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DEPT. OF WATER, ENERGY, AND ENVIRONMENT

Jim Pillen, Governor

AIR QUALITY GENERAL CONSTRUCTION PERMIT

PERMIT NUMBER: GCP-SRFCOAT-2 **Permit Name: Surface Coating**

Project Description: Surface coating, welding, and abrasive blasting operations

Typical Standard Industrial Classification (SIC) Code: Various

Pursuant to Chapter 10 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 Surface Coating Operations. 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 September 28, 2022.

November 4, 2025

Date

Reuel S. Anderson, Administrator
Permitting & Engineering 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
BACT	Best Available Control Technology
bhp	Brake Horsepower
BMP	Best Management Practice
Btu	British Thermal Unit
bu	Bushel
CAA	Clean Air Act
CE	Control Equipment
CEM	Continuous Emissions Monitor
CEMS	Continuous Emissions Monitoring System
cf	Cubic feet
CFR	Code of Federal Regulations
CO	Carbon Monoxide
CO_2	Carbon Dioxide
CO_2e	CO_2 equivalent
CP	Construction Permit
DGS	Distiller's Grains with Solubles
DDGS	Dry Distillers Grains with Solubles
dscf	Dry Standard Cubic Feet
dscfm	Dry Standard Cubic Feet per Minute
EMIS	Emergency Management Information System
EPA	Environmental Protection Agency
EQC	Environmental Quality Council
EP	Emission Point
ESP	Electrostatic Precipitator
EU	Emission Unit
FID	Facility Identification Number
FDCP	Fugitive Dust Control Plan
FGR	Flue Gas Recirculation
FIP	Federal Implementation Plan
FR	Federal Register
ft	Feet
FTIR	Fourier Transform Infrared
GHGs	Greenhouse Gases
H_2S	Hydrogen Sulfide
HAP	Hazardous Air Pollutant
hp	Horsepower
hr	Hour
lb	Pound
LDAR	Leak Detection and Repair
LNB	Low-NO_x Burner
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
NDWEE	Nebraska Department of Water, Energy, and Environment
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_2	Nitrogen Dioxide
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standard
NSR	New Source Review
PAL	Plant-wide Applicability Limit
Pb	Lead (chemical abbreviation)
PbR	Permit-by-Rule
PEMS	Parametric Emissions Monitoring System
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
RVP	Reid Vapor Pressure
RATA	Relative Accuracy Test Audit
RMP	Risk Management Plan
RTO	Regenerative Thermal Oxidizer
scf	Standard Cubic Feet
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
SO_x	Sulfur Oxides
TDS	Total Dissolved Solids
TO	Thermal Oxidizer
TO/HRSG	Thermal Oxidizer with Heat Recovery Steam Generator
tpy	Tons per year
TRS	Total Reduced Sulfur
TSP	Total Suspended Particulate Matter
ULNB	Ultra Low-NO_x Burner
UST	Underground Storage Tank
UTM	Universal Transverse Mercator
VHAP	Volatile Hazardous Air Pollutant
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compound
WDGS	Wet Distiller's Grains with Solubles

I. STANDARD CONDITIONS

The following Standard Conditions apply to this permit unless otherwise provided for in the Specific Conditions of this permit.

(A) Regulatory authority:

(1) Title 40 Protection of Environment, Code of Federal Regulations that apply to the source including those not currently delegated to Nebraska or not yet included in Title 129; and

(2) Title 129 as approved by EPA under 40 CFR Part 52, Subpart CC or 40 CFR Part 70, Appendix A as of the date of issuance of this permit (federally enforceable requirements); and Title 129 as amended September 28, 2022 (state only enforceable requirements).

(B) The source shall allow the NDWEE, USEPA or an authorized representative, upon presentation of credentials (Neb. Rev. Statute §81-1504; Title 129, Chapter 6, Section 003.11) to:

(1) Enter upon the source's premises during reasonable hours where a source subject to this permit is located, emissions-related activity is conducted, or where records must be kept under the conditions of this permit, for the purpose of ensuring compliance with this permit or applicable requirements;

(2) Have access to and copy, during reasonable hours, any records that must be kept under the conditions of this permit, for the purpose of ensuring compliance with this permit or applicable requirements;

(3) Inspect during reasonable hours any facilities, pollution control equipment, including monitoring and air pollution control equipment, practices, or operations regulated or required under this permit, for the purpose of ensuring compliance with this permit or applicable requirements;

(4) Sample or monitor, during reasonable hours, substances or parameters for the purpose of ensuring compliance with the permit or applicable requirements.

(C) All requested permit amendments and revisions must adhere to the requirements of Title 129, Chapter 9.

(D) The following methods may be used to determine compliance with the terms and conditions in this permit (Title 129, Chapter 15, Section 005.08):

(1) Any compliance test method specified in the State Implementation Plan;

(2) Any test or monitoring method approved for the source in a permit issued pursuant to Title 129, Chapters 3, 4, or 13, Section 004;

(3) Any test or monitoring method provided for in Title 129; or

(4) Any other test, monitoring, or information-gathering method that produces information comparable to that produced by any method described in Condition I.(D)(1) through (3).

(E) Application for review of plans or advice furnished by the Director will not relieve the source of legal compliance with any provision of these regulations, or prevent the Director from enforcing or implementing any provision of these regulations (Title 129, Chapter 1, Section 001.06).

(F) If and when the Director declares an air pollution episode as defined in Title 129, Chapter 2, Section 006.01, the source shall immediately take all required actions listed in Title 129, Appendix II, Paragraph 1.1, 1.2, and 1.3, respectively, until the Director declares the air pollution episode terminated (Title 129, Chapter 2, Section 006.03).

(G) Recordkeeping: To ensure compliance with this permit, records shall be maintained as outlined below. Records include: electronic and/or paper copies of all application materials, notifications, reports, test protocols, test results, and plans; and, electronic and/or original paper copies of all required monitoring results, measurements, inspections, and observations (Title 129, Chapter 15, Section 005.06; Neb. Rev. Stat. §81-1504):

(1) All records required by this permit shall be kept for a minimum of five (5) years and shall be clear and readily accessible to NDWEE representatives during an inspection, unless otherwise specified in this permit.

(2) Monthly calculations and records required throughout this permit shall be compiled no later than the fifteenth (15^{th}) day of each calendar month and shall include all records and calculations generated through the previous calendar month, unless otherwise specified in this permit.

(3) The source shall keep the following records for each malfunction, start-up and shutdown where emissions were, or may have been, in excess of an emission limitation or standard (Title 129, Chapter 11, Sections 002 and 005; Chapter 15, Sections 006.02, 006.04 and 006.05):

(a) The identity of the equipment.

(b) Reason for, or cause of, the malfunction, shutdown, or start-up.

(c) Duration of period of excess emissions.

(d) Date and time of the malfunction, shutdown, or start-up.

(e) Physical and chemical composition of pollutants whose emissions are affected by the action.

(f) Methods, operating data, and/or calculations used to determine these emissions.

(g) Quantification of emissions in the units of the applicable emission control regulation.

(h) All measures utilized to minimize the extent and duration of excess emissions during the malfunction, shutdown, and start-up.

(4) The source shall keep records of maintenance performed on components of permitted emission units that would affect or potentially affect the emission rate of that unit and on control and monitoring equipment associated with the permitted emission unit (Title 129, Chapter 15, Sections 005.06, 006.06B, and 006.06E).

(5) All records of opacity readings, instrument readings, visual equipment inspections, log book/sheet entries, and any other record of equipment performance shall identify the individual who entered the record, except for continuously generated electronic records.

(6) 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

(H) All permitted emission units, associated emissions conveyances, required control equipment, and required monitoring equipment shall be properly installed, operated, and maintained (Title 129, Chapter 6, Sections 003.01 and 003.13; Chapter 15, Section 005.06; Neb. Rev. Stat. §81-1504 and §81-1506).

(1) All emissions from emission units using required controls shall be captured and routed through associated emission conveyances to the required control equipment, except for uncaptured emissions described in the permit application and any additional information submitted prior to permit issuance.

(2) All equipment must be maintained to minimize the amount of uncontrolled pollutants that are-released to the atmosphere. Proper equipment maintenance activities may include repair or replacement, and include, but are not limited to activities in response to the following:

(a) cracks, holes or gaps,

(b) broken, cracked, or otherwise damaged seals or gaskets, and

(c) broken, missing or open hatches, access covers, caps, or other closure devices.

(I) When the source makes physical or operational changes to an emissions unit or associated control equipment that may cause an increase in emissions that makes the original testing not representative of current operating conditions or emissions, the source shall submit a notification of the change. Such notification shall be received by NDWEE within fifteen (15) days after such change. The NDWEE may require performance testing based on review of the specific changes identified in the notification and the resulting potential impact on emissions from the unit(s) and/or performance of the control equipment (Title 129, Chapter 15, Section 005.01).

(1) This notification requirement applies to emissions units and/or control equipment that meet the following requirements, except as provided in Condition I.(I)(5):

(a) Emissions from the emissions unit and/or control equipment is subject to an emissions limit;

(b) A valid performance test has been conducted for the pollutant to which the emissions limit applies;

(c) Changes that may cause emissions to increase or invalidate prior testing include, but are not limited to, increasing the capacity of an emissions unit, changing the operational parameters of any control equipment outside of the range allowed for under this permit that makes the control equipment less efficient, changing the type of scrubber packing, or increasing the inlet pollutant loading of any control equipment.

(2) For emission units that have had a performance test conducted after January 1, 2012, the source shall make a one-time notification to the NDWEE within fifteen (15) days of when there is a 10% increase in daily production/throughput rate, over the tested rate recorded during the most recent valid performance test unless otherwise specified in this permit. If there are subsequent 10% increases over the rate most recently notified to the NDWEE, the source shall make a one-time notification to the NDWEE of each such subsequent increase. This will not apply to emissions that already have emission rates that are normalized to production and/or throughput rates.

(3) The notification shall include the date of the changes, a description of the changes made, and an evaluation of the expected impact on emissions from the emissions units and/or control equipment.

(4) The following definitions apply for purposes of Condition I.(I)(2) above:

(a) "rate" shall mean the production or throughput of an emissions unit in the same units of production or throughput as the "tested rate" as defined below; and,

(b) "tested rate" shall mean the production or throughput rate of an emissions unit as recorded in the most recent valid performance test and reported to the NDWEE in the source's written copy of the test results, or test report, documenting the maximum capacity of the unit(s). The tested rate shall be extrapolated to daily. Examples include, but are not limited to, tons per hour to tons per day or gallons per hour to gallons per day.

(5) The above notification requirements do not apply when compliance with the emission limitation is demonstrated through the use of a CEMS, PEMS or COMS.

(J) No person shall cause or allow emissions, from any source, 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 operated and maintained pursuant to 40 CFR Part 60 Appendix B except as provided for in Chapter 15, Sections 001.05 or 001.06 (Title 129, Chapter 15, Section 001.04).

(K) Open fires are prohibited except as allowed by Title 129, Chapter 15, Section 002.

(L) Particulate Matter – General Requirements (Title 129, Chapter 15, Section 003):

(1) The source 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 source 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.

(M) Testing:

(1) Performance testing if required by this permit or required by the NDWEE shall be completed as follows:

(a) The source shall provide the NDWEE a written notice at least thirty (30) days prior to testing to afford the NDWEE an opportunity to have an observer present. The NDWEE 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 (Title 129, Chapter 15, Section 005.03).

(b) The notification required by Condition I.(M)(1)(a) shall include the following (Title 129, Chapter 15, Section 005.03):

(i) Facility Name, Address and FID number.

(ii) Company Name, Address and Contact Person's name.

(iii) Test schedule including date and estimated start time of testing.

(iv) List all applicable regulatory requirements that testing is being conducted for (permit condition, MACT, NSPS, etc.).

(v) Types of pollutants to be sampled including applicable emission limits and demonstration requirements.

(vi) Test methods and documentation of any proposed variations from the specified procedures and reason for variance.

(c) Testing shall be conducted according to the methodologies found in Title 129, Chapter 15, Section 005.02, or other NDWEE approved methodologies (Title 129, Chapter 15, Section 005.02).

(d) Performance tests shall be performed under those representative (normal) conditions that: represent the range of combined process and control measure conditions under which the facility expects to operate (regardless of the frequency of the conditions); and are likely to most challenge the emissions control measures of the facility with regard to meeting the applicable emission standards, but without creating an unsafe condition. (Title 129, Chapter 15, Section 005).

(e) Performance tests shall be conducted for a minimum of three (3) one-hour runs unless another run-time is specified by the applicable Subpart or as deemed appropriate by the NDWEE.

(f) The source shall monitor and record the operating parameters for process and control equipment during the performance testing required in the permit.

(g) A certified written copy of the test results, signed by the person conducting the test, shall be provided to the NDWEE within sixty (60) days of completion of the test, unless a different time period is specified in the underlying requirements of an applicable federal rule, and will, at a minimum, contain the following items (Title 129, Chapter 15, Section 005.02G):

(i) A description of:

1. The operating parameters for the emissions unit during testing. Examples include, but are not limited to, production rates, process throughputs, firing rates of combustion equipment, or fuel usage; and,

2. The operating parameters for the control equipment during testing. Examples include, but are not limited to, baghouse fan speeds, scrubber liquid flow rates, or pressure drop across the control device.

(ii) Copies of all data sheets from the test run(s).

(iii) A description and explanation of any erroneous data or unusual circumstance(s) and the cause for such situation.

(iv) A final conclusion section describing the outcome of the testing.

II. GENERAL CONSTRUCTION PERMIT CONDITIONS

The following General Conditions apply to this permit unless otherwise provided for in the Specific Conditions of this permit.

(A) The source shall provide the following notifications to the NDWEE:

(1) The date construction, reconstruction, or modification commenced as defined in Chapter 1. Notification shall be received by NDWEE no later than thirty (30) days after such date and include a summary description of the event associated with the commencement of construction. The source may use either of the following to determine that construction commenced (Title 129, Chapter 3, Section 003.02):

(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 the agreement or contract cannot be cancelled or modified without substantial loss to the source.

(2) Notification of the date on which the source or modification first becomes operational, shall be received by the NDWEE within fifteen (15) days after such date (Title 129, Chapter 6, Section 002.01A).

(3) 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 NDWEE in accordance with Title 129, Chapter 15, Section 006.05.

(B) Approval to construct, reconstruct, and/or modify the source will become invalid if a continuous program of construction is not commenced within 18 months after the date of issuance of the construction permit except upon a showing by the source that the complexity of the construction, reconstruction and/or modification requires additional time, or if construction, reconstruction or modification is discontinued for a period of 18 months or more, or if construction, reconstruction and/or modification is not completed within a reasonable period of time (Title 129, Chapter 3, Section 003.02).

(C) This permit is not transferable to another location, unless otherwise specified in this permit (Title 129, Chapter 3).

(D) Holding of this permit does not relieve 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 (Title 129, Chapter 3, Section 001).

(E) Any source who failed to submit any relevant facts or who submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information. If the permittee wishes to make changes at the source that will result in change(s) to values, specifications, and/or locations of emission points that were indicated in the permit application (or other supplemental information provided by the permittee and reviewed by the NDWEE in issuance of this permit), the source must notify the NDWEE before the change(s) can be made. In addition, the source must notify the NDWEE if any modification which may result in an adverse change to the air quality impacts predicted by atmospheric dispersion modeling (such

as changes in stack parameters or increases in emission rates, potential emissions, or actual emissions). The permittee shall provide all necessary information to verify that there are no substantive changes affecting the basis upon which this permit was issued. Information may include, but not be limited to, additional engineering, modeling, and ambient air quality studies (Title 129, Chapter 3, Sections 002.02B, 002.03B, and 002.03C).

(F) When requested by the NDWEE, the permittee shall submit completed emission inventory forms for the preceding year to the NDWEE by March 31 of each year (Title 129, Chapter 11).

(G) If required, performance tests shall be conducted in accordance with Standard Condition I.(M) 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 NDWEE (Title 129, Chapter 15, Section 005.07).

(H) If applicable, the following conditions apply to the verification of NAAQS modeling analysis (Title 129, Chapter 2):

(1) The stack dimensions of the emission points identified in the air dispersion modeling analysis shall be constructed such that the reliability of the air dispersion modeling analysis associated with the permit application is maintained. A site survey or similar documentation containing the as-built stack dimensions, shall be maintained on-site and kept for the life of the source. If the as-built stack dimensions do not meet the criteria used in air dispersion modeling analysis, the permittee shall notify the NDWEE prior to start-up of any emission unit associated with a stack not meeting the above criteria and, if requested by NDWEE, submit a revised air dispersion modeling analysis to NDWEE to ensure that the source will not interfere with the attainment or maintenance of the ambient air quality standards in Title 129 Chapter 2.

(2) The source shall sufficiently restrict public access to the source at the ambient air boundary relied upon in the air dispersion modeling analysis for the NAAQS compliance demonstration. A site survey, or similar documentation containing the locations of the boundary vertices, shall be maintained on-site and kept for the life of the source. If the boundary dimensions do not comply with the boundary information in the air dispersion model (plus or minus 25 meters), the permittee shall notify the NDWEE prior to start-up of any emission unit and, if requested, submit a revised air dispersion modeling analysis to the NDWEE to ensure that the source will not interfere with the attainment or maintenance of the ambient air quality standards in Title 129 Chapter 2.

III.(A) Specific Conditions for Surface Coating Operations

(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	Process Capacity
EU-1: Paint Booth(s)	CE-1: Paint Booth Filter	-	-	-
EU-2: Welding	-	-	-	-
EU-3a: Wood Sawing	-	-	-	-
EU-3b: Metal Sawing	-	-	-	-
EU-4: Powder Coating Booth(s)	CE-2: Powder Coating Filter	-	-	6,750 ton/yr (combined)
EU-5: External Combustion Source(s)	-	≤ 10 MMBtu/hr (combined)	Natural Gas, LPG, Diesel Fuel	-
EU-6: Abrasive Blasting Booth(s)	CE-3: Abrasive Blasting Filter; Confined Abrasive Blasting Enclosure	-	-	438 ton/yr (combined)

(2) Emission Limitations and Testing Requirements:

(a) The emissions limitations of Chapter 15, Sections 001.01 and 001.04 apply to the emission points associated with EU-1 through EU-4, and EU-6.

(b) The emissions limitations of Chapter 15, Sections 001.02 and 001.04 apply to the emission points associated with EU-5.

(c) Combined pollutant emission rates from the emission points associated with the emission units identified in the table below shall not exceed the permitted limits:

Emission Unit ID#	Pollutant	Permitted Limit/Averaging Period	Basis for Permit Limit	Testing Required? (Yes/No)
EU-1	VOC	49.5 tons total per any period of twelve (12) consecutive calendar months	Chapter 3	No
EU-1 & EU-2	Any Individual HAP	2.35 tons total per any period of twelve (12) consecutive calendar months	Chapter 3	No
	Combined HAP	9.80 tons total per any period of twelve (12) consecutive calendar months	Chapter 3	No

(3) Operational and Monitoring Requirements and Limitations:

(a) Emissions from the emission units identified in Condition III.(A)(1) shall be controlled by pollution control equipment as follows: All emission points associated with EU-1 shall be controlled by an individual paint booth filter (CE-1), all emission points associated with EU-4 shall be controlled by an individual powder coating filter (CE-2), and all emission points associated with EU-6 shall be controlled by an abrasive blasting filter (CE-3). (Chapters 3 and 15)

(b) All paint spraying, powder coat spraying, and abrasive blasting operations shall be located within complete four-sided enclosures with a complete roof. (Chapters 3 and 15)

(c) Operation and maintenance of the particulate filters, CE-1, CE-2, and CE-3 shall be in accordance with the following requirements: (Chapter 3)

(i) The particulate filter(s) shall be operating and controlling emissions at all times when the associated emission units are in operation.

(ii) The particulate filter(s) shall be equipped with an operational pressure differential indicator. Pressure differential indicator readings shall be recorded at least once each day the associated filter is operating.

(iii) Particulate 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 filter failure.

(iv) Observations, at least once each day during daylight hours of particulate filter operation, shall be conducted to determine whether there are visible emissions from the stack, leaks, noise, or other indications that corrective action is needed. If corrective action is required, it shall occur immediately.

(v) The owner or operator shall maintain an on-site inventory of spare filters of each type used to ensure rapid replacement in the event of filter failure.

(d) VOC emitted from the emission points associated with EU-1 shall be calculated each calendar month using the following equations: (Chapter 3)

$$E_{VOC} = \sum_{j=1}^{n} v_j c_j$$

where: E_{VOC} = Total emissions (pounds/month) of VOC from "*n*" products used at the facility each calendar month;

n = Total number of VOC-containing products used at the facility each calendar month;

v_j = Volume (gallons) or weight (pounds) of each VOC-containing product, "*j*," used at the facility each calendar month; and

c_j = Concentration (pounds of VOC per gallon of product) or weight fraction (pounds of VOC per pound of product) of VOC in product "*j*" used at the facility each calendar month.

(e) Individual HAP emitted from the emission points associated with EU-1 and EU-2 shall be calculated each calendar month using the following equations: (Chapter 3)

$$E_i = \sum_{j=1}^{n} v_j c_{ji}$$

where: E_i = Total emissions (pounds/month) of an individual HAP, "*i*," from "*n*" products used at the facility each calendar month;

n = Total number of HAP-containing products used at the facility each calendar month;

v_j = Volume (gallons) or weight (pounds) of each HAP-containing product, "*j*," used at the facility each calendar month; and

c_{ji} = Concentration (pounds of HAP per gallon of product) or weight fraction (pounds of HAP per pound of product) of HAP "*i*" in product

"*j*" used at the facility each calendar month.

(f) Combined HAPs emitted the emission points associated with EU-1 and EU-2 shall be calculated each calendar month using the following equation: (Chapter 3)

$$E_T = \sum_{i=1}^{m} E_i$$

where: E_T = Total emissions (pounds/month) of all HAPs combined used at the facility each calendar month

m = Total number of individual HAPs contained in the products used at the facility each calendar month; and

E_i = Total emissions (pounds/month) of an individual HAP, "*i,*" from all products used at the facility each month.

(g) Twelve (12) consecutive month sums of individual HAP, combined HAP, and VOC emissions from the emission points associated with EU-1 and EU-2 shall be calculated each calendar month and shall include the most recent twelve (12) consecutive calendar months. (Chapter 3)

(h) The HAP and VOC content and the density or specific gravity of the products shall be obtained from the manufacturer and/or suppliers included Material Safety Data Sheets (MSDS). If the data obtained gives a range for HAP or VOC content, the maximum value from the range shall be used when determining emissions. If it is necessary to convert volume to weight, multiply the volume (gallons) of the product used by the density (pounds/gallon) of the product. If the specific gravity is given, multiply the specific gravity by 8.34 lbs/gallon (the density of water) to obtain the density of the product. (Chapter 3)

(i) The source shall not use more than 3,942 tons of powder coating in association with EU-4 per any period of twelve (12) consecutive calendar months. At no time during the first eleven (11) months after a source obtains coverage under this general construction permit shall that source exceed 3,942 tons of powder coating usage. (Chapter 3)

(i) If the equipment associated with powder coating is rated to be (in aggregate) less than 900 pounds per hour, as demonstrated by manufacturer documentation, the above condition is not required.

(ii) The source shall not use more than 438 tons of abrasive blasting material in association with EU-6 per any period of twelve (12) consecutive calendar months. At no time during the first eleven (11) months after a source obtains coverage under this general construction permit shall that source exceed 438 tons of abrasive blasting material usage. (Chapter 3)If the equipment associated with abrasive blasting is rated to be (in aggregate) less than 100 pounds per hour, as demonstrated by manufacturer documentation, the above condition is not required.

(j) The maximum combustion capacity of the emission units associated with EU-5 shall not exceed 10 MMBtu/hr, as stated in Condition III.(A)(1). (Chapter 3)

(k) The emission units associated with EU-5 shall be limited to combusting natural gas, LPG, and/or diesel fuel. (Chapter 3)

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

The NDWEE 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) The source shall record and maintain records documenting the VOC, individual HAP, and total HAPs emitted through the emission points associated with EU-1 and EU-2 for each month and for each period of twelve (12) consecutive calendar months.

(b) Records documenting the date, time, and pressure differential reading(s) for each day the associated filter(s) is/are in operation.

(c) Filter replacement records including the date the filter replacement occurred and the type of filter installed.

(d) Records documenting the date, time, observations, and corrective actions taken for each day the associated filter(s) is/are in operation.

(e) Material Safety Data Sheets (MSDS) or equivalent, for each coating applied.

(f) The source shall record and maintain records documenting the amount (in pounds or tons) of powder coating used in association with EU-4 for each month and for each period of twelve (12) consecutive calendar months. If the source is exempt from the throughput limitation of Condition III.(A)(3)(i), manufacturer's certification of potential throughput capability shall be kept for the life of the equipment.

(g) The source shall record and maintain records documenting the amount (in pounds or tons) of abrasive blasting material used in association with EU-6 for each month and for each period of twelve (12) consecutive calendar months. If the source is exempt from the throughput limitation of Condition III.(A)(3)(j), manufacturer's certification of potential throughput capability shall be kept for the life of the equipment.

(h) Records documenting the maximum combustion capacity of the external combustion sources (EU-5).

III.(B) Specific Conditions for Haul Roads

(1) Permitted Emission Points:

All haul roads shall comply with the following conditions. (Chapter 15)

(2) Emission Limitations and Testing Requirements:

Haul roads are subject to the requirements of Title 129, Chapter 15, Section 003.02.

(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 3 and 15)

(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 15)

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

The NDWEE 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

Fact Sheet for General Permit Number: GCP-SRFCOAT-2
Date: November 4, 2025

Typical Standard Industrial Classification Code: Various

Typical North American Industry Classification Code: Various

DESCRIPTION OF GENERAL CONSTRUCTION PERMIT:

The Nebraska Department of Water, Energy, and Environment (NDWEE) has determined there are numerous similar sources in Nebraska that are subject to the same Federal and State regulatory requirements. Chapter 7 of Nebraska Administrative Code Title 129 - Air Quality Regulations allows the NDWEE to issue a general construction permit (GCP) for these sources. This GCP follows the applicable procedures of Chapters 3, 7, and 10 of Nebraska Administrative Code Title 129 - Air Quality Regulations. The owner of a source that qualifies for this GCP must apply to the NDWEE 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 NDWEE will notify the applicant of the determination of coverage under this GCP for the source identified in the application. If the Director of the NDWEE 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 NDWEE may issue coverage under a GCP to an individual source without repeating the notice and comment procedures required in Chapter 10 of Title 129. The NDWEE shall maintain a list of all sources covered by GCPs, which shall be available for public review.

DESCRIPTION OF THE SOURCE GROUP:

The plants covered under this GCP engage in various activities limited to paint spray coating, welding, metal and wood sawing, powder coating, and abrasive blasting. This GCP places various limitations on facilities that are granted coverage under it, including requiring the usage of filters on painting booths and sand blasting operations, requiring operation in four-sided enclosures, volatile organic compound (VOC) and hazardous air pollutant (HAP) limitations and powder coating and abrasive blasting throughput limitations. In addition to the aforementioned equipment, each plant may have up to 10 million British thermal units per hour (MMBtu/hr) of external combustion firing natural gas, liquefied petroleum gas (LPG), and/or diesel fuel. Under this GCP, each plant is limited to emitting less than 50 tons per year (tpy) of VOC, and 2.5 tpy and 10 tpy of individual and aggregate HAPs, respectively.

This GCP does not permit the installation of a stationary engine. However, any engine which is portable and will not remain at the same location for more than 12 consecutive months is considered a nonroad engine and therefore is not subject to stationary source permitting.

TYPE AND QUANTITY OF AIR CONTAMINANT EMISSIONS ANTICIPATED:

Surface coating operations covered by this GCP have the potential to emit (PTE) particulate matter (PM), PM with an aerodynamic diameter of less than or equal to 10 microns (PM_{10}), PM with an aerodynamic diameter of less than or equal to 2.5 microns ($PM_{2.5}$), sulfur dioxide (SO_2), nitrogen oxides (NO_x,), carbon monoxide (CO), VOCs, and HAPs.

The primary emissions from these facilities will be generated by the spray application of paint.

Surface Coating:

Facilities covered under this GCP are permitted to construct surface coating booths. Surface coating involves spraying paint onto equipment or other objects, usually performed by painters using handheld spray guns. Paint used in spray coating contains solids, VOCs, and HAPs. VOCs and HAPs are

controlled by the emission limitations contained in this GCP. Solids are emitted in the form of PM, PM_{10}, and $PM_{2.5}$. The required paint booth filters in this GCP control the PM, PM_{10}, and $PM_{2.5}$ emissions.

Welding:

Arc welding involves feeding welding wire through a welding gun. Using the welding wire emits solids in the form of PM, PM_{10}, and $PM_{2.5}$. Welding operations also emit HAPs. These HAPs are part of a combined limit with the aforementioned paint booths.

Sawing:

Some plants covered under this GCP may engage in metal and wood sawing using table saws or handheld saws. The sawing of these materials emits some PM, PM_{10}, and $PM_{2.5}$. Sawing of metal is assumed to have trace amounts of HAP emissions from the metal being sawed. To calculate these HAPs, steel is assumed to be the material that is sawed.

Powder Coating:

Powder coating is very similar to spray painting. Workers use a powder coating gun to spray powder onto a piece of equipment or other object, and the powder fluidizes on the object, changing the color. After the powder is fluidized, the powder is typically heated in a curing oven to allow the powder to set permanently. Because powder doesn't fluidize in the air, there are no HAP emissions, unlike spray coating. Powder coating emits PM, PM_{10}, and $PM_{2.5}$. This GCP contains powder injection limits to limit these pollutants.

Abrasive Blasting:

Plants covered under this GCP are approved to construct abrasive blasting booths. Abrasive blasting is used to remove paint or other particles from equipment prior to painting. The two main types of abrasive blasting used in industry are sand blasting and shot blasting. Sand blasting uses a stream of pressurized sand to remove rough edges and paint. Shot blasting uses small metallic beads to perform the same function. Sand blasting was used as the worst-case scenario for these activities. This permit limits the amount of abrasive material that can be used for abrasive blasting. Abrasive blasting emits PM, PM_{10}, and $PM_{2.5}$. These particulate emissions are controlled by a required filter.

External Combustion:

Some surface coating operations covered by this GCP may use external combustion of natural gas, LPG, and/or diesel fuel. Plants may use external combustion for worker comfort, make-up air, curing ovens or other reasons. This GCP allows the construction of external combustion units, provided that all installed equipment is fired by natural gas, LPG, diesel fuel, does not have a combined combustion capacity exceeding 10 MMBtu/hr, does not create any air pollutants except combustion emissions, and is not specifically prohibited by any applicable state or federal regulation.

Applicable state regulations include, but are not limited to, open fires not being allowed in Nebraska, except under the provisions of Title 129, Chapter 15. Creation of air pollutants which are not combustion emissions, but are produced by combustion, includes heating of any material which may produce secondary emissions, such as tar or asphalt, or operation of an incinerator. These secondary emissions are not included in PTE under this GCP, therefore any combustion equipment which would produce secondary emissions are not authorized by this permitting action.

PTE for external combustion includes PM, PM_{10}, $PM_{2.5}$, SO_2, NO_x, CO, VOC, HAPs.

Haul Roads:

Fugitive PTE includes an estimated haul road distance of one mile of unpaved road to deliver and ship materials. This distance is a very conservative estimate. Typical surface coating operations are located close to public roadways. Haul roads will produce PM, PM_{10}, and $PM_{2.5}$.

Internal Combustion:

Facilities may not add stationary internal combustion equipment under this GCP. However, some facilities may use nonroad generator engines, which are considered portable rather than stationary. These nonroad engines are designed to be moved: they have wheels, skids, are affixed to a trailer or truck bed, or have some other method of easy transportation between locations. However, these engines must be moved at least once per 12 months or they are considered stationary.

Portable engines are not considered for PTE under the construction permit program, and therefore are not included in calculations or applicability analyses. Construction of a stationary engine is not authorized by this GCP. If a source wants to install a stationary engine they must evaluate its PTE, determine if its PTE should be aggregated with previous projects, compare the corresponding PTE with the thresholds in Title 129, Chapter 3, and if necessary, submit a construction permit application.

Emissions Summary:

The following table lists the potential emissions for any individual plant covered by this GCP:

Regulated Pollutant	Potential Emissions Including Fugitives (tons/year)	Non-Fugitive Emissions (tons/year)
Particulate Matter (PM)	18.01	10.62
PM smaller than or equal to 10 microns (PM_{10})	12.28	10.31
PM smaller than or equal to 2.5 microns ($PM_{2.5}$)	10.10	9.90
Sulfur Dioxide (SO_2)	2.29	2.29
Oxides of Nitrogen (NO_x)	6.35	6.35
Carbon Monoxide (CO)	3.61	3.61
Volatile Organic Compounds (VOC)	49.88	49.88
Hazardous Air Pollutants (HAPs)		
Greatest Individual HAP	2.45	2.45
Total HAPs	9.92	9.92

APPLICABLE REQUIREMENTS AND VARIANCES OR ALTERNATIVES TO REQUIRED STANDARDS:

Chapter 2 – Ambient Air Quality Standards:

Based upon the limits of this GCP, the PTE for any plant covered under this GCP is below the thresholds for which air dispersion modeling is typically required. Therefore, air dispersion modeling is not required for issuance of coverage under this GCP. Although including fugitives, $PM_{2.5}$ appears to be above modeling thresholds, fugitive emissions are not counted for the purposes of modeling determinations.

Chapter 3 – Construction Permit Requirements:

The source is required to obtain a construction permit for the surface coating facility, because potential emissions, prior to general construction permit coverage, would exceed the emission thresholds of Chapter 3, Section 001.03A. The source must submit an application fee in order to apply for coverage under this GCP, in accordance with Chapter 3, Section 002.01 and Chapter 7. The NDWEE does not consider PM a regulated pollutant when determining the fee for a construction permit.

Chapter 6 – 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 with 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, potential emissions from the surface coating operations which can be covered by this permit would not exceed the major source thresholds. Most facilities will not have other significant sources of air pollutants, and therefore would be a "No Permit Required - Synthetic Minor" source for the operating permit program.

A facility with other sources of emissions, such as equipment covered by another construction permit, may exceed minor or major source thresholds for the operating permit program after permit issuance. Each facility covered by this GCP must determine if they are required to apply for an operating permit, or revise an existing operating permit, due to coverage under this GCP.

Chapter 12 – New Source Performance Standards (NSPS), and 40 CFR Part 60:

Most emission units at facilities covered under this GCP will not be subject to any NSPS requirements. However, there are multiple NSPS requirements which may apply to facilities that are covered under this GCP for surface coating of various objects. These NSPS are described below. These rules are subject to change, and any facility issued coverage under this GCP must evaluate, and continue to evaluate, the standards and requirements to which they may be subject.

The following NSPS may be applicable to facilities covered under this GCP:

Subpart A – General Provisions: This subpart, adopted by reference in Title 129, Chapter 12, Section 001.01, applies to those units subject to another NSPS subpart. Unless a facility is subject to another NSPS subpart, it will not be subject to Subpart A.

Subpart TTT – Standards of Performance for Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines: This subpart, adopted by reference in Title 129, Chapter 12, Section 001.71, applies to spray booths in which plastic parts for use in the manufacture of business machines receive prime coats, color coats, texture coats, or touch-up coats for which construction, modification, or reconstruction began after January 8, 1986, but before June 21, 2022. "Business machine" is defined in 40 CFR Part 60.721. If a facility coats parts for business machines and was constructed, modified, or reconstructed after January 8, 1986, but before June 21, 2022, it will be subject to this subpart.

Subpart TTTa – Standards of Performance for Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines for Which Construction, Reconstruction, or Modification Commenced After June 21, 2022: This subpart, not yet adopted by reference in Title 129, applies to spray booths in which plastic parts for use in the manufacture of business machines receive prime coats, color coats, texture coats, or touch-up coats for which construction, modification, or reconstruction began after before June 21, 2022. "Business machine" is defined in 40 CFR Part 60.721. If a facility coats parts for business machines and was constructed, modified, or reconstructed after June 21, 2022, it will be subject to this subpart.

Subpart MM – Standards of Performance for Automobile and Light Duty Truck Surface Coating Operations for which Construction, Modification or Reconstruction Commenced After October 5, 1979, and On or Before May 18, 2022: This subpart, adopted by reference in Title 129, Chapter 12, Section 001.42, applies to prime coat, guide coat, and topcoat operations at automobile or light-duty truck assembly plants, except for operations used to coat plastic components or plastic bodies that were constructed after October 5, 1979, and on or before May 18, 2022. If a facility applies these coatings to non-plastic automobiles or light-duty trucks and was constructed, modified, or reconstructed after October 5, 1979, and on or before May 18, 2022, it will be subject to this subpart.

Subpart MMa – Standards of Performance for Automobile and Light Duty Truck Surface Coating Operations for which Construction, Modification or Reconstruction Commenced After October 5, 1979, and On or Before May 18, 2022: This subpart, not yet adopted by reference in Title 129, applies to prime coat, guide coat, and topcoat operations at automobile or light-duty truck assembly plants, except for operations used to coat plastic components or plastic bodies that were constructed, reconstructed, or modified after May 18, 2022. If a facility applies these coatings to non-plastic automobiles or light-duty trucks and was constructed, reconstructed, or modified after May 18, 2022, it will be subject to this subpart.

Subpart SS – Standards of Performance for Industrial Surface Coating: Large Appliances: This subpart, adopted by reference in Title 129, Chapter 12, Section 001.47, applies to surface coating operations in a large appliance surface coating line that commence construction, modification, or reconstruction after December 24, 1980. If a facility falls under this definition, it will be subject to this subpart.

Subpart TT – Standards of Performance for Metal Coil Surface Coating: This subpart, adopted by reference in Title 129, Chapter 12, Section 001.48, applies to facilities which perform prime coat and finish coat operations on metal coils that commence construction, modification, or reconstruction after January 5, 1981. If a facility falls under this definition, it will be subject to this subpart.

Subpart WW – Standards of Performance for Beverage Can Surface Coating: This subpart, adopted by reference in Title 129, Chapter 12, Section 001.52, applies to facilities that apply base coat, overvarnish, or inside spray coating operations of beverage cans that commence construction, reconstruction, or modification after November 26, 1980. If a facility falls under this definition, it will be subject to this subpart.

Subpart FFF – Standards of Performance for Flexible Vinyl and Urethane Coating and Printing: This subpart, adopted by reference in Title 129, Chapter 12, Section 001.57, applies to rotogravure printing lines used to print or coat flexible vinyl or urethane products that begin construction, modification, or reconstruction after January 18, 1983. If a facility falls under this definition, it will be subject to this subpart.

Subpart SSS – Standards of Performance for Magnetic Tape Coating Facilities: This subpart, adopted by reference in Title 129, Chapter 12, Section 001.70, applies to coating operations and coating mix preparation equipment at magnetic tape coating facilities that begin construction, modification, or reconstruction after January 22, 1986. New coating operations that utilize less than 38 cubic meters (m^3) of solvent, or modified operations that use less than 370 m^3 of solvent for the manufacture of magnetic tape per calendar year are subject to different requirements under this subpart. If a magnetic tape coating facility is installed under this GCP, it will be subject to this subpart.

The following NSPS does not apply to emission units permitted to be constructed under this GCP:

Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units: This subpart, adopted by reference in Title 129, Chapter 12, Section 001.05, covers steam generating units with a design rate between 10 MMBtu/hr and 100 MMBtu/hr, installed after June 9, 1989. This general permit authorizes a maximum combined heat input of 10 MMBtu/hr for external combustion. Therefore, only facilities which install a single steam generating unit at the maximum combined allowable heat input capacity would potentially be subject to Subpart Dc.

It is the source's obligation to comply with all applicable NSPS subparts and requirements whether or not they are identified in this permitting action or Title 129. Additional and updated information on all NSPS is available on the NDWEE NSPS Notebook, which can be located by visiting the NDWEE website at http://dee.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 NDWEE Web" search box on the upper right of the webpage and enter "New Source Performance Standards".

Chapter 13 – Hazardous Air Pollutant Emission Standards (NESHAPs):

Most sources granted coverage under this GCP will be an area source of HAPs because the facility PTE will be below 10 tpy for any single HAP and 25 tpy for combined HAPs. If a facility has additional sources of air emissions, they could potentially be above these thresholds and be major for HAPs, which may change their NESHAP requirements. The NDWEE has not identified any NESHAP which will always apply to emission units explicitly authorized by this permitting action. NESHAP Subparts A and JJJJJJ will apply to external combustion units firing natural gas at facilities which are area sources, and Subparts A and DDDDD will apply to external combustion units located at major sources. Emission units specific to a facility, including those not covered by this GCP, may have requirements which have not been identified.

The following NESHAP may be applicable to facilities covered under this GCP:

Subpart A – General Provisions: This subpart, adopted by reference in Title 129, Chapter 13, Section 001.01, applies to all sources subject to a NESHAP standard unless otherwise stated in the rule. Unless a facility is subject to another NESHAP subpart, it will not be subject to Subpart A.

Subpart XXXXXX – National Emission Standards for Hazardous Air Pollutants Area Source Standard for Nine Metal Fabrication and Finishing Source Categories: This subpart, adopted by reference in Title 129, Chapter 13, Section 002.113 applies to area sources of HAPs that are primarily engaged in one of the nine source categories listed in 40 CFR Part 63.11514(a) that use materials that contain or have the potential to emit metal fabrication or finishing metal HAP (MFHAP) as listed in 40 CFR Part 63.11514(b). A facility primarily engaged in one of the nine source categories that uses MFHAP-containing materials will be subject to this subpart.

Subpart IIII – National Emission Standards for Hazardous Air Pollutants: Surface Coating of Automobiles and Light-Duty Trucks: This subpart, adopted by reference in Title 129, Chapter 13, Section 002.62, applies to facilities that surface coat new automobile or new light-duty truck bodies or body parts for new automobiles or new light-duty trucks. If a facility engages in these activities, it will be subject to Subpart IIII.

Subpart NNNN – National Emission Standards for Hazardous Air Pollutants: Surface Coating of Large Appliances: This subpart, adopted by reference in Title 129, Chapter 13, Section 002.66, applies to facilities that are major sources of HAPs and engage in the surface coating of large appliances, as defined in the subpart. If a facility is an area source of HAPs or does not surface coat these appliances, it is not subject to this subpart.

Subpart KKKK – National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Cans: This subpart, adopted by reference in Title 129, Chapter 13, Section 002.64, applies to facilities that engage in metal can surface coating that use HAP-containing coatings, thinners, and/or cleaning materials, and are not subject to another NESHAP. If a facility engages in this activity, it will be subject to this subpart.

Subpart RRRR – National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Furniture: This subpart, adopted by reference in Title 129, Chapter 13, Section 002.70, applies to facilities that engage in the spray coating of metal furniture that use materials that contain organic HAP. If a facility engages in this activity, it will be subject to this subpart.

Subpart MMMM – National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products: This subpart, adopted by reference in Title 129, Chapter 13, Section 002.65, applies to facilities that perform surface coatings of small metal parts as listed in 40 CFR Part 63.3881(a) that use more than 250 gallons per year of HAP-containing coatings. If a facility engages in this activity, it will be subject to this subpart.

Subpart PPPP – National Emission Standards for Hazardous Air Pollutants for Surface Coating of Plastic Parts and Products: This subpart, adopted by reference in Title 129, Chapter 13, Section 002.68,

applies to facilities that use HAP-containing coatings to perform spray coating of plastic parts listed in 40 CFR Part 63.4481(a). If a facility uses HAP-containing coatings that perform this function, it will be subject to this subpart.

Subpart HHHHHH – National Emissions Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources: This subpart, adopted by reference in Title 129, Chapter 13, Section 002.100, applies to paint stripping operations that use methylene chloride for paint removal, as specified in 40 CFR Part 63.11169(a). This subpart also applies to spray coating operations that use coatings that contain any of the target HAP in excess of 1%, as specified in 40 CFR Part 63.1169(b), or contain any OSHA-defined carcinogen in excess of 0.1%, as specified in 40 CFR Part 63.1169(b) and 40 CFR Part 63.1180. If a facility engages in spray application of coatings to motor vehicles or mobile equipment, it is also subject to this subpart, but may petition the Administrator for an exemption. If a facility covered under this GCP fits the definitions found in this NESHAP and explained above, it will be subject to this subpart.

Subpart JJ – National Emissions Standards for Wood Furniture Manufacturing Operations: This subpart, adopted by reference in Title 129, Chapter 13, Section 002.23, applies to any source engaged in part or in whole in wood furniture manufacturing that is a major source of HAP emissions. Most facilities covered under this GCP will be area sources of HAP emissions, therefore this subpart will likely not apply. However, if a major source of HAP emissions that engages in wood furniture manufacturing does receive coverage under this GCP, it will be required to comply with this subpart.

The following NESHAP are not applicable to facilities covered under this GCP:

Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines: This subpart, adopted by reference in Title 129, Chapter 13, Section 002.78, 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. Stationary engines are not authorized by this GCP, and nonroad engines are not subject to Subpart ZZZZ. Therefore, most facilities covered by this GCP will not be subject to Subpart ZZZZ.

It is the source's obligation to comply with all applicable NESHAP subparts and requirements whether or not they are identified in this permitting action or Title 129. Additional and updated information on all NESHAP is available on the NDWEE Air Toxics Notebook, which can be located by visiting the NDWEE website at http://dee.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 – Guide to NESHAPs". Or alternately use the "Search NDWEE Web" search box on the upper right of the webpage and enter "Air Toxics Notebook".

Chapter 15 – Particulate Matter Emissions:

Section 001.01 – Process Weight Rate

Except for fugitive emissions from haul roads, all coating, sawing, welding, and blasting operations are subject to the requirements of Section 001.01. Facilities will comply with these limits through the proper operation and maintenance of equipment, including dust collection systems. Detailed calculations are included in the fact sheet attachment demonstrating compliance.

Section 001.02 – Particulate Emissions from Combustion Sources

External combustion sources authorized by this permit are subject to Section 001.02. These emission units will comply through the exclusive use of natural gas, LPG, and/or diesel fuel, as well as proper operation and maintenance of equipment. Detailed calculations are included in the fact sheet attachment demonstrating compliance.

Section 001.04 – 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 operated and maintained pursuant to 40 CFR Part 60 Appendix B. Facilities covered by this GCP will demonstrate compliance with this requirement by properly operating and maintaining equipment.

SPECIFIC PERMIT CONDITIONS DISCUSSION:

Condition III includes conditions that are specific to the emissions units and emission points listed in each respective condition. Permit conditions that require no additional discussion are not included in this section.

III.(A) Specific Conditions for Surface Coating Operations:

(1) This condition identifies the general emission units which are authorized for each project approved under this GCP. Each surface coating operation will vary in design, but must be limited to containing painting, welding, wood and metal sawing, powder coating, abrasive blasting, and external combustion sources. External combustion heating sources, such as water heaters, are limited to a combined 10 MMBtu/hr capacity using natural gas, LPG, and/or diesel fuel to keep emissions below state modeling thresholds. For this same reason, powder coating and abrasive blasting have limits on how much powder coating material and abrasive blasting material can be used, respectively.

(2) This section specifies which sections of Chapter 15 apply to each emission unit. Specific facilities may not need to comply with Chapter 15, Sections 001.01 or 001.02 if they are subject to more stringent limits in an applicable federal rule or construction permit. For the purposes of keeping new facilities below operating permit thresholds, and to keep new sources as area sources of HAP emissions, VOC emissions from surface coating are subject to a 49.5 ton per year limit, and individual HAP and total HAP from a combination of surface coating and welding must be kept below 2.35 tons per year and 9.80 tons per year, respectively.

(3) In order to verify Chapter 15 process weight rate limits and to keep facilities below modeling thresholds, all paint booths, powder coating booths, and abrasive blasting booths must be controlled by particulate filters. In addition, these operations must occur in four-sided enclosures (a fully enclosed area with a full roof and four complete walls or complete side curtains) in order to maximize the capture efficiency of the filters. These filters must be equipped with pressure differential indicators, and facilities are required to perform pressure differential readings and visible emissions observations daily to ensure proper operation of each filter. Abrasive blasting is required to occur inside a "confined abrasive blasting enclosure" as defined by NESHAP Subpart XXXXXX, for control of blasting sand/beads for Chapter 15 and modeling purposes. A "confined abrasive blasting enclosure" is a small enclosure where a worker places their hands in openings or gloves that extend into a box and enable the worker to hold objects as they are being blasted without allowing air and blast material to escape the box, or a similar enclosure that vents the air and blast material to flow to a control device.

In order to verify the VOC and HAP emission limitations described in Condition III.(A)(2)(c), the facility must perform monthly VOC and HAP calculations and twelve (12) month rolling totals of VOC and HAP emissions. These calculations will be verified using manufacturer's Material Safety Data Sheets (MSDS), or their equivalent.

In order to demonstrate compliance with Condition III.(A)(1), the source is also required to calculate any on-site powder coating and abrasive blasting usage and puts process limits on these processes at 3,942 tons per year and 438 tons per year, respectively. If

the powder coating and/or abrasive blasting equipment is rated to be less than these potentials, then monthly and twelve month rolling calculations are not required.

(4) This condition clarifies that there are no NSPS, NESHAP, or MACT requirements which will apply to all facilities covered by this GCP. As discussed in the Chapter 12 and 13 discussions above, there may be requirements for certain facilities.

(5) This condition specifies recordkeeping required to comply with Conditions III.(A)(1) through III.(A)(3).

A facility covered by this GCP must maintain records of the VOC and HAP emissions from surface coating and welding wire usage, and the heat input capacity of external combustion equipment for the lifetime of this equipment. Facilities with equipment that has the potential to exceed the powder coating and abrasive blasting limits must maintain records of the actual throughputs of that equipment. These records may be the nameplate on equipment, a manual produced by the manufacturer, a manufacturer's specification sheet, or any record that can conclusively demonstrate the design capacity of equipment.

III.(B) Specific Conditions for Haul Roads:

This condition clarifies that any haul roads are subject the fugitive dust limits of Chapter 15, and that any facility covered under this GCP must use weekly fugitive dust surveys to demonstrate compliance with Chapter 15 and Condition I.(I). Best management practices for haul roads include water application, wheel washes, speed limits, applying gravel or aggregate to road surfaces, paving, or other methods of directly reducing haul road emissions.

Fact Sheet Attachment

Facility-wide PTE

Emission Point ID#	Emission Unit ID#	Process Description	Facility-Wide PTE (tons per year)								
			PM	PM_{10}	$PM_{2.5}$	NO_x	SO_x	CO	VOC[1]	Greatest Individual HAP[2]	Total HAPs[2]
EP-1	EU-1	Paint Booth	6.86	6.58	6.34	-	-	-	<49.50	<2.35	<9.80
EP-2	EU-2	Welding	1.69	1.63	1.57	-	-	-	-		
EP-3a & EP-3b	EU-3a & EU-3b	Sawing	0.53	0.21	0.15	-	-	-	-	0.02	0.04
EP-4	EU-4	Powder Coating	0.79	0.79	0.79	-	-	-	-	-	-
EP-5	EU-5	External Combustion	0.63	1.05	1.05	6.35	2.29	3.61	0.38	7.73E-02	8.11E-02
EP-6	EU-6	Abrasive Blasting	0.12	5.69E-02	5.69E-03	-	-	-	-	-	-
EP-7	EU-7	Haul Roads	7.39	1.97	0.20	-	-	-	-	-	-
Total PTE (including fugitives):			18.01	12.28	10.10	6.35	2.29	3.61	49.88	2.45	9.92
Total PTE (not including fugitives):			10.62	10.31	9.90	6.35	2.29	3.61	49.88	2.45	9.92

[1]VOC from paint booth limited by general construction permit.

[2]HAP emissions from paint booth and welding as part of a group limit in general construction permit.

Fact Sheet Attachment

EP-1: Paint Booth(s)

Product	Density[1]	Conservative Maximum Usage Rate[2]	Solids Content[3]	PM Emission Rate	Filter Control Efficiency[4]	PM PTE	PM_{10}[5] PTE	$PM_{2.5}$[5] PTE
	(lb/gal)	(gal/hr)	%	lb/hr	%	ton/yr	ton/yr	ton/yr
Paint	8.35	75.00	25%	156.56	99.0%	6.86	6.58	6.34

[1]Density of water used as placeholder

[2]Conservative estimate of maximum amount of paint usage occurring 8,760 hours per year

[3]Conservative estimation of maximum average solids content of paint

[4]Standard control efficiency of paint booth filter. Filter is required by permit

[5]PM and $PM_{2.5}$ distributions estimated using: Particle Size Distribution for Arc Welding, Oxy Fuel, Copper, Zinc, Bath from "Final Methodology to Calculate PM_{10} and $PM_{2.5}$ Significance Thresholds, Appendix A: Updated CEIDARS Table with $PM_{2.5}$ Fractions." for solvent-based coatings

Product	VOC PTE[6]	Greatest Individual HAP PTE[6]	Total HAP PTE[6]
	ton/yr	ton/yr	ton/yr
Paint	49.50	2.35	9.80

[6]As limited by general construction permit

Fact Sheet Attachment

EP-2: Welding

Pollutant	Emission Factor[1]	Expected Wire Usage[2]	PTE
	lb/10^3 lb electrode	lbs/yr	tons/yr
PM[1]	23.13	146,549	1.69
PM_{10}[1]	23.13	146,549	1.63
$PM_{2.5}$[1]	23.13	146,549	1.57
Individual HAPs[4]			
Chromium	25.30	146,549	1.85
Cobalt	18.80	146,549	1.38
Manganese	22.00	146,549	1.61
Nickel	12.50	146,549	0.92
Lead	1.62	146,549	0.12
Total HAPs[5]			**5.88**

[1]Emission factor is the maximum PM10 from AP-42 Table 12.19-1 (01/1995), except 14Mn-4Cr

[2]Conservative estimation of welding wire usage based on previous welding operations at paint booths permitted in the state of Nebraska

[3]PM and $PM_{2.5}$ emissions estimated using: Particle Size Distribution for Arc Welding, Oxy Fuel, Copper, Zinc, Bath from "Final Methodology to Calculate PM_{10} and $PM_{2.5}$ Significance Thresholds, Appendix A: Updated CEIDARS Table with $PM_{2.5}$ Fractions."

[4]Individual HAP emission factors are the maximum of all welding wire in AP-42 Table 12.19-2 (01/1995), except 14Mn-4Cr

[5]Total HAPs calculated here, but PTE is limited by general construction permit

Fact Sheet Attachment

EP-3a & EP-3b: Sawing

EP-3a - Wood Sawing

Material Lost to PM[1]: 0.45%

Wood Density[2]: 56.00 lb/ft^3

Wood Density: 3.24E-02 lb/in^3

Cuts/Day[3]	in^3/cut[3]	in^3/yr	lb/yr	PM PTE[4]	
				lb/yr	ton/yr
600	20.00	4,380,000	141,944	638.75	0.32

EP-3b - Metal Sawing

Material Lost to PM[1]: 0.45%

Steel Density[5]: 0.28 lb/in^3

Cuts/Day[3]	in^3/cut[3]	in^3/yr	lb/yr	PM PTE[4]	
				lb/yr	ton/yr
600	1.50	328,500	91,980	413.91	0.21

Combined Emissions[6]	PTE (ton/yr)
PM	0.53
PM_{10}	0.21
$PM_{2.5}$	0.15

HAP[7]	Weight Percent[6]	PTE (tpy)
Chromium Compounds	10.00%	2.07E-02
Lead Compounds	0.35%	7.24E-04
Manganese Compounds	0.70%	1.45E-03
Nickel Compounds	10.00%	2.07E-02
Phosphorous Compounds	0.12%	2.48E-04
Total HAP	-	**4.38E-02**

[1]Conservative assumption based on particle size from fiberglass emissions test data from OP12R12-021, issued by NDEQ.

[2]Density of Oak wood, considered to be most dense wood reasonably cut in the state of Nebraska.

[3]Conservative assumption based on previous permitting actions in the state of Nebraska.

[4]PTE for PM_{10} and $PM_{2.5}$ are conservatively assumed to be equal to PM.

[5]Standard density for steel.

[6]PM_{10} and $PM_{2.5}$ distributions from "Final Methodology to Calculate PM_{10} and $PM_{2.5}$ Significance Thresholds, Appendix A: Updated CEIDARS Table with PM2.5 Fractions." for Sawing

[7]HAP content of mild steel from http://www.petersonsteel.com/wp-content/uploads/2022/03/MSDS-CARBON-STEEL-2021-v2.pdf

Fact Sheet Attachment

EP-4: Powder Coating Booth(s)

Overspray[1] (%)	2.00%	
PM Control Efficiency[2] (%)	99.00%	
Powder Injection Capacity[3]	900	lbs/hr
Powder Injection Capacity[3]	3,942	tons/yr
PM PTE[4]	0.18	lbs/hr
PM PTE[4]	0.79	tons/yr

[1] *Air Pollution Engineering Manual* , pg 366, Table 10

[2] NDEQ standard control efficiency for powder coating filters

[3] As limited by general construction permit

[4] Conservative assumption that PM_{10} and $PM_{2.5}$ are equal to PM

Fact Sheet Attachment

EP-5: Combustion (if Natural Gas-fired)

Total Design Rate[1]:	10.00	MMBtu/hr
Operational Hours:	8,760	hrs/yr
Heat content of natural gas:	1,020	MMBtu/MMscf
Potential throughput:	9.80E-03	MMscf/hr
Potential throughput:	85.88	MMscf/yr

Pollutant	Emission Factor[2]	Emission Factor Units	PTE (tons/yr)
PM	1.90	lbs/MMscf	8.16E-02
PM_{10}	7.60	lbs/MMscf	0.33
$PM_{2.5}$	7.60	lbs/MMscf	0.33
SO_x	0.60	lbs/MMscf	2.58E-02
NO_x	100.00	lbs/MMscf	4.29
CO	84.00	lbs/MMscf	3.61
VOC	5.50	lbs/MMscf	0.24
Hazardous Air Pollutants			
Benzene	2.10E-03	lbs/MMscf	9.02E-05
Dichlorobenzene	1.20E-03	lbs/MMscf	5.15E-05
Formaldehyde	7.50E-02	lbs/MMscf	3.22E-03
Hexane	1.80	lbs/MMscf	7.73E-02
Naphthalene	6.10E-04	lbs/MMscf	2.62E-05
Polycyclic Organic Matter	8.82E-05	lbs/MMscf	3.79E-06
Toluene	3.40E-03	lbs/MMscf	1.46E-04
Arsenic Compounds	2.00E-04	lbs/MMscf	8.59E-06
Beryllium Compounds	1.20E-05	lbs/MMscf	5.15E-07
Cadmium Compounds	1.10E-03	lbs/MMscf	4.72E-05
Chromium Compounds	1.40E-03	lbs/MMscf	6.01E-05
Cobalt Compounds	8.40E-05	lbs/MMscf	3.61E-06
Lead Compounds	5.00E-04	lbs/MMscf	2.15E-05
Manganese Compounds	3.80E-04	lbs/MMscf	1.63E-05
Mercury Compounds	2.60E-04	lbs/MMscf	1.12E-05
Nickel Compounds	2.10E-03	lbs/MMscf	9.02E-05
Selenium Compounds	2.40E-05	lbs/MMscf	1.03E-06
Total HAPs			8.11E-02

[1]As limited by general construction permit.

[2]AP-42 Tables 1.4-1, 1.4-2, and 1.4-3 (07/98)

Fact Sheet Attachment

EP-5: Combustion (if LPG-Fired)

Total Design Rate[1]:	10.00	MMBtu/hr
Operational Hours:	8,760	hrs/yr
Heat content of LPG:	92	MMBtu/10^3 gal
Potential throughput:	1.09E-01	10^3 gal/hr
Potential throughput:	952.17	10^3 gal/yr
LPG Sulfur Content[2]:	185.00	ppmw
	0.16	gr/ft^3

Pollutant	Emission Factor[3]	Emission Factor Units	PTE (tons/yr)
PM	0.20	lbs/10^3 gal	9.52E-02
PM_{10}	0.70	lbs/10^3 gal	0.33
$PM_{2.5}$	0.70	lbs/10^3 gal	0.33
SO_x	1.60E-02	lbs/10^3 gal	7.62E-03
NO_x	13.00	lbs/10^3 gal	6.19
CO	7.50	lbs/10^3 gal	3.57
VOC	0.80	lbs/10^3 gal	0.38
Hazardous Air Pollutants[4]			8.11E-02

[1]As limited by general construction permit.

[2]LPG sulfur content assumed 185 ppmw based on Gas Producer's Association Standard 2140-92

Based on density of 0.125 lb/ft^3 from Marathon Technical Service. (http://www.marathontech.ca/assets/reference-material/fueltbl.pdf

[3]AP-42 Table 1.5-1 (07/08) for all emission factors except HAPs.

[4]It is assumed HAP emissions are the same as natural gas.

Fact Sheet Attachment

EP-5: Combustion (if Diesel-Fired)

Total Design Rate[1]:	10.00	MMBtu/hr
Operational Hours:	8,760	hrs/yr
Heat content of diesel fuel:	138	MMBtu/10^3 gal
Potential throughput:	7.25E-02	10^3 gal/hr
Potential throughput:	634.78	10^3 gal/yr

Pollutant	Emission Factor[2]	Emission Factor Units	PTE (tons/yr)
PM	2.00	lbs/10^3 gal	0.63
PM_{10}	3.30	lbs/10^3 gal	1.05
$PM_{2.5}$	3.30	lbs/10^3 gal	1.05
SO_x	7.20	lbs/10^3 gal	2.29
NO_x	20.00	lbs/10^3 gal	6.35
CO	5.00	lbs/10^3 gal	1.59
VOC	0.34	lbs/10^3 gal	0.11
Hazardous Air Pollutants			
Benzene	2.14E-04	lbs/10^3 gal	6.79E-05
Ethylbenzene	6.36E-05	lbs/10^3 gal	2.02E-05
Formaldehyde	3.30E-02	lbs/10^3 gal	1.05E-02
Polycyclic Organic Matter	1.19E-03	lbs/10^3 gal	3.78E-04
1,1,1-Trichloroethane	2.36E-04	lbs/10^3 gal	7.49E-05
Toluene	6.20E-03	lbs/10^3 gal	1.97E-03
o-Xylene	1.09E-04	lbs/10^3 gal	3.46E-05
Arsenic Compounds	4	lbs/10^{12} Btu	1.75E-04
Beryllium Compounds	3	lbs/10^{12} Btu	1.31E-04
Cadmium Compounds	3	lbs/10^{12} Btu	1.31E-04
Chromium Compounds	3	lbs/10^{12} Btu	1.31E-04
Lead Compounds	9	lbs/10^{12} Btu	3.94E-04
Manganese Compounds	6	lbs/10^{12} Btu	2.63E-04
Mercury Compounds	3	lbs/10^{12} Btu	1.31E-04
Nickel Compounds	3	lbs/10^{12} Btu	1.31E-04
Selenium Compounds	15	lbs/10^{12} Btu	6.57E-04
Total HAPs			1.52E-02

[1]As limited by general construction permit.

[2]AP-42 Tables 1.4-1, 1.4-2, and 1.4-3 (07/98)

Fact Sheet Attachment

EP-6: Abrasive Blasting

Maximum hourly abrasive use[1]: 100.00 lb/hr

Maximum annual abrasive use[1]: 438.00 ton/yr

				Uncontrolled		Controlled	
Pollutant	**Emission Factor[2]**	**Capture Efficiency[3]**	**Control Efficiency[4]**	**PM Emissions (lb/hr)**	**PM Emissions (ton/yr)**	**PM Emissions (lb/hr)**	**PM Emissions (ton/yr)**
PM	2.70E-02	100%	99%	2.70	11.83	2.70E-02	0.12
PM_{10}	1.30E-02	100%	99%	1.30	5.69	1.30E-02	5.69E-02
$PM_{2.5}$	1.30E-03	100%	99%	0.13	0.57	1.30E-03	5.69E-03

[1]As limited by general construction permit.

[2]AP-42 Table 13.2.6-1 for sand blasting of mild steel assuming 5 mph of wind speed

[3]NDEE default capture efficiency for enclosed system with active filtration system

[4]Conservative estimate of control efficiency for filtration system

Fact Sheet Attachment

EP-7: Haul Roads

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

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

	k	a	b	d
PM	4.9	0.7	0.45	0.3
PM_{10}	1.5	0.9	0.45	0.5
$PM_{2.5}$	0.15	0.9	0.45	0.5

Haul Road / Traffic Parameters[1]

Activity / Road Description	Road Type / Silt Value		Roundtrip Length feet		Truck Weight tons			Ave. Speed	Maximum Throughput	Ave. Truck Capacity		Annual VMT
			empty	full	empty	full	Ave.	mph	tons/yr	tons/truck		
Materials Receiving	u	6.0	5,280	5,280	15	40	27.50	30	3,000	5	tons	1,200
Materials Shipping	u	6.0	5,280	5,280	15	40	27.50	30	3,000	5	tons	1,200

Emission Calculations

Activity / Road Description	Emission Factors (lb/VMT)			Potential Emissions (tons/yr)		
	PM	PM_{10}	$PM_{2.5}$	PM	PM_{10}	$PM_{2.5}$
Materials Receiving	6.16	1.64	0.16	3.70	0.98	0.10
Materials Shipping	6.16	1.64	0.16	3.70	0.98	0.10
Total Annual Emissions:				7.39	1.97	0.20

[1]Haul road parameters use a combination of NDEE standard values and conservative estimates.

Description of Constants/Variables

E: haul road emissions (lb/VMT)

k, a, b, c, d: dimensionless constants from AP-42 Tables 13.2.1-1 & 13.2.2-2 (unpaved)

sL: silt loading (g/m^2) 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 = 90 default = 90

S: mean vehicle speed on road (mph)
default = 30, minimum =15

CE: unpaved road, dust control efficiency
CE = 0 default = 0%

VMT: vehicle miles traveled

Fact Sheet Attachment

Chapter 15 Calculations

Chapter 15, Section 001.01 : Process Weight Rate

For process weight rates up to 60,000 lbs/hr: $E = 4.10 \times p^{0.67}$

For process weight rates in exess of 60,000 lbs/hr: $E = 55.0 \times p^{0.11} - 40$

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

EP ID#	Process Description	p[1]		E (lbs/hr)	Unit PM Emission Rate (lb/hr)
EP-1	Paint Booth(s)	631.25	lbs/hr	1.89	1.57
		0.32	tons/hr		
EP-2	Welding	26.73	lbs/hr	0.23	0.39
		1.34E-02	tons/hr		
EP-3a	Wood Sawing	16.20	lbs/hr	0.16	7.29E-02
		8.10E-03	tons/hr		
EP-3b	Metal Sawing	10.50	lbs/hr	0.12	4.73E-02
		5.25E-03	tons/hr		
EP-4	Powder Coating Booth(s)	910	lbs/hr	2.42	0.18
		0.46	tons/hr		
EP-6	Abrasive Blasting	110.00	lbs/hr	0.59	2.70E-02
		5.50E-02	tons/hr		

[1]To calculate process weight rate for all processes except sawing, it was conservatively assumed that the item being processed weighs 10 lbs, and the facility processes one item per hour.

Chapter 15, Section 001.02 : Combustion Evaluation

Total Heat Input (MMBtu/hr)	Maximum Allowable Emissions of PM (lb/MMBtu)
10 or less	0.60
Between 10 and 10,000	$1.026/I^{0.233}$ Where I = total heat input in MMBtu/hr
10,000 or more	0.12

EP ID#	Process Description	MMBtu/hr (aggregate)[2]	Allowable PM (lbs/MMBtu)	Unit PM Emission Rate (lbs/MMBtu)
EP-5	External Combustion	10.00	0.60	6.35E-02

[2]Because the units in aggregate will not violate Chapter 15, it is expected that smaller units will also not violate these requirements.