



## AIR QUALITY GENERAL CONSTRUCTION PERMIT

**PERMIT NUMBER:** GCP-CRUSH-1

**Permit Name:** Aggregate Processing Plant

**Project Description:** Aggregate Processing Plant (Portable and Stationary)

**Typical Standard Industrial Classification (SIC) Code:** 1429, Crushed and Broken Stone, Not Elsewhere Classified

**Revised or Superseded Construction Permits:** none

Pursuant to Chapter 14 of the Nebraska Air Quality Regulations, the public has been notified by prominent advertisement of the proposed construction of air contaminant sources meeting the specific criteria of this general construction permit and the thirty (30) day period allowed for comments has elapsed. This general construction permit approves the construction of specific types of Aggregate Processing Plants. This permit document and the associated application make up the complete permit for the specific source identified in the application.

Compliance with this permit shall not be a defense to any enforcement action for violation of an ambient air quality standard. The permit holder, owner, and operator of the facility shall assure that the installation, operation, and maintenance of all equipment is in compliance with all of the conditions of this permit.

The undersigned issues this permit on behalf of the Director under the authority of Nebraska Administrative Code Title 129 – Nebraska Air Quality Regulations as amended July 6, 2015.

**2/10/16**

\_\_\_\_\_  
Date

**{ORIGINAL SIGNED}**

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Shelley Schneider, Air Administrator  
Air Quality Division

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**ABBREVIATIONS, SYMBOLS, and UNITS OF MEASURE**

AP-42	Compilation of Air Pollutant Emission Factors, Volume I, Stationary Point and Area Sources	NDEQ	Nebraska Department of Environmental Quality
BACT	Best Available Control Technology	NESHAP	National Emission Standards for Hazardous Air Pollutants
bhp	Brake Horsepower	NO <sub>2</sub>	Nitrogen Dioxide
BMP	Best Management Practice	NO <sub>x</sub>	Nitrogen Oxides
Btu	British Thermal Unit	NSPS	New Source Performance Standard
bu	Buschel	NSR	New Source Review
CAA	Clean Air Act	PAL	Plant-wide Applicability Limit
CE	Control Equipment	Pb	Lead (chemical abbreviation)
CEM	Continuous Emissions Monitor	PbR	Permit-by-Rule
CEMS	Continuous Emissions Monitoring System	PEMS	Parametric Emissions Monitoring System
cf	Cubic feet	PM	Particulate Matter
CFR	Code of Federal Regulations	PM <sub>10</sub>	Particulate Matter with and aerodynamic diameter equal to or less than 10 microns
CO	Carbon Monoxide	PM <sub>2.5</sub>	Particulate Matter with and aerodynamic diameter equal to or less than 2.5 microns
CO <sub>2</sub>	Carbon Dioxide	ppb	Parts per Billion
CO <sub>2</sub> e	CO <sub>2</sub> equivalent	ppm	Parts per Million
CP	Construction Permit	ppmv	Parts per Million by volume
DGS	Distiller's Grains with Solubles	ppmvd	Parts per Million by volume, dry basis
DDGS	Dry Distillers Grains with Solubles	PSD	Prevention of Significant Deterioration
dscf	Dry Standard Cubic Feet	PTE	Potential to Emit
dscfm	Dry Standard Cubic Feet per Minute	RVP	Reid Vapor Pressure
EMIS	Emergency Management Information System	RATA	Relative Accuracy Test Audit
EPA	Environmental Protection Agency	RMP	Risk Management Plan
EQC	Environmental Quality Council	RTO	Regenerative Thermal Oxidizer
EP	Emission Point	scf	Standard Cubic Feet
ESP	Electrostatic Precipitator	SIC	Standard Industrial Classification
EU	Emission Unit	SIP	State Implementation Plan
FID	Facility Identification Number	SO <sub>2</sub>	Sulfur Dioxide
FDCP	Fugitive Dust Control Plan	SO <sub>x</sub>	Sulfur Oxides
FGR	Flue Gas Recirculation	TDS	Total Dissolved Solids
FIP	Federal Implementation Plan	TO	Thermal Oxidizer
FR	Federal Register	TO/HRSG	Thermal Oxidizer with Heat Recovery Steam Generator
ft	Feet	tpy	Tons per year
FTIR	Fourier Transform Infrared	TRS	Total Reduced Sulfur
GHGs	Greenhouse Gases	TSP	Total Suspended Particulate Matter
H <sub>2</sub> S	Hydrogen Sulfide	ULNB	Ultra Low-NO <sub>x</sub> Burner
HAP	Hazardous Air Pollutant	UST	Underground Storage Tank
hp	Horsepower	UTM	Universal Transverse Mercator
hr	Hour	VHAP	Volatile Hazardous Air Pollutant
lb	Pound	VMT	Vehicle Miles Traveled
LDAR	Leak Detection and Repair	VOC	Volatile Organic Compound
LNB	Low-NO <sub>x</sub> Burner	WDGS	Wet Distiller's Grains with Solubles
MACT	Maximum Achievable Control Technology		
Mgal	One Thousand gallons		
MMBtu	One Million British Thermal Units		
MMscf	One Million Standard Cubic Feet		
MSDS	Material Safety Data Sheet		
MW	Megawatt		
NAAQS	National Ambient Air Quality Standards		

**I. GENERAL CONDITIONS**

- (A) Coverage granted under this permit is not transferable to another source or location except as provided for in Condition IV. {Chapter 9}
- (B) Coverage under this permit does not relieve the owner or operator of the source from the responsibility to comply with all applicable portions of the Nebraska Air Quality Regulations and any other requirements under local, State, or Federal law. Any permit noncompliance shall constitute a violation of the Nebraska Environmental Protection Act and the Federal Clean Air Act, and is grounds for enforcement action or permit revocation. {Chapter 41 and Chapter 17, Section 011}
- (C) Application for review of plans or advice furnished by the Director will not relieve the owner or operator of legal compliance with any provision of these regulations, or prevent the Director from enforcing or implementing any provision of these regulations. {Chapter 37}
- (D) Any owner or operator who failed to submit any relevant facts or who submitted incorrect information in a general permit application shall, upon becoming aware of such failure or incorrect submittal, promptly reapply for coverage or submit a construction permit application under the provisions of Chapter 17. {Chapter 17, Sections 006, 007, and 008}
- (E) Approval to construct will become invalid if a continuous program of construction is not commenced within 18 months after the date of coverage granted by this general construction permit, if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable period of time. {Chapter 17, Section 012}
- (F) The owner or operator shall allow the NDEQ, EPA or an authorized representative, upon presentation of credentials to: {Neb. Rev. Statute §81-1504}
- (1) Enter upon the owner or operator's premises at reasonable times where a source subject to this permit is located, emissions-related activity is conducted or records are kept, for the purpose of ensuring compliance with the permit or applicable requirements;
  - (2) Have access to and copy, at reasonable times, any records, for the purpose of ensuring compliance with the permit or applicable requirements;
  - (3) Inspect at reasonable times any facilities, pollution control equipment, including monitoring and air pollution control equipment, practices, or operations, for the purpose of ensuring compliance with the permit or applicable requirements;
  - (4) Sample or monitor at reasonable times substances or parameters for the purpose of ensuring compliance with the permit or applicable requirements.
- (G) When requested by the NDEQ, the owner or operator shall submit completed emission inventory forms for the preceding year to the NDEQ by March 31 of each year. {Chapter 6}
- (H) Open fires are prohibited except as allowed by Chapter 30.
- (I) Particulate Matter – General Requirements: {Chapter 32}
- (1) The owner or operator shall not cause or permit the handling, transporting or storage of any material in a manner, which allows particulate matter to become airborne in such

quantities and concentrations that it remains visible in the ambient air beyond the property line.

- (2) The owner or operator shall not cause or permit the construction, use, repair or demolition of a building, its appurtenances, a road, a driveway, or an open area without applying all reasonable measures to prevent particulate matter from becoming airborne and remaining visible beyond the property line. Such measures include, but are not limited to, paving or frequent cleaning of roads, driveways and parking lots; application of dust-free surfaces; application of water; and planting and maintenance of vegetative ground cover.
- (J) If and when the Director declares an air pollution episode as defined in Chapter 38, Section 003.01B, 003.01C, or 003.01D, the owner or operator shall immediately take all required actions listed in Title 129, Appendix I until the Director declares the air pollution episode terminated.
- (K) This permit may be revised (reopened and reissued) or revoked for cause in accordance with Title 129 and Nebraska Administrative Code Title 115 -Rules of Practice and Procedure. Conditions under which this permit will be revised or revoked for cause, include but are not limited to: {Chapter 15, Section 006}
- (1) A determination by the Director, or the Administrator of EPA that:
    - (a) the permit must be revised to ensure compliance with the applicable requirements;
    - (b) the permit contains a material mistake or that inaccurate statements were made in the emissions standards or other terms or conditions of the permit.
  - (2) A determination by the Director that the source or activity endangers human health or the environment and that the danger cannot be removed by a revision of the permit.
- (L) Coverage under this permit may be revoked for cause in accordance with Title 129 and Title 115. Conditions under which this permit will be revised or revoked for cause, include but are not limited to: {Title 129, Chapter 15, Section 006}
- (1) The existence at the source of unresolved noncompliance with applicable requirements or a term or condition of the permit, and refusal of the owner or operator to agree to an enforceable schedule of compliance to resolve the noncompliance;
  - (2) The failure of the owner or operator to pay a penalty owed pursuant to court order, stipulation and agreement, or order issued by the Administrator of the EPA; or
  - (3) The submittal by the owner or operator of false, incomplete, or misleading information to the NDEQ or EPA.

**II. SPECIFIC CONDITIONS**

- (A) The owner/operator of the source shall provide the following notifications to the NDEQ:
- (1) The date construction commenced as defined in Chapter 1. Notification shall be postmarked no later than 30 days after such date and include a summary description and whether the requirement to commence construction was met through: {Title 129, Chapter 17, Section 012}
  - (a) Initiating physical on-site construction activities of a permanent nature that meet the definition of “begin actual construction”, or
  - (b) Entering into binding agreements or contractual obligations. If this option is used, the notice shall also include a brief summary of each binding agreement or contractual obligation entered into, the date of the agreement or contract, and why it cannot be cancelled or modified without substantial loss to the owner or operator.
  - (2) The notification required in Condition II.(A)(1) shall also include an equipment list which must detail: {Title 129, Chapter 17, Sections 006, 007, and 008}
  - (a) All equipment associated with the facility;
  - (b) The maximum rated capacity for all equipment;
  - (c) The date of the initial construction of the aggregate crushing facility; and
  - (d) The date of manufacture for each engine at the facility.
  - (3) The date on which the source first becomes operational, postmarked within 15 days after such date. {Chapter 7, Section 002.03}
- (B) Recordkeeping: Records of all measurements, results, inspections, and observations as required to ensure compliance with all applicable requirements shall be maintained on-site as follows:
- (1) All calculations and records required throughout this permit shall be completed no later than the fifteenth (15<sup>th</sup>) day of each calendar month and shall include all information through the previous calendar month, unless otherwise specified in this permit.
  - (2) All records required throughout this permit shall be kept for a minimum of five (5) years and shall be clear and readily accessible to NDEQ representatives, unless otherwise specified in this permit.
  - (3) Copies of all notifications, reports, test results, and plans.
  - (4) Calibration records for all operating parameter monitoring equipment.
  - (5) Operation and Maintenance manuals, or equivalent documentation, detailing proper operation and maintenance of all permitted emission units, required control equipment, and required monitoring equipment shall be kept for the life of the equipment.

- (6) Records documenting equipment failures, malfunctions, or other variations, including date and time of occurrence, remedial action taken, and when corrections were made to each piece of permitted equipment, required control equipment, and required monitoring equipment.
- (C) All permitted emission units, control equipment, and monitoring equipment shall be properly installed, operated, and maintained. {Chapter 34, Section 006 and Chapter 35, Sections 006.02 and 006.05}
- (D) When performance testing is required it shall be completed and submitted to the NDEQ as follows: {Chapter 34}
- (1) Performance tests shall be conducted while operating at maximum capacity (operating conditions producing the highest emissions or loading to the control device) within sixty (60) days after first reaching the maximum capacity, but not more than 180 days after the start-up of operations of each unit, unless otherwise specified by the NDEQ.
- (2) Testing shall be conducted according to the methodologies found in Title 129, Chapter 34, Section 002, or other NDEQ approved methodologies.
- (3) Performance tests shall be conducted for a minimum of three (3) one hour runs unless another run time is specified by the applicable Standard or as deemed appropriate by the NDEQ.
- (4) The owner or operator of a source shall provide the NDEQ at least thirty (30) days written notice prior to testing to afford the NDEQ an opportunity to have an observer present. The owner or operator shall also provide the NDEQ with an emissions testing protocol at least thirty (30) days prior to testing. The NDEQ may, in writing, approve a notice of less than 30 days. If the testing is pursuant to an underlying requirement contained in a federal rule, the notice provisions of the underlying requirement apply.
- (5) The owner or operator shall monitor and record the operating parameters for process and control equipment during the performance testing required in the permit.
- (6) A written copy of the test results signed by the person conducting the test shall be provided to the NDEQ within sixty (60) days of completion of the test unless a different period is specified in the underlying requirements of an applicable Federal Rule and will, at a minimum, contain the following items:
- (a) A description of the source's operating parameters (e.g. production rates, firing rates of combustion equipment, fuel usage, etc.), control equipment parameters (e.g. baghouse fan speeds, scrubber liquid flow rates, etc.), and ambient conditions (e.g. weather conditions, etc.) during testing.
- (b) Copies of all data sheets from the test run(s).
- (c) A description and explanation of any erroneous data or unusual circumstance(s) and the cause for such situation.
- (d) A final conclusion section describing the outcome of the testing.
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- (E) Any emissions due to malfunctions, unplanned shutdowns, and ensuing start-ups that are, or may be, in excess of applicable emission limits shall be reported to the NDEQ in writing and mailed within 48 hours of the beginning of each period of excess emissions. {Chapter 35, Sections 004 and 005}



**III.(A) Specific Conditions for Material Processing****(1) Permitted Emission Points:**

- (a) The source is permitted to construct the emission points and associated emission units identified in the following table at the maximum quantities listed. Each emission unit shall be controlled by the required control equipment as indicated:

<b>Emission Point ID#</b>	<b>Required Control Equipment Description</b>	<b>Emission Unit Description</b>	<b>Maximum Quantity</b>
EP-CRUSH1	CE Wet Suppression	EU Primary Crusher	1
EP-CRUSH2	CE Wet Suppression	EU Secondary Crusher	1
EP-CRUSH3	CE Wet Suppression	EU Tertiary Crusher	1
EP-SCREEN1	CE Wet Suppression	EU Primary Screen	1
EP-SCREEN2	CE Wet Suppression	EU Secondary Screen	1
EP-SCREEN3	CE Wet Suppression	EU Tertiary Screen	1
EP-RECYCLE	CE Wet Suppression	EU Crusher Recycle Conveyor	1
EP-CONVEY	CE Wet Suppression	EU Process Conveyors	11 <sup>[1]</sup>
EP-UNLOAD	-	EU Truck Unloading	N/A <sup>[2]</sup>
EP-LOAD	-	EU Product Loading	N/A <sup>[2]</sup>

<sup>[1]</sup> Each process conveyor run must be a continuous movement on a single conveyor with no material transfer points. A facility may count multiple conveyors in parallel as a single run, provided they split total throughput and there is no operating scenario where the combined annual throughput for the parallel conveyors could exceed the total annual production limit.

<sup>[2]</sup> Loading and unloading are limited by the annual production limit, facilities may use any configuration for, or number of, loading and unloading stations.

- (b) The quantity of emission units authorized by this permit at the aggregate processing plant covered under this permit shall not exceed the quantities identified in Condition III.(A)(1)(a). {Chapter 17}
- (c) The maximum individual capacities of EU Primary Crusher, EU Secondary Crusher, and EU Tertiary Crusher shall not exceed 500 tons of crushed aggregate per hour. {Chapter 17}
- (2) **Emission Limitations and Testing Requirements:**

- (a) The emissions limitations of Title 129, Chapter 20, Sections 001 and 004 apply to the emission points in Condition III.(A)(1)(a); with the exception that Section 004 does not apply to any emission point subject to 40 CFR 60, Subpart OOO. {Chapter 20}
- (b) The emission limitations and required test methods of 40 CFR 60, Subparts A and OOO (as of the issuance date of this permit) are identified in the following table. The intent of this condition is only to identify the applicable Federal emission limitations and test methods and is not to establish any new or different requirements than the underlying Federal Standard. Refer to 40 CFR 60, Subparts A and OOO for additional testing and emission limitation requirements that may apply to applicable emission units at the aggregate processing plant. {Chapter 18}

<b>Emission Point Description</b>	<b>Pollutant</b>	<b>Permitted Limit</b>	<b>Basis for Limit</b>	<b>Testing Method</b>
All screening operations, transfer points on belt conveyors, and enclosed truck or railcar loading stations at plants that commenced construction, modification, or reconstruction after August 31, 1983 but before April 22, 2008	Opacity	≤ 10%	40 CFR 60, Subpart 000 & Chapter 18	Method 9 <sup>[1]</sup>
All crushers at which a capture system is not used that commenced construction, modification, or reconstruction after August 31, 1983 but before April 22, 2008	Opacity	≤ 15%	40 CFR 60, Subpart 000 & Chapter 18	Method 9 <sup>[1]</sup>
All screening operations, transfer points on belt conveyors, and enclosed truck or railcar loading stations at plants that commence construction, modification, or reconstruction on or after April 22, 2008	Opacity	≤ 7%	40 CFR 60, Subpart 000 & Chapter 18	Method 9 <sup>[1]</sup>
All crushers at which a capture system is not used that commence construction, modification, or reconstruction on or after April 22, 2008	Opacity	≤ 12%	40 CFR 60, Subpart 000 & Chapter 18	Method 9 <sup>[1]</sup>

<sup>[1]</sup>The testing method is to be Method 9 with additional requirements for certain situations. Refer to 40 CFR 60 Subpart 000 for additional information.

- (c) The source shall conduct performance tests on all screening operations, transfer points on belt conveyors, enclosed truck or railcar loading stations, and crushers in accordance with testing requirements and emission limitations required by 40 CFR 60 Subpart 000 not later than 180 days after start-up of operation in the state of Nebraska. {Chapter 34}
    - (i) Condition III.(A)(2)(c) shall not apply to fixed sand and gravel plants and crushed stone plants with rated capacities of 25 tons per hour or less.
    - (ii) Condition III.(A)(2)(c) shall not apply to portable sand and gravel plants and crushed stone plants with rated capacities of 150 tons per hour or less.
  - (d) The NDEQ may waive the testing requirement of Condition III.(A)(2)(c) if the source submits valid performance test results demonstrating compliance with the emission limitations of 40 CFR 60 Subpart 000. {Chapter 34}
- (3) Operational and Monitoring Requirements and Limitations
- (a) All crushers, screens, and process conveyors shall be directly equipped with water or wet suppression spray bars to control particulate emissions. {Chapters 17, 18 and 20}
    - (i) There shall be a steady flow of water coming out of the spray bars at all times the associated emission unit is in operation.

- (ii) The source shall conduct daily observations of the nozzles on each spray bar each day the associated emission unit is in operation. If corrective action is necessary it shall be taken immediately to ensure proper operation of the spray bars.
- (b) The source shall not produce more than 3,750,000 tons of crushed aggregate per any period of twelve (12) consecutive calendar months. At no time during the first eleven (11) calendar months after permit coverage is obtained shall the source produce more than 3,750,000 tons of crushed aggregate. {Chapter 17}
- (c) The source shall only crush aggregate, which is defined as: crushed or broken stone, sand or gravel, recycled concrete, or any mixture the majority of which consists of crushed or broken stone, sand or gravel, recycled concrete, or other nonmetallic mineral as defined in 40 CFR 60, Subpart OOO. {Chapter 17}
- (d) A source representative shall conduct visible emissions surveys of the emission units identified in Condition III.(A)(1)(a) on a daily basis during daylight hours when the facility is operating to determine whether there are visible emissions, leaks, or other indications that may necessitate corrective action. If corrective action is required, it shall occur immediately. {Chapter 34}
- (i) The results of the visible emissions surveys shall be recorded in a log, which shall include, at a minimum, the following items:
1. The emission points included in the survey.
  2. All emission points from which visible emissions occurred (except for water vapor).
  3. Corrective action(s) taken.
  4. Emission points for which the units were not in operation during the survey.
  5. Each entry shall be dated and initialed by the person conducting the visible emissions survey.
- (e) The source shall comply with the applicable operational and monitoring requirements and limitations of 40 CFR 60, Subparts A and OOO. {Chapter 18}
- (4) Applicable NSPS, NESHAP, and MACT Requirements:

The emission units identified in Condition III.(A)(1)(a) may be subject to the applicable NSPS requirements listed below:

<b>Applicable Requirement</b>	<b>Title</b>	<b>Rule Citation</b>
NSPS, Subpart A	General Provisions	Chapter 18, Sec. <u>001.01</u> 40 CFR 60.1
NSPS, Subpart OOO	Nonmetallic Mineral Processing Plants	Chapter 18, Sec. <u>001.33</u> 40 CFR 60.670

(5) Reporting and Recordkeeping Requirements:

- (a) Records shall be kept documenting the maximum individual capacities of EU Primary Crusher, EU Secondary Crusher, and EU Tertiary Crusher.
- (b) Records shall be kept documenting the daily inspection of the nozzles on each spray bar and the corrective actions taken if needed.
- (c) Records shall be kept documenting the weight of aggregate produced for each calendar month and each period of twelve (12) consecutive calendar months.
- (d) Records shall be kept documenting the type of aggregate processed.
- (e) The source shall maintain a copy of the visible emissions survey logbook.
- (f) The source shall comply with the applicable recordkeeping and reporting requirements established in 40 CFR 60, Subparts A and OOO.

**III.(B) Specific Conditions for Engines**(1) Permitted Emission Points:

- (a) The source is permitted to construct the emission points and associated emission units identified in the following table at the maximum capacity and fuel type listed:

<b>Emission Point ID#</b>	<b>Emission Unit Description</b>	<b>Total Capacity (HP)</b>	<b>Permitted Fuel Type</b>
EP-ENGINE	EU Engines	825	Diesel

- (b) The total aggregate stationary engine capacity authorized by this permit at the aggregate processing plant covered under this permit shall not exceed 825 horsepower. {Chapter 17}

(2) Emission Limitations and Testing Requirements:

- (a) The emissions limitations of Chapter 20, Sections 002 and 004 applies to the emission points identified in Condition III.(B)(1); with the exception that Section 002 does not apply to any emission point subject to a more stringent requirement in 40 CFR Part 60, Subpart III. {Chapter 20}
- (b) The source shall comply with the applicable emission limitations and testing requirements as specified in 40 CFR Part 60 Subpart III and 40 CFR Part 63 Subpart ZZZZ for all stationary engines. {Chapters 18 and 28}

(3) Operational and Monitoring Requirements and Limitations

- (a) The source shall be limited to 3,000 operating hours per any period of twelve (12) consecutive calendar months for each engine. At no time during the first eleven (11) months after permit coverage is obtained shall the operating hours for each engine exceed 3,000 hours. {Chapter 17}
- (i) Each stationary engine shall be equipped with a non-resettable hour meter to record the operating hours.
- (b) The source shall comply with the applicable operational and monitoring requirements and limitations as specified in 40 CFR Part 60 Subparts A and III and 40 CFR Part 63 Subparts A and ZZZZ for all stationary engines. {Chapters 18 and 28}

(4) Applicable NSPS, NESHAP, and MACT Requirements:

The emission units identified in Condition III.(B)(1)(a) may be subject to the applicable NSPS and NESHAP requirements listed below:

<b>Applicable Standard</b>	<b>Title</b>	<b>Rule Citation</b>
NSPS, Subpart A	General Provisions	Title 129, Chapter 18, Sec. <u>001.01</u> 40 CFR 60.1
NSPS, Subpart III	Stationary Compression Ignition Internal Combustion Engines	Title 129, Chapter 18, Sec. <u>001.76</u> 40 CFR 60.4200

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<b>Applicable Standard</b>	<b>Title</b>	<b>Rule Citation</b>
NESHAP, Subpart A	General Provisions	Title 129, Chapter 28, Sec. <u>001.01</u> 40 CFR 63.1
NESHAP, Subpart <i>ZZZZ</i>	Stationary Reciprocating Internal Combustion Engines	Title 129, Chapter 28, Sec. <u>001.88</u> 40 CFR 63.6580

(5) Reporting and Recordkeeping Requirements:

- (a) Records shall be kept documenting the total aggregate stationary engine capacity.
- (b) The source shall record and maintain records documenting the hours of operation for each stationary engine for each calendar month and for each period of twelve (12) consecutive calendar months.
- (c) The source shall comply with the applicable reporting and recordkeeping requirements as specified in 40 CFR Part 60 Subparts A and IIII and 40 CFR Part 63 Subparts A and *ZZZZ* for all stationary engines.

**III.(C) Specific Conditions for Haul Roads****(1) Permitted Emission Points:**

All on-site haul roads with production-related traffic shall comply with the following conditions. {Chapters 17 and 32}

**(2) Emission Limitations and Testing Requirements:**

Haul roads are subject to the requirements of Title 129, Chapter 32, Section 002.

**(3) Operational and Monitoring Requirements and Limitations:**

(a) The owner or operator shall utilize best management practices (BMP) on haul roads. The effectiveness of the BMP to minimize emissions from haul roads will be demonstrated by compliance with General Condition I.(I). {Chapters 17 and 32}

(b) A survey of the plant property and haul roads shall be conducted for each day of operation during daylight hours to determine if visible fugitive emissions are being generated and leaving plant property. Implementation of BMP shall be taken upon observation of visible fugitive emissions leaving plant property. {Chapter 32}

**(4) Applicable NSPS, NESHAP, and MACT Requirements:**

The NDEQ has not identified any NSPS, NESHAP, or MACT requirements that apply to the haul roads.

**(5) Reporting and Recordkeeping Requirements:**

(a) Records shall be kept documenting the use of BMP on haul roads.

(b) Records shall be kept documenting the date and time of fugitive dust surveys, whether visible emissions crossed site boundaries, and any corrective action taken if visible emissions are observed in areas to which the public has access.

**IV. Specific Conditions for Relocation**

- (A) The owner or operator shall notify the Director at least 20 days in advance of any proposed change in source location. The following information shall be provided for the proposed new location: {Chapter 10}
- (1) A specific description of the source, including Standard Industrial Classification (SIC),
  - (2) A legal description, accurate to the nearest quarter section,
  - (3) Present or previous use,
  - (4) Distance to the nearest occupied building,
  - (5) General description of the site location and adjacent land use,
  - (6) The anticipated dates of operation of the source at the proposed new location,
  - (7) Contact information for the responsible on site source operator including: name, mailing address, and telephone number,
  - (8) The source FID number assigned by the Department, and
  - (9) The relocation notification shall be signed by a responsible source official or source owner certifying its content.
- (B) Relocation within any of the following jurisdictions will require additional notifications:
- (1) Lancaster County {Neb. Rev. Statute §81-1504(23)}
    - (a) If the proposed new location is within Lancaster County, the source shall also notify the Air Quality Section of the Lincoln-Lancaster County Health Department (LLCHD) at least 20 days in advance of the proposed location change. An additional permit may also be required from LLCHD if the source intends to locate within this jurisdiction.
  - (2) City of Omaha {Neb. Rev. Statute §81-1504(23)}
    - (a) If the proposed new location is within 3 miles of the Omaha Corporate City limits, the source shall also notify the Air Quality Section at Omaha Air Quality Control (OAQC) at least 20 days in advance of the proposed location change. An additional permit may also be required from OAQC if the source intends to locate within this jurisdiction.
  - (3) Tribal Lands
    - (a) If the proposed new location is on Tribal Lands, the source shall also notify and receive approval from the United States Environmental Protection Agency Region VII office and/or the Tribe, as appropriate, at least 20 days advance of the



proposed location change. An additional permit may also be required if the source wants to locate within these jurisdictions.

- (4) Cass County {Chapter 21}
  - (a) If the proposed new location is within Cass County, Nebraska, rock processing operations at the source are subject to Chapter 21 requirements requiring 85% reduction in potential emissions from conveying, transfer operation, and railcar and truck loading. Demonstration of the 85% reduction in potential emissions must be submitted with the change in source location notification. An air quality impact analysis, including dispersion modeling, may also be required to ensure compliance with Title 129, Chapter 4 prior to locating in Cass County.
- (C) The Director may disapprove a new proposed location for a temporary source if operation in the new location would cause or contribute to a violation of state or local standards or otherwise adversely affect human health or the environment. {Chapter 10}

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**Typical Standard Industrial Classification Code:** 1429, Crushed and Broken Stone, Not Elsewhere Classified

**Typical North American Industry Classification System Code:** 212319 – Other Crushed and Broken Stone Mining and Quarrying

**DESCRIPTION OF GENERAL CONSTRUCTION PERMIT:**

The Nebraska Department of Environmental Quality (NDEQ) has determined there are numerous similar sources in Nebraska that are subject to the same Federal and State regulatory requirements. Chapter 9 of Nebraska Administrative Code Title 129 – Air Quality Regulations allows the NDEQ to issue a general construction permit (GCP) for these sources. This GCP follows the applicable procedures of Chapters 9, 14, and 17 of Title 129. The owner of a source that qualifies for this GCP must apply to the NDEQ for coverage under the applicable terms of the GCP. Each application must include all information necessary to determine qualification for, and to ensure compliance with, the GCP.

The NDEQ will notify the applicant of the determination of coverage under this GCP for the source identified in the application. If the Director of the NDEQ denies coverage of the source under the GCP, the applicant may request an adjudicative hearing in accordance with the procedures established in Title 115 – Rules of Practice and Procedure. The NDEQ may issue coverage under a GCP to an individual source without repeating the notice and comment procedures required in Chapter 14 of Title 129. The NDEQ shall maintain a list of all sources covered by general permits, which shall be available for public review.

**DESCRIPTION OF THE SOURCE GROUP:**

This general permit is for aggregate processing plants that may be portable or stationary. An aggregate processing plant means a combination of fixed or portable equipment for the processing of aggregate including each crusher, screening operation, belt conveyor, bagging operation, and truck or railcar loading station, power sources such as generators, power units and engines, and petroleum storage tanks. Aggregate means crushed or broken stone, sand or gravel, recycled concrete, or any mixture the majority of which consists of crushed or broken stone, sand or gravel, recycled concrete, or other nonmetallic mineral as defined in NSPS Subpart OOO. Coverage under this GCP will authorize the construction of a crushing facility no larger than the following: one primary crusher, one secondary crusher, one tertiary crusher, one primary screen, one secondary screen, one tertiary screen, truck unloading operations, product loading operations, one crusher recycle stream, eleven process conveyors operating in parallel, and internal combustion engines with up to 825 combined horsepower capacity.

Coverage under this general permit may be granted to new facilities which only consist of the operations listed above, or to existing facilities. Operations at existing facilities may be covered by one or more additional permits.

**MAXIMUM TYPE AND QUANTITY OF AIR CONTAMINANT EMISSIONS ALLOWED:**

An aggregate processing plant will have the capability to emit the following regulated air pollutants: particulate matter (PM), PM with an aerodynamic diameter less than or equal to 10 microns (PM<sub>10</sub>), PM with an aerodynamic diameter less than or equal to 2.5 microns (PM<sub>2.5</sub>), oxides of sulfur (SO<sub>x</sub>), oxides of nitrogen (NO<sub>x</sub>), carbon monoxide (CO), volatile organic compounds (VOCs), hazardous air pollutants (HAPs), and greenhouse gases (GHGs). The potential emissions calculations have been calculated using a pre-determined quantity of each process. This general permit is only for aggregate processing plants that have equal to or less than the quantity for each process.

The typical operations at an aggregate processing plant are discussed in further detail below. The fact sheet attachment shows the potential emissions calculations with full references.

### Concrete Crushing and Material Handling

Stock material is usually delivered by truck to the aggregate processing plant and unloaded into a storage pile. From here, an excavator is used to transfer concrete to the primary crusher. Once crushed, the product may be conveyed to a secondary crusher or even tertiary crusher, or may be conveyed to a primary screening plant. Material greater than a certain size is usually sent back to the primary crusher as a recycle stream via a conveyor, and material less than a certain size may be transferred from the primary screen plant to a secondary and tertiary screen plant, or may be conveyed to an additional process conveyor. This additional conveyor loads produced material into separate storage piles. Produced material is then hauled out by truck. The concrete crushing and material handling operations will have the capability to emit PM, PM<sub>10</sub>, and PM<sub>2.5</sub>.

The potential emissions for this general permit have been calculated based upon the following operations: one primary crusher, one secondary crusher, one tertiary crusher, one primary screen, one secondary screen, one tertiary screen, truck unloading operations, product loading operations, one crusher recycle stream, and eleven process conveyors operating in parallel. The use of wet suppression bars is required on all material handling processes. If a source has more equipment or operations than that listed in this paragraph, or does not intend on using wet suppression bars, then the source is not applicable for this general permit.

### Combustion Equipment

An aggregate processing plant may have either non-road or stationary engines that power various operations. The NDEQ considers any engine that meets the definition in 40 CFR 89.2 as a nonroad engine. Based upon this definition, typical nonroad engines might be: those which power front-end loaders; those mounted to wheels, skids, or trailers which are moved at least once per year; or those used to move attached equipment. Those engines which don't meet the nonroad definition and aren't vehicle engines are usually stationary engines, and must be included in a facility's emissions.

The total aggregate horsepower of all stationary engines at the aggregate processing plant may not exceed 825 horsepower. Each engine may combust only diesel fuel, and will be limited to a maximum of 3,000 operational hours per year. The stationary engine(s) will have the capability to emit PM, PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>x</sub>, NO<sub>x</sub>, CO, VOCs, HAPs, and GHGs.

### Storage Piles

An aggregate processing plant may have multiple storage piles, typically consisting of stock material and produced material, which are sources of fugitive PM, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions.

### Haul Roads

An estimated distance of 500 feet of unpaved haul road travel within the aggregate processing plant has been assumed for product receiving and product shipping. The haul roads will be a source of fugitive PM, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions that must be controlled by best management practices.

### Emissions Summary

The following table lists the maximum, non-fugitive, potential emissions for an aggregate processing plant covered under this general permit.

Regulated Pollutant	Emissions (tons/year)
Particulate Matter (PM)	30.75
PM smaller than or equal to 10 microns (PM <sub>10</sub> )	14.77
PM smaller than or equal to 2.5 microns (PM <sub>2.5</sub> )	5.25
Sulfur Dioxide (SO <sub>2</sub> )	2.51
Oxides of Nitrogen (NO <sub>x</sub> )	38.20
Carbon Monoxide (CO)	8.23
Volatile Organic Compounds (VOC)	3.12
Hazardous Air Pollutants (HAPs)	0.03

Regulated Pollutant	Emissions (tons/year)
Greenhouse Gases (GHG):	
Mass Basis	1,413
CO <sub>2</sub> e Basis	1,417

**APPLICABLE REQUIREMENTS AND VARIANCES OR ALTERNATIVES TO REQUIRED STANDARDS:**

Chapter 4 – Ambient Air Quality Standards:

Based on the limits in this GCP, the potential emissions of all regulated air pollutants from this permitting action are below the air dispersion modeling thresholds for which modeling is typically required, as established in the NDEQ modeling guidance document entitled *Atmospheric Dispersion Modeling Guidance for Permits* (September 2005). As a result, the NDEQ does not expect this source to cause or contribute to any violations of any ambient air quality standards.

Chapters 5 and 7 – Operating Permit Requirements:

For the operating permit program, a major or Class I source is one that emits, or has the potential to emit, greater than 100 tons per year (tpy) of any criteria pollutant, 10 tpy of any individual HAP, 25 tpy of total HAPs, or 5 tpy of lead. A minor or Class II source is any facility which does not exceed the major source thresholds, but has actual emissions greater than one half of these thresholds.

Before issuance of coverage under this permit, the potential emissions from facilities may or may not exceed the major source thresholds. Most facilities will not have other significant sources of air pollutants, and will therefore be a “No Permit Required – Synthetic Minor” or “No Permit Required – Natural Minor” source for the operating permit program because potential and actual emissions will be below the minor source thresholds after coverage is issued.

However, a facility with other sources of emissions, such as equipment covered by another construction permit, may exceed Class II or Class I thresholds for the operating permit program. Each facility covered by this GCP must determine if they are obligated to apply for an operating permit, or revise an existing operating permit, due to coverage under this general construction permit. Fugitive emissions may or may not need to be included when determining operating permit program applicability depending on if the source is or isn't one of the listed categories in Chapter 2, Section 002.

Chapter 17 – Construction Permit Requirements:

The source is required to obtain a construction permit for the aggregate processing plant because the potential emissions, prior to general construction permit coverage, exceed the thresholds of Chapter 17, Section 001.01.

The source-wide potential emissions including fugitives from the source, after issuance of coverage under this permit, falls into one of the following construction permit fee categories:

Category I (Fee \$250):

Less than 50 tons per year of any listed air pollutant;  
Less than 2.5 tons per year of any single HAP; or  
Less than 10 tons per year of any combination of HAPs

Category II (Fee \$1,500):

50 tons or more but less than 100 tons per year of any listed air pollutant;  
2.5 tons or more but less than 10 tons per year of any single HAPs; or  
10 tons or more but less than 25 tons per year of any combination of HAPs

Category III (Fee \$3,000):

100 tons or more per year of any listed air pollutant;  
10 tons or more per year of any single HAP; or  
25 tons or more per year of any combination of HAPs

Therefore, the source must submit a fee to obtain coverage under this GCP, in accordance with Chapter 17, Section 003.01 and Chapter 9. The NDEQ does not consider PM a regulated pollutant when determining the fee for a construction permit.

Chapter 18 – New Source Performance Standards (NSPS), and 40 CFR Part 60:

An aggregate processing plant may be subject to NSPS Subparts OOO and IIII. If a source is subject to one of these NSPS, it is also subject to NSPS Subpart A. If a source is subject to NSPS Subpart(s) OOO and/or IIII, the applicable requirements from NSPS Subpart A are described in NSPS Subparts OOO and IIII. These subparts are summarized below.

**The NDEQ has identified the following NSPS as potentially applicable to an aggregate processing plant:**

Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants: This subpart, adopted by reference in Title 129, Chapter 18, Section 001.33, applies to crushers, grinding mills, screening operations, bucket elevators, belt conveyors, bagging operations, storage bins, and enclosed truck or railcar loading stations located at fixed or portable nonmetallic mineral processing plants that commenced construction, modification, or reconstruction after August 31, 1983. The source may be subject to this subpart if the maximum crushing capacity is greater than 150 tons per hour for a portable source, and 25 tons per hour for a stationary source. This subpart contains emissions, notification, reporting, and record-keeping requirements for subject aggregate processing plants. If a source is subject to this subpart, a one-time performance test must be or must have been performed for all affected processes in accordance with Subpart OOO.

Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines: This subpart, adopted by reference in Title 129, Chapter 18, Section 001.76, applies to stationary compression ignition (CI) internal combustion engines (ICE) that were manufactured after April 1, 2006, or were modified or reconstructed after July 11, 2005. The subpart limits emissions of CI ICE based on engine size (hp, cylinder displacement), type of use (emergency or non-emergency), and model year. The engines at the source may be subject to this subpart. If the source only has nonroad engines (not stationary), then the source is not subject to this subpart.

It is the source's obligation to comply with all applicable NSPS subparts and requirements regardless of their inclusion in this permitting action or Title 129. These rules are subject to change. Additional and updated information on all NSPS is on the NDEQ NSPS Notebook, which can be located by visiting the NDEQ website at <http://deq.ne.gov/>, and first selecting the "Air" tab, then the "Air Grants, Planning and Outreach Program" dropdown menu tab, then the "New Source Performance Standards (NSPS) Program" dropdown menu tab, and then select "New Source Performance Standards (NSPS) Program". Or alternately use the "Search NDEQ Web" search box on the upper right of the webpage and enter "New Source Performance Standards".

Chapter 19 – Prevention of Significant Deterioration (PSD):

If the source falls into one of the 28 categories listed in Title 129, Chapter 2, Section 008.01, a 100 ton per year PSD regulated pollutant threshold applies as described. Otherwise, a 250 ton per year PSD regulated pollutant threshold applies to the facility. Fugitive emissions may or may not need to be included when determining PSD applicability depending on if the source is or isn't one of the listed categories in Chapter 2, Section 002.

Existing major sources in the PSD program do not qualify for this GCP. New aggregate processing plants and existing minor sources are not subject to any PSD requirements as part of this permit because the project PTE is below the PSD major source threshold.

Chapter 20 – Particulate Matter Emissions:

Section 001 – Process Weight Rate: Based on the calculated PM emissions in the Fact Sheet Attachment, each aggregate processing plant will comply with the requirements of this section by properly operating and maintaining all emission units.

*Section 002 – Particulate Emissions from Combustion Sources:* Each engine has a maximum allowable emission rate of 0.60 pounds of PM per MMBtu as identified in Chapter 20, Section 002, Table 20-1. As shown in the Fact Sheet Attachment, each aggregate processing plant will comply with this regulation by combusting only diesel fuel, and by properly operating and maintaining all emission units. In accordance with Section 008, if an engine at the source is subject to an NSPS PM emission limitation that is more stringent than the limitation provided in this chapter, then that engine is not subject to Section 002.

*Section 004 and 006 – Opacity:* No person may cause or allow emissions which are of an opacity equal to or greater than twenty percent (20%) as evaluated by an EPA-approved method, or recorded by a continuous opacity monitoring system. The source must perform visible emission surveys and must take corrective actions if visible emissions are observed. Additionally, NSPS Subpart OOO specifies opacity limits on certain equipment; therefore, for processes subject to NSPS Subpart OOO, compliance with the NSPS Subpart OOO opacity limits will demonstrate compliance with Section 004, in accordance with Section 006.

Chapter 27 – Hazardous Air Pollutants:

The source is not subject to the requirements of this chapter because the proposed increase in PTE of any single HAP and total HAPs are less than the 2.5 and 10 tons per year thresholds listed in Section 002 of this chapter.

Chapter 28 – Hazardous Air Pollutant Emission Standards (NESHAPs):

The source is an area source of HAPs if the PTE for any single HAP is below 10 tons per year and the PTE for total HAPs is below 25 tons per year; otherwise, if the PTE exceeds those thresholds, the source is a major source of HAPs. The NDEQ has identified that an aggregate processing plant may be subject to NESHAP Subparts A and ZZZZ. These subparts are summarized below.

**The NDEQ has identified the following NESHAP as potentially applicable to an aggregate processing plant:**

*Subpart A – General Provisions:* This subpart, adopted by reference in Title 129, Chapter 28, Section 001.01, applies to the owner or operator of any stationary source subject to a NESHAP unless otherwise stated in the rule.

*Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines:* This subpart, adopted by reference in Title 129, Chapter 28, Section 001.88, applies to existing, new, or reconstructed stationary reciprocating internal combustion engines (RICE) located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand and existing residential, commercial, and institutional emergency RICE at area sources used for 15 hours or less per year for emergency demand response, provided they are not also used for local reliability. The stationary engine(s) at the source may be subject to Subpart ZZZZ if they are stationary RICE at an area or major source. This subpart has different requirements based upon the specifications of each engine.

It is the source's obligation to comply with all applicable NESHAP subparts and requirements regardless of their inclusion in this permitting action or Title 129. These rules are subject to change. Additional and updated information on all NESHAP is on the NDEQ Air Toxics Notebook, which can be located by visiting the NDEQ website at <http://deq.ne.gov/>, and first selecting the "Air" tab, then the "Air Grants, Planning and Outreach Program" dropdown menu tab, then the "Air Toxics Program" dropdown menu tab, and then select "Air Toxics Program". Or alternately use the "Search NDEQ Web" search box on the upper right of the webpage and enter "Air Toxics".

**Permit conditions specific to the proposed permit are discussed as follows:**

- II.(A) When a source undertakes a program of construction, reconstruction, or modification they are required to notify the NDEQ when they begin construction/reconstruction/modification and when the source or modification becomes operational. In addition, the NDEQ is requiring that the source submit an equipment list that includes the maximum rated capacity of each unit associated with the facility, the date the aggregate processing plant was first constructed within the United States, and

the manufacture date of each engine associated with the facility. These notifications help the NDEQ and source determine when an operating permit application (or revision to an existing operating permit) may be necessary and also whether some emission increases or decreases are within the contemporaneous period. This notification is either for initial operation of the source as a whole (if constructing a new source) or initial operation of the completed project (if modifying an existing source), not individual emission units. Individual emission units subject to specific NSPS or NESHAP standards may have additional notification requirements specific to those federal standards that are independent of this requirement. Startup of individual emission units (such as a boiler subject to an NSPS) does not necessarily mean the source or project has begun operations. For portable sources this notification is only required for their first commencement of construction following permit issuance. Notifications related to further relocations are handled by the provisions of Condition IV.

- II.(B) This condition contains general recordkeeping and reporting requirements that apply to all permitted emission units, control equipment, and monitoring devices. These requirements establish several things, including: a completion date when records must be completed, how long records need to be maintained, and identifying specific types of records that must be maintained. Records are required to be maintained to ensure compliance with all applicable requirements, specifically those required in this permit. However, additional recordkeeping requirements may be established in the future to better ensure compliance. Documentation detailing operation and maintenance can be operational and maintenance manuals provided by the manufacturer. If manufacturer manuals are not available, the owner or operator must develop a document containing proper operation and maintenance requirements for each permitted emission unit and piece of required control equipment.
- II.(C) This condition requires all permitted emissions units, control equipment, and monitoring equipment to be properly installed, operated, and maintained as required in Specific Condition II.(B)(5). Emission estimates for this permitting action are based on the requirement that all equipment be properly operated and maintained, and comply with the conditions of the permit and regulations.
- II.(D) General performance testing requirements. When performance testing is required, it is intended to demonstrate and ensure the source will be in compliance on a continuous basis. As such, testing is generally required to be conducted under conditions producing the highest emissions or loading to a control device. This typically is done at the maximum capacity, which at that level would not create an unsafe condition, and the facility will operate at that level at least some of the time. For a comprehensive evaluation on representative testing conditions, please review the NDEQ guidance on stack testing available on our web site or the national stack testing guidance document found on EPA's web site. All performance tests required throughout this permit are required to be conducted in accordance with these conditions. The owner or operator must provide a testing protocol and written (i.e. hard copy, not electronic or verbal) notice prior to testing to ensure the NDEQ has the opportunity to witness the testing and review the proposed testing plan. Operating parameters are monitored and recorded to document the conditions under which the testing was conducted. The NDEQ may require additional testing if previous testing is not representative of current operations.
- II.(E) This condition requires any emissions resulting from equipment failures, malfunctions, or other variations in control or process equipment performance that are, or may be, in excess of the applicable emission control regulations to be reported to the NDEQ in accordance with Title 129, Chapter 35, Section 005. The NDEQ must be notified when excess emissions have, or may have occurred along with the cause of the emissions in order to determine the appropriate response. These reports also assist with verifying proper operation and maintenance of process and control equipment.

### **III.(A) Specific Conditions for Material Processing**

- III.(A)(1) This condition permits the source to construct the applicable listed material handling processes and associated control equipment and specifies the maximum quantity and

capacity allowable for each process. Each EU Process Conveyor may be a single run of multiple conveyors operating in parallel, provided they split the total throughput.

- III.(A)(2) The source may be subject to, and must comply with, applicable emission limitations and testing requirements of 40 CFR 60, Subparts A and OOO. If subject, the source must complete, or must have completed, the initial performance testing in accordance with 40 CFR 60, Subpart OOO. The source may submit earlier performance test results to the NDEQ instead of performing new testing. The NDEQ will determine if the submitted test results are considered satisfactory or if new testing will be required.

40 CFR 60, Subpart OOO has additional testing requirements for facilities with capture systems. While capture systems are not required under this GCP, a source must comply with those requirements in 40 CFR 60, Subpart OOO that apply to it if it operates with a capture system.

- III.(A)(3) The source is required to control all crushers, screens, and process conveyors with a wet suppression system which includes spray bars directly attached on each emission unit. The source may not produce more than 3,750,000 tons of crushed aggregate per any period of twelve consecutive months; this crushed aggregate must fall under the definition of crushed aggregate as found in 40 CFR 60, Subpart OOO. Production must be limited to reduce potential emissions of PM<sub>10</sub>, and the source must only crush aggregate to prevent the source from becoming subject to additional NSPS and NESHAP Subparts. The source must perform daily visible emission surveys during the hours of operation to ensure that there are no visible emissions from the stack or exhaust points of all emission units, leaks, or atypical monitoring parameters. By requiring daily observations, the NDEQ is confident that any malfunctions will be detected and corrected quickly. Both the surveys and any corrective actions must be documented. The source is subject to, and must comply with, applicable operational and monitoring requirements and limitations of 40 CFR 60, Subparts A and OOO.

- III.(A)(4) This condition identifies the applicable federal regulations that may apply to the material processing operations.

- III.(A)(5) This condition identifies reporting and recordkeeping requirements to ensure compliance with all of the applicable requirements of Condition III.(A).

**III.(B) Specific Conditions for Engines**

- III.(B)(1) This condition permits the source to construct engines and specifies the maximum total aggregate stationary engine capacity and permitted fuel types.

- III.(B)(2) This condition specifies that the emission point(s) may be subject to the requirements of Chapter 20, Section 004; NSPS Subpart IIII; and NESHAP Subpart ZZZZ. In accordance with Chapter 20, Section 008, the emission point(s) is not subject to the requirements of Chapter 20, Section 002, if a more stringent NSPS limitation applies to the emission point(s).

- III.(B)(3) This condition identifies the operational and monitoring requirements associated with the emission unit(s). An operational limitation on the combined annual operating hours of the engine(s) is required. The source is required to install a non-resettable hour meter to determine the number of hours each engine is used. The engine(s) is also required to comply with any operational and monitoring requirements of NSPS Subparts A and IIII, and NESHAP Subparts A and ZZZZ.

- III.(B)(4) This condition identifies the applicable federal standards that may apply to the engine(s).

- III.(B)(5) This condition identifies reporting and recordkeeping requirements to ensure compliance with all of the applicable requirements of Condition III.(B).



### **III.(C) Specific Conditions for Haul Roads**

This condition specifies the requirements for unpaved haul roads. The facility must use best management practices to prevent fugitive dust from escaping the property and comply with Chapter 32. If necessary, the facility must implement necessary corrective actions, which might include water application, gravel, speed limits, or road maintenance.

### **IV. Specific Conditions for Relocation**

This condition provides the source with the requirements associated with relocation of the aggregate processing plant operation. The source must notify the NDEQ each time the aggregate processing plant is relocated. The source is required to obtain the necessary permits and approvals from either Omaha Air Quality or Lincoln Lancaster Health Department prior to locating within Omaha city limits or Lancaster County, respectively. Relocation on Tribal Lands is outside the NDEQ's jurisdiction. The source must contact the US EPA Region VII office or the specific Tribe to determine permit requirements within Tribal jurisdictions. If the source relocates into Cass County, they will become subject to Title 129, Chapter 21, which imposes additional requirements.

### **STATUTORY OR REGULATORY PROVISIONS ON WHICH PERMIT REQUIREMENTS ARE BASED:**

Applicable regulations: Title 129 - Nebraska Air Quality Regulations as amended July 6, 2015.

### **PROCEDURES FOR FINAL DETERMINATION WITH RESPECT TO THE PROPOSED CONSTRUCTION PERMIT:**

The public notice, as required under Title 129 Chapter 14, shall be published on Wednesday, January 6, 2016 in the Omaha World Herald newspaper and at [deq.ne.gov](http://deq.ne.gov) under "Public Notices." Persons or groups shall have 30 days from that issuance of public notice (ending February 4, 2016) to provide the NDEQ with any written comments concerning the proposed permit action and/or to request a public hearing, in accordance with Title 129 Chapter 14. If a public hearing is granted by the Director, there will be a notice of that meeting published at least 30 days prior to the hearing.

During the 30-day public comment period, persons requiring further information about the proposed permit should contact:

Ana Williams  
Construction Permitting Unit  
NDEQ Air Quality Division  
(402) 471-2189

Prior to the end of the 30-day public comment period, persons wanting to submit written comments or a written request for a public hearing may contact the Air Quality Division at:

[ndeq.airquality@nebraska.gov](mailto:ndeq.airquality@nebraska.gov)

David Graiver, P.E.  
Construction Permitting Unit Supervisor  
NDEQ Air Quality Division  
P.O. Box 98922  
Lincoln, NE 68509-8922

If no public hearing is requested, the permit may be granted at the close of the 30-day comment period. If a public hearing is requested, the Director of the NDEQ may choose to extend the date on which the permit is to be granted until after that public hearing has been held.

### **Telephone inquiries may be made at:**

(402) 471-2186

**TDD users should call (800) 833-7352 and ask the relay operator to call the Department at (402) 471-2186.**

Attachments:

Fact Sheet Attachment

## **Fact Sheet Attachment**

### Potential Emissions Summary

#### *Permit-Limited Production and Capacities*

Aggregate Processing Plant Production Limit:	3,750,000	tons/year
Total Stationary Engine Capacity and Hours	825	hp
Usage Limited Under Permit Coverage:	3,000	hrs/year

#### *Summary of PTE (tons/year)*

Process Description	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>x</sub>	NO <sub>x</sub>	CO	VOC	HAPs
Materials Process	28.07	12.09	2.56	-	-	-	-	-
Storage Piles	1.20	0.60	0.18	-	-	-	-	-
Haul Roads	142.12	32.97	3.30	-	-	-	-	-
Stationary Engine	2.69	2.69	2.69	2.51	38.20	8.23	3.12	3.36E-02
Total PTE (Including Fugitive Emissions)	174.07	48.34	8.73	2.51	38.20	8.23	3.12	3.36E-02
Total Non-Fugitive PTE (Excludes Emissions from Storage Piles and Haul Roads)	30.75	14.77	5.25	2.51	38.20	8.23	3.12	3.36E-02

#### *Emission Unit Summary*

Process Description	Emission Point ID#	Required Control	Combustion Capacity	Fuel Type
Primary Crusher	EP-CRUSH1	Wet Suppression	-	-
Secondary Crusher	EP-CRUSH2	Wet Suppression	-	-
Tertiary Crusher	EP-CRUSH3	Wet Suppression	-	-
Primary Screen	EP-SCREEN1	Wet Suppression	-	-
Secondary Screen	EP-SCREEN2	Wet Suppression	-	-
Tertiary Screen	EP-SCREEN3	Wet Suppression	-	-
Crusher Recycle Transfer Points	EP-RECYCLE	Wet Suppression	-	-
Conveyor Transfer Points	EP-CONVEY	Wet Suppression	-	-
Truck Unloading	EP-UNLOAD	-	-	-
Product Loading	EP-LOAD	-	-	-
Diesel-Fired Engine(s)	EP-ENGINE	-	825 hp	Diesel
Stock Material Storage Pile	FS-1a	-	-	-
Produced Material Storage Pile	FS-1b	-	-	-
Haul Roads	FS-2	-	-	-

## Fact Sheet Attachment

Material Processing: EP-CRUSH1, EP-CRUSH2, EP-CRUSH3, EP-SCREEN1, EP-SCREEN2, EP-SCREEN3, EP-UNLOAD, EP-LOAD, EP-RECYCLE, EP-CONVEY

Controlled Material Processing Emission Factors chosen due to requirement of Wet Suppression Control

Max Material Throughput (tons/hr): 500

Max Material Throughput (tons/yr): 3,750,000

Operation	Material Throughput (tons/hour) <sup>[1]</sup>	Quantity of Operations	Material Throughput (tons/year) <sup>[1]</sup>	Emission Factors (lb/ton) <sup>[2]</sup>			Emission Rate (lbs/hour)			Emission Rate (tons/year)		
				PM	PM <sub>10</sub>	PM <sub>2.5</sub>	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	PM	PM <sub>10</sub>	PM <sub>2.5</sub>
Primary Crusher	500	1	3,750,000	0.0012	0.00054	0.00010	0.60	0.27	0.05	2.25	1.01	0.19
Secondary Crusher	500	1	3,750,000	0.0012	0.00054	0.00010	0.60	0.27	0.05	2.25	1.01	0.19
Tertiary Crusher	500	1	3,750,000	0.0012	0.00054	0.00010	0.60	0.27	0.05	2.25	1.01	0.19
Primary Screen	500	1	3,750,000	0.0022	0.00074	0.000050	1.10	0.37	0.03	4.13	1.39	0.09
Secondary Screen	500	1	3,750,000	0.0022	0.00074	0.000050	1.10	0.37	0.03	4.13	1.39	0.09
Tertiary Screen	500	1	3,750,000	0.0036	0.0022	0.0006	1.80	1.10	0.32	6.75	4.13	1.20
Truck Unloading	500	1	3,750,000	3.20E-05	1.60E-05	4.67E-06	1.60E-02	8.00E-03	2.34E-03	6.00E-02	3.00E-02	8.76E-03
Product Loading	500	1	3,750,000	0.00020	0.00010	0.00003	0.10	0.05	1.46E-02	0.38	0.19	5.48E-02
Crusher Recycle Transfer Points <sup>[3]</sup>	100	2	750,000	0.00014	4.60E-05	1.30E-05	2.80E-02	9.20E-03	2.60E-03	0.11	3.45E-02	9.75E-03
Conveyor Transfer Points <sup>[3]</sup>	500	22	3,750,000	0.00014	4.60E-05	1.30E-05	1.54	0.51	0.14	5.78	1.90	0.54
Total							7.48	3.22	0.68	28.07	12.09	2.56

<sup>[1]</sup>Material Throughput Rates are based on the production limitation in GCP-CRUSH-1. The source is not limited on a ton/hour basis, but on a ton/yr basis. Hourly emission rates included for the Chapter 20 calculations. It's assumed that 20% of the crushed material must be sent back to the crusher.

<sup>[2]</sup>Emission Factors are from AP-42 Section 11.19.2 Table 11.19.2-2 (8/2004) and PM, PM<sub>10</sub>, and PM<sub>2.5</sub> fractions are from "Final Methodology to Calculate PM2.5 and PM2.5 Significance Thresholds, Appendix A: Updated CEIDARS Table with PM2.5 Fractions" when AP-42 did not provide PM, PM<sub>10</sub>, and PM<sub>2.5</sub> emission factors.

<sup>[3]</sup>Each conveyor consists of two conveyor transfer points. GCP-CRUSH-1 limits the source to 11 process conveyors and 1 recycle stream conveyor. Each process conveyor may be a single run of multiple conveyors operating in parallel, provided they split the total throughput.

## Fact Sheet Attachment

Diesel-Fired Engine(s): EP-Engine

Total Engine Output (hp)<sup>[1]</sup> 825  
 Total Engine Heat Input (MMBtu/hr)<sup>[2]</sup> 5.775  
 Maximum Hours of Operation (hrs/yr)<sup>[1]</sup> 3,000

*Diesel Engines < 600 hp Emission Factors chosen to represent the worst-case operating scenario*

Pollutant	Emission Factor <sup>[3]</sup> (lb/MMBtu)	Emission Rate (lbs/hr)	Emission Rate (ton/year)
PM	0.31	1.79	2.69
PM <sub>10</sub>	0.31	1.79	2.69
PM <sub>2.5</sub>	0.31	1.79	2.69
SO <sub>x</sub>	0.29	1.67	2.51
NO <sub>x</sub>	4.41	25.47	38.20
CO	0.95	5.49	8.23
VOC	0.36	2.08	3.12
<b>Greenhouse Gases</b>			
CO <sub>2</sub> <sup>[4]</sup>	163.05	941.64	1,412
CH <sub>4</sub> <sup>[5]</sup>	6.61E-03	3.82E-02	5.73E-02
N <sub>2</sub> O <sup>[5]</sup>	1.32E-03	7.64E-03	1.15E-02
GHGs (mass basis)		941.68	1,413
CO <sub>2</sub> e basis <sup>[6]</sup>		944.81	1,417
<b>Hazardous Air Pollutants</b>			
Benzene	9.33E-04	5.39E-03	8.08E-03
Toluene	4.09E-04	2.36E-03	3.54E-03
Xylenes	2.85E-04	1.65E-03	2.47E-03
1,3-Butadiene	3.91E-05	2.26E-04	3.39E-04
Formaldehyde	1.18E-03	6.81E-03	1.02E-02
Acetaldehyde	7.67E-04	4.43E-03	6.64E-03
Acrolein	9.25E-05	5.34E-04	8.01E-04
Total PAH	1.68E-04	9.70E-04	1.46E-03
Total HAPs	3.87E-03	2.24E-02	3.36E-02

<sup>[1]</sup>Total Engine Output and Maximum Hours of Operation are based on the limitations in GCP-CRUSH-1. The source is allowed to have any combination of diesel engines but cannot exceed a total engine output of 825 hp.

<sup>[2]</sup> Calculated using an average brake-specific fuel consumption of 7,000 Btu/hp-hr taken from AP-42 Table 3.3-1 (10/1996).

<sup>[3]</sup> Emission factors from AP-42, Chapter 3.3 (10/1996), Tables 3.3-1 and 3.3-2.

<sup>[4]</sup> Emission factor from 40 CFR 98 Table C-1 (11/29/2013). Converted to lb/MMBtu.

<sup>[5]</sup> Emission factor from 40 CFR 98 Table C-2 (11/29/2013). Converted to lb/MMBtu.

<sup>[6]</sup> 40 CFR 98 Table A-1 as published October 30, 2009.

## Fact Sheet Attachment

Storage Piles: FS-1a and FS-1b

Equation (5) for Total Suspended Particulate from Wind Erosion of Active Storage Piles<sup>[1]</sup>

$$EF = 1.7 \times \left(\frac{s}{1.5}\right) \times \left(\frac{365-p}{235}\right) \times \left(\frac{f}{15}\right) \times \left(\frac{1}{24}\right)$$

EF: Total suspended particulate emission factor (lb/day/acre)

s: Silt Content Material (%)<sup>[2]</sup>

p: Number of days with greater than 0.01 in. of precipitation per year<sup>[3]</sup>

$$p = 90$$

f: % of time unobstructed wind speed exceeds 12 mph at mean pile height<sup>[4]</sup>

$$f = 31$$

As written, the equation calculates TSP. It is assumed that 50% of the TSP equals PM<sub>10</sub>, and 30% of PM<sub>10</sub> is PM<sub>2.5</sub>.<sup>[5]</sup>

EP ID	Description	Silt Content (%)	Exposed Surface Area (Acres)	PM Emission Factor (lb/hr-acre)	PM <sub>10</sub> Emission Factor (lb/hr-acre)	PM <sub>2.5</sub> Emission Factor (lb/hr-acre)	PM PTE (ton/yr)	PM <sub>10</sub> PTE (ton/yr)	PM <sub>2.5</sub> PTE (ton/yr)
FS-1a	Stock Pile	1.6	0.75	0.18	0.09	2.74E-02	0.60	0.30	0.09
FS-1b	Produced Pile	1.6	0.75	0.18	0.09	2.74E-02	0.60	0.30	0.09
<b>TOTAL:</b>							<b>1.20</b>	<b>0.60</b>	<b>0.18</b>

<sup>[1]</sup> From *Air Pollution Engineering Manual* (1992), Chapter 4: Fugitive Emissions

<sup>[2]</sup> AP-42 Table 13.2.4-1 (11/2006) for crushed limestone.

<sup>[3]</sup> From AP-42 Figure 13.2.1-2(1/2011). Based upon the majority of Nebraska having a mean number of 90 days.

<sup>[4]</sup> From AWDN Wind Summary Information for Nebraska. Based on an average taken from wind roses for Nebraska from 1996 to 2012 from the High Plains Regional Climate Center. The entire occurrence from 10-15 mph was included to be conservative.

<sup>[5]</sup> From AP-42 Appendix B.2 (9/1996) Table B.2.2 Category 3.

## Fact Sheet Attachment

Haul Roads: FS-2

**Paved roads** {AP-42 Chapter 13.2.1 (1/11)}

$$\text{Equation (2): } E = k \times (sL)^{0.91} \times (W)^{1.02} \times \left(1 - \frac{P}{4 \times 365}\right)$$

(modified)

	<i>k</i>
PM	0.011
PM <sub>10</sub>	0.0022
PM <sub>2.5</sub>	0.00054

**Unpaved roads** {AP-42 Chapter 13.2.2 (11/06)}

$$\text{Equation (1a): } E = k \times \left(\frac{sC}{12}\right)^a \times \left(\frac{W}{3}\right)^b \times \left(\frac{365-P}{365}\right) \times \left(\frac{S}{30}\right)^d \times (1-CE)$$

(modified)

	<i>k</i>	<i>a</i>	<i>b</i>	<i>d</i>
PM	4.9	0.7	0.45	0.3
PM <sub>10</sub>	1.5	0.9	0.45	0.5
PM <sub>2.5</sub>	0.15	0.9	0.45	0.5

### Haul Road / Traffic Parameters

Activity / Road Description	Road Type / Silt Value		Roundtrip Length (feet)		Truck Weight (tons)			Ave. Speed (mph)	Unrestricted Maximum Throughput (units/yr)	Ave. Truck Capacity (units/truck)		Annual VMT
			empty	full	empty	full	Ave.			25	ton	
Stock Material Receiving	u	6.00	500	500	15	40	27.5	15	3,750,000	25	ton	28,409
Produced Material Shipping	u	6.00	500	500	15	40	27.5	15	3,750,000	25	ton	28,409

### Emission Calculations

Activity / Road Description	Emission Factors (lb/VMT)			Potential Emissions (tons/yr)		
	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	PM	PM <sub>10</sub>	PM <sub>2.5</sub>
Stock Material Receiving	5.00	1.16	0.12	71.06	16.49	1.65
Produced Material Shipping	5.00	1.16	0.12	71.06	16.49	1.65
Total Annual Emissions:				142.12	32.97	3.30

### Description of Constants/Variables

*E*: haul road emissions (lb/VMT)

*k, d*: dimensionless constants from AP-42

Chapter 13.2.1 (1/11) (paved)

*k, a, b, c, d*: dimensionless constants from AP-42

Tables 13.2.1-1 (1/11) & 13.2.2-2 (11/06) (unpa

*sL*: silt loading (g/m<sup>2</sup>) of paved road surface

*sC*: silt content (%) of unpaved road surface

*W*: average vehicle weight (tons)

*P*: days/yr with at least 0.01" of precipitation

$$P = \boxed{90} \quad \text{default} = 90$$

*S*: mean vehicle speed on road (mph)

default = 30, minimum = 15

*CE*: unpaved road, dust control efficiency

$$CE = \boxed{0\%} \quad \text{default} = 0\%$$

VMT: vehicle miles traveled

## Fact Sheet Attachment

### Chapter 20 PM Emissions Limitations for Aggregate Processing Plants

Title 129, Chapter 20, Section 007, Table 20-2

For process weight rates up to 60,000 lbs/hr:

$$E = 4.10 p^{0.67}$$

For process weight rates in excess of 60,000 lbs/hr:

$$E = 55.0 p^{0.11-40}$$

where E = rate of emissions in lbs/hr PM and p = process weight rate in tons/hr.

Process	P		E		Maximum Unit PM emission rate	
	lbs/hr	tons/hr	lbs/hr	tons/hr	lbs/hr	tons/hr
Primary Crusher	1,000,000	lbs/hr	68.96	lbs/hr	0.60	lbs/hr
	500	tons/hr				
Secondary Crusher	1,000,000	lbs/hr	68.96	lbs/hr	0.60	lbs/hr
	500	tons/hr				
Tertiary Crusher	1,000,000	lbs/hr	68.96	lbs/hr	0.60	lbs/hr
	500	tons/hr				
Primary Screen	1,000,000	lbs/hr	68.96	lbs/hr	1.10	lbs/hr
	500	tons/hr				
Secondary Screen	1,000,000	lbs/hr	68.96	lbs/hr	1.10	lbs/hr
	500	tons/hr				
Tertiary Screen	1,000,000	lbs/hr	68.96	lbs/hr	1.80	lbs/hr
	500	tons/hr				
Truck Unloading	1,000,000	lbs/hr	68.96	lbs/hr	0.02	lbs/hr
	500	tons/hr				
Product Loading	1,000,000	lbs/hr	68.96	lbs/hr	0.10	lbs/hr
	500	tons/hr				
Crusher Recycle Transfer Point	200,000	lbs/hr	51.28	lbs/hr	0.01	lbs/hr
	100	tons/hr				
Conveyor Transfer Points	1,000,000	lbs/hr	68.96	lbs/hr	0.07	lbs/hr
	500	tons/hr				

Title 129, Chapter 20, Section 002, Table 20-1

Total Heat Input (MMBtu/hr)	Maximum Allowable Emissions of PM (lbs/MMBtu)
10 or less	0.6
Between 10 and 10,000	$1.026/I^{0.233}$
	Where I = total heat input in MMBtu/hr.
10,000 or more	0.12

Process equipment	Maximum MMBtu/hr	Allowable PM	Unit PM emission rate
		(lbs/MMBtu)	(lbs/MMBtu)
Diesel-Fired Engine(s)	5.78	0.60	0.31