 154.369 ug/m³, well below the NAAQS of 188.4 ug/m³. The NAAQS compliance demonstration for Annual NO₂ was accomplished using AERMOD default options and Tier 1 NO_x treatment. The H1H modeled impact for the Annual demonstration for all five years of met data was 1.53 ug/m³, in excess of the SIL of 1.0 ug/m³. MEIU determined the ROI was less than 1 km (295 m). As this ROI falls within the range of the 100 m no further refinement was necessary. A conservative background of 0.015 ppm (28.22 ug/m³) was added to the results yielding a H1H concentration of 29.76 ug/m³, well below the NAAQS of 99.71 ug/m³.

Based on these results this facility will not cause or contribute to an Annual NO₂ NAAQS violation.

PM_{2.5} (24 hr and Annual)

The NAAQS compliance demonstration for 24 hr PM_{2.5} was accomplished using AERMOD default options. The H1H modeled impact for the 24 hr demonstration for all five years of met data was 15.27 ug/m³, in excess of the SIL of 1.2 ug/m³. MEIU determined the ROI to be nearly 10 km and developed a refined grid of every 100 m receptors and ran the cumulative impact analysis using the AERMOD MAXDCONT option. Using the form of the standard that incorporates five years of met data the highest eighth high value five-year average at any of the refined receptors was 9.46 ug/m³. A conservative background of 22 ug/m³ was added to these results yielding a concentration of 31.46 ug/m³, below the NAAQS of 35 ug/m³.

The NAAQS compliance demonstration for Annual PM_{2.5} was accomplished using AERMOD default options. The H1H modeled impact for the Annual demonstration for

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Air Pollution Control Division / Technical Services Program
Modeling, Meteorology, and Emission Inventory Unit

Modeling Review Comments

APCD/TSP/MMEIU Project ID: 527-191217

Review Completed: 12/14/2019

Plant/Site Name: JP Morgan Chase Project Sycamore Aurora

Document Reviewed: *JP Morgan Chase & Co. Project Sycamore - Aurora Air Dispersion Modeling Report (v 2.1)*

Reviewed by: blr

all five years of met data was 1.91 ug/m3, in excess of the SIL, 0.2 ug/m3. MEIU determined the ROI to be less than 1.2 km and developed a refined grid of every 100 m receptors out to this distance. AERMOD was re run using this grid; the five year average H1H model impact was 1.9 ug/m3. A conservative background of 7 ug/m3 was added to this result yielding a concentration of 8.9 ug/m3, below the NAAQS of 12 ug/m3. Based on these results this facility will not cause or contribute to a 24 hr or Annual PM2.5 NAAQS violation.

27. Compliance with Non-Criteria Pollutant Thresholds

☐ Not Applicable

Not required under Colorado Regulation 3, nor requested by permit engineer.

28. Determination of Pre-/Post-Monitoring Requirements

☐ Not Applicable

Not required for non-PSD permitting actions such as minor sources and minor modifications.

29. Visibility Impairment and AQRV Analyses

☐ Not Applicable

The proposed facility is not subject to PSD requirements.

30. Anticipated Growth/Soils/Vegetation Analyses

☐ Not Applicable

The proposed facility is not subject to PSD requirements.

31. Compliance with Regulations in Affected Adjacent States

☐ Not Applicable

The proposed facility is not subject to PSD requirements.

32. Risk Assessment

☐ Not Applicable

Risk assessments and review of impacts from hazardous air pollutants are not performed on a routine basis and are only performed when a specific request is made by the Stationary Sources Program (SSP).

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Air Pollution Control Division / Technical Services Program
Modeling, Meteorology, and Emission Inventory Unit

Modeling Review Comments

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Reviewed by: blr

Access to data, notes, and files:

All information necessary to form the basis of the air quality compliance demonstration is transmitted to the permit reviewer for inclusion in the permit file.

In some cases, the Technical Services Program retains ambient air monitoring and modeling data, ambient monitoring and modeling plans and reports, electronic modeling input/output files, and other files. These files may contain documents that are considered to be part of a deliberative process.

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Air Pollution Control Division / Technical Services Program
Modeling, Meteorology, and Emission Inventory Unit

ATTACHMENT F
FACILITY WIDE EMISSIONS INVENTORY FORM APCD-102a
SYNTHETIC MINOR CONSTRUCTION PERMIT APPLICATION
PROJECT SYCAMORE - AURORA
JP MORGAN CHASE & CO.

Facility Wide Emissions Inventory Form

Ver September 2019

Company Name: JP MORGAN CHASE & CO

Source Name: PROJECT SYCAMORE - AIRRORA DATA CENTER PLANT AIRS ID: 005-1711, AIRS POINTS: 001-016 EMERGENCY GENERATOR ENGINES

Source: ARES ID: Phad ARES ID 006-1711, ARES Points 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012, 013, 014, 015 and 016

[illegible]

Footnotes:

- APEN** Example/unsignificant Sources should be included when warranted
Add similar replace HATP and other non-Chinese Responsible Pulp Mills as necessary. HAT alternatives include:
MA = Methylol
BCTMD = N-methylol
ZDA-TMP = 2,2,4,4-Tetrahydroxy-
Anisal = Anisoledehyde
Arts = Aroclor
n-Hx = n-Hexane
Meth = Methanol

Aceto = Acetone
 s-Flx = s-Fluoride
 Meth = Methyl

HCHO = Formaldehyde
 Z4-TMP = 2,2,4-Trimethylpentane
 Acetal = Acetaldehyde

APEN Example/Insufficient Sources should be included when warranted

ATTACHMENT G

PROCESS DESCRIPTION AND AREA MAP

SYNTHETIC MINOR CONSTRUCTION PERMIT APPLICATION

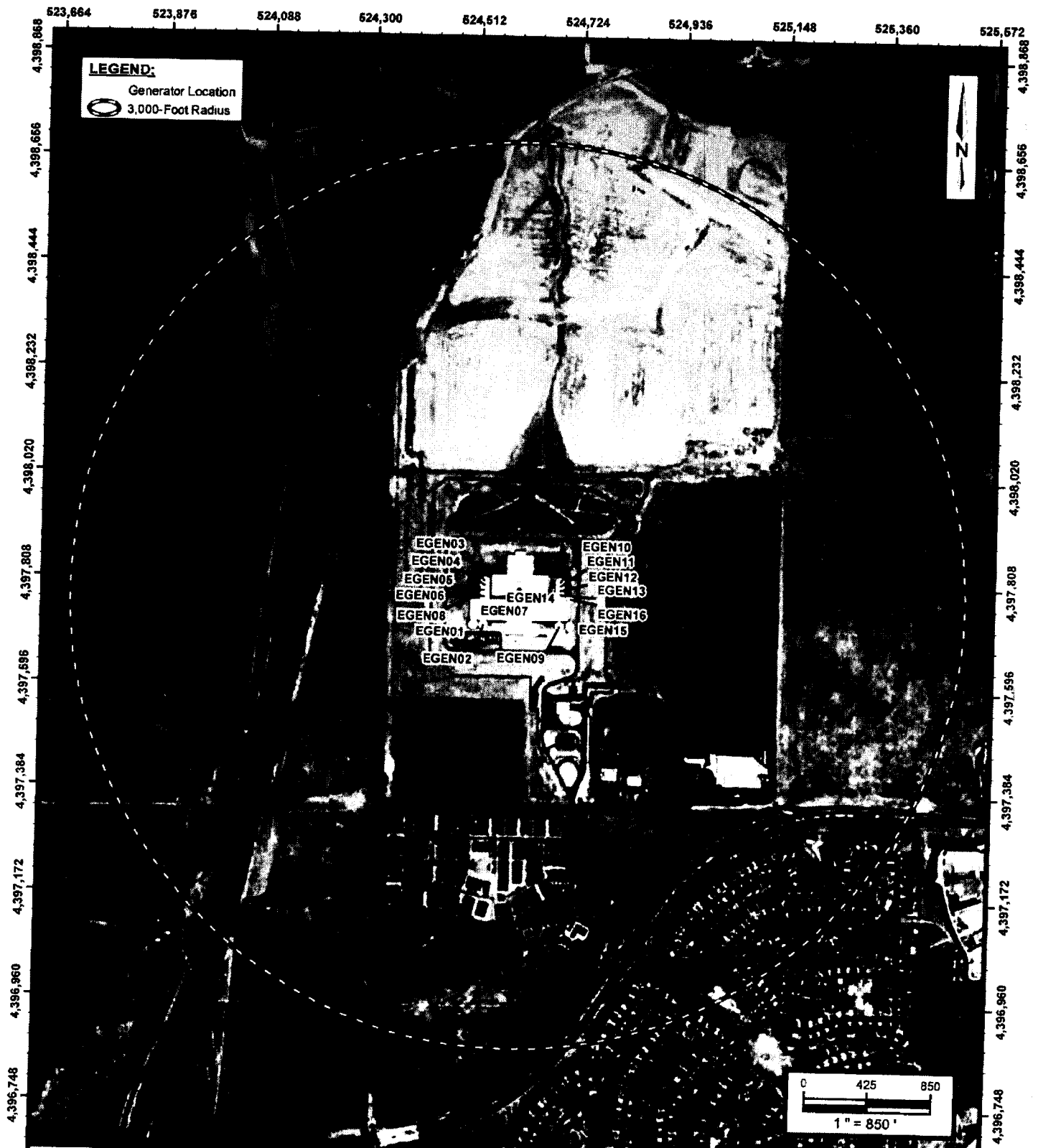
PROJECT SYCAMORE - AURORA

JP MORGAN CHASE & CO.

ATTACHMENT G

Process Description

JP Morgan Chase & Co.'s Project Sycamore – Aurora Data Center (Facility), Plant AIRS ID 005-1711, primarily engages in providing on-site management and operation of computer systems and/or data processing systems. The Facility's emergency generators (AIRS Point IDs: 001 through 016) are used to produce power for critical networks or equipment when electric power from the local utility is interrupted or during prolonged power outages. Figure 1-1 is an area map showing the location of the emergency generators and the surrounding area.



JP Morgan Chase & Co.
 Aurora Data Center
 Synthetic Minor Construction Permit
 Application

Project No. JPM001-0206725-23004415



Apex Companies, LLC

2121 Midway Rd, Ste 100
 Carrollton, TX 75006
 Phone: (469) 365-1100
 www.apexcos.com

FIGURE 1

Area Map

Source: Esri, Maxar, GeoEye, Earthstar Geographics,
 CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS