

**Iowa Department of Natural Resources  
Title V Operating Permit**

**Name of Permitted Facility: Alcoa, Inc.**

**Facility Location: 4879 State St., Riverdale, IA 52722**

**Air Quality Operating Permit Number: 03-TV-025R2**

**Expiration Date: December 6, 2020**

**Permit Renewal Application Deadline: June 6, 2020**

**EIQ Number: 92-0132**

**Facility File Number: 82-01-002**

---

**Responsible Official**

**Name: Rob Woodall**

**Title: MFR Director Davenport & Satellites**

**Mailing Address: P.O. Box 3567, Bettendorf, IA 52722**

**Phone #: (563) 459-2287**

**Permit Contact Person for the Facility**

**Name: Guilbert Ebune**

**Title: Environmental Manager**

**Mailing Address: P.O. Box 3567, Bettendorf, IA 52722**

**Phone #: (563) 459-2619**

---

This permit is issued in accordance with 567 Iowa Administrative Code Chapter 22, and is issued subject to the terms and conditions contained in this permit. Two Title V Permits exist for Alcoa and Veolia Water (facility No. 82-02-052). These two facilities are considered one stationary source. This is the permit for Alcoa, Inc. The second permit has been issued for Veolia Water.

**For the Director of the Department of Natural Resources**

---

Lori Hanson, Supervisor of Air Operating Permits Section

Date

# Table of Contents

<b>I. Facility Description and Equipment List</b> .....	<b>5</b>
<b>II. Plant - Wide Conditions</b> .....	<b>13</b>
<b>III. Emission Point Specific Conditions</b> .....	<b>18</b>
<b>IV. General Conditions</b> .....	<b>234</b>
G1. Duty to Comply	
G2. Permit Expiration	
G3. Certification Requirement for Title V Related Documents	
G4. Annual Compliance Certification	
G5. Semi-Annual Monitoring Report	
G6. Annual Fee	
G7. Inspection of Premises, Records, Equipment, Methods and Discharges	
G8. Duty to Provide Information	
G9. General Maintenance and Repair Duties	
G10. Recordkeeping Requirements for Compliance Monitoring	
G11. Evidence used in establishing that a violation has or is occurring.	
G12. Prevention of Accidental Release: Risk Management Plan Notification and Compliance Certification	
G13. Hazardous Release	
G14. Excess Emissions and Excess Emissions Reporting Requirements	
G15. Permit Deviation Reporting Requirements	
G16. Notification Requirements for Sources That Become Subject to NSPS and NESHAP Regulations	
G17. Requirements for Making Changes to Emission Sources That Do Not Require Title V Permit Modification	
G18. Duty to Modify a Title V Permit	
G19. Duty to Obtain Construction Permits	
G20. Asbestos	
G21. Open Burning	
G22. Acid Rain (Title IV) Emissions Allowances	
G23. Stratospheric Ozone and Climate Protection (Title VI) Requirements	
G24. Permit Reopenings	
G25. Permit Shield	
G26. Severability	
G27. Property Rights	
G28. Transferability	
G29. Disclaimer	
G30. Notification and Reporting Requirements for Stack Tests or Monitor Certification	
G31. Prevention of Air Pollution Emergency Episodes	
G32. Contacts List	
<b>V. Appendix A: 40 CFR Part 63, Subpart RRR: Web Link to National Emission Standards     for Hazardous Air Pollutants for Secondary Aluminum Production</b> .....	<b>248</b>

**VI. Appendix B: 40 CFR Part 63, Subpart SSSS:** Web Link to National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Coil.....**249**

**VII. Appendix C: 40 CFR Part 63, Subpart ZZZZ:** Web Link to National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE).....**250**

**VIII. Appendix D: 40 CFR Part 63, Subpart DDDDD:** Web Link to National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters .....**251**

**IX. Appendix E: 40 CFR Part 60, Subpart Dc:** Web Link to Standards of Performance for Small Industrial, Commercial - Institutional Steam Generating Units.....**252**

**X. Appendix F: 40 CFR Part 60, Subpart JJJJ:** Web Link to Standards of Performance for Stationary Spark Ignition Internal Combustion Engines .....**253**

**XI. Appendix G: 40 CFR Part 60, Subpart IIII:** Web Link to Standards of Performance for Stationary Compression Ignition Internal Combustion Engines .....**254**

**XII. Appendix H: 40 CFR Part 60, Subpart TT:** Web Link to Standards of Performance for Metal Coil Surface Coating .....**255**

**XIII. Appendix I: Iowa DNR Letter of March 3, 2015**.....**256**

## Abbreviations

acfm.....	actual cubic feet per minute
CFR.....	Code of Federal Regulation
CE.....	control equipment
CEM.....	continuous emission monitor
°F.....	degrees Fahrenheit
EIQ.....	emissions inventory questionnaire
EP.....	emission point
EU.....	emission unit
gr./dscf.....	grains per dry standard cubic foot
gr./100 cf.....	grains per one hundred cubic feet
g/kW-hr.....	grams per kilowatt hour
IAC.....	Iowa Administrative Code
IDNR.....	Iowa Department of Natural Resources
Kg/l.....	kilograms per liter
MVAC.....	motor vehicle air conditioner
NAICS.....	North American Industry Classification System
NSPS.....	new source performance standard
ppmv.....	parts per million by volume
lb./hr.....	pounds per hour
lb./MMBtu.....	pounds per million British thermal units
SCC.....	Source Classification Codes
scfm.....	standard cubic feet per minute
SIC.....	Standard Industrial Classification
TPY.....	tons per year
USEPA.....	United States Environmental Protection Agency
GF.....	A grandfathered unit that does not require a construction permit
NA.....	Not Applicable
TEQ.....	Toxicity Equivalents

### Pollutants

D/F.....	Dioxin/Furan
PM.....	particulate matter
PM <sub>10</sub> .....	particulate matter ten microns or less in diameter
SO <sub>2</sub> .....	sulfur dioxide
NO <sub>x</sub> .....	nitrogen oxides
VOC.....	volatile organic compound
CO.....	carbon monoxide
HAP.....	hazardous air pollutant
NMHC.....	non methane hydrocarbons

# I. Facility Description and Equipment List

Facility Name: Alcoa, Inc.  
 Permit Number: 03-TV-025R2

Facility Description: Aluminum Sheet, Plate, and Foil Manufacturing (SIC 3353)

## Equipment List

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
S-063	CAUSTDIP	Caustic Dip	05-A-860-S3
S-185	CFRN03	CAA Furnace #3	GF
S-142	CFRN18	CAA Furnace #18	GF
S-141	CFRN19	CAA Furnace #19	GF
S-140	CFRN20	CAA Furnace #20	GF
S-139	CFRN21	CAA Furnace #21	GF
S-138	CFRN25	CAA Furnace #25	NA
S-137	CFRN26	CAA Furnace #26	NA
S-136	CFRN27	CAA Furnace #27	GF
S-135	CFRN28	CAA Furnace #28	GF
S-134	CFRN29	CAA Furnace #29	GF
S-157	CFRN50	CAA Furnace #50	GF
	CFRN51	CAA Furnace #51	GF
S-156	CFRN52	CAA Furnace #52	GF
S-155	CFRN53	CAA Furnace #53	GF
S-154	CFRN54	CAA Furnace #54	GF
FUG-GP	CFRN03	CAA Furnace #3 (chamber)	GF
	CFRN18	CAA Furnace #18 (chamber)	GF
	CFRN19	CAA Furnace #19 (chamber)	GF
	CFRN20	CAA Furnace #20 (chamber)	GF
	CFRN21	CAA Furnace #21 (chamber)	GF
	CFRN25	CAA Furnace #25 (chamber)	NA
	CFRN26	CAA Furnace #26 (chamber)	NA
	CFRN27	CAA Furnace #27 (chamber)	GF
	CFRN28	CAA Furnace #28 (chamber)	GF
	CFRN29	CAA Furnace #29 (chamber)	GF
	CFRN50	CAA Furnace #50 (chamber)	GF
	CFRN51	CAA Furnace #51 (chamber)	GF
	CFRN52	CAA Furnace #52 (chamber)	GF
	CFRN53	CAA Furnace #53 (chamber)	GF
	CFRN54	CAA Furnace #54 (chamber)	GF
	CLAR08	Clarifier Emissions	NA
	CMIL01	#1 Cold Mill	NA
	CMIL03	#3 Cold Mill	GF

<b>Emission Point Number</b>	<b>Emission Unit Number</b>	<b>Emission Unit Description</b>	<b>IDNR Construction Permit Number</b>
FUG-GP	FUG_GP_P	General Plant	GF
	FUG_GP_V1	Stores/Off Site Consumption	GF
	FUG_GP_V2	Stores/Off Site Consumption	GF
	FUG_GP_V3	Stores/Off Site Consumption	GF
	TFRN14	#14 Heat Treat Furnace	GF
	ELUBE01	Electrostatic Lube-Treatment Line	11-A-700-P1
	ELUBE02	Electrostatic Lube-14 Slitter	
	MARKR01	Marker-Treatment Line	
	MARKR02	Marker-14 Slitter	
	MARKR03	Marker 88" Line	
S-287	CMIL01	#1 Cold Mill	89-A-032-S1
S-165	CMIL03	#3 Cold Mill	GF
S-336	DFRN01	Pig Drying Furnace (Ingot Plant)	98-A-928
FUG-IP	FILT02	#2 In-Line Fluxer Filter Box	85-A-067P-S3
	FILT03	#3 In-Line Fluxer Filter Box	87-A-045P-S3
	FILT04	#4 In-Line Fluxer Filter Box	89-A-177P-S3
	FILT15	#15 In-Line Fluxer Filter Box	07-A-091
	FILT16	#16 In-Line Fluxer Filter Box	07-A-092
	FILT17	#17 In-Line Fluxer Filter Box	02-A-233-S2
	FILT18	#18 In-Line Fluxer Filter Box	02-A-234-S2
	FUG_IP_P	Fugitives – Ingot Plant	GF
FUG-B7XX	FUG-B7XX	Fugitives – Plain Foil & Foil IPS	GF
S-144	GFRN16	#16 Aging Furnace	GF
S-143	GFRN17	# 17 Aging Furnace	GF
S-125	GFRN31	60" Ager #31	GF
S-126	GFRN32	210" Ager #32	GF
S-339	GWAST01	Ground Water Air Stripping Tower	NA
S-272	HFRN02	#2 Holding Furnace	92-A-619P-S1
S-284	HFRN03	#3 Holding Furnace	92-A-620P-S1
S-291	HFRN04	#4 Holding Furnace	92-A-621P-S1
S-047	HFRN15	#15 Holding Furnace	92-A-624-S2
S-050	HFRN16	#16 Holding Furnace	92-A-625-S5
S-052	HFRN17	#17 Holding Furnace	92-A-626-S2
S-057	HFRN18	#18 Holding Furnace	92-A-627-S2
S-352	HFRN50	#50 Holding Furnace	NA
	CRUC50	Crucibles (3 units): #50 Holding Furnace	
S-353	HFRN60	#60 Holding Furnace	NA
	CRUC60	Crucibles (3 units): #60 Holding Furnace	
	HMIL10	100" 5 Stand Hot Mill	NA
	HMIL14	144" Hot Mill	GF
	HMIL16	160" Hot Mill	GF
	HMIL22	220" Hot Mill	GF
	HMILPH	PAHTS 144" Taper Mill	GF
	PFRN01	Preheat Furnace #1	GF
	PFRN02	Preheat Furnace #2	GF

<b>Emission Point Number</b>	<b>Emission Unit Number</b>	<b>Emission Unit Description</b>	<b>IDNR Construction Permit Number</b>
FUG-HL	PFRN03	Preheat Furnace #3	GF
	PFRN04	Preheat Furnace #4	GF
	PFRN12	Preheat Furnace #12	NA
	PFRN13	Preheat Furnace #13	NA
	PFRN16	Preheat Furnace #16	NA
	PFRN17	Preheat Furnace #17	NA
	PFRN18	Preheat Furnace #18	GF
	PFRN19	Preheat Furnace # 19	NA
	PFRN20	Preheat Furnace # 20	NA
	PFRN21	Preheat Furnace # 21	NA
	PFRN22	Preheat Furnace #22	NA
	PFRN23	Preheat Furnace #23	GF
	PFRN24	Preheat Furnace #24	NA
	PFRN25	Preheat Furnace #25	NA
	PFRN26	Preheat Furnace #26	NA
PFRN27	Preheat Furnace #27	NA	
	FUG HL P	Fugitive Hot Line	NA
S-288	HMIL10	100" 5 Stand Hot Mill - N	88-A-158-P2
S-289	HMIL10	100" 5 Stand Hot Mill-S	88-A-159-P2
S-344	HMIL14	144" Hot Mill Stack	11-A-687-P
S-349	HMIL16	160" Hot Mill Stack	11-A-688-P
S-119	HMIL22	220" Hot Mill Stack	GF
S-120			
S-071	HMILPH	PAHTS 144" Taper Mill	GF
S-314	LHLT05	Lime Storage for Blowdown Treatment	94-A-546-S2
S-271	MFRN02	#2 Melting Furnace	85-A-065P-S1
S-283	MFRN03	#3 Melting Furnace	87-A-043P-S1
S-290	MFRN04	#4 Melting Furnace	89-A-175P-S1
S-048	MFRN15	#15 Melting Furnace	08-A-297-S1
S-049	MFRN16	#16 Melting Furnace	GF
S-053	MFRN17	#17 Melting Furnace	GF
S-056	MFRN18	#18 Melting Furnace	GF
S-350	MFRN50	#50 Melting Furnace	06-A-567-S2
S-351	MFRN60	#60 Melting Furnace	06-A-568-S1
S-097	MMCH03	#3 Mill Machine	05-A-479
S-098		#3 Mill Machine	79-A-008-S2
S-300	OCOM01	Ingot Plant Standby Diesel Generator	90-A-392
S-315	OCOM02	MIS Standby Diesel Engine/Generator	97-A-144
S-319	OCOM06	High Pressure Water System Pump Engine	97-A-141
S-320	OCOM07	High Pressure Water System Pump Engine	97-A-142
S-335	OCOM10	High Pressure Water System Backup Generator	98-A-1009
S-364	OCOM20	Emergency Generator	11-A-697-P1
S-408	OCOM21	Emergency Generator	12-A-328
S-316	OCOM03	Security Communication Backup Generator	N/A
S-318	OCOM05	Building 808 Phone Backup Generator	N/A
S-321	OCOM08	Low Pressure Water System Pump	N/A
S-324	OCOM09	Ingot Plant Phone Backup Generator	N/A

<b>Emission Point Number</b>	<b>Emission Unit Number</b>	<b>Emission Unit Description</b>	<b>IDNR Construction Permit Number</b>
S-093	PFRN01	Preheat Furnace #1	GF
S-095			
S-094	PFRN02	Preheat Furnace #2	GF
S-278	PFRN12	Preheat Furnace #12	NA
S-279			
S-275	PFRN13	Preheat Furnace #13	NA
S-276			
S-115	PFRN16	Preheat Furnace #16	NA
S-116			
S-113	PFRN17	Preheat Furnace #17	NA
S-114			
S-111	PFRN18	Preheat Furnace #18	GF
S-112			
S-109	PFRN19	Preheat Furnace #19	NA
S-110			
S-107	PFRN20	Preheat Furnace #20	NA
S-108			
S-105	PFRN21	Preheat Furnace #21	NA
S-106			
S-103	PFRN22	Preheat Furnace #22	NA
S-104			
S-102	PFRN23	Preheat Furnace #23	GF
S-101	PFRN24	Preheat Furnace #24	NA
S-100			
S-294	PFRN25	Preheat Furnace #25	NA
S-295			
S-296	PFRN26	Preheat Furnace #26	NA
S-297			
S-325	PFRN27	Preheat Furnace #27	NA
S-326			
S-345	PFRN03	Preheat Furnace #3	05-A-477-S2
S-346			06-A-017-S1
S-347	PFRN04	Preheat Furnace #4	05-A-478-S2
S-348			06-A-018-S1
S-118	PFRN14	Preheat Furnace #14	97-A-251
S-117	PFRN15	Preheat Furnace #15	97-A-250
S-356	PPFRN01	#1 Pusher Preheat Furnace	11-A-689-P1
S-131	PNTS01	Maintenance Paint Booth	97-A-140-S3
S-007	RFRN01	Reheat Furnace #1	GF
S-014	RFRN08	Reheat Furnace #8	GF
S-015	RFRN09	Reheat Furnace #9	GF
S-016	RFRN10	Reheat Furnace #10	GF
S-017	RFRN11	Reheat Furnace #11	GF
S-018	RFRN12	Reheat Furnace #12	GF
S-019	RFRN13	Reheat Furnace #13	GF
S-020	RFRN14	Reheat Furnace #14	GF
S-021	RFRN15	Reheat Furnace #15	GF

<b>Emission Point Number</b>	<b>Emission Unit Number</b>	<b>Emission Unit Description</b>	<b>IDNR Construction Permit Number</b>
S-074	RFRN20	Reheat Furnace #20	GF
S-073	RFRN21	Reheat Furnace #21	GF
S-072	RFRN22	Reheat Furnace #22	GF
S-070	RFRN24	Reheat Furnace #24	GF
HR-P	ROADP	Paved Haul Roads	NA
HR-UP	ROADUP	Unpaved Haul Roads	NA
S-099	SCLP03	#3 Scalper	01-A-216
S-261	SCLP04	#4 Scalper	79-A-186-S1
S-262			79-A-187-S1
S-298	SHLT01	Scrap Conveyor System Exhaust	90-A-363-S1
S-338	SKIM	Skim House	01-A-217
FUG-R214	SKIM-R214	Fugitives from Dumping/Loading Skim	06-A-569
S-068	TFRN10	#10 Heat Treat Furnace	GF
S-069	TFRN11	#11 Heat Treat Furnace	GF
S-259	TFRN12	#12 Heat Treat Furnace Line	NA
S-160	TFRN50	50" Continuous Heat Treat Line	NA
S-162			
S-172	TFRN86	86" Continuous Heat Treat Furnace	GF
S-176			
S-177			
S-178			
S-179			
S-180			
S-327	TFRN14	#14 Heat Treat Furnace	95-A-638
S-328			
S-329			
S-330			
S-333	TFRN15	#15 Heat Treat Furnace	95-A-812-S1
S-340	TFRN16	#16 Heat Treat Furnace	01-A-879
S-362	TFRN88	88" Continuous Heat Treat Line	11-A-695-P2
S-363	ATL01	Automotive Treatment Line	11-A-696-P2
T-129	TNKA0129	Storage Tank (402,369 gallons) Fuel Oil	93-A-304
T-130	TNKA0130	Storage Tank (402,369 gallons) Used Oil & Waste	93-A-305
T-141	TNKA0141	Storage Tank (2,000 gallons)	95-A-436
T-142	TNKA0142	Storage Tank (2,000 gallons) Diesel Fuel	95-A-437
T-223	TNKA0223	Storage Tank (30,000 gallons) Oily Waste	99-A-969-S1
S-323	TTST12	Truck Maintenance Engine Exhaust	97-A-145-S1
S-133	WWRK02	Sawdust Collector	NA
S-405	BOIL01	Natural Gas Fired Boiler	12-A-313-P2
S-406	BOIL02	Natural Gas Fired Boiler	12-A-314-P2
S-407	BOIL03	Natural Gas Fired Boiler	12-A-315-P2
S-400	PHeat01	Process Heater-Oil House	12-A-316-P2
S-401	PHeat02-05	4 Process Heaters-Oil House	12-A-317-P2
S-403	PHeat06-09	4 Process Heaters-Oil House	12-A-319-P2
S-357	CFRN60	#60 Controlled Atmosphere Annealing Furnace	11-A-690-P1
S-358	CFRN61	#61 Controlled Atmosphere Annealing Furnace	11-A-691-P1
S-359	CFRN62	#62 Controlled Atmosphere Annealing Furnace	11-A-692-P1

<b>Emission Point Number</b>	<b>Emission Unit Number</b>	<b>Emission Unit Description</b>	<b>IDNR Construction Permit Number</b>
S-360	CFRN63	#63 Controlled Atmosphere Annealing Furnace	11-A-693-P1
S-361	CFRN64	#64 Controlled Atmosphere Annealing Furnace	11-A-694-P1
S-366	CFRN64	#64 Controlled Atmosphere Annealing Furnace	13-A-116-P
S-CT-88	CT-88	88 Line Cooling Towers 1 through 4	11-A-698-P1
SpHt1	SpHt1	Direct Fired Space Heaters	12-A-321-P1
SpHt2	SpHt2	Direct Fired Space Heaters	12-A-322-P2
MUA	MUA	Make-up Air Heaters & Conversion Burners	12-A-324-P1
S-409-428	HtFurn01-20	Gas Heaters/Furnaces	12-A-325-P1
IRHt	IRHt	Radiant Gas Heaters	12-A-326-P1
S-429-432	WtrHt	Water Heaters	12-A-327-P1

## Insignificant Activities Equipment List

Insignificant Emission Unit Number	Insignificant Emission Unit Description
CLSCRUB01	Powell Blow-Down Scrubber
CLSCRUB02	Eductor Chlorine Scrubber
CNCRSH	Aerosol Can Crusher
CT-805A	Ingot Casting Cooling Tower #1
CT-805B	Ingot Casting Cooling Tower #2
CT-805C	Ingot Casting Cooling Tower #3
CT-805D	Ingot Casting Cooling Tower #4
CT-914A	Plate Mill Heat Treat Cooling Tower #1
CT-914B	Plate Mill Heat Treat Cooling Tower #2
DFRN02	Pig Drying Furnace (R214 Process) natural gas fired, 1 MMBtu/hr
DFRN03	Pig Drying Furnace (R214 Process) natural gas fired, 1 MMBtu/hr
FUG IP CH	East Crucible Heating Station (combustion) natural gas fired, 1.8 MMBtu/hr
FUG IP CH	West Crucible Heating Station (combustion) natural gas fired, 1.8 MMBtu/hr
FUG-IP SP	Skim Pan Heating Station (combustion) natural gas fired, 1 MMBtu/hr
GF-MUA	Grandfathered MUA
MMCH04	#4 Milling Machine
OILH01	#1 Cold Mill Oil House
OILH03	#3 Cold Mill Oil House
RAP_FUG_NG	Fugitive Nat Gas Emission from R214
TFRNE07	#7 Heat Treat (electric) (chamber)
TNKA0001	Storage Tank (20000 gal) Waste Oil & Water
TNKA0018	Storage Tank (13000 gal) Rolling Oil
TNKA0019	Storage Tank ( 13000 gal) Rolling Oil
TNKA0026	Storage Tank ( 11000 gal) Rolling Oil
TNKA0027	Storage Tank ( 7000 gal) Rolling Oil
TNKA0028	Storage Tank ( 20000 gal) Rolling Oil
TNKA0029	Storage Tank ( 15000 gal) Rolling Oil
TNKA0041	Storage Tank ( 28000 gal) Rolling Emulsion
TNKA0042	Storage Tank ( 63000 gal) Rolling Emulsion
TNKA0043	Storage Tank ( 740 gal) Rolling Emulsion
TNKA0066	Storage Tank ( 3500 gal) Rolling Oil
TNKA0068	Storage Tank ( 250000 gal) Used Oil
TNKA0069	Storage Tank ( 250000 gal) Used Oil
TNKA0070	Storage Tank ( 250000 gal) Used Oil
TNKA0076	Storage Tank ( 10000 gal) Kerosene
TNKA0079	Storage Tank ( 15000 gal) Used Oil
TNKA0080	Storage Tank ( 30000 gal) Used Oil
TNKA0093	Storage Tank ( 10000 gal) Caster Oil
TNKA0101	Storage Tank ( 1000 gal) Diesel Fuel
TNKA0102	Storage Tank ( 30000 gal) Used Oil
TNKA0103	Storage Tank ( 15000 gal) Used Oil
TNKA0104	Storage Tank ( 15000 gal) Used Oil
TNKA0120	Storage Tank ( 12000 gal) Rolling Lubrication
TNKA0121	Storage Tank ( 12000 gal) Rolling Lubrication

<b>Insignificant Emission Unit Number</b>	<b>Insignificant Emission Unit Description</b>
TNKA0122	Storage Tank ( 12000 gal) Rolling Lubrication
TNKA0123	Storage Tank ( 12000 gal) Rolling Lubrication
TNKA0124	Storage Tank ( 12000 gal) Rolling Lubrication
TNKA0125	Storage Tank ( 15000 gal) Rolling Lubrication
TNKA0126	Storage Tank ( 15000 gal) Rolling Lubrication
TNKA0127	Storage Tank ( 15000 gal) Rolling Lubrication
TNKA0144	Storage Tank ( 20000 gal) Reclaimed Oil
TNKA0145	Storage Tank ( 20000 gal) New Oil
TNKA0146	Storage Tank ( 15000 gal) 1 CM Scrap
TNKA0147	Storage Tank ( 8000 gal) 4 CM Scrap
TNKA0148	Storage Tank ( 11000 gal) 3 CM Scrap
TNKA0209	Storage Tank ( 2000 gal) Diesel Fuel
TNKA0210	Storage Tank ( 2000 gal) Diesel Fuel
TNKA0228	Storage Tank ( 12000 gal) Rolling Lubrication
TNKA0229	Storage Tank ( 12000 gal) Rolling Lubrication
TNKA0230	Storage Tank ( 1000 gal) Waste Oil
TNKA0232	Storage Tank ( 8000 gal) Rolling Lubrication
TNKA0233	Storage Tank ( 500 gal) Diesel Fuel
TNKA0235	Storage Tank ( 2000 gal) Diesel Fuel
TNKA0243	Storage Tank ( 500 gal) Diesel Fuel
TNKA0300	Storage Tank ( 60000 gal) Rolling Lubrication
TNKA0301	Storage Tank ( 60000 gal) Rolling Lubrication
TNKA0303	Storage Tank ( 60000 gal) Rolling Lubrication
TNKA0304	Storage Tank ( 60000 gal) Rolling Lubrication
TNKA0307	Storage Tank ( 2500 gal) Separator Oil
TNKA0312	Storage Tank ( 2000 gal) Diesel Fuel
TNKA0323	Storage Tank ( 15000 gal) Rolling Lubrication
TNKA0324	Storage Tank ( 15000 gal) Rolling Lubrication
TNKA0325	Storage Tank ( 15000 gal) Rolling Lubrication

## II. Plant-Wide Conditions

Facility Name: Alcoa Inc.  
Permit Number: 03-TV-025R2

Permit conditions are established in accord with 567 Iowa Administrative Code rule 22.108

---

### Permit Duration

The term of this permit is: Five years  
Commencing on: December 7, 2015  
Ending on: December 6, 2020

Amendments, modifications and reopenings of the permit shall be obtained in accordance with 567 Iowa Administrative Code rules 22.110 - 22.114. Permits may be suspended, terminated, or revoked as specified in 567 Iowa Administrative Code Rules 22.115.

---

### Emission Limits

*Unless specified otherwise in the Emission Point-Specific Conditions, the following limitations and supporting regulations apply to all emission points at this plant:*

Opacity (visible emissions): 40% opacity  
Authority for Requirement: 567 IAC 23.3(2)"d"

Sulfur Dioxide (SO<sub>2</sub>): 500 parts per million by volume  
Authority for Requirement: 567 IAC 23.3(3)"e"

#### Particulate Matter:

No person shall cause or allow the emission of particulate matter from any source in excess of the emission standards specified in this chapter, except as provided in 567 – Chapter 24. For sources constructed, modified or reconstructed after July 21, 1999, the emission of particulate matter from any process shall not exceed an emission standard of 0.1 grain per dry standard cubic foot of exhaust gas, except as provided in 567 – 21.2(455B), 23.1(455B), 23.4(455B) and 567 – Chapter 24.

For sources constructed, modified or reconstructed prior to July 21, 1999, the emission of particulate matter from any process shall not exceed the amount determined from Table I, or amount specified in a permit if based on an emission standard of 0.1 grain per standard cubic foot of exhaust gas or established from standards provided in 23.1(455B) and 23.4(455B).  
Authority for Requirement: 567 IAC 23.3(2)"a"

Fugitive Dust: Attainment and Unclassified Areas - A person shall take reasonable precautions to prevent particulate matter from becoming airborne in quantities sufficient to cause a nuisance as defined in Iowa Code section 657.1 when the person allows, causes or permits any materials to be

handled, transported or stored or a building, its appurtenances or a construction haul road to be used, constructed, altered, repaired or demolished, with the exception of farming operations or dust generated by ordinary travel on unpaved roads. Ordinary travel includes routine traffic and road maintenance activities such as scarifying, compacting, transporting road maintenance surfacing material, and scraping of the unpaved public road surface. (the preceding sentence is State Only) All persons, with the above exceptions, shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate. The public highway authority shall be responsible for taking corrective action in those cases where said authority has received complaints of or has actual knowledge of dust conditions which require abatement pursuant to this subrule. Reasonable precautions may include, but not be limited to, the following procedures.

1. Use, where practical, of water or chemicals for control of dusts in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land.
2. Application of suitable materials, such as but not limited to asphalt, oil, water or chemicals on unpaved roads, material stockpiles, race tracks and other surfaces which can give rise to airborne dusts.
3. Installation and use of containment or control equipment, to enclose or otherwise limit the emissions resulting from the handling and transfer of dusty materials, such as but not limited to grain, fertilizer or limestone.
4. Covering, at all times when in motion, open-bodied vehicles transporting materials likely to give rise to airborne dusts.
5. Prompt removal of earth or other material from paved streets or to which earth or other material has been transported by trucking or earth-moving equipment, erosion by water or other means.
6. Reducing the speed of vehicles traveling over on-property surfaces as necessary to minimize the generation of airborne dusts.

Authority for Requirement: 567 IAC 23.3(2)"c"

## NESHAP and NSPS

### 40 CFR 63 Subpart RRR Requirements

The emission units listed below are subject to 40 CFR 63 Subpart RRR – Secondary Aluminum Production. See Appendix A for a link to the Standard.

EP	EU	EU Description	Regulated As
FUG-IP	FILT02	#2 In-Line Fluxer Filter Box	Existing In-Line Fluxer
	FILT03	#3 In-Line Fluxer Filter Box	Existing In-Line Fluxer
	FILT04	#4 In-Line Fluxer Filter Box	Existing In-Line Fluxer
	FILT15	#15 In-Line Fluxer Filter Box	Existing In-Line Fluxer
	FILT16	#16 In-Line Fluxer Filter Box	Existing In-Line Fluxer
	FILT17	#17 In-Line Fluxer Filter Box	Existing In-Line Fluxer
	FILT18	#18 In-Line Fluxer Filter Box	Existing In-Line Fluxer
S-272	HFRN02	#2 Holding Furnace	Existing Group 1 Furnace

S-284	HFRN03	#3 Holding Furnace	Existing Group 1 Furnace
S-291	HFRN04	#4 Holding Furnace	Existing Group 1 Furnace
S-047	HFRN15	#15 Holding Furnace	Existing Group 1 Furnace
S-050	HFRN16	#16 Holding Furnace	Existing Group 1 Furnace
S-052	HFRN17	#17 Holding Furnace	Existing Group 1 Furnace
S-057	HFRN18	#18 Holding Furnace	Existing Group 1 Furnace
S-271	MFRN02	#2 Melting Furnace	Existing Group 1 Furnace
S-283	MFRN03	#3 Melting Furnace	Existing Group 1 Furnace
S-290	MFRN04	#4 Melting Furnace	Existing Group 1 Furnace
S-048	MFRN15	#15 Melting Furnace	Existing Group 1 Furnace
S-049	MFRN16	#16 Melting Furnace	Existing Group 1 Furnace
S-053	MFRN17	#17 Melting Furnace	Existing Group 1 Furnace
S-056	MFRN18	#18 Melting Furnace	Existing Group 1 Furnace
S-350	MFRN50	#50 Melting Furnace	Existing Group 2 Furnace
S-351	MFRN60	#60 Melting Furnace	Existing Group 2 Furnace
S-352	HFRN50	#50 Holding Furnace	Existing Group 2 Furnace
	CRUC50	Crucibles	
S-353	HFRN60	#60 Holding Furnace	Existing Group 2 Furnace
	CRUC60	Crucibles	

Subpart RRR Amendments of September 18, 2015

EPA amended Subpart RRR on 9/18/2015. Alcoa shall comply with all applicable amended requirements in the subpart on and after the corresponding compliance dates.

- (1) The compliance date for the amended requirements listed in 63.1501(b) for existing units is March 16, 2016; and
- (2) The compliance date for the amended requirements listed in 63.1501(c) for existing units is September 18, 2017.

Authority for Requirement: 40 CFR 63 Subpart RRR  
567 IAC 23.1(4)"br"

**40 CFR 63 Subpart SSSS Requirements**

The Electrostatic Lube – Treatment Line (EU ELUBE01) & Electrostatic Lube – 14 Slitter (EU ELUBE02) are subject to 40 CFR 63 Subparts A-General Provisions and SSSS-National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Coil. See Appendix B for a link to the Standard.

Authority for requirement: 40 CFR 63 Subpart SSSS  
567 IAC 23.1(4)"cs"

**40 CFR 63 Subpart ZZZZ Requirements**

The generator and pump engines are subject to 40 CFR 63 Subpart A-General Provisions and Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE). See Appendix C for a link to the Standard.

Authority for Requirement: 40 CFR Part 63 Subpart ZZZZ  
567 IAC 23.1(4)"cz"

#### **40 CFR Part 63, Subpart DDDDD Requirements**

The CAA Furnaces, Aging Furnaces, Preheat Furnaces, Reheating Furnaces, Heat Treat Furnaces, Boilers and Oil House Process Heaters are subject to 40 CFR 63 Subpart A-General Provisions and Subpart DDDDD - National Emission Standard for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters. See Appendix D for a link to the Standard.

Authority for Requirement: 40 CFR 63 Subpart DDDDD

#### **40 CFR 60 Subpart Dc Requirements**

The three natural gas fired boilers, BOIL01, BOIL02 and BOIL03 are subject to 40 CFR 60 Subparts A-General Provisions and Dc-Standards of Performance for Small Industrial, Commercial, and Institutional Steam Generating Units. See Appendix E for a link to the Standard.

Authority for Requirement: 40 CFR 60 Subpart 60.40c(a)  
567 IAC 23.1(2)"lll"

#### **40 CFR 60 Subpart JJJJ Requirements**

The emergency generator OCOM20 is subject to 40 CFR 60 Subparts A-General Provisions; and JJJJ Standards of Performance for Stationary Spark Ignition Internal Combustion Engines of the New Source Performance Standards (NSPS). See Appendix F for a link to the Standard.

Authority for Requirement: 40 CFR Part 60 Subpart JJJJ  
567 IAC 23.1(2)"zzz"

#### **40 CFR 60 Subpart IIII Requirements**

The emergency generator OCOM21 is subject to 40 CFR 60 Subparts A-General Provisions and IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines of the New Source Performance Standards (NSPS). See Appendix G for a link to the Standard.

Authority for Requirement: 40 CFR Part 60 Subpart IIII  
567 IAC 23.1(2)"yyy"

#### **40 CFR 60 Subpart TT**

The Electrostatic Lube – Treatment Line (EU ELUBE01) & Electrostatic Lube – 14 Slitter (EU ELUBE02) are subject to 40 CFR 60 Subparts A General Provisions and TT Standards of

Performance for Metal Coil Surface Coating, of the New Source Performance Standards (NSPS).  
See Appendix H for a link to the Standard.

Authority for requirement: 40 CFR 60 Subpart TT  
567 IAC 23.1(2)"II"

---

### III. Emission Point-Specific Conditions

Facility Name: Alcoa Inc.  
Permit Number: **03-TV-025R2**

---

#### **Emission Point ID Number: S-063**

##### Associated Equipment

Associated Emission Unit ID Numbers: CAUSTDIP

---

Emission Unit vented through this Emission Point: CAUSTDIP  
Emission Unit Description: Caustic Dip  
Raw Material/Fuel: NaOH, HNO<sub>3</sub>, Water  
Rated Capacity: 9,600 gal. sodium hydroxide tank, 9,600 gal water rinse tank, 9,600 gal nitric acid tank and 9,600 gal. water rinse tank

#### **Applicable Requirements**

##### **Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40% <sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 05-A-860-S3  
567 IAC 23.3(2)"d"

- <sup>(1)</sup> An exceedance of the indicator opacity of 10% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g. stack testing).

Pollutant: PM<sub>10</sub>

Emission Limit(s): 2.0 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 05-A-860-S3

Pollutant: Particulate Matter (PM)

Emission Limit(s): 2.0 lb/hr and 0.1 gr/dscf

Authority for Requirement: Iowa DNR Construction Permit 05-A-860-S3  
567 IAC 23.3(2)"a"

**Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

None at this time.

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 101

Stack Opening, (inches, dia.): 60.72

Exhaust Flow Rate (scfm): 38,000

Exhaust Temperature (°F): 86

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 05-A-860-S3

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department within 30 days of the discovery and obtain a permit amendment, if required.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

**Emission Point ID Number: See Table: CAA Furnaces**

Associated Equipment

Associated Emission Unit ID Numbers: See Table: CAA Furnaces

Table: CAA Furnaces

EP	EU	EU Description	Raw Material	Rated Capacity
S-185	CFRN03	CAA Furnace #3	Natural Gas	0.0052 MMcf/hr
S-142	CFRN18	CAA Furnace #18	Natural Gas	0.01 MMcf/hr
S-141	CFRN19	CAA Furnace #19	Natural Gas	0.01 MMcf/hr
S-140	CFRN20	CAA Furnace #20	Natural Gas	0.01 MMcf/hr
S-139	CFRN21	CAA Furnace #21	Natural Gas	0.01 MMcf/hr
S-138	CFRN25	CAA Furnace #25	Natural Gas	0.01 MMcf/hr
S-137	CFRN26	CAA Furnace #26	Natural Gas	0.01 MMcf/hr
S-136	CFRN27	CAA Furnace #27	Natural Gas	0.01 MMcf/hr
S-135	CFRN28	CAA Furnace #28	Natural Gas	0.01 MMcf/hr
S-134	CFRN29	CAA Furnace #29	Natural Gas	0.01 MMcf/hr
S-157	CFRN50	CAA Furnace #50	Natural Gas	0.002 MMcf/hr
	CFRN51	CAA Furnace #51	Natural Gas	0.002 MMcf/hr
S-156	CFRN52	CAA Furnace #52	Natural Gas	0.01 MMcf/hr
S-155	CFRN53	CAA Furnace #53	Natural Gas	0.01 MMcf/hr
S-154	CFRN54	CAA Furnace #54	Natural Gas	0.002 MMcf/hr

**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40%

Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter

Emission Limit(s): 0.6 lb/MMBtu

Authority for Requirement: 567 IAC 23.3(2)"b"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit(s): 500 ppmv

Authority for Requirement: 567 IAC 23.3(3)"e"

**Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

**NESHAP**

These emission units are subject to Subparts A (General Provisions, 40 CFR §63.1 – §63.15) and DDDDD (National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters; 40 CFR §63.7480 – §63.7575) of the National Emission Standards for Hazardous Air Pollutants (NESHAP).

Authority for Requirement: 40 CFR Part 63 Subpart DDDDD

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

**Emission Point ID Number: FUG-GP**

Associated Equipment

Associated Emission Unit ID Numbers: See Table: General Plant-Internally Vented Emissions

Table: General Plant-Internally Vented Emissions

EP	EU	EU Description	Raw Material	Rated Capacity
FUG-GP	CFRN03	CAA Furnace #3 (chamber)	Metal	NA
	CFRN18	CAA Furnace #18 (chamber)	Metal	NA
	CFRN19	CAA Furnace #19 (chamber)	Metal	NA
	CFRN20	CAA Furnace #20 (chamber)	Metal	NA
	CFRN21	CAA Furnace #21 (chamber)	Metal	NA
	CFRN25	CAA Furnace #25 (chamber)	Metal	NA
	CFRN26	CAA Furnace #26 (chamber)	Metal	NA
	CFRN27	CAA Furnace #27 (chamber)	Metal	NA
	CFRN28	CAA Furnace #28 (chamber)	Metal	NA
	CFRN29	CAA Furnace #29 (chamber)	Metal	NA
	CFRN50	CAA Furnace #50 (chamber)	Metal	NA
	CFRN51	CAA Furnace #51 (chamber)	Metal	NA
	CFRN52	CAA Furnace #52 (chamber)	Metal	NA
	CFRN53	CAA Furnace #53 (chamber)	Metal	NA
	CFRN54	CAA Furnace #54 (chamber)	Metal	NA
	CLAR08	Clarifier Emissions	Water	NA
	CMIL01	#1 Cold Mill	Metal	NA
	CMIL03	#3 Cold Mill	Metal	NA
	FUG_GP_P	General Plant	Various Particles	NA
	FUG_GP_V1	Stores/Off Site Consumption	Solvents	0.02 ton/hr
FUG_GP_V2	Stores/Off Site Consumption	Oils	0.04 ton/hr	
FUG_GP_V3	Stores/Off Site Consumption	Heavy Oils	0.18 ton/hr	
TFRN14	#14 Heat Treat Furnace	Metal	NA	

## Applicable Requirements

### Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40%

Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf

Authority for Requirement: 567 IAC 23.3(2)"a"

### Operational Limits & Requirements

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

None at this time.

### Monitoring Requirements

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**                      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**                      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**                      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: FUG-GP (Internally Venting)**

### Associated Equipment

Associated Emission Unit ID Numbers: ELUBE01, ELUBE02, MARKR01, MARKR02 and MARKR03

---

Emission Unit vented through this Emission Point: ELUBE01, ELUBE02  
Emission Unit Description: Electrostatic Lube-Treatment Line & 14 Slitter  
Raw Material/Fuel: Lubricant  
Rated Capacity: 9.08 gal/hr

Emission Unit vented through this Emission Point: MARKR01, MARKR02, MARKR03  
Emission Unit Description: Marker-Treatment Line, 14 Slitter and Marker 88" Line  
Raw Material/Fuel: Marking Ink  
Rated Capacity: 0.388 gal/hr

### **Applicable Requirements**

#### **Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

#### BACT Emission Limit

Volatile Organic Compounds (VOC)  
Emission Limit: 20.0 tons/yr<sup>(1)</sup> (Lube Systems), 11.0 tons/yr<sup>(1)</sup> (Marking Systems)  
Authority for Requirement: Iowa DNR Construction Permit 11-A-700-P1

<sup>(1)</sup> Standard is a 365-day rolling total. See Reporting and Recordkeeping for specific recordkeeping requirements.

#### Other Emission Limits

Pollutant: Opacity  
Emission Limit(s): 40%  
Authority for Requirement: Iowa DNR Construction Permit 11-A-700-P1  
567 IAC 23.3(2)"d"

Pollutant: PM<sub>10</sub>  
Emission Limit: 0.64 lb/hr  
Authority for Requirement: Iowa DNR Construction Permit 11-A-700-P1

Pollutant: PM<sub>2.5</sub>  
Emission Limit: 0.64 lb/hr  
Authority for Requirement: Iowa DNR Construction Permit 11-A-700-P1

Pollutant: Particulate Matter

Emission Limit(s): 0.64 lb/hr and 0.1 gr/dscf

Authority for Requirement: Iowa DNR Construction Permit 11-A-700-P1  
567 IAC 23.3(2)"a"

Volatile Organic Compounds: (VOC)

Emission Limit: 0.28 kg/l<sup>(2)</sup>

Authority for Requirement: Iowa DNR Construction Permit 11-A-700-P1  
40 CFR 60 Subpart TT  
567 IAC 23.1(2)"ll"

<sup>(2)</sup> Per 40 CFR § 60.462(a)(1), 0.28 kilograms VOC per liter (kg/l) of coating solids applied for each calendar month for each affected facility that does not use an emission control device. This limit applies only to the Electrostatic Lube-Treatment Line (EU ELUBE01) and 14 Slitter (EU ELUBE02).

Pollutant: Organic HAP

Emission Limit: <sup>(3)</sup>

Authority for Requirement: Iowa DNR Construction Permit 11-A-700-P1  
40 CFR 63 Subpart SSSS  
567 IAC 23.1(4)"cs"

<sup>(3)</sup> Per 40 CFR §63.5120, each coil coating affected source must limit organic HAP emissions to one of the following:

- No more than 2% of the organic HAP applied for each month during each 12-month compliance period (98 percent reduction); or
- No more than 0.046 kilogram of organic HAP per liter of solids applied during each 12-month compliance period; or
- If you use an oxidizer to control organic HAP emissions: The capture system shall have an efficiency of 100% and the outlet organic HAP concentration shall not exceed 20 parts per million by volume (ppm<sub>v</sub>) on a dry basis.  
This limit applies only to the Electrostatic Lube – Treatment Line (EU ELUBE01) and 14 Slitter (EU ELUBE02).

### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

### **NESHAP and NSPS**

The Electrostatic Lube – Treatment Line (EU ELUBE01) & Electrostatic Lube – 14 Slitter (EU ELUBE02) are subject to Subparts A (*General Provisions*; 40 CFR §60.1 through 40 CFR §60.19) and TT (*Standards of Performance Metal Coil Surface Coating*, 40 CFR §60.460 – 40 CFR §60.464) of the New Source Performance Standards (NSPS).

Authority for requirement: Iowa DNR Construction Permit 11-A-700-P1

40 CFR 60 Subpart TT  
567 IAC 23.1(2)"II"

The Electrostatic Lube – Treatment Line (EU ELUBE01) & Electrostatic Lube – 14 Slitter (EU ELUBE02) are subject to Subparts A (*General Provisions*; 40 CFR §60.1 through 40 CFR §60.19) and SSSS (*National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Coil*, 40 CFR §63.5080 – 40 CFR §63.5209) of the National Emission Standards for Hazardous Air Pollutants (NESHAP).

Authority for requirement: Iowa DNR Construction Permit 11-A-700-P1  
40 CFR 63 Subpart SSSS  
567 IAC 23.1(4)"cs"

The Marker-Treatment Line (EU MARKR01), Marker-14 Slitter (EU MARKR02) and Marker 88" Line (EU MARKR03) are not subject to any NSPS or NESHAP at this time.

Operating Limits:

- A. Per 567 IAC 33.3(18)"f"(1), prior to beginning actual construction of the project (Project Number 11-322) the owner or operator shall document:
  - (1) A description of the project (Project Number 11-322),
  - (2) Identification of the emission unit(s) whose emissions of a regulated NSR pollutant could be affected by the project (Project Number 11-322), and
  - (3) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including the baseline actual emissions (BAE), the projected actual emissions (PAE), the amount of emissions excluded under paragraph "3" of the definition of "*projected actual emissions*" in subrule 33.3(1), an explanation describing why such amount was excluded, and any netting analysis if applicable.
- B. Per 567 IAC 33.3(18)"f"(4), the owner or operator shall:
  - (1) Monitor the emission of any regulated NSR pollutant that could increase as a result of the project that is emitted by any emissions unit identified in Condition A. (2), above.
  - (2) Calculate the annual emissions, in tons per year on a calendar-year basis, for a period of five (5) years following resumption of regular operations and maintain a record of regular operations after the change.
- C. Per 567 IAC 33.3(18)"g", the owner or operator shall make the information required to be documented and maintained pursuant to 567 IAC 33.3(18)"f" available for review upon request for inspection by the Department or the general public pursuant to the requirements for Title V operating permits contained in 567 IAC 22.107(6).
- D. The owner or operator shall prepare a work practice manual documenting the good operating practices to be utilized on this emission unit to limit coolant & oil residues and submit the manual to the Department prior to startup of the Project (Project Number 11-322). The work practice manual shall be revised and submitted to the Department as necessary to document any proposed changes. The revised manual shall be implemented upon the Department's approval of the proposed changes.

Reporting & Record keeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.

- A. The owner or operator shall maintain the following daily records:
  - (1) The identification of each VOC containing material used in the Electrostatic Lube-Treatment Line (EU ELUBE01) & Electrostatic Lube-14 Slitter (EU ELUBE02).
  - (2) The amount (in gallons) of each VOC containing material used in the Electrostatic Lube-Treatment Line (EU ELUBE01) & Electrostatic Lube-14 Slitter (EU ELUBE02). For the purposes of calculating emissions, all VOC may be considered emitted on the day the materials are delivered to the facility or to the production line.
- B. The owner or operator shall maintain the following monthly records:
  - (1) The 12-month rolling total amount of VOC emissions from the Electrostatic Lube – Treatment Line (EU ELUBE01) & Electrostatic Lube – 14 Slitter (EU ELUBE02), in tons.
- C. If the 12-month rolling total of the VOC emissions for the Electrostatic Lube – Treatment Line (EU ELUBE01) & Electrostatic Lube – 14 Slitter (EU ELUBE02) exceeds 16.0 tons, the owner or operator shall immediately begin keeping the following daily records:
  - (1) The amount of VOC emissions from the Electrostatic Lube – Treatment Line (EU ELUBE01) & Electrostatic Lube – 14 Slitter (EU ELUBE02), in tons.
  - (2) The 365-day rolling total of the amount of VOC emissions from the Electrostatic Lube – Treatment Line (EU ELUBE01) & Electrostatic Lube – 14 Slitter (EU ELUBE02), in tons.
  - (3) Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from the Electrostatic Lube – Treatment Line (EU ELUBE01) & Electrostatic Lube – 14 Slitter (EU ELUBE02) drops below 16.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per C, above, of this permit. If the emissions once again exceed 16.0 tons, daily recordkeeping will be required per C, above, of this permit.
- D. The owner or operator shall maintain the following daily records:
  - (1) The identification of each VOC containing material used in the Marker – Treatment Line (EU MARKR01), Marker – 14 Slitter (EU MARKR02). & Marker 88” Line (EU MARKR03).
  - (2) The amount (in gallons) of each VOC containing material used in the Marker – Treatment Line (EU MARKR01), Marker – 14 Slitter (EU MARKR02) & Marker 88” Line (EU MARKR03). For the purposes of calculating emissions, all VOC may be considered emitted on the day the materials are delivered to the facility or to the production line.
- E. The owner or operator shall maintain the following monthly records:
  - (1) The 12-month rolling total amount of VOC emissions from the Marker – Treatment Line (EU MARKR01) & Marker – 14 Slitter (EU MARKR02) & Marker 88” Line (EU MARKR03), in tons.
- F. If the 12-month rolling total of the VOC emissions for the Marker – Treatment Line (EU MARKR01), Marker – 14 Slitter (EU MARKR02) & Marker 88” Line (EU MARKR03) exceeds 8.8 tons, the owner or operator shall immediately begin keeping the following daily records:

- (1) The amount of VOC emissions from the Marker – Treatment Line (EU MARKR01), Marker – 14 Slitter (EU MARKR02) & Marker 88” Line (EU MARKR03), in tons.
  - (2) The 365-day rolling total of the amount of VOC emissions from the Marker – Treatment Line (EU MARKR01), Marker – 14 Slitter (EU MARKR02) & Marker 88” Line (EU MARKR03), in tons.
  - (3) Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from the Marker – Treatment Line (EU MARKR01), Marker – 14 Slitter (EU MARKR02) & Marker 88” Line (EU MARKR03) drops below 8.8 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per F, above, of this permit. If the emissions once again exceed 8.8 tons, daily recordkeeping will be required per F, above, of this permit.
- G. Per 567 IAC 33.3(18)“f”(1), the owner or operator shall maintain a record of the information required in A. under Operating Limits, above.
- H. Per 567 IAC 33.3(18)“f”(4) and 567 IAC 33.3(18)“f”(5), the owner or operator shall maintain a record containing the information required in B. under Operating Limits, above, and that record shall be retained by the owner or operator for a period of ten (10) years after the project (Project Number 11-322) is completed.

Authority for Requirement: Iowa DNR Construction Permit 11-A-700-P1

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

- Agency Approved Operation & Maintenance Plan Required?**                      Yes  No
- Facility Maintained Operation & Maintenance Plan Required?**                      Yes  No
- Compliance Assurance Monitoring (CAM) Plan Required?**                              Yes  No

Authority for Requirement: 567 IAC 22.108(3)

**Emission Point ID Number: S-287**

Associated Equipment

Associated Emission Unit ID Numbers : CMIL01  
Emissions Control Equipment ID Number: CMIL0287  
Emissions Control Equipment Description: Centrifugal Mist Eliminator

---

Emission Unit vented through this Emission Point: CMIL01  
Emission Unit Description: #1 Cold Mill  
Raw Material/Fuel: Metal  
Rated Capacity: NA

**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity  
Emission Limit(s): 40%  
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: PM10  
Emission Limit(s): 38.4 tons/yr  
Authority for Requirement: Iowa DNR Construction Permit 89-A-032-S1

Pollutant: Particulate Matter  
Emission Limit(s): 48.4 tons/yr  
Authority for Requirement: Iowa DNR Construction Permit 89-A-032-S1

Pollutant: Volatile Organic Compounds (VOC)  
Emission Limit(s): 62.46 tons/yr  
Authority for Requirement: Iowa DNR Construction Permit 89-A-032-S1

**Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

None at this time.

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height (ft, from the ground): 70  
Stack Opening (inches, dia.): 84  
Exhaust Flow Rate (scfm): 88,000  
Exhaust Temperature (°F): 85

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 89-A-032-S1

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flow rate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

Stack Testing:

Pollutant – Particulate Matter

Stack Test to be Completed by: December 6, 2017

Test Method – 40 CFR Part 60, Appendix A, Method 5 and 40 CFR 51 Appendix M, Method 22

Authority for Requirement – 567 IAC 22.108(3)

Pollutant – PM-10

Stack Test to be Completed by: December 6, 2017

Test Method – 40 CFR 51, Appendix M, 201A with 202 or Approved alternative

Authority for Requirement – 567 IAC 22.108(3)

**Agency Approved Operation & Maintenance Plan Required?** Yes  No

**Facility Maintained Operation & Maintenance Plan Required?** Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?** Yes  No

*Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.*

*The data pertaining to the plan must be maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.*

*Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.*

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: S-165**

### Associated Equipment

Associated Emission Unit ID Number: CMIL03  
Associated Control Equipment ID Number: CMIL0165  
Associated Control Equipment Description: Demister

---

Emission Unit vented through this Emission Point: CMIL03  
Emission Unit Description: #3 Cold Mill  
Raw Material/Fuel: Metal  
Rated Capacity: NA

### **Applicable Requirements**

#### **Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity  
Emission Limit(s): 40%  
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)  
Emission Limit(s): 0.1 gr/dscf  
Authority for Requirement: 567 IAC 23.3(2)"a"

#### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

None at this time.

#### **Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

Stack Testing:

Pollutant – Particulate Matter  
Stack Test to be Completed by: December 6, 2017  
Test Method – 40 CFR Part 60, Appendix A, Method 5 and 40 CFR 51 Appendix M,  
Method 22  
Authority for Requirement – 567 IAC 22.108(3)

**Agency Approved Operation & Maintenance Plan Required?** Yes  No

**Facility Maintained Operation & Maintenance Plan Required?** Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?** Yes  No

*Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.*

*The data pertaining to the plan must be maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.*

*Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.*

Authority for Requirement: 567 IAC 22.108(3)

**Emission Point ID Number: S-336**

Associated Equipment

Associated Emission Unit ID Numbers: DFRN01

---

Emission Unit vented through this Emission Point: DFRN01  
Emission Unit Description: Pig Drying Furnace  
Raw Material/Fuel: Natural Gas  
Rated Capacity: 12 MMBtu/hr

**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity  
Emission Limit(s): 20%  
Authority for Requirement: Iowa DNR Construction Permit 98-A-928  
567 IAC 23.3(2)"d"

Pollutant: Particulate Matter  
Emission Limit(s): 0.1 gr/dscf  
Authority for Requirement: Iowa DNR Construction Permit 98-A-928  
567 IAC 23.3(2)"a"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)  
Emission Limit(s): 500 ppmv  
Authority for Requirement: 567 IAC 23.3(3)"e"

**Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

- Process throughput:
- A. The fuel used by the aluminum pig dryer shall be limited to natural gas.
  - B. Usage of natural gas fuel in this aluminum pig dryer shall not exceed 103 million cubic feet per year, which shall be determined on a 12-month-rolling monthly total.

Authority for Requirement: Iowa DNR Construction Permit 98-A-928

Reporting & Record keeping: Records shall be maintained which show the monthly total amount, measured in cubic feet, of natural gas use in this over. Records shall be maintained for three years, and available for inspection by representatives of DNR.

- A. The facility shall record monthly the 12-month rolling total natural gas usage in this unit.

Authority for Requirement: 567 IAC 22.108(3)

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

- Stack Height, (ft, from the ground): 62
- Stack Opening, (inches, dia.): 32
- Exhaust Flow Rate (acfm): 8,970
- Exhaust Temperature (°F): 400
- Discharge Style: NA
- Authority for Requirement: Iowa DNR Construction Permit 98-A-928

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flow rate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Stack Testing:**

- Pollutant – Opacity
- 1st Stack Test to be Completed by: December 6, 2017
- Test Method – 40 CFR 60, Appendix A, Method 9
- Authority for Requirement – 567 IAC 22.108(3)

*The owner of this equipment or the owner’s authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## Emission Point ID Number: FUG-IP

### Associated Equipment

Associated Emission Unit ID Numbers: See Table: In-Line Fluxer Filter Boxes 02-04

---

Table: In-Line Fluxer Filter Boxes 02-04

Emission Unit Number	Emission Unit Description	Raw Material	Rated Capacity (tons/hr)	Construction Permit Number
FILT02	#2 In-line Fluxer Filter Box	Metal	22.49	85-A-067P-S3
FILT03	#3 In-line Fluxer Filter Box	Metal	22.49	87-A-045P-S3
FILT04	#4 In-line Fluxer Filter Box	Metal	22.49	89-A-177P-S3

### Applicable Requirements

#### Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

*The emissions from each emission unit shall not exceed the levels specified below.*

#### MACT Emission Limits

Pollutant: Particulate Matter

Emission Limit(s): 0.01 lb/ton of feed

Authority for Requirement: Iowa DNR Construction Permits Listed in: Table: In-line Fluxer Filter Boxes 02-04  
567 IAC 23.1(4)"br"  
40 CFR 63 Subpart RRR

Pollutant: HCl

Emission Limit(s): 0.04 lb/ton of feed

Authority for Requirement: Iowa DNR Construction Permits Listed in: Table: In-line Fluxer Filter Boxes 02-04  
567 IAC 23.1(4)"br"  
40 CFR 63 Subpart RRR

#### Other Emission Limits

Pollutant: Opacity

BACT Emission Limit(s): 5%<sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permits Listed in: Table: In-line Fluxer Filter Boxes 02-04  
567 IAC 23.3(2) "d"

<sup>(1)</sup> Opacity standard is 40% during fluxing

Pollutant: PM<sub>10</sub>

BACT Emission Limit(s): 0.4 lb/hr, 1.75 tons/yr

Authority for Requirement: Iowa DNR Construction Permits Listed in: Table: In-line Fluxer  
Filter Boxes 02-04

Pollutant: Particulate Matter

BACT Emission Limit(s): 0.4 lb/hr, 1.75 tons/yr

Authority for Requirement: Iowa DNR Construction Permits Listed in: Table: In-line Fluxer  
Filter Boxes 02-04

Pollutant: NO<sub>x</sub>

Emission Limit(s): 38 tons/yr<sup>(2)</sup>, 140 lb/MMcf<sup>(3)</sup>

Authority for Requirement: Iowa DNR Construction Permits Listed in: Table: In-line Fluxer  
Filter Boxes 02-04

<sup>(2)</sup> Total NO<sub>x</sub> emissions for all of #4 Casting Complex.

<sup>(3)</sup> This emission limit is the average across #4 Casting Complex.

### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

#### **NESHAP**

These emission units are subject to the requirements of the National Emission Standards for Hazardous Air Pollutants, 40 CFR, Part 63, Subpart RRR, Secondary Aluminum Production and the provisions of 40 CFR 63 Subpart A – General Provisions.

Authority for requirement: Iowa DNR Construction Permits Listed in: Table: In-line Fluxer Filter  
Boxes 02-04  
567 IAC 23.1(4)"br"  
40 CFR 63 Subpart RRR

Process throughput:

- A. Each In-Line Fluxer Boxes shall process a maximum of 197,000 tons of aluminum each per 12-month rolling period.
- B. The amount of chlorine used in the In-Line Fluxer Boxes shall not exceed 0.04 lbs/ton aluminum.
- C. This facility (Plant number 82-01-002) is subject to all applicable operating limits set forth in 40 CFR Part 63 Subpart A (General Provisions) and 40 CFR Part 63 Subpart RRR (National Emission Standards for Hazardous Air Pollutants (NESHAP) for Secondary Aluminum Production (§63.1500).

**Reporting & Record keeping:**

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. The permit holder, owner or operator of the facility shall record the amount of any chlorine used in each In-Line Fluxer Box.
- B. The permit holder, owner or operator of the facility shall record the amount of aluminum processed in each In-Line Fluxer Box, in tons. Calculate and record monthly and 12-month rolling totals
- C. This facility (Plant number 82-01-002) is subject to all applicable monitoring and/or recordkeeping requirements as set forth in 40 CFR Part 63 Subpart A (General Provisions) and 40 CFR Part 63 Subpart RRR (National Emission Standards for Hazardous Air Pollutants (NESHAP) for Secondary Aluminum Production (§63.1500).

Authority for Requirement: Iowa DNR Construction Permits Listed in: Table: In-line Fluxer Filter Boxes 02-04

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Vents indoors

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: FUG-IP**

### Associated Equipment

Associated Emission Unit ID Numbers: FILT15, FILT16

---

Emission Unit vented through this Emission Point: FILT15, FILT16

Emission Unit Description: #15 In-Line Fluxer Filter Box, #16 In-Line Fluxer Filter Box

Raw Material/Fuel: Metal

Rated Capacity: 16 tons of Al/hr each

### **Applicable Requirements**

#### **Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40%

Authority for Requirement: 567 IAC 23.3 (2)"d"

Pollutant: Particulate Matter

Emission Limit(s): 0.01 lb/ton of feed

Authority for Requirement: 567 IAC 23.1(4)"br"  
40 CFR 63 Subpart RRR

Pollutant: HCl

Emission Limit(s): 0.04 lb/ton of feed

Authority for Requirement: 567 IAC 23.1(4)"br"  
40 CFR 63 Subpart RRR

#### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

#### NESHAP

These emission units are subject to the requirements of the National Emission Standards for Hazardous Air Pollutants, 40 CFR, Part 63, Subpart RRR, Secondary Aluminum Production and the provisions of 40 CFR 63 Subpart A – General Provisions.

Authority for requirement: Iowa DNR Construction Permits 07-A-091 (FILT15) and 07-A-192 (FILT16)  
567 IAC 23.1(4)"br"  
40 CFR 63 Subpart RRR

Process throughput:

- A. These units shall be sealed units (NOTE: Based on the information from the facility, the particulate emissions from each sealed unit are calculated to be 0.16 lb/hr).

- B. The amount of chlorine gas used shall not exceed 0.0389 lbs per ton of Aluminum.
- C. The combined throughput of the #15 In-Line Filter Box (EU FILT15) and #16 In-Line Filter Box (EU FILT16) shall not exceed 140,160 tons of aluminum per 12-month rolling period.

**Reporting & Recordkeeping:**

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. Annual inspection reports demonstrating the unit is sealed as originally designed.
- B. Record the amount of any chlorine gas used in each filter box.
- C. Record the amount of aluminum processed in Filter Boxes 15 (EU FILT15) and 16 (EU FILT16), in tons. Calculate and record monthly and 12-month rolling totals.

Authority for Requirement: Iowa DNR Construction Permit 07-A-091 ( FILT15) and 07-A-092 (FILT16)

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Vents inside.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: FUG-IP**

### Associated Equipment

Associated Emission Unit ID Numbers: FILT17, FILT18

---

Emission Unit vented through this Emission Point: FILT17, FILT18

Emission Unit Description: #17 In-Line Fluxer Filter Box, #18 In-Line Fluxer Filter Box

Raw Material/Fuel: Metal

Rated Capacity: 16 ton/hr each

### **Applicable Requirements**

#### **Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from each emission unit shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40%

Authority for Requirement: 567 IAC 23.3 (2)"d"

Pollutant: PM<sub>10</sub>

Emission Limit(s): 0.16 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 02-A-233-S2 (FILT17) and 02-A-234-S2 (FILT18)

Pollutant: Particulate Matter

Emission Limit(s): 0.16 lb/hr and 0.01 lb/ton of feed

Authority for Requirement: Iowa DNR Construction Permit 02-A-233-S2 (FILT17) and 02 A-234-S2 (FILT18)  
567 IAC 23.1(4)"br"  
40 CFR 63 Subpart RRR

Pollutant: Single HAP<sup>(1)</sup>

Emission Limit(s): 0.04 lb/ton of feed

Authority for Requirement: Iowa DNR Construction Permit 02-A-233-S2 (FILT17) and 02-A-234-S2 (FILT18)  
567 IAC 23.1(4)"br"  
40 CFR 63 Subpart RRR

<sup>(1)</sup>The single HAP is HCl.

### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

#### **NESHAP**

These emission units are subject to the requirements of the National Emission Standards for Hazardous Air Pollutants, 40 CFR, Part 63, Subpart RRR, Secondary Aluminum Production and the provisions of 40 CFR 63 Subpart A – General Provisions.

Authority for requirement: Iowa DNR Construction Permit 02-A-233-S2 (FIL17) and 02-A-234-S2 (FIL18)  
567 IAC 23.1(4)"br"  
40 CFR 63 Subpart RRR

Process throughput:

- A. Each In-Line Fluxer Box shall process a maximum of 140,160 tons of aluminum per 12-month rolling period.
- B. The amount of chlorine used in each In-Line Fluxer Box shall not exceed 0.04 lbs/ton aluminum.
- C. This facility (Plant number 82-01-002) is subject to all applicable operating limits set forth in 40 CFR Part 63 Subpart A (General Provisions) and 40 CFR Part 63 Subpart RRR (National Emission Standards for Hazardous Air Pollutants (NESHAP) for Secondary Aluminum Production (§63.1500).

Reporting & Record keeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. The permit holder, owner or operator of the facility shall record the amount of any chlorine used in each In-Line Fluxer Box.
- B. The permit holder, owner or operator of the facility shall record the amount of aluminum processed in each In-Line Fluxer Box, in tons. Calculate and record monthly and 12-month rolling totals
- C. This facility (Plant number 82-01-002) is subject to all applicable monitoring and/or recordkeeping requirements as set forth in 40 CFR Part 63 Subpart A (General Provisions) and 40 CFR Part 63 Subpart RRR (National Emission Standards for Hazardous Air Pollutants (NESHAP) for Secondary Aluminum Production (§63.1500).

Authority for Requirement: Iowa DNR Construction Permit 02-A-233-S2 (FIL17) and 02-A-234 (FIL18)

### **Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Vents internally

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

**Emission Point ID Number: FUG-IP**

Associated Equipment

Associated Emission Unit ID Numbers: FUG\_IP\_P

---

Emission Unit vented through this Emission Point: FUG\_IP\_P  
Emission Unit Description: Internally Vented – Ingot Plant  
Raw Material/Fuel: Various airborne particulate  
Rated Capacity: NA

**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity  
Emission Limit(s): 40%  
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)  
Emission Limit(s): 0.1 gr/dscf  
Authority for Requirement: 567 IAC 23.3(2)"a"

**Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

None at this time.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

**Emission Point ID Number: FUG-B7XX**

Associated Equipment

Associated Emission Unit ID Numbers: FUG-B7XX

---

Emission Unit vented through this Emission Point: FUG-B7XX  
Emission Unit Description: Internally Vented – Plain Foil & Foil IPS  
Raw Material/Fuel: Airborne Particles  
Rated Capacity: NA

**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity  
Emission Limit(s): 40%  
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter  
Emission Limit(s): 0.1 gr/dscf  
Authority for Requirement: 567 IAC 23.3(2)"a"

**Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

None at this time.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

**Emission Point ID Number: See Table: Aging Furnaces**

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Aging Furnaces

---

Table: Aging Furnaces

<b>Emission Point</b>	<b>Emission Unit</b>	<b>Emission Unit Description</b>	<b>Raw Material</b>	<b>Rated Capacity</b>
S-144	GFRN16	#16 Aging Furnace	Natural Gas	0.006 MMcf/hr
S-143	GFRN17	#17 Aging Furnace	Natural Gas	0.006 MMcf/hr
S-125	GFRN31	60" Ager #31	Natural Gas	0.009 MMcf/hr
S-126	GFRN32	210" Ager #32	Natural Gas	0.02 MMcf/hr

**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from these emission points shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40%

Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter

Emission Limit(s): 0.6 lb/MMBtu

Authority for Requirement: 567 IAC 23.3(2)"b"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit(s): 500 ppmv

Authority for Requirement: 567 IAC 23.3(3)"e"

**Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

NESHAP

These emission units are subject to Subparts A (General Provisions, 40 CFR §63.1 – §63.15) and DDDDD (National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters; 40 CFR §63.7480 – §63.7575) of the National Emission Standards for Hazardous Air Pollutants (NESHAP).

Authority for Requirement: 40 CFR Part 63 Subpart DDDDD

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

**Emission Point ID Number: S-339**

Associated Equipment

Associated Emission Unit ID Numbers: GWAST01

---

Emission Unit vented through this Emission Point: GWAST01  
Emission Unit Description: Ground Water Air Stripping Tower  
Raw Material/Fuel: Water  
Rated Capacity: 18,000 gallons/hr

**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

None at this time.

**Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

None at this time.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: S-272**

### Associated Equipment

Associated Emission Unit ID Numbers: HFRN02

---

Emission Unit vented through this Emission Point: HFRN02  
Emission Unit Description: #2 Holding Furnace  
Raw Material/Fuel: Natural Gas, Aluminum  
Rated Capacity: 16 MMBtu/hr, 22.49 ton/hr

### **Applicable Requirements**

#### **Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

#### MACT Emission Limits

Pollutant: Particulate Matter  
Emission Limit(s): 0.4 lb/ton Al  
Authority for Requirement: 567 IAC 23.1(4)"br"  
40 CFR 63.1505(i)(1)

Pollutant: HCl  
Emission Limit(s): 0.4 lb/ton Al  
Authority for Requirement: 567 IAC 23.1(4)"br"  
40 CFR 63.1505(i)(4)

Pollutant: D/F  
Emission Limit(s): 15µg TEQ/Mg Al  
Authority for Requirement: 567 IAC 23.1(4)"br"  
40 CFR 63.1505(i)(3)

#### Other Emission Limits

Pollutant: Opacity  
Emission Limit(s): 5%<sup>(1)</sup>  
Authority for Requirement: Iowa DNR Construction Permit 92-A-619P-S1  
567 IAC 23.3(2) "d"

<sup>(1)</sup> Opacity standard is 40% during fluxing

Pollutant: PM<sub>10</sub>  
Emission Limit(s): 4.0 lb/hr, 17.5 tons/yr, 0.4 lb/ton Al  
Authority for Requirement: Iowa DNR Construction Permit 92-A-619P-S1

Pollutant: Particulate Matter  
Emission Limit(s): 4.0 lb/hr, 17.5 tons/yr, 0.4 lb/ton Al  
Authority for Requirement: Iowa DNR Construction Permit 92-A-619P-S1

Pollutant: NOx  
Emission Limit(s): 38 tons/yr<sup>(2)</sup>, 140 lb/MMcf<sup>(3)</sup>  
Authority for Requirement: Iowa DNR Construction Permit 92-A-619P-S1  
(<sup>2</sup>) Total NOx emissions for all of #2 casting complex.  
(<sup>3</sup>) Limit is the average across casting complex #2.

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)  
Emission Limit(s): 500 ppmv  
Authority for Requirement: 567 IAC 23.3(3)"e"

### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

#### NESHAP

This emission unit is subject to the requirements of the National Emission Standards for Hazardous Air Pollutants, 40 CFR, Part 63, Subpart RRR, Secondary Aluminum Production and the provisions of 40 CFR 63 Subpart A – General Provisions.

Authority for requirement: Iowa DNR Construction Permit 92-A-619P-S1  
567 IAC 23.1(4)"br"  
40 CFR 63 Subpart RRR

Process throughput:

- A. The amount of chlorine used in this holder shall not exceed 1.24 lb/ton aluminum.
- B. This holder may be fluxed with chlorine gas and/or chloride salts.
- C. This holder shall use the SNORT system whenever fluxing with chlorine gas.
- D. This holder shall be fired by natural gas only.
- E. The amount of natural gas fired in all of casting complex #2 (melter, holder and fluxer) shall not exceed  $542 \times 10^6$  cubic feet per 12-month rolling period.
- F. This holder shall process a maximum of 197,000 tons of aluminum per 12-month rolling period.

Reporting & Record keeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.

- A. Record the amount of any chlorine used in this holder.
- B. Record the amount of natural gas used in casting complex #2, in cubic feet. Calculate and

record monthly and 12-month rolling totals.

- C. Record the amount of aluminum processed in this holder, in tons. Calculate and record monthly and 12-month rolling totals.

Authority for Requirement: Iowa DNR Construction Permit 92-A-619P-S1

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 99.6

Stack Opening, (inches, dia.): 36

Exhaust Flow Rate (acfm): 16,565

Exhaust Temperature (°F): 831

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 92-A-619P-S1

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flow rate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Opacity Monitoring:**

The facility shall check the opacity weekly during a period when the emission unit on this emission point is under normal operation when fluxing is not occurring and record the reading. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. Alcoa shall use the following procedure to monitor opacity:

Check the opacity to ensure no visible emissions.

If visible emissions are observed, implement corrective action within eight hours from the observation of visible emissions.

Conduct a Method 9 observation if the initial corrective action does not return the observation to no visible emissions.

If the Method 9 observation is greater than 5%, this would be a violation. Implement additional corrective action within eight hours from the Method 9 observation and then make another Method 9 observation.

If weather conditions prevent a Method 9 observation, note on the data observation sheet and attempt at approximately 2-hour intervals throughout the day.

If weather conditions prevent a Method 9 observation for a week, complete the observation the next operating day where weather permits.

Authority for Requirement: 567 IAC 22.108(14)

**Agency Approved Operation & Maintenance Plan Required?**

Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**

Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**

Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: S-284**

### Associated Equipment

Associated Emission Unit ID Numbers: HFRN03

---

Emission Unit vented through this Emission Point: HFRN03

Emission Unit Description: #3 Holding Furnace

Raw Material/Fuel: Natural Gas, Aluminum

Rated Capacity: 16 MMBtu/hr, 22.49 ton/hr

### **Applicable Requirements**

#### **Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

#### MACT Emission Limits

Pollutant: Particulate Matter

Emission Limit(s): 0.4 lb/ton Al

Authority for Requirement: 567 IAC 23.1(4)"br"  
40 CFR 63.1505(i)(1)

Pollutant: HCl

Emission Limit(s): 0.4 lb/ton Al

Authority for Requirement: 567 IAC 23.1(4)"br"  
40 CFR 63.1505(i)(4)

Pollutant: D/F

Emission Limit(s): 15µg TEQ/Mg Al

Authority for Requirement: 567 IAC 23.1(4)"br"  
40 CFR 63.1505(i)(3)

#### Other Emission Limits

Pollutant: Opacity

BACT Emission Limit(s): 5%<sup>(1)(2)</sup>

Authority for Requirement: Iowa DNR Construction Permit 92-A-620P-S1  
567 IAC 23.3(2) "d"

<sup>(1)</sup> Opacity standard is 40% during fluxing.

Pollutant: PM<sub>10</sub>

BACT Emission Limit(s): 4.0 lb/hr, 17.5 tons/yr, 0.4 lb/ton Al

Authority for Requirement: Iowa DNR Construction Permit 92-A-620P-S1

Pollutant: Particulate Matter

BACT Emission Limit(s): 4.0 lb/hr, 17.5 tons/yr, 0.4 lb/ton Al

Authority for Requirement: Iowa DNR Construction Permit 92-A-620P-S1

Pollutant: NOx

Emission Limit(s): 38 tons/yr<sup>(2)</sup>, 140 lb/MMcf<sup>(3)</sup>

Authority for Requirement: Iowa DNR Construction Permit 92-A-620P-S1

<sup>(2)</sup> Total NOx emissions for all of #3 casting complex.

<sup>(3)</sup> Limit is the average across casting complex #3.

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit(s): 500 ppmv

Authority for Requirement: 567 IAC 23.3(3)"e"

### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

#### **NESHAP**

This emission unit is subject to the requirements of the National Emission Standards for Hazardous Air Pollutants, 40 CFR, Part 63, Subpart RRR, Secondary Aluminum Production and the provisions of 40 CFR 63 Subpart A – General Provisions.

Authority for requirement: Iowa DNR Construction Permit 92-A-620P-S1

567 IAC 23.1(4)"br"

40 CFR 63 Subpart RRR

Process throughput:

- A. The amount of chlorine used in this holder in either gaseous or salt form shall not exceed 1.24 lb/ton aluminum.
- B. This holder may be fluxed with chlorine gas and/or chloride salts.
- C. This holder shall use the SNORT system whenever fluxing with chlorine gas.
- D. This holder shall be fired by natural gas only.
- E. The amount of natural gas fired in all of casting complex #3 (melter, holder and fluxer) shall not exceed  $542 \times 10^6$  cubic feet per 12-month rolling period.
- F. This holder shall process a maximum of 197,000 tons of aluminum per 12-month rolling period.

Reporting & Record keeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.

- A. Record the amount of any chlorine used in this holder.
- B. Record the amount of natural gas used in casting complex #3, in cubic feet. Calculate and record monthly and 12-month rolling totals.
- C. Record the amount of aluminum processed in this holder, in tons. Calculate and record

monthly and 12-month rolling totals.

Authority for Requirement: Iowa DNR Construction Permit 92-A-620P-S1

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 99.6

Stack Opening, (inches, dia.): 36

Exhaust Flow Rate (acfm): 17,640

Exhaust Temperature (°F): 802

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 92-A-620P-S1

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flow rate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Opacity Monitoring:**

The facility shall check the opacity weekly during a period when the emission unit on this emission point is under normal operation when fluxing is not occurring and record the reading. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. Alcoa shall use the following procedure to monitor opacity:

Check the opacity to ensure no visible emissions.

If visible emissions are observed, implement corrective action within eight hours from the observation of visible emissions.

Conduct a Method 9 observation if the initial corrective action does not return the observation to no visible emissions.

If the Method 9 observation is greater than 5%, this would be a violation. Implement additional corrective action within eight hours from the Method 9 observation and then make another Method 9 observation.

If weather conditions prevent a Method 9 observation, note on the data observation sheet and attempt at approximately 2-hour intervals throughout the day.

If weather conditions prevent a Method 9 observation for a week, complete the observation the next operating day where weather permits.

Authority for Requirement: 567 IAC 22.108(14)

**Agency Approved Operation & Maintenance Plan Required?**

Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**

Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**

Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: S-291**

### Associated Equipment

Associated Emission Unit ID Numbers: HFRN04

---

Emission Unit vented through this Emission Point: HFRN04

Emission Unit Description: #4 Holding Furnace

Raw Material/Fuel: Natural Gas, Aluminum

Rated Capacity: 16 MMBtu/hr, 22.49 ton/hr

### **Applicable Requirements**

#### **Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

#### MACT Emission Limits

Pollutant: Particulate Matter

Emission Limit(s): 0.4 lb/ton Al

Authority for Requirement: 567 IAC 23.1(4)"br"  
40 CFR 63.1505(i)(1)

Pollutant: HCl

Emission Limit(s): 0.4 lb/ton Al

Authority for Requirement: 567 IAC 23.1(4)"br"  
40 CFR 63.1505(i)(4)

Pollutant: D/F

Emission Limit(s): 15µg TEQ/Mg Al

Authority for Requirement: 567 IAC 23.1(4)"br"  
40 CFR 63.1505(i)(3)

#### Other Emission Limits

Pollutant: Opacity

BACT Emission Limit(s): 5%<sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 92-A-621P-S1  
567 IAC 23.3(2) "d"

<sup>(1)</sup> Opacity standard is 40% during fluxing.

Pollutant: PM<sub>10</sub>

BACT Emission Limit(s): 4.0 lb/hr, 17.5 tons/yr, 0.4 lb/ton Al

Authority for Requirement: Iowa DNR Construction Permit 92-A-621P-S1

Pollutant: Particulate Matter  
BACT Emission Limit(s): 4.0 lb/hr, 17.5 tons/yr, 0.4 lb/ton Al  
Authority for Requirement: Iowa DNR Construction Permit 92-A-621P-S1

Pollutant: NOx  
Emission Limit(s): 38 tons/yr<sup>(2)</sup>, 140 lb/MMcf<sup>(3)</sup>  
Authority for Requirement: Iowa DNR Construction Permit 92-A-621P-S1  
(<sup>2</sup>) Total NOx emissions for all of #4 casting complex.  
(<sup>3</sup>) Limit is the average across casting complex #4.

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)  
Emission Limit(s): 500 ppmv  
Authority for Requirement: 567 IAC 23.3(3)"e"

### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

### **NESHAP**

This emission unit is subject to the requirements of the National Emission Standards for Hazardous Air Pollutants, 40 CFR, Part 63, Subpart RRR, Secondary Aluminum Production and the provisions of 40 CFR 63 Subpart A – General Provisions.

Authority for requirement: Iowa DNR Construction Permit 92-A-621P-S1  
567 IAC 23.1(4)"br"  
40 CFR 63 Subpart RRR

### Process throughput:

- A. The amount of chlorine used in this holder shall not exceed 1.24 lb/ton aluminum.
- B. This holder may be fluxed with chlorine gas and/or chloride salts.
- C. This holder shall use the SNORT system whenever fluxing with chlorine gas.
- D. This holder shall be fired by natural gas only.
- E. The amount of natural gas fired in all of casting complex #4 (melter, holder and fluxer) shall not exceed  $542 \times 10^6$  cubic feet per 12-month rolling period.
- F. This holder shall process a maximum of 197,000 tons of aluminum per 12-month rolling period.

### Reporting & Record keeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.

- A. Record the amount of any chlorine used in this holder.
- B. Record the amount of natural gas used in casting complex #4, in cubic feet. Calculate and record monthly and 12-month rolling totals.

- C. Record the amount of aluminum processed in this holder, in tons. Calculate and record monthly and 12-month rolling totals.

Authority for Requirement: Iowa DNR Construction Permit 92-A-621P-S1

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 99.6

Stack Opening, (inches, dia.): 36

Exhaust Flow Rate (acfm): 18,575

Exhaust Temperature (°F): 773

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 92-A-621P-S1

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flow rate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Opacity Monitoring:**

The facility shall check the opacity weekly during a period when the emission unit on this emission point is under normal operation when fluxing is not occurring and record the reading. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. Alcoa shall use the following procedure to monitor opacity:

Check the opacity to ensure no visible emissions.

If visible emissions are observed, implement corrective action within eight hours from the observation of visible emissions.

Conduct a Method 9 observation if the initial corrective action does not return the observation to no visible emissions.

If the Method 9 observation is greater than 5%, this would be a violation. Implement additional corrective action within eight hours from the Method 9 observation and then make another Method 9 observation.

If weather conditions prevent a Method 9 observation, note on the data observation sheet and attempt at approximately 2-hour intervals throughout the day.

If weather conditions prevent a Method 9 observation for a week, complete the observation the next operating day where weather permits.

Authority for Requirement: 567 IAC 22.108(14)

**Agency Approved Operation & Maintenance Plan Required?**

Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**

Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**

Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: S-047**

### Associated Equipment

Associated Emission Unit ID Numbers: HFRN15

---

Emission Unit vented through this Emission Point: HFRN15

Emission Unit Description: #15 Holding Furnace

Raw Material/Fuel: Natural Gas Aluminum

Rated Capacity: 5 MMBtu/hr, for each burner, 16 tons/hr Al

### **Applicable Requirements**

#### **Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

#### MACT Emission Limits

Pollutant: Particulate Matter

Emission Limit(s): 0.4 lb/ton Al

Authority for Requirement: 567 IAC 23.1(4)"br"  
40 CFR 63.1505(i)(1)

Pollutant: HCl

Emission Limit(s): 0.4 lb/ton Al

Authority for Requirement: 567 IAC 23.1(4)"br"  
40 CFR 63.1505(i)(4)

Pollutant: D/F

Emission Limit(s): 15µg TEQ/Mg Al

Authority for Requirement: 567 IAC 23.1(4)"br"  
40 CFR 63.1505(i)(3)

#### Other Emission Limits

Pollutant: Opacity

Emission Limit(s): 40%<sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 92-A-624-S2  
567 IAC 23.3(2)"d"

- (1) An exceedance of the indicator opacity of 10% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM<sub>10</sub>

Emission Limit(s): 4.87 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 92-A-624-S2

Pollutant: Particulate Matter  
Emission Limit(s): 0.1 gr/dscf  
Authority for Requirement: Iowa DNR Construction Permit 92-A-624-S2  
567 IAC 23.3(2)"a"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)  
Emission Limit(s): 500 ppmv  
Authority for Requirement: Iowa DNR Construction Permit 92-A-624-S2  
567 IAC 23.3(3) "e"

### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

#### **NESHAP**

This emission unit is subject to the requirements of the National Emission Standards for Hazardous Air Pollutants, 40 CFR, Part 63, Subpart RRR, Secondary Aluminum Production and the provisions of 40 CFR 63 Subpart A – General Provisions.

Authority for requirement: Iowa DNR Construction Permit 92-A-624-S2  
567 IAC 23.1(4)"br"  
40 CFR 63 Subpart RRR

Process throughput:

- A. The amount of chlorine (gaseous and solid flux) used in this holder shall be limited in accordance with NESHAP subpart RRR for Secondary Aluminum Processing facilities SAPU and operating and maintenance plan.
- B. The combined throughput of the #15 Holding Furnace (EU HFRN15) and #16 Holding Furnace (EU HFRN16) shall not exceed 140,160 tons of aluminum per 12-month rolling period.
- C. This holder shall be fired by natural gas only.

Reporting & Record keeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. Record the amount of any chlorine used in this holder.
- B. Record the amount of aluminum processed in Holding Furnaces 15 (EU HFRN15) and 16 (EU HFRN16), in tons. Calculate and record monthly and 12-month rolling totals.

Authority for Requirement: Iowa DNR Construction Permit 92-A-624-S2

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 99.57

Stack Opening, (inches, dia.): 51

Exhaust Flow Rate (scfm): 12,100

Exhaust Temperature (°F): 316

Discharge Style: Unobstructed vertical

Authority for Requirement: Iowa DNR Construction Permit 92-A-624-S2

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flow rate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: S-050**

### Associated Equipment

Associated Emission Unit ID Numbers: HFRN16

---

Emission Unit vented through this Emission Point: HFRN16  
Emission Unit Description: #16 Holding Furnace  
Raw Material/Fuel: Natural Gas, Aluminum  
Rated Capacity: 5 MMBtu/hr, for each burner, 16 tons/hr Al

### **Applicable Requirements**

#### **Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

#### MACT Emission Limits

Pollutant: Particulate Matter  
Emission Limit(s): 0.4 lb/ton Al  
Authority for Requirement: 567 IAC 23.1(4)"br"  
40 CFR 63.1505(i)(1)

Pollutant: HCl  
Emission Limit(s): 0.4 lb/ton Al  
Authority for Requirement: 567 IAC 23.1(4)"br"  
40 CFR 63.1505(i)(4)

Pollutant: D/F  
Emission Limit(s): 15µg TEQ/Mg Al  
Authority for Requirement: 567 IAC 23.1(4)"br"  
40 CFR 63.1505(i)(3)

#### Other Emission Limits

Pollutant: Opacity  
Emission Limit(s): 40%<sup>(1)</sup>  
Authority for Requirement: Iowa DNR Construction Permit 92-A-625-S5  
567 IAC 23.3(2)"d"

- <sup>(1)</sup> An exceedance of the indicator opacity of (10%) will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM<sub>10</sub>  
Emission Limit(s): 4.87 lb/hr  
Authority for Requirement: Iowa DNR Construction Permit 92-A-625-S5

Pollutant: Particulate Matter  
Emission Limit(s): 0.1 gr/dscf  
Authority for Requirement: Iowa DNR Construction Permit 92-A-625-S5  
567 IAC 23.3(2)"a"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)  
Emission Limit(s): 500ppmv  
Authority for Requirement: Iowa DNR Construction Permit 92-A-625-S5  
567 IAC 23.3(3) "e"

**Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

**NESHAP**

This emission unit is subject to the requirements of the National Emission Standards for Hazardous Air Pollutants, 40 CFR, Part 63, Subpart RRR, Secondary Aluminum Production and the provisions of 40 CFR 63 Subpart A – General Provisions.

Authority for requirement: Iowa DNR Construction Permit 92-A-625-S5  
567 IAC 23.1(4)"br"  
40 CFR 63 Subpart RRR

Process throughput:

- A. The amount of chlorine (gaseous and solid flux) used in this holder shall be limited in accordance with NESHAP subpart RRR for Secondary Aluminum Processing facilities SAPU and operating and maintenance plan.
- B. The combined throughput of the #15 Holding Furnace (EU HFRN15) and #16 Holding Furnace (EU HFRN16) shall not exceed 140,160 tons of aluminum per 12-month rolling period.
- C. This holder shall be fired by natural gas only.

Reporting & Record keeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. Record the amount of any chlorine used in this holder.
- B. Record the amount of aluminum processed in Holding Furnaces 15 (EU HFRN15) and 16 (EU HFRN16), in tons. Calculate and record monthly and 12-month rolling totals.

Authority for Requirement: Iowa DNR Construction Permit 92-A-625-S5

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 99.57

Stack Opening, (inches, dia.): 51

Exhaust Flow Rate (scfm): 12,100

Exhaust Temperature (°F): 316

Discharge Style: Unobstructed vertical

Authority for Requirement: Iowa DNR Construction Permit 92-A-625-S5

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flow rate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: S-052**

### Associated Equipment

Associated Emission Unit ID Numbers: HFRN17

---

Emission Unit vented through this Emission Point: HFRN17

Emission Unit Description: #17 Holding Furnace

Raw Material/Fuel: Natural Gas, Aluminum

Rated Capacity: 25 MMBtu/hr./burner, 16 ton Al/hr

### **Applicable Requirements**

#### **Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

#### MACT Emission Limits

Pollutant: Particulate Matter

Emission Limit(s): 0.4 lb/ton Al

Authority for Requirement: 567 IAC 23.1(4)"br"  
40 CFR 63.1505(i)(1)

Pollutant: HCl

Emission Limit(s): 0.4 lb/ton Al

Authority for Requirement: 567 IAC 23.1(4)"br"  
40 CFR 63.1505(i)(4)

Pollutant: D/F

Emission Limit(s): 15µg TEQ/Mg Al

Authority for Requirement: 567 IAC 23.1(4)"br"  
40 CFR 63.1505(i)(3)

#### Other Emission Limits

Pollutant: Opacity

Emission Limit(s): 40%<sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 92-A-626-S2,  
567 IAC 23.3(2)"d"

<sup>(1)</sup> An exceedance of the indicator opacity of 10% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM<sub>10</sub>

Emission Limit(s): 4.0 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 92-A-626-S2

Pollutant: Particulate Matter

Emission Limit(s): 0.1 gr/dscf and 4.0 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 92-A-626-S2  
567 IAC 23.3(2)"a"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit(s): 500 ppmv

Authority for Requirement: Iowa DNR Construction Permit 92-A-626-S2  
567 IAC 23.3(3)

### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

#### **NESHAP**

This emission unit is subject to the requirements of the National Emission Standards for Hazardous Air Pollutants, 40 CFR, Part 63, Subpart RRR, Secondary Aluminum Production and the provisions of 40 CFR 63 Subpart A – General Provisions.

Authority for requirement: Iowa DNR Construction Permit 92-A-626-S2  
567 IAC 23.1(4)"br"  
40 CFR 63 Subpart RRR

Process throughput:

- A. The amount of chlorine (gaseous and solid flux) used in this holder shall not exceed 1.24 lbs/ton aluminum.
- B. This holder shall process a maximum of 140,160 tons of aluminum per 12-month rolling period.
- C. Gas fluxing hours in this holder shall not exceed 2,464 hours for any twelve-month rolling period.
- D. This holder shall be fired by natural gas only.

Reporting & Record keeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.

- A. Record the amount of any chlorine used in this holder.
- B. Record the amount of aluminum processed in this holder, in tons. Calculate and record monthly and 12-month rolling totals.
- C. Record the number of fluxing hours per twelve-month rolling period.
- D. Record the amount of any fluxing salt used in this holder.

Authority for Requirement: Iowa DNR Construction Permit 92-A-626-S2

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 77.583

Stack Opening, (inches, dia.): 53

Exhaust Flow Rate (scfm): 14,829

Exhaust Temperature (°F): 505

Discharge Style: Vertical unobstructed

Authority for Requirement: Iowa DNR Construction Permit 92-A-626-S2

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flow rate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: S-057**

### Associated Equipment

Associated Emission Unit ID Numbers: HFRN18

---

Emission Unit vented through this Emission Point: HFRN18

Emission Unit Description: #18 Holding Furnace

Raw Material/Fuel: Natural Gas

Rated Capacity: 25 MMBtu/hr/burner, 16 ton Al/hr

### **Applicable Requirements**

#### **Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

#### MACT Emission Limits

Pollutant: Particulate Matter

Emission Limit(s): 0.4 lb/ton Al

Authority for Requirement: 567 IAC 23.1(4)"br"  
40 CFR 63.1505(i)(1)

Pollutant: HCl

Emission Limit(s): 0.4 lb/ton Al

Authority for Requirement: 567 IAC 23.1(4)"br"  
40 CFR 63.1505(i)(4)

Pollutant: D/F

Emission Limit(s): 15µg TEQ/Mg Al

Authority for Requirement: 567 IAC 23.1(4)"br"  
40 CFR 63.1505(i)(3)

#### Other Emission Limits

Pollutant: Opacity

Emission Limit(s): 40%<sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 92-A-627-S2  
567 IAC 23.3(2)"d"

<sup>(1)</sup> An exceedance of the indicator opacity of 10% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM<sub>10</sub>

Emission Limit(s): 4.0 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 92-A-627-S2

Pollutant: Particulate Matter

Emission Limit(s): 4.0 lb/hr and 0.1 gr/dscf

Authority for Requirement: Iowa DNR Construction Permit 92-A-627-S2  
567 IAC 23.3(2)"a"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit(s): 500 ppmv

Authority for Requirement: Iowa DNR Construction Permit 92-A-627-S2  
567 IAC 23.3(3) "e"

### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

#### NESHAP

This emission unit is subject to the requirements of the National Emission Standards for Hazardous Air Pollutants, 40 CFR, Part 63, Subpart RRR, Secondary Aluminum Production and the provisions of 40 CFR 63 Subpart A – General Provisions.

Authority for requirement: Iowa DNR Construction Permit 92-A-627-S2  
567 IAC 23.1(4)"br"  
40 CFR 63 Subpart RRR

Process throughput:

- A. The amount of chlorine (gaseous and solid flux) used in this holder shall not exceed 1.24 lbs/ton aluminum.
- B. This holder shall process a maximum of 140,160 tons of aluminum per 12-month rolling period.
- C. Gas fluxing hours shall not exceed 2,464 hours for any twelve-month rolling period.
- D. This holder shall be fired by natural gas only.

Reporting & Record keeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.

- A. Record the amount of any chlorine used in this holder.
- B. Record the amount of aluminum processed in this holder, in tons. Calculate and record monthly and 12-month rolling totals.
- C. Record the number of fluxing hours per twelve-month rolling period.
- D. Record the amount of any fluxing salt used in this holder.

Authority for Requirement: Iowa DNR Construction Permit 92-A-627-S2

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 77.583

Stack Opening, (inches, dia.): 53

Exhaust Flow Rate (scfm): 14,829

Exhaust Temperature (°F): 505

Discharge Style: Vertical unobstructed

Authority for Requirement: Iowa DNR Construction Permit 92-A-627-S2

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flow rate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

**Emission Point ID Number: See Table: Holding Furnaces & Crucibles**

Associated Emission Unit ID Numbers: See Table: Holding Furnaces & Crucibles

Table: Holding Furnaces & Crucibles

<b>Emission Point</b>	<b>Emission Unit</b>	<b>EU Description</b>	<b>Raw Material</b>	<b>Rated Capacity</b>
S-352	HFRN50	#50 Holding Furnace	Natural Gas	.0047 MMcf/hr
	CRUC50	Crucibles (3 units): #50 Holding Furnace	Natural Gas	.0015 MMcf/hr
S-353	HFRN60	#60 Holding Furnace	Natural Gas	.0047 MMcf/hr
	CRUC60	Crucibles (3 units): #60 Holding Furnace	Natural Gas	.0015 MMcf/hr

**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from these emission points shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40%

Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter

Emission Limit(s): 0.6 lb/MMBtu

Authority for Requirement: 567 IAC 23.3(2)"b"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit(s): 500 ppmv

Authority for Requirement: 567 IAC 23.3(3)"e"

**Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

**NESHAP**

These emission units are subject to the requirements of the National Emission Standards for Hazardous Air Pollutants, 40 CFR, Part 63, Subpart RRR, Secondary Aluminum Production and the provisions of 40 CFR 63 Subpart A – General Provisions.

Authority for requirement: 567 IAC 23.1(4)"br"

40 CFR 63 Subpart RRR

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## Emission Point ID Number: FUG-HL

### Associated Equipment

Associated Emission Unit ID Numbers: See Table: FUG-HL

Emissions Control Equipment ID Number: See Table: FUG-HL

Emissions Control Equipment Description: See Table: FUG-HL

Table: FUG-HL

<b>EU</b>	<b>EU Description</b>	<b>Raw Material</b>	<b>Rated Capacity</b>	<b>CE</b>	<b>CE Description</b>
HMIL10	100" 5 Stand Hot Mill	Metal	NA	HMIL0288 HMIL0289	Centrifugal Mist Eliminators
HMIL14	144" Hot Mill	Metal	NA	HMIL0344	3- Stage Mist Eliminator
HMIL16	160" Hot Mill	Metal	NA	HMIL0349	Stage Mist Eliminator
HMIL22	220" Hot Mill	Metal	NA	HMIL0119	Chevron Screens (Mist Eliminators)
HMILPH	PAHTS 144" Taper Mill	Metal	NA	HMIL0071	Demister
PFRN01	Preheat Furnace #1	Ammonium Fluoroborate	0.05 MMcf/hr	NA	NA
PFRN02	Preheat Furnace #2	Ammonium Fluoroborate	0.03 MMcf/hr	NA	NA
PFRN03	Preheat Furnace #3	Ammonium Fluoroborate	0.04 MMcf/hr	NA	NA
PFRN04	Preheat Furnace #4	Ammonium Fluoroborate	0.04 MMcf/hr	NA	NA
PFRN12	Preheat Furnace #12	Ammonium Fluoroborate	0.04 MMcf/hr	NA	NA
PFRN13	Preheat Furnace #13	Ammonium Fluoroborate	0.04 MMcf/hr	NA	NA
PFRN16	Preheat Furnace #16	Ammonium Fluoroborate	0.04 MMcf/hr	NA	NA
PFRN17	Preheat Furnace #17	Ammonium Fluoroborate	0.04 MMcf/hr	NA	NA
PFRN18	Preheat Furnace #18	Ammonium Fluoroborate	0.05 MMcf/hr	NA	NA
PFRN19	Preheat Furnace # 19	Ammonium Fluoroborate	0.05 MMcf/hr	NA	NA
PFRN20	Preheat Furnace # 20	Ammonium Fluoroborate	0.05 MMcf/hr	NA	NA

PFRN21	Preheat Furnace # 21	Ammonium Fluoroborate	0.05 MMcf/hr	NA	NA
PFRN22	Preheat Furnace #22	Ammonium Fluoroborate	0.05 MMcf/hr	NA	NA
PFRN23	Preheat Furnace #23	Ammonium Fluoroborate	0.03 MMcf/hr	NA	NA
PFRN24	Preheat Furnace #24	Ammonium Fluoroborate	0.05 MMcf/hr	NA	NA
PFRN25	Preheat Furnace #25	Ammonium Fluoroborate	0.05 MMcf/hr	NA	NA
PFRN26	Preheat Furnace #26	Ammonium Fluoroborate	0.05 MMcf/hr	NA	NA
PFRN27	Preheat Furnace #27	Ammonium Fluoroborate	0.05 MMcf/hr	NA	NA
FUG_HL_P	Fugitive Hot Line	Various Particulate	NA	NA	NA

### **Applicable Requirements**

#### **Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40%

Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf

Authority for Requirement: 567 IAC 23.3(2)"a"

#### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

#### **NESHAP**

PFRN01-04, PFRN12-13 and PFRN16-27 are subject to Subparts A (General Provisions, 40 CFR §63.1 – §63.15) and DDDDD (National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters; 40 CFR §63.7480 – §63.7575) of the National Emission Standards for Hazardous Air Pollutants (NESHAP).

Authority for Requirement: 40 CFR Part 63 Subpart DDDDD

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Numbers: S-288, S-289**

### Associated Equipment

Associated Emission Unit ID Numbers: HMIL-10

Emissions Control Equipment ID Number: HMIL0288

Emissions Control Equipment Description: 4 Stage Mist Eliminator

---

Emission Unit vented through this Emission Point: HMIL-10

Emission Unit Description: 100" 5 Stand Hot Mill

Raw Material/Fuel: Metal

Rated Capacity: N/A

### **Applicable Requirements**

#### **Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from these emission points shall not exceed the levels specified below.*

#### **BACT Emission Limits**

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 170.4 tons/yr<sup>(1)(2)</sup> and 30ppm as propane<sup>(3)</sup>

Authority for Requirement: Iowa DNR Construction Permits 88-A-158-P2 (S-288) and  
88-A-159-P2 (S-289)

- (1) Standard is a 365-day rolling total.
- (2) This limit is the combined total for the 100" Hot Mill (EPs S-288 and S-289), 144" Hot Mill (EP S-344) and 160" Hot Mill (EP S-349).
- (3) Standard is expressed as the average of three (3) runs and is the average of EPs S-288 & S-289.

#### **Other Emission Limits**

Pollutant: Opacity

Emission Limit(s): 40%<sup>(4)</sup>

Authority for Requirement: Iowa DNR Construction Permits 88-A-158-P2 (S-288) and  
88-A-159-P2 (S-289)  
567 IAC 23.3(2)"d"

- (4) An exceedance of the indicator opacity of no visible emissions will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM<sub>10</sub>

Emission Limit(s): 4.40 lb/hr (For each point)

Authority for Requirement: Iowa DNR Construction Permits 88-A-158-P2 (S-288) and  
88-A-159-P2 (S-289)

Pollutant: Particulate Matter

Emission Limit(s): 0.1 gr/dscf

Authority for Requirement: Iowa DNR Construction Permits 88-A-158-P2 (S-288) and  
88-A-159-P2 (S-289)  
567 IAC 23.3(2)"a"

### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

#### Operating Limits:

- A. The pressure drop across the control equipment (CE HMIL0288) shall be maintained between 0.2 – 8 inches of H<sub>2</sub>O on an hourly block average.
- B. The owner or operator shall properly operate and maintain equipment to monitor the pressure drop across the control equipment (CE HMIL0288). The monitoring device(s) and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals or per written facility specific operation and maintenance plan.
- C. Per 567 IAC 33.3(18)"f"(1), prior to beginning actual construction of the project (Project Number 11-322) the owner or operator shall document:
  - (1) A description of the project (Project Number 11-322),
  - (2) Identification of the emission unit(s) whose emissions of a regulated NSR pollutant could be affected by the project (Project Number 11-322), and
  - (3) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including the baseline actual emissions (BAE), the projected actual emissions (PAE), the amount of emissions excluded under paragraph "3" of the definition of "*projected actual emissions*" in subrule 33.3(1), an explanation describing why such amount was excluded, and any netting analysis if applicable.
- D. Per 567 IAC 33.3(18)"f"(4), the owner or operator shall:
  - (1) Monitor the emission of any regulated NSR pollutant that could increase as a result of the project that is emitted by any emissions unit identified in Condition D.(2) (above).
  - (2) Calculate the annual emissions, in tons per year on a calendar-year basis, for a period of five (5) years following resumption of regular operations and maintain a record of regular operations after the change.
- E. Per 567 IAC 33.3(18)"g", the owner or operator shall make the information required to be documented and maintained pursuant to 567 IAC 33.3(18)"f" available for review upon request for inspection by the Department or the general public pursuant to the requirements for Title V operating permits contained in 567 IAC 22.107(6).

**Reporting & Record keeping:**

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.

- A. The owner or operator shall collect and record the pressure drop across the control equipment (CE HMIL0288) on an hourly basis when the emission unit is operating, except for normal meter maintenance, calibration and replacement, and malfunctions. A minimum of one (1) measurement shall be recorded per hour.
- B. Per 567 IAC 33.3(18)"f"(1), the owner or operator shall maintain a record of the information required in Condition C. (above) of this permit.
- C. Per 567 IAC 33.3(18)"f"(4) and 567 IAC 33.3(18)"f"(5), the owner or operator shall maintain a record containing the information required in Condition D. (above) of this permit and that record shall be retained by the owner or operator for a period of ten (10) years after the project (Project Number 11-322) is completed.

Authority for Requirement: Iowa DNR Construction Permits 88-A-158-P2 (S-288) and 88-A-159-P2 (S-289)

**Emission Point Characteristics**

*These emission points shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 86.4

Stack Opening, (inches, dia.): 108

Exhaust Flow Rate (scfm): 130,000

Exhaust Temperature (°F): 100

Discharge Style: Vertical unobstructed

Authority for Requirement: Iowa DNR Construction Permits 88-A-158-P2 (S-288) and 88-A-159-P2 (S-289)

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flow rate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?** Yes  No

**Facility Maintained Operation & Maintenance Plan Required?** Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?** Yes  No

*Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.*

*The data pertaining to the plan must be maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.*

*Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.*

Authority for Requirement: 567 IAC 22.108(3)

**Emission Point ID Numbers: See Table: Hot Mills**

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Hot Mills

Emissions Control Equipment ID Number: See Table: Hot Mills

Emissions Control Equipment Description: See Table: Hot Mills

Table: Hot Mills

<b>Emission Point</b>	<b>Emission Unit</b>	<b>EU Description</b>	<b>Raw Material</b>	<b>Rated Capacity</b>	<b>Control Equipment</b>	<b>CE Description</b>
S-344	HMIL-14	144”Hot Mill	Metal	Variable	HMIL0344	3 Stage Mist Eliminator
S-349	HMIL-16	160”Hot Mill	Metal	Variable	HMIL0349	3 Stage Mist Eliminator

**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from these emission points shall not exceed the levels specified below.*

Table: Emission Limits

<b>Emission Point Number</b>	<b>Associated Emission Unit Number</b>	<b>Opacity Limit</b> 567 IAC 23.3(2)“d”	<b>PM Limit (gr./dscf)</b> 567 IAC 23.3(2)“a”	<b>PM<sub>10</sub> Limit (lb/hr)</b>	<b>BACT VOC Limit (tons/yr)</b>	<b>BACT VOC Limit (ppm, as propane)</b>	<b>Authority for Requirement (Construction Permit Number)</b>
S-344	HMIL-14	40% <sup>(1)</sup>	0.1	5.84	170.4 <sup>(2)(3)</sup>	20 <sup>(4)</sup>	11-A-687-P
S-349	HMIL-16	40% <sup>(1)</sup>	0.1	7.03		20 <sup>(4)</sup>	11-A-688-P

- (1) An exceedance of the indicator opacity of no visible emissions will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).
- (2) Standard is a 365-day rolling total.
- (3) This limit is the combined total for the 100” Hot Mill (EPs S-288 and S-289), 144” Hot Mill (EP S-344) and 160” Hot Mill (EP S-349).
- (4) Standard is expressed as the average of three (3) runs.

## **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

### Operating Limits:

- A. The pressure drop across the control equipment (CE HMIL0344 and CE HMIL0349) shall be maintained between 0.2 – 8 inches of H<sub>2</sub>O on an hourly block average.
- B. The owner or operator shall properly operate and maintain equipment to monitor the pressure drop across the control equipment. The monitoring device(s) and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals or per written facility specific operation and maintenance plan.
- C. Per 567 IAC 33.3(18)"f"(1), prior to beginning actual construction of the project (Project Number 11-322) the owner or operator shall document:
  - (1) A description of the project (Project Number 11-322),
  - (2) Identification of the emission unit(s) whose emissions of a regulated NSR pollutant could be affected by the project (Project Number 11-322), and
  - (3) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including the baseline actual emissions (BAE), the projected actual emissions (PAE), the amount of emissions excluded under paragraph "3" of the definition of "*projected actual emissions*" in subrule 33.3(1), an explanation describing why such amount was excluded, and any netting analysis if applicable.
- D. Per 567 IAC 33.3(18)"f"(4), the owner or operator shall:
  - (1) Monitor the emission of any regulated NSR pollutant that could increase as a result of the project that is emitted by any emissions unit identified in Condition C.(2) (above).
  - (2) Calculate the annual emissions, in tons per year on a calendar-year basis, for a period of five (5) years following resumption of regular operations and maintain a record of regular operations after the change.
- E. Per 567 IAC 33.3(18)"g", the owner or operator shall make the information required to be documented and maintained pursuant to 567 IAC 33.3(18)"f" available for review upon request for inspection by the Department or the general public pursuant to the requirements for Title V operating permits contained in 567 IAC 22.107(6).

### Reporting & Record keeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.

- A. The owner or operator shall collect and record the pressure drop across the control equipment (CE HMIL0344 and CE HMIL0349) on an hourly basis when the emission units are operating, except for normal meter maintenance, calibration and replacement, and malfunctions. A minimum of one (1) measurement shall be recorded per hour.
- B. Per 567 IAC 33.3(18)"f"(1), the owner or operator shall maintain a record of the information required in Condition C. (above) of this permit.
- C. Per 567 IAC 33.3(18)"f"(4) and 567 IAC 33.3(18)"f"(5), the owner or operator shall

maintain a record containing the information required in Condition D. (above) of this permit and that record shall be retained by the owner or operator for a period of ten (10) years after the project (Project Number 11-322) is completed.

Authority for Requirement: Iowa DNR Construction Permits in Table: Hot Mills-Emission Limits

**Emission Point Characteristics**

These emission points shall conform to the conditions specified in Table: Hot Mill Stacks

Table: Hot Mill Stacks			Stack Characteristics				
Emission Point Number	Emission Unit Number	Construction Permit #	Height (feet)	Diameter (inches)	Exhaust Flowrate (scfm)	Exhaust Temp. (°F)	Stack Characteristics
S-344	HMIL-14	11-A-687-P	85	88	148,200	85	Vertical Unobstructed
S-349	HMIL-16	11-A-688-P	70	96	184,000	100	Vertical Unobstructed

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flow rate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

*Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source’s compliance with the applicable requirements.*

*The data pertaining to the plan must be maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility’s implementation of its obligation to operate according to good air pollution control practice.*

*Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.*

Authority for Requirement: 567 IAC 22.108(3)

**Emission Point ID Number: See Table: Hot & Taper Mill**

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Hot & Taper Mill

Associated Control Equipment ID Numbers: See Table: Hot & Taper Mill

Associated Control Equipment Description: See Table: Hot & Taper Mill

Table: Hot & Taper Mill

<b>Emission Point</b>	<b>Emission Unit</b>	<b>EU Description</b>	<b>Raw Material</b>	<b>Rated Capacity</b>	<b>Control Equipment</b>	<b>CE Description</b>
S-119	HMIL22	220" Hot Mill Stack	Metal	NA	HMIL0119	Chevron screens (mist eliminators)
S-120					HMIL0120	
S-071	HMILPH	PAHTS 144" Taper Mill	Metal	NA	HMIL0071	Demister

**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40%

Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter

Emission Limit(s): 0.1 gr/dscf

Authority for Requirement: 567 IAC 23.3(2)"a"

**Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

None at this time.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

Stack Testing: For S-071 and either S-119 or S-120

Pollutant – Particulate Matter

Stack Test to be Completed by: December 6, 2017

Test Method – 40 CFR Part 60, Appendix A, Method 5 and 40 CFR 51 Appendix M, Method 22

Authority for Requirement – 567 IAC 22.108(3)

**Agency Approved Operation & Maintenance Plan Required?**                      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**                      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**                      Yes  No

*Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source’s compliance with the applicable requirements.*

*The data pertaining to the plan must be maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility’s implementation of its obligation to operate according to good air pollution control practice.*

*Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.*

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: S-314**

### Associated Equipment

Associated Emission Unit ID Numbers: LHLT05

Emissions Control Equipment ID Number: LHLT0314

Emissions Control Equipment Description: Donaldson/Torit Bin Vent Filter

---

Emission Unit vented through this Emission Point: LHLT05

Emission Unit Description: Lime Storage for Blowdown Treatment

Raw Material/Fuel: Lime

Rated Capacity: 20 tons/hr

### **Applicable Requirements**

#### **Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40%<sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 94-A-546-S2  
567 IAC 23.3(2)"d"

<sup>(1)</sup>An exceedance of the indicator opacity of 10% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM<sub>10</sub>

Emission Limit(s): 0.4 lb/hr, 0.03<sup>(2)</sup> tons/yr

Authority for Requirement: Iowa DNR Construction Permit 94-A-546-S2

Pollutant: Particulate Matter

Emission Limit(s): 0.4 lb/hr, 0.03<sup>(2)</sup> tons/yr, 0.1 gr/dscf

Authority for Requirement: Iowa DNR Construction Permit 94-A-546-S2  
567 IAC 23.3(2)"a"

<sup>(2)</sup> Standard is a 12-month rolling total.

#### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

Hours of operation:

- A. Lime Silo (S-314) shall not operate more than 156 hours per rolling 12-month period.

Process throughput:

- A. Lime Silo (S-314) is limited to a throughput of 3,120 tons of lime per rolling 12-month period.

Control equipment parameters:

- A. The permittee shall maintain the baghouse according to manufacturer's specifications and recommendations to achieve at least 99 percent control efficiency.

Reporting & Record keeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.

- A. The permittee shall maintain the following monthly records:
  - (1) the hours of operation (i.e. loading of the silo) of the Lime Silo;
  - (2) the rolling 12-month total of the hour of operations of the Lime Silo;
  - (3) the quantity of lime loaded into the Silo in tons; and
  - (4) the rolling 12-month total amount of lime loaded into the Silo.
- B. The permittee shall maintain records of maintenance and the replacement of filters for this unit.

Authority for Requirement: Iowa DNR Construction Permit 94-A-546-S2

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 39

Stack Opening, (inches,): 13.5 x 13.5

Exhaust Flow Rate (scfm): 1200

Exhaust Temperature (°F): 70

Discharge Style: Horizontal

Authority for Requirement: Iowa DNR Construction Permit 94-A-546-S2

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flow rate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: S-271**

### Associated Equipment

Associated Emission Unit ID Numbers: MFRN02

---

Emission Unit vented through this Emission Point: MFRN02  
Emission Unit Description: #2 Melting Furnace  
Raw Material/Fuel: Natural Gas, Aluminum  
Rated Capacity: 70 MMBtu/hr, 22.5 ton Al/hr

### **Applicable Requirements**

#### **Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

#### MACT Emission Limits

Pollutant: Particulate Matter  
Emission Limit(s): 0.4 lb/ton Al  
Authority for Requirement: 567 IAC 23.1(4)"br"  
40 CFR 63.1505(i)(1)

Pollutant: HCl  
Emission Limit(s): 0.4 lb/ton Al  
Authority for Requirement: 567 IAC 23.1(4)"br"  
40 CFR 63.1505(i)(4)

Pollutant: D/F  
Emission Limit(s): 15µg TEQ/Mg Al  
Authority for Requirement: 567 IAC 23.1(4)"br"  
40 CFR 63.1505(i)(3)

#### Other Emission Limits

Pollutant: Opacity  
Emission Limit(s): 5%<sup>(1)(2)</sup>  
Authority for Requirement: Iowa DNR Construction Permit 85-A-065P-S1  
567 IAC 23.3(2)"d"

Pollutant: PM<sub>10</sub>  
Emission Limit(s): 4.0 lb/hr, 17.5 tons/yr<sup>(3)</sup>, 0.4 lb/ton of Al<sup>(2)</sup>  
Authority for Requirement: Iowa DNR Construction Permit 85-A-065P-S1

Pollutant: Particulate Matter

Emission Limit(s): 4.0 lb/hr, 17.5 tons/yr<sup>(3)</sup>, 0.4 lb/ton of Al<sup>(2)</sup>

Authority for Requirement: Iowa DNR Construction Permit 85-A-065P-S1

Pollutant: Nitrogen Oxides (NOx)

Emission Limit(s): 38 tons/yr<sup>(3)(4)</sup>, 140 lb/MMcf<sup>(5)</sup>

Authority for Requirement: Iowa DNR Construction Permit 85-A-065P-S1

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit(s): 500 ppmv

Authority for Requirement: 567 IAC 23.3(3)"e"

- (1) Opacity standard is 40% during startup. Startup is defined as the time the charge is initiated until the charge has been melted and the bath is flat, or two hours from the time the charge is initiated, whichever is less.
- (2) BACT
- (3) Limit is a 12-month rolling total.
- (4) Total NOx emissions for all of #2 casting complex
- (5) Limit is the average across casting complex #2.

### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

### **NESHAP**

This emission unit is subject to the requirements of the National Emission Standards for Hazardous Air Pollutants, 40 CFR, Part 63, Subpart RRR, Secondary Aluminum Production and the provisions of 40 CFR 63 Subpart A – General Provisions.

Authority for requirement: Iowa DNR Construction Permit 85-A-065P-S1

567 IAC 23.1(4)"br"

40 CFR 63 Subpart RRR

Process throughput:

- A. This melter shall be charged with aluminum ingots and other aluminum complying with NESHAP subpart RRR.
- B. This melter shall be fired by natural gas only.
- C. This melter shall process a maximum of 197,000 tons of aluminum per 12-month rolling period.
- D. The amount of natural gas fired in all of casting complex #2 (melter, holder and fluxer) shall not exceed  $542 \times 10^6$  cubic feet per 12-month rolling period.

**Reporting & Record keeping:**

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.

- A. Record the amount of natural gas used in casting complex #2, in cubic feet. Calculate and record monthly and 12-month rolling totals.
- B. Record the amount of aluminum processed in this melter, in tons. Calculate and record monthly and 12-month rolling totals.

Authority for Requirement: Iowa DNR Construction Permit 85-A-065P-S1

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 103.6

Stack Opening, (inches, dia.): 85

Exhaust Flow Rate (acfm): 68,700

Exhaust Temperature (°F): 566

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 85-A-065P-S1

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flow rate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

The facility shall check the opacity weekly during a period when the emission unit on this emission point is under normal operation except during startup and record the reading. Startup is defined as the time the charge is initiated until the charge has been melted and the bath is flat, or two hours from the time the charge is initiated, whichever is less. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. Alcoa shall use the following procedure to monitor opacity:

Check the opacity to ensure no visible emissions.

If visible emissions are observed, implement corrective action within eight hours from the observation of visible emissions.

Conduct a Method 9 observation if the initial corrective action does not return the observation to no visible emissions.

If the Method 9 observation is greater than 5%, this would be a violation. Implement additional corrective action within eight hours from the Method 9 observation and then make another Method 9 observation.

If weather conditions prevent a Method 9 observation, note on the data observation sheet and attempt at approximately 2-hour intervals throughout the day.

If weather conditions prevent a Method 9 observation for a week, complete the observation the next operating day where weather permits.

Authority for Requirement: 567 IAC 22.108(14)

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: S-283**

### Associated Equipment

Associated Emission Unit ID Numbers: MFRN03

---

Emission Unit vented through this Emission Point: MFRN03

Emission Unit Description: #3 Melting Furnace

Raw Material/Fuel: Natural Gas, Aluminum

Rated Capacity: 70 MMBtu/hr and 22.5 tons/hr

### **Applicable Requirements**

#### **Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

#### MACT Emission Limits

Pollutant: Particulate Matter

Emission Limit(s): 0.4 lb/ton Al

Authority for Requirement: 567 IAC 23.1(4)"br"  
40 CFR 63.1505(i)(1)

Pollutant: HCl

Emission Limit(s): 0.4 lb/ton Al

Authority for Requirement: 567 IAC 23.1(4)"br"  
40 CFR 63.1505(i)(4)

Pollutant: D/F

Emission Limit(s): 15µg TEQ/Mg Al

Authority for Requirement: 567 IAC 23.1(4)"br"  
40 CFR 63.1505(i)(3)

#### Other Emission Limits

Pollutant: Opacity

Emission Limit(s): 5%<sup>(1)(2)</sup>

Authority for Requirement: Iowa DNR Construction Permit 87-A-043P-S1  
567 IAC 23.3(2)"d"

Pollutant: PM<sub>10</sub>

Emission Limit(s): 4.0 lb/hr, 17.5 tons/yr<sup>(3)</sup>, 0.4 lb/ton of Al<sup>(2)</sup>

Authority for Requirement: Iowa DNR Construction Permit 87-A-043P-S1

Pollutant: Particulate Matter

Emission Limit(s): 4.0 lb/hr, 17.5 tons/yr<sup>(3)</sup>, 0.4 lb/ton of Al<sup>(2)</sup>

Authority for Requirement: Iowa DNR Construction Permit 87-A-043P-S1

Pollutant: (Nitrogen Oxides) NOx

Emission Limit(s): 38 tons/yr<sup>(3)(4)</sup>, 140 lb/MMcf<sup>(5)</sup>

Authority for Requirement: Iowa DNR Construction Permit 87-A-043P-S1

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit(s): 500 ppmv

Authority for Requirement: 567 IAC 23.3(3)"e"

- (1) Opacity standard is 40% during startup. Startup is defined as the time the charge is initiated until the charge has been melted and the bath is flat, or two hours from the time the charge is initiated, whichever is less.
- (2) BACT
- (3) Limit is a 12-month rolling total.
- (4) Total NOx emissions for all of #2 casting complex
- (5) Limit is the average across casting complex #2.

### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

### **NESHAP**

This emission unit is subject to the requirements of the National Emission Standards for Hazardous Air Pollutants, 40 CFR, Part 63, Subpart RRR, Secondary Aluminum Production and the provisions of 40 CFR 63 Subpart A – General Provisions.

Authority for requirement: Iowa DNR Construction Permit 87-A-043P-S1

567 IAC 23.1(4)"br"

40 CFR 63 Subpart RRR

Process throughput:

- A. This melter shall be charged with aluminum ingots and other aluminum complying with NESHAP subpart RRR.
- B. This melter shall be fired by natural gas only.
- C. This melter shall process a maximum of 197,000 tons of aluminum per 12-month rolling period.
- D. The amount of natural gas fired in all of casting complex #3 (melter, holder and fluxer) shall not exceed  $542 \times 10^6$  cubic feet per 12-month rolling period.

#### Reporting & Record keeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.

- A. Record the amount of natural gas used in casting complex #3, in cubic feet. Calculate and record monthly and 12-month rolling totals.
- B. Record the amount of aluminum processed in this melter, in tons. Calculate and record monthly and 12-month rolling totals.

Authority for Requirement: Iowa DNR Construction Permit 87-A-043P-S1

#### **Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 103.6

Stack Opening, (inches, dia.): 85

Exhaust Flow Rate (acfm): 71,145

Exhaust Temperature (°F): 385

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 87-A-043P-S1

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flow rate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

#### **Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

The facility shall check the opacity weekly during a period when the emission unit on this emission point is under normal operation except during startup and record the reading. Startup is defined as the time the charge is initiated until the charge has been melted and the bath is flat, or two hours from the time the charge is initiated, whichever is less. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. Alcoa shall use the following procedure to monitor opacity:

Check the opacity to ensure no visible emissions.

If visible emissions are observed, implement corrective action within eight hours from the observation of visible emissions.

Conduct a Method 9 observation if the initial corrective action does not return the observation to no visible emissions.

If the Method 9 observation is greater than 5%, this would be a violation. Implement additional corrective action within eight hours from the Method 9 observation and then make another Method 9 observation.

If weather conditions prevent a Method 9 observation, note on the data observation sheet and attempt at approximately 2-hour intervals throughout the day.

If weather conditions prevent a Method 9 observation for a week, complete the observation the next operating day where weather permits.

Authority for Requirement: 567 IAC 22.108(14)

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: S-290**

### Associated Equipment

Associated Emission Unit ID Numbers: MFRN04

---

Emission Unit vented through this Emission Point: MFRN04  
Emission Unit Description: #4 Melting Furnace  
Raw Material/Fuel: Natural Gas/ Aluminum  
Rated Capacity: 0.06 MMcf/hr, 22.5 tons of Al/hr

### **Applicable Requirements**

#### **Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

#### MACT Emission Limits

Pollutant: Particulate Matter  
Emission Limit(s): 0.4 lb/ton Al  
Authority for Requirement: 567 IAC 23.1(4)"br"  
40 CFR 63.1505(i)(1)

Pollutant: HCl  
Emission Limit(s): 0.4 lb/ton Al  
Authority for Requirement: 567 IAC 23.1(4)"br"  
40 CFR 63.1505(i)(4)

Pollutant: D/F  
Emission Limit(s): 15µg TEQ/Mg Al  
Authority for Requirement: 567 IAC 23.1(4)"br"  
40 CFR 63.1505(i)(3)

#### Other Emission Limits

Pollutant: Opacity  
Emission Limit(s): 5%<sup>(1)(2)</sup>  
Authority for Requirement: Iowa DNR Construction Permit 89-A-175P-S1  
567 IAC 23.3(2)"d"

- (1) Opacity standard is 40% during startup. Startup is defined as the time the charge is initiated until the charge has been melted and the bath is flat, or two hours from the time the charge is initiated, whichever is less.

Pollutant: PM<sub>10</sub>  
Emission Limit(s): 4.0 lb/hr, 17.5 tons/yr<sup>(3)</sup>, 0.4 lb/ton Al<sup>(2)</sup>  
Authority for Requirement: Iowa DNR Construction Permit 89-A-175P-S1

Pollutant: Particulate Matter

Emission Limit(s): 4.0 lb/hr, 17.5 tons/yr<sup>(3)</sup>, 0.4 lb/ton Al<sup>(2)</sup>

Authority for Requirement: Iowa DNR Construction Permit 89-A-175P-S1

Pollutant: Nitrogen Oxides (NOx)

Emission Limit(s): 38 tons/yr<sup>(3)(4)</sup>, 140 lb/MMcf<sup>(5)</sup>

Authority for Requirement: Iowa DNR Construction Permit 89-A-175P-S1

<sup>(2)</sup> Total NOx emissions for all of #4 casting complex

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit(s): 500 ppmv

Authority for Requirement: 567 IAC 23.3(3)"e"

- <sup>(1)</sup> Opacity standard is 40% during startup. Startup is defined as the time the charge is initiated until the charge has been melted and the bath is flat, or two hours from the time the charge is initiated, whichever is less.
- <sup>(2)</sup> BACT
- <sup>(3)</sup> Limit is a 12-month rolling total.
- <sup>(4)</sup> Total NOx emissions for all of #2 casting complex
- <sup>(5)</sup> Limit is the average across casting complex #2.

### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

### **NESHAP**

This emission unit is subject to the requirements of the National Emission Standards for Hazardous Air Pollutants, 40 CFR, Part 63, Subpart RRR, Secondary Aluminum Production and the provisions of 40 CFR 63 Subpart A – General Provisions.

Authority for requirement: Iowa DNR Construction Permit 89-A-175P-S1

567 IAC 23.1(4)"br"

40 CFR 63 Subpart RRR

Process throughput:

- A. This melter shall be charged with aluminum ingots and other aluminum complying with NESHAP subpart RRR.
- B. This melter shall be fired by natural gas only.
- C. This melter shall process a maximum of 197,000 tons of aluminum per 12-month rolling period.
- D. The amount of natural gas fired in all of casting complex #4 (melter, holder and fluxer) shall not exceed  $542 \times 10^6$  cubic feet per 12-month rolling period.

**Reporting & Record keeping:**

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.

- A. Record the amount of natural gas used in casting complex #4, in cubic feet. Calculate and record monthly and 12-month rolling totals.
- B. Record the amount of aluminum processed in this melter, in tons. Calculate and record monthly and 12-month rolling totals.

Authority for Requirement: Iowa DNR Construction Permit 89-A-175P-S1

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 103.6

Stack Opening, (inches, dia.): 85

Exhaust Flow Rate (acfm): 56,213

Exhaust Temperature (°F): 792

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 89-A-175P-S1

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flow rate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

The facility shall check the opacity weekly during a period when the emission unit on this emission point is under normal operation except during startup and record the reading. Startup is defined as the time the charge is initiated until the charge has been melted and the bath is flat, or two hours from the time the charge is initiated, whichever is less. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. Alcoa shall use the following procedure to monitor opacity:

Check the opacity to ensure no visible emissions.

If visible emissions are observed, implement corrective action within eight hours from the observation of visible emissions.

Conduct a Method 9 observation if the initial corrective action does not return the observation to no visible emissions.

If the Method 9 observation is greater than 5%, this would be a violation. Implement additional corrective action within eight hours from the Method 9 observation and then make another Method 9 observation.

If weather conditions prevent a Method 9 observation, note on the data observation sheet and attempt at approximately 2-hour intervals throughout the day.

If weather conditions prevent a Method 9 observation for a week, complete the observation the next operating day where weather permits.

Authority for Requirement: 567 IAC 22.108(14)

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: S-048**

### Associated Equipment

Associated Emission Unit ID Numbers: MFRN15

---

Emission Unit vented through this Emission Point: MFRN15  
Emission Unit Description: #15 Melting Furnace  
Raw Material/Fuel: Natural Gas, No. 2 Fuel Oil, Used Waste Oil, Metal  
Rated Capacity: 21.4 MMBtu/hr, 16 tons/hr

### **Applicable Requirements**

#### **Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40%<sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 08-A-297-S1  
567 IAC 23.3(2)"d"

- (1) An exceedance of the indicator opacity of 10% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM<sub>10</sub>

Emission Limit(s): 6.4 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 08-A-297-S1

Pollutant: Particulate Matter

Emission Limit(s): 0.1 gr/dscf

Authority for Requirement: Iowa DNR Construction Permit 08-A-297-S1  
567 IAC 23.3(2)"a"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit(s): 53.5 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 08-A-297-S1

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit(s): 500 ppmv <sup>(2)</sup>

Authority for Requirement: Iowa DNR Construction Permit 08-A-297-S1  
567 IAC 23.3(3)"e"

- <sup>(2)</sup> SO<sub>2</sub> emission standard applies when the melter is burning natural gas.

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit(s): 2.5 lb/MMBtu<sup>(3)</sup>

Authority for Requirement: Iowa DNR Construction Permit 08-A-297-S1  
567 IAC 23.3(3)"b"

<sup>(3)</sup>SO<sub>2</sub> emission standard applies when the melter is burning used oil

Pollutant: Nitrogen Oxides (NO<sub>x</sub>)

Emission Limit(s): 3.8 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 08-A-297-S1

Pollutant: Carbon Monoxide (CO)

Emission Limit(s): 2.2 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 08-A-297-S1

### NESHAP and NSPS Emission Limits

Pollutant	Limit <sup>(4)</sup>	Reference
Particulate Matter (PM)	0.40 lb/ton of feed <sup>(5)</sup>	40 CFR §63.1505 NESHAP Subpart RRR 567 IAC 23.1(4)"br"
Hydrogen Chloride (HCl)	0.40 lb/ton of feed <sup>(5)</sup>	40 CFR §63.1505 NESHAP Subpart RRR 567 IAC 23.1(4)"br"
Dioxins and Furans (D/F)	15.0 µg TEQ/Mg of feed <sup>(5)</sup>	40 CFR §63.1505 NESHAP Subpart RRR 567 IAC 23.1(4)"br"

<sup>(4)</sup> Standard is expressed as the average of 3 test runs

<sup>(5)</sup> Per §63.1505(i)(6), the owner or operator may determine the emission standards for a SAPU by applying the group 1 furnace limits on the basis of the aluminum production weight in each group 1 furnace, rather than on the feed/charge.

### Secondary Aluminum Processing Unit

Pollutant	Limit <sup>(6)(7)</sup>	Reference
Particulate Matter (PM) <sup>(8)</sup>	$L_{CPM} = \frac{\sum_{i=1}^n (L_{iPM} \times T_{ii})}{\sum_{i=1}^n (T_{ii})}$	40 CFR §63.1505 NESHAP Subpart RRR 567 IAC 23.1(4)"br"
Hydrogen Chloride (HCl) <sup>(9)</sup>	$L_{CHCl} = \frac{\sum_{i=1}^n (L_{iHCl} \times T_{ii})}{\sum_{i=1}^n (T_{ii})}$	40 CFR §63.1505 NESHAP Subpart RRR 567 IAC 23.1(4)"br"
Dioxins and Furans (D/F) <sup>(10)</sup>	$L_{CD/F} = \frac{\sum_{i=1}^n (L_{iD/F} \times T_{ii})}{\sum_{i=1}^n (T_{ii})}$	40 CFR §63.1505 NESHAP Subpart RRR 567 IAC 23.1(4)"br"

(6) Standard is expressed as a 3-day, 24-hour rolling average.

(7) The owner or operator of a SAPU at a secondary aluminum production facility that is a major source may demonstrate compliance with the emission limit if §63.1505(k)(1) through (3) by demonstrating that each emission unit within the SAPU is in compliance with the applicable emission limits of §63.1505(i) and §63.1505(j).

(8) Where,

$L_{CPM}$  = The PM emission limit for the secondary aluminum processing unit.

$L_{iPM}$  = The PM emission limit for individual emission unit  $i$  in §63.1505(i)(1) and (2) for a group 1 furnace or §63.1505(j)(2) for an in-line fluxer. NOTE: In-line fluxers using no reactive flux materials cannot be included in this calculation since they are not subject to the PM limit.

$T_{i}$  = The feed/charge rate for individual emission unit  $i$ .

(9) Where,

$L_{CHCl}$  = The HCl emission limit for the secondary aluminum processing unit.

$L_{iHCl}$  = The HCl emission limit for individual emission unit  $i$  in §63.1505(i)(4) for a group 1 furnace or §63.1505(j)(1) for an in-line fluxer. NOTE: In-line fluxers using no reactive flux materials cannot be included in this calculation since they are not subject to the HCl limit.

$T_{i}$  = The feed/charge rate for individual emission unit  $i$ .

(10) Where,

$L_{CD/F}$  = The D/F emission limit for the secondary aluminum processing unit.

$L_{iD/F}$  = The D/F emission limit for individual emission unit  $i$  in §63.1505(i)(3) for a group 1 furnace.

$T_{i}$  = The feed/charge rate for individual emission unit  $i$ .

Authority for Requirement: Iowa DNR Construction Permit 08-A-297-S1

### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

#### **NESHAP**

This emission unit is subject to the requirements of the National Emission Standards for Hazardous Air Pollutants, 40 CFR, Part 63, Subpart RRR, Secondary Aluminum Production and the provisions of 40 CFR 63 Subpart A – General Provisions.

Authority for requirement: Iowa DNR Construction Permit 08-A-297-S1

567 IAC 23.1(4)"br"

40 CFR 63 Subpart RRR

Process Throughput and Work Practice Standards:

- A. The burners on the #15 Melter are limited to burning natural gas, #2 fuel oil or used oil.
- B. The sulfur content of used oil burned in the #15 Melter shall not exceed 2.3% by weight.
- C. The sulfur content of #2 fuel oil burned in the #15 Melter shall not exceed 0.5% by weight.
- D. The total halogen concentration of the used oil burned in the #15 Melter shall be less than 4,000 ppm and shall be properly rebutted as not containing a listed halogenated hazardous waste per 40 CFR §279.63. Used oil that contains a total halogen concentration less than 1,000 ppm is not considered a hazardous waste and a rebuttal demonstration is not required in order for the used oil to be burned.
- E. Used oil shall only be burned while the melting furnace is at normal operating temperatures and not during start-up or shutdown.

- F. The owner or operator of the facility shall comply with all applicable operating limits and requirements contained in NESHAP Subpart RRR, 40 CFR 63.1506.
- G. The owner or operator shall provide and maintain easily visible labels posted at the #15 Melter that identifies the applicable emission limits and means of compliance per 40 CFR 63.1506(b) including:
- (1) The type of affected source or emission unit
  - (2) The applicable operational standard(s) and control method(s). This includes but is not limited to, the type of charge to be used for a furnace, flux materials and addition practices, and the applicable operating parameter ranges and requirements as incorporated in the OM&M plan.
- H. The owner or operator shall install and operate a device to measure and records or otherwise determines the weight of feed/charge (or throughput) for each operating cycle or time period used in the performance test per 40 CFR 63.1506(d). The weight measurement system or other weight determination procedure shall be operated in accordance with the OM&M plan. The owner or operator may chose to measure and record aluminum production weight from an affect source or emission unit rather than feed/charge weight to an affect source or unit provided:
- (1) The aluminum production weight, rather than feed/charge weight is measured and recorded for all emission units within a SAPU; and
  - (2) All calculations to demonstrate compliance with the emission limits for SAPUs are based on aluminum production weight rather than feed/charge weight.
- I. The owner or operator of group 1 furnace (i.e. #15 Melter) without add-on air pollution control device must, per 40 CFR.63.1506(n):
- (1) Maintain the total reactive chlorine flux injection rate for each operating cycle or time period used in the performance test at or below the average rate established during the performance test.
  - (2) Operate each furnace in accordance with the work practice/pollution prevention measures documented in the OM&M plan and within the parameter values or ranges established in the OM&M plan.
- J. To maintain Project 08-096 as a minor project for Prevention of Significant Deterioration (PSD) for PM, PM<sub>10</sub> and SO<sub>2</sub> emissions, the owner or operator shall have the following limits for a period ten (10) years from the date of start of operation (start-up date) of the #15 Melter after the burner replacement:
- (1) Project 08-096 includes physical changes to the following emission unit: #15 Melter (MFRN15).
  - (2) The baseline actual emissions for the project are equal to 1.84 tons per year for PM, 1.53 tons per year for PM<sub>10</sub> and 0.035 tons per year for SO<sub>2</sub>. The baseline actual emissions shall remain unchanged throughout the ten (10) year period.
  - (3) The owner or operator shall determine the actual annual emissions for the project, in tons per year on a calendar-year basis, by summing the emissions from both the melting furnace off-gasses and from the burner fuel combustion.
  - (4) Actual annual emissions minus the baseline actual emissions from the project shall not exceed the PSD significant levels of 24.4 tons per calendar year of PM, 14.4 tons per calendar year of PM<sub>10</sub> and 39.4 tons per calendar year of SO<sub>2</sub>. If the emission increases from Project 08-096, do not exceed the PSD significance levels, these limits shall no longer apply 10 years after the date of start of

operation (start-up date). If these limits are exceeded prior to expiration of the 10 year period, the owner or operator shall submit a report pursuant to 567 IAC 33.3(18)F(7).

**Reporting and Recordkeeping:**

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records as required by NESHAP Subpart RRR shall be kept for a minimum of five (5) years. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. The owner or operator shall maintain a record of the sulfur content, in percent by weight, for all of the #2 fuel oil and used oil burned in the #15 Melter. If the analysis of the sulfur content is not provided by the fuel oil supplier or the used oil refiner, the owner or operator shall perform the analysis prior to combustion of the material.
- B. The owner or operator shall maintain a record of the PCB concentration, in ppm, for all of the used oil burned in the #15 Melter. If the analysis of the PCB concentration is not provided by the used oil refiner, the owner or operator shall perform the analysis prior to combustion of the used oil.
- C. The owner or operator shall maintain a record of the total halogen concentration, in ppm, for all of the used oil burned in the #15 Melter. If the total halogen concentration is greater than or equal to 1,000 ppm, the owner or operator shall also maintain the rebuttal demonstration for the used oil showing that it does not contain hazardous waste. The owner or operator shall determine the halogen content of the used oil by:
  - (1) Testing the used oil;
  - (2) Applying knowledge of the halogen content of the used oil in light of the materials or processes used, or
  - (3) If the used oil has been received from a processor/re-refiner subject to regulation under subpart F of 40 CFR Part 279, using information provided by the processor/re-refiner.
- D. The owner or operator shall develop written operating procedures to ensure that used oil is not burned in the #15 Melter during start-up or shutdown. The owner or operator shall document any deviations from the written operating procedures.
- E. The owner or operator shall develop and implement a written preventative maintenance plan for the #15 Melter. At a minimum, the plan shall include procedures to monitor the condition of the door seal and to ensure the combustion system is operating properly.
- F. The owner or operator of the facility shall comply with all applicable operating monitoring requirements contained in NESHAP Subpart RRR, 40 CFR 63.1510.
- G. The owner or operator shall prepare and implement a written operation, maintenance, and monitoring (OM&M) plan per the monitoring requirements of 40 CFR 63.1510. The OM&M plan shall include the required information for secondary aluminum processing units as described in 40 CFR 63.1510(s).
- H. The owner or operator shall inspect the labels for the #15 Melter at least once per calendar month to confirm that posted labels are intact and legible.
- I. The owner or operator of the #15 Melter shall install, calibrate, operate, and maintain a device to measure and record the total weight of feed/charge to, or the aluminum

production from, the #15 Melter over the same operating cycle or time period used in the performance test per 40 CFR 63.1510(e). The owner or operator shall verify the calibration of the weight measurement device in accordance with the schedule specified by the manufacturer, or if no calibration schedule is specified, at least once every 6 months. The device shall conform to the specifications of 40 CFR 63.1510(e)(1).

- J. The owner or operator shall install, calibrate, operate, and maintain a device to continuously measure and record the weight of gaseous or liquid reactive flux injected to the #15 Melter per 40 CFR 63.1510(j). The monitoring system must record the weight for each 15-minute block period, during which reactive fluxing occurs, over the same operating cycle or time period used in the performance test. The owner or operator shall verify the calibration of the weight measurement device in accordance with the schedule specified by the manufacturer, or if no calibration schedule is specified, at least once every 6 months.
- K. Calculate and record the gaseous or liquid reactive flux injection rate in kg/Mg or lb/ton for each operating cycle or time period used in the performance test using the procedure in 40 CFR 63.1512(o).
- L. Record, for each 15-minute block period during each operating cycle or time period used in the performance test during which reactive fluxing occurs, the time, weight, and type of flux for each addition of gaseous or liquid reactive flux, other than chlorine; and solid reactive flux per 40 CFR 63.1510(j).
- M. Calculate and record the total reactive flux injection rate for each operating cycle or time period used in the performance test using the procedure in 40 CFR 63.1512(o).
- N. The owner or operator of a group 1 furnace that is not equipped with a add-on pollution control device (e.g. #15 Melter) shall develop a site specific monitoring plan including all of the requirements of 40 CFR 63.1510(o).
- O. The owner or operator group 1 furnace that is not equipped with a add-on pollution control device (e.g. #15 Melter) shall develop a scrap inspection program including all of the requirements of 40 CFR 63.1510(p). However, per 40 CFR 63.1510(q), The owner or operator of a group 1 furnace dedicated to processing a distinct type of furnace feed/charge composed of scrap of a uniform composition, may include a program in the site-specific monitoring plan for determining, monitoring, and certifying the scrap using a calculation method rather than a scrap inspection program. A scrap contamination monitoring program using a calculation method shall include all of the requirements per 40 CFR 63.1510(q)(1) through 40 CFR 63.1510(q)(3).
- P. The owner or operator shall calculate and record the 3-day, 24-hour rolling average emissions of PM, HCl and D/F for each secondary aluminum processing unit on a daily basis per 40 CFR 63.1510(t), unless the owner or operator has demonstrated through performance tests, that each individual emission unit within the secondary aluminum production unit is in compliance with the applicable emission limits for the emission unit per 40 CFR 63.1510(u).
- Q. The owner or operator shall follow all applicable notification requirements of 40 CFR 63.1515.
- R. The owner or operator shall follow all applicable reporting requirements of 40 CFR 63.1516.

- S. The owner or operator shall follow all applicable recordkeeping requirements of 40 CFR 63.1517.
- T. For the purposes of maintaining Project 08-096 as a minor project for Prevention of Significant Deterioration (PSD), the owner or operator shall have the following monitoring conditions for a period ten (10) years from the date of start of operation (start-up date) of the #15 Melter after the burner replacement:
  - (1) Record the date the #15 Melter starts operation after the burner replacement.
  - (2) Record annually the sum of the actual PM, PM10 and SO<sub>2</sub> emissions from the #15 Melter melting furnace off-gasses and from the burner fuel combustion in tons per year on a calendar-year basis.
  - (3) Record annually the ton per year value of the actual emissions minus the baseline actual emissions for PM, PM10 and SO<sub>2</sub>.

Authority for Requirement: Iowa DNR Construction Permit 08-A-297-S1

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 73.6

Stack Opening, (inches, dia.): 65

Exhaust Flow Rate (scfm): 28,925

Exhaust Temperature (°F): 605

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 08-A-297-S1

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flow rate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Stack Testing:**

Pollutant – PM<sup>(1)(2)</sup>

Stack Test to be Completed once every five years

Test Method – 40 CFR 60, Appendix A, Method 5

Authority for Requirement – Iowa DNR Construction Permit 08-A-297-S1

Pollutant – HCl<sup>(1)(3)</sup>

Stack Test to be Completed once every five years

Test Method – 40 CFR 60, Appendix A, Method 26A

Authority for Requirement – Iowa DNR Construction Permit 08-A-297-S1

Pollutant – Dioxins and Furans<sup>(1)</sup>

Stack Test to be Completed once every five years

Test Method – 40 CFR 60, Appendix A, Method 23

Authority for Requirement – Iowa Construction Permit 08-A-297-S1

- <sup>(1)</sup> With the prior approval of the permitting authority, an owner or operator may utilize emission rates obtained by testing a particular type of group 1 furnace which is not controlled by any add-on control device to determine the emission rate for other units of the same type at the same facility. Such emission test results may only be considered to be representative if the criteria listed in 40 CFR §63.1511(f) are met.
- <sup>(2)</sup> Per 40CFR§63.1511(b)(3), each performance test for a batch process must consist of three separate runs; pollutant sampling for each run must be conducted over the entire processing cycle.
- <sup>(3)</sup> The owner or operator may choose to determine the rate of reactive flux addition to the melter and assume, for purposes of demonstrating compliance with the SAPU emission limit, that all reactive flux is emitted. Under these circumstances, the owner or operator is not required to conduct an emissions test for HCl.

*The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

**Emission Point ID Number: See Table: Melting Furnaces**

Associated Equipment

Associated Emission Unit ID Number: See Table: Melting Furnaces

**Table: Melting Furnaces**

<b>Emission Point</b>	<b>Emission Unit</b>	<b>Emission Unit Description</b>	<b>Raw Material</b>	<b>Rated Capacity</b>
S-049	MFRN16	#16 Melting Furnace	Natural Gas, Waste Oil, Metal	0.02 MMcf/hr, 160 gallons/hr, 16 tons/hr
S-053	MFRN17	#17 Melting Furnace	Natural Gas, Metal	0.04 MMcf/hr, 16 tons/hr
S-056	MFRN18	#18 Melting Furnace	Natural Gas, Metal	0.04 MMcf/hr, 16 tons/hr

**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

MACT Emission Limits

Pollutant: Particulate Matter

Emission Limit(s): 0.4 lb/ton Al

Authority for Requirement: 567 IAC 23.1(4)"br"  
40 CFR 63.1505(i)(1)

Pollutant: HCl

Emission Limit(s): 0.4 lb/ton Al

Authority for Requirement: 567 IAC 23.1(4)"br"  
40 CFR 63.1505(i)(4)

Pollutant: D/F

Emission Limit(s): 15µg TEQ/Mg Al

Authority for Requirement: 567 IAC 23.1(4)"br"  
40 CFR 63.1505(i)(3)

Other Emission Limits

Pollutant: Opacity

Emission Limit(s): 40%

Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)  
Emission Limit(s): 500 ppmv (Natural Gas)  
Authority for Requirement: 567 IAC 23.3(3)"e"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)  
Emission Limit(s): 2.5 lb/MMBtu (Waste Oil)  
Authority for Requirement: 567 IAC 23.3(3)"b"(2)

**Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

**NESHAP**

These emission units are subject to the requirements of the National Emission Standards for Hazardous Air Pollutants, 40 CFR, Part 63, Subpart RRR, Secondary Aluminum Production and the provisions of 40 CFR 63 Subpart A – General Provisions.

Authority for requirement: 567 IAC 23.1(4)"br"  
40 CFR 63 Subpart RRR

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: S-350**

### Associated Equipment

Associated Emission Unit ID Numbers: MFRN50

---

Emission Unit vented through this Emission Point: MFRN50  
Emission Unit Description: #50 Melting Furnace  
Raw Material/Fuel: Natural Gas, Metal  
Rated Capacity: 0.0124 MMcf/hr., 4.97 tons/hr

### **Applicable Requirements**

#### **Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40%<sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 06-A-567-S2,  
567 IAC 23.3(2)"d"

<sup>(1)</sup> An exceedence of the indicator opacity of (25%) will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedence. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM<sub>10</sub>

Emission Limit(s): 2.0 lb/hr, 8.7 tons/yr<sup>(2)</sup>

Authority for Requirement: Iowa DNR Construction Permit 06-A-567-S2

Pollutant: Particulate Matter

Emission Limit(s): 2.0 lb/hr, 8.7 tons/yr<sup>(2)</sup>, 0.4 lb/ ton of feed

Authority for Requirement: Iowa DNR Construction Permit 06-A-567-S2  
567 IAC 23.1(4)"br"  
40 CFR 63 Subpart RRR

<sup>(2)</sup> Standard is a 12-month rolling total and a combined limit for S-350 & S-351.

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit(s): 500 ppmv

Authority for Requirement: Iowa DNR Construction Permit 06-A-567-S2  
567 IAC 23.3(2)"e"

Pollutant: Nitrogen Oxides (NO<sub>x</sub>)

Emission Limit(s): 1.22 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 06-A-567-S2

Pollutant: HCl

Emission Limit(s): 0.4 lb/ ton of feed

Authority for Requirement: Iowa DNR Construction Permit 06-A-567-S2  
567 IAC 23.1(4)"br"  
40 CFR 63 Subpart RRR

Pollutant: Dioxin/Furan

Emission Limit(s): 15.0 µg TEQ/Mg feed

Authority for Requirement: Iowa DNR Construction Permit 06-A-567-S2  
567 IAC 23.1(4)"br"  
40 CFR 63 Subpart RRR

### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

#### **NESHAP**

This emission unit is subject to the requirements of the National Emission Standards for Hazardous Air Pollutants, 40 CFR, Part 63, Subpart RRR, Secondary Aluminum Production and the provisions of 40 CFR 63 Subpart A – General Provisions.

Authority for requirement: Iowa DNR Construction Permit 06-A-567-S2  
567 IAC 23.1(4)"br"  
40 CFR 63 Subpart RRR

Process throughput:

- A. The maximum amount of cold metal charged/fed to the melting furnaces, combined, (emission units MFRN50 and MFRN60) shall not exceed 87,000,000 pounds per rolling twelve-month period.
- B. This facility (Plant number 82-01-002) is subject to all applicable operating limits set forth in 40 CFR Part 63 Subpart A (General Provisions) and 40 CFR Part 63 Subpart RRR (National Emission Standards for Hazardous Air Pollutants (NESHAP) for Secondary Aluminum Production (§63.1500).

Reporting & Record keeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. The permit holder, owner or operator of the facility shall calculate and record the monthly total and the 12-month rolling total amount of cold metal charged/fed to the melting furnaces, combined, (emission units MFRN50 and MFRN60), in pounds.
- B. This facility (Plant number 82-01-002) is subject to all applicable monitoring and/or recordkeeping requirements as set forth in 40 CFR Part 63 Subpart A (General Provisions) and 40 CFR Part 63 Subpart RRR (National Emission Standards for Hazardous Air Pollutants (NESHAP) for Secondary Aluminum Production (§63.1500).

Authority for Requirement: Iowa DNR Construction Permit 06-A-567-S2

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 57

Stack Opening, (inches, dia.): 36

Exhaust Flow Rate (scfm): 7851

Exhaust Temperature (°F): 600

Discharge Style: Vertical, Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 06-A-567-S2

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flow rate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**                      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**                      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**                      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: S-351**

### Associated Equipment

Associated Emission Unit ID Numbers: MFRN60

---

Emission Unit vented through this Emission Point: MFRN60

Emission Unit Description: #60 Melting Furnace

Raw Material/Fuel: Natural Gas, Metal

Rated Capacity: 0.0124 MMcf/hr, 4.97 ton/hr

### **Applicable Requirements**

#### **Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40%<sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 06-A-568-S1

- <sup>(1)</sup> An exceedence of the indicator opacity of 25% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedence. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM<sub>10</sub>

Emission Limit(s): 2.0 lb/hr, 8.7 tons/yr

Authority for Requirement: Iowa DNR Construction Permit 06-A-568-S1

Pollutant: Particulate Matter

Emission Limit(s): 2.0 lb/hr, 8.7 tons/yr<sup>(2)</sup>, 0.40 lb/ton of feed

Authority for Requirement: Iowa DNR Construction Permit 06-A-568-S1  
567 IAC 23.1(4)"br"  
40 CFR 63 Subpart RRR

- <sup>(2)</sup> Standard is a 12-month rolling total and a combined limit for S-350 & S-351.

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit(s): 500 ppmv

Authority for Requirement: Iowa DNR Construction Permit 06-A-568-S1  
567 IAC 23.3(3)"e"

Pollutant: Nitrogen Oxides (NO<sub>x</sub>)

Emission Limit(s): 1.22 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 06-A-568-S1

Pollutant: Hydrogen Chloride (HCl)  
Emission Limit(s): 0.4 lb/ ton of feed  
Authority for Requirement: Iowa DNR Construction Permit 06-A-568-S1  
567 IAC 23.1(4)"br"  
40 CFR 63 Subpart RRR

Pollutant: Dioxin/Furan  
Emission Limit(s): 15.0 µg TEQ/Mg feed  
Authority for Requirement: Iowa DNR Construction Permit 06-A-568-S1  
567 IAC 23.1(4)"br"  
40 CFR 63 Subpart RRR

### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

#### **NESHAP**

This emission unit is subject to the requirements of the National Emission Standards for Hazardous Air Pollutants, 40 CFR, Part 63, Subpart RRR, Secondary Aluminum Production and the provisions of 40 CFR 63 Subpart A – General Provisions.

Authority for requirement: Iowa DNR Construction Permit 06-A-568-S1  
567 IAC 23.1(4)"br"  
40 CFR 63 Subpart RRR

Process throughput:

- A. The maximum amount of cold metal charged/fed to the melting furnaces, combined, (emission units MFRN50 and MFRN60) shall not exceed 87,000,000 pounds per rolling twelve-month period.
- B. This facility (Plant number 82-01-002) is subject to all applicable operating limits set forth in 40 CFR Part 63 Subpart A (General Provisions) and 40 CFR Part 63 Subpart RRR (National Emission Standards for Hazardous Air Pollutants (NESHAP) for Secondary Aluminum Production (§63.1500).
- C. This emission unit (MFRN60, EP-S-351) is limited to operating as a Group 2 furnace, as defined in 40 CFR §63.1503 (i.e., processing only clean charge and performs no fluxing or fluxing using only nonreactive agents), until emission unit MFRN50 (Permit 06-A-567-S2) demonstrates compliance with the emission limits contained in Permit Condition 10 for Group 1 furnaces. Upon a successful compliance demonstration for Permit 06-A-567-S2, this emission unit (MFRN60) may operate as a Group 1 furnace, as defined in 40 CFR §63.1503.

Reporting & Record keeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. The permit holder, owner or operator of the facility shall calculate and record the monthly

total and the 12-month rolling total amount of cold metal charged/fed to the melting furnaces, combined, (emission units MFRN50 and MFRN60), in pounds.

- B. This facility (Plant number 82-01-002) is subject to all applicable monitoring and/or recordkeeping requirements as set forth in 40 CFR Part 63 Subpart A (General Provisions) and 40 CFR Part 63 Subpart RRR (National Emission Standards for Hazardous Air Pollutants (NESHAP) for Secondary Aluminum Production (§63.1500).
- C. Should the facility wish to modify the emission unit's status from a Group 2 furnace to a Group 1 furnace and upon a successful compliance demonstration for emission unit MFRN50 (Permit 06-A-567-S2), the facility shall submit all notices/submittals required by 40 CFR Part 63 Subpart RRR (National Emission Standards for Hazardous Air Pollutants (NESHAP) for Secondary Aluminum Production to modify the emission unit's status to a Group 1 furnace following the compliance demonstration.

Authority for Requirement: Iowa DNR Construction Permit 06-A-568-S1

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 57

Stack Opening, (inches, dia.): 36

Exhaust Flow Rate (scfm): 7851

Exhaust Temperature (°F): 600

Discharge Style: Vertical, Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 06-A-568-S1

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flow rate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

**Emission Point ID Numbers:** S-097 and S-098

Associated Equipment

Associated Emission Unit ID Numbers: MMCH03

---

Emission Unit vented through this Emission Point: MMCH03  
Emission Unit Description: #3 Mill Machine  
Raw Material/Fuel: Metal  
Rated Capacity: 1.88 ton/hr

**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from each emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40%<sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permits 05-A-479 (S-097) and 79-A-008-S2 (S-098)  
567 IAC 23.3(2)"d"

- <sup>(1)</sup> An exceedance of the indicator opacity of no visible emissions will require the owner/operator to promptly investigate the emission unit and make corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM<sub>10</sub>

Emission Limit(s): 3.8 lb/hr

Authority for Requirement: Iowa DNR Construction Permits 05-A-479 (S-097) and 79-A-008-S2 (S-098)

Pollutant: Particulate Matter

Emission Limit(s): 0.1 gr/dscf and 3.8 lb/hr

Authority for Requirement: Iowa DNR Construction Permits 05-A-479 (S-097) and 79-A-008-S2 (S-098)  
567 IAC 23.3(2)"a"

Pollutant: Volatile Organic Compound (VOC)

Emission Limit(s): 8.0 lb/hr, 35 tons/yr<sup>(2)</sup>

Authority for Requirement: Iowa DNR Construction Permits 05-A-479 (S-097) and 79-A-008-S2 (S-098)

- <sup>(2)</sup> Standard is a 12-month rolling total.

**Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

Hours of operation:

- A. This emission unit shall not operate more than 6,500 hours per rolling twelve (12) month period.

Reporting & Record keeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. After the first twelve (12) months of operation determine the annual hours of operation for this emission unit on a rolling 12-month basis for each month of operation.

Authority for Requirement: Iowa DNR Construction Permits 05-A-479 (S-097) and 79-A-008-S2 (S-098)

**Emission Point Characteristics**

*These emission points shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 58.81

Stack Opening, (inches, dia.): 18 x 144

Exhaust Flow Rate (scfm): 19,000

Exhaust Temperature (°F): 100

Discharge Style: Downward

Authority for Requirement: Iowa DNR Construction Permits 05-A-479 (S-097) and 79-A-008-S2 (S-098)

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flow rate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?** Yes  No

**Facility Maintained Operation & Maintenance Plan Required?** Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?** Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: S-300**

### Associated Equipment

Associated Emission Unit ID Numbers: OCOM01

---

Emission Unit vented through this Emission Point: OCOM01  
Emission Unit Description: Ingot plant standby diesel generator  
Raw Material/Fuel: Diesel  
Rated Capacity: 390 hp

### **Applicable Requirements**

#### **Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40%

Authority for Requirement: Iowa DNR Construction Permit 90-A-392  
567 IAC 23.3(2)"d"

Pollutant: Particulate Matter

Emission Limit(s): 0.6 lb./MMBtu

Authority for Requirement: 567 IAC 23.3(2)"b"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit(s): 2.5 lb./MMBtu

Authority for Requirement: 567 IAC 23.3(3)"b"(2)

#### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

#### NESHAP:

The emergency engine is subject to 40 CFR 63 Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE). According to 40 CFR 63.6590(a)(1)(ii) this compression ignition emergency engine, located at a major source, is an existing stationary RICE as it was constructed prior to June 12, 2006.

#### Compliance Date

Per 63.6595(a)(1) you must comply with the provisions of Subpart ZZZZ that are applicable by May 3, 2013.

#### Fuel Requirements

No requirements except (beginning January 1, 2015) if you own or operate an existing emergency compression ignition stationary engine with a site rating of more than 100 bhp and a

displacement of less than 30 liters per cylinder that uses diesel fuel and operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in 40 CFR 63.6640(f)(2)(ii) and (iii), you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel. Those requirements include a maximum sulfur content of 15 ppm (0.0015%) by weight and a minimum cetane index of 40 or a maximum aromatic content of 35 percent by volume. 40 CFR 63.6604(b)

#### Operation and Maintenance Requirements 40 CFR 63.6602, 63.6625, 63.6640 and Tables 2c and 6 to Subpart ZZZZ

1. Change oil and filter every 500 hours of operation or annually, whichever comes first. (See 63.6625(i) for the oil analysis option to extend time frame of requirements.)
2. Inspect air cleaner every 1000 hours of operation or annually, whichever comes first, and replace as necessary.
3. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
4. Operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
5. Install a non-resettable hour meter if one is not already installed.
6. Minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

#### Operating Limits 40 CFR 63.6640(f)

1. Any operation other than emergency operation, maintenance and testing, emergency demand response and operation in non-emergency situations (*up to*) 50 hours per year is prohibited.
2. There is no time limit on the use of emergency stationary RICE in emergency situations.
3. You may operate your emergency stationary RICE up to 100 combined hours per calendar year for maintenance checks and readiness testing, emergency demand response and periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency. See 40 CFR 63.6640(f)(2) for additional information and restrictions.
4. You may operate your emergency stationary RICE up to 50 hours per calendar year for non-emergency situations, but those 50 hours are counted toward the 100 hours of maintenance and testing and emergency demand response. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

#### Recordkeeping Requirements 40 CFR 63.6655

1. Keep records of the maintenance conducted on the stationary RICE.
2. Keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. Document how many hours are spent for emergency operation,

including what classified the operation as emergency and how many hours are spent for non-emergency operation. See 40 CFR 63.6655(f) for additional information.

Notification and Reporting Requirements 40 CFR 63.6645, 63.6650 and Table 2c to Subpart ZZZZ

1. An initial notification is not required per 40 CFR 63.6645(a)(5).
2. A report may be required for failure to perform the work practice requirements on the schedule required in Table 2c. (See Footnote 1 of Table 2c for more information.)
3. If you own or operate an emergency stationary RICE with a site rating of more than 100 bhp that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in 40 CFR 63.6640(f)(2)(ii) and (iii), you must submit an annual report. See 40 CFR 63.6650(h) for additional information.

Authority for Requirement: 40 CFR Part 63 Subpart ZZZZ  
567 IAC 23.1(4)"cz"

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Exhaust Flow Rate (scfm): 2,540

Authority for Requirement: Iowa Construction Permit 90-A-392

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flow rate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: S-315**

### Associated Equipment

Associated Emission Unit ID Numbers: OCOM02

---

Emission Unit vented through this Emission Point: OCOM02  
Emission Unit Description: MIS Standby Diesel Engine/ Generator  
Raw Material/Fuel: Diesel  
Rated Capacity: 1,332 hp

### **Applicable Requirements**

#### **Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity  
Emission Limit(s): 20%  
Authority for Requirement: Iowa DNR Construction Permit 97-A-144  
567 IAC 23.3(2)"d"

Pollutant: PM<sub>10</sub>  
Emission Limit(s): 0.46 lb/hr  
Authority for Requirement: Iowa DNR Construction Permit 97-A-144

Pollutant: Particulate Matter (PM)  
Emission Limit(s): 0.1 gr/dscf  
Authority for Requirement: Iowa DNR Construction Permit 97-A-144  
567 IAC 23.3(2)"a"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)  
Emission Limit(s): 500 ppmv,  
Authority for Requirement: Iowa DNR Construction Permit 97-A-144  
567 IAC 23.3(3)"e"

#### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

#### NESHAP:

The emergency engine is subject to 40 CFR 63 Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE). According to 40 CFR 63.6590(a)(1)(i) this emergency engine, located a major source, is an existing stationary RICE as it was constructed prior to December 19, 2002.

According to 63.6590(b)(3)(iii), an existing emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is not subject to the requirements of 40 CFR 63 Subpart ZZZZ and Subpart A, including initial notification requirements, unless it operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes of emergency demand response and for the periods of voltage or frequency deviation as specified in §63.6640(f)(2)(ii) and (iii).

Authority for Requirement: 40 CFR Part 63 Subpart ZZZZ  
567 IAC 23.1(4)"cz"

**Hours of operation:**

The hours of operation of the diesel engine administered under DNR permit 97-A-144 shall not exceed 2,400 hours per twelve-month total, rolled monthly, period.

**Reporting & Record keeping:**

The permit holder shall maintain records on the premises to show the twelve-month total, rolled monthly, hours of operation of the equipment administered under DNR permit 97-A-144. Records shall be maintained for five (5) years and available for inspection upon request by representative of the Department of Natural Resources.

Authority for Requirement: Iowa DNR Construction Permit 97-A-144

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 12

Stack Opening, (inches, dia.): 10

Exhaust Flow Rate (scfm): 8,092

Exhaust Temperature (°F): 1,027

Discharge Style: NA

Authority for Requirement: Iowa DNR Construction Permit 97-A-144

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flow rate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?** Yes  No

**Facility Maintained Operation & Maintenance Plan Required?** Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?** Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: S-319**

### Associated Equipment

Associated Emission Unit ID Numbers: OCOM06

---

Emission Unit vented through this Emission Point: OCOM06  
Emission Unit Description: High Pressure Water System Pump Engine  
Raw Material/Fuel: Diesel  
Rated Capacity: 420 hp

### **Applicable Requirements**

#### **Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity  
Emission Limit(s): 20%  
Authority for Requirement: Iowa DNR Construction Permit 97-A-141  
567 IAC 23.3(2)"d"

Pollutant: PM<sub>10</sub>  
Emission Limit(s): 1.85 lb/hr  
Authority for Requirement: Iowa DNR Construction Permit 97-A-141

Pollutant: Particulate Matter  
Emission Limit(s): 0.1 gr/dscf  
Authority for Requirement: Iowa DNR Construction Permit 97-A-141  
567 IAC 23.3(2)"a"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)  
Emission Limit(s): 500 ppmv  
Authority for Requirement: Iowa DNR Construction Permit 97-A-141  
567 IAC 23.3(3)"e"

#### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

#### NESHAP:

The non-emergency engine is subject to 40 CFR 63 Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE). According to 40 CFR 63.6590(a)(1)(ii) this non-emergency engine, located a major source, is an existing stationary RICE as it was constructed prior to June 12, 2006.

### Compliance Date:

According to 40 CFR 63.6595(a)(1), you must comply with the applicable provisions of Subpart ZZZZ no later than May 3, 2013.

### Emission Standards:

According to 40 CFR 63.6602 and Table 2c, you must comply with the following emission standards:

1. Limit concentration of CO to 49 ppmvd or less at 15 percent O<sub>2</sub>; or
2. Reduce CO emissions by 70 percent or more.

### Fuel Requirements:

You must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel. Those requirements include a maximum sulfur content of 15 ppm (0.0015%) by weight and a minimum cetane index of 40 or a maximum aromatic content of 35 percent by volume. 40 CFR 63.6604(a).

### Testing and Compliance Requirements:

1. According to 40 CFR 63.6612(a), you must conduct the initial performance tests or other applicable initial compliance demonstrations in Tables 4 and 5 to subpart ZZZZ no later than 180 days after the compliance date (or May 3, 2013). See the exemption in 40 CFR 63.6612(b).
2. You must demonstrate initial compliance with applicable emission limitations, operating limitations, and other requirements in pursuant to 40 CFR 63.6630(a) and (c).
3. You must conduct the performance tests in accordance with 40 CFR 63.6620 to demonstrate compliance with applicable emission standards. You are required to notify the DNR 60 days prior to the test date and are required to submit a stack test report to the DNR within 60 days after the completion of the testing.
4. If your engine is not equipped with a closed crankcase ventilation system, you must comply with requirements in 40 CFR 63.6625(g) for operating and maintaining the engine's crankcase ventilation system.
5. According to 40 CFR 63.6625(h), you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission standards apply.
6. You must demonstrate continuous compliance with applicable emission limitations, operating limitations, and other requirements in pursuant to 40 CFR 63.6605, 6640(a) and (b).

### Notification, Reporting, and Recordkeeping Requirements

1. You must comply with the applicable notification requirements in pursuant to 40 CFR 63.6645(a), (d), (f), (g), and (h).
2. You must comply with the applicable reporting requirements in pursuant to 40 CFR 63.6650(a) to (f).
3. You must comply with the applicable recordkeeping requirements in pursuant to 40 CFR 63.6655(a), (b), and (d), and 40 CFR 63.6660, including keeping records for at least 5 years.

Authority for Requirement: 40 CFR Part 63 Subpart ZZZZ  
567 IAC 23.1(4)"cz"

Hours of operation:

The hours of operation of the diesel engine administered under DNR permit 97-A-141 shall not exceed 2,350 hours per twelve-month total, rolled monthly, period.

Reporting & Record keeping:

The permit holder shall maintain records on the premises to show the twelve-month total, rolled monthly, hours of operation of the equipment administered under DNR permit 97-A-141. Records shall be maintained for five (5) years and available for inspection upon request by representatives of the Department of Natural Resources.

Authority for Requirement: Iowa DNR Construction Permit 97-A-141

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 36.6

Stack Opening, (inches, dia.): 8

Exhaust Flow Rate (scfm): 3,351

Exhaust Temperature (°F): 956

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 97-A-141

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flow rate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?** Yes  No

**Facility Maintained Operation & Maintenance Plan Required?** Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?** Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: S-320**

### Associated Equipment

Associated Emission Unit ID Numbers: OCOM07

---

Emission Unit vented through this Emission Point: OCOM07  
Emission Unit Description: High Pressure Water System Pump Engine  
Raw Material/Fuel: Diesel  
Rated Capacity: 450 hp

### **Applicable Requirements**

#### **Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 20%

Authority for Requirement: Iowa DNR Construction Permit 97-A-142  
567 IAC 23.3(2)"d"

Pollutant: PM<sub>10</sub>

Emission Limit(s): 1.85 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 97-A-142

Pollutant: Particulate Matter

Emission Limit(s): 0.1 gr/dscf

Authority for Requirement: Iowa DNR Construction Permit 97-A-142

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit(s): 500 ppmv,

Authority for Requirement: Iowa DNR Construction Permit 97-A-142  
567 IAC 23.3(3)"e"

#### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

#### NESHAP:

The non-emergency engine is subject to 40 CFR 63 Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE). According to 40 CFR 63.6590(a)(1)(ii) this non-emergency engine, located a major source, is an existing stationary RICE as it was constructed prior to June 12, 2006.

#### Compliance Date:

According to 40 CFR 63.6595(a)(1), you must comply with the applicable provisions of Subpart ZZZZ no later than May 3, 2013.

### Emission Standards:

According to 40 CFR 63.6602 and Table 2c, you must comply with the following emission standards:

1. Limit concentration of CO to 49 ppmvd or less at 15 percent O<sub>2</sub>; or
2. Reduce CO emissions by 70 percent or more.

### Fuel Requirements:

You must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel. Those requirements include a maximum sulfur content of 15 ppm (0.0015%) by weight and a minimum cetane index of 40 or a maximum aromatic content of 35 percent by volume. 40 CFR 63.6604(a).

### Testing and Compliance Requirements:

1. According to 40 CFR 63.6612(a), you must conduct the initial performance tests or other applicable initial compliance demonstrations in Tables 4 and 5 to subpart ZZZZ no later than 180 days after the compliance date (or May 3, 2013). See the exemption in 40 CFR 63.6612(b).
2. You must demonstrate initial compliance with applicable emission limitations, operating limitations, and other requirements in pursuant to 40 CFR 63.6630(a) and (c).
3. You must conduct the performance tests in accordance with 40 CFR 63.6620 to demonstrate compliance with applicable emission standards. You are required to notify the DNR 60 days prior to the test date and are required to submit a stack test report to the DNR within 60 days after the completion of the testing.
4. If your engine is not equipped with a closed crankcase ventilation system, you must comply with requirements in 40 CFR 63.6625(g) for operating and maintaining the engine's crankcase ventilation system.
5. According to 40 CFR 63.6625(h), you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission standards apply.
6. You must demonstrate continuous compliance with applicable emission limitations, operating limitations, and other requirements in pursuant to 40 CFR 63.6605, 6640(a) and (b).

### Notification, Reporting, and Recordkeeping Requirements

1. You must comply with the applicable notification requirements in pursuant to 40 CFR 63.6645(a), (d), (f), (g), and (h).
2. You must comply with the applicable reporting requirements in pursuant to 40 CFR 63.6650(a) to (f).
3. You must comply with the applicable recordkeeping requirements in pursuant to 40 CFR 63.6655(a), (b), and (d), and 40 CFR 63.6660, including keeping records for at least 5 years.

Authority for Requirement: 40 CFR Part 63 Subpart ZZZZ  
567 IAC 23.1(4)"cz"

Hours of operation:

The hours of operation of the diesel engine administered under the DNR permit 97-A-142 shall not exceed 2,350 hours per twelve-month total, rolled monthly, period.

Reporting & Record keeping:

The permit holder shall maintain records on the premises to show twelve-month total, rolled monthly, hours of operation of the equipment administered under DNR permit 97-A-142. Records shall be maintained for five (5) years and available for inspection upon request by representatives of the Department of Natural Resources.

Authority for Requirement: Iowa DNR Construction Permit 97-A-142

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 36.6

Stack Opening, (inches, dia.): 8

Exhaust Flow Rate (scfm): 3,351

Exhaust Temperature (°F): 956

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 97-A-142

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flow rate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?** Yes  No

**Facility Maintained Operation & Maintenance Plan Required?** Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?** Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: S-335**

### Associated Equipment

Associated Emission Unit ID Numbers: OCOM10

---

Emission Unit vented through this Emission Point: OCOM10  
Emission Unit Description: High Pressure Water System Backup Generator  
Raw Material/Fuel: Diesel  
Rated Capacity: 749 hp

### **Applicable Requirements**

#### **Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 20 %

Authority for Requirement: Iowa DNR Construction Permit 98-A-1009  
567 IAC 23.3(2)"d"

Pollutant: Particulate Matter

Emission Limit(s): 0.1 gr/dscf

Authority for Requirement: Iowa DNR Construction Permit 98-A-1009  
567 IAC 23.3(2)"a"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit(s): 1.18 lb/hr 500 ppmv,

Authority for Requirement: Iowa DNR Construction Permit 98-A-1009  
567 IAC 23.3(3)"e"

#### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

#### NESHAP:

The emergency engine is subject to 40 CFR 63 Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE). According to 40 CFR 63.6590(a)(1)(i) this emergency engine, located a major source, is an existing stationary RICE as it was constructed prior to December 19, 2002.

According to 63.6590(b)(3)(iii), an existing emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is not subject to the requirements of 40 CFR 63 Subpart ZZZZ and Subpart A, including initial notification requirements, unless it operates or is contractually obligated to be available for more than 15

hours per calendar year for the purposes of emergency demand response and for the periods of voltage or frequency deviation as specified in §63.6640(f)(2)(ii) and (iii).

Authority for Requirement: 40 CFR Part 63 Subpart ZZZZ  
567 IAC 23.1(4)"cz"

Hours of operation:

- A. The twelve month total, rolled monthly, hours of operation of the diesel fired generator administered under DNR Permit 98-A-1009 shall not exceed 2,500.

Reporting & Record keeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.

- A. The permit holder shall maintain records on the premises to show the twelve month total, rolled monthly, hours of operation of the diesel fired generator administered under DNR Permit 98-A-1009. Records shall be maintained for two (2) years and available for inspection upon request by representatives of the Department of Natural Resources.

Authority for Requirement: Iowa DNR Construction Permit 98-A-1009

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 15

Stack Opening, (inches, dia.): 8

Exhaust Flow Rate (scfm): 1,358

Exhaust Temperature (°F): 1,187

Discharge Style: NA

Authority for Requirement: Iowa DNR Construction Permit 98-A-1009

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flow rate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**

Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: S-364**

### Associated Equipment

Associated Emission Unit ID Numbers: OCOM20

---

Emission Unit vented through this Emission Point: OCOM20  
Emission Unit Description: Emergency Generator  
Raw Material/Fuel: Natural Gas  
Rated Capacity: 304 bhp

### **Applicable Requirements**

#### **Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

#### BACT Emission Limits

Pollutant: Volatile Organic Compounds (VOC)  
Emission Limit(s): 0.66 lb/hr  
Authority for Requirement: Iowa DNR Construction Permit 11-A-697-P1

#### NSPS and NESHAP Emission Limits

Pollutant: Volatile Organic Compounds (VOC)  
Emission Limit(s): 1.0 g/hp-hr<sup>(1)</sup> (86 ppm)<sup>(2)</sup>  
Authority for Requirement: Iowa DNR Construction Permit 11-A-697-P1  
567 IAC 23.1(2)"zzz"  
40 CFR 60 Subpart JJJJ

Pollutant: Nitrogen Oxides (NO<sub>x</sub>)  
Emission Limit(s): 2.0 g/hp-hr<sup>(1)</sup> (160 ppm)  
Authority for Requirement: Iowa DNR Construction Permit 11-A-697-P1  
567 IAC 23.1(2)"zzz"  
40 CFR 60 Subpart JJJJ

Pollutant: Carbon Monoxide (CO)  
Emission Limit(s): ): 4.0 g/hp-hr<sup>(1)</sup> (540 ppm)  
Authority for Requirement: Iowa DNR Construction Permit 11-A-697-P1  
567 IAC 23.1(2)"zzz"  
40 CFR 60 Subpart JJJJ

- <sup>(1)</sup> Per NSPS Subpart JJJJ, owners and operators of stationary non-certified spark ignition (SI) engines may choose to comply with the emission standards in units of either g/hp-hr or ppv<sub>vd</sub> @ 15% O<sub>2</sub>. The ppv<sub>vd</sub> @ 15% O<sub>2</sub> is listed in parenthesis.
- <sup>(2)</sup> For purposes of NSPS Subpart JJJJ, when calculating VOC emissions, formaldehyde should not be included.

## Other Emission Limits

Pollutant: Opacity

Emission Limit(s): 40%<sup>(3)</sup>

Authority for Requirement: Iowa DNR Construction Permit 11-A-697-P1  
567 IAC 23.3(2)"d"

- (3) An exceedance of the indicator opacity of 10% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM<sub>10</sub>

Emission Limit(s): 0.05 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 11-A-697-P1

Pollutant: PM<sub>2.5</sub>

Emission Limit(s): 0.05 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 11-A-697-P1

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.05 lb/hr and 0.1 g/dscf

Authority for Requirement: Iowa DNR Construction Permit 11-A-697-P1  
567 IAC 23.3(2)"a"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit(s): 500 ppmv

Authority for Requirement: Iowa DNR Construction Permit 11-A-697-P1  
567 IAC 23.3(3)"e"

Pollutant: Nitrogen Oxides (NO<sub>x</sub>)

Emission Limit(s): 1.34 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 11-A-697-P1

## **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

### NESHAP and NSPS:

This emission unit is subject to Subparts A (*General Provisions*; 40 CFR §63.1 through 40 CFR §63.15) and ZZZZ (*National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*, 40 CFR §63.6580 – 40 CFR §63.6675) of the National Emission Standards for Hazardous Air Pollutants (NESHAP). Per 40 CFR §63.6590(c), this emission unit must meet the requirements of NESHAP Subpart ZZZZ by meeting the

requirements of NSPS Subpart JJJJ and no further requirements apply under NESHAP Subpart ZZZZ.

Authority for Requirement: 40 CFR Part 63 Subpart ZZZZ  
567 IAC 23.1(4)"cz"

This emission unit is subject to Subparts A (*General Provisions*; 40 CFR §60.1 through 40 CFR §60.19) and JJJJ (*Standards of Performance for Stationary Spark Ignition Internal Combustion Engines*, 40 CFR §60.4230 – 40 CFR §60.4248) of the New Source Performance Standards (NSPS). Please note that EPA amended NSPS Subpart JJJJ on June 28, 2011 and this emission unit may be subject to those amendments.

Authority for Requirement: 40 CFR Part 60 Subpart JJJJ  
567 IAC 23.1(2)"zzz"

Operating conditions:

- A. This emission unit is limited to firing on only natural gas.
- B. This emission unit shall not operate more than 1,000 hours per year.
- C. Per 40 CFR §60.4242(d), emergency stationary ICE may be operated for the purpose of maintenance checks and readiness testing, provided the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine for a maximum of 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. Emergency stationary ICE may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in 40 CFR §60.4243, is prohibited.
- D. Per 567 IAC 33.3(18)"f"(1), prior to beginning actual construction of the project (Project Number 11-322) the owner or operator shall document:
  - a. A description of the project (Project Number 11-322),
  - b. Identification of the emission unit(s) whose emissions of a regulated NSR pollutant could be affected by the project (Project Number 11-322), and
  - c. A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including the baseline actual emissions (BAE), the projected actual emissions (PAE), the amount of emissions excluded under paragraph "3" of the definition of "*projected actual emissions*" in subrule 33.3(1), an explanation describing why such amount was excluded, and any netting analysis if applicable.

- E. Per 567 IAC 33.3(18)"f"(4), the owner or operator shall:
  - a. Monitor the emission of any regulated NSR pollutant that could increase as a result of the project that is emitted by any emissions unit identified in Condition 14.D.(2).
  - b. Calculate the annual emissions, in tons per year on a calendar-year basis, for a period of five (5) years following resumption of regular operations and maintain a record of regular operations after the change.
- F. Per 567 IAC 33.3(18)"g", the owner or operator shall make the information required to be documented and maintained pursuant to 567 IAC 33.3(18)"f" available for review upon request for inspection by the Department or the general public pursuant to the requirements for Title V operating permits contained in 567 IAC 22.107(6).

**Reporting & Record keeping:**

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.

- A. The owner or operator of this generator shall follow the monitoring requirements of 40 CFR§60.4209 (i.e., installation of a non-resettable hour meter prior to start-up or meet the standards applicable to non-emergency engines).
- B. Record each month the total hours of operation for this generator and the reason the generator was operated. Calculate and record rolling twelve-month totals.
- C. Maintain records of the sulfur content of the fuel oil utilized in this generator.
- D. The owner or operator of this generator shall follow the compliance requirements of 40 CFR§60.4211.
- E. The owner or operator of this generator shall follow the notification, reporting, and recordkeeping requirements of 40 CFR§60.4214(b).

Authority for Requirement: Iowa DNR Construction Permit 11-A-671-P1

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 10

Stack Opening, (inches, dia.): 5

Exhaust Flow Rate (scfm): 1,500

Exhaust Temperature (°F): 1,385

Discharge Style: Vertical unobstructed

Authority for Requirement: Iowa DNR Construction Permit 11-A-697-P1

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission

point design characteristics are different than the values stated above, the owner/operator must notify the Department within 30 days of the discovery and obtain a permit amendment, if required.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: S-408**

### Associated Equipment

Associated Emission Unit ID Numbers: OCOM21

---

Emission Unit vented through this Emission Point: OCOM21  
Emission Unit Description: Emergency Generator  
Raw Material/Fuel: Diesel  
Rated Capacity: 779 bhp

### **Applicable Requirements**

#### **Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): <sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 12-A-328  
567 IAC 23.1(2)"yyy"  
40 CFR 60 Subpart III

- <sup>(1)</sup> Exhaust opacity must not exceed the following: (a) 20 percent during the acceleration mode, (b) 15 percent during the lugging mode, and (c) 50 percent during the peaks in either the acceleration or lugging modes.

Pollutant: PM<sub>10</sub>

Emission Limit(s): 0.14 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 12-A-328

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.14 lb/hr and 0.20 g/kW-hr

Authority for Requirement: Iowa DNR Construction Permit 12-A-328  
567 IAC 23.1(2)"yyy"  
40 CFR 60 Subpart III

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit(s): 2.5 lb/MMBtu

Authority for Requirement: Iowa DNR Construction Permit 12-A-328  
567 IAC 23.3(3)"b"

Pollutant: Nitrogen Oxides (NO<sub>x</sub>)

Emission Limit(s): 4.6 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 12-A-328

Pollutant: Carbon Monoxide (CO)  
Emission Limit(s): 3.5 g/kW-hr  
Authority for Requirement: Iowa DNR Construction Permit 12-A-328  
567 IAC 23.1(2)"yyy"  
40 CFR 60 Subpart III

Pollutant: NMHC + NO<sub>x</sub><sup>(2)</sup>  
Emission Limit(s): 6.4 g/kW-hr  
Authority for Requirement: Iowa DNR Construction Permit 12-A-328  
567 IAC 23.1(2)"yyy"  
40 FR 60 Subpart III

<sup>(2)</sup> NMHC is defined as non-methane hydrocarbons; NO<sub>x</sub> is for oxides of nitrogen.

### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

#### NESHAP and NSPS:

The emergency engine is subject to 40 CFR 63 Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE).

According to 40 CFR 63.6590(a)(2)(i) this emergency engine, located at a major source, is a new stationary RICE as it was constructed on or after December 19, 2002.

According to 40 CFR 63.6590(b)(1)(i), a new emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is not subject to the requirements of 40 CFR 63 Subpart ZZZZ and Subpart A except for initial notification requirements of 40 CFR 63.6645(f) unless it operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes of emergency demand response and for the periods of voltage or frequency deviation as specified in 40 CFR 63.6640(f)(2)(ii) and (iii).

Authority for Requirement: 40 CFR Part 63 Subpart ZZZZ  
567 IAC 23.1(4)"cz"

This emission unit is subject to the New Source Performance Standards (NSPS) Subpart III – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.

Authority for Requirement: 40 CFR Part 60 Subpart III  
567 IAC 23.1(2)"yyy"

#### Operating conditions:

- A. This generator shall not operate more than 500 hours per rolling twelve-month period.
- B. Per 40 CFR§60.4211(f), emergency stationary ICE may be operated for the purpose of maintenance checks and readiness testing, provided the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine for a maximum of 100 hours per year. The owner or operator

may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year.

- C. Beginning October 1, 2010, diesel fuel fired in this generator shall be limited to a maximum sulfur content of 15 ppm and a minimum cetane index of 40 or a maximum aromatic content of 30 percent by volume per 40 CFR§80.510(b).
- D. Any other operating limits not listed here but are part of 40 CFR Part 60 Subpart IIII shall also be maintained.

**Reporting & Record keeping:**

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.

- A. The owner or operator of this generator shall follow the monitoring requirements of 40 CFR§60.4209 (i.e., installation of a non-resettable hour meter prior to start-up or meet the standards applicable to non-emergency engines).
- B. Record each month the total hours of operation for this generator and the reason the generator was operated. Calculate and record rolling twelve-month totals.
- C. Maintain records of the sulfur content of the fuel oil utilized in this generator.
- D. The owner or operator of this generator shall follow the compliance requirements of 40 CFR§60.4211.
- E. The owner or operator of this generator shall follow the notification, reporting, and recordkeeping requirements of 40 CFR§60.4214(b).

Authority for Requirement: Iowa DNR Construction Permit 12-A-328

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 30

Stack Opening, (inches, dia.): 36

Exhaust Flow Rate (scfm): 9,700

Exhaust Temperature (°F): 377

Discharge Style: Vertical unobstructed

Authority for Requirement: Iowa DNR Construction Permit 12-A-328

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department within 30 days of the discovery and obtain a permit amendment, if required.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

**Emission Point ID Number: See Table: Natural Gas-Fired Generators  
Associated Equipment**

Associated Emission Unit ID Numbers: See Table: Natural Gas-Fired Generators

**Table: Natural Gas-Fired Generators**

<b>Emission Point</b>	<b>Emission Unit</b>	<b>EU Description</b>	<b>Raw Material</b>	<b>Rated Capacity (MMBtu/hr)</b>
S-316	OCOM03	Security Communications Backup Generator	Natural Gas	0.170
S-318	OCOM05	Building 808 Phone Backup Generator	Natural Gas	0.299
S-321	OCOM08	Low Pressure Water System Pump	Natural Gas	0.776
S-324	OCOM09	Ingot Plant Phone Backup Emergency Generator	Natural Gas	0.127

**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40%

Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf

Authority for Requirement: 567 IAC 23.3(2)"a"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit(s): 500 ppmv (Natural Gas)

Authority for Requirement: 567 IAC 23.3(3)"e"

**Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

**NESHAP:**

These emergency engines are subject to 40 CFR 63 Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE). According to 40 CFR 63.6590(a)(1)(ii) these spark ignition emergency

engines, located at a major source, are existing stationary RICE as they were constructed prior to June 12, 2006.

#### Compliance Date

Per 63.6595(a)(1) you must comply with the provisions of subpart ZZZZ that are applicable by October 19, 2013.

#### Operation and Maintenance Requirements 40 CFR 63.6602, 63.6625, 63.6640 and Tables 2c and 6 to Subpart ZZZZ

1. Change oil and filter every 500 hours of operation or annually, whichever comes first. (See 63.6625(j) for the oil analysis option to extend time frame of requirements.)
2. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary.
3. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
4. Operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
5. Install a non-resettable hour meter if one is not already installed.
6. Minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

#### Operating Limits 40 CFR 63.6640(f)

1. Any operation other than emergency operation, maintenance and testing, emergency demand response and operation in non-emergency situations (*up to*) 50 hours per year is prohibited.
2. There is no time limit on the use of emergency stationary RICE in emergency situations.
3. You may operate your emergency stationary RICE up to 100 combined hours per calendar year for maintenance checks and readiness testing, emergency demand response and periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency. See 40 CFR 63.6640(f)(2) for additional information and restrictions.
4. You may operate your emergency stationary RICE up to 50 hours per calendar year for non-emergency situations, but those 50 hours are counted toward the 100 hours of maintenance and testing and emergency demand response. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

#### Recordkeeping Requirements 40 CFR 63.6655

1. Keep records of the maintenance conducted on the stationary RICE.
2. Keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. Document how many hours are spent for emergency operation,

including what classified the operation as emergency and how many hours are spent for non-emergency operation. See 40 CFR 63.6655(f) for additional information.

Authority for Requirement: 40 CFR Part 63 Subpart ZZZZ  
567 IAC 23.1(4)"cz"

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

**Emission Point ID Numbers: See Table: Preheat Furnaces**

Associated Equipment

Associated Equipment ID Numbers: See Table: Preheat Furnaces

Table: Preheat Furnaces

<b>Emission Point</b>	<b>Emission Unit</b>	<b>EU Description</b>	<b>Raw Material</b>	<b>Rated Capacity</b>
S-093	PFRN01	Preheat Furnace #1	Natural Gas	0.05 MMcf/hr
S-095				
S-094	PFRN02	Preheat Furnace #2	Natural Gas	0.03 MMcf/hr
S-278	PFRN12	Preheat Furnace #12	Natural Gas	0.04 MMcf/hr
S-279				
S-275	PFRN13	Preheat Furnace #13	Natural Gas	0.04 MMcf/hr
S-276				
S-115	PFRN16	Preheat Furnace #16	Natural Gas	0.04 MMcf/hr
S-116				
S-113	PFRN17	Preheat Furnace #17	Natural Gas	0.04 MMcf/hr
S-114				
S-111	PFRN18	Preheat Furnace #18	Natural Gas	0.05 MMcf/hr
S-112				
S-109	PFRN19	Preheat Furnace #19	Natural Gas	0.05 MMcf/hr
S-110				
S-107	PFRN20	Preheat Furnace #20	Natural Gas	0.05 MMcf/hr
S-108				
S-105	PFRN21	Preheat Furnace #21	Natural Gas	0.05 MMcf/hr
S-106				
S-103	PFRN22	Preheat Furnace #22	Natural Gas	0.05 MMcf/hr
S-104				
S-102	PFRN23	Preheat Furnace #23	Natural Gas	0.03 MMcf/hr
S-101	PFRN24	Preheat Furnace #24	Natural Gas	0.05 MMcf/hr
S-100				
S-294	PFRN25	Preheat Furnace #25	Natural Gas	0.05 MMcf/hr
S-295				
S-296	PFRN26	Preheat Furnace #26	Natural Gas	0.05 MMcf/hr
S-297				
S-325	PFRN27	Preheat Furnace #27	Natural Gas	0.05 MMcf/hr
S-326				

## Applicable Requirements

### Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity  
Emission Limit(s): 40%  
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter  
Emission Limit(s): 0.6 lb/MMBtu  
Authority for Requirement: 567 IAC 23.3(2)"b"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)  
Emission Limit(s): 500 ppmv  
Authority for Requirement: 567 IAC 23.3(3)"e"

### Operational Limits & Requirements

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

#### NESHAP

These emission units are subject to Subparts A (General Provisions, 40 CFR §63.1 – §63.15) and DDDDD (National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters; 40 CFR §63.7480 – §63.7575) of the National Emission Standards for Hazardous Air Pollutants (NESHAP).

Authority for Requirement: 40 CFR Part 63 Subpart DDDDD

### Monitoring Requirements

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Numbers: S-345 and S-346**

### Associated Equipment

Associated Emission Unit ID Number: PFRN03

---

Emission Unit vented through these Emission Points: PFRN03

Emission Unit Description: Preheat Furnace #3

Raw Material/Fuel: Natural Gas

Rated Capacity: 40 MMBtu/hr

### **Applicable Requirements**

#### **Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from each of these emission points shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40%<sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 05-A-477-S2 (S-345) and 06-A-017-S1 (S-346)  
567 IAC 23.3"d"

- <sup>(1)</sup> An exceedance of the indicator opacity of no visible emissions will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM<sub>10</sub>

Emission Limit(s): 0.3 lb/hr, 1.314 tons/yr<sup>(2)(3)</sup>

Authority for Requirement: Iowa DNR Construction Permit 05-A-477-S2 (S-345) and 06-A-017-S1 (S-346)

Pollutant: Particulate Matter

Emission Limit(s): 0.1 gr/dscf, 0.3 lb/hr, 1.314 tons/yr<sup>(2)(3)</sup>

Authority for Requirement: Iowa DNR Construction Permit 05-A-477-S2 (S-345) and 06-A-017-S1 (S-346)  
567 IAC 23.2"a"

<sup>(2)</sup>The total PTE for EP S-345 & EP S-346 is 1.314 tons/yr.

<sup>(3)</sup>Standard is a 12-month rolling total.

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit(s): 500 ppmv

Authority for Requirement: Iowa DNR Construction Permit 05-A-477-S2 (S-345) and 06-A-017-S1 (S-346)  
567 IAC 23.3(3)"e"

Pollutant: Nitrogen Oxides (NO<sub>x</sub>)

Emission Limit(s): 4.01 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 05-A-477-S2 (S-345) and 06-A-017-S1 (S-346)

Pollutant: Carbon Monoxide (CO)

Emission Limit(s): 400 ppmv @ 3% O<sub>2</sub>

Authority for Requirement: Iowa DNR Construction Permit 05-A-477-S2 (S-345) and 06-A-017-S1 (S-346)  
40 CFR 63 Subpart DDDDD

### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

#### **NESHAP**

This emission unit is subject to Subparts A (General Provisions, 40 CFR §63.1 – §63.15) and DDDDD (National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters; 40 CFR §63.7480 – §63.7575) of the National Emission Standards for Hazardous Air Pollutants (NESHAP).

Authority for Requirement: Iowa DNR Construction Permit 05-A-477-S2 (S-345) and 06-A-017-S1 (S-346)  
40 CFR Part 63 Subpart DDDDD

Process throughput:

- A. This emission unit shall fire only on natural gas.
- B. This emission unit shall not burn more than 175.73 million cubic feet of natural gas per rolling twelve (12) month period.
- C. Ammonium Fluoroborate use in this emission unit shall not exceed 1.5 tons per twelve (12) month rolling period.

Reporting & Record keeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. Determine the annual amount of natural gas fired by this emission unit on a rolling-12-month basis for each month of operation.
- B. Determine the annual amount of Ammonium Fluoroborate used by this emission unit on a rolling-12-month basis for each month of operation.

Authority for Requirement: Iowa DNR Construction Permit 05-A-477-S2 (S-345) and 06-A-017-S1 (S-346)

**Emission Point Characteristics**

*These emission points shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 87.42

Stack Opening, (inches, dia.): 43

Exhaust Flow Rate (scfm): 7,958

Exhaust Temperature (°F): 800

Discharge Style: Unobstructed vertical

Authority for Requirement: Iowa DNR Construction Permit 05-A-477-S2 (S-345) and 06-A-017-S1 (S-346)

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flow rate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Numbers: S-347 and S-348**

### Associated Equipment

Associated Emission Unit ID Number: PFRN04

---

Emission Unit vented through these Emission Points: PFRN04

Emission Unit Description: Preheat Furnace #4

Raw Material/Fuel: Natural Gas

Rated Capacity: 40 MMBtu/hr

### **Applicable Requirements**

#### **Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from each of these emission points shall not exceed the levels specified below.*

Pollutant: Opacity

<sup>(1)</sup>Emission Limit(s): 40%

Authority for Requirement: Iowa DNR Construction Permit 05-A-478-S2 (S-347) and 06-A-018-S1 (S-348)  
567 IAC 23.3"d"

<sup>(1)</sup>An exceedance of the indicator opacity of no visible emissions will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM<sub>10</sub>

Emission Limit(s): 0.3 lb/hr, 1.314 tons/yr<sup>(2)(3)</sup>

Authority for Requirement: Iowa DNR Construction Permit 05-A-478-S2 (S-347) and 06-A-018-S1 (S-348)

Pollutant: Particulate Matter

Emission Limit(s): 0.1 gr/dscf, 0.3 lb/hr, 1.314 tons/yr<sup>(2)(3)</sup>

Authority for Requirement: Iowa DNR Construction Permit 05-A-478-S2 (S-347) and 06-A-018-S1 (S-348)  
567 IAC 23.2"a"

<sup>(2)</sup>The total PTE for EP S-347 & EP S-348 is 1.314 tons/yr.

<sup>(3)</sup>Standard is a 12-month rolling total.

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit(s): 500 ppmv

Authority for Requirement: Iowa DNR Construction Permit 05-A-478-S2 (S-347) and 06-A-018-S1 (S-348)  
567 IAC 23.3(3)"e"

Pollutant: Nitrogen Oxides (NO<sub>x</sub>)

Emission Limit(s): 4.01 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 05-A-478-S2 (S-347) and 06-A-018-S1 (S-348)

Pollutant: Carbon Monoxide (CO)

Emission Limit(s): 400 ppmv @ 3% O<sub>2</sub>

Authority for Requirement: Iowa DNR Construction Permit 05-A-478-S2 (S-347) and 06-A-018-S1 (S-348)  
40 CFR 63 Subpart DDDDD

### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

#### **NESHAP**

This emission unit is subject to Subparts A (General Provisions, 40 CFR §63.1 – §63.15) and DDDDD (National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters; 40 CFR §63.7480 – §63.7575) of the National Emission Standards for Hazardous Air Pollutants (NESHAP).

Authority for Requirement: 40 CFR Part 63 Subpart DDDDD

#### Process throughput:

- A. This emission unit shall fire only on natural gas.
- B. This emission unit shall not burn more than 175.73 million cubic feet of natural gas per rolling twelve (12) month period.
- C. Ammonium Fluoroborate use in this emission unit shall not exceed 1.5 tons per twelve (12) month rolling period.

#### Reporting & Record keeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. Determine the annual amount of natural gas fired by this emission unit on a rolling-12-month basis for each month of operation.
- B. Determine the annual amount of Ammonium Fluoroborate used by this emission unit on a rolling-12-month basis for each month of operation.

Authority for Requirement: Iowa DNR Construction Permit 05-A-478-S2 (S-347) and 06-A-018-S1 (S-348)

**Emission Point Characteristics**

*These emission points shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 87.42

Stack Opening, (inches, dia.): 43

Exhaust Flow Rate (scfm): 7,958

Exhaust Temperature (°F): 800

Discharge Style: Unobstructed vertical

Authority for Requirement: Iowa DNR Construction Permit 05-A-478-S2 (S-347) and 06-A-018-S1 (S-348)

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flow rate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Numbers: S-118**

### Associated Equipment

Associated Emission Unit ID Numbers: PFRN14

---

Emission Unit vented through this Emission Point: PFRN14

Emission Unit Description: Preheat Furnace #14

Raw Material/Fuel: Natural Gas

Rated Capacity: 34 MMBtu/hr

### **Applicable Requirements**

#### **Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 15%

Authority for Requirement: Iowa DNR Construction Permit 97-A-251  
567 IAC 23.3(2)"d"

Pollutant: Particulate Matter

Emission Limit(s): 0.1 gr/dscf

Authority for Requirement: Iowa DNR Construction Permit 97-A-251  
567 IAC 23.3(2)"a"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit(s): 500 ppmv

Authority for Requirement: Iowa DNR Construction Permit 97-A-251  
567 IAC 23.3(3)"e"

#### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

Process throughput:

Natural gas consumed by #14 and #15 preheat furnaces shall not exceed total 562 MMcf/yr during each twelve (12) consecutive month period.

Reporting & Record keeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. Monthly natural gas usage by this furnace

B. Total natural gas consumption rate by #14 and #15 furnaces during each twelve (12) consecutive month period.

Authority for Requirement: Iowa DNR Construction Permit 97-A-251

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 72

Stack Opening, (inches, dia.): 54

Exhaust Flow Rate (scfm): 5,300

Exhaust Temperature (°F): 325

Discharge Style: Unobstructed vertical

Authority for Requirement: Iowa DNR Construction Permit 97-A-251

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flow rate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**Monitoring Requirements**

**Stack Testing:**

Pollutant – Opacity

1st Stack Test to be Completed by: December 6, 2017

Test Method – 40 CFR 60, Appendix A, Method 9

Authority for Requirement – 567 IAC 22.108(3)

*The owner of this equipment or the owner’s authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)*

Authority for Requirement: 567 IAC 22.108(14)

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: S-117**

### Associated Equipment

Associated Emission Unit ID Numbers: PFRN15

---

Emission Unit vented through this Emission Point: PFRN15

Emission Unit Description: Preheat Furnace #15

Raw Material/Fuel: Natural Gas

Rated Capacity: 34 MMBtu/hr

### **Applicable Requirements**

#### **Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 15%

Authority for Requirement: Iowa DNR Construction Permit 97-A-250  
567 IAC 23.3(2)"d"

Pollutant: Particulate Matter

Emission Limit(s): 0.1 gr/dscf

Authority for Requirement: Iowa DNR Construction Permit 97-A-250  
567 IAC 23.3(2)"a"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit(s): 500 ppmv

Authority for Requirement: Iowa DNR Construction Permit 97-A-250  
567 IAC 23.3(3)"e"

#### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

Process throughput:

Natural gas consumed by #14 and #15 preheat furnaces shall not exceed total 562 MMcf/yr during each twelve (12) consecutive month period.

Reporting & Record keeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. Monthly natural gas usage by this furnace

B. Total natural gas consumption rate by #14 and #15 furnaces during each twelve (12) consecutive month period.

Authority for Requirement: Iowa DNR Construction Permit 97-A-250

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 72

Stack Opening, (inches, dia.): 54

Exhaust Flow Rate (scfm): 5,300

Exhaust Temperature (°F): 325

Discharge Style: Unobstructed vertical

Authority for Requirement: Iowa DNR Construction Permit 97-A-250

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flow rate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Stack Testing:**

Pollutant – Opacity

1st Stack Test to be Completed by: December 6, 2017

Test Method – 40 CFR 60, Appendix A, Method 9

Authority for Requirement – 567 IAC 22.108(3)

*The owner of this equipment or the owner’s authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)*

Authority for Requirement: 567 IAC 22.108(14)

**Agency Approved Operation & Maintenance Plan Required?** Yes  No

**Facility Maintained Operation & Maintenance Plan Required?** Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?** Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: S-356**

### Associated Equipment

Associated Emission Unit ID Numbers: PPFRN01

---

Emission Unit vented through this Emission Point: PPFRN01  
Emission Unit Description: #1 Pusher Preheat Furnace  
Raw Material/Fuel: Natural Gas  
Rated Capacity: 60 MMBtu/hr

### **Applicable Requirements**

#### **Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40%<sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 11-A-689-P1  
567 IAC 23.3(2)"d"

- <sup>(1)</sup> An exceedance of the indicator opacity of no visible emissions will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter

Emission Limit(s): 0.46 lb/hr and 0.1 gr/dscf

Authority for Requirement: Iowa DNR Construction Permit 11-A-689-P1  
567 IAC 23.3(2)"a"

Pollutant: PM<sub>10</sub>

Emission Limit: 0.46 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 11-A-689-P1

Pollutant: PM<sub>2.5</sub>

Emission Limit: 0.46 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 11-A-689-P1

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit(s): 500 ppmv

Authority for Requirement: Iowa DNR Construction Permit 11-A-689-P1  
567 IAC 23.3(3)"e"

Pollutant: Nitrogen Oxides (NO<sub>x</sub>)

Emission Limit(s): 5.88 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 11-A-689-P1

### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

#### Operating Limits:

- A. This emission unit is limited to firing on only natural gas.
- B. This emission unit is limited to combusting 216 million cubic feet (MMCF) of natural gas per year (yr).
- C. Per 567 IAC 33.3(18)"f"(1), prior to beginning actual construction of the project (Project Number 11-322) the owner or operator shall document:
  - (1) A description of the project (Project Number 11-322),
  - (2) Identification of the emission unit(s) whose emissions of a regulated NSR pollutant could be affected by the project (Project Number 11-322), and
  - (3) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including the baseline actual emissions (BAE), the projected actual emissions (PAE), the amount of emissions excluded under paragraph "3" of the definition of "*projected actual emissions*" in subrule 33.3(1), an explanation describing why such amount was excluded, and any netting analysis if applicable.
- D. Per 567 IAC 33.3(18)"f"(4), the owner or operator shall:
  - (1) Monitor the emission of any regulated NSR pollutant that could increase as a result of the project that is emitted by any emissions unit identified in C. (2), above.
  - (2) Calculate the annual emissions, in tons per year on a calendar-year basis, for a period of five (5) years following resumption of regular operations and maintain a record of regular operations after the change.
- E. Per 567 IAC 33.3(18)"g", the owner or operator shall make the information required to be documented and maintained pursuant to 567 IAC 33.3(18)"f" available for review upon request for inspection by the Department or the general public pursuant to the requirements for Title V operating permits contained in 567 IAC 22.107(6).

#### Reporting & Record keeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.

- A. For the first twelve (12) months of operation, determine the total amount of fuel used (in cubic feet/month) by this emission unit for each month of operation.
- B. After the first twelve (12) months of operation, determine the cumulative amount of fuel used (in cubic feet/year) by this emission unit on a rolling 12-month basis for each month of operation.
- C. Per 567 IAC 33.3(18)"f"(1), the owner or operator shall maintain a record of the information required in C. (under Operating Limits, above)

D. Per 567 IAC 33.3(18)"f"(4) and 567 IAC 33.3(18)"f"(5), the owner or operator shall maintain a record containing the information in D. (under Operating Limits, above) and that record shall be retained by the owner or operator for a period of ten (10) years after the project (Project Number 11-322) is completed.

Authority for Requirement: Iowa DNR Construction Permit 11-A-689-P1

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 108

Stack Opening, (inches, dia.): 76

Exhaust Flow Rate (scfm): 13,500

Exhaust Temperature (°F): 480

Discharge Style: Unobstructed vertical

Authority for Requirement: Iowa DNR Construction Permit 11-A-689-P1

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flow rate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: S-131**

### Associated Equipment

Associated Emission Unit ID Numbers: PNTS01  
Emissions Control Equipment ID Number: PNTS01  
Emissions Control Equipment Description: Filters – Paint Arrestor Pads

---

Emission Unit vented through this Emission Point: PNTS01  
Emission Unit Description: Maintenance Paint Booth  
Raw Material/Fuel: Paint  
Rated Capacity: Four Guns at 1.02 gal/min each (17 gal/day limit)

### **Applicable Requirements**

#### **Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40%<sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 97-A-140-S3  
567 IAC 23.3(2)"d"

- <sup>(1)</sup> An exceedance of the indicator opacity of 10% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter

Emission Limit(s): 0.01 gr/dscf

Authority for Requirement: Iowa DNR Construction Permit 97-A-140-S3  
567 IAC 23.4(13)

#### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

Process throughput:

- A. The amount of coatings used in the Maintenance Paint Booth (EU PNTS01) shall not exceed 17 gallons per day
- B. The owner or operator shall maintain the control equipment according to manufacturer's specifications and maintenance schedule.

Reporting & Record keeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. Record daily the amount of paint used in the Maintenance Paint Booth each day.
- B. The owner or operator shall maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of the control equipment.

Authority for Requirement: Iowa DNR Construction Permit 97-A-140-S3

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 37.2

Stack Opening, (inches, dia.): 43

Exhaust Flow Rate (scfm): 45,000

Exhaust Temperature (°F): Ambient

Discharge Style: Vertical, Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 97-A-140-S3

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flow rate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**                      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**                      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**                      Yes  No

**Paint Booth Agency Operation & Maintenance Plan**

**Weekly**

- Inspect the paint booth system for conditions that reduce the operating efficiency of the collection system. This will include a visual inspection of the condition of the filter material.
- Maintain a written record of the observation and any action resulting from the inspection.

**Record Keeping and Reporting**

Maintenance and inspection records will be kept for five years and available upon request.

**Quality Control**

- The filter equipment will be operated and maintained according to the manufacturers recommendations.

Authority for Requirement: 567 IAC 22.108(3)

**Emission Point ID Number: See Table: Reheat Furnaces**

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Reheat Furnaces

---

Table: Reheat Furnaces

<b>Emission Point</b>	<b>Emission Unit</b>	<b>EU Description</b>	<b>Raw Material</b>	<b>Rated Capacity</b>
S-007	RFRN01	Reheat Furnace #1	Natural Gas	0.01 MMcf/hr
S-014	RFRN08	Reheat Furnace #8	Natural Gas	0.01 MMcf/hr
S-015	RFRN09	Reheat Furnace #9	Natural Gas	0.01 MMcf/hr
S-016	RFRN10	Reheat Furnace #10	Natural Gas	0.01 MMcf/hr
S-017	RFRN11	Reheat Furnace #11	Natural Gas	0.01 MMcf/hr
S-018	RFRN12	Reheat Furnace #12	Natural Gas	0.01 MMcf/hr
S-019	RFRN13	Reheat Furnace #13	Natural Gas	0.01 MMcf/hr
S-020	RFRN14	Reheat Furnace #14	Natural Gas	0.01 MMcf/hr
S-021	RFRN15	Reheat Furnace #15	Natural Gas	0.01 MMcf/hr
S-074	RFRN20	Reheat Furnace #20	Natural Gas	0.01 MMcf/hr
S-073	RFRN21	Reheat Furnace #21	Natural Gas	0.01 MMcf/hr
S-072	RFRN22	Reheat Furnace #22	Natural Gas	0.01 MMcf/hr
S-070	RFRN24	Reheat Furnace #24	Natural Gas	0.01 MMcf/hr

**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40%

Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter

Emission Limit(s): 0.6 lb/MMBtu

Authority for Requirement: 567 IAC 23.3(2)"b"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit(s): 500 ppmv

Authority for Requirement: 567 IAC 23.3(3)"e"

**Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

NESHAP

These emission unit are subject to Subparts A (General Provisions, 40 CFR §63.1 – §63.15) and DDDDD (National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters; 40 CFR §63.7480 – §63.7575) of the National Emission Standards for Hazardous Air Pollutants (NESHAP).

Authority for Requirement: 40 CFR Part 63 Subpart DDDDD

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

**Emission Point ID Number: HR-P**

Associated Equipment

Associated Emission Unit ID Numbers: ROADP

---

Emission Unit vented through this Emission Point: ROADP

Emission Unit Description: Paved Haul Roads

Raw Material/Fuel: Vehicle Miles Traveled (VMT)

Rated Capacity: 4.17 VMT/hr

**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Fugitive Dust

Emission Limit: No person shall allow, cause or permit any materials to be handled, transported or stored; or a building, its appurtenances or a construction haul road to be used, constructed, altered, repaired or demolished, without taking reasonable precautions to prevent a nuisance. All persons shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate.

Authority for Requirement: 567 IAC 23.3(2)"c"

**Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

None at this time.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

**Emission Point ID Number: HR-UP**

Associated Equipment

Associated Emission Unit ID Numbers: ROADUP

Emission Unit vented through this Emission Point: ROADUP

Emission Unit Description: Unpaved Haul Roads

Raw Material/Fuel: Vehicle Miles Traveled (VMT)

Rated Capacity: 0.42 VMT/hr

**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Fugitive Dust

Emission Limit: No person shall allow, cause or permit any materials to be handled, transported or stored; or a building, its appurtenances or a construction haul road to be used, constructed, altered, repaired or demolished, without taking reasonable precautions to prevent a nuisance. All persons shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate.

Authority for Requirement: 567 IAC 23.3(2)"c"

**Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

None at this time.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

**Emission Point ID Number: S-099**

Associated Equipment

Associated Emission Unit ID Numbers: SCLP03  
Emissions Control Equipment ID Number: SCLP099  
Emissions Control Equipment Description: Fabric Filter – Type Dust Collector

---

Emission Unit vented through this Emission Point: SCLP03  
Emission Unit Description: #3 Scalper  
Raw Material/Fuel: Metal  
Rated Capacity: 1.62 ton/hr

**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity  
Emission Limit(s): 40%<sup>(1)</sup>  
Authority for Requirement: Iowa DNR Construction Permit 01-A-216  
567 IAC 23.3(2)"d"

<sup>(1)</sup> An exceedance of the indicator opacity of 10% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM<sub>10</sub>  
Emission Limit(s): 3.28 lb/hr  
Authority for Requirement: Iowa DNR Construction Permit 01-A-216

Pollutant: Particulate Matter (PM)  
Emission Limit(s): 0.1 gr/dscf, 5.57 lb/hr  
Authority for Requirement: Iowa DNR Construction Permit 01-A-216  
567 IAC 23.3(2)"a"

**Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

Not at this time.

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 115  
Stack Opening, (inches, dia.): 84  
Exhaust Flow Rate (scfm): 62,250  
Exhaust Temperature (°F): 70  
Discharge Style: Vertical w/o raincap  
Authority for Requirement: Iowa DNR Construction Permit 01-A-216

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flow rate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Numbers: S-261, S-262**

### Associated Equipment

Associated Emission Unit ID Number: SCLP04

---

Emission Unit vented through these Emission Points: SCLP04

Emission Unit Description: #4 Scalper

Raw Material/Fuel: Metal

Rated Capacity: 8.13 ton/hr

### **Applicable Requirements**

#### **Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from each emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40%

Authority for Requirement: Iowa DNR Construction Permits 79-A-186-S1 (S-261) and 79-A-187-S1 (S-262)  
567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)

Emission Limit(s): 2.78 lb/hr

Authority for Requirement: Iowa DNR Construction Permits 79-A-186-S1 (S-261) and 79-A-187-S1 (S-262)

#### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

None at this time.

#### **Emission Point Characteristics**

*These emission points shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 67.42

Stack Opening, (inches, dia.): 84

Exhaust Flow Rate (scfm): 31,000

Exhaust Temperature (<sup>0</sup>F): Ambient

Discharge Style: Unobstructed vertical

Authority for Requirement: Iowa DNR Construction Permits 79-A-186-S1 (S-261) and 79-A-187-S1 (S-262)

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may

vary with changes in the process and ambient conditions. If it is determined that either the temperature or flow rate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: S-298**

### Associated Equipment

Associated Emission Unit ID Numbers: SHLT01

---

Emission Unit vented through this Emission Point: SHLT01  
Emission Unit Description: Scrap Conveyor System Exhaust  
Raw Material/Fuel: Metal  
Rated Capacity: NA

### **Applicable Requirements**

#### **Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40%<sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 90-A-363-S1  
567 IAC 23.3(2)"d"

<sup>(1)</sup>An exceedance of the indicator opacity of 0% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM<sub>10</sub>

Emission Limit(s): 3.29 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 90-A-363-S1

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf

Authority for Requirement: Iowa DNR Construction Permit 90-A-363-S1  
567 IAC 23.3(2)"a"

#### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

None at this time.

#### **Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 35' 3 7/8"

Stack Opening, (inches, dia.): 21.5

Exhaust Flow Rate (scfm): 8,500

Exhaust Temperature (°F): 120

Discharge Style: Vertical, with obstructive discharge

Authority for Requirement: Iowa DNR Construction Permit 90-A-363-S1

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flow rate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: S-338**

### Associated Equipment

Associated Emission Unit ID Numbers: SKIM

Emissions Control Equipment ID Number: SKIM0338

Emissions Control Equipment Description: Fabric Filter-Type Dust Collector

---

Emission Unit vented through this Emission Point: SKIM

Emission Unit Description: Skim House

Raw Material/Fuel: Skim Dust

Rated Capacity: 2.5 ton/hr

### **Applicable Requirements**

#### **Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40%<sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 01-A-217  
567 IAC 23.3(2)"d"

<sup>(1)</sup> An exceedance of the indicator opacity of 10% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM<sub>10</sub>

Emission Limit(s): 3.28 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 01-A-217

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf, 5.57 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 01-A-217  
567 IAC 23.3(2)"a"

#### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

None at this time.

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 65  
Stack Opening, (inches, dia.): 60  
Exhaust Flow Rate (scfm): 83,600  
Exhaust Temperature (°F): 100  
Discharge Style: Vertical without raincap  
Authority for Requirement: Iowa DNR Construction Permit 01-A-217

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flow rate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: FUG-R214**

### Associated Equipment

Associated Emission Unit ID Numbers: SKIM-R214

---

Emission Unit vented through this Emission Point: SKIM-R214  
Emission Unit Description: Fugitives from Dumping/Loading Skim  
Raw Material/Fuel: Dross  
Rated Capacity: 0.23 ton/hr

### **Applicable Requirements**

#### **Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40%<sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 06-A-569  
567 IAC 23.3(2)"d"

<sup>(1)</sup>An exceedance of the indicator opacity of 25% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM<sub>10</sub>

Emission Limit(s): 0.52 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 06-A-569

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf, 0.52 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 06-A-569  
567 IAC 23.3(2)"a"

#### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

None at this time.

#### **Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Vents inside.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

**Emission Point ID Number: See Table: Heat Treat  
Associated Equipment**

Associated Emission Unit ID Numbers: See Table: Heat Treat

Table: Heat Treat

<b>Emission Point</b>	<b>Emission Unit</b>	<b>EU Description</b>	<b>Raw Material</b>	<b>Rated Capacity</b>
S-068	TFRN10	#10 Heat Treat Furnace	Natural Gas	0.01 MMcf/hr
S-069	TFRN11	#11 Heat Treat Furnace	Natural Gas	0.01 MMcf/hr
S-259	TFRN12	#12 Heat Treat Furnace Line	Natural Gas	0.01 MMcf/hr
S-160	TFRN50	50" Continuous Heat Treat Line	Natural Gas	0.01 MMcf/hr
S-162				
S-172	TFRN86	86" Continuous Heat Treat Furnace	Natural Gas	0.01 MMcf/hr
S-176				
S-177				
S-178				
S-179				
S-180				

**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40%

Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter

Emission Limit(s): 0.6 lb/MMBtu

Authority for Requirement: 567 IAC 23.3(2)"b"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit(s): 500 ppmv

Authority for Requirement: 567 IAC 23.3(3)"e"

**Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

NESHAP

These emission units are subject to Subparts A (General Provisions, 40 CFR §63.1 – §63.15) and DDDDD (National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters; 40 CFR §63.7480 – §63.7575) of the National Emission Standards for Hazardous Air Pollutants (NESHAP).

Authority for Requirement: 40 CFR Part 63 Subpart DDDDD

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

**Emission Point ID Number: See Table: #14 Heat Treat**

Associated Equipment

Associated Emission Unit ID Numbers: See Table: #14 Heat Treat

Table: #14 Heat Treat

<b>Emission Point</b>	<b>Emission Unit</b>	<b>EU Description</b>	<b>Raw Material/Fuel</b>	<b>Rated Capacity</b>
S-327	TFRN14	#14 Heat Treat Furnace	Natural Gas	16 MMBtu/hr
S-328				
S-329				
S-330				

**Applicable Requirements**

**(1)Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

- (1) All emission limits listed below are the combined limits for emission points S-327, S-328, S-329, and S-330

Pollutant: Opacity

Emission Limit(s): 40%

Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: PM<sub>10</sub>

Emission Limit(s): 0.96 tons/yr

Authority for Requirement: Iowa DNR Construction Permit 95-A-638

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.96 tons/yr

Authority for Requirement: Iowa DNR Construction Permit 95-A-638

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit(s): 0.04 tons/yr

Authority for Requirement: Iowa DNR Construction Permit 95-A-638

Pollutant: Nitrogen Oxides (NO<sub>x</sub>)

Emission Limit(s): 9.8 tons/yr

Authority for Requirement: Iowa DNR Construction Permit 95-A-638

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 0.20 tons/yr

Authority for Requirement: Iowa DNR Construction Permit 95-A-638

Pollutant: Carbon Monoxide (CO)  
Emission Limit(s): 2.8 tons/yr  
Authority for Requirement: Iowa DNR Construction Permit 95-A-638

**Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

Process throughput:

- A. Fuel usage in the No. 14 Vertical Heat Treat Furnace shall be limited to natural gas.
- B. Annual usage of natural gas in the No. 14 Vertical Heat Treat Furnace shall be limited to 140.16 million cubic feet, as determined by monthly rolling total.
- C. Quantities of fuel usage in the No. 14 Vertical Heat Treat Furnace shall be determined by non-resettable natural gas metering device(s).

Reporting & Record keeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. Annual usage of natural gas in cubic feet shall be recorded each month on a 12-month rolling total basis.

Authority for Requirement: Iowa DNR Construction Permit 95-A-638

**Emission Point Characteristics**

*These emission points shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 78.61

Stack Opening, (inches, dia.): 24

Exhaust Flow Rate (acfm): 15,045

Exhaust Temperature (°F): 600

Discharge Style: Unobstructed vertical

Authority for Requirement: Iowa DNR Construction Permit 95-A-638

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flow rate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: S-333**

### Associated Equipment

Associated Emission Unit ID Numbers: TFRN15

---

Emission Unit vented through this Emission Point: TFRN15

Emission Unit Description: #15 Heat Treat Furnace

Raw Material/Fuel: Natural Gas

Rated Capacity: 0.03 MMcf/hr

### **Applicable Requirements**

#### **Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40%<sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 95-A-812-S1  
567 IAC 23.3(2)"d"

<sup>(1)</sup>An exceedance of the indicator opacity of 10% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM<sub>10</sub>

Emission Limit(s): 2.0 tons/yr<sup>(2)</sup>

Authority for Requirement: Iowa DNR Construction Permit 95-A-812-S1

Pollutant: Particulate Matter

Emission Limit(s): 0.1 gr/dscf, 2.0 tons/yr<sup>(2)</sup>

Authority for Requirement: Iowa DNR Construction Permit 95-A-812-S1  
567 IAC 23.3(2)"a"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit(s): 0.09 tons/yr, 500 ppmv

Authority for Requirement: Iowa DNR Construction Permit 95-A-812-S1  
567 IAC 23.3(3)"e"

Pollutant: Nitrogen Oxides (NO<sub>x</sub>)

Emission Limit(s): 31.0 tons/yr<sup>(2)</sup>

Authority for Requirement: Iowa DNR Construction Permit 95-A-812-S1

Pollutant: Volatile Organic Compounds (VOC)  
Emission Limit(s): 0.41 tons/yr<sup>(2)</sup>  
Authority for Requirement: Iowa DNR Construction Permit 95-A-812-S1

Pollutant: Carbon Monoxide (CO)  
Emission Limit(s): 5.1 tons/yr<sup>(2)</sup>  
Authority for Requirement: Iowa DNR Construction Permit 95-A-812-S1  
<sup>(2)</sup> Standard is a 12-month rolling total.

### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

### **NESHAP**

This emission unit is subject to Subparts A (General Provisions, 40 CFR §63.1 – §63.15) and DDDDD (National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters; 40 CFR §63.7480 – §63.7575) of the National Emission Standards for Hazardous Air Pollutants (NESHAP).

Authority for Requirement: 40 CFR Part 63 Subpart DDDDD

Process throughput:

- A. Fuel usage in the No. 15 Horizontal Heat Treat Furnace shall be limited to natural gas.
- B. Annual usage of natural gas in No. 15 Horizontal Heat Treat Furnace shall be limited to 289.08 million cubic feet per rolling 12 month period
- C. Quantities of fuel usage in the No. 15 Horizontal Heat Treat Furnace shall be determined by non-resettable natural gas metering device(s).

Reporting & Record keeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR Records shall be legible and maintained in an orderly manner.

- A. On monthly basis, record the amount of natural gas used in 15 Horizontal Heat Treat Furnace is cubic feet. Calculate and record rolling 12-month totals.

Authority for Requirement: Iowa DNR Construction Permit 95-A-812-S1

### **Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 65.81  
Stack Opening, (inches, dia.): 36  
Exhaust Flow Rate (acfm): 19,282  
Exhaust Temperature (°F): 480  
Discharge Style: Vertical Obstructed  
Authority for Requirement: Iowa DNR Construction Permit 95-A-812-S1

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flow rate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**                      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**                      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**                      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: S-340**

### Associated Equipment

Associated Emission Unit ID Numbers: TFRN16

---

Emission Unit vented through this Emission Point: TFRN16  
Emission Unit Description: #16 Heat Treat Furnace  
Raw Material/Fuel: Natural Gas  
Rated Capacity: 50 MMBtu/hr

### **Applicable Requirements**

#### **Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40%<sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 01-A-879  
567 IAC 23.3(2)"a"

- <sup>(1)</sup> An exceedance of the indicator opacity of no visible emissions will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM<sub>10</sub>

Emission Limit(s): 0.76 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 01-A-879

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf, 0.76 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 01-A-879  
567 IAC 23.3(2)"a"

Pollutant: Sulfur Oxide (SO<sub>2</sub>)

Emission Limit(s): 500 ppmv

Authority for Requirement: Iowa DNR Construction Permit 01-A-879  
567 IAC 23.3(3)"e"

Pollutant: Nitrogen Oxides (NO<sub>x</sub>)

Emission Limit(s): 10.0 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 01-A-879

### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

#### **NESHAP**

This emission unit is subject to Subparts A (General Provisions, 40 CFR §63.1 – §63.15) and DDDDD (National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters; 40 CFR §63.7480 – §63.7575) of the National Emission Standards for Hazardous Air Pollutants (NESHAP).

Authority for Requirement: 40 CFR Part 63 Subpart DDDDD

Process throughput:

- A. This unit shall operate on natural gas only.
- B. The total amount of natural gas used by this unit shall not exceed 200,000,000 cubic feet per 12-month rolling period.

Reporting & Record keeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. Determine the cumulative amount natural gas used on a rolling-12-month basis for each month of operation.

Authority for Requirement: Iowa DNR Construction Permit 01-A-879

### **Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 71.5

Stack Opening, (inches, dia.): 49.25

Exhaust Flow Rate (scfm): 18,000

Exhaust Temperature (8F): 480

Discharge Style: Unobstructed vertical

Authority for Requirement: Iowa DNR Construction Permit 01-A-879

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flow rate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: S-362**

### Associated Equipment

Associated Emission Unit ID Numbers: TFRN88

---

Emission Unit vented through this Emission Point: TFRN88  
Emission Unit Description: 88" Continuous Heat Treat Line  
Raw Material/Fuel: Natural Gas  
Rated Capacity: 20.4 MMBtu/hr

### **Applicable Requirements**

#### **Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

<sup>(1)</sup>Emission Limit(s): 40%

Authority for Requirement: Iowa DNR Construction Permit 11-A-695-P2  
567 IAC 23.3(2)"a"

- <sup>(1)</sup> An exceedance of the indicator opacity of no visible emissions will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM<sub>10</sub>

Emission Limit(s): 0.155 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 11-A-695-P2

Pollutant: PM<sub>2.5</sub>

Emission Limit(s): 0.155 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 11-A-695-P2

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.155 lb/hr and 0.1 gr/dscf,

Authority for Requirement: Iowa DNR Construction Permit 11-A-695-P2  
567 IAC 23.3(2)"a"

Pollutant: Sulfur Oxide (SO<sub>2</sub>)

Emission Limit(s): 500 ppmv

Authority for Requirement: Iowa DNR Construction Permit 11-A-695-P2  
567 IAC 23.3(3)"e"

Pollutant: Nitrogen Oxides (NO<sub>x</sub>)

Emission Limit(s): 2.0 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 11-A-695-P2

### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

Operating Limits:

- A. This emission unit is limited to firing on only natural gas.
- B. This emission unit is limited to combusting 78.84 million cubic feet (MMCF) of natural gas per year (yr).
- C. Per 567 IAC 33.3(18)"f"(1), prior to beginning actual construction of the project (Project Number 11-322) the owner or operator shall document:
  - (1) A description of the project (Project Number 11-322),
  - (2) Identification of the emission unit(s) whose emissions of a regulated NSR pollutant could be affected by the project (Project Number 11-322), and
  - (3) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including the baseline actual emissions (BAE), the projected actual emissions (PAE), the amount of emissions excluded under paragraph "3" of the definition of "projected actual emissions" in subrule 33.3(1), an explanation describing why such amount was excluded, and any netting analysis if applicable.
- D. Per 567 IAC 33.3(18)"f"(4), the owner or operator shall:
  - (1) Monitor the emission of any regulated NSR pollutant that could increase as a result of the project that is emitted by any emissions unit identified in C. (2), above.
  - (2) Calculate the annual emissions, in tons per year on a calendar-year basis, for a period of five (5) years following resumption of regular operations and maintain a record of regular operations after the change.
- E. Per 567 IAC 33.3(18)"g", the owner or operator shall make the information required to be documented and maintained pursuant to 567 IAC 33.3(18)"f" available for review upon request for inspection by the Department or the general public pursuant to the requirements for Title V operating permits contained in 567 IAC 22.107(6).

Reporting & Record keeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. The owner/operator shall maintain the following records:

- A. After the first twelve (12) months of operation, determine the cumulative amount of fuel used (in cubic feet/year) by this emission unit on a rolling-12-month basis for each month of operation.
- B. Per 567 IAC 33.3(18)"f"(1), the owner or operator shall maintain a record of the information required in Condition 14.C. of this permit.
- C. Per 567 IAC 33.3(18)"f"(4) and 567 IAC 33.3(18)"f"(5), the owner or operator shall maintain a record containing the information required in D., under Operating Limits, above, of this permit and that record shall be retained by the owner or operator for a period

of ten (10) years after the project (Project Number 11-322) is completed.

Authority for Requirement: Iowa DNR Construction Permit 11-A-695-P2

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 55

Stack Opening, (inches, dia.): 30

Exhaust Flow Rate (scfm): 2,200

Exhaust Temperature (°F): 410

Discharge Style: Unobstructed vertical

Authority for Requirement: Iowa DNR Construction Permit 11-A-695-P2

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: S-363**

### Associated Equipment

Associated Emission Unit ID Numbers: ATL01

Emissions Control Equipment ID Numbers: ATL363B and ATL363A

Emissions Control Equipment Description: Packed Bed Scrubber and Demister

---

Emission Unit vented through this Emission Point: ATL01

Emission Unit Description: #1 Automotive Treatment Line

Raw Material/Fuel: Metal

Rated Capacity: 300 ft/min

### **Applicable Requirements**

#### **Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

#### BACT Emission Limit

Volatile Organic Compounds (VOC)

Emission Limit: 5.81 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 11-A-696-P2

#### Other Emission Limits

Pollutant: Opacity

Emission Limit(s): 40%<sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 11-A-696-P2  
567 IAC 23.3(2)"a"

- <sup>(1)</sup> An exceedance of the indicator opacity of 10% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.64 lb/hr and 0.1 gr/dscf.

Authority for Requirement: Iowa DNR Construction Permit 11-A-696-P2  
567 IAC 23.3(2)"a"

Pollutant: PM<sub>10</sub>

Emission Limit(s): 0.64 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 11-A-696-P2

Pollutant: PM<sub>2.5</sub>

Emission Limit(s): 0.64 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 11-A-696-P2

## **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

### Operating Limits:

- A. The pressure drop across the Packed Bed Scrubber (CE ATL363B) shall be maintained between 2.0 inches H<sub>2</sub>O – 5.5 inches of H<sub>2</sub>O on an hourly average.
- B. The owner or operator shall properly operate and maintain equipment to monitor the pressure drop across the control equipment (CE ATL363B). The monitoring device(s) and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals or per written facility specific operation and maintenance plan.
- C. The owner or operator shall conduct a monthly visual inspection of the Demister (CE ATL363A) and annual preventative maintenance on the Demister (CE ATL363A).
- D. The pH of the Packed Bed Scrubber (CE ATL363B) scrubbant shall be maintained between 1 -7 on an hourly average.
- E. The owner or operator shall properly operate and maintain equipment to monitor the pH (or conductivity) of the Packed Bed Scrubber (CE ATL363B) scrubbant. The monitoring device(s) and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals or per written facility specific operation and maintenance plan.
- F. Per 567 IAC 33.3(18)"f"(1), prior to beginning actual construction of the project (Project Number 11-322) the owner or operator shall document:
  - (1) A description of the project (Project Number 11-322),
  - (2) Identification of the emission unit(s) whose emissions of a regulated NSR pollutant could be affected by the project (Project Number 11-322), and
  - (3) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including the baseline actual emissions (BAE), the projected actual emissions (PAE), the amount of emissions excluded under paragraph "3" of the definition of "*projected actual emissions*" in subrule 33.3(1), an explanation describing why such amount was excluded, and any netting analysis if applicable.
- G. Per 567 IAC 33.3(18)"f"(4), the owner or operator shall;
  - (1) Monitor the emission of any regulated NSR pollutant that could increase as a result of the project that is emitted by any emissions unit identified in F. (ii), above.
  - (2) Calculate the annual emissions, in tons per year on a calendar-year basis, for a period of five (5) years following resumption of regular operations and maintain a record of regular operations after the change.
- H. Per 567 IAC 33.3(18)"g", the owner or operator shall make the information required to be documented and maintained pursuant to 567 IAC 33.3(18)"f" available for review upon request for inspection by the Department or the general public pursuant to the requirements for Title V operating permits contained in 567 IAC 22.107(6).

**Reporting & Record keeping:**

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. The owner/operator shall maintain the following records:

- A. The owner or operator shall collect and record the pressure drop across the control equipment (CE ATL363B) on an hourly basis when the emission unit is operating, except for normal meter maintenance, calibration and replacement, and malfunctions. A minimum of one (1) measurement shall be recorded per hour.
- B. A log of the visual inspections and maintenance on the Demister (CE ATL363A). This log shall detail:
  - The date,
  - Detail whether visual inspection or annual maintenance,
  - Condition of the Demister (CE ATL363A), and
  - Any maintenance conducted.
- C. The owner or operator shall collect and record the pH (or conductivity) of the Packed Bed Scrubber (CE ATL363B) scrubbant on an hourly basis when the emission unit is operating, except for normal meter maintenance, calibration and replacement, and malfunctions. A minimum of one (1) measurement shall be recorded per hour.
- D. Per 567 IAC 33.3(18)"f"(1), the owner or operator shall maintain a record of the information required in F., under Operating Limits, above.
- E. Per 567 IAC 33.3(18)"f"(4) and 567 IAC 33.3(18)"f"(5), the owner or operator shall maintain a record containing the information required in G., under Operating Limits, above, and that record shall be retained by the owner or operator for a period of ten (10) years after the project (Project Number 11-322) is completed

Authority for Requirement: Iowa DNR Construction Permit 11-A-696-P2

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 69

Stack Opening, (inches, dia.): 29

Exhaust Flow Rate (scfm): 10,950

Exhaust Temperature (°F): 125

Discharge Style: Unobstructed vertical

Authority for Requirement: Iowa DNR Construction Permit 11-A-696-P2

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

**Emission Point ID Number: T-129**

Associated Equipment

Associated Emission Unit ID Numbers: TNKA0129

Emission Unit vented through this Emission Point: TNKA0129  
Emission Unit Description: Fuel Oil Storage Tank  
Raw Material/Fuel: Diesel Fuel  
Rated Capacity: 402,369 gal

**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

None at this time.

**Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

None at this time.

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Tank Height, (ft, from the ground): 31  
Tank Diameter (ft): 47  
Authority for Requirement: Iowa DNR Construction Permit 93-A-304

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

**Emission Point ID Number: T-130**

Associated Equipment

Associated Emission Unit ID Numbers: TNKA0130

Emission Unit vented through this Emission Point: TNKA0130  
Emission Unit Description: Used Oil & Water Storage Tank  
Raw Material/Fuel: Used Oil  
Rated Capacity: 402,369 gallons

**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

None at this time.

**Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

None at this time.

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Tank Height, (ft, from the ground): 31  
Tank Diameter, (ft, dia.): 47  
Authority for Requirement: Iowa DNR Construction Permit 93-A-305

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**  
Authority for Requirement: 567 IAC 22.108(3)

Yes  No

**Emission Point ID Number: T-141**

Associated Equipment

Associated Emission Unit ID Numbers: TNKA0141

---

Emission Unit vented through this Emission Point: TNKA0141

Emission Unit Description: Storage Tank (2,000 gallon)

Raw Material/Fuel: Gasoline

Rated Capacity: 10 gal/hr

**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit: 1 ton/yr

Authority for Requirement: Iowa DNR Construction Permit 95-A-436

**Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

None at this time.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

**Emission Point ID Number: T-142**

Associated Equipment

Associated Emission Unit ID Numbers: TNKA0142

Emission Unit vented through this Emission Point: TNKA0142  
Emission Unit Description: Storage Tank (2000 gal) Diesel Fuel  
Raw Material/Fuel: Diesel Fuel  
Rated Capacity: 80 gallons/hr

**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Volatile Organic Compounds (VOC)  
Emission Limit(s): 1 ton/yr  
Authority for Requirement: Iowa DNR Construction Permit 95-A-437

**Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

None at the time.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

**Emission Point ID Number: T-223**

Associated Equipment

Associated Emission Unit ID Numbers: TNKA0223

Emission Unit vented through this Emission Point: TNKA0223  
Emission Unit Description: Storage Tank (30,000 gallons) Oily Waste  
Raw Material/Fuel: Oily Waste  
Rated Capacity: 4,450 gallons/hr

**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

None at this time.

**Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

Process throughput:

- A. The material stored in this tank shall not have a vapor pressure that exceeds 15.0 kPa.

Reporting & Record keeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. The owner/operator shall maintain the following records:

- A. Maintain the MSDS for any material stored in Tank 223.
- B. Maintain a record of the vapor pressure for any material stored in the tank.

Authority for Requirement: Iowa DNR Construction Permit 99-A-969-S1

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: S-323**

### Associated Equipment

Associated Emission Unit ID Numbers: TTST12

---

Emission Unit vented through this Emission Point: TTST12

Emission Unit Description: Truck Maintenance Engine Exhaust (three bays)

Raw Material/Fuel: Diesel Fuel

Rated Capacity: NA

### **Applicable Requirements**

#### **Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40%<sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 97-A-145-S1  
567 IAC 23.3(2)"d"

- <sup>(1)</sup> An exceedance of the indicator opacity of "no visible emissions" will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM<sub>10</sub>

Emission Limit(s): 1.2 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 97-A-145-S1

Pollutant: Particulate Matter (PM)

Emission Limit(s): 1.2 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 97-A-145-S1

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit(s): 2.5 lbs/MMBtu

Authority for Requirement: Iowa DNR Construction Permit 97-A-145-S1  
567 IAC 23.3(3)

Pollutant: Nitrogen Oxides (NO<sub>x</sub>)

Emission Limit(s): 8.1 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 97-A-145-S1

**Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

None at this time.

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 44.8

Stack Opening, (inches, dia.): 29

Exhaust Flow Rate (scfm): 8,400

Exhaust Temperature (°F): 100

Discharge Style: Vertical, unobstructed

Authority for Requirement: Iowa DNR Construction Permit 97-A-145-S1

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

**Emission Point ID Number: S-133**

Associated Equipment

Associated Emission Unit ID Number: WWRK02  
Emissions Control Equipment ID Number: WWRK0133  
Emissions Control Equipment Description: Cyclone

---

Emission Unit vented through this Emission Point: WWRK02  
Emission Unit Description: Sawdust Collector  
Raw Material/Fuel: Wood  
Rated Capacity: 143 tons/hr

**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from these emission points shall not exceed the levels specified below.*

Pollutant: Opacity  
Emission Limit(s): 40%  
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter  
Emission Limit(s): 54.3 lb./hr  
based on a process weight rate of 143 tons/hr  
Authority for Requirement: 567 IAC 23.3(2)"a"

**Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

None at this time.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

*Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.*

*The data pertaining to the plan must be maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.*

*Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.*

Authority for Requirement: 567 IAC 22.108(3)

**Emission Point ID Number: See Table: Boilers**

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Boilers

Table: Boilers

<b>Emission Point Number</b>	<b>Associated Emission Unit Number</b>	<b>Emission Unit Description</b>	<b>Raw Material</b>	<b>Rated Capacity (MMBtu/hr)</b>	<b>Construction Permit Number</b>
S-405	BOIL01	Natural Gas Fired Boiler	Natural Gas	48.356	12-A-313-P2
S-406	BOIL02	Natural Gas Fired Boiler	Natural Gas	48.356	12-A-314-P2
S-407	BOIL03	Natural Gas Fired Boiler	Natural Gas	48.356	12-A-315-P2

**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from each emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit: 40 %<sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permits Listed in: Table: Boilers  
567 IAC 23.3(2)"d"

<sup>(1)</sup> An exceedance of the indicator opacity of “no visible emissions” will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM<sub>10</sub>

Emission Limit: 0.36 lb/hr

Authority for Requirement: Iowa DNR Construction Permits Listed in: Table: Boilers

Pollutant: PM<sub>2.5</sub>

Emission Limit: 0.00738 lb/MMBtu

Authority for Requirement: Iowa DNR Construction Permits Listed in: Table: Boilers

Pollutant: Particulate Matter

Emission Limit 0.36 lb/hr and : 0.6 lb/MMBtu,

Authority for Requirement: Iowa DNR Construction Permits Listed in: Table: Boilers  
567 IAC 23.3(2)"b"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit: 500 ppmv

Authority for Requirement: Iowa DNR Construction Permits Listed in: Table: Boilers  
567 IAC 23.3(3)"e"

Pollutant: Nitrogen Oxides (NO<sub>x</sub>)

Emission Rate: 0.024 lb/MMBtu

Authority for Requirement: Iowa DNR Construction Permits Listed in: Table: Boilers

**Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the following operational limits and requirements.*

**NSPS and NESHAP:**

These boilers are subject to the requirements/conditions of NSPS Subpart A-General Provisions and NSPS Subpart Dc-Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units.

Authority for Requirement: Iowa DNR Construction Permits Listed in: Table: Boilers  
40 CFR 60 Subpart Dc  
567 IAC 23.1(2)"III"

These boilers are subject to Subpart A (General Provisions, 40 CFR §63.1-§63.15) and DDDDD (National Emission Standard for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR §63.7480-§63.7575) of the National Emission Standards for Hazardous Air Pollutants (NESHAP).

Authority for Requirement: 40 CFR Part 63 Subpart DDDDD

**Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the following operational limits and requirements.*

Process throughput:

- A. These emission units are limited to firing on natural gas.
- B. The three boilers combined are limited to using no more than 425 MMcf of natural gas per 12-month rolling period.

Reporting & Record keeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. The owner/operator shall maintain the following records:

- A. The permittee shall maintain the following monthly records:
  - (1) the total amount of natural gas burned in all these boilers (EP's: S-405, S-406 and S-407),

combined; and,  
(2) a determination of the 12-month rolling total amount of natural gas burned in all these boilers (EP's: S-405, S-406 and S-407), combined.

- B. As specified in 40 CFR Part 60 §60.48c(g), the owner or operator of these boilers shall record and maintain records of the amount of fuel combusted in each emission unit during each calendar month or record and maintain records of the total amount of each steam generating unit fuel delivered to the facility during each calendar month.
- C. The permittee shall install and operate flow meters to measure and record, in a permanent format, the volume of natural gas consumed by the units vented to emission points S-405, S-406 and S-407. The meter(s) shall be configured to indicate the flow of natural gas to the units as a group or individually.
- (1) the equipment used to measure the quantities of natural gas used shall be calibrated prior to its first use for monitoring and recording under this Permit Condition, using a suitable standard method published by a consensus based standards organization or according to the equipment manufacturer's directions.

Authority for Requirement: Iowa DNR Construction Permits Listed in: Table: Boilers

**Emission Point Characteristics**

*These emission points shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 35

Stack Opening, (inches, dia.): 28

Exhaust Flow Rate (scfm): 9,620

Exhaust Temperature (°F): 274

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permits Listed in: Table: Boilers

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

**Emission Point ID Number: See Table: Oil House Process Heaters**

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Oil House Process Heaters

Table: Oil House Process Heaters

<b>Emission Point Number</b>	<b>Associated Emission Unit Number</b>	<b>Emission Unit Description</b>	<b>Raw Material</b>	<b>Rated Capacity (MMBtu/hr)</b>	<b>Construction Permit Number</b>
S-400	PHeat01	Oil House Process Heater #1	Natural Gas	8	12-A-316-P2
S-401	PHeat02	Oil House Process Heater #2	Natural Gas	8	12-A-317-P2
	PHeat03	Oil House Process Heater #3	Natural Gas	8	
	PHeat04	Oil House Process Heater #4	Natural Gas	8	
	PHeat05	Oil House Process Heater #5	Natural Gas	8	
S-403	PHeat06	Oil House Process Heater #6	Natural Gas	8	12-A-319-P2
	PHeat07	Oil House Process Heater #7	Natural Gas	8	
	PHeat08	Oil House Process Heater #8	Natural Gas	8	
	PHeat09	Oil House Process Heater #9	Natural Gas	8	

**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from each emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit: 40 %<sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permits Listed in: Table: Oil House Process Heaters  
567 IAC 23.3(2)"d"

(1) An exceedance of the indicator opacity of “no visible emissions” will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter

Emission Limit: 0.6 lb/MMBtu, 0.236 lb/hr

Authority for Requirement: Iowa DNR Construction Permits Listed in: Table: Oil House Process Heaters  
567 IAC 23.3(2)"b"

Pollutant: PM<sub>10</sub>

Emission Limit: 0.236 lb/hr

Authority for Requirement: Iowa DNR Construction Permits Listed in: Table: Oil House Process Heaters

Pollutant: PM<sub>2.5</sub>

Emission Limit: 0.00738 lb/MMBtu

Authority for Requirement: Iowa DNR Construction Permits Listed in: Table: Oil House Process Heaters

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit: 500 ppmv

Authority for Requirement: Iowa DNR Construction Permits Listed in: Table: Oil House Process Heaters  
567 IAC 23.3(3)"e"

Pollutant: Nitrogen Oxides (NO<sub>x</sub>)

Emission Rate: 0.036 lb/MMBtu

Authority for Requirement: Iowa DNR Construction Permits Listed in: Table: Oil House Process Heaters

### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the following operational limits and requirements.*

#### **NESHAP:**

These process heaters are subject to Subpart A (General Provisions, 40 CFR §63.1-§63.15) and DDDDD (National Emission Standard for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR §63.7480-§63.7575) of the National Emission Standards for Hazardous Air Pollutants (NESHAP).

Authority for Requirement: 40 CFR Part 63 Subpart DDDDD

Process throughput:

- A. These emission units are limited to firing on natural gas.
- B. The oil house process heaters combined are limited to using no more than 250 MMcf of natural gas per 12-month rolling period.

Reporting & Record keeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. The owner/operator shall maintain the following records:

- A. The permittee shall maintain the following monthly records:
  - (1) the total amount of natural gas burned in all oil house process heaters (EP's: S-400, S-401 and S-403), combined; and,
  - (2) a determination of the 12-month rolling total amount of natural gas burned in all the oil house process heaters (EP's: S-400, S-401 and S-403), combined.
- B. The permittee shall install and operate flow meters to measure and record, in a permanent format, the volume of natural gas consumed by the units vented to emission points S-400, S-401 and S-403. The meter(s) shall be configured to indicate the flow of natural gas to the units as a single group (S-400, S-401 and S-403, combined) as distinct groups (S-400 as a group, S-401 as a group and S-403 as a group) or individually (emission unit).
  - (1) the equipment used to measure the quantities of natural gas used shall be calibrated prior to its first use for monitoring and recording under this Permit Condition, using a suitable standard method published by a consensus based standards organization or according to the equipment manufacturer's directions.

Authority for Requirement: Iowa DNR Construction Permits Listed in: Table: Oil House Process Heaters

### **Emission Point Characteristics**

*These emission points shall conform to the specifications listed below.*

Emission point S-400

Stack Height, (ft, from the ground): 84

Stack Opening, (inches, dia.): 24

Exhaust Flow Rate (scfm): 3,100

Exhaust Temperature (°F): 250-350

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 12-A-316-P2

Emission Points S-401 and S-402

Stack Height, (ft, from the ground): 68.5

Stack Opening, (inches, dia.): 36

Exhaust Flow Rate (scfm): 12,400

Exhaust Temperature (°F): 250-350

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permits 12-A-317-P2 (S-401) and 12-A-319-P2 (S-403)

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

**Emission Point ID Number: See Table: CAA Furnaces**

Associated Equipment

Associated Emission Unit ID Numbers: See Table: CAA Furnaces

Table: Oil House Process Heaters

<b>Emission Point Number</b>	<b>Associated Emission Unit Number</b>	<b>Emission Unit Description</b>	<b>Raw Material</b>	<b>Rated Capacity (MMBtu/hr)</b>	<b>Construction Permit Number</b>
S-357	CFRN60	#60 Controlled Atmospheric Annealing Furnace	Natural Gas	12	11-A-690-P1
S-358	CFRN61	#61 Controlled Atmospheric Annealing Furnace	Natural Gas	12	11-A-691-P1
S-359	CFRN62	#62 Controlled Atmospheric Annealing Furnace	Natural Gas	12	11-A-692-P1
S-360	CFRN63	#63 Controlled Atmospheric Annealing Furnace	Natural Gas	12	11-A-693-P1
S-361	CFRN64	#64 Controlled Atmospheric Annealing Furnace	Natural Gas	12	11-A-694-P1
S-366					13-A-116-P

**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from each emission point ( or combined limits for S-361 and S-366) shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit: 40 %<sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permits Listed in: Table: CAA Furnaces  
567 IAC 23.3(2)"d"

<sup>(1)</sup> An exceedance of the indicator opacity of “no visible emissions” will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM<sub>10</sub>  
Emission Limit: 0.089 lb/hr  
Authority for Requirement: Iowa DNR Construction Permits Listed in: Table: CAA Furnaces

Pollutant: PM<sub>2.5</sub>  
Emission Limit: 0.089 lb/hr  
Authority for Requirement: Iowa DNR Construction Permits Listed in: Table: CAA Furnaces

Pollutant: Particulate Matter  
Emission Limit: 0.089 lb/hr and 0.1 gr/dscf  
Authority for Requirement: Iowa DNR Construction Permits Listed in: Table: CAA Furnaces  
567 IAC 23.3(2)"a"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)  
Emission Limit: 500 ppmv  
Authority for Requirement: Iowa DNR Construction Permits Listed in: Table: CAA Furnaces  
567 IAC 23.3(3)"e"

Pollutant: Nitrogen Oxides (NO<sub>x</sub>)  
Emission Rate: 1.68 lb/hr  
Authority for Requirement: Iowa DNR Construction Permits Listed in: Table: CAA Furnaces

### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the following operational limits and requirements.*

#### NESHAP:

These CAA Furnaces are subject to Subpart A (General Provisions, 40 CFR §63.1-§63.15) and DDDDD (National Emission Standard for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR §63.7480-§63.7575) of the National Emission Standards for Hazardous Air Pollutants (NESHAP).

Authority for Requirement: 40 CFR Part 63 Subpart DDDDD

#### Operating limits:

- A. These emission units are limited to firing on only natural gas.
- B. The combined total natural gas consumption for Annealing Furnaces #60 – #64 (EUs CFRN60 – CFRN64) shall not exceed 309.2 million cubic feet (MMCF) of natural gas per year (yr).
- C. Per 567 IAC 33.3(18)"F"(1), prior to beginning actual construction of the project (Project Number 11-322) the owner or operator shall document:
  - (1) A description of the project (Project Number 11-322),
  - (2) Identification of the emission unit(s) whose emissions of a regulated NSR pollutant could be affected by the project (Project Number 11-322), and
  - (3) A description of the applicability test used to determine that the project is not a major

modification for any regulated NSR pollutant, including the baseline actual emissions (BAE), the projected actual emissions (PAE), the amount of emissions excluded under paragraph “3” of the definition of “*projected actual emissions*” in subrule 33.3(1), an explanation describing why such amount was excluded, and any netting analysis if applicable.

- D. Per 567 IAC 33.3(18)“f”(4), the owner or operator shall:
- (1) Monitor the emission of any regulated NSR pollutant that could increase as a result of the project that is emitted by any emissions unit identified in C.(2).
  - (2) Calculate the annual emissions, in tons per year on a calendar-year basis, for a period of five (5) years following resumption of regular operations and maintain a record of regular operations after the change.
- E. Per 567 IAC 33.3(18)“g”, the owner or operator shall make the information required to be documented and maintained pursuant to 567 IAC 33.3(18)“f” available for review upon request for inspection by the Department or the general public pursuant to the requirements for Title V operating permits contained in 567 IAC 22.107(6).

**Reporting & Record keeping:**

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. The owner/operator shall maintain the following records:

- A. After the first twelve (12) months of operation, determine the cumulative amount of fuel used (in cubic feet/year) by Annealing Furnaces #60 – #64 (EUs CFRN60 – CFRN64) on a rolling-12-month basis for each month of operation.
- B. Per 567 IAC 33.3(18)“f”(1), the owner or operator shall maintain a record of the information required in Operating limits C. of this permit.
- C. Per 567 IAC 33.3(18)“f”(4) and 567 IAC 33.3(18)“f”(5), the owner or operator shall maintain a record containing the information required in Operating limits D., above of this permit and that record shall be retained by the owner or operator for a period of ten (10) years after the project (Project Number 11-322) is completed.

Authority for Requirement: Iowa DNR Construction Permits Listed in: Table: CAA Furnaces

**Emission Point Characteristics**

*These emission points shall conform to the specifications listed below.*

**For Emission Points S-357, S-358, S-359 and S-360**

Stack Height, (ft, from the ground): 69

Stack Opening, (inches, dia.): 37

Exhaust Flow Rate (scfm): 7,400

Exhaust Temperature (°F): 520

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permits 11-A-690-P1 (S-357), 11-A-691 (S-358), 11-A-692 (S-359) and 11-A-693 (S-360)

For Emission Points S-361 and S-366

Stack Height, (ft, from the ground): 69

Stack Opening, (inches, dia.): 31

Exhaust Flow Rate (scfm): 3,700

Exhaust Temperature (°F): 520

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permits 11-A-694-P1 (S-361) and 13-A-116-P (S-366)

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: S-CT-88**

### Associated Equipment

Associated Emission Unit ID Numbers: CT-88  
Emissions Control Equipment ID Number: CT-88  
Emissions Control Equipment Description: Drift Eliminator

---

Emission Unit vented through this Emission Point: CT-88  
Emission Unit Description: 88 Line Cooling Towers 1 through 4  
Raw Material/Fuel: Cooling Water  
Rated Capacity: 207,840 gal/hr

### **Applicable Requirements**

#### **Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

<sup>(1)</sup>Emission Limit(s): 40%<sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 11-A-698-P1  
567 IAC 23.3(2)"d"

- <sup>(1)</sup> An exceedance of the indicator opacity of "no visible emissions" will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM<sub>10</sub>

Emission Limit(s): 0.22 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 11-A-698-P1

Pollutant: PM<sub>2.5</sub>

Emission Limit(s): 0.22 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 11-A-698-P1

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.22 lb/hr and 0.1 gr/dscf

Authority for Requirement: Iowa DNR Construction Permit 11-A-698-P1  
567 IAC 23.3(2)"a"

#### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

### Operating Limits:

- A. The total dissolved solids (TDS) of the water used shall not exceed 2,500 ppm (monthly average).
- B. Chromium based and HAP containing water treatment chemicals shall not be used in this emission unit.
- C. Per 567 IAC 33.3(18)"f"(1), prior to beginning actual construction of the project (Project Number 11-322) the owner or operator shall document:
  - (1) A description of the project (Project Number 11-322),
  - (2) Identification of the emission unit(s) whose emissions of a regulated NSR pollutant could be affected by the project (Project Number 11-322), and
  - (3) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including the baseline actual emissions (BAE), the projected actual emissions (PAE), the amount of emissions excluded under paragraph "3" of the definition of "*projected actual emissions*" in subrule 33.3(1), an explanation describing why such amount was excluded, and any netting analysis if applicable.
- D. Per 567 IAC 33.3(18)"f"(4), the owner or operator shall:
  - (1) Monitor the emission of any regulated NSR pollutant that could increase as a result of the project that is emitted by any emissions unit identified in C. (2), above.
  - (2) Calculate the annual emissions, in tons per year on a calendar-year basis, for a period of five (5) years following resumption of regular operations and maintain a record of regular operations after the change.
- E. Per 567 IAC 33.3(18)"g", the owner or operator shall make the information required to be documented and maintained pursuant to 567 IAC 33.3(18)"f" available for review upon request for inspection by the Department or the general public pursuant to the requirements for Title V operating permits contained in 567 IAC 22.107(6).

### Reporting & Record keeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. The owner/operator shall maintain the following records:

- A. An analysis of the TDS of the water used for each calendar month this emission unit is in use and the monthly average TDS of the water.
- B. Per 567 IAC 33.3(18)"f"(1), the owner or operator shall maintain a record of the information required in C., under Operating Limits, above.
- C. Per 567 IAC 33.3(18)"f"(4) and 567 IAC 33.3(18)"f"(5), the owner or operator shall maintain a record containing the information required in D., under Operating Limits, above and the record shall be retained by the owner or operator for a period of ten (10) years after the project (Project Number 11-322) is completed.

Authority for Requirement: Iowa DNR Construction Permit 11-A-698-P1

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 49.5

Stack Opening, (inches, dia.): 4 cells at 120 inches each

Exhaust Flow Rate (scfm): 4 cells at 128,000 scfm each

Exhaust Temperature (°F): 70

Discharge Style: Vertical, unobstructed

Authority for Requirement: Iowa DNR Construction Permit 11-A-698-P1

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

**Emission Point ID Number: See Table: Direct Fired Space Heaters**  
Associated Equipment

Associated Emission Unit ID Numbers: See Table: Direct Fired Space Heaters

Table: Direct Fired Space Heaters

<b>Emission Point Number</b>	<b>Associated Emission Unit Number</b>	<b>Emission Unit Description</b>	<b>Raw Material</b>	<b>Rated Capacity (MMBtu/hr)</b>	<b>Construction Permit Number</b>
SpHt1	SpHt1	Direct Fired Space Heaters	Natural Gas	3.2 MMBtu/hr/unit	12-A-321-P1
SpHt2	SpHt2	Direct Fired Space Heaters	Natural Gas	1.6 MMBtu/hr/unit	12-A-322-P2

**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from each emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit: 40 %<sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permits Listed in: Table: Direct Fired Space Heaters  
 567 IAC 23.3(2)"d"

<sup>(1)</sup> An exceedance of the indicator opacity of “no visible emissions” will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM<sub>10</sub>

Emission Limit: 1.87 lb/hr

Authority for Requirement: Iowa DNR Construction Permits Listed in: Table: Direct Fired Space Heaters

Pollutant: PM<sub>2.5</sub>

Emission Limit: 1.87 lb/hr

Authority for Requirement: Iowa DNR Construction Permits Listed in: Table: Direct Fired Space Heaters

Pollutant: Particulate Matter

Emission Limit: 1.87 lb/hr and 0.6 lb/MMBtu,

Authority for Requirement: Iowa DNR Construction Permits Listed in: Table: Direct Fired Space Heaters  
 567 IAC 23.3(2)"b"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit: 500 ppmv

Authority for Requirement: Iowa DNR Construction Permits Listed in: Table: Direct Fired Space Heaters  
567 IAC 23.3(3)"e"

Pollutant: Nitrogen Oxides (NO<sub>x</sub>) (SpHt1 only)

Emission Rate: 0.06 lb/MMBtu

Authority for Requirement: Iowa DNR Construction Permit 12-A-321-P1

Pollutant: Nitrogen Oxides (NO<sub>x</sub>) (SpHt2 only)

Emission Rate: 0.07 lb/MMBtu

Authority for Requirement: Iowa DNR Construction Permit 12-A-322-P2

### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the following operational limits and requirements.*

Process throughput:

- A. These emission units are limited to firing on natural gas.
- B. The Direct Fired Space Heaters, EU-SpHt1, combined, are limited to using no more than 250.5 MMcf of natural gas per 12-month rolling period and the Direct Fired Space Heaters, EU-SpHt2, combined, are limited to using no more than 65.2 MMcf of natural gas per 12-month rolling period.
- C. The facility is allowed to install and/or replace Direct Fired Space Heaters with units of similar design. The maximum rated capacity of any single Direct Fired Space Heater shall not exceed 3.2 MMBtu/hr for SpHt1 units and 1.6 MMBtu/hr for SpHt2 units.

Reporting & Record keeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. The owner/operator shall maintain the following records:

- A. The permittee shall maintain the following monthly records:
  - (1) the total amount of natural gas burned in Direct Fired Space Heaters, EU-SpHt1, combined; and the total amount of natural gas burned in Direct Fired Space Heaters, EU-SpHt2, combined.
  - (2) a determination of the 12-month rolling total amount of natural gas burned in Direct Fired Space Heaters, EU-SpHt1, combined, and in Direct Fired Space Heaters, EU-SpHt2, combined.
- B. The permittee shall install and operate flow meters to measure and record, in a permanent format, the volume of natural gas consumed by Direct Fired Space Heaters, EU-SpHt1, and Direct Fired Space Heaters, EU-SpHt2. The meter(s) shall be configured to indicate the flow of natural gas to the units as single entire groups (EU-SpHt1 and EU-SpHt2), a set of groups within EU-SpHt1 and Eu-SpHt2, or individually.

- (1) the equipment used to measure the quantities of natural gas used shall be calibrated prior to its first use for monitoring and recording under this Permit Condition, using a suitable standard method published by a consensus based standards organization or according to the equipment manufacturer's directions.
  - (2) the equipment used to measure the quantities of natural gas used for the monitoring and recording required under this Permit Condition shall be recalibrated at the frequency specified by the standard method used or by the manufacturer's directions. Should the meter manufacturer not have a recalibration schedule the facility shall establish a schedule and maintain this schedule.
  - (3) Should the facility not monitor the total natural gas flow rate into this emissions group in its entirety, the facility will monitor the natural gas flow for at least a minimum of 25% of the emission units installed. The facility shall determine the total fuel usage (MMcf) and the total firing capacity (MMBtu/hr) for the metered emission units and calculate the average fuel usage based on emission unit capacity [i.e., MMcf/(MMBtu/hr)]. The facility shall use this value to determine the total fuel usage for these emission units (EU-SpHt1).
- C. The permittee shall record the installation date and maximum rated capacity of each Direct Fired Space Heater and the total number of Direct Fired Space Heaters on-site. The permittee shall update this information within 15 days of the installation of any Direct Fired Space Heater.

Authority for Requirement: Iowa DNR Construction Permits Listed in: Table: Direct Fired Space Heaters

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: MUA**

### Associated Equipment

Associated Emission Unit ID Numbers: MUA

---

Emission Unit vented through this Emission Point: MUA

Emission Unit Description: Make-up Air Heaters & Conversion Burners (up to 44 units)

Raw Material/Fuel: Natural Gas

Rated Capacity: 7.995 MMBtu/hr/unit

### **Applicable Requirements**

#### **Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit: 40 %<sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 12-A-324-P1  
567 IAC 23.3(2)"d"

- <sup>(1)</sup> An exceedance of the indicator opacity of "no visible emissions" will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter

Emission Limit: 1.52 lb/hr and 0.6 lb/MMBtu,

Authority for Requirement: Iowa DNR Construction Permit 12-A-324-P1  
567 IAC 23.3(2)"b"

Pollutant: PM<sub>10</sub>

Emission Limit: 1.52 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 12-A-324-P1

Pollutant: PM<sub>2.5</sub>

Emission Limit: 1.52 lb/MMBtu

Authority for Requirement: Iowa DNR Construction Permit 12-A-324-P1

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit: 500 ppmv

Authority for Requirement: Iowa DNR Construction Permit 12-A-324-P1  
567 IAC 23.3(3)"e"

Pollutant: Nitrogen Oxides (NO<sub>x</sub>)

Emission Rate: 0.084 lb/MMBtu

Authority for Requirement: Iowa DNR Construction Permit 12-A-324-P1

### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the following operational limits and requirements.*

Process throughput:

- A. This emission unit (EU-MA) is limited to firing on natural gas.
- B. The Make-up Air Heaters & Conversion Burners, EU-MUA, combined, are limited to using no more than 365.5 MMcf of natural gas per 12-month rolling period.
- C. The facility is allowed to install and/or replace Make-up Heaters & Conversion Burners with units of similar design. The maximum rated capacity of any single Make-up Heater & Conversion Burner shall not exceed 7.995 MMBtu/hr. The maximum number of Make-up Air Heaters & Conversion Burners on-site shall not exceed 44 units at any given time.

Reporting & Record keeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. The owner/operator shall maintain the following records:

- A. The permittee shall maintain the following monthly records:
  - (1) the total amount of natural gas burned in all Make-up Air Heaters & Conversion Burners, EU-MUA, combined; and
  - (2) a determination of the 12-month rolling total amount of natural gas burned in all Make-up Air Heaters & Conversion Burners, EU-MUA, combined.
- B. The permittee shall install and operate flow meters to measure and record, in a permanent format, the volume of natural gas consumed by these Make-up Air Heaters & Conversion Burners, EP-MUA. The meter(s) shall be configured to indicate the flow of natural gas to the units as a single entire group (EU-MUA), a set of groups, or individually.
  - (1) the equipment used to measure the quantities of natural gas used shall be calibrated prior to its first use for monitoring and recording under this Permit Condition, using a suitable standard method published by a consensus based standards organization or according to the equipment manufacturer's directions.
  - (2) the equipment used to measure the quantities of natural gas used for the monitoring and recording required under this Permit Condition shall be recalibrated at the frequency specified by the standard method used or by the manufacturer's directions. Should the meter manufacturer not have a recalibration schedule the facility shall establish a schedule and maintain this schedule.
  - (3) Should the facility not monitor the total natural gas flow rate into this emissions group in its entirety, the facility will monitor the natural gas flow for at least a minimum of 25% of the emission units installed. The facility shall determine the total fuel usage (MMcf) and the total firing capacity (MMBtu/hr) for the metered emission units and calculate the average fuel usage based on emission unit capacity [i.e., MMcf/(MMBtu/hr)]. The facility

shall use this value to determine the total fuel usage for these emission units (EU-MUA).  
C, The permittee shall record the installation date and maximum rated capacity of each Make-up Air Heater & Conversion Burners on-site. The permittee shall update this information within 15 days of the installation of any Make-up Air Heater & Conversion Burner.

Authority for Requirement: Iowa DNR Construction Permit 12-A-324-P1

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: S-409 through S-428**

### Associated Equipment

Associated Emission Unit ID Numbers: HtFurn01-20

---

Emission Unit vented through this Emission Point: HtFurn01-20  
Emission Unit Description: Gas Heaters/Furnaces (up to 30 units)  
Raw Material/Fuel: Natural Gas  
Rated Capacity: 0.4 MMBtu/hr/unit

### **Applicable Requirements**

#### **Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The combined emissions from these emission points shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit: 40 %<sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 12-A-325-P1  
567 IAC 23.3(2)"d"

<sup>(1)</sup> An exceedance of the indicator opacity of "no visible emissions" will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM<sub>10</sub>

Emission Limit: 0.05 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 12-A-325-P1

Pollutant: PM<sub>2.5</sub>

Emission Limit: 0.05 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 12-A-325-P1

Pollutant: Particulate Matter

Emission Limit: 0.05 lb/hr and 0.6 lb/MMBtu,

Authority for Requirement: Iowa DNR Construction Permit 12-A-325-P1  
567 IAC 23.3(2)"b"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit: 500 ppmv

Authority for Requirement: Iowa DNR Construction Permit 12-A-325-P1  
567 IAC 23.3(3)"e"

Pollutant: Nitrogen Oxides (NO<sub>x</sub>)

Emission Rate: 0.092 lb/MMBtu

Authority for Requirement: Iowa DNR Construction Permit 12-A-325-P1

### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the following operational limits and requirements.*

Process throughput:

- A. These emission units (EU-HtFurn01-20) are limited to firing on natural gas.
- B. The Gas Heaters/Furnaces, EU-HtFurn01-20, combined, are limited to using no more than 20.8 MMcf of natural gas per 12-month rolling period.
- C. The facility is allowed to install and/or replace Gas Heaters/Furnaces with units of similar design. The maximum rated capacity of any single Gas Heater/Furnace shall not exceed 0.04 MMBtu/hr. The maximum number of Gas Heaters/Furnaces on-site shall not exceed 30 units at any given time.

Reporting & Record keeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. The owner/operator shall maintain the following records:

- A. The permittee shall maintain the following monthly records:
  - (1) the total amount of natural gas burned in these Gas Heaters/Furnaces, EU-HtFurn01-20, combined; and
  - (2) a determination of the 12-month rolling total amount of natural gas burned in these Gas Heaters/Furnaces, EU-HtFurn01-20, combined.
- B. The permittee shall install and operate flow meters to measure and record, in a permanent format, the volume of natural gas consumed by these Gas Heaters/Furnaces, EU-HtFurn01-20. The meter(s) shall be configured to indicate the flow of natural gas to the units as a single entire group (EU-HtFurn01-20), a set of groups, or individually.
  - (1) the equipment used to measure the quantities of natural gas used shall be calibrated prior to its first use for monitoring and recording under this Permit Condition, using a suitable standard method published by a consensus based standards organization or according to the equipment manufacturer's directions.
  - (2) the equipment used to measure the quantities of natural gas used for the monitoring and recording required under this Permit Condition shall be recalibrated at the frequency specified by the standard method used or by the manufacturer's directions. Should the meter manufacturer not have a recalibration schedule the facility shall establish a schedule and maintain this schedule.
  - (3) Should the facility not monitor the total natural gas flow rate into this emissions group in its entirety, the facility will monitor the natural gas flow for at least a minimum of 25% of the emission units installed. The facility shall determine the total fuel usage (MMcf) and the total firing capacity (MMBtu/hr) for the metered emission units and calculate the average fuel usage based on emission unit capacity [i.e., MMcf/(MMBtu/hr)]. The facility

shall use this value to determine the total fuel usage for these emission units (EU-HtFurn01-20).

- C. The permittee shall record the installation date and maximum rated capacity of each Gas Heaters/Furnace and the total number of Gas Heaters/Furnaces on-site. The permittee shall update this information within 15 days of the installation of any Gas Heaters/Furnace.

Authority for Requirement: Iowa DNR Construction Permit 12-A-325-P1

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: IRHt**

### Associated Equipment

Associated Emission Unit ID Number: IRHt

---

Emission Unit vented through this Emission Point: IRHt  
Emission Unit Description: Radiant Gas Heaters (up to 49 units)  
Raw Material/Fuel: Natural Gas  
Rated Capacity: 0.12 MMBtu/hr/unit

### **Applicable Requirements**

#### **Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit: 40 %<sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 12-A-326-P1  
567 IAC 23.3(2)"d"

<sup>(1)</sup> An exceedance of the indicator opacity of "no visible emissions" will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM<sub>10</sub>

Emission Limit: 0.043 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 12-A-326-P1

Pollutant: PM<sub>2.5</sub>

Emission Limit: 0.043 lb/MMBtu

Authority for Requirement: Iowa DNR Construction Permit 12-A-326-P1

Pollutant: Particulate Matter

Emission Limit: 0.43 lb/hr and 0.6 lb/MMBtu,

Authority for Requirement: Iowa DNR Construction Permit 12-A-326-P1  
567 IAC 23.3(2)"b"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit: 500 ppmv

Authority for Requirement: Iowa DNR Construction Permit 12-A-326-P1  
567 IAC 23.3(3)"e"

Pollutant: Nitrogen Oxides (NO<sub>x</sub>) (SpHt1 only)

Emission Rate: 0.092 lb/MMBtu

Authority for Requirement: Iowa DNR Construction Permit 12-A-326-P1

### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the following operational limits and requirements.*

Process throughput:

- A. These emission units (EU-IRHt) are limited to firing on natural gas.
- B. The Radiant Gas Heaters, EU-IRHt, combined, are limited to using no more than 5.0 MMcf of natural gas per 12-month rolling period.
- C. The facility is allowed to install and/or replace Radiant Gas Heaters with units of similar design. The maximum rated capacity of any single Radiant Gas Heater shall not exceed 0.12 MMBtu/hr. The maximum number of Radiant Gas Heaters on-site shall not exceed 49 units at any given time.

Reporting & Record keeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. The owner/operator shall maintain the following records:

- A. The permittee shall maintain the following monthly records:
  - (1) the total amount of natural gas burned in these Radiant Gas Heaters, EU-IRHt, combined; and
  - (2) a determination of the 12-month rolling total amount of natural gas burned in these Radiant Gas Heaters, EU-IRHt, combined.
- B. The permittee shall install and operate flow meters to measure and record, in a permanent format, the volume of natural gas consumed by these Radiant Gas Heaters, EU-IRHt. The meter(s) shall be configured to indicate the flow of natural gas to the units as a single entire group (EU-IRHt), a set of unit groupings, or individually.
  - (1) the equipment used to measure the quantities of natural gas used shall be calibrated prior to its first use for monitoring and recording under this Permit Condition, using a suitable standard method published by a consensus based standards organization or according to the equipment manufacturer's directions.
  - (2) the equipment used to measure the quantities of natural gas used for the monitoring and recording required under this Permit Condition shall be recalibrated at the frequency specified by the standard method used or by the manufacturer's directions. Should the meter manufacturer not have a recalibration schedule the facility shall establish a schedule and maintain this schedule.
  - (3) Should the facility not monitor the total natural gas flow rate into this emissions group in its entirety, the facility will monitor the natural gas flow for at least a minimum of 25% of the emission units installed. The facility shall determine the total fuel usage (MMcf) and the total firing capacity (MMBtu/hr) for the metered emission units and calculate the average fuel usage based on emission unit capacity [i.e., MMcf/(MMBtu/hr)]. The facility

shall use this value to determine the total fuel usage for these emission units (EU- IRHt).

- C. The permittee shall record the installation date and maximum rated capacity of each Radiant Gas Heater and the total number of Radiant Gas Heaters on-site. The permittee shall update this information within 15 days of the installation of any Radiant Gas Heater.

Authority for Requirement: Iowa DNR Construction Permit 12-A-326-P1

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: S-429 through S-432**

### Associated Equipment

Associated Emission Unit ID Number: WtrHt

---

Emission Unit vented through this Emission Point: WtrHt

Emission Unit Description: Water Heaters

Raw Material/Fuel: Natural Gas

Rated Capacity: 0.715 MMBtu/hr/unit

### **Applicable Requirements**

#### **Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The combined emissions from these emission points shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit: 40 %<sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 12-A-327-P1

567 IAC 23.3(2)"d"

- <sup>(1)</sup> An exceedance of the indicator opacity of "no visible emissions" will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter

Emission Limit: 0.6 lb/MMBtu,

Authority for Requirement: Iowa DNR Construction Permit 12-A-327-P1

567 IAC 23.3(2)"b"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit: 500 ppmv

Authority for Requirement: Iowa DNR Construction Permit 12-A-327-P1

567 IAC 23.3(3)"e"

#### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the following operational limits and requirements.*

Process throughput:

- A. These emission units (EU-WtrHt) are limited to firing on natural gas.
- B. The facility is allowed to install and/or replace Water Heaters with units of similar design. The maximum rated capacity of any single Water Heater shall not exceed 0.715 MMBtu/hr.

Reporting & Record keeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. The owner/operator shall maintain the following records:

- A. The permittee shall record the installation date and maximum rated capacity of each Water Heater and the total number of Water Heaters on-site. The permittee shall update this information within 15 days of the installation of any Water Heater.

Authority for Requirement: Iowa DNR Construction Permit 12-A-327-P1

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## IV. General Conditions

This permit is issued under the authority of the Iowa Code subsection 455B.133(8) and in accordance with 567 Iowa Administrative Code chapter 22.

### G1. Duty to Comply

1. The permittee must comply with all conditions of the Title V permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for a permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. *567 IAC 22.108(9)"a"*
2. Any compliance schedule shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based. *567 IAC 22.105 (2)"h"(3)*
3. Where an applicable requirement of the Act is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, both provisions shall be enforceable by the administrator and are incorporated into this permit. *567 IAC 22.108 (1)"b"*
4. Unless specified as either "state enforceable only" or "local program enforceable only", all terms and conditions in the permit, including provisions to limit a source's potential to emit, are enforceable by the administrator and citizens under the Act. *567 IAC 22.108 (14)*
5. It shall not be a defense for a permittee, in an enforcement action, that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. *567 IAC 22.108 (9)"b"*
6. For applicable requirements with which the permittee is in compliance, the permittee shall continue to comply with such requirements. For applicable requirements that will become effective during the permit term, the permittee shall meet such requirements on a timely basis. *567 IAC 22.108(15)"c"*

### G2. Permit Expiration

1. Except as provided in rule 567—22.104(455B), permit expiration terminates a source's right to operate unless a timely and complete application for renewal has been submitted in accordance with rule 567—22.105(455B). *567 IAC 22.116(2)*
2. To be considered timely, the owner, operator, or designated representative (where applicable) of each source required to obtain a Title V permit shall submit on forms or electronic format specified by the Department to the Air Quality Bureau, Iowa Department of Natural Resources, Air Quality Bureau, 7900 Hickman Rd, Suite #1, Windsor Heights, Iowa 50324, two copies (three if your facility is located in Linn or Polk county) of a complete permit application, at least 6 months but not more than 18 months prior to the date of permit expiration. An additional copy must also be sent to U.S. EPA Region VII, Attention: Chief of Air Permits, 11201 Renner Blvd., Lenexa, KS 66219. Additional copies to local programs or EPA are not required for application materials submitted through the electronic format specified by the Department. The application must include all emission points, emission units, air pollution control equipment, and monitoring devices at the facility. All emissions generating activities, including fugitive emissions, must be included. The definition of a complete application is as indicated in 567 IAC 22.105(2). *567 IAC 22.105*

### G3. Certification Requirement for Title V Related Documents

Any application, report, compliance certification or other document submitted pursuant to this permit shall contain certification by a responsible official of truth, accuracy, and completeness. All certifications shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. *567 IAC 22.107 (4)*

#### **G4. Annual Compliance Certification**

By March 31 of each year, the permittee shall submit compliance certifications for the previous calendar year. The certifications shall include descriptions of means to monitor the compliance status of all emissions sources including emissions limitations, standards, and work practices in accordance with applicable requirements. The certification for a source shall include the identification of each term or condition of the permit that is the basis of the certification; the compliance status; whether compliance was continuous or intermittent; the method(s) used for determining the compliance status of the source, currently and over the reporting period consistent with all applicable department rules. For sources determined not to be in compliance at the time of compliance certification, a compliance schedule shall be submitted which provides for periodic progress reports, dates for achieving activities, milestones, and an explanation of why any dates were missed and preventive or corrective measures. The compliance certification shall be submitted to the administrator, director, and the appropriate DNR Field office. *567 IAC 22.108 (15)"e"*

#### **G5. Semi-Annual Monitoring Report**

By March 31 and September 30 of each year, the permittee shall submit a report of any monitoring required under this permit for the 6 month periods of July 1 to December 31 and January 1 to June 30, respectively. All instances of deviations from permit requirements must be clearly identified in these reports, and the report must be signed by a responsible official, consistent with 567 IAC 22.107(4). The semi-annual monitoring report shall be submitted to the director and the appropriate DNR Field office. *567 IAC 22.108 (5)*

#### **G6. Annual Fee**

1. The permittee is required under subrule 567 IAC 22.106 to pay an annual fee based on the total tons of actual emissions of each regulated air pollutant. Beginning July 1, 1996, Title V operating permit fees will be paid on July 1 of each year. The fee shall be based on emissions for the previous calendar year.
2. The fee amount shall be calculated based on the first 4,000 tons of each regulated air pollutant emitted each year. The fee to be charged per ton of pollutant will be available from the department by June 1 of each year. The Responsible Official will be advised of any change in the annual fee per ton of pollutant.
3. The following forms shall be submitted annually by March 31 documenting actual emissions for the previous calendar year.
  - a. Form 1.0 "Facility Identification";
  - b. Form 4.0 "Emissions unit-actual operations and emissions" for each emission unit;
  - c. Form 5.0 "Title V annual emissions summary/fee"; and
  - d. Part 3 "Application certification."
4. The fee shall be submitted annually by July 1. The fee shall be submitted with the following forms:
  - a. Form 1.0 "Facility Identification";
  - b. Form 5.0 "Title V annual emissions summary/fee";
  - c. Part 3 "Application certification."
5. If there are any changes to the emission calculation form, the department shall make revised forms available to the public by January 1. If revised forms are not available by January 1, forms from the previous year may be used and the year of emissions documented changed. The department shall calculate the total statewide Title V emissions for the prior calendar year and make this information available to the public no later than April 30 of each year.

6. Phase I acid rain affected units under section 404 of the Act shall not be required to pay a fee for emissions which occur during the years 1993 through 1999 inclusive.
7. The fee for a portable emissions unit or stationary source which operates both in Iowa and out of state shall be calculated only for emissions from the source while operating in Iowa.
8. Failure to pay the appropriate Title V fee represents cause for revocation of the Title V permit as indicated in 567 IAC 22.115(1)"d".

**G7. Inspection of Premises, Records, Equipment, Methods and Discharges**

Upon presentation of proper credentials and any other documents as may be required by law, the permittee shall allow the director or the director's authorized representative to:

1. Enter upon the permittee's premises where a Title V source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
3. Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
4. Sample or monitor, at reasonable times, substances or parameters for the purpose of ensuring compliance with the permit or other applicable requirements. *567 IAC 22.108 (15)"b"*

**G8. Duty to Provide Information**

The permittee shall furnish to the director, within a reasonable time, any information that the director may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee also shall furnish to the director copies of records required to be kept by the permit, or for information claimed to be confidential, the permittee shall furnish such records directly to the administrator of EPA along with a claim of confidentiality. *567 IAC 22.108 (9)"e"*

**G9. General Maintenance and Repair Duties**

The owner or operator of any air emission source or control equipment shall:

1. Maintain and operate the equipment or control equipment at all times in a manner consistent with good practice for minimizing emissions.
2. Remedy any cause of excess emissions in an expeditious manner.
3. Minimize the amount and duration of any excess emission to the maximum extent possible during periods of such emissions. These measures may include but not be limited to the use of clean fuels, production cutbacks, or the use of alternate process units or, in the case of utilities, purchase of electrical power until repairs are completed.
4. Schedule, at a minimum, routine maintenance of equipment or control equipment during periods of process shutdowns to the maximum extent possible. *567 IAC 24.2(1)*

**G10. Recordkeeping Requirements for Compliance Monitoring**

1. In addition to any source specific recordkeeping requirements contained in this permit, the permittee shall maintain the following compliance monitoring records, where applicable:
  - a. The date, place and time of sampling or measurements
  - b. The date the analyses were performed.
  - c. The company or entity that performed the analyses.
  - d. The analytical techniques or methods used.
  - e. The results of such analyses; and
  - f. The operating conditions as existing at the time of sampling or measurement.
  - g. The records of quality assurance for continuous compliance monitoring systems (including but not limited to quality control activities, audits and calibration drifts.)

2. The permittee shall retain records of all required compliance monitoring data and support information for a period of at least 5 years from the date of compliance monitoring sample, measurement report or application. Support information includes all calibration and maintenance records and all original strip chart recordings for continuous compliance monitoring, and copies of all reports required by the permit.

3. For any source which in its application identified reasonably anticipated alternative operating scenarios, the permittee shall:

- a. Comply with all terms and conditions of this permit specific to each alternative scenario.
- b. Maintain a log at the permitted facility of the scenario under which it is operating.
- c. Consider the permit shield, if provided in this permit, to extend to all terms and conditions under each operating scenario. *567 IAC 22.108(4), 567 IAC 22.108(12)*

#### **G11. Evidence used in establishing that a violation has or is occurring.**

Notwithstanding any other provisions of these rules, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions herein.

1. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred at a source:

- a. A monitoring method approved for the source and incorporated in an operating permit pursuant to 567 Chapter 22;
- b. Compliance test methods specified in 567 Chapter 25; or
- c. Testing or monitoring methods approved for the source in a construction permit issued pursuant to 567 Chapter 22.

2. The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:

- a. Any monitoring or testing methods provided in these rules; or
- b. Other testing, monitoring, or information gathering methods that produce information comparable to that produced by any method in subrule 21.5(1) or this subrule. *567 IAC 21.5(1)-567 IAC 21.5(2)*

#### **G12. Prevention of Accidental Release: Risk Management Plan Notification and Compliance Certification**

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Act, the permittee shall notify the department of this requirement. The plan shall be filed with all appropriate authorities by the deadline specified by EPA. A certification that this risk management plan is being properly implemented shall be included in the annual compliance certification of this permit. *567 IAC 22.108(6)*

#### **G13. Hazardous Release**

The permittee must report any situation involving the actual, imminent, or probable release of a hazardous substance into the atmosphere which, because of the quantity, strength and toxicity of the substance, creates an immediate or potential danger to the public health, safety or to the environment. A verbal report shall be made to the department at (515) 725-8694 and to the local police department or the office of the sheriff of the affected county as soon as possible but not later than six hours after the discovery or onset of the condition. This verbal report must be followed up with a written report as indicated in 567 IAC 131.2(2). *567 IAC Chapter 131-State Only*

#### **G14. Excess Emissions and Excess Emissions Reporting Requirements**

1. Excess Emissions. Excess emission during a period of startup, shutdown, or cleaning of control equipment is not a violation of the emission standard if the startup, shutdown or cleaning

is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions. Cleaning of control equipment which does not require the shutdown of the process equipment shall be limited to one six-minute period per one-hour period. An incident of excess emission (other than an incident during startup, shutdown or cleaning of control equipment) is a violation. If the owner or operator of a source maintains that the incident of excess emission was due to a malfunction, the owner or operator must show that the conditions which caused the incident of excess emission were not preventable by reasonable maintenance and control measures. Determination of any subsequent enforcement action will be made following review of this report. If excess emissions are occurring, either the control equipment causing the excess emission shall be repaired in an expeditious manner or the process generating the emissions shall be shutdown within a reasonable period of time. An expeditious manner is the time necessary to determine the cause of the excess emissions and to correct it within a reasonable period of time. A reasonable period of time is eight hours plus the period of time required to shut down the process without damaging the process equipment or control equipment. A variance from this subrule may be available as provided for in Iowa Code section 455B.143. In the case of an electric utility, a reasonable period of time is eight hours plus the period of time until comparable generating capacity is available to meet consumer demand with the affected unit out of service, unless, the director shall, upon investigation, reasonably determine that continued operation constitutes an unjustifiable environmental hazard and issue an order that such operation is not in the public interest and require a process shutdown to commence immediately.

## 2. Excess Emissions Reporting

a. Initial Reporting of Excess Emissions. An incident of excess emission (other than an incident of excess emission during a period of startup, shutdown, or cleaning) shall be reported to the appropriate field office of the department within eight hours of, or at the start of the first working day following the onset of the incident. The reporting exemption for an incident of excess emission during startup, shutdown or cleaning does not relieve the owner or operator of a source with continuous monitoring equipment of the obligation of submitting reports required in 567-subrule 25.1(6). An initial report of excess emission is not required for a source with operational continuous monitoring equipment (as specified in 567-subrule 25.1(1) ) if the incident of excess emission continues for less than 30 minutes and does not exceed the applicable emission standard by more than 10 percent or the applicable visible emission standard by more than 10 percent opacity. The initial report may be made by electronic mail (E-mail), in person, or by telephone and shall include as a minimum the following:

- i. The identity of the equipment or source operation from which the excess emission originated and the associated stack or emission point.
- ii. The estimated quantity of the excess emission.
- iii. The time and expected duration of the excess emission.
- iv. The cause of the excess emission.
- v. The steps being taken to remedy the excess emission.
- vi. The steps being taken to limit the excess emission in the interim period.

b. Written Reporting of Excess Emissions. A written report of an incident of excess emission shall be submitted as a follow-up to all required initial reports to the department within seven days of the onset of the upset condition, and shall include as a minimum the following:

- i. The identity of the equipment or source operation point from which the excess emission originated and the associated stack or emission point.

- ii. The estimated quantity of the excess emission.
- iii. The time and duration of the excess emission.
- iv. The cause of the excess emission.
- v. The steps that were taken to remedy and to prevent the recurrence of the incident of excess emission.
- vi. The steps that were taken to limit the excess emission.
- vii. If the owner claims that the excess emission was due to malfunction, documentation to support this claim. *567 IAC 24.1(1)-567 IAC 24.1(4)*

3. Emergency Defense for Excess Emissions. For the purposes of this permit, an “emergency” means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include non-compliance, to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation or operator error. An emergency constitutes an affirmative defense to an action brought for non-compliance with technology based limitations if it can be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that:

- a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;
- b. The facility at the time was being properly operated;
- c. During the period of the emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements of the permit; and
- d. The permittee submitted notice of the emergency to the director by certified mail within two working days of the time when the emissions limitations were exceeded due to the emergency. This notice fulfills the requirement of paragraph 22.108(5)"b." – See G15. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof. This provision is in addition to any emergency or upset provision contained in any applicable requirement. *567 IAC 22.108(16)*

#### **G15. Permit Deviation Reporting Requirements**

A deviation is any failure to meet a term, condition or applicable requirement in the permit. Reporting requirements for deviations that result in a hazardous release or excess emissions have been indicated above (see G13 and G14). Unless more frequent deviation reporting is specified in the permit, any other deviation shall be documented in the semi-annual monitoring report and the annual compliance certification (see G4 and G5). *567 IAC 22.108(5)"b"*

#### **G16. Notification Requirements for Sources That Become Subject to NSPS and NESHAP Regulations**

During the term of this permit, the permittee must notify the department of any source that becomes subject to a standard or other requirement under 567-subrule 23.1(2) (standards of performance of new stationary sources) or section 111 of the Act; or 567-subrule 23.1(3) (emissions standards for hazardous air pollutants), 567-subrule 23.1(4) (emission standards for hazardous air pollutants for source categories) or section 112 of the Act. This notification shall be submitted in writing to the department pursuant to the notification requirements in 40 CFR

Section 60.7, 40 CFR Section 61.07, and/or 40 CFR Section 63.9. *567 IAC 23.1(2), 567 IAC 23.1(3), 567 IAC 23.1(4)*

### **G17. Requirements for Making Changes to Emission Sources That Do Not Require Title V Permit Modification**

1. Off Permit Changes to a Source. Pursuant to section 502(b)(10) of the CAAA, the permittee may make changes to this installation/facility without revising this permit if:

- a. The changes are not major modifications under any provision of any program required by section 110 of the Act, modifications under section 111 of the act, modifications under section 112 of the act, or major modifications as defined in 567 IAC Chapter 22.
- b. The changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or in terms of total emissions);
- c. The changes are not modifications under any provisions of Title I of the Act and the changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or as total emissions);
- d. The changes are not subject to any requirement under Title IV of the Act (revisions affecting Title IV permitting are addressed in rules 567—22.140(455B) through 567 - 22.144(455B));
- e. The changes comply with all applicable requirements.
- f. For each such change, the permitted source provides to the department and the administrator by certified mail, at least 30 days in advance of the proposed change, a written notification, including the following, which must be attached to the permit by the source, the department and the administrator:
  - i. A brief description of the change within the permitted facility,
  - ii. The date on which the change will occur,
  - iii. Any change in emission as a result of that change,
  - iv. The pollutants emitted subject to the emissions trade
  - v. If the emissions trading provisions of the state implementation plan are invoked, then Title V permit requirements with which the source shall comply; a description of how the emissions increases and decreases will comply with the terms and conditions of the Title V permit.
  - vi. A description of the trading of emissions increases and decreases for the purpose of complying with a federally enforceable emissions cap as specified in and in compliance with the Title V permit; and
  - vii. Any permit term or condition no longer applicable as a result of the change.

*567 IAC 22.110(1)*

2. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), record keeping, reporting, or compliance certification requirements. *567 IAC 22.110(2)*

3. Notwithstanding any other part of this rule, the director may, upon review of a notice, require a stationary source to apply for a Title V permit if the change does not meet the requirements of subrule 22.110(1). *567 IAC 22.110(3)*

4. The permit shield provided in subrule 22.108(18) shall not apply to any change made pursuant to this rule. Compliance with the permit requirements that the source will meet using the emissions trade shall be determined according to requirements of the state implementation plan authorizing the emissions trade. *567 IAC 22.110(4)*

5. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes, for changes that are provided for in this permit. *567 IAC 22.108(11)*

### **G18. Duty to Modify a Title V Permit**

#### 1. Administrative Amendment.

- a. An administrative permit amendment is a permit revision that does any of the following:
  - i. Correct typographical errors
  - ii. Identify a change in the name, address, or telephone number of any person identified in the permit, or provides a similar minor administrative change at the source;
  - iii. Require more frequent monitoring or reporting by the permittee; or
  - iv. Allow for a change in ownership or operational control of a source where the director determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new permittee has been submitted to the director.
- b. The permittee may implement the changes addressed in the request for an administrative amendment immediately upon submittal of the request. The request shall be submitted to the director.
- c. Administrative amendments to portions of permits containing provisions pursuant to Title IV of the Act shall be governed by regulations promulgated by the administrator under Title IV of the Act.

#### 2. Minor Title V Permit Modification.

- a. Minor Title V permit modification procedures may be used only for those permit modifications that satisfy all of the following:
  - i. Do not violate any applicable requirement;
  - ii. Do not involve significant changes to existing monitoring, reporting or recordkeeping requirements in the Title V permit;
  - iii. Do not require or change a case by case determination of an emission limitation or other standard, or an increment analysis;
  - iv. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed in order to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include any federally enforceable emissions caps which the source would assume to avoid classification as a modification under any provision under Title I of the Act; and an alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Act;
  - v. Are not modifications under any provision of Title I of the Act; and
  - vi. Are not required to be processed as significant modification under rule 567 - 22.113(455B).
- b. An application for minor permit revision shall be on the minor Title V modification application form and shall include at least the following:
  - i. A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;

- ii. The permittee's suggested draft permit;
  - iii. Certification by a responsible official, pursuant to 567 IAC 22.107(4), that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used; and
  - iv. Completed forms to enable the department to notify the administrator and the affected states as required by 567 IAC 22.107(7).
- c. The permittee may make the change proposed in its minor permit modification application immediately after it files the application. After the permittee makes this change and until the director takes any of the actions specified in 567 IAC 22.112(4) "a" to "c", the permittee must comply with both the applicable requirements governing the change and the proposed permit terms and conditions. During this time, the permittee need not comply with the existing permit terms and conditions it seeks to modify. However, if the permittee fails to comply with its proposed permit terms and conditions during this time period, the existing permit terms and conditions it seeks to modify may be enforced against the facility.

### 3. Significant Title V Permit Modification.

Significant Title V modification procedures shall be used for applications requesting Title V permit modifications that do not qualify as minor Title V modifications or as administrative amendments. These include but are not limited to all significant changes in monitoring permit terms, every relaxation of reporting or recordkeeping permit terms, and any change in the method of measuring compliance with existing requirements. Significant Title V modifications shall meet all requirements of 567 IAC Chapter 22, including those for applications, public participation, review by affected states, and review by the administrator, as those requirements that apply to Title V issuance and renewal.

The permittee shall submit an application for a significant permit modification not later than three months after commencing operation of the changed source unless the existing Title V permit would prohibit such construction or change in operation, in which event the operation of the changed source may not commence until the department revises the permit. *567 IAC 22.111-567 IAC 22.113*

#### **G19. Duty to Obtain Construction Permits**

Unless exempted in 567 IAC 22.1(2) or to meet the parameters established in 567 IAC 22.1(1)"c", the permittee shall not construct, install, reconstruct or alter any equipment, control equipment or anaerobic lagoon without first obtaining a construction permit, or conditional permit, or permit pursuant to rule 567 IAC 22.8, or permits required pursuant to rules 567 IAC 22.4, 567 IAC 22.5, 567 IAC 31.3, and 567 IAC 33.3 as required in 567 IAC 22.1(1). A permit shall be obtained prior to the initiation of construction, installation or alteration of any portion of the stationary source or anaerobic lagoon. *567 IAC 22.1(1)*

#### **G20. Asbestos**

The permittee shall comply with 567 IAC 23.1(3)"a", and 567 IAC 23.2(3)"g" when activities involve asbestos mills, surfacing of roadways, manufacturing operations, fabricating, insulating, waste disposal, spraying applications, demolition and renovation operations (*567 IAC 23.1(3)"a"*); training fires and controlled burning of a demolished building (*567 IAC 23.2*).

#### **G21. Open Burning**

The permittee is prohibited from conducting open burning, except as provided in 567 IAC 23.2. *567 IAC 23.2 except 23.2(3)"j"; 567 IAC 23.2(3)"j" - State Only*

## **G22. Acid Rain (Title IV) Emissions Allowances**

The permittee shall not exceed any allowances that it holds under Title IV of the Act or the regulations promulgated there under. Annual emissions of sulfur dioxide in excess of the number of allowances to emit sulfur dioxide held by the owners and operators of the unit or the designated representative of the owners and operators is prohibited. Exceedences of applicable emission rates are prohibited. "Held" in this context refers to both those allowances assigned to the owners and operators by USEPA, and those allowances supplementally acquired by the owners and operators. The use of any allowance prior to the year for which it was allocated is prohibited. Contravention of any other provision of the permit is prohibited. 567 IAC 22.108(7)

## **G23. Stratospheric Ozone and Climate Protection (Title VI) Requirements**

1. The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
  - a. All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to § 82.106.
  - b. The placement of the required warning statement must comply with the requirements pursuant to § 82.108.
  - c. The form of the label bearing the required warning statement must comply with the requirements pursuant to § 82.110.
  - d. No person may modify, remove, or interfere with the required warning statement except as described in § 82.112.
2. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for MVACs in Subpart B:
  - a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to § 82.156.
  - b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to § 82.158.
  - c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to § 82.161.
  - d. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with reporting and recordkeeping requirements pursuant to § 82.166. ("MVAC-like appliance" as defined at § 82.152)
  - e. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to § 82.156.
  - f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to § 82.166.
3. If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.
4. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight

sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant,

5. The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program. *40 CFR part 82*

#### **G24. Permit Reopenings**

1. This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. *567 IAC 22.108(9)"c"*

2. Additional applicable requirements under the Act become applicable to a major part 70 source with a remaining permit term of 3 or more years. Revisions shall be made as expeditiously as practicable, but not later than 18 months after the promulgation of such standards and regulations.

a. Reopening and revision on this ground is not required if the permit has a remaining term of less than three years;

b. Reopening and revision on this ground is not required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions have been extended pursuant to 40 CFR 70.4(b)(10)(i) or (ii) as amended to May 15, 2001.

c. Reopening and revision on this ground is not required if the additional applicable requirements are implemented in a general permit that is applicable to the source and the source receives approval for coverage under that general permit. *567 IAC 22.108(17)"a"*, *567 IAC 22.108(17)"b"*

3. A permit shall be reopened and revised under any of the following circumstances:

a. The department receives notice that the administrator has granted a petition for disapproval of a permit pursuant to 40 CFR 70.8(d) as amended to July 21, 1992, provided that the reopening may be stayed pending judicial review of that determination;

b. The department or the administrator determines that the Title V permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the Title V permit;

c. Additional applicable requirements under the Act become applicable to a Title V source, provided that the reopening on this ground is not required if the permit has a remaining term of less than three years, the effective date of the requirement is later than the date on which the permit is due to expire, or the additional applicable requirements are implemented in a general permit that is applicable to the source and the source receives approval for coverage under that general permit. Such a reopening shall be complete not later than 18 months after promulgation of the applicable requirement.

d. Additional requirements, including excess emissions requirements, become applicable to a Title IV affected source under the acid rain program. Upon approval by the administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.

e. The department or the administrator determines that the permit must be revised or revoked to ensure compliance by the source with the applicable requirements. *567 IAC 22.114(1)*

4. Proceedings to reopen and reissue a Title V permit shall follow the procedures applicable to initial permit issuance and shall effect only those parts of the permit for which cause to reopen exists. *567 IAC 22.114(2)*

5. A notice of intent shall be provided to the Title V source at least 30 days in advance of the date the permit is to be reopened, except that the director may provide a shorter time period in the case of an emergency. *567 IAC 22.114(3)*

### **G25. Permit Shield**

1. The director may expressly include in a Title V permit a provision stating that compliance with the conditions of the permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that:

a. Such applicable requirements are included and are specifically identified in the permit;  
or

b. The director, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the permit includes the determination or a concise summary thereof.

2. A Title V permit that does not expressly state that a permit shield exists shall be presumed not to provide such a shield.

3. A permit shield shall not alter or affect the following:

a. The provisions of Section 303 of the Act (emergency orders), including the authority of the administrator under that section;

b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;

c. The applicable requirements of the acid rain program, consistent with Section 408(a) of the Act;

d. The ability of the department or the administrator to obtain information from the facility pursuant to Section 114 of the Act. *567 IAC 22.108 (18)*

### **G26. Severability**

The provisions of this permit are severable and if any provision or application of any provision is found to be invalid by this department or a court of law, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected by such finding. *567 IAC 22.108 (8)*

### **G27. Property Rights**

The permit does not convey any property rights of any sort, or any exclusive privilege. *567 IAC 22.108 (9)"d"*

### **G28. Transferability**

This permit is not transferable from one source to another. If title to the facility or any part of it is transferred, an administrative amendment to the permit must be sought consistent with the requirements of *567 IAC 22.111(1)*. *567 IAC 22.111 (1)"d"*

### **G29. Disclaimer**

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. *567 IAC 22.3(3)"c"*

### **G30. Notification and Reporting Requirements for Stack Tests or Monitor Certification**

The permittee shall notify the department's stack test contact in writing not less than 30 days before a required test or performance evaluation of a continuous emission monitor is performed to determine compliance with applicable requirements of *567 – Chapter 23* or a permit condition. Such notice shall include the time, the place, the name of the person who will conduct the test

and other information as required by the department. If the owner or operator does not provide timely notice to the department, the department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with applicable rules or permit conditions. Upon written request, the department may allow a notification period of less than 30 days. At the department's request, a pretest meeting shall be held not later than 15 days prior to conducting the compliance demonstration. A testing protocol shall be submitted to the department no later than 15 days before the owner or operator conducts the compliance demonstration. A representative of the department shall be permitted to witness the tests. Results of the tests shall be submitted in writing to the department's stack test contact in the form of a comprehensive report within six weeks of the completion of the testing. Compliance tests conducted pursuant to this permit shall be conducted with the source operating in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which the source shall be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the equipment manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the department that the source has been physically altered so that capacity cannot be exceeded, or the department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the department to determine whether such source is in compliance.

Stack test notifications, reports and correspondence shall be sent to:

Stack Test Review Coordinator  
Iowa DNR, Air Quality Bureau  
7900 Hickman Road, Suite #1  
Windsor Heights, IA 50324  
(515) 725-9545

Within Polk and Linn Counties, stack test notifications, reports and correspondence shall also be directed to the supervisor of the respective county air pollution program.

*567 IAC 25.1(7)"a", 567 IAC 25.1(9)*

### **G31. Prevention of Air Pollution Emergency Episodes**

The permittee shall comply with the provisions of 567 IAC Chapter 26 in the prevention of excessive build-up of air contaminants during air pollution episodes, thereby preventing the occurrence of an emergency due to the effects of these contaminants on the health of persons.

*567 IAC 26.1(1)*

### **32. Contacts List**

The current address and phone number for reports and notifications to the EPA administrator is:

Chief of Air Permits  
U.S. EPA Region 7  
Air Permits and Compliance Branch  
11201 Renner Blvd.  
Lenexa, KS 66219  
(913) 551-7020

The current address and phone number for reports and notifications to the department or the Director is:

Chief, Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite #1  
Windsor Heights, IA 50324  
(515) 725-9500

Reports or notifications to the DNR Field Offices or local programs shall be directed to the supervisor at the appropriate field office or local program. Current addresses and phone numbers are:

**Field Office 1**

909 West Main – Suite 4  
Manchester, IA 52057  
(563) 927-2640

**Field Office 2**

2300-15th St., SW  
Mason City, IA 50401  
(641) 424-4073

**Field Office 3**

1900 N. Grand Ave.  
Spencer, IA 51301  
(712) 262-4177

**Field Office 4**

1401 Sunnyside Lane  
Atlantic, IA 50022  
(712) 243-1934

**Field Office 5**

7900 Hickman Road, Suite #200  
Windsor Heights, IA 50324  
(515) 725-0268

**Field Office 6**

1023 West Madison Street  
Washington, IA 52353-1623  
(319) 653-2135

**Polk County Public Works Dept.**

Air Quality Division  
5885 NE 14th St.  
Des Moines, IA 50313  
(515) 286-3351

**Linn County Public Health**

Air Quality Branch  
501 13th St., NW  
Cedar Rapids, IA 52405  
(319) 892-6000

## **Appendix A: 40 CFR 63 Subpart RRR**

Web Link to National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production.

[www.gpo.gov/fdsys/](http://www.gpo.gov/fdsys/)

### **See Featured Collections**

- **Code of Federal Regulations**
- **Choose year**
- **Title 40**
- **Part 63**

## **Appendix B: 40 CFR 63 Subpart SSSS**

**Web Link to the National Emissions Standards for Hazardous Air Pollutants: Surface Coating of Metal Coil.**

[www.gpo.gov/fdsys/](http://www.gpo.gov/fdsys/)

### **See Featured Collections**

- **Code of Federal Regulations**
- **Choose year**
- **Title 40**
- **Part 63**

## **Appendix C: 40 CFR Part 63 Subpart ZZZZ**

**Web Link to the National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines**

[www.gpo.gov/fdsys/](http://www.gpo.gov/fdsys/)

### **See Featured Collections**

- **Code of Federal Regulations**
- **Choose year**
- **Title 40**
- **Part 63**

## **Appendix D: 40 CFR 63 Subpart DDDDD**

**Web Link to the National Emissions Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters**

[www.gpo.gov/fdsys/](http://www.gpo.gov/fdsys/)

### **See Featured Collections**

- **Code of Federal Regulations**
- **Choose year**
- **Title 40**
- **Part 63**

## **Appendix E: 40 CFR 60 Subpart Dc**

**Web Link to Standards of Performance for Small Industrial, Commercial, and Institutional Steam Generating Units.**

[www.gpo.gov/fdsys/](http://www.gpo.gov/fdsys/)

### **See Featured Collections**

- **Code of Federal Regulations**
- **Choose year**
- **Title 40**
- **Part 60**

## **Appendix F: 40 CFR 60 Subpart JJJJ**

**Web Link to Standards of Performance for Stationary Spark Ignition Internal Combustion Engines.**

[www.gpo.gov/fdsys/](http://www.gpo.gov/fdsys/)

### **See Featured Collections**

- **Code of Federal Regulations**
- **Choose year**
- **Title 40**
- **Part 60**

## **Appendix G: 40 CFR 60 Subpart III**

**Web Link to Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.**

[www.gpo.gov/fdsys/](http://www.gpo.gov/fdsys/)

### **See Featured Collections**

- **Code of Federal Regulations**
- **Choose year**
- **Title 40**

## **Appendix H: 40 CFR 60 Subpart TT**

**Web Link to Standards of Performance for Metal Coil Surface Coating.**

**[www.gpo.gov/fdsys/](http://www.gpo.gov/fdsys/)**

### **See Featured Collections**

- **Code of Federal Regulations**
- **Choose year**
- **Title 40**

**Appendix I: Iowa DNR Letter of March 3, 2015**  
from Chuck Gipp, Director Iowa Department of Natural Resources  
to Rob Woodall, Manufacturing Director, Alcoa, Inc. Bettendorf



# STATE OF IOWA

TERRY E. BRANSTAD, GOVERNOR  
KIM REYNOLDS, LT. GOVERNOR

DEPARTMENT OF NATURAL RESOURCES  
CHUCK GIPP, DIRECTOR

March 3, 2015

Rob Woodall  
Manufacturing Director  
Alcoa, Inc  
PO Box 3567  
Bettendorf, Iowa 52272

Re: Plant Number: 82-01-002; Alcoa, Inc., - Bettendorf, Iowa

Dear Mr. Mitchell:

This letter is to follow up on the Department of Natural Resources (DNR) and Alcoa conference call held February 13, 2015 regarding construction permits issued with greenhouse gas (GHG) requirements and the Supreme Court's Decision in *Utility Air Regulatory Group (UARG) v. Environmental Protection Agency (EPA)*.

Some of Alcoa's projects were subject to 567 IAC 33.3 Prevention of Significant Deterioration (PSD) review solely on the basis of GHGs and included Best Available Control Technology (BACT) emission limits for GHGs. In the June 23, 2014 *UARG v. EPA* decision, the Supreme Court ruled that the EPA may not treat GHGs as an air pollutant for purposes of determining whether a source is a major source (or modifications as major) required to obtain a PSD or Title V permit and thus invalidated regulations implementing that approach.

On December 19, 2014 the EPA issued a memo titled "Next Steps for Addressing EPA-Issued Step 2 Prevention of Significant Deterioration Greenhouse Gas Permits and Associated Requirements". This memorandum explains how EPA intends to proceed following the Supreme Court's decision. Specifically, EPA intends to complete a rulemaking authorizing the rescission of Step 2 PSD permits. EPA's current PSD rule authorizing permit rescission is limited to permits issued on or before July 30, 1987 (see 40 CFR 52.21(w)).

Since Iowa's PSD rule, 567 IAC 33.3(22)"a", has the same limitation as 40 CFR 52.21(w), the DNR also intends to complete a rulemaking that will allow for rescission of PSD permits issued solely on the basis of GHGs. Following a rulemaking, Alcoa's existing permits could then be converted to non-PSD permits.

EPA issued a second memorandum on December 19, 2014 titled "No Action Assurance Regarding EPA-Issued Step 2 Prevention of Significant Deterioration Permits and Related Title V Requirements Following *Utility Air Regulatory Group v. Environmental Protection Agency*." In order to act consistently with EPA's understanding of the Supreme Court's decision, this memorandum states that "...EPA will exercise its enforcement discretion not to pursue enforcement of the terms and conditions relating to GHGs in a source's EPA-issued Step 2 PSD permit, and for related GHG terms and conditions that are contained in the source's title V permit, if any". In addition, the No Action Assurance applies to other title V regulatory requirements for EPA-approved title V programs including the requirement for sources with an existing title V permit to amend its title V permit to incorporate and assure compliance with the terms and conditions of an EPA-issued Step 2 PSD permit.

Iowa Code section 455B.133 directs that the standards or limitations adopted by the DNR shall not exceed the standards or limitations promulgated by the administrator of the United States environmental protection agency or the requirements of the federal Clean Air Act. Therefore the DNR will not include the GHG requirements from these PSD permits into the Title V permit renewal.

Until the process of revising the regulations and the PSD permit rescission process is complete, the DNR is providing Alcoa relief from the GHG conditions identified in the table below for each construction permit. Specifically, Alcoa is not required to comply with these construction permit conditions.

Permit Numbers	Permit Condition	Description	Units
12-A-313P-S1, 12-A-314P-S1, 12-A-315P-S1	10a. , 14.C, 15.C.ii &15.D	10a. BACT Emission Limit 14.C. Work Practice Manual 15.C.ii Reference to Work Practices Manual for Maintenance Schedule 15.D. CO2e Compliance Demonstration Methodology	Boilers
12-A-316P-S1, 12-A-317P-S1, 12-A-319P-S1	10a. , 14.C, 15.B.ii &15.C	10a. BACT Emission Limit 14.C. Work Practice Manual 15.B.ii Reference to Work Practices Manual for Maintenance Schedule 15.C. CO2e Compliance Demonstration Methodology	Oil House Heaters
12-A-321, 12-A-322P-S1	10a. , 14.C, 14.D., 15.B.ii &15.C	10a. BACT Emission Limit 14.C. Energy Star Requirement for GHG BACT 14.D. Work Practice Manual 15.B.ii Reference to Work Practices Manual for Maintenance Schedule 15.C. CO2e Compliance Demonstration Methodology	Space Heaters
12-A-324	10a. , 14.C, 14.D., 15.B.ii &15.C	10a. BACT Emission Limit 14.C. Energy Star Requirement for GHG BACT 14.D. Work Practice Manual 15.B.ii Reference to Work Practices Manual for Maintenance Schedule 15.C. CO2e Compliance Demonstration Methodology	Make-up Air Units
12-A-325	10a. , 14.C, 14.D., 15.C.ii &15.D	10a. BACT Emission Limit 14.C. Energy Star Requirement for GHG BACT 14.D. Work Practice Manual 15.C.ii Reference to Work Practices Manual for Maintenance Schedule 15.D. CO2e Compliance Demonstration Methodology	Gas Heaters/ Furnaces
12-A-326	10a. , 14.C, 14.D., 15.B.ii &15.C	10a. BACT Emission Limit 14.C. Energy Star Requirement for GHG BACT 14.D. Work Practice Manual 15.C.ii Reference to Work Practices Manual for Maintenance Schedule 15.D. CO2e Compliance Demonstration Methodology	Radiant Gas Heaters
12-A-327	10a. , 14.B, & 14.C.	10a. BACT Emission Limit 14.B. Energy Star Requirement for GHG BACT 14.C. Work Practice Manual	Water Heaters

Alcoa must continue to comply with all other permit conditions. The DNR will continue to keep Alcoa informed on the progress of our planned rulemaking to address this issue. If you have any questions, please contact Brian Hutchins at [brian.hutchins@dnr.iowa.gov](mailto:brian.hutchins@dnr.iowa.gov) or 515-725-9550.

Sincerely,



Chuck Gipp, Director  
Department of Natural Resources

C: Iowa DNR Field Office 6