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AIRGCPTMCBPS-1

STATE OF NEBRASKA

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AIR QUALITY GENERAL CONSTRUCTION PERMIT

PERMIT NUMBER: GCP-TMCBPL-1 Permit Name: Truck Mix Concrete Plant (Controlled Loadout)

Project Description: Truck mix concrete batch plant limited to producing a maximum of 900,000 cubic yards per year.

Typical Standard Industrial Classification (SIC) Code: 3273, Ready-Mixed Concrete Conc

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 Truck Mix Concrete 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.

12/1/15
Date

Shelley Schneider
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
bhp	Brake Horsepower
BM	Batch Mix
BMP	Best Management Practice
Btu	British Thermal Unit
CAA	Clean Air Act
CE	Control Equipment
cf	Cubic feet
CFR	Code of Federal Regulations
CO	Carbon Monoxide
CO_2	Carbon Dioxide
CO_2e	CO_2 equivalent
CP	Construction Permit
dscf	Dry Standard Cubic Feet
dscfm	Dry Standard Cubic Feet per Minute
EPA	Environmental Protection Agency
EQC	Environmental Quality Council
EP	Emission Point
EU	Emission Unit
FID	Facility Identification Number
FDCP	Fugitive Dust Control Plan
FIP	Federal Implementation Plan
FR	Federal Register
ft	Feet
GHGs	Greenhouse Gases
H_2S	Hydrogen Sulfide
HAP	Hazardous Air Pollutant
hp	Horsepower
hr	Hour
lb	Pound
LPG	Liquefied Petroleum Gas (Propane and/or Butane)
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
NDEQ	Nebraska Department of Environmental Quality
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_2	Nitrogen Dioxide
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standard
Pb	Lead (chemical abbreviation)
PbR	Permit-by-Rule
PM	Particulate Matter
PM_{10}	Particulate Matter with and aerodynamic diameter equal to or less than 10 microns
$PM_{2.5}$	Particulate Matter with and aerodynamic diameter equal to or less than 2.5 microns
ppb	Parts per Billion
ppm	Parts per Million
ppmv	Parts per Million by volume
ppmvd	Parts per Million by volume, dry basis
PSD	Prevention of Significant Deterioration
PTE	Potential to Emit
scf	Standard Cubic Feet
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
SO_x	Sulfur Oxides
tpy	Tons per year
TRS	Total Reduced Sulfur
TSP	Total Suspended Particulate Matter
UTM	Universal Transverse Mercator
VHAP	Volatile Hazardous Air Pollutant
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compound

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: {Title 129, 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 all equipment associated with the facility and the corresponding maximum capacities. {Title 129, Chapter 17, Sections 006, 007, and 008}

(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 (15th) 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.

(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 Concrete Production

(1) Permitted Emission Points: The source is permitted to construct the emission units identified in the following table at the capacity and using only the fuel types listed. Emission units shall be controlled by the required control equipment as indicated:

Emission Unit ID# and Description	Required Control Equipment	Combustion Capacity	Fuel Type
EU-1: Truck Dump onto Aggregate Storage Pile	-	-	-
EU-2: Truck Dump onto Sand Storage Pile	-	-	-
EU-3: Aggregate Transfer to Plant	-	-	-
EU-4: Sand Transfer to Plant	-	-	-
EU-5: Aggregate Transfer Conveyor(s)	-	-	-
EU-6: Sand Transfer Conveyor(s)	-	-	-
EU-7: Cement Storage Silo Loading	Dust Collection System	-	-
EU-8: Cement Supplement Storage Silo Loading	Dust Collection System	-	-
EU-9: Weigh Hopper Loading	-	-	-
EU-10: Concrete Truck Loading	Dust Collection System	-	-
EU-11: External Combustion Sources (Boiler[s],Water Heater[s], Heater[s], etc.)	-	$\leq$ 10 MMBtu/hr Combined	Natural Gas, LPG, and/or Diesel
FS-1a: Aggregate Storage Pile(s)	-	-	-
FS-1b Sand Storage Pile(s)	-	-	-

(2) Emission Limitations and Testing Requirements:

(a) The emissions limitations of Chapter 20, Sections 001 and 004 apply to the emission points associated with EU-1 through EU-10

(b) The emissions limitations of Chapter 20, Sections 002 and 004 apply to the emission points associated with EU-11.

(c) The emissions limitations of Chapter 32, Section 001 apply to the emission points associated with FS-1a and FS-1b.

(3) Operational and Monitoring Requirements and Limitations

(a) Cement and cement supplement used for concrete production may not exceed 360,000 tons per any period of twelve (12) consecutive calendar months. At no time during the first eleven (11) months following coverage by this permit shall cement and cement supplement used for concrete production exceed 360,000 tons . {Chapters 17 and 20}

(b) Concrete production capacity shall not exceed 2,500 cubic yards per hour, based upon nameplate or design values. {Chapter 20}

(c) Concrete production shall not exceed 900,000 cubic yards of concrete per any period of twelve (12) consecutive calendar months. At no time during the first eleven (11) months following coverage by this permit shall concrete production exceed 900,000 cubic yards. {Chapter 17}

(d) Cement and cement supplements shall be stored in enclosed silos which are only loaded using pneumatic transport. {Chapter 17}

(e) Pneumatic loading of cement and cement supplement storage silos must be controlled by a dust collection system, such as a baghouse or fabric filter, which is appropriate for the specific plant design. {Chapter 17}

(f) External combustion equipment shall be limited to: {Chapter 17}

(i) Combusting only natural gas, LPG, or diesel.

(ii) Having a maximum combined heat input capacity of 10 MMBtu/hr.

(g) Loading of dry materials into concrete trucks must be controlled by a dust collection system, such as a baghouse or fabric filter, which is appropriate for the specific plant design. {Chapters 17 and 20}

(h) Operation and maintenance of dust collection systems associated with pneumatic transport and concrete truck loading shall be in accordance with the following requirements: {Chapter 17}

(i) The dust collection system shall be operated and be controlling emissions at all times when the associated emission units are in operation.

(ii) The dust collection system(s) shall be equipped with an operational pressure differential indicator readings shall be recorded at least once each day that the associated dust control system is operating.

(iii) Filters, filter bags, or cartridge filters are to be inspected and/or replaced as often as necessary to ensure proper operation or more frequently as indicated by pressure differential indicator readings or other indication of failure.

(iv) The owner or operator shall maintain an on-site inventory of spare bags of each type used to ensure rapid replacement in the event of bag failure

(i) Observations of the emission units identified in Condition III.(A)(1) shall be conducted at least once each day during operation 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 observations and any corrective actions shall be recorded in a log.

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

The NDEQ has not identified any NSPS, NESHAP, or MACT requirements that will always apply to the emission units listed in Condition III.(A)(1) or any associated emission points. There may be applicable requirements based upon specific facilities or design of emission units.

(5) Reporting and Recordkeeping Requirements:

(a) Records documenting total cement and cement supplement used for each calendar month and each period of twelve (12) consecutive calendar months.

(b) Records documenting the maximum concrete production capacity of the plant.

(c) Records documenting total concrete produced for each calendar month and each period of twelve (12) consecutive calendar months.

(d) Records documenting the types of fuel combusted in the external combustion sources (EU-11).

(e) Records documenting the maximum combustion capacity of the external combustion sources (EU-11).

(f) Records documenting the date, time, and pressure differential reading for each day a dust collection system associated with pneumatic loading of silos is in operation.

(g) Records of filter, filter bag, or filter cartridge replacement including the date the replacement occurred and the type of filter, filter bag, or filter cartridge installed for all dust collection systems associated with pneumatic loading of cement and cement supplement silos.

(h) Records documenting the date, time, observations, and corrective actions taken for each day the plant is in operation.

III.(B) Specific Conditions for Haul Roads

(1) Permitted Emission Points:

All haul roads shall comply with the following conditions. {Chapter 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 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 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 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}