

STATE OF MISSOURI



DEPARTMENT OF NATURAL RESOURCES

MISSOURI AIR CONSERVATION COMMISSION

PERMIT TO CONSTRUCT

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to construct the air contaminant source(s) described below, in accordance with the laws, rules and conditions as set forth herein.

Permit Number: 102017-006

Project Number: 2015-11-013  
Installation Number: 047-0196

Parent Company: Northland Coating Solutions

Parent Company Address: 15016 Nation Road, Kearney, MO 64060

Installation Name: Northland Coating Solutions

Installation Address: 15016 Nation Road, Kearney, MO 64060

Location Information: Clay County

Application for Authority to Construct was made for:

The installation of a spindle hanger cell, two media blasting cabinets, a powder coating system, a washer/pretreater, a painting operation, and associated dry-off and curing ovens. This review was conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

Standard Conditions (on reverse) are applicable to this permit.

Standard Conditions (on reverse) and Special Conditions are applicable to this permit.

Handwritten signature of Chia-Wei Young in black ink.

Prepared by  
Chia-Wei Young  
New Source Review Unit

Handwritten signature of Kya L. Nowa in black ink.

Director or Designee  
Department of Natural Resources

OCT 12 2017

Effective Date

## STANDARD CONDITIONS:

Permission to construct may be revoked if you fail to begin construction or modification within two years from the effective date of this permit. Permittee should notify the Air Pollution Control Program if construction or modification is not started within two years after the effective date of this permit, or if construction or modification is suspended for one year or more.

You will be in violation of 10 CSR 10-6.060 if you fail to adhere to the specifications and conditions listed in your application, this permit and the project review. In the event that there is a discrepancy between the permit application and this permit, the conditions of this permit shall take precedence. Specifically, all air contaminant control devices shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the Department's Air Pollution Control Program of the anticipated date of start up of these air contaminant sources. The information must be made available within 30 days of actual startup. Also, you must notify the Department of Natural Resources' regional office responsible for the area within which you are located within 15 days after the actual start up of these air contaminant sources.

A copy of this permit and permit review shall be kept at the installation address and shall be made available to Department of Natural Resources' personnel upon request.

You may appeal this permit or any of the listed special conditions to the Administrative Hearing Commission (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.075.6 and 621.250.3. If you choose to appeal, you must file a petition with the AHC within 30 days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC.

If you choose not to appeal, this certificate, the project review and your application and associated correspondence constitutes your permit to construct. The permit allows you to construct and operate your air contaminant sources(s), but in no way relieves you of your obligation to comply with all applicable provisions of the Missouri Air Conservation Law, regulations of the Missouri Department of Natural Resources and other applicable federal, state and local laws and ordinances.

The Air Pollution Control Program invites your questions regarding this air pollution permit. Please contact the Construction Permit Unit at (573) 751-4817. If you prefer to write, please address your correspondence to the Missouri Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, attention: Construction Permit Unit.

**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

*The special conditions listed in this permit were included based on the authority granted the Missouri Air Pollution Control Program by the Missouri Air Conservation Law (specifically 643.075) and by the Missouri Rules listed in Title 10, Division 10 of the Code of State Regulations (specifically 10 CSR 10-6.060). For specific details regarding conditions, see 10 CSR 10-6.060 paragraph (12)(A)10. "Conditions required by permitting authority."*

**Northland Coating Solutions  
Clay County**

1. **Superseding Condition**  
The conditions of this permit supersede Special Condition 1.D. and 4 found in the Construction Permit No. 022014-005 previously issued by the Air Pollution Control Program.
2. **PM<sub>2.5</sub> and PM<sub>10</sub> Emissions Limitation**
  - A. Northland Coating Solutions shall emit less than 10.0 tons of PM<sub>2.5</sub> and 15.0 tons of PM<sub>10</sub> in any consecutive 12-month period from the entire installation. Equipment that emits PM<sub>2.5</sub> and PM<sub>10</sub> from the installation includes the blasting operations (EP-05, 06, 07, 09, 10), the powder coating operations (EP-03, 12), the painting operation (EP-13), and the combustion sources (EP-01, 02, 08, 11, 14, 15, and 16).
  - B. Attachments A, B, C, D, E, and F, or equivalent forms, such as electronic forms, shall be used to demonstrate compliance with Special Condition 2.A. The equivalent forms shall use the same calculation method as in Attachments A, B, C, D, E, and F.
3. **HAPs Emissions Limitations**
  - A. Northland Coating Solutions shall emit combined HAP less than 25.0 tpy from the entire installation and individual HAP less than the SMAL from the equipment of this project in any consecutive 12-month period. A list of SMAL is given in Appendix A. Equipment from the project that emits HAPs include the paint booth (EP-13) and some combustion sources, including powder coat curing oven (EP-08), wash system burner (EP-11), dry off oven (EP-14), and curing ovens (EP-15, 16). Equipment from the entire installation that emits HAP include equipment from this project as well as the burn off ovens EP-01 and EP-02.
  - B. Attachments G and H, or equivalent forms, such as electronic forms, shall be used to demonstrate compliance with Special Condition 3.A. The equivalent forms shall use the same calculation methods as Attachments G and H.

**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

4. **VOC Emissions Limitation**
  - A. Northland Coating Solutions shall emit VOC less than 40.0 tpy in any consecutive 12-month period from the entire installation, which includes the painting operation (EP13) and all combustion sources (burn off ovens (EP-01, 02), powder coat curing oven (EP-08), wash system burner (EP -11), dry off oven (EP-14), and curing ovens (EP-15, 16))
  - B. Attachment I, or equivalent forms, such as electronic forms, shall be used to demonstrate compliance with Special Condition 4.A. The equivalent forms shall use the same calculation method as Attachment I.
5. **Control Device Requirement-Booths/Dust Collector/Baghouses/Cartridge Filters**
  - A. Northland Coating Solutions shall control emissions from the equipment of this permit using the following control devices.

**Table 1: Control Device Listing**

<b>Emission Point</b>	<b>Description</b>	<b>Control Device</b>	<b>Device Number</b>
EP07	Two Spindle Blasters	Cabinet With Dust Collector	CD07
EP09	Media Blaster	Cabinet With Baghouse Filter	CD09
EP10	Suction Blaster	Cabinet With Cartridge Filter	CD10
EP12	Powder Coating Gun	Booth with Cartridge Filter	CD12
EP13	Paint Gun	Booth with Filter Bank	CD13

- B. The dust collectors/baghouses/cartridge filters shall be operated and maintained in accordance with the manufacturer's specifications. The filters, with exception of the baghouse filter for the media blaster (EP09) and the cartridge filter on the suction blaster (EP10), shall be equipped with a gauge or meter, which indicates the pressure drop across the control device. These gauges or meters shall be located such that Department of Natural Resources' employees may easily observe them.
- C. Replacement filters for the dust collectors/baghouses/cartridge filters shall be kept on hand at all times. The bags shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance).
- D. Northland Coating Solutions shall monitor and record the operating pressure drop across the dust collectors/baghouses/cartridge filters for the spindle blasters (EP7), the powder coating gun (EP12) and the paint gun (EP13) at least once every twenty-four (24) hours while the control devices are in operation. The operating pressure drop shall be maintained between 0.5 to 12.0 inches of water column.

**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

- E. For the baghouse filter for the media blaster (EP09) and the cartridge filter of the suction blaster (EP10), Northland Coatings Solution shall conduct visible emissions monitoring at the outlet stack at least once per day when the baghouse and cartridge filter are in operation. The visible emissions monitoring shall be conducted using EPA Test Method 22 procedure. If visible emissions are present, Northland Coatings Solutions shall perform maintenance or corrective procedures on the filters. Maintenance and corrective actions shall be conducted no later than eight (8) hours of operation after the visible emissions are observed.
- F. Northland Coating Solutions shall maintain an operating and maintenance log for the dust collectors/baghouses/cartridge filters which shall include the following:
  - 1) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
  - 2) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.
- 6. **Operational Requirement - Coatings**  
Northland Coating Solutions shall keep all coatings in sealed containers whenever the materials are not in use. Northland Coating Solutions shall provide and maintain suitable, easily read, permanent markings on these containers.
- 7. **Paint Booth True-Up Condition**
  - A. Within 90 days of the start of operation of the paint booth (EP-13), Northland Coating Solutions shall submit a report to the Missouri Air Pollution Control Program detailing the final equipment installed and material used for the paint booth, including, at a minimum, the number of spray guns installed, the maximum amount of paint used per hour, and the safety data sheets (SDS) of the paints used.
  - B. Northland Coating Solutions may calculate the installation-wide PM<sub>2.5</sub>, PM<sub>10</sub>, PM, VOC, and HAPs emissions using the new data in the report required in Special Condition 7.A. If the emissions analysis shows that the emissions of any of the pollutants are less than their respective SMAL (for individual HAPs) or de minimis level (for PM<sub>2.5</sub>, PM<sub>10</sub>, PM, VOC and combined HAPs), the facility may submit a request to the Missouri Air Pollution Control Program to eliminate the emission limit in this permit for that pollutant.
- 8. **Record Keeping and Reporting Requirements**
  - A. Northland Coating Solutions shall maintain all records required by this permit for not less than five years and shall make them available

**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

immediately to any Missouri Department of Natural Resources' personnel upon request. These records shall include SDS for all materials used.

- B. Northland Coating Solutions shall report to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than 10 days after the end of the month during which any record required by this permit shows an exceedance of a limitation imposed by this permit.

REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE  
SECTION (5) REVIEW

Project Number: 2015-11-013

Installation ID Number: 047-0196

Permit Number: 102017-006

Installation Addresses:

Northland Coating Solutions  
15016 Nation Road  
Kearney, MO 64060

Parent Company:

Northland Coating Solutions  
15016 Nation Road  
Kearney, MO 64060

1054 W. Innovation Drive  
Kearney, MO 64060

Clay County

REVIEW SUMMARY

- Northland Coating Solutions has applied for authority to install a spindle hanger, two media blasting cabinets, a powder coating system, a washer/pretreater, a painting operation, and associated dry-off and curing ovens.
- The application was deemed complete on November 3, 2015.
- HAP emissions are expected from the proposed equipment. HAPs emitted from this process are products of natural gas combustion and contents from the coatings.
- None of the NSPS apply to this installation. 40 CFR 60, Subpart MM, *Standards of Performance for Automobile and Light Duty Truck Surface Coating Operations*, does not apply to this installation because it is not an automobile or truck assembly plant.
- None of the NESHAPs apply to this installation. None of the currently promulgated MACT regulations apply to the proposed equipment.
- The following control devices are being used to control particulate emissions from the equipment of this permit.
  - A cabinet connected to a dust collector is being used for the spindle hanger cell with two (2) blasters (EP07)
  - A cabinet connected to a baghouse filter is being used for each of the media blasters (EP09, EP10).
  - A booth connected to a cartridge filter is being used for the powder guns (EP12).
  - A booth connected to a filter bank is being used for the painting operation (EP13).

- This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of all pollutants are limited to less than their respective *de minimis* levels.
- This installation is located in Clay County, an attainment area for all pollutants.
- This installation is not on the List of Named Installations found in 10 CSR 10-6.020(3)(B), Table 2. The installation's major source level is 250 tpy, and fugitive emissions are not counted toward major source applicability.
- Ambient air quality modeling was not performed for this review. No model is currently available which can accurately predict ambient ozone concentrations caused by this installation's VOC emissions.
- Emissions testing is not required for the equipment.
- No operating permit is required for the installation. Potential emissions of all pollutants are limited to less than the *de minimis* levels and no federal regulations (i.e. NSPS, MACT, and NESHAP) applies to the installation.
- Approval of this permit is recommended with special conditions.

#### INSTALLATION DESCRIPTION

Northland Coating Solutions removes cured paint from metal parts and recoat them with powder coatings. Equipment at the installation consists of two burn-off ovens (EP01, EP02), a powder coating station (EP03), a media blasting cabinet (EP05), and a blasting pod (EP06). The existing equipment, with the exception of the powder coating station (EP03), are at 15016 Nation Road, Kearney, MO. The powder coating station (EP03) is located at 1054 W. Innovation Dr, Kearney, MO. The burn-off ovens are rated at 650,000 MMBtu/hr and 950,000 MMBtu/hr and combusts natural gas as fuel. The gun used at the powder coating station is an electrostatic gun and will be located in a booth controlled by paint filters. The powder gun has an MHDR of 20 lb/hr. The media blasting gun in the cabinet has an MHDR of 150 lb/hr while the blasting gun used in the pod has an MHDR of 260 lb/hr.

The facility currently is not required to obtain an operating permit, and it is a minor source for construction permits. However, after this project, the particulate and VOC emissions will be greater than their respective *de minimis* levels. The facility has opted to limit its installation-wide PM<sub>2.5</sub>, PM<sub>10</sub>, and VOC emissions to less than their respective *de minimis* levels so that the facility would not be required to apply for an operating permit.

For HAP emissions, the facility does not currently know what type of paint will be used for the painting operation. Therefore, the facility is limited to the SMAL for individual HAP and 25.0 tpy for combined HAPs to keep this installation from modeling

requirements, to keep this installation a minor source and to keep this installation from having to apply for an operating permit.

**Table 2: Permit History**

Permit Number	Description
022014-005	Installation of two burn-off ovens, a powder coating station, a media blasting cabinet, and a blasting pod.

## PROJECT DESCRIPTION

The installation proposes to install a spindle hanger cell with two blasters (EP07), a powder coating system (EP12), a powder coating curing oven (EP08), two small media blasting guns with cabinet (EP09, EP10), a Washer/Pretreater system (EP11), a paint gun with booth (EP13), and a 0.900 MMBtu/hr batch cure oven (EP16). The Washer/Pretreater system has a burner tube rated at 0.36 MMBtu/hr that heats the water in the tank, a dry off oven rated at 0.096 MMBtu/hr, and a curing oven rated at 0.216 MMBtu/hr.

The spindle hanger cell (EP07) and the small blasting gun with cabinet (EP09) will be installed at the current site at 15016 Nation Road, Kearney, MO. The other equipment will be located at a new site at 1054 W. Innovation Drive, Kearney, MO 64060. For construction permits, both sites will be considered part of the same installation.

The facility was required, in Special Condition No. 1.D. of Permit No. 022014-005, to replace the filter for the coatings gun (EP03) once every two (2) months. However, the facility would like to eliminate this condition. This request was approved by the APCP. The facility still needs to inspect the filters once a week and monitor the visible emissions from the booth daily to ensure the proper operation of the control device as required in Special condition 1.B. and 1.C. of Permit No. 022014-005.

The facility would like the option to move the small portable suction blaster (EP10) within the two locations. No permit condition is required for this move as long as the blasting cabinet stays onsite at either the Nation Road or Innovation Drive sites.

## EMISSIONS/CONTROLS EVALUATION

Particulate emissions, including PM<sub>2.5</sub>, PM<sub>10</sub>, and PM, from the blasting booths were calculated using emission factors from EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition, Section 13.2.6, *Abrasive Blasting*, 9/97. Particulate emissions from the powder coating guns were calculated using mass balances assuming a transfer efficiency of 93% (taken from AP-42, Section 4.2.2.4, *Other Metal Coating*, 4/81), capture efficiency of 100% (based on a smoke tracer test performed on the booth), and a device efficiency of 99% (default value used by the Air Pollution Control Program). For the painting operation (EP13), particulate emissions were calculated using mass balances with a transfer efficiency of 10% (taken from Air

Pollution Training Institute Course 482 Student Manual), capture efficiency of 95%, and a filter efficiency of 95% (default value used by the Air Pollution Control Program). The 10% transfer efficiency was used to estimate a worst-case emissions assuming that the surface is not flat. The facility is required to track its PM<sub>2.5</sub> emissions and it may choose to use 50% transfer efficiency for flat surfaces using an air-atomized gun or 75% for flat surfaces using an airless gun. The 95% capture efficiency was used because capture efficiency of the booth is expected to be high. The facility tested the capture efficiency of the powder coating booth and it was determined to be 100%. The powder coating booth has two parallel walls with a roof. The other two sides have openings for material entry and exit. The paint booth was not tested but was given a high (95%) capture due to its similar design to the powder booth. For the paint booth, it was assumed that 92.5% of the PM is PM<sub>2.5</sub> and 96% of the PM is PM<sub>10</sub>, which are values from the California Emission Inventory Development and Reporting System (CEIDARS).

VOC emissions from the powder coating and painting operations were calculated using mass balances. Particulate, SO<sub>x</sub>, NO<sub>x</sub>, VOC, CO, GHG-Mass, GHG-CO<sub>2e</sub>, and HAPs emissions from the natural-gas fired ovens were calculated using emission factors from AP-42, Section 1.4, *Natural Gas Combustion*, 7/98.

The installation does not yet know how many powder coating guns it will use. It also does not have any information regarding the paint booth (i.e. MHDR, types of paint, etc.). Therefore, all of the emissions were calculated using very conservative assumptions. For instance, to calculate particulate emissions from the painting operation, it was assumed that the paints may contain up to 70% solids and up to 70% VOCs, which are both very high and conservative. PM<sub>2.5</sub> and PM<sub>10</sub> emissions calculated using these values are greater than the *de minimis* levels. This permit requires that the PM<sub>2.5</sub> and PM<sub>10</sub> emissions of the entire installation be limited to less than the *de minimis* levels to avoid operating permit requirements. The facility is required to submit a report, within 90 days of the start of operation for the paint booth, to the Air Pollution Control Program that details the final equipment installed and material used for the paint booth, including, at a minimum, the number of spray guns installed, the maximum amount of paint used per hour, and the safety data sheets (SDS) of the paints used. The installation may also calculate the installation-wide particulate, VOC and HAPs emissions using the new data. If the installation-wide emissions of any of these pollutants are less than their respective SMAL (for individual HAP) or *de minimis* levels (for all other pollutants), then the installation may apply for a permit modification to eliminate the emission limits in this permit.

The VOC potential emissions are greater than the 40.0 tpy *de minimis* level. The facility opted to limit its VOC emissions to less than 40.0 tpy to avoid operating permit requirements. Most of the VOC emissions will be from the paint booth. There will be VOC emissions from the combustion sources and they are calculated to be 0.08 tpy at maximum design capacity. The facility shall add this value to the VOC emissions from the paint booth to obtain the total VOC emissions from the entire installation.

For HAPs, the facility must calculate each individual HAP emissions to ensure that they do not exceed the SMAL for the project. Furthermore, the facility must calculate the

## APPLICABLE REQUIREMENTS

Northland Coating Solutions shall comply with the following applicable requirements. The Missouri Air Conservation Laws and Regulations should be consulted for specific record keeping, monitoring, and reporting requirements. Compliance with these emission standards, based on information submitted in the application, has been verified at the time this application was approved. For a complete list of applicable requirements for your installation, please consult your operating permit.

## GENERAL REQUIREMENTS

- *Submission of Emission Data, Emission Fees and Process Information*, 10 CSR 10-6.110
  - Per 10 CSR 10-6.110(4)(B)2.B(II) and (4)(B)2.C(II) a full EIQ is required for the first full calendar year the equipment (or modifications) approved by this permit are in operation.
- *Operating Permits*, 10 CSR 10-6.065
- *Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin*, 10 CSR 10-6.170
- *Restriction of Emission of Visible Air Contaminants*, 10 CSR 10-6.220
- *Restriction of Emission of Odors*, 10 CSR 10-6.165

## SPECIFIC REQUIREMENTS

- *Restriction of Particulate Matter Emissions From Fuel Burning Equipment Used for Indirect Heating*, 10 CSR 10-6.405
- *Control of Emissions from Industrial Surface Coating Operations*, 10 CSR 10-2.230
  - Apply to any industrial surface coating operations with an uncontrolled potential to emit greater than 6.8 kilograms per day, or 2.7 tons per year of VOC.

## STAFF RECOMMENDATION

On the basis of this review conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*, it is recommended that this permit be granted with special conditions.

combined HAP emissions of the entire installation to ensure that they do not exceed the major source level of 25.0 tpy. The only emission units at the facility that emits HAPs are the paint booth and the combustion units. The combined HAP emissions for the entire installation from the combustion units are very low at 0.06 tpy operating at maximum design capacity. For recordkeeping purposes, the facility shall add this value to the combined HAPs emissions from the paint booth to calculate the combined HAPs emissions from the entire installation for comparison to the 25.0 tpy installation-wide combined HAPs limit.

The following table provides an emissions summary for this project. Existing potential emissions were taken from Permit No. 022014-005. Existing actual emissions were taken from the installation's 2015 EIQ. Potential emissions of the application represent the potential of the new equipment, assuming continuous operation (8760 hours per year).

**Table 3: Emissions Summary (tpy)**

Pollutant	Regulatory De Minimis Levels	Existing Potential Emissions	Existing Actual Emissions (2015 EIQ)	Potential Emissions of the Project	New Project Conditioned Potential	New Installation-Wide Conditioned Potential
PM	25.0	32.86	0.00	18.78	N/A	N/A
PM <sub>10</sub>	15.0	15.00	0.00	15.82	N/A	<15.0
PM <sub>2.5</sub>	10.0	1.64	0.00	13.32	N/A	<10.0
SOx	40.0	0.004	0.00	0.005	N/A	N/A
NOx	40.0	0.69	0.05	0.78	N/A	N/A
VOC	40.0	0.04	0.00	167.98	N/A	<40.0
CO	100.0	0.58	0.04	0.66	N/A	N/A
GHG (CO <sub>2</sub> e)	100,000	829.49	N/D	944.44	N/A	N/A
GHG (mass)	250.0	824.50	N/D	938.9	N/A	N/A
Combined HAPs	10.0/25.0	0.001	N/D	0.17	<sup>1</sup> <SMAL	<25.0

N/A = Not Applicable; N/D = Not Determined

Note 1: Emissions limited to less than de minimis and SMAL due to the uncertainties in emissions calculations for the paint booth.

### PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of all pollutants are conditioned to less than the de minimis levels.

**Attachment A – PM<sub>2.5</sub> Tracking Sheet (Equipment from Project No. 2015-11-013)**

Northland Coating Solutions, Clay County, Project Number: 2015-11-013

Installation ID Number: 047-0196

Permit Number: 102017-006

This sheet covers the month of \_\_\_\_\_ in the year \_\_\_\_\_

<b>Blasting Operations</b>					
Emission Point	Description	<sup>1</sup> Usage (1,000 lb)	<sup>2</sup> Emission Factor (lb/1,000 lb)	<sup>3</sup> Monthly Emissions (lb)	<sup>4</sup> Monthly Emissions (tons)
7, 9, 10	Spindle Hanger Blaster, Two Media Blasters		0.033		
Note 1: Take the combined usage from all of the blasting operations in lbs (EP7,9,10) and divide by 1,000					
Note 2: Emission factor taken from AP-42, Section 13.2.6, <i>Abrasives Blasting</i> , 9/97					
Note 3: Emissions (lb) calculated by using [Usage (1,000 lb)] x [Emission Factor (lb/1,000 lb)]					
Note 4: Emissions (tons) calculated from [Monthly Emissions (lb)] ÷ 2,000 lb/ton					
<b>Powder Coating Operation (EP12)</b>					
<sup>5</sup> Usage (lb)		<sup>6</sup> Emissions (lb/hr)		<sup>7</sup> Monthly Emissions (tons)	
Note 5: Usage from the Powder Coating Operation					
Note 6: Emissions Calculated from [Usage (lb)] x [0.07] x [0.01], where 0.07 is from the 7% overspray; and 0.01 is from 99% filter device efficiency.					
Note 7: Emissions (tons) calculated from [Monthly Emissions (lb)] ÷ 2,000 lb/ton					
<b>Painting Operation (EP13)</b>					
<sup>8</sup> Paint Used	<sup>9</sup> Usage (lb)	<sup>10</sup> Wt. % Solids	<sup>11</sup> Transfer %	<sup>12</sup> Emissions (lb)	<sup>13</sup> Monthly Emissions (tons)
Note 8: List each individual type of paint being used.					
Note 9: The usage (lb) can be calculated by using [Paint usage in gallons] x [Density in lb/gal]					
Note 10: Wt. % Solids should be taken from the SDS. If a range is given, the highest number shall be used.					
Note 11: Use the following transfer eff %: When using an air-atomized gun, use 50% for flat surfaces and 10% for non-flat surfaces. When using an airless gun, use 75% for flat surfaces and 10% for non-flat surfaces.					
Note 12: Emissions (lb) calculated using [usage (lb)] x [Wt. % Solids/100] x [1-Transfer%/100] x [0.95] x [0.05] x [0.925] + [usage (lb)] x [Wt. % Solids/100] x [1-Transfer%/100] x [0.05] x [0.925] Where 0.95 is from the 95% capture, 0.05 is from the 95% device control efficiency and 5% not captured, and 0.925 is the amount of PM <sub>2.5</sub> in PM.					
<sup>14</sup> Total PM <sub>2.5</sub> Emissions This Month from Blasting, Powder Coating, and Painting (tons) =					
<sup>15</sup> Total PM <sub>2.5</sub> Emissions from the Previous 11 Months (tons) =					
<sup>16</sup> Total PM <sub>2.5</sub> Emissions for the Current 12 Months (tons) =					
Note 14: Total PM <sub>2.5</sub> Emissions of this Month from Blasting, Powder Coating, and Painting (tons) calculated by adding the PM <sub>2.5</sub> emissions (tons) from all these sources.					
Note 15: Total PM <sub>2.5</sub> Emissions from the Previous 11 Months (ton) calculated by summing the Total Monthly PM <sub>2.5</sub> Emissions (tons) from Blasting, Powder Coating, and Painting of the previous 11 months.					
Note 16: Total PM <sub>2.5</sub> Emissions for the Current 12 Months calculated by summing the total PM <sub>2.5</sub> Emissions (tons) This Month from Blasting, Powder Coating, and Painting, and the Total PM <sub>2.5</sub> Emissions from the Previous 11 Months from these sources (tons).					

## PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated March 20, 2014, received November 3, 2015 designating Northland Coating Solutions as the owner and operator of the installation.

Other documents relied upon in preparation of this permit.

- E-mail communications between the Missouri Air Pollution Control Program and Northland Coating Solutions.
- Memorandum from the Air Quality Analysis Section of the Missouri Air Pollution Control Program to the Enforcement Section detailing a smoke tracer test performed to determine the capture efficiency of the powder coating booth, dated February 3, 2017.

**Attachment B – PM<sub>10</sub> Tracking Sheet (Equipment from Project No. 2015-11-013)**

Northland Coating Solutions, Clay County, Project Number: 2015-11-013

Installation ID Number: 047-0196

Permit Number: 102017-006

This sheet covers the month of \_\_\_\_\_ in the year \_\_\_\_\_

Blasting Operations					
Emission Point	Description	<sup>1</sup> Usage (1,000 lb)	<sup>2</sup> Emission Factor (lb/1,000 lb)	<sup>3</sup> Monthly Emissions (lb)	<sup>4</sup> Monthly Emissions (tons)
7, 9, 10	Spindle Hanger Blaster, Two Media Blasters		0.332		
Note 1: Taken the combined usage from all of the blasting operations in lbs (EP7,9,10) and divide by 1,000					
Note 2: Emission factor taken from AP-42, Section 13.2.6, <i>Abrasives Blasting</i> , 9/97					
Note 3: Emissions (lb) calculated by using [Usage (1,000 lb)] x [Emission Factor (lb/1,000 lb)]					
Note 4: Emissions (tons) calculated from [Monthly Emissions (lb)] ÷ 2,000 lb/ton					
Powder Coating Operation (EP12)					
<sup>5</sup> Usage (lb)		<sup>6</sup> Emissions (lb/hr)		<sup>7</sup> Monthly Emissions (tons)	
Note 5: Usage from the Powder Coating Operation					
Note 6: Emissions Calculated from [Usage (lb)] x [0.07] x [0.01] where 0.07 is from the 7% overspray and; 0.01 is from 99% filter device efficiency.					
Note 7: Emissions (tons) calculated from [Monthly Emissions (lb)] ÷ 2,000 lb/ton					
Painting Operation (EP13)					
<sup>8</sup> Paint Used	<sup>9</sup> Usage (lb)	<sup>10</sup> Wt. % Solids	<sup>11</sup> Transfer %	<sup>12</sup> Emissions (lb)	<sup>13</sup> Monthly Emissions (tons)
Note 8: List each individual type of paint being used.					
Note 9: The usage (lb) can be calculated by using [Paint usage in gallons] x [Density in lb/gal]					
Note 10: Wt. % Solids should be taken from the SDS. If a range is given, the highest number shall be used.					
Note 11: Use the following transfer eff %: When using an air-atomized gun, use 50% for flat surfaces and 10% for non-flat surfaces. When using an airless gun, use 75% for flat surfaces and 10% for non-flat surfaces.					
Note 12: Emissions (lb) calculated using [usage (lb)] x [Wt. % Solids/100] x [1-Transfer %/100] x [0.95] x [0.05] x [0.96] + [usage (lb)] x [Wt. % Solids/100] x [1-Transfer %/100] x [0.05] x [0.96] Where 0.95 is from the 95% capture, 0.05 is from the 95% device control efficiency and from the 5% not captured, and 0.96 is the amount of PM <sub>10</sub> in PM					
<sup>14</sup> Total PM <sub>10</sub> Emissions This Month from Blasting, Powder Coating, and Painting (tons) =					
<sup>15</sup> Total PM <sub>10</sub> Emissions from the Previous 11 Months (tons) =					
<sup>16</sup> Total PM <sub>10</sub> Emissions for the Current 12 Months (tons) =					
Note 14: Total PM <sub>10</sub> Emissions of this Month from Blasting, Powder Coating, and Painting calculated by adding the PM <sub>2.5</sub> emissions (tons) from all the sources.					
Note 15: Total PM <sub>10</sub> Emissions from the Previous 11 Months (ton) calculated by summing the Total Monthly PM <sub>10</sub> Emissions (tons) from Blasting, Powder Coating, and Painting of the previous 11 months.					
Note 16: Total PM <sub>10</sub> Emissions for the Current 12 Months calculated by summing the total PM <sub>10</sub> Emissions (tons) This Month from Blasting, Powder Coating, and Painting and the Total PM <sub>10</sub> Emissions from the Previous 11 Months from these sources (tons).					

### Attachment C – PM<sub>2.5</sub> Tracking Sheet (Equipment from Project No. 2015-11-013)

Northland Coating Solutions, Clay County

Project Number: 2015-11-013

Installation ID: 047-0196

Permit Number: **102017-006**

This sheet covers the month of \_\_\_\_\_ in the year \_\_\_\_\_

For Burn-Off Ovens								
EP	A Description	B Monthly Usage (mmscf)	C Emission Factor (lb/mmscf)	D Monthly Emissions (lb)			E Monthly Emissions (tons)	
01	Small Burn-Off Oven		7.6					
02	Large Burn-Off Oven		7.6					
For Powder Coating Gun								
EP	A Description	B Monthly Coating Usage (lb)	C Transfer %	D Capture %	E Control %	F Monthly Fugitive Emissions (tons)	G Monthly Non-Fugitive Emissions (tons)	H Monthly Total Emissions (tons)
03	Powder Coating		93%	70%	90%			
Media Blasting Equipment (EP05)								
EP	A Description	B Monthly Usage (lb)	C EF (lb/1,000 lb)	D Monthly Emissions (lb)			E Monthly Emissions (tons)	
05	Blasting Cabinet		0.033					
06	Blasting Pod		1.30					
						<sup>8</sup> Total Monthly Emissions (tons) =		
						<sup>9</sup> Total Monthly Emissions from the Previous 11 Months (tons) =		
						<sup>10</sup> Total Emissions from the current 12-Month Period (tons) =		

Note 1: Monthly Emission (lb) for Burn-Off Ovens calculated using [Column D] = [Column C] x [Column B]

Note 2: Monthly Emission (tons) for Burn-Off Ovens calculated using [Column E] = [Column D] ÷ 2,000

Note 3: Monthly Fugitive Emission (tons) for Powder Coating Gun calculated using [Column F] = {[Column B] x (1-[Column C]) x (1-[Column D])} ÷ 2,000

Note 4: Monthly Non-Fugitive Emissions (tons) for Powder Coating Gun calculated using [Column G] = {[Column B] x (1-[Column C]) x [Column D] x (1-[Column E])} ÷ 2,000

Note 5: Monthly Total Emissions (tons) for Powder Coating Gun Calculated from [Column H] = [Column F] + [Column G]

Note 6: Monthly Emissions (lb) from the blasting equipment calculated from [Column D] = ([Column B] ÷ 1,000) x [Column C]

Note 7: Monthly Emissions (tons) from the blasting equipment calculated from [Column E] = [Column D] ÷ 2,000

Note 8: Total Monthly emissions (tons) calculated by summing the Total Monthly Emissions (tons) of each equipment.

Note 9: Total Monthly Emissions from the Previous 11 Months (ton) calculated by summing the Total Monthly Emissions (tons) in Attachment C of the previous 11 months.

Note 10: Total Emissions from the current 12-Month Period calculated by Summing the Total Monthly Emissions (tons) of the current month and the Total Monthly Emissions from the Previous 11 months (tons)

## Attachment D – PM<sub>10</sub> Tracking Sheet (Equipment From Project 2015-11-013)

Northland Coating Solutions  
 Clay County  
 Project Number: 2015-11-013  
 Installation ID: 047-0196  
 Permit Number: **102017-006**

This sheet covers the month of \_\_\_\_\_ in the year \_\_\_\_\_

For Burn-Off Ovens								
EP	A Description	B Monthly Usage (mmscf)	C Emission Factor (lb/mmscf)	D Monthly Emissions (lb)	E Monthly Emissions (tons)			
01	Small Burn-Off Oven		7.6					
02	Large Burn-Off Oven		7.6					
For Powder Coating Gun								
EP	A Description	B Monthly Coating Usage (lb)	C Transfer %	D Capture %	E Control %	F Monthly Fugitive Emissions (tons)	G Monthly Non-Fugitive Emissions (tons)	H Monthly Total Emissions (tons)
03	Powder Coating		93%	70%	90%			
Media Blasting Equipment (EP05)								
EP	A Description	B Monthly Usage (lb)	C EF (lb/1,000 lb)	D Monthly Emissions (lb)	E Monthly Emissions (tons)			
05	Blasting Cabinet		0.33					
06	Blasting Pod		13					
					<sup>8</sup> Total Monthly Emissions (tons) =			
					<sup>9</sup> Total Monthly Emissions from the Previous 11 Months (tons) =			
					<sup>10</sup> Total Emissions from the current 12-Month Period (tons) =			

- Note 1: Monthly Emission (lb) for Burn-Off Ovens calculated using [Column D] = [Column C] x [Column B]
- Note 2: Monthly Emission (tons) for Burn-Off Ovens calculated using [Column E] = [Column D] ÷ 2,000
- Note 3: Monthly Fugitive Emission (tons) for Powder Coating Gun calculated using [Column F] = {[Column B] x (1-[Column C]) x (1-[Column D])} ÷ 2,000
- Note 4: Monthly Non-Fugitive Emissions (tons) for Powder Coating Gun calculated using [Column G] = {[Column B] x (1-[Column C]) x [Column D] x (1-[Column E])} ÷ 2,000
- Note 5: Monthly Total Emissions (tons) for Powder Coating Gun Calculated from [Column H] = [Column F] + [Column G]
- Note 6: Monthly Emissions (lb) from the blasting equipment calculated from [Column D] = ([Column B] ÷ 1,000) x [Column C]
- Note 7: Monthly Emissions (tons) from the blasting equipment calculated from [Column E] = [Column D] ÷ 2,000
- Note 8: Total Monthly emissions (tons) calculated by summing the Total Monthly Emissions (tons) of each equipment.
- Note 9: Total Monthly Emissions from the Previous 11 Months (ton) calculated by summing the Total Monthly Emissions (tons) in Attachment D of the previous 11 months.
- Note 10: Total Emissions from the current 12-Month Period calculated by Summing the Total Monthly Emissions (tons) of the current month and the Total Monthly Emissions from the Previous 11 Months (tons).





## Attachment G – Individual HAP Compliance Worksheet

Northland Coating Solutions  
 Clay County  
 Project Number: 2015-11-013  
 Installation ID Number: 047-0196  
 Permit Number: 102017-006

This sheet covers the period from \_\_\_\_\_ to \_\_\_\_\_ for HAP \_\_\_\_\_  
(month, year) (month, year) (Type of HAP)

Painting Operation (EP13)				
Paint Used	Usage (lb)	Wt. % HAP	Emissions (lb)	Monthly Emissions (tons)
<b>Note 1:</b> List each individual types of paint being used.				
<b>Note 2:</b> The usage (lb) can be calculated by using [Paint usage in gallons] x [ Density in lb/gal]				
<b>Note 3:</b> Wt. % HAP should be taken from the SDS. If a range is given, the highest number shall be used.				
<b>Note 4:</b> Emissions (lb) calculated using [usage (lb)] x [Wt. % HAP/100] if the HAP is a VOC. Emissions (lb) calculated using [usage (lb)] x [Wt. % HAP/100] x [1-Transfer %/100] x [0.95] x [0.05] + [usage (lb)] x [Wt. % HAP /100] x [1-Transfer %/100] x [0.05] Where 0.95 is from the 95% capture, 0.01 is from the 95% device control efficiency, and the 0.05 is from the 5% not captured.				
<b>Note 5:</b> Emissions (tons) calculated from [Monthly Emissions (lb)] + 2,000 lb/ton				
<b><sup>6</sup>Total Individual HAP Emissions This Month (tons) =</b>				
<b><sup>7</sup>Total Individual HAP Emissions from the Previous 11 Months (tons) =</b>				
<b><sup>8</sup>Total Individual HAP Emissions for the Current 12 Months (tons) =</b>				
<b>Note 6:</b> Total Individual HAP Emissions of this Month (tons) calculated by adding the Individual HAP emissions (tons) from all the sources.				
<b>Note 7:</b> Total Individual HAP Emissions from the Previous 11 Months (ton) calculated by summing the Total Monthly Individual HAP Emissions (tons) of the previous 11 months.				
<b>Note 8:</b> Total Individual HAP Emissions for the Current 12 Months calculated by summing the total VOC Emissions (tons) This Month and the Total VOC Emissions from the Previous 11 Months (tons). A total less than the SMA indicates compliance.				

\*There are Individual HAP emissions from the combustion units of this project. However, at maximum design rate, the individual HAP emissions are on the order of 10<sup>-2</sup> or lower. Therefore, it is not required to calculate them for compliance with the individual HAP limit.





**Air Pollution Control Program**  
**Table of Hazardous Air Pollutants and Screening Model Action Levels**

Chemical	CAS #	SMAL tons/yr	Group ID	VOC	PM	Chemical	CAS #	SMAL tons/yr	Group ID	VOC	PM
ACETALDEHYDE	75-07-0	9		Y	N	CHLOROMETHYL METHYL ETHER	107-30-2	0.1		Y	N
ACETAMIDE	60-35-5	1		Y	N	CHLOROPRENE	126-99-8	1		Y	N
ACETONITRILE	75-05-8	4		Y	N	CHROMIUM (VI) COMPOUNDS		0.002	L	N	Y
ACETOPHENONE	98-86-2	1		Y	N	CHROMIUM COMPOUNDS		5	L	N	Y
ACETYLAMINOFLUORINE, [2-]	53-96-3	0.005	V	Y	Y	CHRYSENE	218-01-9	0.01	V	Y	N
ACROLEIN	107-02-8	0.04		Y	N	COBALT COMPOUNDS		0.1	M	N	Y
ACRYLAMIDE	79-06-1	0.02		Y	N	COKE OVEN EMISSIONS	8007-45-2	0.03	N	Y	N
ACRYLIC ACID	79-10-7	0.6		Y	N	CRESOL, [META-]	108-39-4	1	B	Y	N
ACRYLONITRILE	107-13-1	0.3		Y	N	CRESOL, [ORTHO-]	95-48-7	1	B	Y	N
ALLYL CHLORIDE	107-05-1	1		Y	N	CRESOL, [PARA-]	106-44-5	1	B	Y	N
AMINOBIIPHENYL, [4-]	92-67-1	1	V	Y	N	CRESOLS (MIXED ISOMERS)	1319-77-3	1	B	Y	N
ANILINE	62-53-3	1		Y	N	CUMENE	98-82-8	10		Y	N
ANISIDINE, [ORTHO-]	90-04-0	1		Y	N	CYANIDE COMPOUNDS		0.1	O	Y	N
ANTHRACENE	120-12-7	0.01	V	Y	N	DDE	72-55-9	0.01	V	Y	Y
ANTIMONY COMPOUNDS		5	H	N	Y	DI(2-ETHYLHEXYL) PHTHALATE, (DEHP)	117-81-7	5		Y	N
ANTIMONY PENTAFLUORIDE	7783-70-2	0.1	H	N	Y	DIAMINOTOLUENE, [2,4-]	95-80-7	0.02		Y	N
ANTIMONY POTASSIUM TARTRATE	28300-74-5	1	H	N	Y	DIAZOMETHANE	334-88-3	1		Y	N
ANTIMONY TRIOXIDE	1309-64-4	1	H	N	Y	DIBENZ(A,H)ANTHRACENE	53-70-3	0.01	V	Y	N
ANTIMONY TRISULFIDE	1345-04-6	0.1	H	N	Y	DIOXINS/FURANS		6E-07	D,V	Y	N
ARSENIC COMPOUNDS		0.005	I	N	Y	DIBENZOFURAN	132-64-9	5	V	Y	N
ASBESTOS	1332-21-4	0	A	N	Y	DIBROMO-3-CHLOROPROPANE, [1,2-]	98-12-8	0.01		Y	N
BENZ(A)ANTHRACENE	56-55-3	0.01	V	Y	N	DIBROMOETHANE, [1,2-]	106-93-4	0.1		Y	N
BENZENE	71-43-2	2		Y	N	DIBUTYL PHTHALATE	84-74-2	10		Y	Y
BENZIDINE	92-87-5	0.0003	V	Y	N	DICHLOROENZENE, [1,4-]	106-46-7	3		Y	N
BENZO(A)PYRENE	50-32-8	0.01	V	Y	N	DICHLOROENZIDENE, [3,3-]	91-94-1	0.2	V	Y	Y
BENZO(B)FLUORANTHENE	205-99-2	0.01	V	Y	N	DICHLOROETHANE, [1,1-]	75-34-3	1		Y	N
BENZO(K)FLUORANTHENE	207-08-9	0.01	V	Y	N	DICHLOROETHANE, [1,2-]	107-06-2	0.8		Y	N
BENZOTRICHLORIDE	98-07-7	0.006		Y	N	DICHLOROETHYLENE, [1,1-]	75-35-4	0.4		Y	N
BENZYL CHLORIDE	100-44-7	0.1		Y	N	DICHLOROMETHANE	75-09-2	10		N	N
BERYLLIUM COMPOUNDS		0.008	J	N	Y	DICHLOROPHENOXY ACETIC ACID, [2,4-]	94-75-7	10	C	Y	Y
BERYLLIUM SALTS		2E-05	J	N	Y	DICHLOROPROPANE, [1,2-]	78-87-5	1		Y	N
BIPHENYL, [1,1-]	92-52-4	10	V	Y	N	DICHLOROPROPENE, [1,3-]	542-75-6	1		Y	N
BIS(CHLOROETHYL)ETHER	111-44-4	0.06		Y	N	DICHLORVOS	62-73-7	0.2		Y	N
BIS(CHLOROMETHYL)ETHER	542-88-1	0.0003		Y	N	DIETHANOLAMINE	111-42-2	5		Y	N
BROMOFORM	75-25-2	10		Y	N	DIETHYL SULFATE	64-67-5	1		Y	N
BROMOMETHANE	74-83-9	10		Y	N	DIETHYLENE GLYCOL MONOBUTYL ETHER	112-34-5	5	P	Y	N
BUTADIENE, [1,3-]	106-99-0	0.07		Y	N	DIMETHOXYBENZIDINE, [3,3-]	119-90-4	0.1	V	Y	Y
BUTOXYETHANOL ACETATE, [2-]	112-07-2	5	P	Y	N	DIMETHYL BENZIDINE, [3,3-]	119-93-7	0.008	V	Y	Y
BUTYLENE OXIDE, [1,2-]	106-88-7	1		Y	N	DIMETHYL CARBAMOYL CHLORIDE	79-44-7	0.02		Y	N
CADMIUM COMPOUNDS		0.01	K	N	Y	DIMETHYL FORMAMIDE	68-12-2	1		Y	N
CALCIUM CYANAMIDE	156-62-7	10		Y	Y	DIMETHYL HYDRAZINE, [1,1-]	57-14-7	0.008		Y	N
CAPROLACTAM (Dellsted)	105-60-2					DIMETHYL PHTHALATE	131-11-3	10		Y	N
CAPTAN	133-06-2	10		Y	Y	DIMETHYL SULFATE	77-78-1	0.1		Y	N
CARBARYL	63-25-2	10	V	Y	Y	DIMETHYLAMINOAZOBENZENE, [4-]	60-11-7	1		Y	N
CARBON DISULFIDE	75-15-0	1		Y	N	DIMETHYLANILINE, [N-N-]	121-69-7	1		Y	N
CARBON TETRACHLORIDE	56-23-5	1		Y	N	DINITRO-O-CRESOL, [4,6-] (Note 6)	534-52-1	0.1	E	Y	Y
CARBONYL SULFIDE	463-58-1	5		Y	N	DINITROPHENOL, [2,4-]	51-28-5	1		Y	N
CATECHOL	120-80-9	5		Y	N	DINITROTOLUENE, [2,4-]	121-14-2	0.02		Y	N
CHLORAMBEN	133-90-4	1		Y	Y	DIOXANE, [1,4-]	123-91-1	6		Y	N
CHLORDANE	57-74-8	0.01		Y	Y	DIPHENYLHYDRAZINE, [1,2-]	122-66-7	0.09	V	Y	Y
CHLORINE	7782-50-5	0.1		N	N	DIPHENYLMETHANE DIISOCYANATE, [4,4-]	101-68-8	0.1	V	Y	N

## Air Pollution Control Program

### Table of Hazardous Air Pollutants and Screening Model Action Levels

Chemical	CAS #	SMAL tons/yr	Group ID	VOC	PM	Chemical	CAS #	SMAL tons/yr	Group ID	VOC	PM
CHLOROACETIC ACID	79-11-8	0.1		Y	N	EPICHLOROHYDRIN	106-89-8	2		Y	N
CHLOROACETOPHENONE, [2-]	532-27-4	0.06		Y	N	ETHOXYETHANOL, [2-]	110-80-5	10	P	Y	N
CHLOROBENZENE	108-90-7	10		Y	N	ETHOXYETHYL ACETATE, [2-]	111-15-9	5	P	Y	N
CHLOROBENZILATE	510-15-6	0.4	V	Y	Y	ETHYL ACRYLATE	140-88-5	1		Y	N
CHLOROFORM	67-66-3	0.9		Y	N	ETHYL BENZENE	100-41-4	10		Y	N
ETHYL CHLORIDE	75-00-3	10		Y	N	NITROBENZENE	98-95-3	1		Y	N
ETHYLENE GLYCOL	107-21-1	10		Y	N	NITROBIPHENYL, [4-]	92-93-3	1	V	Y	N
ETHYLENE GLYCOL MONOBUTYL ETHER (Delisted)	111-76-2					NITROPHENOL, [4-]	100-02-7	5		Y	N
ETHYLENE GLYCOL MONOHEXYL ETHER	112-25-4	5	P	Y	N	NITROPROPANE, [2-]	79-46-9	1		Y	N
ETHYLENE IMINE (AZIRIDINE)	151-56-4	0.003		Y	N	NITROSODIMETHYLAMINE, [N-]	62-75-9	0.001		Y	N
ETHYLENE OXIDE	75-21-8	0.1		Y	N	NITROSOMORPHOLINE, [N-]	59-89-2	1		Y	N
ETHYLENE THIOUREA	98-45-7	0.6		Y	Y	NITROSO-N-METHYLUREA, [N-]	684-93-5	0.0002		Y	N
FORMALDEHYDE	50-00-0	2		Y	N	OCTACHLORONAPHTHALENE	2234-13-1	0.01	V	Y	N
GLYCOL ETHER (ETHYLENE GLYCOL ETHERS)		5	P	Y	N	PARATHION	56-38-2	0.1		Y	Y
GLYCOL ETHER (DIETHYLENE GLYCOL ETHERS)		5	P	Y	N	PCB [POLYCHLORINATED BIPHENYLS]	1336-36-3	0.009	X	Y	Y
HEPTACHLOR	76-44-8	0.02		Y	N	PENTACHLORONITROBENZENE	82-68-8	0.3		Y	N
HEXACHLOROBENZENE	118-74-1	0.01		Y	N	PENTACHLOROPHENOL	87-86-5	0.7		Y	N
HEXACHLOROBUTADIENE	87-68-3	0.9		Y	N	PHENOL	108-95-2	0.1		Y	N
HEXACHLOROCYCLOHEXANE, [ALPHA-]	319-84-6	0.01	F	Y	N	PHENYLENEDIAMINE, [PARA-]	106-50-3	10		Y	N
HEXACHLOROCYCLOHEXANE, [BETA-]	319-85-7	0.01	F	Y	N	PHOSGENE	75-44-5	0.1		Y	N
HEXACHLOROCYCLOHEXANE, [DELTA-]	319-86-8	0.01	F	Y	N	PHOSPHINE	7803-51-2	5		N	N
HEXACHLOROCYCLOHEXANE, [TECHNICAL]	608-73-1	0.01	F	Y	N	PHOSPHOROUS (YELLOW OR WHITE)	7723-14-0	0.1		N	N
HEXACHLOROCYCLOPENTADIENE	77-47-4	0.1		Y	N	PHTHALIC ANHYDRIDE	85-44-9	5		Y	N
HEXACHLOROETHANE	67-72-1	5		Y	N	POLYCYCLIC ORGANIC MATTER		0.01	V	Y	N
HEXAMETHYLENE, -1,6-DIISOCYANATE	822-06-0	0.02		Y	N	PROPANE SULTONE, [1,3-]	1120-71-4	0.03		Y	Y
HEXAMETHYLPHOSPHORAMIDE	680-31-9	0.01		Y	N	PROPIOLACTONE, [BETA-]	57-57-8	0.1		Y	N
HEXANE, [N-]	110-54-3	10		Y	N	PROPIONALDEHYDE	123-38-6	5		Y	N
HYDRAZINE	302-01-2	0.004		N	N	PROPOXUR [BAYGON]	114-26-1	10		Y	Y
HYDROGEN CHLORIDE	7647-01-0	10		N	N	PROPYLENE OXIDE	75-56-9	5		Y	N
HYDROGEN FLUORIDE	7664-39-3	0.1		N	N	PROPYLENEIMINE, [1,2-]	75-55-8	0.003		Y	N
HYDROQUINONE	123-31-9	1		Y	N	QUINOLINE	81-22-5	0.006		Y	N
INDENO(1,2,3CD)PYRENE	193-39-5	0.01	V	Y	N	QUINONE	106-51-4	5		Y	N
ISOPHORONE	78-59-1	10		Y	N	RADIONUCLIDES		Note 1	Y	N	Y
LEAD COMPOUNDS		0.01	Q	N	Y	SELENIUM COMPOUNDS		0.1	W	N	Y
LINDANE [GAMMA-HEXACHLOROCYCLOHEXANE]	58-89-9	0.01	F	Y	N	STYRENE	100-42-5	1		Y	N
MALEIC ANHYDRIDE	108-31-6	1		Y	N	STYRENE OXIDE	96-09-3	1		Y	N
MANGANESE COMPOUNDS		0.8	R	N	Y	TETRACHLORODIBENZO-P-DIOXIN, [2,3,7,8]	1746-01-6	6E-07	D,V	Y	Y
MERCURY COMPOUNDS		0.01	S	N	N	TETRACHLOROETHANE, [1,1,2,2-]	79-34-5	0.3		Y	N
METHANOL	67-56-1	10		Y	N	TETRACHLOROETHYLENE	127-18-4	10		N	N
METHOXYCHLOR	72-43-5	10	V	Y	Y	TITANIUM TETRACHLORIDE	7550-45-0	0.1		N	N
METHOXYETHANOL, [2-]	108-86-4	10	P	Y	N	TOLUENE	108-88-3	10		Y	N
METHYL CHLORIDE	74-87-3	10		Y	N	TOLUENE DIISOCYANATE, [2,4-]	584-84-9	0.1		Y	N
METHYL ETHYL KETONE (Delisted)	78-93-3					TOLUIDINE, [ORTHO-]	95-53-4	4		Y	N
METHYL HYDRAZINE	60-34-4	0.06		Y	N	TOXAPHENE	8001-35-2	0.01		Y	N
METHYL IODIDE	74-88-4	1		Y	N	TRICHLOROETHYLENE, [1,2,4-]	120-82-1	10		Y	N
METHYL ISOBUTYL KETONE	108-10-1	10		Y	N	TRICHLOROETHANE, [1,1,1-]	71-55-6	10		N	N
METHYL ISOCYANATE	624-83-9	0.1		Y	N	TRICHLOROETHANE, [1,1,2-]	79-00-5	1		Y	N
METHYL METHACRYLATE	80-62-6	10		Y	N	TRICHLOROETHYLENE	79-01-6	10		Y	N
METHYL TERT-BUTYL ETHER	1634-04-4	10		Y	N	TRICHLOROPHENOL, [2,4,5-]	95-95-4	1		Y	N
METHYLCYCLOPENTADIENYL MANGANESE	12108-13-3	0.1	R	N	Y	TRICHLOROPHENOL, [2,4,6-]	88-06-2	6		Y	N
METHYLENE BIS(2-CHLOROANILINE), [4,4-]	101-14-4	0.2	V	Y	Y	TRIETHYLAMINE	121-44-8	10		Y	N

### Air Pollution Control Program Table of Hazardous Air Pollutants and Screening Model Action Levels

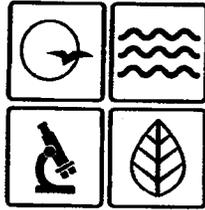
Chemical	CAS #	SMAL tons/yr	Group ID	VOC	PM	Chemical	CAS #	SMAL tons/yr	Group ID	VOC	PM
METHYLENEDIANILINE, [4,4-]	101-77-9	1	V	Y	N	TRIFLURALIN	1582-09-8	9		Y	Y
METHYLNAPHTHALENE, [2-]	91-57-6	0.01	V	Y	N	TRIMETHYLPENTANE, [2,2,4-]	540-84-1	5		Y	N
MINERAL FIBERS		0	T	N	Y	URETHANE [ETHYL CARBAMATE]	51-79-6	0.8		Y	N
NAPHTHALENE	91-20-3	10	V	Y	N	VINYL ACETATE	108-05-4	1		Y	N
NAPHTHYLAMINE, [ALPHA-]	134-32-7	0.01	V	Y	N	VINYL BROMIDE	593-60-2	0.6		Y	N
NAPHTHYLAMINE, [BETA-]	91-59-8	0.01	V	Y	N	VINYL CHLORIDE	75-01-4	0.2		Y	N
NICKEL CARBONYL	13463-39-3	0.1	U	N	Y	XYLENE, [META-]	108-38-3	10	G	Y	N
NICKEL COMPOUNDS		1	U	N	Y	XYLENES (MIXED ISOMERS)	1330-20-7	10	G	Y	N
NICKEL REFINERY DUST		0.08	U	N	Y						
NICKEL SUBSULFIDE	12035-72-2	0.04	U	N	Y						

Legend	
Group ID	
A	Asbestos
B	Cresols/Cresylic Acid (isomers and mixtures)
C	2,4 - D, Salts and Esters
D	Dibenzofurans, Dibenzodioxins
E	4, 6 Dinitro-o-cresol, and Salts
F	Lindane (all isomers)
G	Xylenes (all isomers and mixtures)
H	Antimony Compounds
I	Arsenic Compounds
J	Beryllium Compounds
K	Cadmium Compounds
L	Chromium Compounds
M	Cobalt Compounds
N	Coke Oven Emissions
O	Cyanide Compounds
P	Glycol Ethers
Q	Lead Compounds (except elemental Lead)
R	Manganese Compounds
S	Mercury Compounds
T	Fine Mineral Fibers
U	Nickel Compounds
V	Polycyclic Organic Matter
W	Selenium Compounds
X	Polychlorinated Biphenyls (Aroclors)
Y	Radionuclides
Notes	The SMAL for radionuclides is defined as the effective dose equivalent to 0.3 millirems per year for 7 years exposure associated with a cancer risk of 1 in 1 million

## APPENDIX B

### Abbreviations and Acronyms

<b>%</b> .....	percent	<b>m/s</b> .....	meters per second
<b>°F</b> .....	degrees Fahrenheit	<b>Mgal</b> .....	1,000 gallons
<b>acfm</b> .....	actual cubic feet per minute	<b>MW</b> .....	megawatt
<b>BACT</b> .....	Best Available Control Technology	<b>MHDR</b> .....	maximum hourly design rate
<b>BMPs</b> .....	Best Management Practices	<b>MMBtu</b> ...	Million British thermal units
<b>Btu</b> .....	British thermal unit	<b>MMCF</b> .....	million cubic feet
<b>CAM</b> .....	Compliance Assurance Monitoring	<b>MSDS</b> .....	Material Safety Data Sheet
<b>CAS</b> .....	Chemical Abstracts Service	<b>NAAQS</b> ..	National Ambient Air Quality Standards
<b>CEMS</b> .....	Continuous Emission Monitor System	<b>NESHAPs</b>	National Emissions Standards for Hazardous Air Pollutants
<b>CFR</b> .....	Code of Federal Regulations	<b>NO<sub>x</sub></b> .....	nitrogen oxides
<b>CO</b> .....	carbon monoxide	<b>NSPS</b> .....	New Source Performance Standards
<b>CO<sub>2</sub></b> .....	carbon dioxide	<b>NSR</b> .....	New Source Review
<b>CO<sub>2</sub>e</b> .....	carbon dioxide equivalent	<b>PM</b> .....	particulate matter
<b>COMS</b> .....	Continuous Opacity Monitoring System	<b>PM<sub>2.5</sub></b> .....	particulate matter less than 2.5 microns in aerodynamic diameter
<b>CSR</b> .....	Code of State Regulations	<b>PM<sub>10</sub></b> .....	particulate matter less than 10 microns in aerodynamic diameter
<b>dscf</b> .....	dry standard cubic feet	<b>ppm</b> .....	parts per million
<b>EIQ</b> .....	Emission Inventory Questionnaire	<b>PSD</b> .....	Prevention of Significant Deterioration
<b>EP</b> .....	Emission Point	<b>PTE</b> .....	potential to emit
<b>EPA</b> .....	Environmental Protection Agency	<b>RACT</b> .....	Reasonable Available Control Technology
<b>EU</b> .....	Emission Unit	<b>RAL</b> .....	Risk Assessment Level
<b>fps</b> .....	feet per second	<b>SCC</b> .....	Source Classification Code
<b>ft</b> .....	feet	<b>scfm</b> .....	standard cubic feet per minute
<b>GACT</b> .....	Generally Available Control Technology	<b>SDS</b> .....	Safety Data Sheet
<b>GHG</b> .....	Greenhouse Gas	<b>SIC</b> .....	Standard Industrial Classification
<b>gpm</b> .....	gallons per minute	<b>SIP</b> .....	State Implementation Plan
<b>gr</b> .....	grains	<b>SMAL</b> .....	Screening Model Action Levels
<b>GWP</b> .....	Global Warming Potential	<b>SO<sub>x</sub></b> .....	sulfur oxides
<b>HAP</b> .....	Hazardous Air Pollutant	<b>SO<sub>2</sub></b> .....	sulfur dioxide
<b>hr</b> .....	hour	<b>tph</b> .....	tons per hour
<b>hp</b> .....	horsepower	<b>tpy</b> .....	tons per year
<b>lb</b> .....	pound	<b>VMT</b> .....	vehicle miles traveled
<b>lbs/hr</b> .....	pounds per hour	<b>VOC</b> .....	Volatile Organic Compound
<b>MACT</b> .....	Maximum Achievable Control Technology		
<b>µg/m<sup>3</sup></b> .....	micrograms per cubic meter		



**Missouri Department of** dnr.mo.gov

# **NATURAL RESOURCES**

Eric R. Greitens, Governor

Carol S. Comer, Director

OCT 12 2017

Mr. Jon Melham  
Co-Owner  
Northland Coating Solutions  
15016 Nation Road  
Kearney, MO 64060

RE: New Source Review Permit - Project Number: 2015-11-013

Dear Mr. Melham:

Enclosed with this letter is your permit to construct. Please study it carefully and refer to Appendix A for a list of common abbreviations and acronyms used in the permit. Also, note the special conditions, if any, on the accompanying pages. The document entitled, "Review of Application for Authority to Construct," is part of the permit and should be kept with this permit in your files. Operation in accordance with these conditions, your new source review permit application and with your amended operating permit is necessary for continued compliance. The reverse side of your permit certificate has important information concerning standard permit conditions and your rights and obligations under the laws and regulations of the State of Missouri.

If you were adversely affected by this permit decision, you may be entitled to pursue an appeal before the administrative hearing commission pursuant to Sections 621.250 and 643.075.6 RSMo. To appeal, you must file a petition with the administrative hearing commission within thirty days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed; if it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the administrative hearing commission, whose contact information is: Administrative Hearing Commission, Truman State Office Building, Room 640, 301 W. High Street, P.O. Box 1557, Jefferson City, Missouri 65102, phone: 573-751-2422, fax: 573-751-5018, website: [www.oa.mo.gov/ahc](http://www.oa.mo.gov/ahc).



Recycled paper

Mr. Jon Melham  
Page Two

If you have any questions regarding this permit, please do not hesitate to contact Chia-Wei Young, at the Department of Natural Resources' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102 or at (573) 751-4817. Thank you for your attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

*Kendall B. Hall*

Susan Heckenkamp  
New Source Review Unit Chief

SH:cj

Enclosures

c: Kansas City Regional Office  
PAMS File: 2015-11-013

Permit Number: 102017-006