May 25, 2023

Daniel C. Husted, P.E.
Chief, Facilities Permitting Section
Air Quality Program
Pennsylvania Department of Environmental Protection
Northcentral Regional Office
208 West Third Street
Suite 101
Williamsport, PA 17701

Subject: **Encina Fort Union, LLC**
Revisions to Phase 1 Plan Approval Application

Mr. Husted,

Encina is providing an updated Phase 1 Plan Approval Application with minor revisions to the original version of the PAA submitted on November 4, 2022. The revisions include the following:

1. The original PAA included one 510 brake horsepower (bhp) diesel-fired emergency fire pump engines from the initial design criteria. Based on final design requirements, this has been revised to two identical 315 bhp engines. In addition, the emergency generator has been revised in final design from the original 676 bhp engine to a 1,676 bhp engine. The updates are reflected on pages 2-1, 3-1, 5-1, and 5-2 of the application narrative, Tables B-1, B-2, and B-4, and on the process forms for the engines. As per the original plan approval application, Encina will purchase engines certified to the appropriate latest U.S. EPA Tier specifications.
2. For determination of particulate matter (PM) emissions from roadways, the number of trucks has been updated from 70 round trips per day, 5 days per week, to 114.5 round trips per day, 7 days per week. The truck routes have also been revised to reflect the updated vehicle route in which all trucks will travel in a single counterclockwise path around the building. These updates are reflected in Table B-3 and Table B-4.

If you have any questions, please contact me at 206-375-1277 or at ssahandy@encina.com.

Sincerely,

Sheida Sahandy
Chief Sustainability Officer and Counsel
Encina Fort Union LLC

cc: Muhammad Zaman (PADEP)
John Slade (ALL4)

Plan Approval Application
Point Township Circular Manufacturing Facility
Phase 1: New Plastics Sorting Operation
Revised: May 2023

Encina Fort Union LLC
Northumberland, PA Facility

Submitted by:

Encina Fort Union LLC
3288 Point Township Drive
Northumberland, PA 17857

Submitted to:

Pennsylvania Department of Environmental Protection
Northcentral Regional Office
208 West Third Street, Suite 101
Williamsport, PA 17701

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1. INTRODUCTION

Encina Fort Union LLC (Encina Fort Union or Encina) proposes to construct a new plastics sorting operation (Point Township Circular Manufacturing Facility or Facility) in Point Township, Northumberland County, PA. This Plan Approval Application (PAA) for the new plastics sorting operation is for Phase 1 of the project, which is envisioned to include, as Phase 2, a new petrochemical process facility that will use post-consumer plastic feedstock to produce organic chemical feedstock (e.g., benzene, toluene, and xylene) product. A PAA for Phase 2 will be submitted to the Pennsylvania Department of Environmental Protection (PADEP) at a later date and under separate cover. Air permitting staff in the Northcentral Regional Office (NCRO) of PADEP approved the two-phased air permitting approach for the project following pre-application discussions with Encina Fort Union. Based on letter received from PADEP NCRO Bureau of Waste Management, this facility meets the definition of "advanced recycling facility" under Solid Waste Management Act (SWMA), 35 P.S. §§6018.101—6018.1001. Encina Fort Union's goal is to produce sustainable circular uses of the chemicals derived from the recovered plastics.

1.1 FACILITY LOCATION

The Facility will be located on a currently undeveloped parcel along State Route 11 (Point Township Drive) in Northumberland County, PA. A Facility location map based on a United States Geological Survey (USGS) topographical map is provided as Figure 1-1. The Facility is under the jurisdiction of the following State and Federal agencies:

Pennsylvania Department of Environmental Protection
Northcentral Regional Office
Air Quality Program
208 West Third Street, Suite 101
Williamsport, PA 17701

United States Environmental Protection Agency – Region 3
Air Protection Division
1600 JFK Boulevard
Philadelphia, PA 19103

Legend

Facility_Location

0 1,000 2,000 m

Figure 1-1
Facility Location Map

Encina Fort Union LLC
Northumberland, PA

DRAWN BY:	L.J.	CHECKED BY:	K.T.
DATE:	July 2022	PROJ NO.:	01656-0002.00

ALL4

Source: USGS

1.2 APPLICATION ORGANIZATION

This PAA is organized in the following manner:

- **Section 1 – Introduction:** Provides an overview of the proposed Facility and outlines the remainder of the PAA.
- **Section 2 – Project Overview:** Provides a description of the Facility and the proposed project.
- **Section 3 – Emissions Inventory:** Describes the approach to calculating the emissions associated with this project.
- **Section 4 – Major Source Applicability:** Provides a discussion of New Source Review (NSR) applicability, including Prevention of Significant Deterioration (PSD) and Nonattainment New Source Review (NNSR). Additionally, contains a discussion of Title V and hazardous air pollutants (HAP) major source applicability.
- **Section 5 – Regulatory Analysis:** Addresses potentially applicable Federal and State of Pennsylvania air quality regulations for the project.
- **Section 6 – Best Available Technology:** Addresses the requirements of 25 Pa. Code §127.12(a)(5) that are applicable to the proposed project.
- **Appendix A – Process Flow Diagram**
- **Appendix B – Emissions Inventory Tables**
- **Appendix C – Manufacturer Data**
- **Appendix D – Plan Approval Application Forms**
- **Appendix E – Municipal Notifications**

2. PROJECT OVERVIEW

This section of the PAA includes an overview of the proposed Phase 1 Facility operations.

2.1 PROPOSED PHASE 1 FACILITY OPERATIONS

Encina proposes to construct a new multi-story building with a total area of 830,000 square foot (ft^2). The proposed plastic sorting operations and related equipment will have a footprint of approximately 655,000 ft^2. Post-consumer plastics will be delivered to the Facility via truck, primarily from a Materials Recovery Facility (MRF). The operations proposed by Encina will sort and bale the materials, followed by shipment off-site for further recycling.

2.2 PROJECT DESCRIPTION

The proposed Phase 1 plastics sorting operation consists of two sorting lines and associated trommels, optical sorters, and balers. Ancillary equipment (e.g., emergency generator) will support the sorting operations. It is important to note that the plastic sorting operation itself will not be a source of air emissions. A summary of the proposed new emissions sources is provided in Table 2-1.

Table 2-1
Summary of New Emissions Sources

Proposed Source ID	Source Description
001	Diesel Fire Pump No. 1
002	Diesel Fire Pump No. 2
003	Diesel Emergency Generator
Z001	Fugitive Roadways

Emissions from the reciprocating internal combustion engines (RICE) driving the fire pumps (proposed Source IDs 001 and 002) and emergency generator (proposed Source ID 003) include carbon monoxide (CO), nitrogen oxides (NO_X), sulfur oxides (SO_2), volatile organic compounds (VOC), particulate matter (PM)/PM less than 10 microns (PM_{10})/PM less than 2.5 microns ($PM_{2.5}$), and HAP associated with diesel fuel combustion. Potential emissions from the diesel-fired fire

pumps and emergency generator RICE units are shown in Tables B-1 and B-2 of Appendix B, respectively.

Fugitive PM/PM_{10}/$PM_{2.5}$ emissions will be generated by truck traffic (proposed Source ID Z001) on the paved routes on Facility property. Potential roadway emissions are shown in Table B-3 of Appendix B.

Domestic wastewater from the project will be treated using a portable truck mounted treatment system. This system will not emit any VOC or HAP, and therefore will not be an emissions source. In addition, no VOC or HAP containing cleaning solvents will be used at the Facility.

3. EMISSIONS INVENTORY

Encina Fort Union developed an emissions inventory of regulated NSR pollutants emitted from the new emissions sources to evaluate major source applicability.

3.1 FIRE PUMP RICE

The diesel-fired fire pump RICE will consist of two identical Clarke model UFAD98. Potential fire pump RICE emissions are calculated based on a maximum engine size of 235 kilowatts (kWe), each, which equates to 315 brake horsepower (bhp), each. Per 40 CFR §60.4205(c), the purchased engines will meet the required certification listed in Table 4 to 40 CFR Part 60, Subpart IIII. Potential emissions from the proposed fire pumps are shown in Table B-1 of Appendix B.

3.2 EMERGENCY GENERATOR RICE

The diesel-fired emergency generator RICE will be a Caterpillar model C32. Potential emergency generator RICE emissions are calculated based on a maximum engine size of 1,250 kW, which equates to 1,676 bhp. Per 40 CFR §60.4205(b), the purchased engine will meet the required U.S. EPA Tier 2 certification listed in 40 CFR Part 1039, Appendix I. Potential emissions from the proposed emergency generator are shown in Table B-2 of Appendix B.

3.3 FUGITIVE EMISSIONS

Fugitive PM/PM_{10}/$PM_{2.5}$ emissions will be generated from truck traffic on paved Facility roadways. Potential PM/PM_{10}/$PM_{2.5}$ emissions are calculated using U.S. Environmental Protection Agency (U.S. EPA) AP-42, Chapter 13.2.1. Encina Fort Union has assumed the maximum number of trucks and worst-case on-site routes for determining vehicle miles traveled. Fugitive PM/PM_{10}/$PM_{2.5}$ emissions from roadways are shown in Table B-3 of Appendix B.

4. MAJOR SOURCE APPLICABILITY

The following sections provide a discussion of NSR applicability to the project, including PSD and NNSR, as well as a discussion of the Facility's major source status under Title V. The applicability analyses reflect only Phase 1 of the project. The PAA for Phase 2 of the project will include analyses of all (i.e., Phase 1 and 2) Facility operations.

4.1 PSD APPLICABILITY EVALUATION

The definition of major source under PSD is defined in 40 CFR §52.21(b)(1)(i). The plastics sorting operations of Phase 1 of the project are not a named source category in 40 CFR §52.21(b)(1)(i)(a). However, the anticipated operations under Phase 2 of the project will classify the Facility as a "chemical process plant." The PSD major source threshold for chemical process plants is 100 tons per year (tpy) for each regulated NSR pollutant. As shown in Table B-4 of Appendix B, the Phase 1 Facility-wide PTE for all regulated NSR pollutants is less than 100 tpy and therefore, not subject to PSD. The applicability of PSD to the entire Facility (i.e., Phase 1 and 2) will be re-evaluated as part of the Phase 2 PAA.

4.2 NNSR APPLICABILITY EVALUATION

The Facility will be located in Northumberland County, which is classified as in attainment or unclassifiable for all National Ambient Air Quality Standards (NAAQS). While Northumberland County is in attainment with the 8-hour ozone standard, all counties in Pennsylvania are located in the Northeast Ozone Transport Region (OTR) and are minimally managed as moderate ozone nonattainment areas. The project is a source of VOC and NO_X emissions, which are precursors to ground-level ozone formation. Therefore, the Facility is required to evaluate whether the Facility is a major source under the Pennsylvania NNSR regulations. PADEP developed state-specific NNSR rules codified in 25 Pa. Code Chapter 127, Subchapter E.

An NNSR applicability determination for NO_X and VOC emissions, in accordance with 25 Pa. Code §127.203a, is provided in Table B-4 of Appendix B. Potential Phase 1 emissions of NO_X and VOC are less than 100 tpy and 50 tpy, respectively; and therefore, the Facility is not a major

source under the Pennsylvania NNSR rules. The applicability of NNSR to the entire Facility (i.e., Phase 1 and 2) will be re-evaluated as part of the Phase 2 PAA.

4.3 TITLE V PERMITTING PROGRAM

The Title V permitting program is regulated under 40 CFR Part 70 and 25 Pa Code Chapter 127, Subchapters F and G. A Title V Operating Permit (TVOP) is required for sources that meet the definition of a "major source," as defined under 40 CFR §70.2 and "Title V facility" as defined under 25 Pa Code 121.1. A major source/Title V facility is a facility that:

- Has a PTE of greater than 10 tpy for any single HAP or 25 tpy for combined HAP
- Has a PTE of 100 tpy or more of "any air pollutant subject to regulation"
- Has a PTE of 100 tpy or more for the ozone precursor NO_X or more than 50 tpy of the ozone precursor VOC.

As shown in Table B-4 of Appendix B, the proposed Phase 1 Facility does not meet any of the above listed major source or major facility thresholds. Therefore, the Phase 1 Facility is not subject to Title V permitting. The applicability of Title V to the entire Facility (i.e., Phase 1 and 2) will be re-evaluated as part of the Phase 2 PAA.

4.4 HAZARDOUS AIR POLLUTANTS

A major source of HAP as defined under 40 CFR §63.2 is any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tpy or more of any HAP or 25 tpy or more of any combination of HAP. As shown in Table B-4 of Appendix B, the potential Phase 1 Facility HAP emissions will be below the HAP major source threshold. Therefore, the Phase 1 Facility will be an area source of HAP for Phase 1 of the project. The status of the entire Facility (i.e., Phase 1 and 2) as a major source of HAP will be re-evaluated as part of the Phase 2 PAA.

5. REGULATORY ANALYSIS

Encina has reviewed the Federal and Pennsylvania air quality regulations to determine which regulations potentially apply to the proposed project. This section summarizes potentially applicable air quality requirements.

5.1 FEDERAL AIR QUALITY REGULATIONS

For the purpose of this PAA, potentially applicable Federal air quality regulations are defined as:

- Standards of Performance for New Stationary Sources
- National Emission Standards for Hazardous Air Pollutants
- New Source Review

A discussion of each of these Federal regulations is provided in the following subsections.

5.1.1 Standards of Performance for New Stationary Sources

U.S. EPA has promulgated Standards of Performance for New Stationary Sources, codified at 40 CFR Part 60, also referred to as New Source Performance Standards (NSPS). The Facility evaluated the applicability of the NSPS that could potentially apply to components of the proposed project. Applicable NSPS are discussed in this section.

5.1.1.1 40 CFR Part 60, Subpart IIII

40 CFR Part 60, Subpart IIII (Standards of Performance for Stationary Internal Combustion Engines) applies to the diesel fuel-fired RICE associated with the proposed fire pumps (proposed Source IDs 001 and 002) and emergency generator (proposed Source ID 003). All RICE are subject to this subpart based on 40 CFR §60.4200(a).

The emergency generator RICE is subject to 40 CFR §60.4205(b), and therefore must meet the emissions limits of 40 CFR 1039, Appendix I. Specifically, the emergency generator must meet

the emissions limits in Table 3 to Appendix I. Encina Fort Union will purchase an emergency generator RICE that will meet the Tier 2 standards listed in Table 5-1.

Table 5-1
Emergency Generator RICE Emissions Standards

Rated Power (kW)	NO_X + NMHC	CO	PM
	(g/kW-hr)		
>560	6.4	3.5	0.20

The fire pump RICE are subject to 40 CFR §60.4205(c), and therefore must meet the emissions limits listed in Table 4 of 40 CFR Part 60, Subpart IIII. Encina Fort Union will purchase fire pumps that will meet the emissions standards listed in Table 5-2.

Table 5-2
Fire Pump RICE Emissions Standards

Rated Power (kW)	NO_X + NMHC	CO	PM
	(g/kW-hr)		
225≤kW<450	4.0	3.5	0.20

The emergency generator and fire pump RICE are also subject to the following additional requirements of 40 CFR Part 60, Subpart IIII:

- Per 40 CFR §60.4207(b), diesel fuel must meet the following standards:
  - Sulfur standard. Maximum sulfur content of 15 parts per million (ppm).
  - Cetane index or aromatic content. Diesel fuel must meet one of the following standards:
    - Minimum cetane index of 40.
    - Maximum aromatic content of 35 volume percent.
- Per 40 CFR §60.4209(a), install a non-resettable hour meter prior to startup of the engine.

- Per 40 CFR §60.4211(a):
    - Operate and maintain the RICE according to the manufacturer's emission-related written instructions.
    - Change only those emission-related settings that are permitted by the manufacturer.
    - Meet the requirements of 40 CFR Part 1068, as applicable.
- Per 40 CFR §60.4211(c), purchase an engine certified to the emission standards in 40 CFR §§60.4204(b), or 60.4205(b) or (c), as applicable, for the same model year and maximum [or in the case of fire pumps, National Fire Protection Association (NFPA) nameplate] engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in 40 CFR §60.4211(g).
- Per 40 CFR §60.4211(f), operate the emergency stationary ICE according to the following requirements:
    - There is no time limit on the use of emergency stationary ICE in emergency situations.
    - Encina may operate the emergency stationary ICE for the purpose specified in 40 CFR §60.4211(f)(2)(i) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by 40 CFR §60.4211(f)(3) counts as part of the 100 hours per calendar year allowed by 40 CFR §60.4211(f)(2).
        - Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. 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 calendar year.

  - Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in 40 CFR §60.4211(f)(2). Except as provided in 40 CFR §60.4211(f)(3)(i), the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

- Per 40 CFR §60.4214(b), keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.

5.1.2 National Emission Standards for Hazardous Air Pollutants

U.S. EPA has promulgated National Emission Standards for Hazardous Air Pollutants (NESHAP) at 40 CFR Parts 61 and 63. NESHAP promulgated prior to the Clean Air Act Amendments (CAAA) of 1990, found in 40 CFR Part 61, apply to specific compounds emitted from specific processes. There are no standards in 40 CFR Part 61 that are applicable to this project as there are no specific sources regulated by 40 CFR Part 61.

NESHAP promulgated under 40 CFR Part 63, also referred to as Maximum Achievable Control Technology (MACT) standards, apply to specific source categories that are area sources or major sources of HAP. As discussed in Section 4.4, the Phase 1 Facility is an area source of HAP emissions. Applicable NESHAP are discussed in this section.

5.1.2.1 40 CFR Part 63, Subpart ZZZZ

40 CFR Part 63, Subpart ZZZZ (NESHAP: Stationary Reciprocating Internal Combustion Internal Combustion Engines) applies to stationary RICE located at major and area HAP sources. The Phase 1 Facility is an area source of HAP emissions. As new stationary RICE at an area source, the fire pump RICE (proposed Source IDs 001 and 002) and emergency generator RICE (proposed Source ID 003) will comply with 40 CFR Part 63, Subpart ZZZZ by meeting the requirements of 40 CFR Part 60 Subpart IIII, per 40 CFR §63.6590(c).

5.1.3 New Source Review

The Federal NSR program is codified at 40 CFR Part 52. NSR requirements potentially apply to new major stationary sources and major modifications at existing major stationary sources. Within the NSR program, major stationary sources may need to be evaluated for PSD for all regulated NSR pollutants except for those pollutants or precursor pollutants for which the area is not in attainment with a NAAQS. The NNSR requirements apply for those pollutants and precursor pollutants that are emitted by major stationary sources in areas designated as nonattainment with the NAAQS. As discussed in Sections 4.1 and 4.2, neither the PSD nor major NNSR requirements apply to the Phase 1 project.

5.2 PENNSYLVANIA REGULATIONS

The Facility operations are potentially subject to the following Commonwealth of Pennsylvania air quality regulations which are codified in Title 25 Environmental - Protection, Article III, of the Pennsylvania Code:

- Chapter 122 – National Standards of Performance for New Stationary Sources
- Chapter 123 – Standards for Contaminants
- Chapter 124 – National Emission Standards for Hazardous Air Pollutants
- Chapter 127 – Construction, Modification, Reactivation, and Operation of Sources
- Chapter 129 – Standards for Sources

5.2.1 Chapter 122 – National Standards of Performance for New Stationary Sources

The Federal NSPS are adopted in their entirety by reference at 25 Pa. Code §122.3 and are described in Section 5.1.1 regarding Federal requirements.

5.2.2 Chapter 123 – Standards for Contaminants

25 Pa. Code Chapter 123 establishes standards for fugitive emissions, PM emissions, sulfur compound emissions, odor emissions, visible emissions, nitrogen compound emissions, and mercury emissions.

5.2.2.1 Fugitive Emissions, 25 Pa. Code §123.1

25 Pa. Code §123.1 prohibits fugitive emissions except from the activities specified by 25 Pa Code §123.1(a)(1) through (8) (e.g., construction or demolition of buildings, grading, paving and maintenance of streets, clearing of land, stockpiling of materials, and open burning, etc.). Other fugitive emissions sources may be approved by PADEP in accordance with§123.1(a)(9). Encina Fort Union will comply with these requirements by employing good operating practices such as locating operations inside buildings, paved roadways, and prompt cleanup of any material spills to meet the requirements of 25 Pa. Code §123.1.

5.2.2.2 Fugitive Particulate Matter, 25 Pa. Code §123.2

25 Pa. Code §123.2 prohibits fugitive PM emissions which are visible at the point where the emissions pass outside the property. Encina Fort Union will comply with these requirements by employing good operating practices such as locating operations inside buildings, paved roadways, regular roadway cleaning, and prompt cleanup of any material spills to meet the requirements of 25 Pa. Code §123.2.

5.2.2.3 Combustion Units, 25 Pa. Code §123.11

25 Pa. Code §123.11 regulates PM emissions from combustion units. The project does not include combustion units, as defined in 25 Pa. Code §121.1.

5.2.2.4 Sulfur Compound Emissions, 25 Pa. Code §123.21

25 Pa. Code §123.21 limits sulfur compound emissions from processes to 500 parts per million, by volume, dry basis (ppmvd). Encina Fort Union will comply with these requirements by meeting the state sulfur limit of 15 ppmvd and utilizing ultra-low sulfur diesel as the fuel for the proposed fire pump RICE and emergency generator RICE.

5.2.2.5 Odor Emissions, 25 Pa. Code §123.31

Encina Fort Union will comply with not emitting malodorous emissions in such a manner that the malodors are detectable beyond the property line. Periodic Facility perimeter odor inspections will be conducted in accordance with PADEP requirements.

5.2.3 Chapters 124 and 127 – National Emission Standards for Hazardous Air Pollutants and Maximum Achievable Control Technology Standards for Hazardous Air Pollutants

25 Pa. Code §§124.3 and 127.35 adopt the Federal NESHAP standards of 40 CFR Part 61 and Part 63 by reference, respectively. NESHAP standards are discussed in detail in Section 0 regarding Federal requirements.

5.2.4 Chapter 127, Subchapter B – Plan Approval Requirements

Encina Fort Union is submitting this PAA in accordance with the requirements of 25 Pa. Code §127.11 and §127.12.

5.2.5 Chapter 127, Subchapter D – Prevention of Significant Deterioration of Air Quality

Pennsylvania incorporates the Federal PSD regulations by reference at 25 Pa. Code §127.83. A discussion of PSD applicability to the project is included in Section 4.1.

5.2.6 Chapter 127, Subchapter E – New Source Review

Based on the NNSR applicability analysis provided in Section 4.2, the Phase 1 project is not a major source of NO_X or VOC emissions.

5.2.7 Chapter 127, Subchapter I – Plan Approval and Operating Permit Fees

25 Pa. Code §127.702 specifies the fee required to submit a PAA for facilities. In accordance with 25 Pa. Code §127.702(b)(2) and (d)(2), the fee for this PAA is $7,500.00. Because the project proposed herein is subject to two Federal requirements, a check for $7,500.00 payable to the "Commonwealth of Pennsylvania – Clean Air Fund" has been provided to the PADEP as part of this PAA. An Air Quality Fees Schedule is included as part of Appendix B.

5.2.8 Chapter 129 – Standards for Sources

25 Pa. Code Chapter 129 includes standards for VOC and NO_X emissions from specific sources.

5.2.8.1 Storage Tanks Less Than or Equal To 40,000 Gallons - 25 Pa. Code §129.57

25 Pa. Code §129.57 regulates above ground stationary storage tanks with a capacity equal to or greater than 2,000 gallons, and less than 40,000 gallons, which contain VOCs with vapor pressure greater than 1.5 pounds per square inch (psia) under actual storage conditions. The Facility will have several small diesel fuel storage tanks to support the ancillary equipment. However, all storage tanks will have a capacity of less than 2,000 gallons and contain material with a vapor pressure less than 1.5 psia. Therefore, 25 Pa. Code §129.57 will not apply. Additionally, pursuant to PADEP Document No. 275-2101-003, Encina Fort Union understands that diesel fuel, Nos. 2,

4, and 6 fuel oils, or kerosene and jet fuel storage and dispensing facilities are exempt from air permitting requirements, as long as the stored or dispensed product has a vapor pressure less than 1.5 psia.

5.2.8.2 Degreasing Operations - 25 Pa. Code §129.63

25 Pa. Code §129.63 regulates cold cleaning machines that use two gallons or more of solvents containing greater than 5% VOC content by weight for the cleaning of metal parts. There will be no cold cleaning machines as part of this project.

5.2.8.3 Industrial Cleaning Solvents - 25 Pa. Code §129.63a

25 Pa. Code §129.63a regulates VOC-containing solvents used for industrial cleaning. A cleaning activity is defined as the use of an industrial cleaning solvent to remove a contaminant, such as an adhesive, ink, paint, dirt, soil, oil or grease, by wiping, flushing, brushing, soaking, dipping, spraying or a similar effort. There will be no cleaning activities using industrial cleaning solvents as part of this project.

6. BEST AVAILABLE TECHNOLOGY

25 Pa. Code §127.12(a)(5) requires that the emissions from a new source will be the minimum attainable using BAT.

For the proposed RICE, Encina Fort Union will purchase RICE that are certified to meet the appropriate Federal emissions certification requirements. Purchasing certified RICE and operating the engines in accordance with the manufacturer's operating procedures is BAT for the RICE (proposed Source IDs 001 and 002).

For the proposed Facility roadways, Encina Fort Union proposes to take all reasonable precautions to minimize PM/PM_{10}/$PM_{2.5}$ emissions. For example, Encina Fort Union will pave all Facility roadways. Paved roadways in and of itself are considered a control measure in comparison to unpaved roadways and are expected to achieve >90% control of PM from unpaved roadways[1]. Trucks traveling on-site will always be on a paved surface. The Facility entrance/exit, and all truck routes and loading bays will be paved. Truck speed limits will also be posted and enforced. Additionally, Encina Fort Union will maintain the roadways to limit dust and debris through routine use of vacuum street sweeping. The use of paved roadways, the enforcement of truck speeds, and routine vacuum sweeping represents BAT for the roadway fugitive emissions (proposed Source ID Z001).

Note that due to limited available published data, Encina Fort Union is conservatively using a silt loading factor for Municipal Solid Waste Landfills from AP-42 Chapter 13.2.1, Table 13.2.1-3 in the emissions calculations in Table B-3 to Appendix B. However, this factor is not representative of actual proposed operations and is likely high. Therefore, following construction and operation of the Facility, Encina Fort Union may elect to conduct a site-specific silt loading analysis in order to calculate more accurate actual emissions from roadway fugitive emissions.

[1] Western Regional Air Partnership. *WRAP Fugitive Dust Handbook*, September 7, 2006 (http://www.wrapair.org/forums/dejf/fdh/content/FDHandbook_Rev_06.pdf)

APPENDIX A –
PROCESS FLOW DIAGRAM

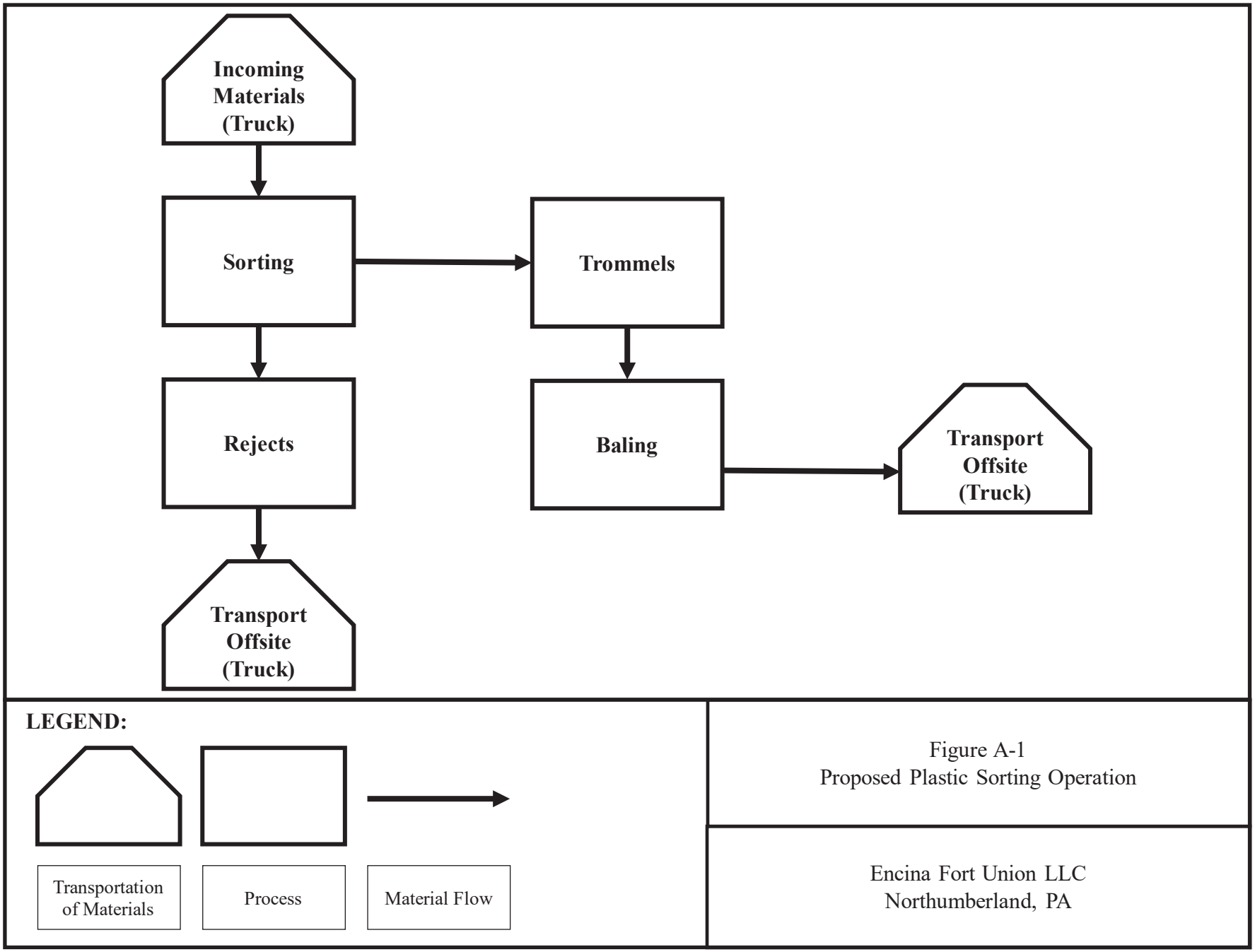


Figure A-1
Proposed Plastic Sorting Operation

Encina Fort Union LLC
Northumberland, PA

APPENDIX B –
EMISSIONS INVENTORY TABLES

Table B-1
Proposed Source IDs 001 and 002: Diesel Fire Pumps Potential to Emit (PTE) Emissions
Encina Fort Union LLC - Northumberland, PA Facility

Pollutant	Emissions Factor	Units	Reference	PTE (one fire pump) [a]		PTE (combined) [a]	
				(lb/hr)	(tpy)	(lb/hr)	(tpy)
Criteria Pollutants							
NO_X	3.50	g/kW-hr	See footnote (b)	1.81	0.45	3.63	0.91
CO	3.50	g/kW-hr	Table 4 to 40 CFR Part 60, Subpart IIII	1.81	0.45	3.62	0.91
VOC	0.50	g/kW-hr	See footnote (b)	0.26	0.06	0.51	0.13
PM_{FILT}	0.20	g/kW-hr	Table 4 to 40 CFR Part 60, Subpart IIII	0.10	0.03	0.21	0.05
PM_{CON}	0.01	lb/MMBtu	AP-42 Table 3.4-2 [c]	0.02	4.90E-03	0.04	9.81E-03
PM	--	--	See footnote (d)(e)	0.12	0.03	0.25	0.06
$PM_{10\text{-}FILT}$	0.20	g/kW-hr	See footnote (d)	0.10	0.03	0.21	0.05
PM_{10}	--	--	See footnote (d)(e)	0.12	0.03	0.25	0.06
$PM_{2.5\text{-}FILT}$	0.20	g/kW-hr	See footnote (d)	0.10	0.03	0.21	0.05
$PM_{2.5}$	--	--	See footnote (d)(e)	0.12	0.03	0.25	0.06
SO_2	1.21E-05	lb/hp-hr	AP-42 Table 3.4-1 [f]	3.82E-03	9.56E-04	7.65E-03	1.91E-03
Hazardous Air Pollutants (HAP)							
1,3-Butadiene	3.91E-05	lb/MMBtu	AP-42 Table 3.3-2	9.96E-05	2.49E-05	1.99E-04	4.98E-05
Acenaphthylene	5.06E-06	lb/MMBtu	AP-42 Table 3.3-2	1.29E-05	3.22E-06	2.58E-05	6.45E-06
Acenaphthene	1.42E-06	lb/MMBtu	AP-42 Table 3.3-2	3.62E-06	9.05E-07	7.24E-06	1.81E-06
Acetaldehyde	7.67E-04	lb/MMBtu	AP-42 Table 3.3-2	1.95E-03	4.89E-04	3.91E-03	9.77E-04
Acrolein	9.25E-05	lb/MMBtu	AP-42 Table 3.3-2	2.36E-04	5.89E-05	4.71E-04	1.18E-04
Anthracene	1.87E-06	lb/MMBtu	AP-42 Table 3.3-2	4.76E-06	1.19E-06	9.53E-06	2.38E-06
Benzene	9.33E-04	lb/MMBtu	AP-42 Table 3.3-2	2.38E-03	5.94E-04	4.75E-03	1.19E-03
Benzo(a)anthracene	1.68E-06	lb/MMBtu	AP-42 Table 3.3-2	4.28E-06	1.07E-06	8.56E-06	2.14E-06
Benzo(a)pyrene	1.88E-07	lb/MMBtu	AP-42 Table 3.3-2	4.79E-07	1.20E-07	9.58E-07	2.40E-07
Benzo(b)fluoranthene	9.91E-08	lb/MMBtu	AP-42 Table 3.3-2	2.53E-07	6.31E-08	5.05E-07	1.26E-07
Benzo(g,h,l)perylene	4.89E-07	lb/MMBtu	AP-42 Table 3.3-2	1.25E-06	3.11E-07	2.49E-06	6.23E-07
Benzo(k)fluoranthene	1.55E-07	lb/MMBtu	AP-42 Table 3.3-2	3.95E-07	9.87E-08	7.90E-07	1.97E-07
Chrysene	3.53E-07	lb/MMBtu	AP-42 Table 3.3-2	8.99E-07	2.25E-07	1.80E-06	4.50E-07
Dibenz(a,h)anthracene	5.83E-07	lb/MMBtu	AP-42 Table 3.3-2	1.49E-06	3.71E-07	2.97E-06	7.43E-07
Fluoranthene	7.61E-06	lb/MMBtu	AP-42 Table 3.3-2	1.94E-05	4.85E-06	3.88E-05	9.70E-06
Fluorene	2.92E-05	lb/MMBtu	AP-42 Table 3.3-2	7.44E-05	1.86E-05	1.49E-04	3.72E-05
Formaldehyde	1.18E-03	lb/MMBtu	AP-42 Table 3.3-2	3.01E-03	7.52E-04	6.01E-03	1.50E-03
Indeno(1,2,3-cd)pyrene	3.75E-07	lb/MMBtu	AP-42 Table 3.3-2	9.56E-07	2.39E-07	1.91E-06	4.78E-07
Naphthalene	8.48E-05	lb/MMBtu	AP-42 Table 3.3-2	2.16E-04	5.40E-05	4.32E-04	1.08E-04
Phenanthrene	2.94E-05	lb/MMBtu	AP-42 Table 3.3-2	7.49E-05	1.87E-05	1.50E-04	3.75E-05
Pyrene	4.78E-06	lb/MMBtu	AP-42 Table 3.3-2	1.22E-05	3.04E-06	2.44E-05	6.09E-06
Toluene	4.09E-04	lb/MMBtu	AP-42 Table 3.3-2	1.04E-03	2.61E-04	2.08E-03	5.21E-04
Xylenes	2.85E-04	lb/MMBtu	AP-42 Table 3.3-2	7.26E-04	1.82E-04	1.45E-03	3.63E-04
Max Single HAP	-	-	-	3.01E-03	7.52E-04	6.01E-03	1.50E-03
Total HAP	-	-	-	9.87E-03	2.47E-03	0.02	4.94E-03

Table B-1
Proposed Source IDs 001 and 002: Diesel Fire Pumps Potential to Emit (PTE) Emissions
Encina Fort Union LLC - Northumberland, PA Facility

Pollutant	Emissions Factor	Units	Reference	PTE (one fire pump) [a]		PTE (combined) [a]	
				(lb/hr)	(tpy)	(lb/hr)	(tpy)
Greenhouse Gas (GHG) Pollutants							
CO_2	73.96	kg/MMBtu	40 CFR Part 98, Table C-1	415.46	103.87	830.93	207.73
CH_4	3.00E-03	kg/MMBtu	40 CFR Part 98, Table C-2	0.02	4.21E-03	0.03	8.43E-03
N_2O	6.00E-04	kg/MMBtu	40 CFR Part 98, Table C-2	3.37E-03	8.43E-04	6.74E-03	1.69E-03
CO_2e[g]	-	-	-	416.89	104.22	833.78	208.44

[a] Emissions were calculated based on the following:

2	(no. of units)
315	bhp, each
500	hr/year
1.34	hp/kW
2,000	lb/ton
453.59	g/lb
8,089	Btu/hp-hr (API Table 4.2)
1,000,000	Btu/MMBtu
2.20	lb/kg
0.0015	% fuel sulfur

[b] Emissions factors for NO_X and HC (VOC) are based on the Table 4 to 40 CFR Part 60, Subpart IIII emissions factor of 4.0 g/kW-hr for NO_X + NMHC (VOC). Individual NO_X and HC (VOC) emissions factors have been derived by applying the ratio of U.S. EPA Tier 1 emissions factors for NO_X (9.2 g/kW-hr) and HC (VOC) (1.3 g/kW-hr) to the 40 CFR Part 60, Subpart IIII, Table 4 emissions limit for NO_X + NMHC (VOC) (4.0 g/kW-hr).

[c] There is no emissions factor available for condensable particulate in AP-42, Section 3.3; therefore, the emissions factor from AP-42, Section 3.4 for Large Stationary Diesel and All Stationary Dual-fuel Engines was used.

[d] Assumes $PM=PM_{10}=PM_{2.5}$.

[e] Contains both filterable and condensable portions.

[f] The emissions factor for SO_2 in AP-42, Section 3.3 does not take into account the actual fuel sulfur content and is unreasonably high for a RICE that fires ultra-low sulfur diesel; therefore, the emissions factor from AP-42, Section 3.4 for Large Stationary Diesel and All Stationary Dual-fuel Engines was used.

[g] CO_2e is carbon dioxide equivalent, calculated according to 40 CFR Part 98, Equation A-1:

$$CO_2e = \sum_{i=1}^{n} GHG_i \times GWP_i$$

where GHGi = annual mass emissions of greenhouse gas i (short tons/year)

GWPi = global warming potential of greenhouse gas i from the table below

GHG	GWP from 40 CFR Part 98, Subpart A, Table A-1
CO_2	1
CH_4	25
N_2O	298

Table B-2
Proposed Source ID 003: Diesel Emergency Generator Potential to Emit (PTE) Emissions
Encina Fort Union LLC - Northumberland, PA Facility

Pollutant	Emissions Factor	Units	Reference	PTE [(a)]	
				(lb/hr)	(tpy)
Criteria Pollutants					
NO_X	5.61	g/kW-hr	See footnote (b)	15.45	3.86
CO	3.50	g/kW-hr	U.S. EPA Tier 2	9.65	2.41
VOC	0.79	g/kW-hr	See footnote (b)	2.18	0.55
PM_{FILT}	0.20	g/kW-hr	U.S. EPA Tier 2	0.55	0.14
PM_{CON}	0.01	lb/MMBtu	AP-42 Table 3.4-2	0.10	0.03
PM	--	--	See footnote (c)(d)	0.66	0.16
$PM_{10\text{-}FILT}$	0.20	g/kW-hr	See footnote (c)	0.55	0.14
PM_{10}	--	--	See footnote (c)(d)	0.66	0.16
$PM_{2.5\text{-}FILT}$	0.20	g/kW-hr	See footnote (c)	0.55	0.14
$PM_{2.5}$	--	--	See footnote (c)(d)	0.66	0.16
SO_2	1.21E-05	lb/hp-hr	AP-42 Table 3.4-1	0.02	5.09E-03
Hazardous Air Pollutants (HAP)					
Acenaphthylene	9.23E-06	lb/MMBtu	AP-42 Table 3.4-4	1.25E-04	3.13E-05
Acenaphthene	4.68E-06	lb/MMBtu	AP-42 Table 3.4-4	6.35E-05	1.59E-05
Acetaldehyde	2.52E-05	lb/MMBtu	AP-42 Table 3.4-3	3.42E-04	8.54E-05
Acrolein	7.88E-06	lb/MMBtu	AP-42 Table 3.4-3	1.07E-04	2.67E-05
Anthracene	1.23E-06	lb/MMBtu	AP-42 Table 3.4-4	1.67E-05	4.17E-06
Benzene	7.76E-04	lb/MMBtu	AP-42 Table 3.4-3	0.01	2.63E-03
Benzo(a)anthracene	6.22E-07	lb/MMBtu	AP-42 Table 3.4-4	8.43E-06	2.11E-06
Benzo(a)pyrene	2.57E-07	lb/MMBtu	AP-42 Table 3.4-4	3.48E-06	8.71E-07
Benzo(b)fluoranthene	1.11E-06	lb/MMBtu	AP-42 Table 3.4-4	1.51E-05	3.76E-06
Benzo(g,h,l)perylene	5.56E-07	lb/MMBtu	AP-42 Table 3.4-4	7.54E-06	1.88E-06
Benzo(k)fluoranthene	2.18E-07	lb/MMBtu	AP-42 Table 3.4-4	2.96E-06	7.39E-07
Chrysene	1.53E-06	lb/MMBtu	AP-42 Table 3.4-4	2.07E-05	5.19E-06
Dibenz(a,h)anthracene	3.46E-07	lb/MMBtu	AP-42 Table 3.4-4	4.69E-06	1.17E-06
Fluoranthene	4.03E-06	lb/MMBtu	AP-42 Table 3.4-4	5.46E-05	1.37E-05
Fluorene	1.28E-05	lb/MMBtu	AP-42 Table 3.4-4	1.74E-04	4.34E-05
Formaldehyde	7.89E-05	lb/MMBtu	AP-42 Table 3.4-3	1.07E-03	2.67E-04
Indeno(1,2,3-cd)pyrene	4.14E-07	lb/MMBtu	AP-42 Table 3.4-4	5.61E-06	1.40E-06
Naphthalene	1.30E-04	lb/MMBtu	AP-42 Table 3.4-4	1.76E-03	4.41E-04
Phenanthrene	4.08E-05	lb/MMBtu	AP-42 Table 3.4-4	5.53E-04	1.38E-04
Pyrene	3.71E-06	lb/MMBtu	AP-42 Table 3.4-4	5.03E-05	1.26E-05
Toluene	2.81E-04	lb/MMBtu	AP-42 Table 3.4-3	3.81E-03	9.53E-04
Xylenes	1.93E-04	lb/MMBtu	AP-42 Table 3.4-3	2.62E-03	6.54E-04
Max Single HAP	-	-	-	0.01	2.63E-03
Total HAP	-	-	-	0.02	5.33E-03

Table B-2
Proposed Source ID 003: Diesel Emergency Generator Potential to Emit (PTE) Emissions
Encina Fort Union LLC - Northumberland, PA Facility

Pollutant	Emissions Factor	Units	Reference	PTE [a]	
				(lb/hr)	(tpy)
Greenhouse Gas (GHG) Pollutants					
CO_2	73.96	kg/MMBtu	40 CFR Part 98, Table C-1	2,210.89	552.72
CH_4	3.00E-03	kg/MMBtu	40 CFR Part 98, Table C-2	0.09	0.02
N_2O	6.00E-04	kg/MMBtu	40 CFR Part 98, Table C-2	0.02	4.48E-03
CO_2e[e]	-	-	-	2,218.48	554.62

[a] Emissions were calculated based on the following:

1,250	kW
1,676	bhp
500	hr/year
1.34	hp/kW
2,000	lb/ton
453.59	g/lb
8,089	Btu/hp-hr (API Table 4.2)
1,000,000	Btu/MMBtu
2.20	lb/kg
0.0015	% fuel sulfur

[b] Emissions factors for NO_X and HC (VOC) are based on the U.S. EPA Tier 2 emissions factor of 6.4 g/kW-hr for NO_X + NMHC (VOC). Individual NO_X and HC (VOC) emissions factors have been derived by applying the ratio of U.S. EPA Tier 1 emissions factors for NO_X (9.2 g/kW-hr) and HC (VOC) (1.3 g/kW-hr) to the 40 CFR §60.4205(b) emissions limit for NO_X + NMHC (VOC) (4.0 g/kW-hr).

[c] Assumes $PM=PM_{10}=PM_{2.5}$.

[d] Contains both filterable and condensable portions.

[e] CO_2e is carbon dioxide equivalent, calculated according to 40 CFR Part 98, Equation A-1:

$$CO_2e = \sum_{i=1}^{n} GHG_i \times GWP_i$$

where GHGi = annual mass emissions of greenhouse gas i (short tons/year)

GWPi = global warming potential of greenhouse gas i from the table below

GHG	GWP from 40 CFR Part 98, Subpart A, Table A-1
CO_2	1
CH_4	25
N_2O	298

Table B-3
Proposed Source ID Z001: Fugitive Roadways Potential to Emit (PTE) Emissions
Encina Fort Union LLC - Northumberland, PA Facility

Route	PTE		
	$PM^{(a)(b)(c)(d)(e)}$	$PM_{10}^{(a)(b)(c)(d)(e)}$	$PM_{2.5}^{(a)(b)(c)(d)(e)}$
	(tpy)	(tpy)	(tpy)
1	23.80	4.76	1.17

[(a)] Emissions were calculated based on the following Facility-specific parameters:

Route	Roundtrip Length (mi)	% of Trucks	Paved/Unpaved	Trucks/day	Trips/year	VMT/year
1	0.78	100%	Paved	114.5	41,793	32,650
					Total VMT/year:	**32,650**

[(b)] Emissions were calculated assuming the following truck characteristics:

GVWT		
Empty (tons)	**Full (tons)**	**Average W (tons)**
20	40	30

[(c)] Emissions from paved roadways were calculated according to U.S. EPA AP-42 Chapter 13.2.1 Equation 2, Figure 13.2.1-2, and Tables 13.2.1-1:

$$E = k(sL)^{0.91} (W)^{1.02} [1-(P/(4(N)))]$$

k_{PM} =	0.011	lb/VMT
k_{PM10} =	0.0022	lb/VMT
$k_{PM2.5}$ =	0.00054	lb/VMT
P =	160	wet days/year
N - Annual =	365	days in averaging period

[(d)] The Road Surface Silt Loading (sL) is based on AP-42 Chapter 13.2.1 Table 13.2.1-3:

Route	Average sL (g/m^2)
1	7.40

[(e)] Emissions were calculated based on the following:

8,760	hours/yr
2,000	lb/ton
5,280	ft/mile
114.5	trucks per day
7	days per week (operation)
52	weeks per year (operation)
25%	control efficiency*

* Note: Control efficiency is based on published guidance for paved roadway sweeping from South Coast Air Quality Management District (SCAQMD), Mojave Desert Air Quality Management District (MDAQMD), Antelope Valley Air Quality Management District (AVAQMD), and the Western Regional Air Partnership (WRAP).

Table B-4
Major Source Applicability
Encina Fort Union LLC - Northumberland, PA Facility

Proposed Source ID	Source Description	PTE (tpy)													
		PM [(a)]	PM_{10} [(b)]	$PM_{2.5}$ [(c)]	SO_2	NO_X	VOC	CO	Pb	Fluorides	TRS	H_2S	H_2SO_4	Single HAP	Total HAP
001	Diesel Fire Pump No. 1	0.03	0.03	0.03	9.56E-04	0.45	0.06	0.45	--	--	--	--	--	5.94E-04	2.47E-03
002	Diesel Fire Pump No. 2	0.03	0.03	0.03	9.56E-04	0.45	0.06	0.45	--	--	--	--	--	5.94E-04	2.47E-03
003	Diesel Emergency Generator	0.14	0.16	0.16	5.09E-03	3.86	0.55	2.41	--	--	--	--	--	2.63E-03	5.33E-03
Z001	Fugitive Roadways	23.80	4.76	1.17	--	--	--	--	--	--	--	--	--	--	--
Phase 1 Facility-Wide PTE:		**23.99**	**4.99**	**1.39**	**7.00E-03**	**4.77**	**0.67**	**3.32**	**-**	**-**	**-**	**-**	**-**	**3.82E-03**	**1.03E-02**
Major Source Threshold [(d)]:		**100**	**100**	**100**	**100**	**100**	**50**	**100**	**100**	**100**	**100**	**100**	**100**	**10**	**25**
Major Source?		**No**	**No**	**No**	**No**	**No**	**No**	**No**	**No**	**No**	**No**	**No**	**No**	**No**	**No**

[(a)] Particulate matter (PM) includes only the filterable particulate matter fraction. Condensable particulate matter (CPM) is not included.

[(b)] Total particulate matter of 10 microns or less (PM_{10}) includes filterable PM_{10} and CPM.

[(c)] Total particulate matter of 2.5 microns or less ($PM_{2.5}$) includes filterable $PM_{2.5}$ and CPM.

[(d)] PSD major source threshold is 100 tpy for each regulated NSR pollutant per 40 CFR §52.21(b)(1)(i). NNSR major source thresholds are 100 tpy and 50 tpy for NO_X and VOC, respectively, per 25 Pa. Code §127.201. Title V major source thresholds are 50 tpy for VOC, 100 tpy for all other regulated NSR pollutants, 10 tpy for any single HAP, and 25 tpy for total HAP per 25 Pa. Code §121.1.

APPENDIX C –
MANUFACTURER DATA

CLARKE®

FIRE PUMP ENGINES

MODELS

JU6H-UFADMG	JU6H-UFADP0	JU6H-UFADR0	JU6H-UFADT0
JU6H-UFAD58	JU6H-UFADP8	JU6H-UFADR8	JU6H-UFADW8
JU6H-UFADNG	JU6H-UFADQ0	JU6H-UFADS8	JU6H-UFADX8
JU6H-UFADN0	JU6H-UFAD88	JU6H-UFADS0	JU6H-UFAD98

FM-UL-cUL APPROVED RATINGS BHP/*KW*

JU6H MODEL ♦	RATED SPEED 1760		2100		2350		2400		US-EPA (NSPS) Available Until ●
UFADMG			175	*131*	175	*131*			*No Expiration*
UFAD58	183	*137*							*No Expiration*
UFADNG	190	*142*	181	*135*	183	*137*	183	*137*	*No Expiration*
UFADN0	197	*147*	197	*147*	200	*149*	200	*149*	*No Expiration*
UFADP0			209	*156*	211	*157*	211	*157*	*No Expiration*
UFADP8	220	*164*							*No Expiration*
UFADQ0			224	*167*	226	*169*	226	*169*	*No Expiration*
UFAD88	237	*177*							*No Expiration*
UFADR0			238	*177.5*	240	*179*	240	*179*	*No Expiration*
UFADR8	250	*187*							*No Expiration*
UFADS8	260	*194*							*No Expiration*
UFADS0			260	*194*	268	*200*	268	*200*	*No Expiration*
UFADT0			274	*204*	275	*205*	275	*205*	*No Expiration*
UFADW8	282	*211*							*No Expiration*
UFADX8	305	*227.5*							*No Expiration*
UFAD98	315	*235*							*No Expiration*

Picture represents JU6H-TRWA Power Tech Plus Engine Series

● USA EPA (NSPS) Tier 3 Emissions Certified Off-Road (40 CFR Part 89) and NSPS Stationary (40 CFR Part 60 Sub Part IIII). Meet EU Stage IIIA emission levels.

♦ All Models available for Export

SPECIFICATIONS

ITEM	JU6H MODELS MG	58	NG	N0	P8	88	P0	Q0	R0	S0	T0	R8	S8	W8	X8	98
Number of Cylinders	6															
Aspiration	TRWA															
Rotation*	CW															
Overall Dimensions – in. (mm)	59.8 (1519) H x 56.7 (1414) L x 36.7 (933) W						60.9 (1547) H x 58.6 (1488) L x 40.0 (1015) W									
Crankshaft Centerline Height – in. (mm)	14 (356)															
Weight – lb (kg)	1747 (791)															
Compression Ratio	19.0:1						17.0:1									
Displacement – cu. in. (L)	415 (6.8)															
Engine Type	4 Stroke Cycle – Inline Construction															
Bore & Stroke – in. (mm)	4.19 x 5.00 (106 x 127)															
Installation Drawing	D628															
Wiring Diagram AC	C07651															
Wiring Diagram DC	C071367, C072146, C071361						C071368, C072146, C071761									
Engine Series	John Deere 6068 Series Power Tech E						John Deere 6068 Series Power Tech Plus									
Speed Interpolation	N/A															

Abbreviations: CW – Clockwise TRWA – Turbocharged with Raw Water Aftercooling N/A - Not Available L – Length W – Width H - Height

*Rotation viewed from Heat Exchanger / Front of engine

CERTIFIED POWER RATING

- Each engine is factory tested to verify power and performance.
- FM-UL power ratings are shown at specific speeds, Clarke engines can be applied at a single rated RPM setting ± 50 RPM.

ENGINE RATINGS BASELINES

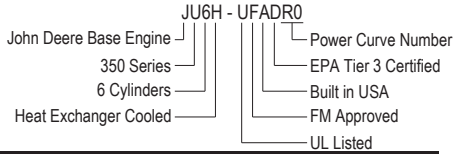
- Engines are to be used for stationary emergency standby fire pump service only. Engines are to be tested in accordance with NFPA 25.
- Engines are rated at standard SAE conditions of 29.61 in. (752.1 mm) Hg barometer and 77°F (25°C) inlet air temperature [approximates 300 ft. (91.4 m) above sea level] by the testing laboratory (see SAE Standard J 1349).
- A deduction of 3 percent from engine horsepower rating at standard SAE conditions shall be made for diesel engines for each 1000 ft. (305 m) altitude above 300 ft. (91.4 m)
- A deduction of 1 percent from engine horsepower rating as corrected to standard SAE conditions shall be made for diesel engines for every 10°F (5.6°C) above 77°F (25°C) ambient temperature.

ENGINE EQUIPMENT

EQUIPMENT	STANDARD	OPTIONAL
Air Cleaner	Direct Mounted, Washable, Indoor Service with Drip Shield	Disposable, Drip Proof, Indoor Service Outdoor Type, Single or Two Stage (Cyclonic)
Alarms	Overspeed Alarm & Shutdown, Low Oil Pressure, Low & High Coolant Temperature, Low Raw Water Flow, High Raw Water Temperature, Alternate ECM Warning, Fuel Injection Malfunction, ECM Warning and Failure with Automatic Switching	Low Coolant Level, Low Oil Level, Oil Filter Differential Pressure, Fuel Filter Differential Pressure, Air Filter Restriction
Alternator	12V-DC, 42 Amps with Poly-Vee Belt and Guard	24V-DC, 40 Amps with Poly-Vee Belt and Guard
Coupling	Bare Flywheel	UL Listed Driveshaft and Guard, JU6H-UFAD58/NG/ADMG/ADM8/K0/N0/Q0/R0-CDS30-S1; JU6H-UFADP8/P0/T0/88/R8/S8/S0/W8/X8/98- CDS50-SC at 1760/2100 RPM only
Electronic Control Module	12V-DC, Energized to Stop, Primary ECM always Powered on	24V-DC, Energized to Stop, Primary ECM always Powered on
Engine Heater	115V-AC, 1360 Watt	230V-AC, 1360 Watt
Exhaust Flex Connection	SS Flex, 150# ANSI Flanged Connection, 5" for JU6H-UFAD58/MG/NG/N0/P8/88; SS Flex, 150# ANSI Flanged Connection, 6" for JU6H-UFADP0/Q0/R0/S0/T0/R8/S8/W8/X8/98 (w/ orifice plate)	SS Flex, 150# ANSI Flanged Connection, 6" for JU6H-UFAD58/MG/NG/N0/P8/88; SS Flex, 150# ANSI Flanged Connection, 8" for JU6H-UFADP0/Q0/R0/S0/T0/R8/S8/W8/X8/98 (w/ orifice plate)
Exhaust Protection	Metal Guards on Manifolds and Turbocharger	
Flywheel Housing	SAE #3	
Flywheel Power Take Off	11.5" SAE Industrial Flywheel Connection	
Fuel Connections	Fire Resistant, Flexible, USA Coast Guard Approved, Supply and Return Lines	SS, Braided, cUL Listed, Supply and Return Lines
Fuel Filter	Primary Filter with Priming Pump	
Fuel Injection System	High Pressure Common Rail	
Governor, Speed	Dual Electronic Control Modules	
Heat Exchanger	Tube and Shell Type, 60 PSI (4 BAR), NPT(F) Connections – Sea Water Compatible	
Instrument Panel	Multimeter to Display English and Metric, Tachometer, Hourmeter, Water Temperature, Oil Pressure and One (1) Voltmeter with Toggle Switch, Front Opening	
Junction Box	Integral with Instrument Panel; For DC Wiring Interconnection to Engine Controller	
Lube Oil Cooler	Engine Water Cooled, Plate Type	
Lube Oil Filter	Full Flow with By-Pass Valve	
Lube Oil Pump	Gear Driven, Gear Type	
Manual Start Control	On Instrument Panel with Control Position Warning Light	
Overspeed Control	Electronic, Factory Set, Not Field Adjustable	
Raw Water Cooling Loop w/Alarms	Galvanized	Seawater, All 316SS, High Pressure
Raw Water Cooling Loop Solenoid Operation	Automatic from Fire Pump Controller and from Engine Instrument Panel (for Horizontal Fire Pump Applications)	Not Supplied (for Vertical Turbine Fire Pump Applications)
Run – Stop Control	On Instrument Panel with Control Position Warning Light	
Starters	Two (2) 12V-DC	Two (2) 24V-DC
Throttle Control	Adjustable Speed Control by Increase/Decrease Button, Tamper Proof in Instrument Panel	
Water Pump	Centrifugal Type, Poly-Vee Belt Drive with Guard	

Abbreviations: DC – Direct Current, AC – Alternating Current, SAE – Society of Automotive Engineers, NPT(F) – National Pipe Tapered Thread (Female), ANSI – American National Standards Institute, SS – Stainless Steel

MODEL NOMENCLATURE: (10 Digit Models)



CLARKE®

CLARKE Fire Protection Products, Inc.
100 Progress Place, Cincinnati, Ohio 45246
United States of America
Tel +1-513-475-FIRE(3473) Fax +1-513-771-8930
www.clarkefire.com

CLARKE UK, Ltd.
Grange Works, Lomond Rd., Coatbridge, ML5-2NN
United Kingdom
Tel +44-1236-429946 Fax +44-1236-427274
www.clarkefire.com

C133421 revR
19JUN15

Cat® D1250 GC

Diesel Generator Sets

Image shown might not reflect actual configuration.

Engine	C32
Bore – mm (in)	145 (5.7)
Stroke – mm (in)	162 (6.4)
Displacement – L (in^3)	32.1 (1959)
Compression Ratio	14.0:1
Aspiration	TA
Fuel System	EUI
Governor Type	ADEM™ A4

Model	Standby 60 Hz ekW (kVA)	Emissions Performance
D1250 GC	1250 (1562)	U.S EPA Emergency Stationary Use only (Tier 2)

Standard Features

Cat® Diesel Engine

- Meets U.S. EPA Emergency Stationary Use only (Tier 2) emission standards
- Reliable performance proven in thousands of applications worldwide

Generator Set Package

- Accepts 100% block load in one step and meets NFPA 110 loading requirements
- Conforms to ISO 8528-5 G3 load acceptance requirements
- Reliability is verified through prototype testing, which includes torsional vibration, fuel consumption, oil consumption, transient performance, and endurance testing

Alternators

- Superior motor starting capability minimizes the need for oversizing the generator
- Designed to match the performance and output characteristics of Cat diesel engines

Cooling System

- Cooling systems available to operate in ambient temperatures
- Tested to ensure proper generator set cooling

GCCP Control Panels

- User-friendly set-up and button layout for ease of use
- Multiple parameters are monitored & displayed simultaneously for full visibility
- The module can be configured to suit a wide range of applications for user flexibility

Warranty and Extended Service Coverage (ESC)

- 24 months/1000-hour warranty for standby ratings
- 5 yrs Gold Complimentary Extended Service Coverage

Worldwide Product Support

- Cat dealers have over 1,800 dealer branch stores operating in 200 countries
- Your local Cat dealer provides extensive post-sale support, including maintenance and repair agreements

Financing

- Caterpillar offers an array of financial products to help you succeed through financial service excellence
- Options include loans, finance lease, operating lease, working capital, and revolving line of credit
- Contact your local Cat dealer for availability in your region

Standard and Optional Equipment

Engine

Air Cleaner
- ❑ Single element
- ❑ Dual element

Starting
- ❑ Standard batteries
- ❑ Oversized batteries
- ❑ Dual Electric Starters
- ❑ Jacket water heater

Engine Attachments
- ❑ 6” Exhaust Flexible Fittings
- ❑ 6” Exhaust Flange Kits
- ❑ Radiator Duct Flange

Alternator

Output voltage
- ❑ 480V
- ❑ 600V

Temperature Rise (over 40°C ambient)
- ❑ 125°C
- ❑ 105°C

Winding type
- ❑ Random wound

Excitation
- ❑ Internal excitation (IE)
- ❑ Permanent magnet (PM)

Attachments
- ❑ Anti-condensation heater

Power Termination

Type
- ❑ Circuit breaker (Primary)
- ❑ 1200A ❑ 1600A ❑ 2000A
- ❑ Circuit breaker (Auxiliary)
- ❑ 250A ❑ 400A
- ❑ 3-pole
- ❑ Manually operated

Trip Unit
- ❑ LSI ❑ LSIG ❑ LSIG-P

Factory Enclosure
- ❑ Sound attenuated
- ❑ Weatherproof

Attachments
- ❑ DC lighting package

Fuel Tank
- ❑ Intergrated 2100 gal (7950 L)
- ❑ Sub base 3000 gal (11356 L)
- ❑ Sub base 4200 gal (15876 L)

Control System

Controller
- ❑ GCCP 1.2

Attachments
- ❑ Remote annunciator module
- ❑ Expansion I/O module
- ❑ 100A Load Center
- ❑ 20A GFCI AC Receptacle
- ❑ Ground Fault Indication
- ❑ Audible Alarm

Charging
- ❑ Battery charger – 10A (Installed)
- ❑ Battery charger – 20A (Shipped loose)

Cat Connect

Connectivity
- ❑ Ethernet
- ❑ Cellular

Extended Service Options

Terms
- ❑ 3 year
- ❑ 4 year
- ❑ 5 year

Coverage
- ❑ Silver
- ❑ Gold

Certifications
- ❑ UL 2200 Listed
- ❑ cUL CSA 22.2 No. 100-14
- ❑ IBC seismic certification

Note: Some options may not be available on all models. Certifications may not be available with all model configurations. Consult factory for availability.

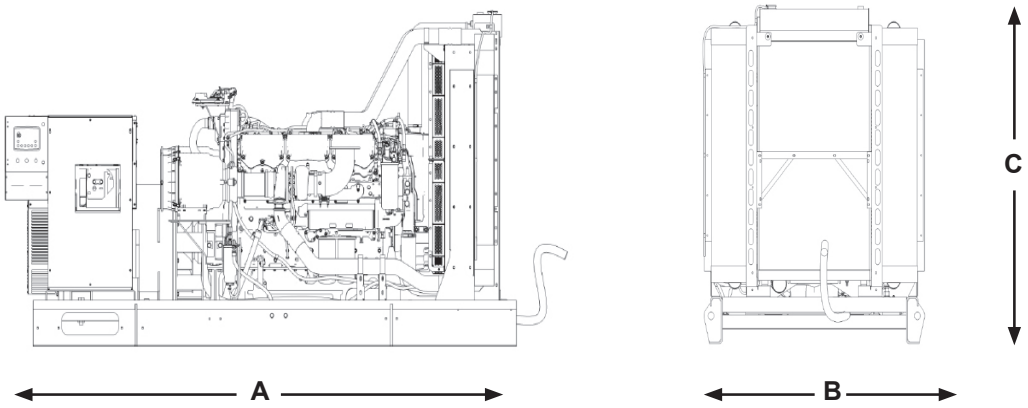
Package Performance – D1250 GC

Performance	Standby	
Frequency	60 Hz	
Gen set power rating with fan	1250 ekW	
Gen set power rating with fan @ 0.8 power factor	1562.5 kVA	
Fueling strategy	EPA ESE (Tier 2)	
Performance number	EM2324	
Fuel Consumption		
100% load with fan – L/hr (gal/hr)	330.9	(87.4)
75% load with fan – L/hr (gal/hr)	268.9	(71.0)
50% load with fan – L/hr (gal/hr)	181.1	(47.8)
25% load with fan – L/hr (gal/hr)	102.1	(27.0)
Cooling System		
Radiator air flow restriction (system) – kPa (in. water)	0.12	(0.48)
Radiator air flow – m^3/min (cfm)	1109	(39164)
Engine coolant capacity – L (gal)	55	(14.5)
Radiator coolant capacity – L (gal)	61	(16.1)
Total coolant capacity – L (gal)	116	(30.6)
Inlet Air		
Combustion air inlet flow rate – m^3/min (cfm)	118.0	(4168.3)
Exhaust System		
Exhaust stack gas temperature – °C (°F)	430.3	(806.6)
Exhaust gas flow rate – m^3/min (cfm)	283.4	(10005.8)
Exhaust system backpressure (maximum allowable) – kPa (in. water)	6.7	(27.0)
Heat Rejection		
Heat rejection to jacket water – kW (Btu/min)	403	(22908)
Heat rejection to exhaust (total) – kW (Btu/min)	1097	(62361)
Heat rejection to aftercooler – kW (Btu/min)	452	(25715)
Heat rejection to atmosphere from engine – kW (Btu/min)	222	(12620)
Heat rejection from alternator – kW (Btu/min)	58.9	(3350)
Emissions* (Nominal)		
NOx mg/Nm^3 (g/hp-h)	2416.9	(5.13)
CO mg/Nm^3 (g/hp-h)	53.0	(0.11)
HC mg/Nm^3 (g/hp-h)	21.6	(0.05)
PM mg/Nm^3 (g/hp-h)	5.1	(0.01)
Emissions* (Potential Site Variation)		
NOx mg/Nm^3 (g/hp-h)	2924.5	(6.20)
CO mg/Nm^3 (g/hp-h)	99.1	(0.21)
HC mg/Nm^3 (g/hp-h)	40.8	(0.10)
PM mg/Nm^3 (g/hp-h)	10.0	(0.02)

**mg/Nm³ levels are corrected to 5% O_2. Contact your local Cat dealer for further information.*

D1250 GC Diesel Generator Sets
Electric Power

Weights and Dimensions



Model	Dim "A" mm (in)	Dim "B" mm (in)	Dim "C" mm (in)	Wet Weight kg (lb)
D1250 GC	4175 (164.3)	2090.5 (82.3)	2268 (89.3)	7156 (15776)

Note: *For reference only. Do not use for installation design. Contact your local Cat dealer for precise weights and dimensions.*

Ratings and Definitions

Standby

Output available with varying load for the duration of the interruption of the normal source power. Average power output is 70% of the standby power rating. Typical operation is 200 hours per year, with maximum expected usage of 500 hours per year.

Applicable Codes and Standards

CSA C22.2 No. 100-14, UL 142, UL 489, UL 869A, UL 2200, IBC 2018, ISO 3046, ISO 8528 and facilitates compliance to NFPA37, NFPA70, NFPA99 and NFPA110 codes.

Note: Codes may not be available in all model configurations. Please consult your local Cat dealer for availability.

Fuel Rates

Fuel rates are based on fuel oil of 35º API [16°C (60ºF)] gravity having an LHV of 42,780 kJ/kg (18,390 Btu/lb) when used at 29ºC (85ºF) and weighing 838.9 g/liter (7.001 lbs/U.S. gal.).

LET'S DO THE WORK.™

LEHE20274-03 (06/22)

APPENDIX D –
PLAN APPROVAL APPLICATION FORMS

0210-PM-PIO0001 Rev. 10/2020
Application

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

GENERAL INFORMATION FORM – AUTHORIZATION APPLICATION

Before completing this General Information Form (GIF), read the step-by-step instructions provided in this application package. This form is used by the Department of Environmental Protection (DEP) to inform our programs regarding what other DEP permits or authorizations may be needed for the proposed project or activity. This version of the General Information Form (GIF) must be completed and returned with any program-specific application being submitted to the DEP.

Related ID#s (If Known)				DEP USE ONLY
Client ID#		APS ID#		Date Received & General Notes
Site ID#		Auth ID#		
Facility ID#				

CLIENT INFORMATION

DEP Client ID#	Client Type / Code	Dun & Bradstreet ID#
N/A	*N/A*	*N/A*

Legal Organization Name or Registered Fictitious Name	Employer ID# (EIN)	Is the EIN a SSN?
Encina Fort Union LLC	*81-1267194*	☐ Yes ☒ NO

State of Incorporation or Registration of Fictious Name
Encina Fort Union LLC

☐ Corporation ☒ LLC ☐ Partnership ☐ LLP ☐ LP
☐ Sole Proprietorship ☐ Association/Organization
☐ Estate/Trust ☐ Other

Individual Last Name	First Name	MI	Suffix
N/A			
Additional Individual Last Name	**First Name**	**MI**	**Suffix**

Mailing Address Line 1
1095 Evergreen Circle, Suite 510

Mailing Address Line 2

Address Last Line – City	State	ZIP+4	Country
Woodlands	*TX*	*77380*	*USA*

Client Contact Last Name	First Name	MI	Suffix
Sahandy	*Sheida*		

Client Contact Title	Phone	Ext	Cell Phone
Chief Sustainability Officer	*(206)375-1277*		

Email Address	FAX
ssahandy@encina.com	

SITE INFORMATION

DEP Site ID#	Site Name
N/A	*Point Township Circular Manufacturing Facility*

EPA ID# *N/A*

Estimated Number of Employees to be Present at Site: *254 (Upon Completion of Phase 1 and Phase 2)*

Description of Site
Greenfield plastics sorting operation.

Tax Parcel ID(s): *Parcel 1: 039-00-031-039, Parcel 2: 039-00-026-015*

County Name(s)	Municipality(ies)	City	Boro	Twp	State
Northumberland		☒	☐	☐	*PA*
	Point Township	☐	☐	☒	*PA*
		☐	☐	☐	
		☐	☐	☐	

Site Location Line 1
3288 Point Township Drive

Site Location Line 2

Site Location Last Line – City	State	ZIP+4
Northumberland	*PA*	*17857*

Detailed Written Directions to Site

Follow I-76 W, I-476 N and I-80 W to PA-54 E/Continental Boulevard in Valley Townhip. Take exit 224 from I-80 W. Follow PA-54 E/Continental Boulevard and US-11S to the destination in Point Township.

Site Contact Last Name	First Name	MI	Suffix
Marr	*Michael*		

Site Contact Title	Site Contact Firm
Director of Government Relations & Compliance	*Encina Fort Union LLC*

Mailing Address Line 1	Mailing Address Line 2
1095 Evergreen Circle, Suite 510	

Mailing Address Last Line – City	State	ZIP+4
Woodlands	*TX*	*77380*

Phone	Ext	FAX	Email Address
(412) 953-4684			*mmarr@encina.com*

NAICS Codes (Two- & Three-Digit Codes – List All That Apply): *32-519*

6-Digit Code (Optional)

Client to Site Relationship
Owner/Operator

FACILITY INFORMATION

Modification of Existing Facility	Yes	No
1. Will this project modify an existing facility, system, or activity?	☐	☒
2. Will this project involve an addition to an existing facility, system, or activity?	☐	☒

If "Yes", check all relevant facility types and provide DEP facility identification numbers below.

	Facility Type	DEP Fac ID#		Facility Type	DEP Fac ID#
☐	Air Emission Plant		☐	Industrial Minerals Mining Operation	
☐	Beneficial Use (water)		☐	Laboratory Location	
☐	Blasting Operation		☐	Land Recycling Cleanup Location	
☐	Captive Hazardous Waste Operation		☐	Mine Drainage Treatment / Land Recycling Project Location	
☐	Coal Ash Beneficial Use Operation		☐	Municipal Waste Operation	
☐	Coal Mining Operation		☐	Oil & Gas Encroachment Location	
☐	Coal Pillar Location		☐	Oil & Gas Location	
☐	Commercial Hazardous Waste Operation		☐	Oil & Gas Water Poll Control Facility	
☐	Dam Location		☐	Public Water Supply System	
☐	Deep Mine Safety Operation -Anthracite		☐	Radiation Facility	
☐	Deep Mine Safety Operation -Bituminous		☐	Residual Waste Operation	
☐	Deep Mine Safety Operation -Ind Minerals		☐	Storage Tank Location	
☐	Encroachment Location (water, wetland)		☐	Water Pollution Control Facility	
☐	Erosion & Sediment Control Facility		☐	Water Resource	
☐	Explosive Storage Location		☐	Other:	

Latitude/Longitude Point of Origin	Latitude			Longitude		
	Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
Center of Property (General)	*40°*	*56'*	*57.75" N*	*76°*	*40'*	*5.11" W*

Horizontal Accuracy Measure: Feet *--or--* Meters

Horizontal Reference Datum Code
- ☐ North American Datum of 1927
- ☒ North American Datum of 1983
- ☐ World Geodetic System of 1984

Horizontal Collection Method Code: ***Geographic coordinate determination method based on interpolation - map***

Reference Point Code

Altitude: Feet ***473*** *--or--* Meters

Altitude Datum Name
- ☐ The National Geodetic Vertical Datum of 1929
- ☒ The North American Vertical Datum of 1988 (NAVD88)

Altitude (Vertical) Location Datum Collection Method Code

Geometric Type Code

Data Collection Date				
Source Map Scale Number		Inch(es)	=	Feet
	--or--	Centimeter(s)	=	Meters

PROJECT INFORMATION

Project Name
Phase 1 Air Permitting

Project Description
Plastics Sorting Operation

Project Consultant Last Name	**First Name**	**MI**	**Suffix**
Turney	*Kayla*		

Project Consultant Title	**Consulting Firm**
Technical Manager	*ALL4 LLC*

Mailing Address Line 1	**Mailing Address Line 2**
2393 Kimberton Road	

Address Last Line – City	**State**	**ZIP+4**
Kimberton	*PA*	*19442*

Phone	**Ext**	**FAX**	**Email Address**
(610)422-1143			*kturney@all4inc.com*

Time Schedules	**Project Milestone (Optional)**
Q2 of 2023	*Commence Construction*
Q3 of 2024	*Commence Operation*

1. Is the project located in or within a 0.5-mile radius of an Environmental Justice community as defined by DEP? ☐ Yes ☒ No

To determine if the project is located in or within a 0.5-mile radius of an environmental justice community, please use the online Environmental Justice Areas Viewer.

2. Have you informed the surrounding community prior to submitting the application to the Department? ☒ Yes ☐ No

Method of notification: *Municipal Notification Letters*

3. Have you addressed community concerns that were identified? ☒ Yes ☐ No ☐ N/A

If no, please briefly describe the community concerns that have been expressed and not addressed.

General environmental concerns.

4. Is your project funded by state or federal grants? ☐ Yes ☒ No

Note: If "Yes", specify what aspect of the project is related to the grant and provide the grant source, contact person and grant expiration date.

Aspect of Project Related to Grant
Grant Source: _____
Grant Contact Person: _____
Grant Expiration Date: _____

5.	**Is this application for an authorization on Appendix A of the Land Use Policy? (For referenced list, see Appendix A of the Land Use Policy attached to GIF instructions)**	☒	Yes	☐	No

Note: If "No" to Question 5, the application is not subject to the Land Use Policy.
If "Yes" to Question 5, the application is subject to this policy and the Applicant should answer the additional questions in the **Land Use Information** section.

LAND USE INFORMATION

Note: Applicants should submit copies of local land use approvals or other evidence of compliance with local comprehensive plans and zoning ordinances.

1.	**Is there an adopted county or multi-county comprehensive plan?**	☒	Yes	☐	No
2.	**Is there a county stormwater management plan?**	☒	Yes	☐	No
3.	**Is there an adopted municipal or multi-municipal comprehensive plan?**	☐	Yes	☒	No
4.	**Is there an adopted county-wide zoning ordinance, municipal zoning ordinance or joint municipal zoning ordinance?**	☒	Yes	☐	No
5.	**Does the proposed project meet the provisions of the zoning ordinance or does the proposed project have zoning approval?** If zoning approval has been received, attach documentation.	☐	Yes	☐	No
6.	**Have you attached Municipal and County Land Use Letters for the project?**	☐	Yes	☒	No

Note: If the Applicant answers "No" to either Questions 1, 3 or 4, the provisions of the PA MPC are not applicable and the Applicant does not need to respond to questions 5 and 6 below.
If the Applicant answers "Yes" to questions 1, 3 and 4, the Applicant should respond to questions 5 and 6 below.

Pending

COORDINATION INFORMATION

Note: The PA Historical and Museum Commission must be notified of proposed projects in accordance with DEP Technical Guidance Document 012-0700-001 utilizing the Project Review Form.

If the activity will be a mining project (i.e., mining of coal or industrial minerals, coal refuse disposal and/or the operation of a coal or industrial minerals preparation/processing facility), respond to questions 1.0 through 2.5 below.

If the activity will not be a mining project, skip questions 1.0 through 2.5 and begin with question 3.0.

1.0	**Is this a coal mining project?** If "Yes", respond to 1.1-1.6. If "No", skip to Question 2.0.	☐	Yes	☒	No
1.1	**Will this coal mining project involve coal preparation/ processing activities in which the total amount of coal prepared/processed will be equal to or greater than 200 tons/day?**	☐	Yes	☐	No
1.2	**Will this coal mining project involve coal preparation/ processing activities in which the total amount of coal prepared/processed will be greater than 50,000 tons/year?**	☐	Yes	☐	No
1.3	**Will this coal mining project involve coal preparation/ processing activities in which thermal coal dryers or pneumatic coal cleaners will be used?**	☐	Yes	☐	No
1.4	**For this coal mining project, will sewage treatment facilities be constructed and treated waste water discharged to surface waters?**	☐	Yes	☐	No
1.5	**Will this coal mining project involve the construction of a permanent impoundment meeting one or more of the following criteria: (1) a contributory drainage area exceeding 100 acres; (2) a depth of water measured by the upstream toe of the dam at maximum storage elevation exceeding 15 feet; (3) an impounding capacity at maximum storage elevation exceeding 50 acre-feet?**	☐	Yes	☐	No
1.6	**Will this coal mining project involve underground coal mining to be conducted within 500 feet of an oil or gas well?**	☐	Yes	☐	No
2.0	**Is this a non-coal (industrial minerals) mining project?** If "Yes", respond to 2.1-2.6. If "No", skip to Question 3.0.	☐	Yes	☒	No

2.1	**Will this non-coal (industrial minerals) mining project involve the crushing and screening of non-coal minerals other than sand and gravel?**	☐	Yes	☐	No
2.2	**Will this non-coal (industrial minerals) mining project involve the crushing and/or screening of sand and gravel with the exception of wet sand and gravel operations (screening only) and dry sand and gravel operations with a capacity of less than 150 tons/hour of unconsolidated materials?**	☐	Yes	☐	No
2.3	**Will this non-coal (industrial minerals) mining project involve the construction, operation and/or modification of a portable non-metallic (i.e., non-coal) minerals processing plant under the authority of the General Permit for Portable Non-metallic Mineral Processing Plants (i.e., BAQ-PGPA/GP-3)?**	☐	Yes	☐	No
2.4	**For this non-coal (industrial minerals) mining project, will sewage treatment facilities be constructed and treated waste water discharged to surface waters?**	☐	Yes	☐	No
2.5	**Will this non-coal (industrial minerals) mining project involve the construction of a permanent impoundment meeting one or more of the following criteria: (1) a contributory drainage area exceeding 100 acres; (2) a depth of water measured by the upstream toe of the dam at maximum storage elevation exceeding 15 feet; (3) an impounding capacity at maximum storage elevation exceeding 50 acre-feet?**	☐	Yes	☐	No
3.0	**Will your project, activity, or authorization have anything to do with a well related to oil or gas production, have construction within 200 feet of, affect an oil or gas well, involve the waste from such a well, or string power lines above an oil or gas well?** If "Yes", respond to 3.1-3.3. If "No", skip to Question 4.0.	☐	Yes	☒	No
3.1	**Does the oil- or gas-related project involve any of the following: placement of fill, excavation within or placement of a structure, located in, along, across or projecting into a watercourse, floodway or body of water (including wetlands)?**	☐	Yes	☐	No
3.2	**Will the oil- or gas-related project involve discharge of industrial wastewater or stormwater to a dry swale, surface water, ground water or an existing sanitary sewer system or storm water system?** If "Yes", discuss in *Project Description*.	☐	Yes	☐	No
3.3	**Will the oil- or gas-related project involve the construction and operation of industrial waste treatment facilities?**	☐	Yes	☐	No
4.0	**Will the project involve a construction activity that results in earth disturbance?** If "Yes", specify the total disturbed acreage.	☒	Yes	☐	No
4.0.1	**Total Disturbed Acreage** *> 1 acre*				
4.0.2	**Will the project discharge or drain to a special protection water (EV or HQ) or an EV wetland?**	☐	Yes	☒	No
4.0.3	**Will the project involve a construction activity that results in earth disturbance in the area of the earth disturbance that are contaminated at levels exceeding residential or non-residential medium-specific concentrations (MSCs) in 25 Pa. Code Chapter 250 at residential or non-residential construction sites, respectively?**	☐	Yes	☒	No
5.0	**Does the project involve any of the following: water obstruction and/or encroachment, wetland impacts, or floodplain project by the Commonwealth/political subdivision or public utility?** If "Yes", respond to 5.1-5.7. If "No", skip to Question 6.0.	☐	Yes	☒	No
5.1	**Water Obstruction and Encroachment Projects – Does the project involve any of the following: placement of fill, excavation within or placement of a structure, located in, along, across or projecting into a watercourse, floodway or body of water?**	☐	Yes	☒	No

5.2	**Wetland Impacts – Does the project involve any of the following: placement of fill, excavation within or placement of a structure, located in, along, across or projecting into a wetland?**	☐	Yes	☒	No
5.3	**Floodplain Projects by the Commonwealth, a Political Subdivision of the Commonwealth or a Public Utility – Does the project involve any of the following: placement of fill, excavation within or placement of a structure, located in, along, across or projecting into a floodplain?**	☐	Yes	☒	No
5.4	**Is your project an interstate transmission natural gas pipeline?**	☐	Yes	☒	No
5.5	**Does your project consist of linear construction activities which result in earth disturbance in two or more DEP regions AND three or more counties?**	☐	Yes	☒	No
5.6	**Does your project utilize Floodplain Restoration as a best management practice for Post Construction Stormwater Management?**	☐	Yes	☒	No
5.7	**Does your project utilize Class V Gravity / Injection Wells as a best management practice for Post Construction Stormwater Management?**	☐	Yes	☒	No
6.0	**Will the project involve discharge of construction related stormwater to a dry swale, surface water, ground water or separate storm water system?**	☒	Yes	☐	No
6.1	**Will the project involve discharge of industrial waste stormwater or wastewater from an industrial activity or sewage to a dry swale, surface water, ground water or an existing sanitary sewer system or separate storm water system?**	☐	Yes	☒	No
7.0	**Will the project involve the construction and operation of industrial waste treatment facilities?**	☐	Yes	☒	No
8.0	**Will the project involve construction of sewage treatment facilities, sanitary sewers, or sewage pumping stations?** If "Yes", indicate estimated proposed flow (gal/day). Also, discuss the sanitary sewer pipe sizes and the number of pumping stations/treatment facilities/name of downstream sewage facilities in the *Project Description*, where applicable. **8.0.1 Estimated Proposed Flow (gal/day)**	☐	Yes	☒	No
9.0	**Will the project involve the subdivision of land, or the generation of 800 gpd or more of sewage on an existing parcel of land or the generation of an additional 400 gpd of sewage on an already-developed parcel, or the generation of 800 gpd or more of industrial wastewater that would be discharged to an existing sanitary sewer system?**	☐	Yes	☒	No
	9.0.1 Was Act 537 sewage facilities planning submitted and approved by DEP? If "Yes" attach the approval letter. Approval required prior to 105/NPDES approval. ***Planning Module submitted to Township 8/26/22.***	☒	Yes	☐	No
10.0	**Is this project for the beneficial use of biosolids for land application within Pennsylvania?** If "Yes" indicate how much (i.e. gallons or dry tons per year). **10.0.1 Gallons Per Year (residential septage)** **10.0.2 Dry Tons Per Year (biosolids)**	☐	Yes	☒	No
11.0	**Does the project involve construction, modification or removal of a dam?** If "Yes", identify the dam. **11.0.1 Dam Name**	☐	Yes	☒	No
12.0	**Will the project interfere with the flow from, or otherwise impact, a dam?** If "Yes", identify the dam. **12.0.1 Dam Name**	☐	Yes	☒	No

13.0	**Will the project involve operations (excluding during the construction period) that produce air emissions (i.e., NOX, VOC, etc.)?**	☒	Yes	☐	No
	13.0.1 If "Yes", is the operation subject to the agricultural exemption in 35 P.S. § 4004.1?	☐	Yes	☒	No
	13.0.2 If the answer to 13.0.1 is "No", identify each type of emission followed by the estimated amount of that emission. **Enter all types & amounts of emissions; separate each set with semicolons.**	*Refer to the Emissions Calculations in Appendix B.*			
14.0	**Does the project include the construction or modification of a drinking water supply to serve 15 or more connections or 25 or more people, at least 60 days out of the year?** If "Yes", check all proposed sub-facilities.	☐	Yes	☒	No
	14.0.1 Number of Persons Served				
	14.0.2 Number of Employee/Guests				
	14.0.3 Number of Connections				
	14.0.4 Sub-Fac: Distribution System	☐	Yes	☐	No
	14.0.5 Sub-Fac: Water Treatment Plant	☐	Yes	☐	No
	14.0.6 Sub-Fac: Source	☐	Yes	☐	No
	14.0.7 Sub-Fac: Pump Station	☐	Yes	☐	No
	14.0.8 Sub Fac: Transmission Main	☐	Yes	☐	No
	14.0.9 Sub-Fac: Storage Facility	☐	Yes	☐	No
15.0	**Will your project include infiltration of storm water or waste water to ground water within one-half mile of a public water supply well, spring or infiltration gallery?**	☐	Yes	☒	No
16.0	**Is your project to be served by an existing public water supply?** If "Yes", indicate name of supplier and attach letter from supplier stating that it will serve the project.	☐	Yes	☒	No
	16.0.1 Supplier's Name				
	16.0.2 Letter of Approval from Supplier is Attached	☐	Yes	☐	No
17.0	**Will this project be served by on-lot drinking water wells?**	☐	Yes	☒	No
18.0	**Will this project involve a new or increased drinking water withdrawal from a river, stream, spring, lake, well or other water bod(ies)?** If "Yes", reference Safe Drinking Water Program.	☒	Yes	☐	No
	18.0.1 Source Name *Non-Community Public Water Well*				
19.0	**Will the construction or operation of this project involve treatment, storage, reuse, or disposal of waste?** If "Yes", indicate what type (i.e., hazardous, municipal (including infectious & chemotherapeutic), residual) and the amount to be treated, stored, re-used or disposed.	☒	Yes	☐	No
	19.0.1 Type & Amount *< 5% of incoming post-consumer material expected to be waste*				
20.0	**Will your project involve the removal of coal, minerals, contaminated media, or solid waste as part of any earth disturbance activities?**	☐	Yes	☒	No
21.0	**Does your project involve installation of a field constructed underground storage tank?** If "Yes", list each Substance & its Capacity. **Note:** Applicant may need a Storage Tank Site Specific Installation Permit.	☐	Yes	☒	No
	21.0.1 Enter all substances & capacity of each; separate each set with semicolons.				

22.0	**Does your project involve installation of an aboveground storage tank greater than 21,000 gallons capacity at an existing facility?** If "Yes", list each Substance & its Capacity. **Note:** Applicant may need a Storage Tank Site Specific Installation Permit. **22.0.1 Enter all substances & capacity of each; separate each set with semicolons.**	☐	Yes	☒	No
23.0	**Does your project involve installation of a tank greater than 1,100 gallons which will contain a highly hazardous substance as defined in DEP's Regulated Substances List, 2570-BK-DEP2724?** If "Yes", list each Substance & its Capacity. **Note:** Applicant may need a Storage Tank Site Specific Installation Permit. **23.0.1 Enter all substances & capacity of each; separate each set with semicolons.**	☐	Yes	☒	No
24.0	**Does your project involve installation of a storage tank at a new facility with a total AST capacity greater than 21,000 gallons?** If "Yes", list each Substance & its Capacity. **Note:** Applicant may need a Storage Tank Site Specific Installation Permit. **24.0.1 Enter all substances & capacity of each; separate each set with semicolons.**	☐	Yes	☒	No
	NOTE: If the project includes the installation of a regulated storage tank system, including diesel emergency generator systems, the project may require the use of a Department Certified Tank Handler. For a full list of regulated storage tanks and substances, please go to www.dep.pa.gov search term storage tanks				
25.0	**Will the intended activity involve the use of a radiation source?**	☐	Yes	☒	No

CERTIFICATION

I certify that I have the authority to submit this application on behalf of the applicant named herein and that the information provided in this application is true and correct to the best of my knowledge and information.

For applicants supplying an EIN number: I am applying for a permit or authorization from the Pennsylvania Department of Environmental Protection (DEP). As part of this application, I will provide DEP with an accurate EIN number for the applicant entity. By filing this application with DEP, I hereby authorize DEP to confirm the accuracy of the EIN number provided with the Pennsylvania Department of Revenue. As applicant, I further consent to the Department of Revenue discussing the same with DEP prior to issuance of the Commonwealth permit or authorization.

Type or Print Name *Sheida Sahandy*

Sheida R. Sahandy — *Chief Sustainability Officer* — 10/27/2022

Signature **Title** **Date**

2700-PM-AQ0007 Rev. 7/2004

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR QUALITY

Submit in Triplicate

PROCESSES

Application for Plan Approval to Construct, Modify or Reactivate an Air Contamination Source and/or Install an Air Cleaning Device

This application must be submitted with the General Information Form (GIF).

Before completing this form, read the instructions provided for the form.

Section A - Facility Name, Checklist And Certification

Organization Name or Registered Fictitious Name/Facility Name: *Encina Fort Union LLC*

DEP Client ID# (if known): _____

Type of Review required and Fees:

- ☐ Source which is not subject to NSPS, NESHAPs, MACT, NSR and PSD: .....$_____
- ☒ Source requiring approval under NSPS or NESHAPS or both: .....$*7,500*
- ☐ Source requiring approval under NSR regulations: .....$_____
- ☐ Source requiring the establishment of a MACT limitation: .....$_____
- ☐ Source requiring approval under PSD: .....$_____

Applicant's Checklist

Check the following list to make sure that all the required documents are included.

- ☒ **General Information Form (GIF)**
- ☒ **Processes Plan Approval Application**
- ☒ **Compliance Review Form** or provide reference of most recently submitted compliance review form for facilities submitting on a periodic basis: _____
- ☒ **Copy and Proof of County and Municipal Notifications**
- ☒ **Permit Fees**
- ☐ **Addendum A:** Source Applicable Requirements (only applicable to existing Title V facility)

Certification of Truth, Accuracy and Completeness by a Responsible Official

I, Sheida Sahandy, certify under penalty of law in 18 Pa. C. S. A. §4904, and 35 P.S. §4009(b) (2) that based on information and belief formed after reasonable inquiry, the statements and information in this application are true, accurate and complete.

(Signature): Sheida R. Sahandy Date: 5/25/23

Name (Print): Sheida Sahandy Title: *Chief Sustainability Officer*

OFFICIAL USE ONLY

Application No. _____ Unit ID _____ Site ID _____

DEP Client ID #: _____ APS. ID _____ AUTH. ID _____

Date Received _____ Date Assigned _____ Reviewed By _____

Date of 1st Technical Deficiency _____ Date of 2nd Technical Deficiency _____

Comments: _____

Section B - Processes Information

1. Source Information

Source Description (give type, use, raw materials, product, etc). Attach additional sheets as necessary.

Encina Fort Union proposes to install two new diesel-fired fire pump engines at the Facility.

Manufacturer	Model No.	Number of Sources
Clarke	*UFAD98*	*1*
Source Designation	Maximum Capacity	Rated Capacity
001 - Diesel Fire Pump No. 1	*315 bhp*	*315 bhp*

Type of Material Processed
Diesel

Maximum Operating Schedule

Hours/Day	Days/Week	Days/Year	Hours/Year
N/A	*N/A*	*N/A*	*500*

Operational restrictions existing or requested, if any (e.g., bottlenecks or voluntary restrictions to limit PTE)
N/A

Capacity (specify units)

Per Hour	Per Day	Per Week	Per Year
N/A	*N/A*	*N/A*	*N/A*

Operating Schedule

Hours/Day	Days/Week	Days/Year	Hours/Year
N/A	*N/A*	*N/A*	*500*

Seasonal variations (Months) From *N/A* to *N/A*

If variations exist, describe them
N/A

2. Fuel

Type	Quantity Hourly	Annually	Sulfur	% Ash (Weight)	BTU Content
Oil Number ***Diesel***	***To be Determined (TBD)*** GPH @ 60°F	***TBD*** X 10^3 Gal	***0.0015***% by wt	***Neg.***	***130,000*** Btu/Gal. & Lbs./Gal. @ 60 °F
Oil Number _____	GPH @ 60°F	X 10^3 Gal	% by wt		Btu/Gal. & Lbs./Gal. @ 60 °F
Natural Gas	SCFH	X 10^6 SCF	grain/100 SCF		Btu/SCF
Gas (other) _____	SCFH	X 10^6 SCF	grain/100 SCF		Btu/SCF
Coal _____	TPH	Tons	% by wt		Btu/lb
Other * _____					
_____					
_____					

*Note: Describe and furnish information separately for other fuels in Addendum B.

Section B - Processes Information (Continued)

3. Burner – *N/A*

Manufacturer	Type and Model No.	Number of Burners

Description:

Rated Capacity	Maximum Capacity

4. Process Storage Vessels – *N/A*

A. For Liquids:

Name of material stored

Tank I.D. No.	Manufacturer	Date Installed

Maximum Pressure	Capacity (gallons/Meter^3)

Type of relief device (pressure set vent/conservation vent/emergency vent/open vent)

Relief valve/vent set pressure (psig)	Vapor press. of liquid at storage temp. (psia/kPa)

Type of Roof: Describe:

Total Throughput Per Year	Number of fills per day (fill/day): Filling Rate (gal./min.): Duration of fill hr./fill):

B. For Solids

Type: ☐ Silo ☐ Storage Bin ☐Other, Describe	Name of Material Stored

Silo/Storage Bin I.D. No.	Manufacturer	Date Installed

State whether the material will be stored in loose or bags in silos	Capacity (Tons)

Turn over per year in tons	Turn over per day in tons

Describe fugitive dust control system for loading and handling operations

Describe material handling system

5. Request for Confidentiality

Do you request any information on this application to be treated as "Confidential"? ☐ Yes ☒ No
If yes, include justification for confidentiality. Place such information on separate pages marked **"confidential"**.

Section B - Processes Information (Continued)

6. Miscellaneous Information

Attach flow diagram of process giving all (gaseous, liquid and solid) flow rates. Also, list all raw materials charged to process equipment, and the amounts charged (tons/hour, etc.) at rated capacity (give maximum, minimum and average charges describing fully expected variations in production rates). Indicate (on diagram) all points where contaminants are controlled (location of water sprays, collection hoods, or other pickup points, etc.). Describe collection hoods location, design, airflow and capture efficiency. Describe any restriction requested and how it will be monitored.

Please refer to the Plan Approval Application (PAA) narrative text for more detailed information.

Describe fully the facilities provided to monitor and to record process operating conditions, which may affect the emission of air contaminants. Show that they are reasonable and adequate.

The Facility will monitor and record operating time through the use of a non-resettable hour meter to determine emissions from Proposed Source ID 001. The Facility will also record the type of operation (i.e., maintenance/readiness testing, other non-emergency, emergency). Please refer to the PAA narrative text for more detailed information.

Describe each proposed modification to an existing source.

N/A

Identify and describe all fugitive emission points, all relief and emergency valves and any by-pass stacks.

N/A

Describe how emissions will be minimized especially during start up, shut down, process upsets and/or disruptions.

Emissions will be minimized during start up, shut down, and malfunction by operating the equipment for each emissions unit in accordance with the manufacturer's instructions and utilizing good engineering practices and principles.

Anticipated Milestones:

i. Expected commencement date of construction/reconstruction/installation: ***2Q2023***
ii. Expected completion date of construction/reconstruction/installation: ***3Q2024***
iii. Anticipated date of start-up: ***3Q2024***

Section B - Processes Information

1. Source Information

Source Description (give type, use, raw materials, product, etc). Attach additional sheets as necessary.

Encina Fort Union proposes to install two new diesel-fired fire pump engines at the Facility.

Manufacturer	Model No.	Number of Sources
Clarke	***UFAD98***	***1***
Source Designation	Maximum Capacity	Rated Capacity
002 - Diesel Fire Pump No. 2	***315 bhp***	***315 bhp***

Type of Material Processed
Diesel

Maximum Operating Schedule

Hours/Day	Days/Week	Days/Year	Hours/Year
N/A	***N/A***	***N/A***	***500***

Operational restrictions existing or requested, if any (e.g., bottlenecks or voluntary restrictions to limit PTE)
N/A

Capacity (specify units)

Per Hour	Per Day	Per Week	Per Year
N/A	***N/A***	***N/A***	***N/A***

Operating Schedule

Hours/Day	Days/Week	Days/Year	Hours/Year
N/A	***N/A***	***N/A***	***500***

Seasonal variations (Months) From ***N/A*** to ***N/A***

If variations exist, describe them
N/A

2. Fuel

Type	Quantity Hourly	Annually	Sulfur	% Ash (Weight)	BTU Content
Oil Number ***Diesel***	***TBD*** GPH @ 60°F	***TBD*** X 10^3 Gal	***0.0015***% by wt	***Neg.***	***130,000*** Btu/Gal. & Lbs./Gal. @ 60 °F
Oil Number _____	GPH @ 60°F	X 10^3 Gal	% by wt		Btu/Gal. & Lbs./Gal. @ 60 °F
Natural Gas	SCFH	X 10^6 SCF	grain/100 SCF		Btu/SCF
Gas (other) _____	SCFH	X 10^6 SCF	grain/100 SCF		Btu/SCF
Coal _____	TPH	Tons	% by wt		Btu/lb
Other * _____					
_____					
_____					

*Note: Describe and furnish information separately for other fuels in Addendum B.

Section B - Processes Information (Continued)

3. Burner – *N/A*

Manufacturer	Type and Model No.	Number of Burners

Description:

Rated Capacity	Maximum Capacity

4. Process Storage Vessels – *N/A*

A. For Liquids:

Name of material stored

Tank I.D. No.	Manufacturer	Date Installed

Maximum Pressure	Capacity (gallons/Meter^3)

Type of relief device (pressure set vent/conservation vent/emergency vent/open vent)

Relief valve/vent set pressure (psig)	Vapor press. of liquid at storage temp. (psia/kPa)

Type of Roof: Describe:

Total Throughput Per Year	Number of fills per day (fill/day): Filling Rate (gal./min.): Duration of fill hr./fill):

B. For Solids

Type: ☐ Silo ☐ Storage Bin ☐Other, Describe	Name of Material Stored

Silo/Storage Bin I.D. No.	Manufacturer	Date Installed

State whether the material will be stored in loose or bags in silos	Capacity (Tons)

Turn over per year in tons	Turn over per day in tons

Describe fugitive dust control system for loading and handling operations

Describe material handling system

5. Request for Confidentiality

Do you request any information on this application to be treated as "Confidential"? ☐ Yes ☒ No
If yes, include justification for confidentiality. Place such information on separate pages marked **"confidential"**.

Section B - Processes Information (Continued)

6. Miscellaneous Information

Attach flow diagram of process giving all (gaseous, liquid and solid) flow rates. Also, list all raw materials charged to process equipment, and the amounts charged (tons/hour, etc.) at rated capacity (give maximum, minimum and average charges describing fully expected variations in production rates). Indicate (on diagram) all points where contaminants are controlled (location of water sprays, collection hoods, or other pickup points, etc.). Describe collection hoods location, design, airflow and capture efficiency. Describe any restriction requested and how it will be monitored.

Please refer to the Plan Approval Application (PAA) narrative text for more detailed information.

Describe fully the facilities provided to monitor and to record process operating conditions, which may affect the emission of air contaminants. Show that they are reasonable and adequate.

The Facility will monitor and record operating time through the use of a non-resettable hour meter to determine emissions from Proposed Source ID 002. The Facility will also record the type of operation (i.e., maintenance/readiness testing, other non-emergency, emergency). Please refer to the PAA narrative text for more detailed information.

Describe each proposed modification to an existing source.

N/A

Identify and describe all fugitive emission points, all relief and emergency valves and any by-pass stacks.

N/A

Describe how emissions will be minimized especially during start up, shut down, process upsets and/or disruptions.

Emissions will be minimized during start up, shut down, and malfunction by operating the equipment for each emissions unit in accordance with the manufacturer's instructions and utilizing good engineering practices and principles.

Anticipated Milestones:

i. Expected commencement date of construction/reconstruction/installation: ***2Q2023***
ii. Expected completion date of construction/reconstruction/installation: ***3Q2024***
iii. Anticipated date of start-up: ***3Q2024***

Section B - Processes Information

1. Source Information

Source Description (give type, use, raw materials, product, etc). Attach additional sheets as necessary.

Encina Fort Union proposes to install a new diesel-fired emergency generator engine at the Facility.

Manufacturer	Model No.	Number of Sources
Caterpillar	*C32*	*1*
Source Designation	Maximum Capacity	Rated Capacity
003 – Diesel Emergeny Generator	*1.25 MW*	*1.25 MW*

Type of Material Processed
Diesel

Maximum Operating Schedule

Hours/Day	Days/Week	Days/Year	Hours/Year
N/A	*N/A*	*N/A*	*500*

Operational restrictions existing or requested, if any (e.g., bottlenecks or voluntary restrictions to limit PTE)
N/A

Capacity (specify units)

Per Hour	Per Day	Per Week	Per Year
N/A	*N/A*	*N/A*	*N/A*

Operating Schedule

Hours/Day	Days/Week	Days/Year	Hours/Year
N/A	*N/A*	*N/A*	*500*

Seasonal variations (Months) From *N/A* to *N/A*

If variations exist, describe them
N/A

2. Fuel

Type	Quantity Hourly	Annually	Sulfur	% Ash (Weight)	BTU Content
Oil Number *Diesel*	*87.4* GPH @ 60°F	*43.7* X 10^3 Gal	*0.0015*% by wt	*Neg.*	*130,000* Btu/Gal. & Lbs./Gal. @ 60 °F
Oil Number _____	GPH @ 60°F	X 10^3 Gal	% by wt		Btu/Gal. & Lbs./Gal. @ 60 °F
Natural Gas	SCFH	X 10^6 SCF	grain/100 SCF		Btu/SCF
Gas (other) _____	SCFH	X 10^6 SCF	grain/100 SCF		Btu/SCF
Coal _____	TPH	Tons	% by wt		Btu/lb
Other * _____					
_____					
_____					

*Note: Describe and furnish information separately for other fuels in Addendum B.

Section B - Processes Information (Continued)

3. Burner – *N/A*

Manufacturer	Type and Model No.	Number of Burners

Description:

Rated Capacity	Maximum Capacity

4. Process Storage Vessels – *N/A*

A. For Liquids:

Name of material stored

Tank I.D. No.	Manufacturer	Date Installed

Maximum Pressure	Capacity (gallons/Meter^3)

Type of relief device (pressure set vent/conservation vent/emergency vent/open vent)

Relief valve/vent set pressure (psig)	Vapor press. of liquid at storage temp. (psia/kPa)

Type of Roof: Describe:

Total Throughput Per Year	Number of fills per day (fill/day): Filling Rate (gal./min.): Duration of fill hr./fill):

B. For Solids

Type: ☐ Silo ☐ Storage Bin ☐Other, Describe	Name of Material Stored

Silo/Storage Bin I.D. No.	Manufacturer	Date Installed

State whether the material will be stored in loose or bags in silos	Capacity (Tons)

Turn over per year in tons	Turn over per day in tons

Describe fugitive dust control system for loading and handling operations

Describe material handling system

5. Request for Confidentiality

Do you request any information on this application to be treated as "Confidential"? ☐ Yes ☒ No
If yes, include justification for confidentiality. Place such information on separate pages marked **"confidential"**.

Section B - Processes Information (Continued)

6. Miscellaneous Information

Attach flow diagram of process giving all (gaseous, liquid and solid) flow rates. Also, list all raw materials charged to process equipment, and the amounts charged (tons/hour, etc.) at rated capacity (give maximum, minimum and average charges describing fully expected variations in production rates). Indicate (on diagram) all points where contaminants are controlled (location of water sprays, collection hoods, or other pickup points, etc.). Describe collection hoods location, design, airflow and capture efficiency. Describe any restriction requested and how it will be monitored.

Please refer to the PAA narrative text for more detailed information.

Describe fully the facilities provided to monitor and to record process operating conditions, which may affect the emission of air contaminants. Show that they are reasonable and adequate.

The Facility will monitor and record operating time through the use of a non-resettable hour meter to determine emissions from Proposed Source ID 003. The Facility will also record the type of operation (i.e., maintenance/readiness testing, other non-emergency, emergency). Please refer to the Section 5.1.1.1 of the Narrative for more detailed information.

Describe each proposed modification to an existing source.

N/A

Identify and describe all fugitive emission points, all relief and emergency valves and any by-pass stacks.

N/A

Describe how emissions will be minimized especially during start up, shut down, process upsets and/or disruptions.

Emissions will be minimized during start up, shut down, and malfunction by operating the equipment for each emissions unit in accordance with the manufacturer's instructions and utilizing good engineering practices and principles.

Anticipated Milestones:

i. Expected commencement date of construction/reconstruction/installation: ***2Q2023***
ii. Expected completion date of construction/reconstruction/installation: ***3Q2024***
iii. Anticipated date of start-up: ***3Q2024***

Section C - Air Cleaning Device

1. Precontrol Emissions*

Pollutant	Maximum Emission Rate				Calculation/ Estimation Method
	Specify Units	Pounds/Hour	Hours/Year	Tons/Year	
PM					
PM_{10}					
SO_x					
CO					
NO_x					
VOC					
Others: (e.g., HAPs)	-----	-----	-----	-----	-----

Please refer to Appendix B.

* These emissions must be calculated based on the requested operating schedule and/or process rate, e.g., operating schedule for maximum limits or restricted hours of operation and/or restricted throughput. Describe how the emission values were determined. Attach calculations.

2. Gas Cooling – *N/A*

Water quenching ☐ Yes ☐ No Water injection rate _____ GPM

Radiation and convection cooling ☐ Yes ☐ No	Air dilution ☐ Yes ☐ No If yes, _____CFM
Forced Draft ☐ Yes ☐ No	Water cooled duct work ☐ Yes ☐ No
Other	
Inlet Volume _____ACFM @ _____°F _____% Moisture	Outlet Volume _____ACFM @ _____°F _____% Moisture

Describe the system in detail.

Section C - Air Cleaning Device (Continued)

3. Settling Chambers – *N/A*

Manufacturer	Volume of gas handled _____ACFM @ _____°F	Gas velocity (ft/sec.)

Length of chamber (ft.)	Width of chamber (ft.)	Height of chamber (ft.)	Number of trays

Water injection ☐ Yes ☐ No	Water injection rate (GPM)

Emissions Data

Inlet	Outlet	Removal Efficiency (%)

4. Inertial and Cyclone Collectors – *N/A*

Manufacturer	Type	Model No.
Pressure drop (in. of water)	Inlet volume _____ACFM @ _____°F	Outlet volume _____ACFM @ _____°F

Number of individual cyclone(s)	Outlet straightening vanes used? ☐ Yes ☐ No

Length of Cyclone(s) Cylinder (ft.)	Diameter of Cyclone(s) Cylinder (ft.)	Length of Cyclone(s) cone (ft.)

Inlet Diameter (ft.) or duct area (ft.^{2}) of cyclone(s)	Outlet Diameter (ft.) or duct area (ft.^{2}) of cyclone(s)

If a multi-clone or multi-tube unit is installed, will any of the individual cyclones or cyclone tubes be blanked or blocked off?

Describe any exhaust gas recirculation loop to be employed.

Attach particle size efficiency curve

Emissions Data

Inlet	Outlet	Removal Efficiency (%)

Section C - Air Cleaning Device (Continued)

5. Fabric Collector – *N/A*

Equipment Specifications

Manufacturer	Model No.	☐ Pressurized Design ☐ Suction Design
Number of Compartments	Number of Filters Per Compartment	Is Baghouse Insulated? ☐ Yes ☐ No

Can each compartment be isolated for repairs and/or filter replacement? ☐ Yes ☐ No

Are temperature controls provided? (Describe in detail) ☐ Yes ☐ No

Dew point at maximum moisture _____°F | Design inlet volume _____ SCFM

Type of Fabric

Material _____ ☐ Felted ☐ Membrane

Weight _____ oz/sq.yd ☐ Woven ☐ Others: List: _____

Thickness _____in ☐ Felted-Woven

Fabric permeability (clean) @ ½" water-Δ P _____ CFM/sq.ft.

Filter dimensions Length _____ Diameter/Width _____

Effective area per filter _____ | Maximum operating temperature (°F) _____

Effective air to cloth ratio Minimum _____ Maximum _____

Drawing of Fabric Filter

A sketch of the fabric filter showing all access doors, catwalks, ladders and exhaust ductwork, location of each pressure and temperature indicator should be attached.

Operation and Cleaning

Volume of gases handled

_____ ACFM @ _____°F

Pressure drop across collector (in. of water).
Describe the equipment to be used to monitor the pressure drop.

Type of filter cleaning

☐ Manual Cleaning ☐ Bag Collapse ☐ Reverse Air Jets

☐ Mechanical Shakers ☐ Sonic Cleaning ☐ Other: _____

☐ Pneumatic Shakers ☐ Reverse Air Flow

Describe the equipment provided if dry oil free air is required for collector operation

Cleaning Initiated By

☐ Timer Frequency if timer actuated _____

☐ Expected pressure drop range _____ in. of water ☐ Other Specify _____

Does air cleaning device employ hopper heaters, hopper vibrators or hopper level detectors? If yes, describe.

Describe the warning/alarm system that protects against operation when the unit is not meeting design requirements.

Emissions Data

Pollutant	Inlet	Outlet	Removal Efficiency (%)

Section C - Air Cleaning Device (Continued)

6. Wet Collection Equipment – *N/A*

Equipment Specifications

Manufacturer	Type	Model No.

Design Inlet Volume (SCFM)	Relative Particulate/Gas Velocity (ejector scrubbers only)

Describe the internal features (e.g., variable throat, gas/liquid diffusion plates, spray nozzles, liquid redistributors, bed limiters, etc.).

Describe pH monitoring and pH adjustment systems, if applicable.

Describe mist eliminator or separator (type, configuration, backflush capability, frequency).

Attach particulate size efficiency curve.

Operating Parameters

Inlet volume of gases handled _____ (ACFM) @ _____°F	Outlet volume of gases handled _____ (ACFM) @ _____ °F _____% Moisture

Liquid flow rates. Describe equipment provided to measure liquid flow rates to scrubber (e.g., quenching section, recirculating solution, makeup water, bleed flow, etc.)

Describe scrubber liquid supply system (amount of make-up and recirculating liquid, capacity of recirculating liquid system, etc.)

State pressure drop range (in water) across scrubber (e.g., venturi throat, packed bed, etc.) only. Describe the equipment provide to measure the pressure drop. Do not include duct or de-mister losses.

Describe the warning/alarm system that protects against operation when unit is not meeting design requirements.

Emissions Data

Pollutant	Inlet	Outlet	Removal Efficiency (%)

Section C - Air Cleaning Device (Continued)

7. Electrostatic Precipitator – *N/A*

Equipment Specifications

Manufacturer	Model No.	☐ Wet ☐ Dry ☐ Single-Stage ☐ Two-Stage

Gas distribution grids ☐ Yes ☐ No

Design Inlet Volume (SCFM) _____

Maximum operating temperature (°F) _____

Total collecting surface area _____ sq. ft. Collector plates size length _____ ft. x width _____ ft.

Number of fields _____ Number of collector plates/field _____

Spacing between collector plates _____ inches.

Maximum gas velocity _____ ft./sec. Minimum gas treatment time: _____ sec.

Total discharge electrode length _____ ft.

Number of discharge electrodes _____ Number of collecting electrode rappers _____

Rapper control ☐ Magnetic ☐ Pneumatic ☐ Other _____ Describe in detail

Operating Parameters

Inlet gas temperature (°F) _____

Outlet gas temperature (°F) _____

State pressure drop range (inches water gauge) across collector only _____

Describe the equipment

Volume of gas handled (ACFM) _____

Dust resistivity (ohm-cm). Will resistivity vary?

Power requirements

Number and size of Transformer Rectifier sets by electrical field

Field No.	No. of Sets	Each Transformer KVA	Each Rectifier KV Ave./Peak	Each Rectifier Ma DC

Current Density	Corona Power	Corona Power Density
_____ Micro amperes/ft^2.	_____ Watts/1000 ACFM	_____ Watts/ft^2.

Will a flue gas conditioning system be employed? If yes, describe it.

Does air cleaning device employ hopper heaters, hopper vibrators or hopper level detectors? If yes, describe.

Describe the warning/alarm system that protects against operation when unit is not meeting design requirements.

Emissions Data

Pollutant	Inlet	Outlet	Removal Efficiency (%)

Section C - Air Cleaning Device (Continued)

8. Adsorption Equipment – *N/A*

Equipment Specifications

Manufacturer	Type	Model No.

Design Inlet Volume (SCFM)	Adsorbent charge per adsorber vessel and number of adsorber vessels

Length of Mass Transfer Zone (MTZ), supplied by the manufacturer based upon laboratory data.

Adsorber diameter (ft.) and area ft^2.)	Adsorption bed depth (ft.)

Adsorbent information

Adsorbent type and physical properties.

Working capacity of adsorbent (%)	Heel percent or unrecoverable solvent weight % in the adsorbent after regeneration.

Operating Parameters

Inlet volume of gases handled _____ (ACFM) @ _____ °F

Adsorption time per adsorption bed	Breakthrough capacity: Lbs. of solvent / 100 lbs. of adsorbent = _____
Vapor pressure of solvents at the inlet temperature	Available steam in pounds to regenerate carbon adsorber (if applicable)

Percent relative saturation of each solvent at the inlet temperature

Attach any additional data including auxiliary equipment and operation details to thoroughly evaluate the control equipment.

Describe the warning/alarm system that protects against operation when unit is not meeting design requirements.

Emissions Data

Pollutant	Inlet	Outlet	Removal Efficiency (%)

Section C - Air Cleaning Device (Continued)

9. Absorption Equipment – *N/A*

Equipment Specifications

Manufacturer	Type	Model No.

Design Inlet Volume (SCFM)	Tower height (ft.) and inside diameter (ft.)
Packing type and size (if applicable)	Height of packing (ft.) (if applicable)
Number of trays (if applicable)	Number of bubble caps (if applicable)

Configuration

☐ Counter-current ☐ Cross flow ☐ Cocurrent flow

Describe pH and/or other monitoring and controls.

Absorbent information

Absorbent type and concentration.	Retention time (sec.)

Attach equilibrium data for absorption (if applicable)

Attach any additional information regarding auxiliary equipment, absorption solution supply system (once through or recirculating, system capacity, etc.) to thoroughly evaluate the control equipment. Indicate the flow rates for makeup, bleed and recirculation.

Operating Parameters

Volume of gas handled (ACFM)	Inlet temperature (°F)	Pressure drop (in. of water) and liquid flow rate. Describe the monitoring equipment.

State operating range for pH and/or absorbent concentration in scrubber liquid.

Describe the warning/alarm system that protects against operation when unit is not meeting design requirements.

Emissions Data

Pollutant	Inlet	Outlet	Removal Efficiency (%)

Section C - Air Cleaning Device (Continued)

10. ☐ **Selective Catalytic Reduction (SCR) –** ***N/A***
☐ **Selective Non-Catalytic Reduction (SNCR) –** ***N/A***
☐ **Non-Selective Catalytic Reduction (NSCR) –** ***N/A***

Equipment Specifications

Manufacturer	Type	Model No.

Design Inlet Volume (SCFM)	Design operating temperature (°F)

Is the system equipped with process controls for proper mixing/control of the reducing agent in gas stream? If yes, give details.

Attach efficiency and other pertinent information (e.g., ammonia slip)

Operating Parameters

Volume of gases handled _____ (ACFM) @ _____ °F

Operating temperature range for the SCR/SNCR/NSCR system (°F) From _____°F To _____°F

Reducing agent used, if any	Oxidation catalyst used, if any

State expected range of usage rate and concentration.

Service life of catalyst	Ammonia slip (ppm)

Describe fully with a sketch giving locations of equipment, controls systems, important parameters and method of operation.

Describe the warning/alarm system that protects against operation when unit is not meeting design requirements.

Emissions Data

Pollutant	Inlet	Outlet	Removal Efficiency (%)

Section C - Air Cleaning Device (Continued)

11. Oxidizer/Afterburners – *N/A*

Equipment Specifications

Manufacturer	Type ☐ Thermal ☐ Catalytic	Model No.
Design Inlet Volume (SCFM)	Combustion chamber dimensions (length, cross-sectional area, effective chamber volume, etc.)	
Describe design features, which will ensure mixing in combustion chamber.		
Describe method of preheating incoming gases (if applicable).	Describe heat exchanger system used for heat recovery (if applicable).	

Catalyst used	Life of catalyst	Expected temperature rise across catalyst (°F)	Dimensions of bed (in inches). Height: _____ Diameter or Width: _____ Depth: _____

Are temperature sensing devices being provided to measure the temperature rise across the catalyst? ☐ Yes ☐ No

If yes, describe.

Describe any temperature sensing and/or recording devices (including specific location of temperature probe in a drawing or sketch.

Burner Information

Burner Manufacturer	Model No.	Fuel Used
Number and capacity of burners	Rated capacity (each)	Maximum capacity (each)
Describe the operation of the burner	Attach dimensioned diagram of afterburner	

Operating Parameters

Inlet flow rate (ACFM) _____ @ _____°F	Outlet flow rate (ACFM) _____@ _____°F
State pressure drop range across catalytic bed (in. of water).	Describe the method adopted for regeneration or disposal of the used catalyst.
Describe the warning/alarm system that protects against operation when unit is not meeting design requirements.	

Emissions Data

Pollutant	Inlet	Outlet	Removal Efficiency (%)

Section C - Air Cleaning Device (Continued)

12. Flares – *N/A*

Equipment Specifications

Manufacturer	Type ☐ Elevated flare ☐ Ground flare ☐ Other _____ Describe	Model No.
Design Volume (SCFM)	Dimensions of stack (ft.) Diameter _____ Height _____	
Residence time (sec.) and outlet temperature (°F)	Turn down ratio	Burner details

Describe the flare design (air/steam-assisted or nonassisted), essential auxiliaries including pilot flame monitor of proposed flare with a sketch.

Describe the operation of the flare's ignition system.

Describe the provisions to introduce auxiliary fuel to the flare.

Operation Parameters

Detailed composition of the waste gas	Heat content	Exit velocity
Maximum and average gas flow burned (ACFM)	Operating temperature (°F)	

Describe the warning/alarm system that protects against operation when unit is not meeting design requirements.

Emissions Data

Pollutant	Inlet	Outlet	Removal Efficiency (%)

Section C - Air Cleaning Device (Continued)

13. Other Control Equipment – *N/A*

Equipment Specifications

Manufacturer	Type	Model No.

Design Volume (SCFM)	Capacity

Describe pH monitoring and pH adjustment, if any.

Indicate the liquid flow rate and describe equipment provided to measure pressure drop and flow rate, if any.

Attach efficiency curve and/or other efficiency information.

Attach any additional date including auxiliary equipment and operation details to thoroughly evaluate the control equipment.

Operation Parameters

Volume of gas handled

_____ ACFM @ _____ °F _____ % Moisture

Describe fully giving important parameters and method of operation.

Describe the warning/alarm system that protects against operation when unit is not meeting design requirements.

Emissions Data

Pollutant	Inlet	Outlet	Removal Efficiency (%)

Section C - Air Cleaning Device (Continued)

14. Costs – *N/A*

Indicate cost associated with air cleaning device and its operating cost (attach documentation if necessary)

Device	Direct Cost	Indirect Cost	Total Cost	Annual Operating Cost

15. Miscellaneous – *N/A*

Describe in detail the removal, handling and disposal of dust, effluent, etc. from the air cleaning device including proposed methods of controlling fugitive emissions.

Attach manufacturer's performance guarantees and/or warranties for each of the major components of the control system (or complete system).

Attach the maintenance schedule for the control equipment and any part of the process equipment that if in disrepair would increase air contaminant emissions.

Section D - Additional Information

Will the construction, modification, etc. of the sources covered by this application increase emissions from other sources at the facility? If so, describe and quantify.

No, this is a newly proposed Facility and there are no existing sources.

If this project is subject to any one of the following, attach a demonstration to show compliance with applicable standards.

a. Prevention of Significant Deterioration permit (PSD), 40 CFR 52? ☐ YES ☒ NO

b. New Source Review (NSR), 25 Pa. Code Chapter 127, Subchapter E? ☐ YES ☒ NO

c. New Source Performance Standards (NSPS), 40 CFR Part 60? ☒ YES ☐ NO
(If Yes, which subpart) ***Subpart IIII***

d. National Emissions Standards for Hazardous Air Pollutants (NESHAP), 40 CFR Part 61? (If Yes, which subpart) _____ ☐ YES ☒ NO

e. Maximum Achievable Control Technology (MACT) 40 CFR Part 63? ☒ YES ☐ NO
(If Yes, which part) ***Subpart ZZZZ***

Attach a demonstration showing that the emissions from any new sources will be the minimum attainable through the use of best available technology (BAT).

Please refer to the PAA narrative for more detailed information.

Provide emission increases and decreases in allowable (or potential) and actual emissions within the last five (5) years for applicable PSD pollutant(s) if the facility is an existing major facility (PSD purposes).

N/A – the Facility is not an existing major facility.

Section D - Additional Information (Continued)

Indicate emission increases and decreases in tons per year (tpy), for volatile organic compounds (VOCs) and nitrogen oxides (NOx) for NSR applicability since January 1, 1991 or other applicable dates (see other applicable dates in instructions). The emissions increases include all emissions including stack, fugitive, material transfer, other emission generating activities, quantifiable emissions from exempted source(s), etc.

Permit number (if applicable)	Date issued	Indicate ***Yes*** or ***No*** if emission increases and decreases were used previously for netting	Source I. D. or Name	VOCs		NOx	
				Emission increases in potential to emit (tpy)	Creditable emission decreases in actual emissions (tpy)	Emission increases in potential to emit (tpy)	Creditable emission decreases in actual emissions (tpy)

Please refer to Appendix B.

If the source is subject to 25 Pa. Code Chapter 127, Subchapter E, New Source Review requirements,

a. Identify Emission Reduction Credits (ERCs) for emission offsets or demonstrate ability to obtain suitable ERCs for emission offsets. ***N/A***

b. Provide a demonstration that the lowest achievable emission rate (LAER) control techniques will be employed (if applicable). ***N/A***

c. Provide an analysis of alternate sites, sizes, production processes and environmental control techniques demonstrating that the benefits of the proposed source outweigh the environmental and social costs (if applicable). ***N/A***

Attach calculations and any additional information necessary to thoroughly evaluate compliance with all the applicable requirements of Article III and applicable requirements of the Clean Air Act adopted thereunder The Department may request additional information to evaluate the application such as a standby plan, a plan for air pollution emergencies, air quality modeling, etc. ***Please refer to Appendix B.***

Section E - Compliance Demonstration

Note: Complete this section if source is not a Title V facility. Title V facilities must complete Addendum A.

Method of Compliance Type: Check all that apply and complete all appropriate sections below

☐ Monitoring ☐ Testing ☒ Reporting

☒ Recordkeeping ☒ Work Practice Standard

Monitoring:

a. Monitoring device type (Parameter, CEM, etc):

b. Monitoring device location:

c. Describe all parameters being monitored along with the frequency and duration of monitoring each parameter:

Testing: *N/A*

a. Reference Test Method: Citation

b. Reference Test Method: Description

Recordkeeping:

Describe what parameters will be recorded and the recording frequency:

Encina Fort Union will maintain the following monthly records:

- ***Diesel fire pump operating hours***
- ***Diesel emergency generator operating hours.***
- ***Truck traffic***

Reporting:

a. Describe what is to be reported and frequency of reporting:

Annual emissions statement report

b. Reporting start date: ***Annually after the first calendar year of operation***

Work Practice Standard:

Describe each:

Encina Fort Union will conduct weekly inspections of the Facility, during daylight hours when the Facility is in operation, to detect visible, fugitive, and odor emissions.

Encina Fort Union will maintain and operate the sources and associated air cleaning devices in accordance with good operating and maintenance practices.

Section F - Flue and Air Contaminant Emission

1. Estimated Atmospheric Emissions*

Pollutant	Maximum emission rate			Calculation/ Estimation Method
	specify units	lbs/hr	tons/yr.	
PM				
PM_{10}				
SO_x				
CO				
NO_x				
VOC				
Others: (e.g., HAPs)	-----	-----	-----	-----

Please refer to Appendix B.

* These emissions must be calculated based on the requested operating schedule and/or process rate e.g., operating schedule for maximum limits or restricted hours of operation and /or restricted throughput. Describe how the emission values were determined. Attach calculations.

2. Stack and Exhauster

Stack Designation/Number ***S001***

List Source(s) or source ID exhausted to this stack:	% of flow exhausted to stack: ***100***
Diesel Fire Pump No. 1	

Stack height above grade (ft.) ***TBD*** Grade elevation (ft.) ***TBD***	Stack diameter (ft) or Outlet duct area (sq. ft.) ***TBD***	f. Weather Cap ***TBD*** ☐ YES ☐ NO

Distance of discharge to nearest property line (ft.). Locate on topographic map.

TBD

Does stack height meet Good Engineering Practice (GEP)?

No

If modeling (estimating) of ambient air quality impacts is needed, attach a site plan with buildings and their dimensions and other obstructions. ***N/A***

Location of stack** Latitude/Longitude Point of Origin	Latitude			Longitude		
	Degrees	Minutes	Seconds	Degrees	Minutes	Seconds

Stack exhaust
Volume ***TBD*** ACFM Temperature ***TBD*** °F Moisture ***TBD*** %

Indicate on an attached sheet the location of sampling ports with respect to exhaust fan, breeching, etc. Give all necessary dimensions.
N/A

Exhauster (attach fan curves) ***N/A*** in. of water ***N/A*** HP @ ***N/A*** RPM.

** If the data and collection method codes differ from those provided on the General Information Form-Authorization Application, provide the additional detail required by that form on a separate form.

2. Stack and Exhauster

Stack Designation/Number ***S002***

List Source(s) or source ID exhausted to this stack:	% of flow exhausted to stack: ***100***
Diesel Fire Pump No. 2	

Stack height above grade (ft.) ***TBD*** Grade elevation (ft.) ***TBD***	Stack diameter (ft) or Outlet duct area (sq. ft.) ***TBD***	f. Weather Cap ***TBD*** ☐ YES ☐ NO

Distance of discharge to nearest property line (ft.). Locate on topographic map.

TBD

Does stack height meet Good Engineering Practice (GEP)?

No

If modeling (estimating) of ambient air quality impacts is needed, attach a site plan with buildings and their dimensions and other obstructions. ***N/A***

Location of stack** Latitude/Longitude Point of Origin	Latitude			Longitude		
	Degrees	Minutes	Seconds	Degrees	Minutes	Seconds

Stack exhaust

Volume ***TBD*** ACFM Temperature ***TBD*** °F Moisture ***TBD*** %

Indicate on an attached sheet the location of sampling ports with respect to exhaust fan, breeching, etc. Give all necessary dimensions.

N/A

Exhauster (attach fan curves) ***N/A*** in. of water ***N/A*** HP @ ***N/A*** RPM.

** If the data and collection method codes differ from those provided on the General Information Form-Authorization Application, provide the additional detail required by that form on a separate form.

2. Stack and Exhauster

Stack Designation/Number ***S003***

List Source(s) or source ID exhausted to this stack:	% of flow exhausted to stack: ***100***
Diesel Emergency Generator	

Stack height above grade (ft.) ***TBD*** Grade elevation (ft.) ***TBD***	Stack diameter (ft) or Outlet duct area (sq. ft.) ***TBD***	f. Weather Cap ***TBD*** ☐ YES ☐ NO

Distance of discharge to nearest property line (ft.). Locate on topographic map.

TBD

Does stack height meet Good Engineering Practice (GEP)?

No

If modeling (estimating) of ambient air quality impacts is needed, attach a site plan with buildings and their dimensions and other obstructions. ***N/A***

Location of stack** Latitude/Longitude	Latitude	Longitude

Point of Origin	Degrees	Minutes	Seconds	Degrees	Minutes	Seconds

Stack exhaust
Volume ***10,005.8*** ACFM Temperature ***806.6*** °F Moisture ***TBD*** %

Indicate on an attached sheet the location of sampling ports with respect to exhaust fan, breeching, etc. Give all necessary dimensions.
N/A

Exhauster (attach fan curves) ***N/A*** in. of water ***N/A*** HP @ ***N/A*** RPM.

** If the data and collection method codes differ from those provided on the General Information Form-Authorization Application, provide the additional detail required by that form on a separate form.

Section G - Attachments

Number and list all attachments submitted with this application below:
Appendix A – Process Flow Diagram

Appendix B – Emissions Inventory Tables

Appendix C – Manufacturer Data

Appendix D – Plan Approval Application Forms

Appendix E – Municipal Notifications

Original As Submitted: 11/04/2022

2700-PM-AQ0004 Rev. 6/2006

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR QUALITY

AIR POLLUTION CONTROL ACT COMPLIANCE REVIEW FORM

Fully and accurately provide the following information, as specified. Attach additional sheets as necessary.

Type of Compliance Review Form Submittal (check all that apply)

☒ Original Filing
☐ Amended Filing

Date of Last Compliance Review Form Filing: _____/_____/_____

Type of Submittal

☒ New Plan Approval ☐ New Operating Permit ☐ Renewal of Operating Permit
☐ Extension of Plan Approval ☐ Change of Ownership ☐ Periodic Submission (@ 6 mos)
☐ Other: _____

SECTION A. GENERAL APPLICATION INFORMATION

Name of Applicant/Permittee/("applicant")
(non-corporations-attach documentation of legal name)

Encina Fort Union LLC

Address *3288 Point Township Drive*
Northumberland, PA 17857

Telephone *(412) 953-4684* **Taxpayer ID#** *81-1267194*

Permit, Plan Approval or Application ID#

Identify the form of management under which the applicant conducts its business (check appropriate box)

☐ Individual ☐ Syndicate ☐ Government Agency
☐ Municipality ☐ Municipal Authority ☐ Joint Venture
☐ Proprietorship ☐ Fictitious Name ☐ Association
☐ Public Corporation ☐ Partnership ☐ Other Type of Business, specify below:
☒ Private Corporation ☐ Limited Partnership

Describe below the type(s) of business activities performed.

The Point Township Circular Manufacturing Facility is slated for construction in Point Township, Northumberland County. This facility comprises an advanced plastics sorting facility that will implement advanced technologies to convert post-consumer materials into feedstock that can be used to manufacture thousands of new products. The project will be constructed in two separate phases.

SECTION B. GENERAL INFORMATION REGARDING "APPLICANT"

If applicant is a corporation or a division or other unit of a corporation, provide the names, principal places of business, state of incorporation, and taxpayer ID numbers of all domestic and foreign parent corporations (including the ultimate parent corporation), and all domestic and foreign subsidiary corporations of the ultimate parent corporation with operations in Pennsylvania. Please include all corporate divisions or units, (whether incorporated or unincorporated) and privately held corporations. (A diagram of corporate relationships may be provided to illustrate corporate relationships.) Attach additional sheets as necessary.

Unit Name	Principal Places of Business	State of Incorporation	Taxpayer ID	Relationship to Applicant
Encina Fort Union LLC	*1095 Evergreen Circle, Suite 510, Woodlands, TX 77380*	*Delaware*	*81-1066171*	*Parent Company*

SECTION C. SPECIFIC INFORMATION REGARDING APPLICANT AND ITS "RELATED PARTIES"

Pennsylvania Facilities. List the name and location (mailing address, municipality, county), telephone number, and relationship to applicant (parent, subsidiary or general partner) of applicant and all Related Parties' places of business, and facilities in Pennsylvania. Attach additional sheets as necessary.

Unit Name	Street Address	County and Municipality	Telephone No.	Relationship to Applicant

The project is at a greenfield site. Encina has no current operations in Pennsylvania.

Provide the names and business addresses of all general partners of the applicant and parent and subsidiary corporations, if any.

Name	Business Address

None

List the names and business address of persons with overall management responsibility for the process being permitted (i.e. plant manager).

Name	Business Address
Sheida Sahandy	*1095 Evergreen Circle, Suite 510, Woodlands, TX 77380*

Plan Approvals or Operating Permits. List all plan approvals or operating permits issued by the Department or an approved local air pollution control agency under the APCA to the applicant or related parties that are currently in effect or have been in effect at any time 5 years prior to the date on which this form is notarized. This list shall include the plan approval and operating permit numbers, locations, issuance and expiration dates. Attach additional sheets as necessary.

Air Contamination Source	Plan Approval/ Operating Permit#	Location	Issuance Date	Expiration Date
		None		

Compliance Background. (Note: Copies of specific documents, if applicable, must be made available to the Department upon its request.) List all documented conduct of violations or enforcement actions identified by the Department pursuant to the APCA, regulations, terms and conditions of an operating permit or plan approval or order by applicant or any related party, using the following format grouped by source and location in reverse chronological order. Attach additional sheets as necessary. See the definition of "documented conduct" for further clarification. Unless specifically directed by the Department, deviations which have been previously reported to the Department in writing, relating to monitoring and reporting, need not be reported.

Date	Location	Plan Approval/ Operating Permit#	Nature of Documented Conduct	Type of Department Action	Status: Litigation Existing/Continuing or Corrected/Date	Dollar Amount Penalty
						$
						$
			None			$
						$
						$
						$
						$
						$
						$
						$

List all incidents of deviations of the APCA, regulations, terms and conditions of an operating permit or plan approval or order by applicant or any related party, using the following format grouped by source and location in reverse chronological order. This list must include items both currently known and unknown to the Department. Attach additional sheets as necessary. See the definition of "deviations" for further clarification.

Date	Location	Plan Approval/ Operating Permit#	Nature of Deviation	Incident Status: Litigation Existing/Continuing Or Corrected/Date
		None		

<u>CONTINUING OBLIGATION</u>. Applicant is under a continuing obligation to update this form using the Compliance Review Supplemental Form if any additional deviations occur between the date of submission and Department action on the application.

2700-PM-AQ0004 Rev. 6/2006

VERIFICATION STATEMENT
Subject to the penalties of Title 18 Pa.C.S. Section 4904 and 35 P.S. Section 4009(b)(2), I verify under penalty of law that I am authorized to make this verification on behalf of the Applicant/Permittee. I further verify that the information contained in this Compliance Review Form is true and complete to the best of my belief formed after reasonable inquiry. I further verify that reasonable procedures are in place to ensure that "documented conduct" and "deviations" as defined in 25 Pa Code Section 121.1 are identified and included in the information set forth in this Compliance Review Form.
Sheida R. Sahandy — Signature; 10/27/2022 — Date
Sheida Sahandy — Sheida R. Sahandy — Name (Print or Type)
Chief Sustainability Officer — Title

Original As Submitted: 11/04/2022

2700-PM-BAQ0030b Rev. 2/2021

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR QUALITY

AIR QUALITY FEES FOR NEW PLAN APPROVAL

Company Information	
Federal Tax ID:	Firm Name: *Encina Fort Union LLC*
Permit # (If any):	Facility Name: *Point Township Circular Manufacturing Facility*
Municipality: *Point Township*	County: *Northumberland County*
Contact Person Name: *Shirley Hammond*	Telephone Number: *(312)731-7159*
E-mail: *shammond@encina.com*	

New Plan Approval (The following fees are cumulative.)

Line #	Check the appropriate boxes below	Type of review requested	Fee 2021 - 2025	Total Fees
1	Base Fee	Subchapter B	$2,500	$2,500
2	☐	New Source Review, Subchapter E	$7,500	
3	☒	NSPS/NESHAP /MACT standard A. # of NSPS: 1 B. # of NESHAP/MACT: 1 C. Add lines A and B: 2 D. Maximum applicable standards: 3 E. Enter smaller of line C or line D: 2 Multiply line E by $2,500 and enter the amount in the "Total Fees" column.	$2,500	$5,000
4	☐	Case-by-Case MACT	$9,500	
5	☐	Prevention of Significant Deterioration (PSD) requirements. Subchapter D	$32,500	
6	☐	Plantwide Applicability Limit (PAL) for NSR regulated pollutants or PAL for PSD regulated pollutants or both	$7,500	
7	☐	Risk Assessment Analysis – Inhalation only	$10,000	
8	☐	Risk Assessment Analysis – Multi-pathway	$25,000	
Add Lines 1 thru 8 of Total Fees column and write it here. →				$7,500

APPENDIX E –
MUNICIPAL NOTIFICATIONS

ENCINA

October 14, 2022

CERTIFIED MAIL

Richard Shoch, Chairman of Commissioners
County of Northumberland – Administration Center
399 Stadium Drive
Sunbury, PA 17801

RE: Notification of Plan Approval Application Submittal to the Pennsylvania Department of Environmental Protection (PADEP)

Dear Mr. Schoch:

In accordance with Title 25, Subpart C, Article III, §127.43a of the Pennsylvania Code, Encina Fort Union LLC (Encina Fort Union), hereby notifies Northumberland County of its submittal of a Plan Approval Application (PAA) to the Pennsylvania Department of Environmental Protection (PADEP). Encina Fort Union is proposing to construct a greenfield plastics sorting operation in Northumberland, PA. The PAA is being submitted for proposed operations associated with the new Facility.

PADEP will accept comments on the PAA during a 30-day period which begins upon your receipt of this notification. A copy of the PAA is available for your review at the PADEP Reading District Office. Any comments concerning the PAA should be transmitted to PADEP within 30 days of your receipt of this letter at the following address: Commonwealth of Pennsylvania, Department of Environmental Protection, Northcentral Regional Office, Air Quality Program, 208 West Third Street, Suite 101, Williamsport, PA 17701. If you have any questions or concerns regarding the above information, please contact me at

Sincerely,

Sheida R. Sahandy

Sheida Sahandy
Chief Sustainability Officer
Encina Fort Union LLC

October 14, 2022

CERTIFIED MAIL

Amy Hoffman, Clerk
Point Township, PA
759 Ridge Road
Northumberland, PA 17857

RE: Notification of Plan Approval Application Submittal to the Pennsylvania Department of Environmental Protection (PADEP)

Dear Ms. Hoffman:

In accordance with Title 25, Subpart C, Article III, §127.43a of the Pennsylvania Code, Encina Fort Union LLC (Encina), hereby notifies Point Township of its submittal of a Plan Approval Application (PAA) to the Pennsylvania Department of Environmental Protection (PADEP). Encina is proposing to construct a greenfield plastics sorting operation in Northumberland, PA. The PAA is being submitted for proposed operations associated with the new Facility.

PADEP will accept comments on the PAA during a 30-day period which begins upon your receipt of this notification. A copy of the PAA is available for your review at the PADEP Reading District Office. Any comments concerning the PAA should be transmitted to PADEP within 30 days of your receipt of this letter at the following address: Commonwealth of Pennsylvania, Department of Environmental Protection, Northcentral Regional Office, Air Quality Program, 208 West Third Street, Suite 101, Williamsport, PA 17701. If you have any questions or concerns regarding the above information, please contact me at.

Sincerely,

Sheida R. Sahandy

Sheida Sahandy
Chief Sustainability Officer
Encina Fort Union LLC

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Richard Shoch, Chairman of Commissioners
County of Northumberland – Administration Center
399 Stadium Drive
Sunbury, PA 17801

9590 9402 5761 0003 2941 20

2. Article Number *(Transfer from service label)*
7020 0640 0001 3653 9530

PS Form 3811, July 2015 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X ☒ Agent ☐ Addressee

B. Received by *(Printed Name)* Schenewerk
C. Date of Delivery 10/20/22

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
- ☐ Adult Signature
- ☐ Adult Signature Restricted Delivery
- ☐ Certified Mail®
- ☐ Certified Mail Restricted Delivery
- ☐ Collect on Delivery
- ☐ Collect on Delivery Restricted Delivery
- ☐ Insured Mail
- ☐ Insured Mail Restricted Delivery (over $500)
- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricted Delivery
- ☐ Return Receipt for Merchandise
- ☐ Signature Confirmation™
- ☐ Signature Confirmation Restricted Delivery

Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Amy Hoffman, Clerk
Point Township, PA
759 Ridge Road
Northumberland, PA 17857

9590 9402 5761 0003 2885 56

2. Article Number *(Transfer from service label)*
7021 0950 0000 7951 2884

PS Form 3811, July 2015 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X Amy Hoffman ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* Amy Hoffman
C. Date of Delivery 10/21/22

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☑ No

3. Service Type
- ☐ Adult Signature
- ☐ Adult Signature Restricted Delivery
- ☐ Certified Mail®
- ☐ Certified Mail Restricted Delivery
- ☐ Collect on Delivery
- ☐ Collect on Delivery Restricted Delivery
- ☐ Insured Mail
- ☐ Insured Mail Restricted Delivery (over $500)
- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricted Delivery
- ☐ Return Receipt for Merchandise
- ☐ Signature Confirmation™
- ☐ Signature Confirmation Restricted Delivery

Domestic Return Receipt