

November 7, 2025

Ms. Amy Tempus, Section Supervisor
Kentucky Division of Air Quality
Permit Branch Metallurgy Section
300 Sower Blvd
Frankfort KY 40601

Re: Re-application for Operation Permit# V-20-029

Dear Ms. Tempus:

Nemak USA, Inc. (J.L. French) Plant #1, 20 Prestwick Drive, is located in Glasgow, Kentucky. Source ID is 21-009-00065, Agency Interest #78; currently operating under Title V permit #V-20-029. The application is submitted through the EEC Gateway portal.

We request that if you need any information or have questions, please contact Patrick Segers of NSS Environmental, Inc. at 502-423-7662.

Sincerely,



Karen Lyons
Health & Safety Environmental Manager
Nemak USA, Inc.

Enclosure

**Nemak USA, Inc., Plant #1
20 Prestwick Drive, Glasgow, KY
Re-Application for Operation Permit
#V-20-029**

Prepared for:
Nemak USA, Inc.
20 Prestwick Drive
Glasgow, Kentucky 42141

Prepared by:
NSS Environmental, Inc.
PO Box 436223
Louisville, Kentucky 40253
502/423-7662

November 7, 2025

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Title V Major Source Permit Renewal Nemak USA, Inc. - Plant #1 20 Prestwick Drive, Glasgow, Kentucky

1.0 Introduction

The following Title V Major Source Permit renewal is being provided for Nemak USA, Inc. The current Title V Major Source Permit number is V-20-029 issued on May 7, 2021.

2.0 Description of the Facility

The Nemak USA, Inc. – Plant #1 facility is located at 20 Prestwick Drive in Glasgow, Barren County, Kentucky.

Nemak USA, Inc., formerly JL French Corporation, is a secondary aluminum processing source in Glasgow, Kentucky that produces die castings. The plant consists of a secondary aluminum production operation and a die casing operation. Scrap aluminum is processed into die castings for parts for internal combustion engines and transmissions. The Standard Industrial Classification (SIC) codes for this aluminum die casting and secondary smelting and refining of nonferrous metals are 3363 and 3341.

Scrap aluminum, sows, ingot, and alloying materials are the raw feed materials charged to the reverberatory furnaces at this plant. Secondary aluminum production operations utilize reverberatory furnaces which may or may not use clean charge.

This facility uses two (2) reverberatory melting furnaces. These two furnaces are classified as Group 1 furnaces under 40 CFR 63.1503 due to the use of chlorine gas for reactive fluxing and raw material charging with aluminum scrap that can contain paint, lubricants, coatings, or other foreign materials. Chlorine injection/fluxing is performed in the side wells to remove magnesium and other impurities which rise to the top of side wells of these furnaces and are manually skimmed off as dross. The reactive fluxing takes place only in the side wells of these furnaces and the level of molten aluminum is maintained above the arch way between the side wells and hearth; therefore, the hearth/combustion chamber and side door are not subject to 40 CFR 63 Subpart RRR emissions limits. (See RMF01/RMF02 Furnace Design Schematic; Appendix B). All emissions from the melt/hold furnaces are routed to the lime injected central baghouse. Currently, skimmed molten dross is placed onto pans and cooled in open areas within the production building's alloy department. Because the dross is not agitated during cooling, any fugitive particulate emissions generated by the new cooling process are expected to be negligible given the lack of agitation and the capture/control from the production building. The cooled dross is shipped off-site for recycling.

The molten aluminum from the reverberatory furnaces is transferred to electric holding furnaces that supply each die cast machine. The aluminum is injected into a die cast from the holding furnace, allowed to solidify, and the cast part is removed for finishing. A solution of water and die lube is sprayed on the open die for cooling and to apply a release agent for easy removal of the die cast part. The die lube as purchased consists of water, synthetic oil, and < 3% ethoxylated alcohols. The die lube is diluted with water at a 70:1 ratio before application. (Per manufacturer the die lube contains no other VOCs.) (Actual die lube (See Appendix D for die lube SDS) rate is 3.0 gallons/hour.) Emissions from the die casting operations consist of organic compounds that are emitted as fugitive emissions. Emission factors for this area are found in Appendix C. These emissions are based on a study by the North American Die Casting Association.

The electric induction furnaces (IF01 and IF02) have been removed from the facility.

3.0 Reason for Submittal

The following permit application is a renewal of the aforementioned Title V Major Source Permit #V-20-029 due to expire May 7, 2026. All defined emission points and insignificant activities have been submitted as known for renewal.

4.0 Hazardous and Toxic Materials Regulated

- A. 401 KAR 57:002 (NESHAP) Pollutants
 - 1) Secondary Aluminum Smelting 40 CFR 63, Subpart RRR
 - PM
 - Hydrochloric Acid
 - Dioxins and Furans
 - 2) Stationary Reciprocating Internal Combustion Engines 40 CFR 63, Subpart ZZZZ
- B. 40 CFR 68, Subpart F (112(R)) Pollutants
 - Chlorine (below threshold quantities in single process)
- C. 401 KAR 63:020 (HAPS)
 - HAPS from natural gas combustion
 - Chlorine
 - Hydrochloric acid
 - Lead compounds
 - Manganese compounds
 - Nickel compounds
 - Chromium compounds

Permit Number: V-20-029

Section C – Insignificant Activities

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:020, Section 6. Although these activities are designated as insignificant the permittee must comply with the applicable regulation. Process and emission control equipment at each insignificant activity subject to an opacity standard shall be inspected monthly and a qualitative visible emissions evaluation made. Results of the inspection, evaluation, and any corrective action shall be recorded in a log.

	Description	Generally Applicable Regulation
1	Convenience water heaters	N/A
2	Convenience space heaters	N/A
3	Natural gas-fired HVAC system	N/A
4	Internal combustion engines	N/A
5	Fire control equipment	N/A
6	0.25 Mile paved haul roads and yard	401 KAR 63:010
7	Equipment maintenance	N/A
8	Wisconsin oven, 0.6 MM BTU/Hr	401 KAR 59:015
9	Process water treatment	401 KAR 63:010
10	Die lube tanks 1-3 (5000 gal each)	N/A
11	Indoor holding tank (4500 gal)	N/A
12	Squeeze cast mixing tank (400 gal)	N/A
13	Furnace pump heaters	N/A
14	Cooling towers	401 KAR 63:010
15	1.0 MM BTU/Hr Supplemental Burner	401 KAR 52:020
16	Rotary Degassing Unit utilizing an inert gas (nitrogen or argon) to achieve degassing of the melt	401 KAR 52:020
17	Benchtop 550 Cubic Inch Electric Muffle Furnace for Testing Moisture/Oil Content of Aluminum Pucks (0.0075 BTU/Hour)	N/A
18	Test furnace for melting aluminum for alloy testing	401 KAR 52:020
19	550 gallon diesel AST	401 KAR 52:020

List of Manufacturing and Processing Operations DEP 7007B Forms

- Reverberatory Melt Furnace 01
- Reverberatory Melt Furnace 02
- Die Cast Hold Furnaces (1-9) 3000 #/Hr
- Die Cast Hold Furnaces (10-14) 4500 #/Hr
- Die Casters (1-9) 1600 Ton Units
- Die Casters (10-14) 2000 Ton Units
- Roto blaster #1 & #2
- Passive Dross Cooling
- Emergency Diesel Generator

Appendix A
Permit Application Forms
DEP 7007AI
DEP 7007B
DEP 7007N
DEP 7007V
DEP 7007DD
DEP 7007FF
DEP 7007GG

Division for Air Quality

300 Sower Boulevard
Frankfort, KY 40601
(502) 564-3999

DEP7007AI

Administrative Information

- Section AI.1: Source Information
- Section AI.2: Applicant Information
- Section AI.3: Owner Information
- Section AI.4: Type of Application
- Section AI.5: Other Required Information
- Section AI.6: Signature Block
- Section AI.7: Notes, Comments, and Explanations

Additional Documentation

Additional Documentation attached

Source Name: Nemak USA, Inc.

KY EIS (AFS) #: 21- 009-00065

Permit #: V-20-029

Agency Interest (AI) ID: 78

Date: 11/7/2025

Section AI.1: Source Information

Physical Location	Street:	<u>20 Prestwick Drive</u>		
Address:	City:	<u>Glasgow</u>	County:	<u>Barren</u>
			Zip Code:	<u>42141</u>
Mailing Address:	Street or P.O. Box:	<u>20 Prestwick Drive</u>		
	City:	<u>Glasgow</u>	State:	<u>Kentucky</u>
			Zip Code:	<u>42141</u>

Standard Coordinates for Source Physical Location

Longitude: 85.9275 (decimal degrees) Latitude: 36.97338056 (decimal degrees)

Primary (NAICS) Category: Secondary aluminum smelting and alloying Primary NAICS #: 331314

Classification (SIC) Category:		<u>Secondary aluminum processing/die casting</u>		Primary SIC #: <u>3341 / 3363</u>	
Briefly discuss the type of business conducted at this site:		<u>Nemak USA, Inc. is a secondary aluminum processing source that produces die castings for automotive parts.</u>			
Description of Area Surrounding Source:	<input type="checkbox"/> Rural Area	<input checked="" type="checkbox"/> Industrial Park	<input checked="" type="checkbox"/> Residential Area	Is any part of the source located on federal land?	<input type="checkbox"/> Yes
	<input type="checkbox"/> Urban Area	<input type="checkbox"/> Industrial Area	<input type="checkbox"/> Commercial Area		<input checked="" type="checkbox"/> No
Approximate distance to nearest residence or commercial property: <u>100-200 feet</u>		Property Area: <u>15.3 acres</u>		Is this source portable? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
What other environmental permits or registrations does this source currently hold or need to obtain in Kentucky?					
NPDES/KPDES:	<input checked="" type="checkbox"/> Currently Hold	<input type="checkbox"/> Need	<input type="checkbox"/> N/A		
Solid Waste:	<input type="checkbox"/> Currently Hold	<input type="checkbox"/> Need	<input checked="" type="checkbox"/> N/A		
RCRA:	<input checked="" type="checkbox"/> Currently Hold	<input type="checkbox"/> Need	<input type="checkbox"/> N/A		
UST:	<input type="checkbox"/> Currently Hold	<input type="checkbox"/> Need	<input checked="" type="checkbox"/> N/A		
Type of Regulated Waste Activity:	<input type="checkbox"/> Mixed Waste Generator	<input checked="" type="checkbox"/> Generator	<input type="checkbox"/> Recycler	<input type="checkbox"/> Other: _____	
	<input type="checkbox"/> U.S. Importer of Hazardous Waste	<input type="checkbox"/> Transporter	<input type="checkbox"/> Treatment/Storage/Disposal Facility	<input type="checkbox"/> N/A	

Section AI.2: Applicant Information

Applicant Name: Nemak USA, Inc.

Title: (if individual) _____

Mailing Address: **Street or P.O. Box:** 20 Prestwick Drive
City: Glasgow **State:** Kentucky **Zip Code:** 42141

Email: (if individual) _____

Phone: 270-651-8334

Technical Contact

Name: Karen Lyons

Title: Health & Safety Environmental Manager

Mailing Address: **Street or P.O. Box:** 20 Prestwick Drive
City: Glasgow **State:** Kentucky **Zip Code:** 42141

Email: Karen.Lyons01@nemak.com

Phone: 270-651-8334, Extension 1047

Air Permit Contact for Source

Name: Karen Lyons

Title: Health & Safety Environmental Manager

Mailing Address: **Street or P.O. Box:** 20 Prestwick Drive
City: Glasgow **State:** Kentucky **Zip Code:** 42141

Email: Karen.Lyons01@nemak.com

Phone: 270-651-8334, Extension 1047

Section AI.3: Owner Information

Owner same as applicant

Name: _____

Title: _____

Mailing Address: **Street or P.O. Box:** _____
City: _____ **State:** _____ **Zip Code:** _____

Email: _____

Phone: _____

List names of owners and officers of the company who have an interest in the company of 5% or more.

Name

Position

Available upon request _____

Section AI.4: Type of Application

Current Status: Title V Conditional Major State-Origin General Permit Registration None

Name Change Initial Registration Significant Revision Administrative Permit Amendment

Requested Action: Renewal Permit Revised Registration Minor Revision Initial Source-wide Operating Permit
(check all that apply)

502(b)(10)Change Extension Request Addition of New Facility Portable Plant Relocation Notice

Revision Off Permit Change Landfill Alternate Compliance Submittal Modification of Existing Facilities

Ownership Change Closure

Requested Status: Title V Conditional Major State-Origin PSD NSR Other: _____

Is the source requesting a limitation of potential emissions? Yes No

Pollutant:	Requested Limit:	Pollutant:	Requested Limit:
<input type="checkbox"/> Particulate Matter	_____	<input type="checkbox"/> Single HAP	_____
<input type="checkbox"/> Volatile Organic Compounds (VOC)	_____	<input type="checkbox"/> Combined HAPs	_____
<input type="checkbox"/> Carbon Monoxide	_____	<input type="checkbox"/> Air Toxics (40 CFR 68, Subpart F)	_____
<input type="checkbox"/> Nitrogen Oxides	_____	<input type="checkbox"/> Carbon Dioxide	_____
<input type="checkbox"/> Sulfur Dioxide	_____	<input type="checkbox"/> Greenhouse Gases (GHG)	_____
<input type="checkbox"/> Lead	_____	<input type="checkbox"/> Other	_____

For New Construction:

Proposed Start Date of Construction: **Proposed Operation Start-Up Date:** (MM/YYYY)

(MM/YYYY) N/A _____

For Modifications:

Proposed Start Date of Modification: **Proposed Operation Start-Up Date:** (MM/YYYY)

(MM/YYYY) N/A _____

Applicant is seeking coverage under a permit shield. Yes No **Identify any non-applicable requirements for which permit shield is sought on a separate attachment to the application.**

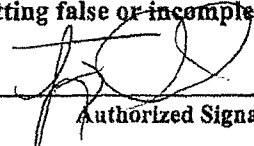
Section A1.5 Other Required Information

Indicate the documents attached as part of this application:

- | | |
|--|--|
| <input type="checkbox"/> DEP7007A Indirect Heat Exchangers and Turbines | <input type="checkbox"/> DEP7007CC Compliance Certification |
| <input checked="" type="checkbox"/> DEP7007B Manufacturing or Processing Operations | <input checked="" type="checkbox"/> DEP7007DD Insignificant Activities |
| <input type="checkbox"/> DEP7007C Incinerators and Waste Burners | <input type="checkbox"/> DEP7007EE Internal Combustion Engines |
| <input type="checkbox"/> DEP7007F Episode Standby Plan | <input type="checkbox"/> DEP7007FF Secondary Aluminum Processing |
| <input type="checkbox"/> DEP7007J Volatile Liquid Storage | <input checked="" type="checkbox"/> DEP7007GG Control Equipment |
| <input type="checkbox"/> DEP7007K Surface Coating or Printing Operations | <input type="checkbox"/> DEP7007HH Haul Roads |
| <input type="checkbox"/> DEP7007L Mineral Processes | <input type="checkbox"/> Confidentiality Claim |
| <input type="checkbox"/> DEP7007M Metal Cleaning Degreasers | <input type="checkbox"/> Ownership Change Form |
| <input checked="" type="checkbox"/> DEP7007N Source Emissions Profile | <input checked="" type="checkbox"/> Secretary of State Certificate |
| <input type="checkbox"/> DEP7007P Perchloroethylene Dry Cleaning Systems | <input checked="" type="checkbox"/> Flowcharts or diagrams depicting process |
| <input type="checkbox"/> DEP7007R Emission Offset Credit | <input type="checkbox"/> Digital Line Graphs (DLG) files of buildings, roads, etc. |
| <input type="checkbox"/> DEP7007S Service Stations | <input checked="" type="checkbox"/> Site Map |
| <input type="checkbox"/> DEP7007T Metal Plating and Surface Treatment Operations | <input checked="" type="checkbox"/> Map or drawing depicting location of facility |
| <input checked="" type="checkbox"/> DEP7007V Applicable Requirements and Compliance Activities | <input checked="" type="checkbox"/> Safety Data Sheet (SDS) |
| <input type="checkbox"/> DEP7007Y Good Engineering Practice and Stack Height Determination | <input type="checkbox"/> Emergency Response Plan |
| <input type="checkbox"/> DEP7007AA Compliance Schedule for Non-complying Emission Units | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> DEP7007BB Certified Progress Report | |

Section A1.6: Signature Block

I, the undersigned, hereby certify under penalty of law, that I am a responsible official*, and that I have personally examined, and am familiar with, the information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the information is on knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false or incomplete information, including the possibility of fine or imprisonment.



Authorized Signature

Luis Corona

Type or Printed Name of Signatory

11/11/25

Date

Plant Leader

Title of Signatory

*Responsible official as defined by 401 KAR 52:001.

Division for Air Quality 300 Sower Boulevard Frankfort, KY 40601 (502) 564-3999	DEP7007B Manufacturing or Processing Operations ___ Section B.1: Process Information ___ Section B.2: Materials and Fuel Information ___ Section B.3: Notes, Comments, and Explanations	Additional Documentation ___ Complete DEP7007AI, DEP7007N, DEP7007V, and DEP7007GG. ___ Attach a flow diagram ___ Attach SDS
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Source Name:	<u>Nemak USA, Inc.</u>
KY EIS (AFS) #:	<u>21- 009-00065</u>
Permit #:	<u>V-20-029</u>
Agency Interest (AI) ID:	<u>78</u>
Date:	<u>11/7/2025</u>

Section B.1: Process Information										
Emission Unit #	Emission Unit Name	Describe Emission Unit	Process ID	Process Name	Manufacturer	Model No.	Proposed/Actual Date of Construction Commencement (MM/YYYY)	Is the Process Continuous or Batch?	Number of Batches per 24 Hours (if applicable)	Hours per Batch (if applicable)
03 RMF01	Reverberatory Melt Furnace 01	Reverberatory aluminum melt and hold furnace	RMF01	Aluminum melt	N/A - Proprietary Design	N/A	04/2000	Continuous	N/A	N/A
03 FRM02	Reverberatory Melt	Reverberatory aluminum melt and hold furnace	RMF02	Aluminum melt	N/A - Proprietary	N/A	06/2000	Continuous	N/A	N/A
005 HF 1-9	Die Cast Hold Furnaces (Group2)	Die cast hold furnaces 1-9 3000#/hr	HF1-9	Die cast hold furnaces	N/A - Custom	N/A	01/1994	Continuous	N/A	N/A
005 HF 10-14	Furnaces (Group2)	Die cast hold furnaces 10-14 4500#/hr	HF10-14	Die cast hold furnaces	N/A - Custom	N/A	01/2000	Continuous	N/A	N/A
006 DC01-DC-09	Die Casters 1-9	Die casters DC 01-09 1600 ton	DC01-DC09	Die casting	N/A - Custom	N/A	01/1994	Continuous	N/A	N/A

Section B.2: Materials and Fuel Information

**Maximum yearly fuel usage rate only applies if applicant request operating restrictions through federally enforceable limitations.*

Emission Unit #	Emission Unit Name	Name of Raw Materials Input	Maximum Quantity of Each Raw Material Input		Total Process Weight Rate for Emission Unit (tons/hr)	Name of Finished Materials	Maximum Quantity of Each Finished Material Output		Fuel Type	Maximum Hourly Fuel Usage Rate		Maximum Yearly Fuel Usage Rate		Sulfur Content (%)	Ash Content (%)
				(Specify Units/hr)				(Specify Units/hr)			(Specify Units)		(Specify Units)		
03 RMF01	Reverbaratory melt furnace 01	Aluminum charge in conformance with the definition of a Group 1 furnace as detailed in Subpart RRR, NESHAP Chlorine gas for fluxing, Powder Flux, 75% Salt, 22% Potash, 3% Calcium Chloride	6.26 87.35 722 1500	tons/hr aluminum feed; lbs/hr chlorine gas flux; lbs/hr powder flux; lbs/hr alloy materials	6.5	Refined molten aluminum routed via ladles to the die cast operation	6.5	tons/hr molten alloyed aluminum	Natural Gas	0.22	MMCF	1927.2	MMCF	Standard specifications for natural gas	Standard specifications for natural gas
03 RMF02	Reverbaratory melt furnace 02	Aluminum charge in conformance with the definition of a Group 1 furnace as detailed in Subpart RRR, NESHAP Chlorine gas for fluxing, Powder Flux, 75% Salt, 22% Potash, 3% Calcium Chloride	6.16 86 772 1500	tons/hr aluminum feed; lbs/hr chlorine gas flux; lbs/hr powder flux; lbs/hr alloy materials	6.5	Refined molten aluminum routed via ladles to the die cast operation	6.5	tons/hour	Natural Gas	0.14	MMCF	1226.4	MMCF	Standard specifications for natural gas	Standard specifications for natural gas
005 HF1-09	Die cast furnaces (Group 2)	Clean aluminum alloy	3000	#/hour/each	1.5 hour/each	Hold furnaces for facility die cast of automotive parts	3000	#/hour/each	Electricity	N/A	N/A	N/A	N/A	0	0

Emission Unit #	Emission Unit Name	Name of Raw Materials Input	Maximum Quantity of Each Raw Material Input		Total Process Weight Rate for Emission Unit (tons/hr)	Name of Finished Materials	Maximum Quantity of Each Finished Material Output		Fuel Type	Maximum Hourly Fuel Usage Rate		Maximum Yearly Fuel Usage Rate		Sulfur Content (%)	Ash Content (%)
				(Specify Units/hr)				(Specify Units/hr)			(Specify Units)		(Specify Units)		
005 HF10-14	Die cast furnaces (Group 2)	Clean aluminum alloy	4500	#/hour/each	2.25 hour/each	Hold furnaces for facility die cast of automotive parts	4500	#/hour/each	Electricity	N/A	N/A	N/A	N/A	0	0

Section B.3: Notes, Comments, and Explanations

No changes since last application. Stack on AL2 was replaced with same height and diameter (replacement in kind)

Division for Air Quality

300 Sower Boulevard
Frankfort, KY 40601
(502) 564-3999

DEP7007B

Manufacturing or Processing
Operations

- Section B.1: Process Information
- Section B.2: Materials and Fuel Information
- Section B.3: Notes, Comments, and Explanations

Additional Documentation

- Complete DEP7007AI, DEP7007N, DEP7007V, and DEP7007GG.
- Attach a flow diagram
- Attach SDS

Source Name: Nemak USA, Inc.

KY EIS (AFS) #: 21- 009-00065

Permit #: V-20-029

Agency Interest (AI) ID: 78

Date: 11/7/2025

Section B.1: Process Information

Emission Unit #	Emission Unit Name	Describe Emission Unit	Process ID	Process Name	Manufacturer	Model No.	Proposed/Actual Date of Construction Commencement (MM/YYYY)	Is the Process Continuous or Batch?	Number of Batches per 24 Hours (if applicable)	Hours per Batch (if applicable)
#006	Die casters 10-14	Die casters DC10-DC14; 2000 ton	DC10-DC14	Die casting	N/A - Custom	N/A	01/2000	Continuous	N/A	N/A
#014	(2) BCP Rotoblasters	Steel shot rotoblasters	Rotoblast	BCP Rotoblaster	BCP	N/A	01/1994	Batch	Variable	Variable
#004 (D01)	Passive Dross Cooling	Dross cooling pans	D01	Passive dross cooling	Custom	N/A	06/2000	Continuous	N/A	N/A
#017 (01)	Emergency Generator	Emergency generator	Generator 01	Emergency electricity	Caterpillar	3508	07/2000	Batch	One	One

Section B.2: Materials and Fuel Information															
<i>*Maximum yearly fuel usage rate only applies if applicant request operating restrictions through federally enforceable limitations.</i>															
Emission Unit #	Emission Unit Name	Name of Raw Materials Input	Maximum Quantity of Each Raw Material Input		Total Process Weight Rate for Emission Unit (tons/hr)	Name of Finished Materials	Maximum Quantity of Each Finished Material Output		Fuel Type	Maximum Hourly Fuel Usage Rate		Maximum Yearly Fuel Usage Rate		Sulfur Content (%)	Ash Content (%)
				(Specify Units/hr)				(Specify Units/hr)			(Specify Units)		(Specify Units)		
#006 DC01-DC09	Die casters 01-09	Aluminum alloy die lube (70:1) water to die lube mix	3000 3.0	lb/hr gal/hr	1.5	Die cast aluminum alloy automotive parts	3000	#/hour/each	N/A	N/A	N/A	N/A	N/A	N/A	N/A
#006 DC10-14	Die casters 10-14	Aluminum alloy die lube (70:1) water to die lube mix	4500 3.0	lb/hr gal/hr	2.25	Die cast aluminum alloy automotive parts	4500	#/hour/each	N/A	N/A	N/A	N/A	N/A	N/A	N/A
#014	(2) BCP Rotoblasters	Steel shot die cast aluminum parts	57.5 5760	lb/hr ft2/hr	0.0288	Die cast aluminum alloy automotive parts	57.5	#/hour/each	N/A	N/A	N/A	N/A	N/A	N/A	N/A
#004 (D01)	Dross Cooling	Dross materials from melt furnace	0.4	tons/hr	0.4	Cooled dross for recycling (aluminum)	0.4	ton/hour	N/A	N/A	N/A	N/A	N/A	N/A	N/A
#017	Emergency Generator	No raw materials	N/A	N/A	None	Electricity	1350	Hp	Diesel	75	gal/hour	54,000	Gallons	0.05 max	0.01

Section B.3: Notes, Comments, and Explanations

017 - Emergency generator will only operate 720 hours per year in non-emergency situations (maintenance, routine testing)

Division for Air Quality

300 Sower Boulevard
Frankfort, KY 40601
(502) 564-3999

DEP7007N

Source Emissions Profile

- Section N.1: Emission Summary
- Section N.2: Stack Information
- Section N.3: Fugitive Information
- Section N.4: Notes, Comments, and Explanations

Additional Documentation

Complete DEP7007AI

Source Name: Nemak USA, Inc.

KY EIS (AFS) #: 21- 009-00065

Permit #: V-20-029

Agency Interest (AI) ID: 78

Date: 11/7/2025

N.1: Emission Summary

Emission Unit #	Emission Unit Name	Process ID	Process Name	Control Device Name	Control Device ID	Stack ID	Maximum Design Capacity (SCC Units/hour)	Pollutant	Uncontrolled Emission Factor (lb/SCC Units)	Emission Factor Source (e.g. AP-42, Stack Test, Mass Balance)	Capture Efficiency (%)	Control Efficiency (%)	Hourly Emissions		Annual Emissions	
													Uncontrolled Potential (lb/hr)	Controlled Potential (lb/hr)	Uncontrolled Potential (tons/yr)	Controlled Potential (tons/yr)
RMF01	Reverbatory Furnace 01	RMF01	Melt Furnace 01	Central Baghouse	C01	S1	6.5 tons/hr	PM	5.67	Stack Test		99.00%	36.78	0.36	161.14	1.614
								HCl	0.2	Stack Test		90.00%	13	1.3	56.94	0.569
								D/F	0.0000021	Stack Test		90.00%	0.00013	0.000013	0.00059	0.0000059
RMF02	Reverbatory Furnace 02	RMF02	Melt Furnace 02	Central Baghouse	C01	S1	6.5 tons/hr	PM	5.67	Stack Test		99.00%	36.78	0.36	161.14	1.614
								HCl	0.2	Stack Test		90.00%	13	1.3	56.94	0.569
								D/F	0.0000021	Stack Test		90.00%	0.00013	0.000013	0.00059	0.0000059

Section N.2: Stack Information

UTM Zone:

Stack ID	Identify all Emission Units (with Process ID) and Control Devices that Feed to Stack	Stack Physical Data			Stack UTM Coordinates		Stack Gas Stream Data		
		Equivalent Diameter (ft)	Height (ft)	Base Elevation (ft)	Northing (m)	Easting (m)	Flowrate (acfm)	Temperature (°F)	Exit Velocity (ft/sec)
S11	C01 Central Baghouse, RMF01, RMF02	8	68.66	0	565349.7	409246	128,391	145	42.6
S12-01	RMF01 Furnace Flue Gas Stack	2.5	68.66	0	565349.7	409246	2,844	787	25.4
S12-02	RMF02 Furnace Flue Gas Stack	2.5	68.66	0	565349.7	49246	2,844	787	25.4
S13	Two (2) BCP Rotoblasters 014	2	40	40	595519.5	409243.2	10,000	Ambient	53
S-Gen01	Emergency Generator	0.5	15	0	5907576	404596	Unknown	300	Unknown

Section N.3: Fugitive Information

UTM Zone:

Emission Unit #	Emission Unit Name	Process ID	Area Physical Data		Area UTM Coordinates		Area Release Data	
			Length of the X Side <i>(ft)</i>	Length of the Y Side <i>(ft)</i>	Northing <i>(m)</i>	Easting <i>(m)</i>	Release Temperature <i>(°F)</i>	Release Height <i>(ft)</i>
004 (D01)	Passive Dross Cooling	D01	30	30	595379	4092481	Ambient	0
005 (HF01-14)	Die Cast Holding Furnaces (01-14)	HF01-14	40	330	5907576	404528	Ambient	30
006 (DC01-DC14)	Die Casters 01-14	DC01-DC14	40	330	5907576	404528	Ambient	30

Division for Air Quality

300 Sower Boulevard
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DEP7007N

Source Emissions Profile

- Section N.1: Emission Summary
- Section N.2: Stack Information
- Section N.3: Fugitive Information
- Section N.4: Notes, Comments, and Explanations

Additional Documentation

Complete DEP7007AI

Source Name: Nemak USA, Inc.
 KY EIS (AFS) #: 21- 009-00065
 Permit #: V-20-029
 Agency Interest (AI) ID: 78
 Date: 11/7/2025

N.1: Emission Summary

Emission Unit #	Emission Unit Name	Process ID	Process Name	Control Device Name	Control Device ID	Stack ID	Maximum Design Capacity (SCC Units/hour)	Pollutant	Uncontrolled Emission Factor (lb/SCC Units)	Emission Factor Source (e.g. AP-42, Stack Test, Mass Balance)	Capture Efficiency (%)	Control Efficiency (%)	Hourly Emissions		Annual Emissions	
													Uncontrolled Potential (lb/hr)	Controlled Potential (lb/hr)	Uncontrolled Potential (tons/yr)	Controlled Potential (tons/yr)
RMF01	RMF01 Burner	RMF01	Melt Furnace	None	None	S12-01	0.0404 MMCF	PM	7.6	AP-42	0.00%	0.00%	0.307	N/A	1.344	N/A
								CO2	120280	AP-42	0.00%	0.00%	4859	N/A	21283	N/A
								CO	84	AP-42	0.00%	0.00%	3.39	N/A	14.86	N/A
								NO2	100	AP-42	0.00%	0.00%	4.03	N/A	17.69	N/A
								SO2	0.6	AP-42	0.00%	0.00%	0.024	N/A	0.106	N/A
								VOC	5.5	AP-42	0.00%	0.00%	0.222	N/A	0.973	N/A

Section N.2: Stack Information

UTM Zone:

Stack ID	Identify all Emission Units (with Process ID) and Control Devices that Feed to Stack	Stack Physical Data			Stack UTM Coordinates		Stack Gas Stream Data		
		Equivalent Diameter (ft)	Height (ft)	Base Elevation (ft)	Northing (m)	Easting (m)	Flowrate (acfm)	Temperature (°F)	Exit Velocity (ft/sec)
S11	C01 Central Baghouse, RMF01, RMF02	8	68.66	0	565349.7	409246	128,391	145	42.6
S12-01	RMF01 Furnace Flue Gas Stack	2.5	68.66	0	565349.7	409246	2,844	787	25.4
S12-02	RMF02 Furnace Flue Gas Stack	2.5	68.66	0	565349.7	49246	2,844	787	25.4
S13	Two (2) BCP Rotoblasters 014	2	40	40	595519.5	409243.2	10,000	Ambient	53
S-Gen01	Emergency Generator	0.5	15	0	5907576	404596	Unknown	300	Unknown

Section N.3: Fugitive Information

UTM Zone:

Emission Unit #	Emission Unit Name	Process ID	Area Physical Data		Area UTM Coordinates		Area Release Data	
			Length of the X Side <i>(ft)</i>	Length of the Y Side <i>(ft)</i>	Northing <i>(m)</i>	Easting <i>(m)</i>	Release Temperature <i>(°F)</i>	Release Height <i>(ft)</i>
004 (D01)	Passive Dross Cooling	D01	30	30	595379	4092481	Ambient	0
005 (HF01-14)	Die Cast Holding Furnaces (01-14)	HF01-14	40	330	5907576	404528	Ambient	30
006 (DC01-DC14)	Die Casters 01-14	DC01-DC14	40	330	5907576	404528	Ambient	30

Division for Air Quality

300 Sower Boulevard
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 (502) 564-3999

DEP7007N

Source Emissions Profile

- Section N.1: Emission Summary
- Section N.2: Stack Information
- Section N.3: Fugitive Information
- Section N.4: Notes, Comments, and Explanations

Additional Documentation

Complete DEP7007AI

Source Name: Nemak USA, Inc.

KY EIS (AFS) #: 21- 009-00065

Permit #: V-20-029

Agency Interest (AI) ID: 78

Date: 11/7/2025

N.1: Emission Summary

Emission Unit #	Emission Unit Name	Process ID	Process Name	Control Device Name	Control Device ID	Stack ID	Maximum Design Capacity (SCC Units/hour)	Pollutant	Uncontrolled Emission Factor (lb/SCC Units)	Emission Factor Source (e.g. AP-42, Stack Test, Mass Balance)	Capture Efficiency (%)	Control Efficiency (%)	Hourly Emissions		Annual Emissions	
													Uncontrolled Potential (lb/hr)	Controlled Potential (lb/hr)	Uncontrolled Potential (tons/yr)	Controlled Potential (tons/yr)
RMF02	Reverbatory Furnace Burner	RMF02	Melt Furnace Burner	N/A	N/A	S12-01	0.028	PM	7.6	AP-42	0.00%	0.00%	0.213	N/A	0.932	N/A
								CO2	120280	AP-42	0.00%	0.00%	3367	N/A	1475	N/A
								CO	84	AP-42	0.00%	0.00%	2.35	N/A	10.3	N/A
								NO2	100	AP-42	0.00%	0.00%	2.8	N/A	12.26	N/A
								SO2	0.6	AP-42	0.00%	0.00%	0.017	N/A	0.074	N/A
								VOC	5.5	AP-42	0.00%	0.00%	0.154	N/A	0.675	N/A

Section N.2: Stack Information

UTM Zone:

Stack ID	Identify all Emission Units (with Process ID) and Control Devices that Feed to Stack	Stack Physical Data			Stack UTM Coordinates		Stack Gas Stream Data		
		Equivalent Diameter (ft)	Height (ft)	Base Elevation (ft)	Northing (m)	Easting (m)	Flowrate (acfm)	Temperature (°F)	Exit Velocity (ft/sec)
S11	C01 Central Baghouse, RMF01, RMF02	8	68.66	0	565349.7	409246	128,391	145	42.6
S12-01	RMF01 Furnace Flue Gas Stack	2.5	68.66	0	565349.7	409246	2,844	787	25.4
S12-02	RMF02 Furnace Flue Gas Stack	2.5	68.66	0	565349.7	49246	2,844	787	25.4
S13	Two (2) BCP Rotoblasters 014	2	40	40	595519.5	409243.2	10,000	Ambient	53
S-Gen01	Emergency Generator	0.5	15	0	5907576	404596	Unknown	300	Unknown

Section N.3: Fugitive Information

UTM Zone:

Emission Unit #	Emission Unit Name	Process ID	Area Physical Data		Area UTM Coordinates		Area Release Data	
			Length of the X Side <i>(ft)</i>	Length of the Y Side <i>(ft)</i>	Northing <i>(m)</i>	Easting <i>(m)</i>	Release Temperature <i>(°F)</i>	Release Height <i>(ft)</i>
004 (D01)	Passive Dross Cooling	D01	30	30	595379	4092481	Ambient	0
005 (HF01-14)	Die Cast Holding Furnaces (01-14)	HF01-14	40	330	5907576	404528	Ambient	30
006 (DC01-DC14)	Die Casters 01-14	DC01-DC14	40	330	5907576	404528	Ambient	30

Division for Air Quality

300 Sower Boulevard
Frankfort, KY 40601
(502) 564-3999

DEP7007N

Source Emissions Profile

- Section N.1: Emission Summary
- Section N.2: Stack Information
- Section N.3: Fugitive Information
- Section N.4: Notes, Comments, and Explanations

Additional Documentation

Complete DEP7007AI

Source Name: Nemak USA, Inc.
 KY EIS (AFS) #: 21- 009-00065
 Permit #: V-20-029
 Agency Interest (AI) ID: 78
 Date: 11/7/2024

N.1: Emission Summary

Emission Unit #	Emission Unit Name	Process ID	Process Name	Control Device Name	Control Device ID	Stack ID	Maximum Design Capacity (SCC Units/hour)	Pollutant	Uncontrolled Emission Factor (lb/SCC Units)	Emission Factor Source (e.g. AP-42, Stack Test, Mass Balance)	Capture Efficiency (%)	Control Efficiency (%)	Hourly Emissions		Annual Emissions	
													Uncontrolled Potential (lb/hr)	Controlled Potential (lb/hr)	Uncontrolled Potential (tons/yr)	Controlled Potential (tons/yr)
005 (HF01-9)	Die Casting Hold Furnace	HF01-9	Hold Furnace	N/A	N/A	F	13.5 tons	PM	0.035	Emission Survey	0.00%	0.00%	0.472	N/A	2.069	N/A
005 (HF10-14)	Die Casting Hold Furnace	HF10-14	Hold Furnace	N/A	N/A	F	11.25 tons	PM	0.035	Emission Survey	0.00%	0.00%	0.394	N/A	1.724	N/A
006 DC01-09	Die Casters	DC01-09	Die Caster	N/A	N/A	F	13.5	PM	0.22	Emission Survey	0.00%	0.00%	2.96	N/A	13	N/A
								VOC	0.193	Emission Survey	0.00%	0.00%	2.3	N/A	11.41	N/A
006 DC11-14	Die Casters	DC11-14	Die Caster	N/A	N/A	F	11.25	PM	0.22	Emission Survey	0.00%	0.00%	2.47	N/A	10.84	N/A
								VOC	0.193	Emission Survey	0.00%	0.00%	2.17	N/A	9.5	N/A

Section N.2: Stack Information

UTM Zone:

Stack ID	Identify all Emission Units (with Process ID) and Control Devices that Feed to Stack	Stack Physical Data			Stack UTM Coordinates		Stack Gas Stream Data		
		Equivalent Diameter (ft)	Height (ft)	Base Elevation (ft)	Northing (m)	Easting (m)	Flowrate (acfm)	Temperature (°F)	Exit Velocity (ft/sec)
S11	C01 Central Baghouse, RMF01, RMF02	8	68.66	0	565349.7	409246	128,391	145	42.6
S12-01	RMF01 Furnace Flue Gas Stack	2.5	68.66	0	565349.7	409246	2,844	787	25.4
S12-02	RMF02 Furnace Flue Gas Stack	2.5	68.66	0	565349.7	49246	2,844	787	25.4
S13	Two (2) BCP Rotoblasters 014	2	40	40	595519.5	409243.2	10,000	Ambient	53
S-Gen01	Emergency Generator	0.5	15	0	5907576	404596	Unknown	300	Unknown

Section N.3: Fugitive Information

UTM Zone:

Emission Unit #	Emission Unit Name	Process ID	Area Physical Data		Area UTM Coordinates		Area Release Data	
			Length of the X Side <i>(ft)</i>	Length of the Y Side <i>(ft)</i>	Northing <i>(m)</i>	Easting <i>(m)</i>	Release Temperature <i>(°F)</i>	Release Height <i>(ft)</i>
004 (D01)	Passive Dross Cooling	D01	30	30	595379	4092481	Ambient	0
005 (HF01-14)	Die Cast Holding Furnaces (01-14)	HF01-14	40	330	5907576	404528	Ambient	30
006 (DC01-DC14)	Die Casters 01-14	DC01-DC14	40	330	5907576	404528	Ambient	30

Section N.2: Stack Information**UTM Zone:**

Stack ID	Identify all Emission Units (with Process ID) and Control Devices that Feed to Stack	Stack Physical Data			Stack UTM Coordinates		Stack Gas Stream Data		
		Equivalent Diameter (ft)	Height (ft)	Base Elevation (ft)	Northing (m)	Easting (m)	Flowrate (acfm)	Temperature (°F)	Exit Velocity (ft/sec)
S11	C01 Central Baghouse, RMF01, RMF02	8	68.66	0	565349.7	409246	128,391	145	42.6
S12-01	RMF01 Furnace Flue Gas Stack	2.5	68.66	0	565349.7	409246	2,844	787	25.4
S12-02	RMF02 Furnace Flue Gas Stack	2.5	68.66	0	565349.7	49246	2,844	787	25.4
S13	Two (2) BCP Rotoblasters 014	2	40	40	595519.5	409243.2	10,000	Ambient	53
S-Gen01	Emergency Generator	0.5	15	0	5907576	404596	Unknown	300	Unknown

Section N.3: Fugitive Information

UTM Zone:

Emission Unit #	Emission Unit Name	Process ID	Area Physical Data		Area UTM Coordinates		Area Release Data	
			Length of the X Side <i>(ft)</i>	Length of the Y Side <i>(ft)</i>	Northing <i>(m)</i>	Easting <i>(m)</i>	Release Temperature <i>(°F)</i>	Release Height <i>(ft)</i>
004 (D01)	Passive Dross Cooling	D01	30	30	595379	4092481	Ambient	0
005 (HF01-14)	Die Cast Holding Furnaces (01-14)	HF01-14	40	330	5907576	404528	Ambient	30
006 (DC01-DC14)	Die Casters 01-14	DC01-DC14	40	330	5907576	404528	Ambient	30

Division for Air Quality 300 Sower Boulevard Frankfort, KY 40601 (502) 564-3999	DEP7007V Applicable Requirements and Compliance Activities	Additional Documentation ___ Complete DEP7007AI
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- ___ Section V.1: Emission and Operating Limitation(s)
- ___ Section V.2: Monitoring Requirements
- ___ Section V.3: Recordkeeping Requirements
- ___ Section V.4: Reporting Requirements
- ___ Section V.5: Testing Requirements
- ___ Section V.6: Notes, Comments, and Explanations

Source Name: Nemak USA, Inc.

KY EIS (AFS) #: 21- 009-00065

Permit #: V-20-029

Agency Interest (AI) II 78

Date: 11/7/2025

Section V.1: Emission and Operating Limitation(s)

Emission Unit #	Emission Unit Description	Applicable Regulation or Requirement	Pollutant	Emission Limit (if applicable)	Voluntary Emission Limit or Exemption (if applicable)	Operating Requirement or Limitation (if applicable)	Method of Determining Compliance with the Emission and Operating Requirement(s)
#014	Rotoblaster	401 KAR 59:010	PM	7.09 lbs/hr	N/A	N/A	Production and weekly monitoring
03 FR01	Reverb Melt Furnace	40CFR63, Subpart RRR	PM, DF, HCl	0.4 lb/ton; 2.1 x 10 ⁻⁴ gr/ton; 0.40 lb/ton	N/A	N/A	Source Tests and Calculations
03 FR02	Reverb Melt Furnace	40CFR63, Subpart RRR	PM, DF, HCl	0.4 lb/ton; 2.1 x 10 ⁻⁴ gr/ton; 0.40 lb/ton	N/A	N/A	Source Tests and Calculations
#017	Backup Generator	401 KAR 63:002, 40CFR63, Subpart ZZZZ	Diesel Combustion	720 Hours operation per year	N/A	N/A	Hours of operation and fuel usage (type purchased), follow requirements of Table 2D of CFR 63, Subpart ZZZZ

Section V.3: Recordkeeping Requirements

Emission Unit #	Emission Unit Description	Pollutant	Applicable Regulation or Requirement	Parameter Recorded	Description of Recordkeeping
#014	Rotoblaster	PM	KYDAQ	Opacity	Production records and monitoring requirements
03 RF01	Reverb Melt Furnace	PM, DF, HCl	40 CFR 63, Subpart RRR	Production	PM = Production; DF = Production and Baghouse Temperature; HCl = Production, Cl Injection, and Lime Injection to Baghouse
03 RF02	Reverb Melt Furnace	PM, DF, HCl	40 CFR 63, Subpart RRR	Production	PM = Production; DF = Production and Baghouse Temperature; HCl = Production, Cl Injection, and Lime Injection to Baghouse
017 Gen01	Back-up Generator	Diesel Combustion	401 KAR 63:002, 40 CFR Part 62, Subpart ZZZZ	Hours of Operation	Maintain records of hours of operation and maintained/inspections
005 HE01-14	Die Cast Hold Furnaces (01-14)	PM	401 KAR 59:010, 401 KAR 63:002	PM	Retain all monitoring records in accordance with 40 CFR 63, Subpart A. Maintain monthly production logs with materials/flux charged and hours of operation. Record label inspections/corrective actions.
006 DC01-14	Die Cast Units (01-14)	PM	401 KAR 59:010	PM	Total monthly process rates including die lube usage. Hours of operation of unit. Log of weekly emission observations. Reference of any Method 9 results.
004 (D01)	Dross Cooling (Passive)	PM	401 KAR 63:010 Fugitive Emissions	PM	Duration/cause/corrective action for any emissions being found to cross property lines.

Section V.4: Reporting Requirements

Emission Unit #	Emission Unit Description	Pollutant	Applicable Regulation or Requirement	Parameter Reported	Description of Reporting
#014	Rotoblaster	PM	Malfunction	Condition	Malfunction, semi-annual monitoring reporting, and annual compliance certifications
03 RF01	Reverb Melt Furnace	PM, DF, HCl	40 CFR 63, Subpart RRR	Malfunctions / Excess Emissions	Malfunction, semi-annual monitoring reporting, and annual compliance certifications
03 RF02	Reverb Melt Furnace	PM, DF, HCl	40 CFR 63, Subpart RRR	Malfunctions / Excess Emissions	Malfunction, semi-annual monitoring reporting, and annual compliance certifications
017 Gen01	Back-up Generator	Diesel Combustion	401 KAR 63:002, 40 CFR Part 62, Subpart ZZZZ	Hours of Operation	Semi-annual and annual compliance reporting to all conditions of permit.
005 HE01-14	Die Cast Hold Furnaces (01-14)	PM	401 KAR 59:010, 401 KAR 63:002	PM	Report an exceedances/excursions from the permit. Submit startup/shutdown/malfunction plan/report. Emissions summary report. Annual compliance certification.
006 DC01-14	Die Cast Units (01-14)	PM	401 KAR 59:010	PM	Report an exceedances/excursions from the permit. Submit startup/shutdown/malfunction plan/report. Emissions summary report. Annual compliance certification.
004 (D01)	Dross Cooling (Passive)	PM	401 KAR 63:010 Fugitive Emissions	PM	Report an exceedances/excursions from the permit. Submit startup/shutdown/malfunction plan/report. Emissions summary report. Annual compliance certification.

Section V.5: Testing Requirements

Emission Unit #	Emission Unit Description	Pollutant	Applicable Regulation or Requirement	Parameter Tested	Description of Testing
#014	Rotoblaster	PM			None
03 RF01	Reverb Melt Furnace	PM, DF, HCl	40 CFR 63, Subpart RRR	PM, DF, HCl	PM = Source testing by USEPA Methods 1-5 (every 5 years) DF = Source testing by USEPA Methods 1-5 and 23 (every 5 years) HCl = Source testing by USEPA Methods 1-5 and 26 (every 5 years)
03 RF02	Reverb Melt Furnace	PM, DF, HCl	40 CFR 63, Subpart RRR	PM, DF, HCl	PM = Source testing by USEPA Methods 1-5 (every 5 years) DF = Source testing by USEPA Methods 1-5 and 23 (every 5 years) HCl = Source testing by USEPA Methods 1-5 and 26 (every 5 years)
017 Gen01	Back-up Generator	Diesel Combustion	401 KAR 63:002, 40 CFR Part 62, Subpart ZZZZ	Diesel Combustion	None
005 HE01-14	Die Cast Hold Furnaces (01-14)	PM	401 KAR 59:010, 401 KAR 63:002	PM	Conduct performance test every 5 years (40 CFR 63.1511e)
006 DC01-14	Die Cast Units (01-14)	PM	401 KAR 59:010	PM	Testing by 401 KAR 50:015 shall be conducted as required by Division
004 (D01)	Dross Cooling (Passive)	PM	401 KAR 63:010 Fugitive Emissions	PM	None

Section V.6: Notes, Comments, and Explanations
No notes

Division for Air Quality
 300 Sower Boulevard
 Frankfort, KY 40601
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DEP7007DD

Insignificant Activities

- Section DD.1: Table of Insignificant Activities
- Section DD.2: Signature Block
- Section DD.3: Notes, Comments, and Explanations

Source Name: Nemak USA, Inc.

KY EIS (AFS) #: 21- 009-00065

Permit #: V-20-029

Agency Interest (AI) ID: 78

Date: 11/7/2025

Section DD.1: Table of Insignificant Activities

*Identify each activity with a unique Insignificant Activity number (IA #); for example: 1, 2, 3... etc.

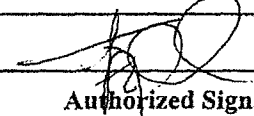
Insignificant Activity #	Description of Activity including Rated Capacity	Serial Number or Other Unique Identifier	Applicable Regulation(s)	Calculated Emissions
1	Convenience water heaters	N/A	N/A	<1 million BTU/hour heat input
2	Convenience space heaters	N/A	N/A	<1 million BTU/hour heat input
3	Natural gas-fired HVAC system	N/A	N/A	<1 million BTU/hour heat input
4	Internal combustion engines	N/A	N/A	
5	Fire control equipment	N/A	N/A	

Insignificant Activity #	Description of Activity including Rated Capacity	Serial Number or Other Unique Identifier	Applicable Regulation(s)	Calculated Emissions
6	0.25 Mile paved haul roads and yard	N/A	401 KAR 63:010	
7	Equipment maintenance	N/A	N/A	
8	Wisconsin oven 0.6 MM BTU/Hr	N/A	401 KAR 59:015	
9	Process water treatment	N/A	401 KAR 63:010	
10	Die lube tanks 1-3 (5000 gal each)	N/A	N/A	
11	Indoor holding tank (4500 gal)	N/A	N/A	

Section DD.2: Signature Block

I, THE UNDERSIGNED, HEREBY CERTIFY UNDER PENALTY OF LAW, THAT I AM A RESPONSIBLE OFFICIAL, AND THAT I HAVE PERSONALLY EXAMINED, AND AM FAMILIAR WITH, THE INFORMATION SUBMITTED IN THIS DOCUMENT AND ALL ITS ATTACHMENTS. BASED ON MY INQUIRY OF THOSE INDIVIDUALS WITH PRIMARY RESPONSIBILITY FOR OBTAINING THE INFORMATION, I CERTIFY THAT THE INFORMATION IS ON KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE OR INCOMPLETE INFORMATION, INCLUDING THE POSSIBILITY OF FINE OR IMPRISONMENT.

By:



 Authorized Signature

 Luis Corona

 Type/Print Name of Signatory

11/11/2025

 Date

 Plant Leader

 Title of Signatory

Section DD.3: Notes, Comments, and Explanations

See attached list.

Division for Air Quality 300 Sower Boulevard Frankfort, KY 40601 (502) 564-3999	<h2 style="margin: 0;">DEP7007DD</h2> <h3 style="margin: 0;">Insignificant Activities</h3> <p style="margin: 5px 0 0 20px;">___ Section DD.1: Table of Insignificant Activities</p> <p style="margin: 5px 0 0 20px;">___ Section DD.2: Signature Block</p> <p style="margin: 5px 0 0 20px;">___ Section DD.3: Notes, Comments, and Explanations</p>
Source Name:	<u>Nemak USA, Inc.</u>
KY EIS (AFS) #:	<u>21- 009-00065</u>
Permit #:	<u>V-20-029</u>
Agency Interest (AI) ID:	<u>78</u>
Date:	<u>11/7/2025</u>

Section DD.1: Table of Insignificant Activities

*Identify each activity with a unique Insignificant Activity number (IA #); for example: 1, 2, 3... etc.

Insignificant Activity #	Description of Activity including Rated Capacity	Serial Number or Other Unique Identifier	Applicable Regulation(s)	Calculated Emissions
12	Squeeze cast mixing tank (400 gal)	N/A	N/A	
13	Furnace pump heaters	N/A	N/A	
14	Cooling towers	N/A	401 KAR 63:010	
15	1.0 MM BTU/hr Supplemental burner	N/A	401 KAR 52:020	
16	Rotary degassing unit utilizing an inert gas to achieve degassing of the melt	N/A	401 KAR 52:020	

Insignificant Activity #	Description of Activity including Rated Capacity	Serial Number or Other Unique Identifier	Applicable Regulation(s)	Calculated Emissions
17	Benchtop 550 cubic inch electric muffle furnace for testing moisture/oil content of aluminum pucks (0.0075 BTU/hr)	N/A	N/A	
18	Test furnace for melting aluminum for alloy testing	N/A	401 KAR 52:020	
19	550 gallon double walled diesel AST	N/A	401 KAR 52:020	

Section DD.2: Signature Block

I, THE UNDERSIGNED, HEREBY CERTIFY UNDER PENALTY OF LAW, THAT I AM A RESPONSIBLE OFFICIAL, AND THAT I HAVE PERSONALLY EXAMINED, AND AM FAMILIAR WITH, THE INFORMATION SUBMITTED IN THIS DOCUMENT AND ALL ITS ATTACHMENTS. BASED ON MY INQUIRY OF THOSE INDIVIDUALS WITH PRIMARY RESPONSIBILITY FOR OBTAINING THE INFORMATION, I CERTIFY THAT THE INFORMATION IS ON KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE OR INCOMPLETE INFORMATION, INCLUDING THE POSSIBILITY OF FINE OR IMPRISONMENT.

By:	<hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> Authorized Signature Luis Corona <hr style="border: 0; border-top: 1px solid black; margin-top: 5px;"/> Type/Print Name of Signatory	<hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> Date Plant Leader <hr style="border: 0; border-top: 1px solid black; margin-top: 5px;"/> Title of Signatory
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Division for Air Quality

300 Sower Boulevard
Frankfort, KY 40601
(502) 564-3999

DEP7007FF

Secondary Aluminum Processing

- Section FF.1: Aluminum Scrap Shredders
- Section FF.2: Dryer or Kiln
- Section FF.3: Furnace
- Section FF.4: In-Line Fluxer
- Section FF.5: Hot Dross
- Section FF.6: Rotary Dross Cooler
- Section FF.7: Secondary Aluminum Processing Unit ID
- Section FF.8: Notes, Comments, and Explanations

Additional Documentation

- Complete DEP7007AI, DEP7007N, DEP7007V, and DEP7007GG
- Attach application design information and analysis
- Process flow diagram
- SDS attached

Source Name: Nemak USA, Inc.

KY EIS (AFS) #: 21- 009-00065

Permit #: V-20-029

Agency Interest (AI) ID: 78

Date: 11/7/2025

Section FF.1: Aluminum Scrap Shredders

Emission Unit #	Emission Unit Name	Process ID	SCC Code	SCC Units	Proposed/Actual Date of Construction Commencement (MM/YYYY)	Maximum Design Capacity of Each Unit (SCC Units/hr)	Stack ID	Type of Scrap	Control Device ID	Describe Capture Method	Capture Efficiency (%)	Have ACGIH requirements been completed? (Y/N)
N/A												

Section FF.3: Furnace - Sweat/Reverberatory/Crucible/Induction/Rotary

Emission Unit #	Emission Unit Name	Process ID	SCC Code	SCC Units	Proposed/Actual Date of Construction Commencement (MM/YYYY)	Type of Furnace	Group 1 or 2	Type of Flux	Maximum Flux Used (lb/cycle)	Rated Burner Capacity (MMBTU/hr)	Fuel(s) Used	Maximum Design Capacity of Each Unit (SCC Units/hr)	Cycle Time (hrs)	Clean Charge? (Y/N)	Stack ID	Control Device ID	Describe Capture Method	Capture Efficiency (%)	Have ACGIH requirements been completed? (Y/N)
03 RMF01	Reverberatory Melt Furnace 01	RMF01	30400103	Tons Metal Produced	Apr-00	Reverb	1	Chlorine Gas / Powder Flux	127.7 #/ton	20.2	Natural Gas	6.5Hr	3	N	S11	C01	Dry Injection Fabric Filter	90% HCL 98% PM	Y
03 RMF02	Reverberatory Melt Furnace 02	RMF02	30400103	Tons Metal Produced	Jun-00	Reverb	1	Chlorine Gas / Powder Flux	122.37 #/ton	14	Natural Gas	6.5Hr	3	N	S11	C01	Dry Injection Fabric Filter	90% HCL 98% PM	Y
005 HF 1-9	Die Cast Hold Furnaces	HF1-9	30400113	Tons Metal Produced	Jan-94	Hold	2	N/A	N/A	N/A	Electricity	1.5/Hr	3	Y	F	N/A	F	N/A	N/A
005 HF 1-14	Die Cast Furnaces	HF10-14	30400113	Tons Metal Produced	Jan-00	Hold	2	N/A	N/A	N/A	Electricity	2.25/Hr	3	Y	F	N/A	F	N/A	N/A

Section FF.7: Secondary Aluminum Processing Unit (SAPU) Identification

SAPU Identifier (e.g. SAPU A or SAPU 1)	Existing or New SAPU?	Emission Units Included in SAPU
SAPU 1	Existing	Reverberatory Melt Furnace 01; Emission Unit 03 RMF01
SAPU 2	Existing	Reverberatory Melt Furnace 02; Emission Unit 03 RMF02

Section FF.8: Notes, Comments, and Explanations

1) Flux is introduced at the sidewell of each furnace. The sidewells are not in-line fluxer units.

2) Passive dross cooling is used to minimize disturbance of dross fines thus minimizing PM emissions. Fugitive only.

Division for Air Quality

300 Sower Boulevard
Frankfort, KY 40601
(502) 564-3999

DEP7007GG
Control Equipment

Additional Documentation

- Complete Sections GG.1 through GG.12, as applicable
- Attach manufacturer's specifications for each control device
- Complete DEP7007AI

Source Name: Nemak USA, Inc.

KY EIS (AFS) #: 21- 009-00065

Permit #: V-20-029

Agency Interest (AI) ID: 78

Date: 11/7/2025

Section GG.1: General Information - Control Equipment

Control Device ID #	Control Device Name	Cost	Manufacturer	Model Name/ Serial #	Date Installed	Inlet Gas Stream Data For <u>All</u> Control Devices					Inlet Gas Stream Data For Condensers, Adsorbers, Afterburners, Incinerators, Oxidizers <u>Only</u>			Equipment Operational Data For <u>All</u> Control Devices		
						Temperature (^o F)	Flowrate (scfm @ 68 ^o F)	Average Particle Diameter (μm)	Particle Density (lb/ft ³) or Specific Gravity	Gas Density (lb/ft ³)	Gas Moisture Content (%)	Gas Composition	Fan Type	Pressure Drop Range (in. H ₂ O)	Pollutants Collected/ Controlled	Pollutant Removal (%)
C01	Control Baghouse	Unk	Wheelabrator	Shaker 10	2000	170	106,123	Unk	Unk	Unk				Unk	PM	99
															HCL, DF	90
C02	Rotoblaster Scrubber	Unk	Ward	Devansco	1994	75	10,000	Unk	0.671 grain/scf	Unk				13	PM	99
Unk = Unknown																

Section GG.6: Filter														
Control Device ID #	Identify all Emission Units and Control Devices that Feed to Filter	Identify Type of Filter Unit: Baghouse, Cartridge Collector, or Other (specify)	Identify Type of Filtering Material: Fabric, Paper, Synthetic, or Other (specify)	Total Filter Area (ft ²)	Effective Air-to-Filter Ratio (acfm/ft ²)	Continuous Monitoring Instrumentation (e.g. COMS, BLDS, none)	Additional Materials Introduced into the Control System (e.g. lime, carbon)		Identify Cleaning Method: Shaker, Pulse Air, Reverse Air, Pulse Jet, or Other (specify)	Identify Gas Cooling Method: Ductwork, Heat Exchanger, Bleed-in Air, Water Spray, or Other (specify)	For Ductwork:		For Bleed-in Air:	For Water Spray:
							Material	Injection Rate (lb/hr)			Length (ft)	Diameter (ft)	Flowrate (scfm @ 68°F)	Flowrate (gal/min)
C01	RMF01 and RMF02	Baghouse	Polyester High Temperature	43,459	2.83	CEM	Lime	139.8	Shaker	Ductwork Air	69 (stack)	8		N/A
C02	014 (2) BCP Rotoblasters	Water Spray	Water Venturi Spray	10	N/A	None	Water		Water		40 (stack)	2	N/A	



Commonwealth of Kentucky
Michael G. Adams, Secretary of State

Michael G. Adams
Secretary of State
P. O. Box 718
Frankfort, KY 40602-0718
(502) 564-3490
<http://www.sos.ky.gov>

Certificate of Authorization

Authentication number: 229097
Visit <https://app.sos.ky.gov/fishow/certvalidate.aspx> to authenticate this certificate.

I, Michael G. Adams, Secretary of State of the Commonwealth of Kentucky, do hereby certify that according to the records in the Office of the Secretary of State,

NEMAK USA INC.

, a corporation organized under the laws of the state of Delaware, is authorized to transact business in the Commonwealth of Kentucky, and received the authority to transact business in Kentucky on July 1, 2014.

I further certify that all fees and penalties owed to the Secretary of State have been paid; that an application for certificate of withdrawal has not been filed; and that the most recent annual report required by KRS 14A.6-010 has been delivered to the Secretary of State.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Official Seal at Frankfort, Kentucky, this 17th day of March, 2020, in the 228th year of the Commonwealth.

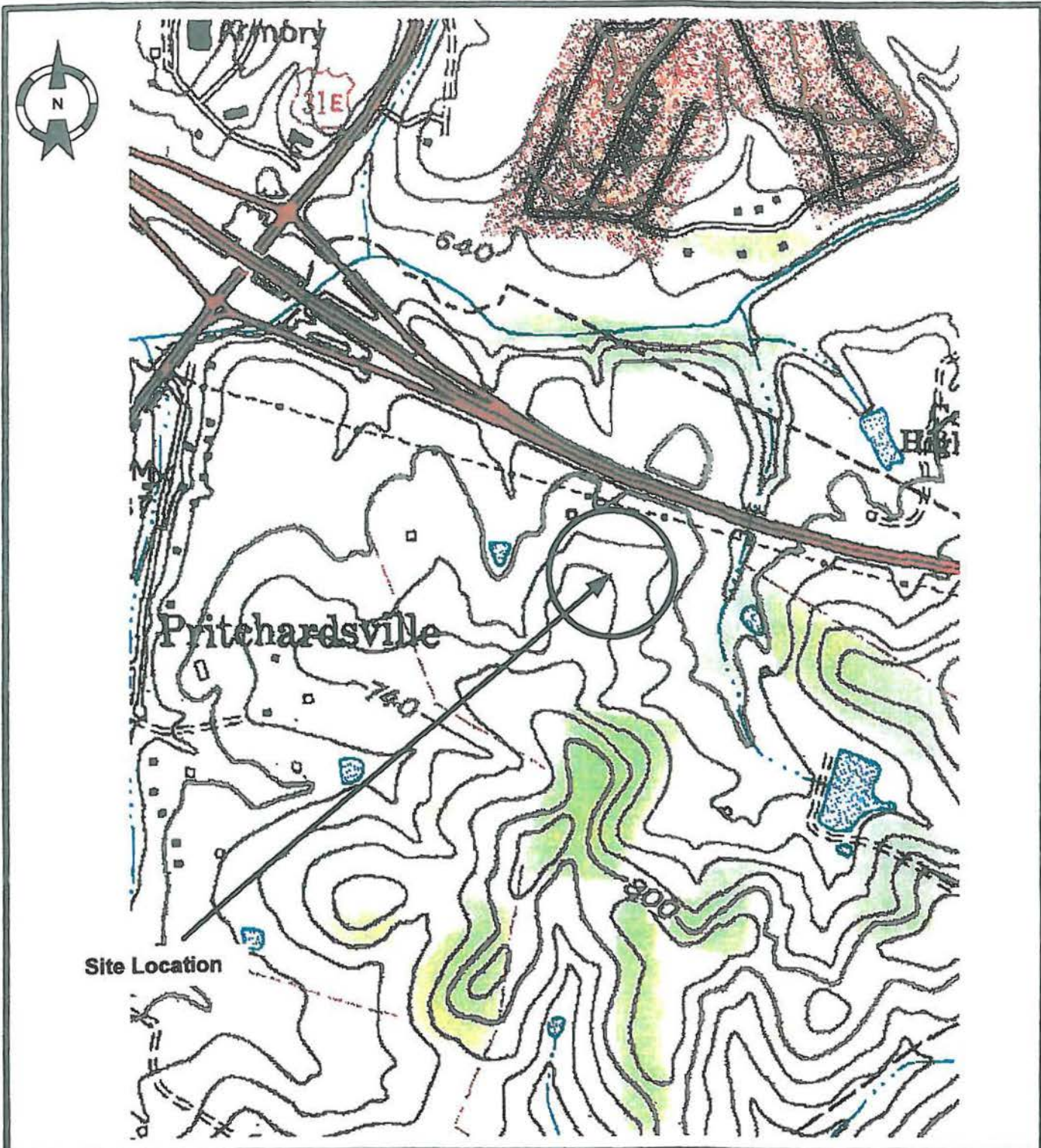



Michael G. Adams

Michael G. Adams
Secretary of State
Commonwealth of Kentucky
229097/0890816


Appendix B

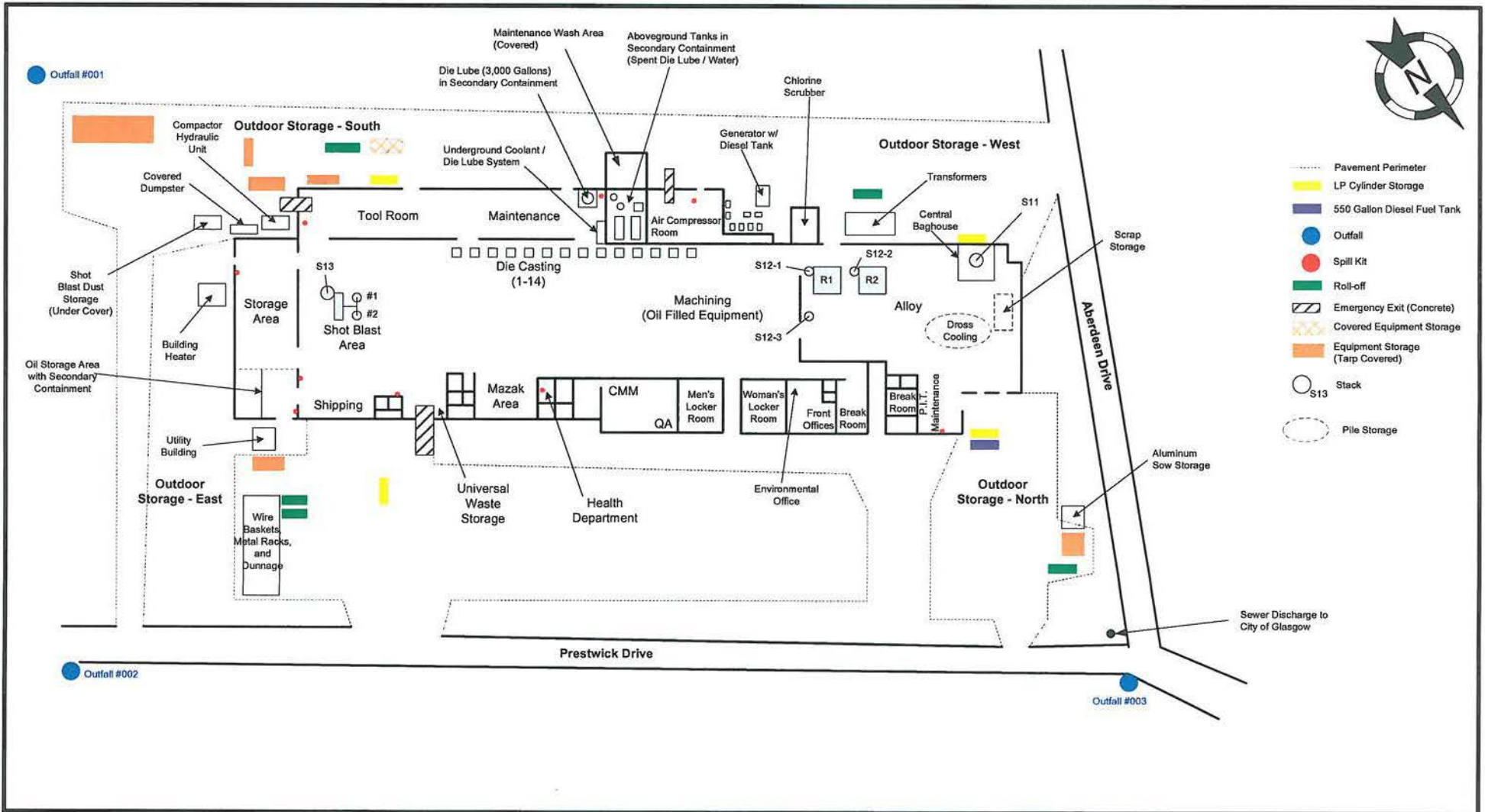
Drawings and Maps



Scale: None	Approved By:	Drawn By: SLB	<p align="center">JL French – Plant #1 20 Prestwick Drive, Glasgow, Kentucky, 42141 Site Location Map</p>
Date: 3/6/2014	SRP	Revised:	
 <p>827 South 8th Street Louisville, Kentucky 40203 <i>Industry's Partner in Environmental and Safety Management</i></p>		<p>Figure 1.0</p> <p>Drawing Number: 14-DWG-0224B</p>	



Scale: none	Approved By: SRP	Drawn By: SLB	Nemak USA, Inc., Plant #1 20 Prestwick Drive Glasgow, Kentucky
Date: 9/17/2014		Revised:	
 827 South 8 th Street Louisville, Kentucky 40203 <i>Industry's Partner in Environmental and Safety Management</i>		Figure 2.0	
		Drawing Number: 14-DWG-0917G	

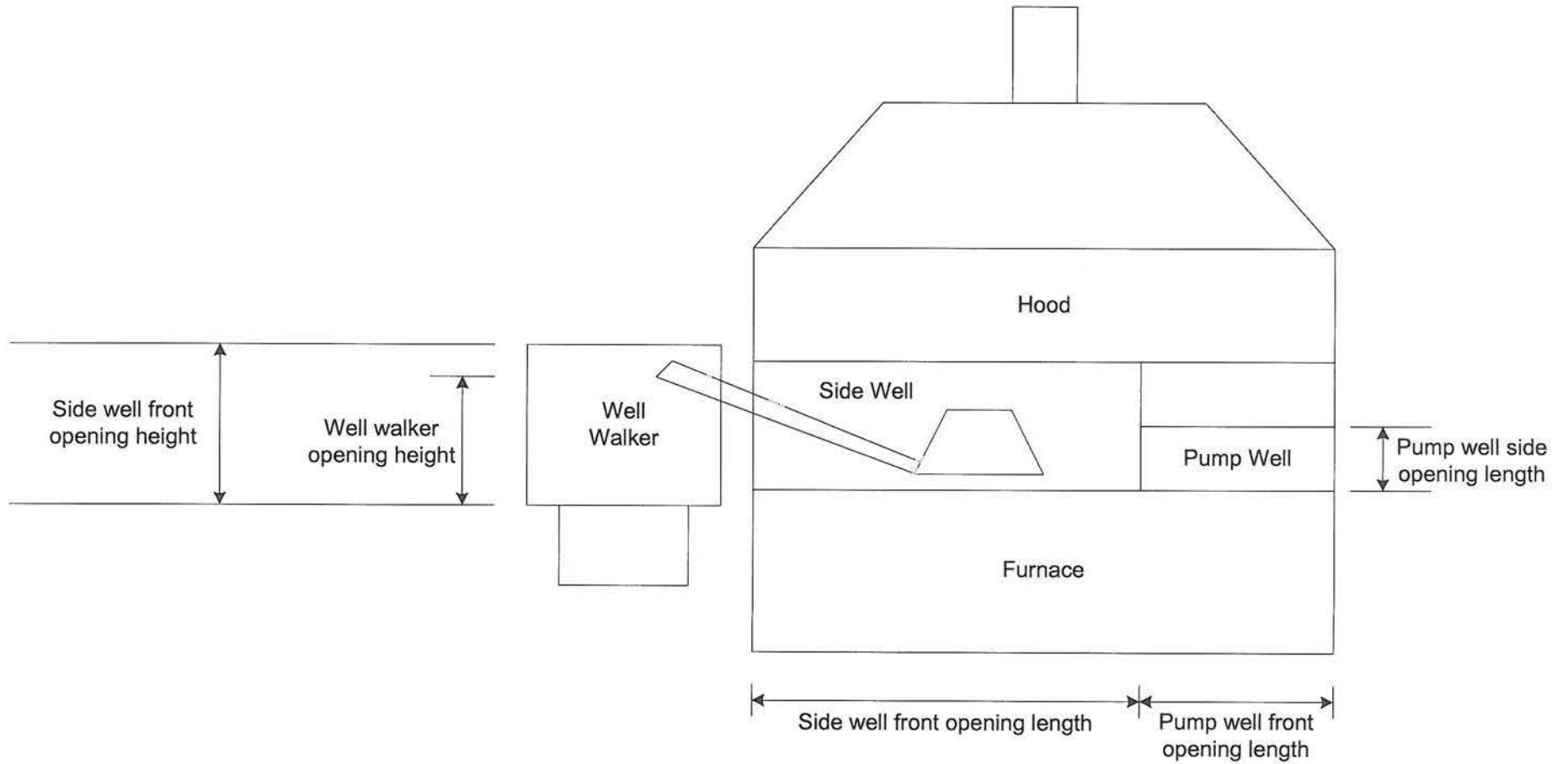


Scale: none	Approved By: PJS	Drawn By: SLB
Date: 2/19/2014		Revised: 11-01-2025
Figure 3.0		
Drawing Number: 14-DWG-0917G		

Nemak USA, Inc. – Plant #1
 20 Prestwick Drive, Glasgow, Kentucky, 42141
 Site Map

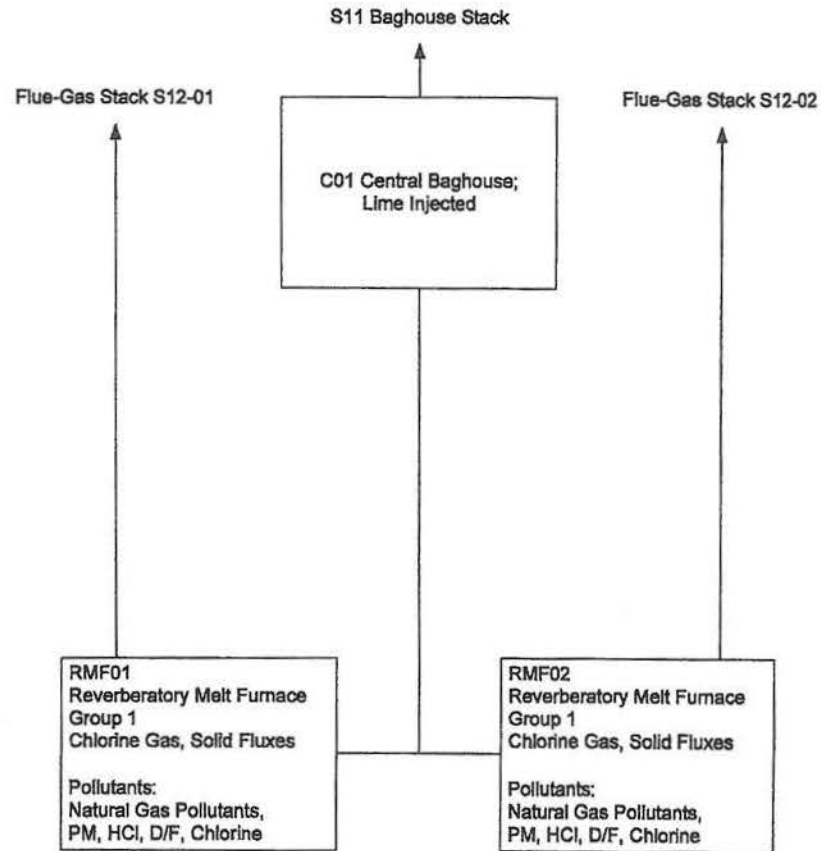
Nemak USA, Inc.
Plant #1
Glasgow, KY
RMF01 and RMF02 Furnace Design

Comparison of Furnace Capture Hood Design to ACGHI Chapter 10 Enclosure Airflow Requirements



Nemak USA, Inc.
Plant #1
Glasgow, KY

Furnace Flow Diagram



Appendix C

Calculations

Calculations:

Attached is emission factor for die cast units from stack testing and studies.

Old emission factor: 0.3148937 pound/ton processed

New emission factor (per NADCA study): 0.216882 pounds/ton processed

Manufacturer of Die Lube 1512 SYN states that the die lube has < 3% ethoxylated alcohol compounds prior to dilution. Using dilution, emission factor is 0.193 pound/ton processed in die casters.

NADCA Study #1

References.

From: Wilson, Michael

Sent: Tuesday, July 08, 2014 1:48 PM

To: Kitchen, Alan

Subject: emissions

2.3.2 Die Casting Lines

2.3.2.1 Process Description

The molten aluminum will be transferred from the primary holding furnaces to the casting line holding furnaces. The molten aluminum in the cast line holding furnaces is poured into the die cast machine and the part is cast from the die. An aluminum riser/gate connected to the die cast part is machined at the plant at the die cast line and reused as scrap in the process. A die release agent will be used to assist in removing the parts from the die.

2.3.2.2 Emissions Calculations

VOC Emissions

VOCs are released from the die lube material that is used in the mold cooling and mold release die cast operations. Per the MSDS for die lube, the product contains 5% by weight of VOC and has a density of 8.257 lb/gallon. The VOC calculations assume 50% of the VOC in the die lube is emitted and the remaining VOC is entrained in the wastewater generated from the casting process. Maximum annual usage for die lube for all sixteen die cast machines is 397,874 gallons per year.

$397,874 \text{ gallons die lube /yr} * 8.257 \text{ lb/gallon} * 5\% \text{ VOC} = 164,262 \text{ lbs}$

$\text{VOC/yr} * 50\% \text{ emitted} = 82,131 \text{ lb VOC/yr}$

$82,131 \text{ lb VOC/yr} \div 2,000 \text{ lb/ton} = 41.06 \text{ tpy VOC}$

PM Emissions

Based on a study done by the North American Die Casting Association, some oil misting occurs when the molten metal contacts the die release agent. **Engineering estimation is that 5% of total oil in the release agent is emitted as oil misting. PM emissions from the die casting machines are assumed from oil misting only**, and are calculated as:

$5\% * 10\% \text{ oil content} * 8.257 \text{ lb/gal} * 0.57 \text{ gal/hr usage per machine} = 0.024 \text{ lb/hr per machine}$

$0.024 \text{ lb/hr per machine} * 16 \text{ die cast machines} * 8,760 \text{ hr/yr} \div 2,000 \text{ lb/ton} = 1.68 \text{ tpy PM}$

Analysis of Emissions Associated with Die Lubrication on a 1400-Ton Machine



Thomas H. Camel, Sr. Technical Service Specialist

Particulate Matter			
Filter Catch Only, mg	9.4	10.0	10.3
Front Rinse Catch, mg	2.9	2.2	2.4
Total Catch, mg	12.3	12.2	12.7
Concentration, grains/dscf	0.0020	0.0020	0.0021
Emission Rate, lbs/hr	0.116	0.118	0.119
Organic Condensable Particulate Matter			
Catch, mg	1.6	1.2	0.4
Concentration, grains/dscf	0.0003	0.0002	0.0001
Emission Rate, lbs/hr	0.015	0.012	0.004
Inorganic Condensable Particulate Matter			
Catch, mg	1.6	1.2	0.4
Catch, mg	2.2	5.4	3.2
Concentration, grains/dscf	0.0004	0.0009	0.0005
Emission Rate, lbs/hr	0.021	0.052	0.030
Catch, mg	2.2	5.4	3.2
Concentration, grains/dscf	0.0004	0.0009	0.0005
Total Particulate Matter			
Total Concentration, grains/dscf	0.0026	0.0030	0.0026
Total Emission Rate, lbs/hr	0.152	0.182	0.152
Total Concentration, grains/dscf	0.0026	0.0030	0.0026
Total Emission Rate, lbs/hr	0.152	0.182	0.152

Table 2 – This table summarizes the results of the emissions from the machine prior to passing through the emission control unit.

Comparison of Particulate Matter (PM) emission rates;
 NDCA study vs. informational/engineering stack testing.
 Die Cast Operation, Gateway.

9-Jul-14

Confidential; Client Attorney Work Product Privilege

Compare -> NDCA Calc Results
 To -> Gtwy Engineering Stack Tests

**Actual PM Emissions;
 Estimated 2013**

	Die Lube; 1512	Die Lube; 1512-G	
Gateway 2013 usage gallons	32,760	116,649	
TOC test result mg/liter	150,000	150,000	
TOC test result lbs/gallon	1.252	1.252	1.252/8.34 density = 15% organic content (oil)
Lbs organic cntnt. (oil) in DL, 2013 total	41,007	146,015	
" " " " Total	187,023		
Percent of oil in DL, emitted as oil mist	5.00%	5.00%	<- Reference: NDCA study
Sub Total Lbs TOC (as PM mist) /Year	2050.37	7300.77	
Total Lbs TOC (as PM mist) /Year	9351.14		
Number of Machines	24		
Operation Schedule; hrs/yr	7329		
Average lbs PM/hr/machine	0.0532		Factor (0.0532 / 1.706 TPH) = 0.0312 lbs/ton
Average lbs PM2.5/hr/machine	0.0399		<- Assume 75% of PM is PM2.5
April 2014, Run#3 stack test PM rate	0.3700		<- Test 1600T; w/ HiVol DL Sys; US EPA Method 5/202
April 2014, Run#3 stack test PM2.5 rate	0.2775		<- Assume 75% of PM is PM2.5

Above represents conventional HiVol/Flood DL App. System.
 The NADCA study estimates the oil content at 10%; assumed for 1512 is 15% which is total organic content and does not consider synthetic oils, airborne solids contained in the die lube solution, or products of degradation caused by exposure to heat (if any).
 Stack test data is average (actual) and likely includes periods when various machines are idle; calc's not pro-rate for 1600T vs 3500T units.

2.0 Summary of Results

AST conducted emission testing at Nematik's Gateway facility in Sheboygan, WI on April 26, 2014. Testing was conducted to determine the emission rates of PM and VOC from the Die Cast Machine 1600T Bay Exhaust.

Table 2-1 provides a summary of the emission testing results. Any difference between the summary results listed in the following table and the detailed results contained in Appendix B is due to rounding for presentation.

**Table 2-1
Summary of Testing Results**

Run No.	Run 1	Run 2	Run 3 *	Run 4
Date	4/26/14	4/26/14	4/26/14	4/26/14
Test Condition	1		2	
Particulate Matter Data				
Filterable Concentration, gr/dscf	0.0005	0.0005	0.0003	0.0005
Filterable Emission Rate, lb/hr	0.15	0.15	0.077	0.15
Condensable Concentration, gr/dscf	--	--	0.0010	--
Condensable Emission Rate, lb/hr	--	--	0.29	--
Total Concentration, gr/dscf	--	--	0.0013	--
Total Emission Rate, lb/hr	--	--	0.37	--
Volatile Organic Compounds Data				
Concentration (as C ₃ H ₈), ppmvd	0.55	1.34	1.42	1.44
Emission Rate (as C ₃ H ₈), lb/hr	0.13	0.33	0.33	0.36

* The stack gas temperature was greater than 85°F so the CPM sample was analyzed.

Nemak USA, Inc.

Comparison of PM and VOC Emission Factors; Die Casting Operation

PM2.5 fraction, comparison: 75% as supplied by TRC for modeling; 78.4% from Nemak M202 stack test result; April 2014 , Run#3 of 4.

Summary of PM Emission Factors for Die Casting

Source of Data	Al Production Throughput Tons/Hr	Emission Rate Lbs/Hr	Emission Factor Lbs/Ton Aluminum	Comments
NADCA Study #1	1.706	0.0532	0.0312	Based on ave/machine DL use 2013; 15% oil content at Nemak, 5% of which is emitted. CondensiblePM? No.
NADCA Study #2	1.706	0.162	0.095	NADCA study based on stack testing 1400T machine. CondensiblePM? Yes.
April 2014 Stack Test 1600T Machine	1.706	0.37	0.217	HiVol Flood Sys, Method 5/202; 1600T machine (Run #3 of 4) <u>CondensiblePM? Yes.</u>
	1.808	0.15	0.083	HiVol Flood Sys, Method 17; 1600T machine (Run #4 of 4) <u>CondensiblePM? No.</u>
	1.779	0.15	0.084	Wollin System, Method 17; (Run #2 of 4) CondensiblePM? No.
Briggs and Stratton	1.706	1.23	0.720	CondensiblePM? Unknown. Needs Verification.
Current Permit	1.706	0.058	0.034	EF for Hold Furnaces only, d/n include die casting. CondensiblePM? Unknown. Factor adopted from Nemak, Prestwick Plant, Kentucky DEQ AEI report.

Summary of VOC Emission Factors for Die Casting

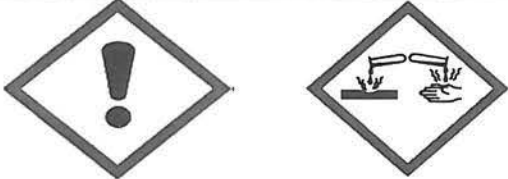
NADCA Study #1	1.706	1.06	0.623	Nemak*, ave/machine DL use 2013; 15% oil content; NADCA- 50% oil cntnt emitted VOC. (*Gateway annual actual; 187,023 lbs VOC/year, 24 mach., 7329 hpy).
NADCA Study #2	VOCs were not studied			
April 2014 Stack Test	1.706	0.330	0.193	HiVol Flood System (Run #3 of 4)
	1.779	0.330	0.185	Wollin System, (Run #2 of 4)
Briggs and Stratton	1.706	0.324	0.190	Needs Verification.
Current Permit	1.706	0.254	0.149	Based on 1993 Taylor Stack Test

Except where indicated, throughput used was from April 2014 stack test Run #3, for 1600T Machine, HighVol spray sys.

Appendix D

Safety Data Sheets

MISSISSIPPI LIME COMPANY - SAFETY DATA SHEET

Section 1: Identification											
Calcium Hydroxide Ca(OH)₂											
Product Line	MicroCal – HF, HFT20, HM, HS; PetroCal – HF, HM, HS; Standard Hydrated - Lime, CG, FGT, HRH, HRH-64, SP; Liquid Calcium Hydroxide (LCH); MP Liquid Calcium Hydroxide (MPLCH); VitaCal – H, LCH; Architectural Lime Putty, Stover Cal H										
Product Uses	Building material industry, Chemical industry, Agriculture, Biocide applications, Environmental protection (e.g. flue gas treatment, waste water treatment, sludge treatment), Drinking water treatment, Feed, food and pharmaceutical industry, Civil engineering, Paper and paint industry, Glass industry, Leather.										
Manufacturer	Mississippi Lime Company 16147 US Highway 61, Ste Genevieve, MO 63670										
24 Hour Emergency Contact Number: (800) 437-5463											
Section 2: Hazard(s) Identification											
GHS Classification											
	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Skin Irritation</td> <td style="padding: 2px; text-align: right;">Category 2</td> </tr> <tr> <td style="padding: 2px;">Eye Damage</td> <td style="padding: 2px; text-align: right;">Category 1</td> </tr> <tr> <td style="padding: 2px;">Carcinogenicity</td> <td style="padding: 2px; text-align: right;">Category 1A</td> </tr> <tr> <td style="padding: 2px;">Specific Target Organ Toxicity Single Exposure (Respiratory System)</td> <td style="padding: 2px; text-align: right;">Category 3</td> </tr> <tr> <td style="padding: 2px;">Specific Target Organ Toxicity Repeat Exposure (Respiratory System)</td> <td style="padding: 2px; text-align: right;">Category 1</td> </tr> </table>	Skin Irritation	Category 2	Eye Damage	Category 1	Carcinogenicity	Category 1A	Specific Target Organ Toxicity Single Exposure (Respiratory System)	Category 3	Specific Target Organ Toxicity Repeat Exposure (Respiratory System)	Category 1
Skin Irritation	Category 2										
Eye Damage	Category 1										
Carcinogenicity	Category 1A										
Specific Target Organ Toxicity Single Exposure (Respiratory System)	Category 3										
Specific Target Organ Toxicity Repeat Exposure (Respiratory System)	Category 1										
Signal Word	DANGER !										
											
HAZARD	H 315: Causes skin irritation H 319: Causes serious eye irritation H 335: May cause respiratory irritation										
PRECAUTIONARY STATEMENTS	<p><u>PREVENTION</u></p> <p>P 102: Keep out of reach of children.</p> <p>P 261: Avoid breathing dust.</p> <p>P 280: Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P 402: Store (dry product) in dry place</p> <p>P 501: Dispose of contents / container in accordance with... regulations.</p> <hr/> <p><u>RESPONSE</u></p> <p>P 302 + P 352: IF ON SKIN: Wash with plenty of soap and water.</p> <p>P 304 + P 340: IF INHALED: Remove victim to fresh air and keep at rest and comfortable.</p> <p>P 305 + P 351: IF IN EYES: Rinse cautiously with water for several minutes.</p>										

MISSISSIPPI LIME COMPANY - SAFETY DATA SHEET

	P 305 + P 337 + P 313: IF IN EYES: If eye irritation persists, Get medical advice/attention P 301 + P 330 + P 331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
WHMIS	Class "D2A" Chronic Toxicity/Carcinogenicity (if qrtz >0.1%) and Class "E" (Corrosive) Skin
Other Hazards	In contrast to the dry powder, calcium hydroxide, when diluted with water, can produce severe skin damage in humans (alkaline burns), especially with prolonged skin contact.

Section 3: Composition/Information on Ingredients

Ingredient	CAS ID	EC ID	Concentration
Calcium Hydroxide Ca(OH) ₂	01305-62-0	215-137-3	96.0 to 97.2 %
Calcium Carbonate	0471-34-1	207-439-9	0.65 to 1.75 %
Magnesium Oxide	01309-48-4	215-171-9	0.40 to 0.55 %
Calcium Sulfate	07778-18-9	231-900-3	0.05 to 0.10 %
Crystalline Silica SiO ₂	14808-60-7	238-878-4	< 0.10 to 0.50 %

Section 4: First-Aid Measures

Eye Contact	Irritation - Irrigate eyes with water immediately for at least 15 minutes. Consult a doctor.
Skin Contact	Irritation - Wash affected area with water. Change out of contaminated clothing when practical.
Ingestion	Wash mouth and drink copious quantities of water. Do not induce vomiting. Consult a doctor.
Inhalation	Irritation - Move victim to fresh air and treat for discomfort. Consult a doctor if difficult breathing.
Medical	No delayed effects. Treat symptomatically.

Section 5: Fire-Fighting Measures

Flammability	Nonflammable and noncombustible.
Extinguishing Media	Use dry powder, foam or CO ₂ extinguishers to fight surrounding fire.
Special hazards	None.
Advice for fire-fighters	Wear appropriate personal protective equipment.

Section 6: Accidental Release Measures

Precautions	Avoid contact with skin and eyes and keep dust levels to a minimum. Ensure adequate ventilation and/or suitable respiratory protective equipment (Section 8).
Environmental	Control and minimize releases to watercourses and storm drains. Notify Environmental agencies of significant spillage into water.
Containment	Contain spillage and keep material dry and covered if possible to minimize dust hazard.
Clean-up	Keep material dry if possible. Use vacuum systems, if available, and/or broom and shovel. Use salvage drums for dry and wet collection.
Disposal	Check Federal State and Local restrictions or recycle and reuse for beneficial applications.

Section 7: Handling and Storage

Precautions for Safe Handling	Avoid excessive dust in work area and ensure adequate ventilation. Use dust mask when appropriate. Avoid contact with skin and eyes. Use appropriate eye protection. Avoid extended contact with skin and clothing. Avoid ingestion and contact with food.
--------------------------------------	--

MISSISSIPPI LIME COMPANY - SAFETY DATA SHEET

Precautions for Safe Storage	Keep product dry and bags and containers stored in dry and well-ventilated location place. Store bulk in dry properly designed bins and silos. Keep out of reach of children.
	Calcium hydroxide will react with air, strong acids and moisture.

Section 8: Exposure Control / Personal Protection

Ingredient	CAS	Concentration	Exposure Limit (mg/m3)			
Calcium Hydroxide Ca(OH)₂	1305-62-0	Solids 95-100% (Dry Basis)	OSHA PEL (TWA) 8/40h	ACGIH TLV (TWA) 8/40h	MSHA/PEL (TWA) 8/40h	NIOSH REL (TWA) 10/40H
			15 T / 5 R	5	5	10 T / 5 R
Crystalline Silica SiO₂	14808-60-7	< 0.1% or 0.1 - 0.5%	T= 30(%SiO ₂)+2 R=10/(%SiO ₂)+2	R= 0.025	T= 30 (%SiO ₂)+2 R=10 / (%SiO ₂)+2	R=0.05

Calcium Hydroxide is not listed as a carcinogen by ACGIH, MSHA, OSHA, NTP, DFG, RSST or IARC. However, Crystalline Silica may be present below or above detection levels <0.1%. Occupational exposure is dependent upon the handling method and specific application. Two ranges are disclosed for (T) Total Dust and (R) Respirable Dust

Derived No Effect Lvl (DNEL):	Predict No Effect Con (PNEC):	Biological Limit
No information available	No information available	Not established by ACGIH or manufacturer

Section 8: Exposure Control / Personal Protection (continued)

Engineering Control Measures	Ventilation - Ensure adequate ventilation in workplace - especially in confined areas. Evaluate degree of exposure and apply appropriate PPE as necessary.
	Dust Control - Use exhaust ventilation (dust collector) or other engineering controls at handling points to keep airborne levels below recommended exposure limits and/or wear personal protective equipment.
	Eye Wash - Keep emergency eye wash supplies at the workplace.
Personal Protective Equipment	Eye Protection - ANSI, CSA or ATM approved glasses with side-shields. Tight fitting dust goggles should be worn when excessive (visible) emissions are present. Do not wear contact lenses without tight fitting goggles when handling this product.
	Hand Protection - Wear dry protective gloves and apply barrier cream as required.
	Skin Protection - Cover skin to minimize direct contact.
	Footwear - Boots resistant to alkaline material. Prevent dust penetration into socks and boots.
	Respiratory Protection - Follow OSHA respirator guidelines found in 29 CFR 1910.134 or European Standard EN 149. Use NIOSH/MSHA or European Standard EN 149 approved respirators if exposure threshold limits are exceeded or irritation is experienced.
Hygiene	Handle product in accordance with good industrial hygiene and safety practice. Wear clean, dry personal protective equipment. Barrier cream will reduce dryness and irritation. Heavily exposed workers should shower immediately and apply barrier cream to neck, face and wrists.
Environmental	Ventilation systems should be filtered before discharge to atmosphere.

Section 9: Physical and Chemical Properties

<u>Physical State</u>	<u>Formula</u>	<u>Color</u>	<u>Stability</u>	<u>Flammability</u>	<u>Explosivity</u>	<u>Flash Pt</u>
Solid / Powder	Ca(OH) ₂	Off white	Reactive	Non-flammable	Not flammable	Non-Combustible

MISSISSIPPI LIME COMPANY - SAFETY DATA SHEET

<u>Solu. (H₂O)</u> 1650 mg/L 20C	<u>Volatiles</u> 0%	<u>Density</u> 200-500 kg/m ³	<u>Bulk Density</u> 220-690 kg/m ³	<u>Sp. Gravity</u> 2.2- 2.7 g/cm ³	<u>Vapor Press</u> NA	<u>Boiling Pt</u> NA
<u>Freezing Point</u> NA	<u>pH @ (25C)</u> 12.45	<u>Melting Pt</u> 580 °C	<u>Self Ignition T</u> NA	<u>Dust Defrag Kst</u> NA	<u>Vapor Density</u> NA	<u>Viscosity</u> NA
<u>Partition CoefF</u> NA	<u>Odor</u> Odorless	<u>Evaporation</u> NA	<u>Decomp.</u> 540 °C 1076 °F	<u>Additives</u> NA		

Section 10: Stability and Reactivity

Reactivity	Ca(OH) ₂ dissociates in aqueous media forming calcium cations and hydroxyl anions
Stability	Under normal conditions of use and storage, calcium hydroxide is stable
Hazardous	Reacts exothermically with acids
Incompatibility	Strong acids, phosphorus, maleic anhydride, nitro methane, nitro ethane, nitroparaffins, nitro propane, boron tri-fluoride, chlorine tri-fluoride, ethanol, fluorine, hydrogen fluoride, phosphorous pentoxide some metals
Decomposition	None - Calcium hydroxide reacts with carbon dioxide to form calcium carbonate

Section 11: Toxicological Information

Acute	Routes of Entry - Skin Contact, Eye Contact, Acute Inhalation, Ingestion
Skin	Irritating and drying to skin -depending on exposure , moisture and duration of contact. Long sleeve clothing and gloves recommended.
Eyes	Hazardous with eye contact (as irritant and high alkalinity). Possible lesions and blindness if left untreated for prolonged period.. Wear appropriate eye protection (goggles) and avoid wearing contact lenses. Standard Draize (Rabbit) - 10 mg/24 hr - Severe
Inhalation	Potentially hazardous. Respiratory irritation /inflammation of mucous membranes, , coughing and sneezing The extent of damage depends on amount inhaled. Wear appropriate dust mask
Ingestion	May cause gastro-intestinal irritation and pain, vomiting, diarrhea, drop in blood pressure. Extent of damage depends on amount ingested. Rat- LD50: 7340 mg/kg
Sensitization	No sensitizing effects known.
Chronic	Contact dermatitis.
Carcinogenicity	No carcinogenicity data is available for this product. Calcium hydroxide is not listed as a carcinogen by ACGIH, MSHA, OSHA, NTP, DFG, RSST or IAARC.

Section 12: Ecological Information

<p>Toxicity - Aquatic toxicity severe in high concentrations from high alkalinity (pH -12.454) in concentrations > 1 gram/Liter.</p> <p>Persistence and degradability - Not relevant for inorganic substances</p> <p>Ecological information - Not relevant information available.</p> <p>Other information - The product is not biodegradable.</p>
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MISSISSIPPI LIME COMPANY - SAFETY DATA SHEET

Bioaccumulative potential - Not relevant for inorganic substances	
Mobility in soil - Low solubility and mobility in most ground conditions	
Additional information - Product generally nonhazardous at low concentrations. Frequently used in water treatment	
PBT and vPvB assessment - Not relevant for inorganic substances	
Other adverse effects - No further relevant information available.	
Section 13: Disposal Considerations	
Recover uncontaminated product where possible and reutilize or recycle for other beneficial purposes.	
Dispose of containers and unused products as a solid waste in accordance with Federal, State and local requirements.	
Processing, use or contamination of this product may change the waste profile characteristics and waste management options. Although not a listed RCRA hazardous waste, calcium hydroxide may exhibit high alkalinity and require refined analysis to	
Section 14: Transport/Shipping Information	
Calcium hydroxide is not regulated as a hazardous material by the Canadian Transportation of Dangerous Goods (TDG) Regulations or by the US Department of Transportation. (US DOT)	
UN Number - Non dangerous product - Not Listed	UN Proper Shipping Name - Not Classified
DOT Hazard Class - Not Classified	Packing Group Number - Not Classified
International Marine Dangerous Goods (IMDG) - Not Subject	IATA - Not Subject
Regulations governing the carriage of chemicals by ship are contained in the International Convention for the Safety of Life at Sea (SOLAS) and the International Convention for the Prevention of Marine Pollution from Ships, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78). - Not regulated	
Section 15: Regulatory Information	
SARA 302/304	Emergency Planning and Release Notification - Not Listed.
SARA 311	Hazard Categories (40 CFR 370) - Regulated under OSHA HazCom - Acute & Chronic.
SARA 312	Emergency Planning and Release Notification - Not Listed.
SARA 313	Toxic Release Inventory (TRI) Chemical List - Not Listed.
CERCLA	Hazardous Substances (Table 302.4) - Not Listed.
TSCA/DSL	Toxic Substance Control Act, Canada DSL and most International Chemical Inventories - Listed.
RCRA	Hazardous Waste Number and Classification - Not Listed or Classified.
WASTE	Not subject to RCRA and generally acceptable at landfills as a "special waste" . Product can often be beneficially reused or recycled for other purposes.
CONEG	Council of NE Governors -Materials and inks used to manufacture packaging - Compliant
CWA 311	CWA list of hazardous substances- Not Listed. Calcium hydroxide contains alkaline material potentially toxic to aquatic life at high concentrations.
US DOT	U.S. Dept. of Transportation - Not Regulated.
SPILLS	Sweep up dry spillage where possible and minimize flushing with water.

MISSISSIPPI LIME COMPANY - SAFETY DATA SHEET

FDA	Calcium hydroxide is generally recognized as safe (GRAS) by FDA 21 CFR 184.1205.
PROP 65	Subject to California's Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) warning and labeling requirements based on presence of listed trace metals & silica (at or below detection levels) " known to the State of California to cause cancer. " Non-detectable concentrations are reported at 1/2 the detection level.
NAFTA	Product classified as HS Tariff No 2822.50 OR 2825.90; Preference Criteria A; 100% US Origin.
EU REACH	Product pre-registered # 5-2116374587-30-0000. Contact Customer Service for restrictions.

Section 16: Other Information /Disclaimer

Mississippi Lime Company provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person. Individuals receiving this information must exercise their independent judgment in determining its appropriateness for a particular application or purpose.

Prepared by: *J.S. Castleberry*

6/8/2015



SAFETY DATA SHEET

1. Identification

Product identifier CHLORINE
Other means of identification None.
Recommended use ALL PROPER AND LEGAL PURPOSES
Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name Brenntag Mid-South, Inc.
Address 1405 Highway 136, West
 Henderson, KY 42420
Telephone 270-830-1222
E-mail Not available.
Emergency phone number 800-424-9300 CHEMTREC

2. Hazard(s) identification

Physical hazards Not classified.
Health hazards Skin corrosion/irritation Category 1
 Serious eye damage/eye irritation Category 1
 Specific target organ toxicity, single exposure Category 3 respiratory tract irritation
Environmental hazards Not classified.
OSHA defined hazards Not classified.

Label elements



Signal word Danger
Hazard statement Causes severe skin burns and eye damage. Causes serious eye damage. May cause respiratory irritation.
Precautionary statement
Prevention Do not breathe mist or vapor. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.
Response If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Wash contaminated clothing before reuse.
Storage Store in a well-ventilated place. Keep container tightly closed. Store locked up.
Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC) None known.
Supplemental information None.

3. Composition/information on ingredients

Substances

Chemical name	Common name and synonyms	CAS number	%
CHLORINE		7782-50-5	100

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.
Ingestion	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Most important symptoms/effects, acute and delayed	Headache. Dizziness. Nausea, vomiting. Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation. Coughing.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.
General information	If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.
Environmental precautions	Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Store locked up. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Material	Type	Value
CHLORINE (CAS 7782-50-5)	Ceiling	3 mg/m3
		1 ppm

US. ACGIH Threshold Limit Values

Material	Type	Value
CHLORINE (CAS 7782-50-5)	STEL	1 ppm
	TWA	0.5 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Material	Type	Value
CHLORINE (CAS 7782-50-5)	Ceiling	1.45 mg/m3
		0.5 ppm

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection

Chemical respirator with organic vapor cartridge and full facepiece.

Skin protection

Hand protection

Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

Other

Wear appropriate chemical resistant clothing.

Respiratory protection

Chemical respirator with organic vapor cartridge and full facepiece.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state	Liquid.
Form	Liquid.
Color	YELLOWISH-GREEN

Odor Pungent

Odor threshold Not available.

pH Not available.

Melting point/freezing point -150 °F (-101.11 °C)

Initial boiling point and boiling range -29.27 °F (-34.04 °C)

Flash point Not available.

Evaporation rate Not available.

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) Not available.

Flammability limit - upper (%) Not available.

Material name: CHLORINE

982449 Version #: 03 Revision date: 02-01-2016 Issue date: 03-30-2015

SDS US

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Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	779.93 kPa at 25 °C 777.26 kPa at 25 °C
Vapor density	2.5
Relative density	Not available.
Solubility(ies)	
Solubility (water)	7 g/l
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Density	12.23 lbs/gal
Explosive properties	Not explosive.
Molecular formula	Cl2
Molecular weight	70.91 g/mol
Oxidizing properties	Not oxidizing.
Specific gravity	1.47

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Ammonia.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause irritation to the respiratory system.
Skin contact	Causes severe skin burns.
Eye contact	Causes serious eye damage.
Ingestion	Causes digestive tract burns.

Symptoms related to the physical, chemical and toxicological characteristics	Headache. Dizziness. Nausea, vomiting. Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation. Coughing.
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Information on toxicological effects

Acute toxicity	May cause respiratory irritation.
Skin corrosion/irritation	Causes severe skin burns and eye damage.
Serious eye damage/eye irritation	Causes serious eye damage.
Respiratory or skin sensitization	
Respiratory sensitization	Not a respiratory sensitizer.
Skin sensitization	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not available.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1060)

Not listed.

US. National Toxicology Program (NTP) Report on Carcinogens

Not available.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure May cause respiratory irritation.
Specific target organ toxicity - repeated exposure Not classified.
Aspiration hazard Not an aspiration hazard.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Product	Species	Test Results
CHLORINE (CAS 7782-50-5)		
Aquatic		
Fish	LC50 Atlantic silverside (Menidia menidia)	0.037 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability No data is available on the degradability of this product.
Bioaccumulative potential No data available.
Mobility in soil No data available.
Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations Dispose in accordance with all applicable regulations.
Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

UN number UN1017
UN proper shipping name CHLORINE RQ,MARINE POLLUTANT POISON-INHALATION HAZARD, ZONE B DOT SP-10457
Transport hazard class(es)
Class 2.3
Subsidiary risk 5.1, 8
Packing group Not applicable.
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.
ERG number 124
 DOT information on packaging may be different from that listed.

IATA

IATA 1017
IATA CHLORINE RQ,MARINE POLLUTANT POISON-INHALATION HAZARD, ZONE B DOT SP-10457

Transport hazard class(es)

IATA 2.3
IATA 5.1, 8
IATA Not applicable.
IATA No.
IATA 124
IATA Read safety instructions, SDS and emergency procedures before handling.

IMDG

IMDG 1760
IMDG CORROSIVE LIQUID, N.O.S. (CHLORINE)

Transport hazard class(es)

IMDG 8
IMDG -
IMDG III

Environmental hazards

IMDG No.
IMDG F-A, S-B
IMDG Read safety instructions, SDS and emergency procedures before handling.

DOT



IATA



IMDG



15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

CHLORINE (CAS 7782-50-5)

Listed.

SARA 304 Emergency release notification

CHLORINE (CAS 7782-50-5) 10 LBS

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
 Immediate Hazard - Yes
 Delayed Hazard - No
 Fire Hazard - No
 Pressure Hazard - No
 Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Chemical name	CAS number	Reportable quantity	Threshold planning quantity	Threshold planning quantity, lower value	Threshold planning quantity, upper value
CHLORINE	7782-50-5	10	100 lbs		

SARA 311/312 Hazardous chemical Yes

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
CHLORINE	7782-50-5	100

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

CHLORINE (CAS 7782-50-5)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

CHLORINE (CAS 7782-50-5)

Clean Water Act (CWA) Section 112(r) (40 CFR 68.130) Hazardous substance

Safe Drinking Water Act (SDWA) 4 mg/l
4.0 mg/l

US state regulations

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)
Not listed.

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

CHLORINE (CAS 7782-50-5)

US. Massachusetts RTK - Substance List

CHLORINE (CAS 7782-50-5)

US. New Jersey Worker and Community Right-to-Know Act

CHLORINE (CAS 7782-50-5)

US. Pennsylvania Worker and Community Right-to-Know Law

CHLORINE (CAS 7782-50-5)

US. Rhode Island RTK

CHLORINE (CAS 7782-50-5)

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No

Country(s) or region	Inventory name	On inventory (yes/no)*
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
 A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	03-30-2015
Revision date	02-01-2016
Version #	03
HMIS® ratings	Health: 3 Flammability: 0 Physical hazard: 0
NFPA ratings	Health: 4 Flammability: 0 Instability: 0
Disclaimer	While Brenntag believes the information contained herein to be accurate, Brenntag makes no representation or warranty, express or implied, regarding, and assumes no liability for, the accuracy or completeness of the information. The Buyer assumes all responsibility for handling, using and/or reselling the Product in accordance with applicable federal, state, and local law. This SDS shall not in any way limit or preclude the operation and effect of any of the provisions of Brenntag's terms and conditions of sale.
Revision information	First-aid measures: Eye contact



W Abrasives® MATERIAL SAFETY DATA SHEET

CAST STEEL ABRASIVES

Date of Preparation: April 5, 2014

Section 1. PRODUCT IDENTIFICATION

Product Name:	Steel Shot, Steel Grit, Steel Shot/Grit blend.	Manufacturer:	WINOA USA Inc. 1 Abrasive Avenue Bedford, Virginia 24523 USA www.wabrasives.com
Chemical Name:	Steel	Emergency Phone:	(540) 586-0856
Chemical Family:	Metals		
Formula:	Not Applicable (N/A)		

Section 2. HAZARDOUS INGREDIENTS

Round or angular steel pellets used primarily for impact treatment of metallic surfaces. There are no threshold limit values (TLV) or permissible exposure limits (PEL) for cast steel abrasives.

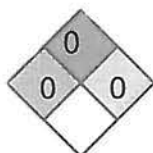
CHEMICAL NAME	CAS NUMBER	% WEIGHT	ACGIH LEVEL (mg/m3)	OSHA PEL (mg/m3)
Iron – Fe Oxide & Fume, as Fe	7439-89-6	>95	5	10
Manganese – Mn Inorganic compounds, as Mn Fume, as Mn	7439-96-5	<1.2	0.2 Not established	5 (ceiling) 5 (ceiling)
Silicon – Si Total Dust Respirable Fraction	7440-21-3	<1.2	10 Not established	15 5
Carbon – C	1333-86-4	<1.2	3.0	3.5
Chromium – Cr Metal Cr II compounds, as Cr Cr III compounds, as Cr Cr VI compounds, water soluble Cr VI compounds, insoluble	7440-47-3	<0.25	0.5 Not established 0.5 0.05 0.01	1.0 0.5 0.5 0.005 0.005
Nickel – Ni Metal & other compounds, as Ni Elemental Soluble inorganic compounds Insoluble inorganic compounds	7440-02-0	<0.2	1.5 0.1 0.2	1.0 1.0 1.0

Section 3. PHYSICAL DATA

Physical state: Solid	Appearance: Near spherical or angular steel particles.
Specific gravity: > 7 g/cc	Odor: Odorless
Evaporation rate: Not Applicable	Odor threshold : Not Applicable
Melting Point: 1371-1482 °C	Solubility in water: Negligible
Vapor Pressure: Not Applicable	PH: Not Applicable
Vapor density: Not Applicable	% Volatile: Not Applicable

Section 4. FIRE AND EXPLOSION HAZARD DATA

Flash Point: Not applicable
 Flammable limits: Not applicable
 Autoignition Temperature (of solid iron exposed to oxygen): 930 °C
 Extinguishing media: Select media appropriate for the surrounding area, including dry chemical, soda ash etc.
Note: Do not use water, CO, or form of Iron Oxide fume/dust materials.
 Unusual fire and explosion hazards: Dusts generated from use may be explosive.



NFPA Hazard Rating: 0 = No Hazard 1 = Slight 2 = Moderate 3 = High 4 = Extreme
 Health (blue) = 0 Flammability (red) = 0 Reactivity (yellow) = 0 Special (colorless)

Section 5. REACTIVITY DATA

Stability:	Stable
Incompatibility:	Strong Acids
Hazardous Polymerization:	Not Applicable
Conditions to avoid:	None



W Abrasives®

MATERIAL SAFETY DATA SHEET

Section 6. HEALTH HAZARD DATA.

There is no applicable statutory or recommended occupational exposure limits for cast steel abrasives. However, operations that elevate the temperature of the product or the dust to above its melting point, generate metal fumes and result in the breaking down of the product into dusts may present hazards. These operations should be performed in well-ventilated areas. The major exposure hazard is inhalation.

Inert or nuisance dust: OSHA PEL:
 Respirable fraction: 5 mg/m3
 Total dust: 15 mg/m3

Carcinogenicity:
 Chromium and Nickel are confirmed human carcinogens according to the ACGIH.
 Carbon and Nickel are potential occupational carcinogens according to the NIOSH Pocket Guide to Chemical Hazards.

The NIOSH Pocket Guide to Chemical Hazards list the following symptoms for chronic or prolonged inhalation of fumes or dust:
 Iron oxide: Benign pneumoconiosis with X-ray shadows indistinguishable from fibrotic pneumoconiosis (siderosis).
 Manganese: Parkinson's; asthenia, insomnia, mental confusion; metal fume fever: dry throat, cough, chest tightness, dyspnea (breathing difficulty), rales, flu-like fever; lower back pain; vomiting; malaise (vague feeling of discomfort); fatigue; kidney damage.
 Silicon: irritation eyes, skin, upper respiratory system; cough.
 Carbon: cough, irritation eyes.
 Chromium: irritation eyes, skin; lung fibrosis (histologic); sensitization dermatitis.
 Nickel: sensitization dermatitis, allergic asthma, pneumonitis.

Section 6a. EMERGENCY AND FIRST AID PROCEDURES.

- If inhaled, move to fresh air, and if symptoms persist, consult a qualified medical person.
- If shot, grit or dust particles get in the eyes, flush eyes with running water for at least 15 minutes and have any remaining particles removed from eyes by a qualified medical person.
- Wash with soap and water after contact with dust.

Section 7. SPILL OR LEAK PROCEDURES.

Shot and/or grit spilled or leaked onto floors can create hazardous walking conditions. In case material is released or spilled, sweep up and collect for reclamation or disposal.
 Waste disposal method: the material may be reused or disposed of in sanitary landfills in compliance with local, federal and state regulations.

Section 8. SPECIAL PROTECTION INFORMATION.

- Ventilation: Adequate ventilation and exhaust of the dust and fumes generated during operations should be provided to reduce the exposure levels.
- Respiratory protection: NIOSH approved respirator is recommended.
- Eye protection: Approved safety eye protection (ANSI-Z87) with side shields should be worn.

Section 9. SPECIAL PRECAUTIONS.

- Precautions to be taken in handling and storing: keep dry to reduce rusting.

Section 10. NOTIFICATION ABOUT TOXIC CHEMICALS.

This product contains the following chemicals subject to the requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372:

Chemical Abstract Number	Chemical Name	% By Weight
7440-47-43	Chromium	< 0.25%
7439-96-5	Manganese	< 1.2%
7440-02-0	Nickel	< 0.2%
1336-86-4	Carbon	< 1.2%

This notification must not be detached from this MSDS and must be included in all MSDS's that are copied and distributed for this product.

DISCLAIMER.

The information contained in this Material Safety Data Sheet was obtained from sources Winoac Inc believes to be reliable. However, Winoac Inc. makes no guarantee, representation or warranty as to the correctness or accuracy of the information. Winoac Inc. does not assume responsibility and disclaims liability for any losses, damages or expense associated with the use of these products.



SAFETY DATA SHEET

DIE SLICK™ 1512 SYN

SDS according to the U.S. OSHA Hazard Communication Standard (29 CFR 1910.1200), Revision 2012

Section 1. Identification

Product code : 015449-01
Product name : DIE SLICK™ 1512 SYN
Other means of identification : Not available.

Relevant identified uses of the substance or mixture and uses advised against

Relevant uses : Lubricant
Uses advised against : Any other purpose.

Supplier : Quaker Houghton PA, Inc.
901 E. Hector Street
Conshohocken, PA 19428 USA
T: 610-832-4000

Wallover Oil Company
21845 Drake Road
Strongsville, OH 44149 USA
www.wallover.com
T: (440) 238-9250

ProductStewardship@quakerhoughton.com
www.quakerhoughton.com

Emergency telephone number (with hours of operation) : CHEMTREC US/Canada:1-800-424-9300 or 1-703-527-3887 (24 hours)

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : EYE IRRITATION - Category 2A

GHS label elements

Hazard pictograms :



Signal word : Warning

Date of issue/Date of revision : 10 July 2024

Version : 3 1/10

Section 2. Hazards identification

Hazard statements : Causes serious eye irritation.

Precautionary statements

Prevention : Wear eye or face protection. Wash thoroughly after handling.

Response : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.

Storage : Not applicable.

Disposal : Not applicable.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	%	CAS number
Alcohols, C14-15, ethoxylated	<3	68951-67-7

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

Section 4. First aid measures

Description of necessary first aid measures

General advice : Get medical attention. If medical advice is needed, have product container or label at hand. Use personal protective equipment as required. Remove contaminated clothing and wash it before reuse. Wash skin surfaces thoroughly after contact.

Inhalation : Move affected person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention.

Skin contact : Wash with plenty of soap and water. Remove contaminated clothing and wash it before reuse. Get medical attention if symptoms occur.

Eye contact : Flush with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Remove contact lenses, if present and easy to do. Get medical attention if symptoms occur.

Ingestion : Ingestion may cause gastrointestinal irritation and diarrhea. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

Inhalation : Not expected under normal use.

Skin contact : Not expected under normal use.

Eye contact : pain or irritation, redness, watering

Ingestion : Not expected under normal use.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically.

Specific treatments : No specific treatment.

Section 4. First aid measures

- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Use personal protective equipment as required.

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire. Use dry chemical, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

- Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst.

- Hazardous thermal decomposition products** : In a fire, hazardous decomposition products may be produced. carbon oxides (CO, CO₂) nitrogen oxides

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Put on appropriate personal protective equipment (see Section 8). Keep unnecessary personnel away. Avoid breathing vapor or mist. Provide adequate ventilation.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". Evacuate area.

- Environmental precautions** : Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Do not allow any potentially contaminated water, including rain water, runoff from fire fighting or spills, to enter any waterway, sewer or drain.

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. For large spills, dike spilled material or otherwise contain it to ensure runoff does not reach a waterway. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.
- Storage temperature** : Store between the following temperatures: 5 to 35°C (41 to 95°F).
- Shelf life** : 12 months

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Alcohols, C14-15, ethoxylated	None.

- Appropriate engineering controls** : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location. Keep equipment clean.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers.

Section 8. Exposure controls/personal protection

- Other skin protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : A respirator is not needed under normal and intended conditions of product use. Use appropriate respiratory protection if there is a risk of exceeding any exposure limits.
- Thermal hazards** : Not expected under normal use. Not relevant/applicable due to nature of the product.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Liquid.
- Color** : Light Brown.
- Odor** : Mild.
- Odor threshold** : Not available.
- pH** : 8.7 to 9.7 [Conc. (% w/w): 10%]
- Melting point** : <20°C (<68°F)
- Boiling point** : >35°C (>95°F)
- Flash point** : Not available.
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Not available.
- Vapor pressure** : Not available.
- Vapor density** : Not available.
- Density** : 0.983 g/cm³ [15°C (59°F)]
- Solubility** : Dispersible.

Media	Result
Water	Not soluble

- Partition coefficient: n-octanol/water** : Not applicable.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.

Particle characteristics

- Median particle size** : Not applicable.

Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

Section 10. Stability and reactivity

Conditions to avoid : No specific measures identified.

Incompatible materials : Strong oxidizing materials, strong acids, strong alkalis

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity : Based on available data, the classification criteria are not met.

Acute toxicity estimates

Route	ATE value
Oral	31382.24 mg/kg

Numerical measures of toxicity

Not available.

Irritation/Corrosion : Causes severe eye irritation.

Respiratory or skin sensitization : Based on available data, the classification criteria are not met.

Mutagenicity : Based on available data, the classification criteria are not met.

Carcinogenicity : Based on available data, the classification criteria are not met.

Reproductive toxicity : Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure) : Based on available data, the classification criteria are not met.

Specific target organ toxicity (repeated exposure) : Based on available data, the classification criteria are not met.

Aspiration hazard : Based on available data, the classification criteria are not met.

Other information : None identified.

Information on the likely routes of exposure

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Eye contact : Causes serious eye irritation.

Ingestion : No known significant effects or critical hazards.

Delayed and immediate effects and also chronic effects from short and long term exposure

None identified.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation : Not expected under normal use.

Skin contact : Not expected under normal use.

Eye contact : pain or irritation, redness, watering

Ingestion : Not expected under normal use.

Section 12. Ecological information

This material is harmful to aquatic life.

Toxicity

Product/ingredient name	Result	Species	Exposure
Alcohols, C14-15, ethoxylated	Acute EC50 201 µg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	48 hours
	Acute LC50 1400 µg/l Fresh water	Crustaceans - <i>Gammarus sp.</i>	48 hours
	Acute LC50 600 µg/l Fresh water	Fish - <i>Danio rerio</i> - Fry	96 hours
	Chronic NOEC 77 µg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	21 days
	Chronic NOEC 160 µg/l Fresh water	Fish - <i>Pimephales promelas</i> - Adult	30 days

Persistence and degradability

Not available.

Bioaccumulative potential

Not available.

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Empty containers or liners may retain some product residues. Empty containers retain product residue and can be hazardous. Care should be taken when handling emptied containers that have not been cleaned or rinsed out.

Section 14. Transport information

	DOT Classification	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-

Section 14. Transport information

Environmental hazards	No.	No.	No.

Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory informationU.S. Federal regulationsTSCA 12(b) - Chemical export notification

Not applicable.

Clean Water Act (CWA) 311

None of the components are listed.

Clean Water Act (CWA) 307

None of the components are listed.

Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs)

None of the components are listed.

CERCLA: Hazardous substances.

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

Reportable quantity : zinc chloride: 1000 lbs. (454 kg); sodium hydroxide: 1000 lbs. (454 kg); ethanediol: 5000 lbs. (2270 kg); methanol: 5000 lbs. (2270 kg);

SARA 302/304

None of the components are listed.

SARA 311/312

Classification : See GHS Classification in section 2 for hazard class information

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

State regulations

Massachusetts : None of the components are listed.

New York : None of the components are listed.

New Jersey : None of the components are listed.

Pennsylvania : None of the components are listed.

California

California Prop. 65

Ingredient name	Concentration	
Ethylene Glycol	Trace	Developmental
Methanol	Trace	Developmental

Section 15. Regulatory information

SCAQMD Rule 1144

This product has not been tested for VOC content by the ASTM E-1868-10 (2021) method and is not approved for sale or distribution in the SCAQM District of California if the product is used as a metal forming, metal removal, metal treating, metal protection fluid

International regulations

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

United States : All components are active or exempted.
Canada : All components are listed or exempted.

Section 16. Other information

Date of issue/Date of revision : 7/10/2024

Version : 3

Key to abbreviations : Quaker Houghton Product Stewardship
ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations
VOC = Volatile Organic Compound

References : Safety data sheets of raw materials, global regulatory body information, scientific literature, and testing data .

☑ Indicates information that has changed from previously issued version.

Notice to reader

This product's safety information is provided to assist our customers in assessing compliance with safety/health/environmental regulations. The information contained herein is based on data available to us and is correct to the best of our knowledge, information and belief at the date of its publication. However, no warranty of merchantability, fitness for any use, or any other warranty is expressed or implied regarding the accuracy of this data, the results to be obtained from the use thereof, or the hazards connected with the use of the product. Since the use of this product is within the exclusive control of the user, it is the user's obligation to determine the conditions for safe use of the product. Such conditions should comply with all regulations concerning the product. The company referenced in this Safety Data Sheet assumes

Section 16. Other information

no liability for any injury or damage, direct or consequential, resulting from the use of this product unless such injury or damage is attributable to the gross negligence of such company.



Safety Data Sheet

AI-Clean 104

SECTION 1 – PRODUCT AND COMPANY INFORMATION

Manufacturer Certified Flux Solutions, LLC – 586 Industrial Drive North – Morgantown – KY 42261
270.526.8600 – agiageos@certifiedflux.com - www.certifiedflux.com

Product Family Alkali Salts
Trade Name CFS070 - AI Clean 104

Emergency Phone 1-800-255-3924

Recommended Uses Cover & Wall Cleaning flux for aluminum casting.

SECTION 2 – HAZARD IDENTIFICATION



Classification of the substance or mixture
GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Pictograms: Not Classified

Signal Word: **DANGER**

Physical Hazards: Not Classified

Health Hazards: Eye Damage / Irritation (Category 2)
Specific Target Organ Toxicity – Single Exposure (Category 3) – Respiratory
Specific Target Organ Toxicity – Repeated Exposure (Category 1) – Respiratory
Skin Corrosion / Irritation (Category 2)
Carcinogenicity - (Category 1a)

Environmental Hazards: Acute aquatic toxicity – Information not available
Chronic aquatic toxicity - Information not available

Precautionary Statements:

Prevention: Do not breathe fumes or mist. Use only outdoors or in a well-ventilated area. Wash hands or other contact areas thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves or clothing. Avoid release to the environment

Response: **If swallowed:** Rinse mouth. Immediately call a POISON CENTER or doctor/physician. Specific treatment is shown in First Aid section. Refer to SDS for further information.

If inhaled: Remove person to fresh air and keep comfortable for breathing. Seek medical attention. Specific treatment is in First Aid section on this label.

If on skin: Wash with plenty of water. Seek medical attention if you feel unwell. Immediately take off all contaminated clothing and wash before reuse.

Collect spillage.

Storage: Store locked up.

Disposal: Dispose of contents/container in accordance with local/regional/national/international regulations. Dispose of contents/ container to an approved waste disposal plant.

HNOC:* None Known

Supplemental Info: Ratings:

HMIS Rating: Health hazard: 2 Chronic Health Hazard Flammability: 0 Physical Hazard 0

NFPA Rating: Health hazard: 2 Fire Hazard: 0 Reactivity Hazard: 0

* Hazard(s) not otherwise classified

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No.	Percent (Wt.)
Feldspar	6476-25-5	0-5%
Inorganic Salts		Balance

SECTION 4 – FIRST AID MEASURES

Description of first aid measures

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact: Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed: See Sections 2 and 11

Indication of any immediate medical attention and special treatment needed: None known.

SECTION 5 – FIREFIGHTING MEASURES

Extinguishing media: Product will not burn. Measures are for the surrounding fire.

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture: Hydrogen fluoride, Sodium oxides, silicon oxides

Advice for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.

Further information: None known.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see Section 8.

Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up: Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Reference to other sections: For disposal see Section 13.

SECTION 7 – HANDLING AND STORAGE

Precautions for safe handling: Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation at places where dust is formed. See Section 2 and Section 8 for added information.

Conditions for safe storage, including any incompatibilities: Keep container tightly closed in a dry and well-ventilated place. Keep in a dry place. Store locked up.

Specific end use: See Section 1.

SECTION 8 – EXPOSURE CONTROL AND PERSONAL PROTECTION

Control parameters

Workspace exposure control parameters: Feldspar: OSHA PEL 15 mg/m³ – ACGIH TLV 2

Appropriate engineering controls: Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Personal protective equipment

Eye/face protection: Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N99 (US) or type P2 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Section 9 – Physical And Chemical Properties

Appearance/Physical State	White, Free Flowing Powder	Flash Point (°F)	Not Applicable
Specific Gravity (Water=1)	Not Applicable (See Bulk Density)	Upper/Lower Flammability Limits (Vol. %)	Not Applicable
pH	4-6 (5% Solution)	Auto-ignition Temperature (AIT) (°F/°C)	Not Applicable
Solubility in Water	Not Determined	Decomposition Temperature	Not Determined
Odor	None	Vapor Pressure (mm Hg)	Approximately 0
Odor Threshold	Not Determined	Vapor Density (Air=1)	Heavier Than Air
Melting/Freezing Point (°F)	932 - 950	Partition Coefficient (n-octanol/water)	Not Determined
Boiling Range (°F)	Decomposes	Viscosity (cSt) 104°F/40°C	Not Applicable
Initial Boiling Point (°F/°C)	Decomposes	Critical Temperature	Not Determined
Other Information			
Volatility by Wt. (%)	Not Determined	Bulk Density	Loose 64-75 lbs/ft ² -1025-1200 gm/m ³
Note: Physical and chemical properties are provided for safety, health and environmental considerations only and may not fully represent product specifications. Those should be requested separately.			

SECTION 10 – STABILITY AND REACTIVITY

Reactivity: No data available.

Chemical stability: Stable under recommended storage conditions.

Possibility of hazardous reactions: No data available.

Conditions to avoid: No data available

Incompatible materials: Strong oxidizing agents. Avoid contact with hot nitric acid, may cause evolution of toxic nitrosyl chloride. Contact with other strong acids may produce irritation hydrogen chloride gas. May react violently with bromine trifluoride and may explode if mixed with potassium permanganate and sulfuric acid. NaCl can react with most noble metals, such as iron or steel, building materials (such as cement), bromine, or trifluoride. A potentially explosive reaction may occur if NaCl is mixed with dichloromaleic anhydride and urea. Electrolysis of mixtures containing NaCl and nitrogen compounds may form explosive nitrogen trichloride.

Hazardous decomposition products: Other decomposition products - no data available. See Section 5 in the event of a fire.

SECTION 11 – TOXICOLOGICAL INFORMATION

Information on toxicological effects: Feldspar:

Primary Route of Exposure: Skin, Eye Contact, Inhalation and Ingestion

Acute Health Hazards:

Eye contact may cause mechanical irritation.

Skin contact may aggravate existing dermatitis.

Inhalation from prolonged and continuous exposure to excessive quantities of dust may aggravate existing asthmatic or respiratory conditions.

Acute and Chronic Toxicity

May cause eye irritation, skin irritation, respiratory tract irritation, and gastrointestinal tract irritation. May cause damage to respiratory tract through prolonged or repeated exposure.

Exposure to quartz (the most stable and common form of crystalline silica) is responsible for the majority of clinically diagnosed silicosis. Silicosis is a fibronodular lung disease that occurs after occupational exposure to crystalline silica for 5 years or longer. Inhalation of quartz dusts may cause shortness of breath, limitation of chest expansion, dry cough, and a lessened capacity for work. Individuals with a pre-existing disease in, or a history of ailments involving the skin or respiratory tract, are at greater risk for developing adverse health effects when exposed to this material.

In humans, chronic intermittent exposure to quartz caused pulmonary fibrosis, cough, and difficulty breathing.

Overexposure to crystalline silica may cause silicosis, a form of disabling, progressive, and sometimes fatal pulmonary fibrosis characterized by the presence of typical nodulation in the lungs. Tuberculosis frequently complicates silicosis and the risk for tuberculosis is also increased in workers exposed to silica who have no radiographic evidence of silicosis. Crystalline silica can cause silicotic lesions in such organs as the liver, spleen and bone marrow. In humans, a causal relationship exists between exposure to crystalline silica and the development of autoimmune diseases. In multi-dose studies with animals, long term inhalation of quartz affected the lungs, endocrine system, immune system and blood.

This product contains quartz (respirable) as an impurity. Prolonged and/or massive exposure to respirable crystalline silica-containing dust may cause silicosis, a nodular pulmonary fibrosis caused by deposition in the lungs of fine respirable particles of crystalline silica. In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However it pointed out that not all industrial circumstances, nor all crystalline silica types, were to be incriminated. (IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibers, 1997, Vol. 68,

IARC, Lyon, France.)

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:

Quartz - Crystalline Silica (14808-60-7)

Oral LD50 Rat 500 mg/kg

Irritation/Corrosivity Data

May cause eye irritation, skin irritation, respiratory tract irritation, and gastrointestinal tract irritation.

Respiratory Sensitizer

No test data available

Dermal Sensitizer

No test data available

Carcinogenicity

Component Carcinogenicity

Feldspar - CAS N° 68476-25-5

ACGIH: A4 - Not Classifiable as a Human Carcinogen

Quartz - Crystalline Silica - CAS N° 14808-60-7

ACGIH: A2 - Suspected Human Carcinogen

IARC: Group 1 - Carcinogenic to humans

Mutagenic Data

No information available

Reproductive Effects Data

No information available

Specific Organ Toxicity - Single Exposure

Target organs include ears, skin, respiratory system, and gastrointestinal tract.

Specific Organ Toxicity - Repeated Exposure

Causes damage to eyes, skin, respiratory system, and gastrointestinal tract through prolonged or repeated exposure.

Aspiration Hazard

No data available

Medical Conditions Aggravated by Exposure

Individuals with pre-existing eye disorders, skin disorders, respiratory disorders and/or gastrointestinal disorders may have increased susceptibility to the effects of exposure.

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity

No information available for the product

Component Analysis - Aquatic Toxicity

No LOLI ecotoxicity data are available for this product's components

No information available for the product

Bioaccumulation

No information available for the product

Bioconcentration

This material is not believed to bioconcentrate

Biodegradation

This product is made from a naturally occurring, abundant, innocuous mineral

Persistence

This product is made from a naturally occurring, abundant, innocuous mineral

Mobility in Soil:

This product is insoluble in water

Results of PBT and vPvB Assessment

Not relevant

Other Toxicity

May affect turbidity if discharged in large quantities to lakes, streams or sewers.

SECTION 13 – DISPOSAL CONSIDERATION

Waste Disposal Method: Dispose of waste in accordance with Federal, State and Local laws.

Disposal Regulatory Requirements: Under RCRA, it is the responsibility of the user of products to determine, at the time of disposal, whether product meets RCRA criteria for hazardous waste. This is because product uses transformations, mixture, processes, etc., may render the resulting material hazardous (see waste classification)

Container Cleaning and Disposal: Containers should be cleaned of residual product before disposal, and disposed of in accordance with all applicable laws and regulations.

SECTION 14 – TRANSPORT INFORMATION

EPA Waste Number: Not regulated.

DOT Classification: Not regulated.

IMO Classification: Not regulated.

Internal UN: Not regulated.

IMDG Code: This product is not considered to be a marine pollutant.

SECTION 15 – REGULATORY INFORMATION

SARA Title III Section 302 Extremely Hazardous Substances: This product does not contain extremely hazardous subject to

the reporting requirements of Section 302 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 355.

SARA Title III Section 311 and 312 Health and Physical Hazard Categories per 40 CFR 370.2:

Immediate Delayed Fire Pressure Reactivity

Yes Yes No No No

SARA Section 313 Notification: This product does not contain toxic chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

TSCA: Product is listed in January 2010 inventory, ID# 43783

CERCLA: Feldspar is not a CERCLA listed hazardous substance.

California Proposition 65: WARNING: This product may also contain extremely small amounts of one or more naturally-occurring materials known to the State of California to cause cancer, birth defects, or other reproductive harm.

NJ Special Health Hazardous Substances List [4]: Not listed/regulated under.

PA Special Hazardous Substances List: Regulated under PA Code Chapter 323.

Stockholm Convention: This product is not subject to the Stockholm Convention.

Montreal Protocol: This product is not subject to the Montreal Protocol.

Rotterdam Convention: This product is not subject to the Rotterdam Convention.

National Inventories:

DSL (Canada): Listed

NDSL (Canada): Not Listed

PICCS (Philippines): Listed

KECL (Korea): Listed

ENCS (MITI) (Japan): Not explicitly listed under CAS number.

AICS (Australia): Listed

IECSC (China): Listed

EINECS (Europe): Listed

REACH Status: Exempt (Annex v.7). Product is a naturally occurring mineral.

SECTION 16 – OTHER INFORMATION

Disclaimer: The information in this document has been compiled from sources considered to be reliable and is believed to be correct as of the date issued. HOWEVER, NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY OTHER WARRANTY IS EXPRESSED OR IS TO BE IMPLIED REGARDING THE ACCURACY OR COMPLETENESS OF THIS INFORMATION, THE RESULTS TO BE OBTAINED FROM THE USE OF THIS INFORMATION OF THE PRODUCT, THE SAFETY OF THIS PRODUCT, OR THE HAZARDS RELATED TO ITS USE. This information and product are furnished on the condition that the person receiving them shall make his/her own determination as to the suitability of the product for his/her particular purpose and on the condition that he/she assume the risk of his use thereof.

Division for Air Quality

300 Sower Boulevard
Frankfort, KY 40601
(502) 564-3999

DEP7007AI

Administrative Information

- Section AI.1: Source Information
- Section AI.2: Applicant Information
- Section AI.3: Owner Information
- Section AI.4: Type of Application
- Section AI.5: Other Required Information
- Section AI.6: Signature Block
- Section AI.7: Notes, Comments, and Explanations

Additional Documentation

Additional Documentation attached

Source Name: Nemak USA, Inc.

KY EIS (AFS) #: 21- 009-00065

Permit #: V-20-029

Agency Interest (AI) ID: 78

Date: 2/3/2025

Section AI.1: Source Information

Physical Location	Street:	<u>20 Prestwick Drive</u>		
Address:	City:	<u>Glasgow</u>	County:	<u>Barren</u>
			Zip Code:	<u>42141</u>
Mailing Address:	Street or P.O. Box:	<u>20 Prestwick Drive</u>		
	City:	<u>Glasgow</u>	State:	<u>KY</u>
			Zip Code:	<u>42141</u>

Standard Coordinates for Source Physical Location

Longitude: 85.9275 (decimal degrees) Latitude: 36.97338056 (decimal degrees)

Primary (NAICS) Category: Non-ferrous metal die-casting foundries Primary NAICS #: 331523

Classification (SIC) Category:		<u>Secondary aluminum processing/die-casting</u>		Primary SIC #: <u>3341/3363</u>	
Briefly discuss the type of business conducted at this site:		<u>Nemak USA, Inc is a secondary aluminum processing source that produces die castings for automotive parts.</u>			
Description of Area Surrounding Source:	<input type="checkbox"/> Rural Area	<input checked="" type="checkbox"/> Industrial Park	<input checked="" type="checkbox"/> Residential Area	Is any part of the source located on federal land?	<input type="checkbox"/> Yes
	<input type="checkbox"/> Urban Area	<input type="checkbox"/> Industrial Area	<input type="checkbox"/> Commercial Area		<input checked="" type="checkbox"/> No
Approximate distance to nearest residence or commercial property: <u>100-200 feet</u>		Property Area: <u>15.3</u>	Is this source portable? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
What other environmental permits or registrations does this source currently hold or need to obtain in Kentucky?					
NPDES/KPDES:	<input checked="" type="checkbox"/> Currently Hold	<input type="checkbox"/> Need	<input type="checkbox"/> N/A		
Solid Waste:	<input type="checkbox"/> Currently Hold	<input type="checkbox"/> Need	<input checked="" type="checkbox"/> N/A		
RCRA:	<input checked="" type="checkbox"/> Currently Hold	<input type="checkbox"/> Need	<input type="checkbox"/> N/A		
UST:	<input type="checkbox"/> Currently Hold	<input type="checkbox"/> Need	<input checked="" type="checkbox"/> N/A		
Type of Regulated Waste Activity:	<input type="checkbox"/> Mixed Waste Generator	<input checked="" type="checkbox"/> Generator	<input type="checkbox"/> Recycler	<input type="checkbox"/> Other: _____	
	<input type="checkbox"/> U.S. Importer of Hazardous Waste	<input type="checkbox"/> Transporter	<input type="checkbox"/> Treatment/Storage/Disposal Facility	<input type="checkbox"/> N/A	

Section AI.2: Applicant Information

Applicant Name: Luis Corona

Title: (if individual) Plant Leader - KTY

Mailing Address: **Street or P.O. Box:** 20 Prestwick Drive
City: Glasgow **State:** KY **Zip Code:** 42141

Email: (if individual) Luis.Corona@nemak.com

Phone: 270-651-8334 ext 1037

Technical Contact

Name: Karen Lyons

Title: HSE Manager

Mailing Address: **Street or P.O. Box:** 20 Prestwick Drive
City: Glasgow **State:** KY **Zip Code:** 42141

Email: karen.lyons01@nemak.com

Phone: 270-590-7897

Air Permit Contact for Source

Name: Karen Lyons

Title: HSE Manager

Mailing Address: **Street or P.O. Box:** 20 Prestwick Drive
City: Glasgow **State:** KY **Zip Code:** 42141

Email: karen.lyons01@nemak.com

Phone: 270-590-7897

Section AI.3: Owner Information	
<input type="checkbox"/> Owner same as applicant	
Name:	_____
Title:	_____
Mailing Address:	Street or P.O. Box: _____
	City: _____ State: _____ Zip Code: _____
Email:	_____
Phone:	_____
List names of owners and officers of the company who have an interest in the company of 5% or more.	
Name	Position
Available upon request	_____
_____	_____
_____	_____

Section AI.4: Type of Application

Current Status: Title V Conditional Major State-Origin General Permit Registration None

Requested Action:
(check all that apply)

Name Change Initial Registration Significant Revision Administrative Permit Amendment

Renewal Permit Revised Registration Minor Revision Initial Source-wide Operating Permit

502(b)(10)Change Extension Request Addition of New Facility Portable Plant Relocation Notice

Revision Off Permit Change Landfill Alternate Compliance Submittal Modification of Existing Facilities

Ownership Change Closure

Requested Status: Title V Conditional Major State-Origin PSD NSR Other: Responsible Official Change

Is the source requesting a limitation of potential emissions? Yes No

Pollutant:	Requested Limit:	Pollutant:	Requested Limit:
<input type="checkbox"/> Particulate Matter	_____	<input type="checkbox"/> Single HAP	_____
<input type="checkbox"/> Volatile Organic Compounds (VOC)	_____	<input type="checkbox"/> Combined HAPs	_____
<input type="checkbox"/> Carbon Monoxide	_____	<input type="checkbox"/> Air Toxics (40 CFR 68, Subpart F)	_____
<input type="checkbox"/> Nitrogen Oxides	_____	<input type="checkbox"/> Carbon Dioxide	_____
<input type="checkbox"/> Sulfur Dioxide	_____	<input type="checkbox"/> Greenhouse Gases (GHG)	_____
<input type="checkbox"/> Lead	_____	<input type="checkbox"/> Other	_____

For New Construction:

Proposed Start Date of Construction: (MM/YYYY) _____ N/A **Proposed Operation Start-Up Date:** (MM/YYYY) _____

For Modifications:

Proposed Start Date of Modification: (MM/YYYY) _____ N/A **Proposed Operation Start-Up Date:** (MM/YYYY) _____

Applicant is seeking coverage under a permit shield. Yes No **Identify any non-applicable requirements for which permit shield is sought on a separate attachment to the application.**

Section AI.5 Other Required Information

Indicate the documents attached as part of this application:

- | | |
|--|---|
| <input type="checkbox"/> DEP7007A Indirect Heat Exchangers and Turbines | <input type="checkbox"/> DEP7007CC Compliance Certification |
| <input type="checkbox"/> DEP7007B Manufacturing or Processing Operations | <input type="checkbox"/> DEP7007DD Insignificant Activities |
| <input type="checkbox"/> DEP7007C Incinerators and Waste Burners | <input type="checkbox"/> DEP7007EE Internal Combustion Engines |
| <input type="checkbox"/> DEP7007F Episode Standby Plan | <input type="checkbox"/> DEP7007FF Secondary Aluminum Processing |
| <input type="checkbox"/> DEP7007J Volatile Liquid Storage | <input type="checkbox"/> DEP7007GG Control Equipment |
| <input type="checkbox"/> DEP7007K Surface Coating or Printing Operations | <input type="checkbox"/> DEP7007HH Haul Roads |
| <input type="checkbox"/> DEP7007L Mineral Processes | <input type="checkbox"/> Confidentiality Claim |
| <input type="checkbox"/> DEP7007M Metal Cleaning Degreasers | <input type="checkbox"/> Ownership Change Form |
| <input type="checkbox"/> DEP7007N Source Emissions Profile | <input type="checkbox"/> Secretary of State Certificate |
| <input type="checkbox"/> DEP7007P Perchloroethylene Dry Cleaning Systems | <input type="checkbox"/> Flowcharts or diagrams depicting process |
| <input type="checkbox"/> DEP7007R Emission Offset Credit | <input type="checkbox"/> Digital Line Graphs (DLG) files of buldings, roads, etc. |
| <input type="checkbox"/> DEP7007S Service Stations | <input type="checkbox"/> Site Map |
| <input type="checkbox"/> DEP7007T Metal Plating and Surface Treatment Operations | <input type="checkbox"/> Map or drawing depicting location of facility |
| <input type="checkbox"/> DEP7007V Applicable Requirements and Compliance Activities | <input type="checkbox"/> Safety Data Sheet (SDS) |
| <input type="checkbox"/> DEP7007Y Good Engineering Practice and Stack Height Determination | <input type="checkbox"/> Emergency Response Plan |
| <input type="checkbox"/> DEP7007AA Compliance Schedule for Non-complying Emission Units | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> DEP7007BB Certified Progress Report | |

Section AI.6: Signature Block

I, the undersigned, hereby certify under penalty of law, that I am a responsible official*, and that I have personally examined, and am familiar with, the information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the information is on knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false or incomplete information, including the possibility of fine or imprisonment.



Authorized Signature

Luis Pena

Type or Printed Name of Signatory

December 17th, 2025

Date

Operations Director USA

Title of Signatory

*Responsible official as defined by 401 KAR 52:001.