

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

Name of Permitted Facility: Equistar Chemicals, LP
Facility Location: 3400 Anamosa Road, Clinton, IA 52732
Air Quality Operating Permit Number: 04-TV-008R2
Expiration Date: April 24, 2022
Permit Renewal Application Deadline: October 24, 2021

EIQ Number: 92-4291
Facility File Number: 23-01-004

Responsible Official

Name: James R. Hillier
Title: Site Manager
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Permit Contact Person for the Facility

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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.

For the Director of the Department of Natural Resources

Lori Hanson, Supervisor of Air Operating Permits Section

Date

Table of Contents

I. Facility Description and Equipment List	4
II. Plant - Wide Conditions.....	18
III. Emission Point Specific Conditions	20
IV. General Conditions.....	203
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	
V. Appendixes:	217
Appendix A: Federal Standard Web Links	
Appendix B: CAM Plans	

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
IAC.....	Iowa Administrative Code
DNR	Iowa Department of Natural Resources
MVAC.....	motor vehicle air conditioner
NAICS.....	North American Industry Classification System
NSPS	New Source Performance Standard
NESHAP.....	National Emission Standards for Hazardous Air Pollutants
ppmv	parts per million by volume
ppmw.....	parts per million by weight
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

Pollutants

PM.....	particulate matter
PM ₁₀	particulate matter ten microns or less in diameter
SO ₂	sulfur dioxide
NO _x	nitrogen oxides
VOC	volatile organic compound
CO.....	carbon monoxide
HAP.....	hazardous air pollutant

I. Facility Description and Equipment List

Facility Name: Equistar Chemicals, LP

Permit Number: 04-TV-008R2

Facility Description: Industrial Organic Chemicals/Plastics, Resins (SIC 2869/2821)

Equipment List

Emission Point Number	Emission Unit Number	Emission Unit Description	DNR Construction Permit Number
Ethylene Plant			
EP001-P	EP001-U	LB-0101A A-Furnace	11-A-723
EP002-P	EP002-U	LB-0101B B-Furnace	11-A-042
EP003-P	EP003-U	LB-0101C C-Furnace	11-A-043
EP004-P	EP004-U	LB-0101D D-Furnace	08-A-245-S1
EP005-P	EP005-U	LB-0101E E-Furnace	08-A-246-S1
EP006-P	EP006-U	LB-0101F F-Furnace	11-A-044
EP007-P	EP007-U	LB-0101G G-Furnace	11-A-045
EP008-P	EP008-U	LB-0101H H-Furnace	11-A-046
EP009-P	EP009-U	LB-0101I I-Furnace	11-A-047
EP010-P	EP010-U	LB-0101J J-Furnace	11-A-048
EP011-P	EP011-U	LB-0107A K-Furnace	None
EP012-P	EP012-U	LB-107B L-Furnace	None
EP013-P	EP013-U	LB-0120 M-Furnace	89-A-030
EP014-P	EP014-U	B-0103 Gas Drier	None
EP015E-P	EP015-U	LB-0102A A-Boiler	89-A-028
EP015W-P	EP015-U	LB-0102A A-Boiler	89-A-028
EP016E-P	EP016-U	LB-0102B B-Boiler	89-A-029
EP016W-P	EP016-U	LB-0102B B-Boiler	89-A-029
EP017-P	EP017-U	Package Boiler (Natural Gas Fired)	None
EP018-P	EP018-U	Package Boiler (Natural Gas Fired)	None
EP020H-P	EP020H-U	U-2202 Cooling Tower	None
EP020I-P	EP020I-U	U-2202 Cooling Tower	None
EP020J-P	EP020J-U	U-2202 Cooling Tower	None
EP020K-P	EP020K-U	UJ-2210 Cooling Tower	None
EP020L-P	EP020L-U	UJ-2210 Cooling Tower	None
EP020M-P	EP020M-U	UJ-2210 Cooling Tower	None
EP020N-P	EP020N-U	UJ-2210 Cooling Tower	None
EP020O-P	EP020O-U	UJ-2210 Cooling Tower	None
EP020P-P	EP020P-U	UJ-2210 Cooling Tower	None
EP020Q-P	EP020Q-U	UJ-2210 Cooling Tower	None
EP020R-P	EP020R-U	UJ-2210 Cooling Tower	None
EP020S-P	EP020S-U	UJ-2210 Cooling Tower	None
EP020T-P	EP020T-U	UJ-2210 Cooling Tower	None
EP020U-P	EP020U-U	UJ-2210 Cooling Tower	None
EP020V-P	EP020V-U	UJ-2210 Cooling Tower	None
EP021-P	EP021-U	Fugitive Emission: Ethylene Plant	None
EP022-P	EP022B-U	Fugitive Emission: DAC Truck Loading	None
EP022-P	EP022C-U	Fugitive Emission: Residual Oil Truck Loading	None
EP022-P	EP022D-U	Fugitive Emission: DAC Rail Car Loading	None
EP023-P	EP023-U	F-2105 DAC Tank	None

Emission Point Number	Emission Unit Number	Emission Unit Description	DNR Construction Permit Number
EP025-P	EP025-U	F-2147 DAC Tank	None
EP026-P	EP026-U	F-2139 Wash Oil Tank	None
EP027-P	EP027-U	Fugitive Emission: F-2407 Equalization & Neutralization Tank	None
EP031-P	EP031-U	Cold Vent Header	None
EP033-P	EP033A-U	B-2401 Ethylene Flare Pilot Lights	None
EP033-P	EP033B-U	B-2401 Ethylene Flare Exhaust (Vent Gases)	00-A-911-S5
EP033-P	EP033C-U	H-110 Analyzer House, 2 Gas Chromatographs	00-A-911-S5
EP033-P	EP033D-U	Diglycolamine (DGA) Unit	00-A-911-S5
EP033-P	EP037-U	H-120 Ethylene Analyzer House	00-A-911-S5
EP034-P	EP034-U	J-2204D Fire Water Pump Diesel Engine	None
EP035-P	EP035-U	J-2204E Fire Water Pump Diesel Engine	None
EP036-P	EP036-U	J-2204F Fire Water Pump Diesel Engine	None
EP037-P	EP037-U	Plant Insignificant Activities	None
EP038-P	EP038-U	F-0154 Furnace Decoke Pot	None
EP039-P	EP039-U	F-0154A Furnace Decoke Pot	None
EP040-P	EP040-U	B-0107 Regeneration Gas Heater	97-A-804-S1
EP041-P	EP041-U	Plant Incidental Releases	None
EP042N-P	EP042-U	J-0102 Propylene Refrigeration Compressor	None
EP042S-P	EP042-U	J-0102 Propylene Refrigeration Compressor	None
EP043N-P	EP043-U	J-0103 Ethylene Refrigeration Compressor	None
EP043S-P	EP043-U	J-0103 Ethylene Refrigeration Compressor	None
EP044E-P	EP044-U	J-0104 Ethylene Refrigeration Compressor	None
EP044W-P	EP044-U	J-0104 Ethylene Refrigeration Compressor	None
EP045-P	EP045-U	OAH Tripod Temporary Smokeless Flare	None
EP046-P	EP046-U	F-144 Wash Oil Day Tank	None
EP033-P	EP047-U	H-107B Ethylene Analyzer House	00-A-911-S5
EP033-P	EP048-U	H-108 Ethylene Analyzer House	00-A-911-S5
EP049-P	EP049-U	H-112 Ethylene Analyzer House	None
EP050-P	EP050-U	H-115 Ethylene Analyzer House	None
EP051-P	EP051-U	Fugitive Emission: E-118 Quench Water Stripper Blowdown	None
EP052-P	EP052-U	Fugitive Emission: E-129 Caustic Stripper Blowdown	None
EP055-P	EP055-U	Fugitive Emission: F-2450 Equalization & Neutralization Tank	None
EP056-P	EP056-U	Fugitive Emission: F-2451 Rapid Mix Tank	None
EP057-P	EP057-U	Fugitive Emission: F-2452 Flocculation Tank	None
EP058-P	EP058-U	Fugitive Emission: F-2453 Dissolved Air Flotation Tank	None
EP059-P	EP001-U	LB-0101A A-Furnace (decoke)	11-A-724
EP060-P	EP002-U	LB-0101B B-Furnace (decoke)	11-A-049
EP061-P	EP003-U	LB-0101C C-Furnace (decoke)	11-A-050
EP062-P	EP004-U	LB-0101D D-Furnace (decoke)	08-A-247-S1
EP063-P	EP005-U	LB-0101E E-Furnace (decoke)	08-A-248-S1
EP064-P	EP006-U	LB-0101F F-Furnace (decoke)	11-A-051
EP065-P	EP007-U	LB-0101G G-Furnace (decoke)	11-A-052
EP066-P	EP008-U	LB-0101H H-Furnace (decoke)	11-A-053
EP067-P	EP009-U	LB-0101I I-Furnace (decoke)	11-A-054
EP068-P	EP010-U	LB-0101J J-Furnace (decoke)	11-A-055
EP069N-P	EP011-U	LB-0107A K-Furnace (decoke)	None
EP069S-P	EP011-U	LB-0107A K-Furnace (decoke)	None

Emission Point Number	Emission Unit Number	Emission Unit Description	DNR Construction Permit Number
EP070N-P	EP012-U	LB-107B L-Furnace (decoke)	None
EP070S-P	EP012-U	LB-107B L-Furnace (decoke)	None
EP071N-P	EP013-U	LB-0120 M-Furnace (decoke)	None
EP071S-P	EP013-U	LB-0120 M-Furnace (decoke)	None
EP072-P	EP072-U	Maintenance Paint Booth	10-A-371
EP073-P	EP073-U	WWTP Lift Station	13-A-336
EP074A-P	EP074-U	F-2103 Mixed C4 Sphere- RV1	None
EP074B-P	EP074-U	F-2103 Mixed C4 Sphere- RV2	None
EP075-P	EP0753-U	F1116 Spent Caustic Tank	None
EP076-P	EP076-U	F 0143 Ethanol Storage Tank- Closed Loop System	None
EP077-P	EP077-U	F 0151N Ethanol Storage Tank- Closed Loop System	None
EP078-P	EP078-U	F 0145R1 Fuel Oil Mix Tank	None
EP079-P	EP079-U	F 0176 Contaminated Lube Storage Tank	None
EP080-P	EP080-U	F 0169 Process Additive Storage Tank	None
EP081-P	EP081-U	Process Additive Storage Tank	None
EP082-P	EP082-U	Process Additive Storage Tank	None
EP083A/B-P	EP083A/B-U	Process Additive Storage Tank	None
EP084-P	EP084-U	F 2150A Plant Gasoline Storage Tank	None
EP085-P	EP085-U	F 2150B Plant Diesel Storage Tank	None
EP086-P	EP086-U	Material Tote	None
EP087-P	EP087-U	Material Tote	None
High Density Polyethylene Production Lines			
HD001A-P	HD001A-U	PF-4 Analyzer House	None
HD001B-P	HD001B-U	PF-1, PF-2, and PF-3 Analyzer House	None
HD002N-P	HD002-U	C-0316 Gas1 (D-0307) Activator Jacket Heater	None
HD002S-P	HD002-U	C-0316 Gas1(D-0307) Activator Jacket Heater	None
HD004-P	HD004-U	F-0401A PF-1 Rundown Bin	None
HD005-P	HD005-U	F-0401B PF-1 Rundown Bin	None
HD006-P	HD006-U	F-0401C PF-1 Rundown Bin	None
HD007-P	HD007-U	F-0401D PF-1 Rundown Bin	None
HD008N-P	HD008A-U	F-0411C PF-3 Rundown Bin Through L-1417A Bag House	94-A-110-S1
HD008N-P	HD008B-U	F-0411D PF-3 Rundown Bin Through L-1417A Bag House	94-A-110-S1
HD008N-P	HD008C-U	F-0431C PF-2 Rundown Bin Through L-1417A Bag House	94-A-110-S1
HD008N-P	HD008D-U	F-0431D PF-2 Rundown Bin Through L-1417A Bag House	94-A-110-S1
HD008S-P	HD008E-U	F-0411A PF-3 Rundown Bin Through L-1417B Bag House	94-A-109-S1
HD008S-P	HD008F-U	F-0411B PF-3 Rundown Bin Through L-1417B Bag House	94-A-109-S1
HD008S-P	HD008G-U	F-0431A PF-2 Rundown Bin Through L-1417B Bag House	94-A-109-S1
HD008S-P	HD008H-U	F-0431B PF-2 Rundown Bin Through L-1417B Bag House	94-A-109-S1
HD009N-P	HD009A-U	F-0439A PF-4 Rundown Bin Through L-1416B Bag House	93-A-158-S4
HD009N-P	HD009B-U	F-0439B PF-4 Rundown Bin Through L-1416B Bag House	93-A-158-S4

Emission Point Number	Emission Unit Number	Emission Unit Description	DNR Construction Permit Number
HD009N-P	HD009C-U	F-0439C PF-4 Rundown Bin Through L-1416B Bag House	93-A-158-S4
HD009N-P	HD009D-U	F-0439D PF-4 Rundown Bin Through L-1416B Bag House	93-A-158-S4
HD009S-P	HD009E-U	F-0439E PF-4 Rundown Bin Through L-1416A Bag House	93-A-157-S4
HD009S-P	HD009F-U	F-0439F PF-4 Rundown Bin Through L-1416A Bag House	93-A-157-S4
HD009S-P	HD009G-U	F-0439G PF-4 Rundown Bin Through L-1416A Bag House	93-A-157-S4
HD009S-P	HD009H-U	F-0439H PF-4 Rundown Bin Through L-1416A Bag House	93-A-157-S4
HD010-P	HD010-U	F-0415A J-Line Feed Bin	78-A-075-S2
HD011-P	HD011-U	F-0415B J-Line Feed Bin	07-A-1181-S1
HD012-P	HD012-U	F-0421A A-Line Feed Bin	None
HD013-P	HD013-U	F-0421B B-Line Feed Bin	None
HD014-P	HD014-U	F-0422A A-Line Feed Bin	None
HD015-P	HD015-U	F-0422B B-Line Feed Bin	None
HD016-P	HD016-U	F-0423A A-Line Feed Bin	None
HD017-P	HD017-U	F-0423B B-Line Feed Bin	None
HD018-P	HD018-U	F-0462 F-Line Feed Bin	89-A-065-S2
HD019-P	HD019-U	F-0463 F-Line Feed Bin	07-A-1190-S1
HD020-P	HD020-U	F-0918 PF-4 Surge Hopper	07-A-1182-S3
HD021-P	HD021-U	J-0303A PF-1 Recycle Compressor	None
HD022-P	HD022-U	J-0303B PF-1 Recycle Compressor	None
HD022F-P	HD021-U/HD022-U	Fugitive Emission: J-303A/B PF-1 Recycle Compressors	None
HD027-P	HD027-U	J-0603 PF-2/3 Recycle Compressor	None
HD028-P	HD028-U	J-0604 PF-2/3 Recycle Compressor	None
HD029-P	HD029-U	J-0605 PF-2/3 Recycle Compressor	None
HD029F-P	HD029-U	Fugitive Emission: PF-2/3 Recycle Compressors	None
HD033-P	HD033-U	J-0623 IC4 Recovery Compressor	None
HD033F-P	HD033-U	Fugitive Emission: J-0623 IC4 Recovery Compressor	None
HD036-P	HD036-U	J-0908A PF-4 Recycle Compressor	None
HD036F-P	HD036-U	Fugitive Emission: J-0908A PF-4 Recycle Compressor	None
HD037-P	HD037-U	J-0908B PF-4 Recycle Compressor	None
HD037F-P	HD037-U	Fugitive Emission: J-0908B PF-4 Recycle Compressor	None
HD038-P	HD038-U	J-0908C PF-4 Recycle Compressor	None
HD038F-P	HD038-U	Fugitive Emission: J-0908C PF-4 Recycle Compressor	None
HD039-P	HD039-U	J-0301 PF-1 Reactor Pump	None
HD040-P	HD040-U	J-0601 PF-3 Reactor Pump	None
HD041-P	HD041-U	J-0602 PF-2 Reactor Pump	None
HD042-P	HD042-U	J-0903 PF-4 Reactor Pump	None
HD043-P	HD043-U	L-0302 PF-1 Purge Conveyor	None
HD044-P	HD044-U	L-0603 PF-3 Purge Conveyor	None
HD045-P	HD045-U	L-0604 PF-2 Purge Conveyor	None
HD046-P	HD046-U	Fugitive Emission: VF-0402 PF-1 Surge Bin	None
HD047-P	HD047-U	Fugitive Emission: VF-0432A PF-3 Surge Bin	None
HD048-P	HD048-U	Fugitive Emission: VF-0432B PF-2 Surge Bin	None

Emission Point Number	Emission Unit Number	Emission Unit Description	DNR Construction Permit Number
HD049A-P	HD049A-U	L-0349 Scrubber for GAS1 D-0307	03-A-1013-S1
HD049C-P	HD049C-U	L-0348 Scrubber for Electric1 D-0310	08-A-442-S1
HD050A-P	HD050A-U	L-0426A A-Line Dust Collector	None
HD050B-P	HD050B-U	L-0426B B-Line Dust Collector	None
HD050C-P	HD050C-U	L-0470 F-Line Dust Collector	89-A-070-S2
HD050D-P	HD050D-U	L-0410 J-Line Dust Collector	03-A-1014-S1
HD051-P	HD051-U	J-1402 Additive Vacuum System	03-A-1015-S1
HD052-P	HD052-U	F-0402A PF Storage Bin	None
HD053-P	HD053-U	F-0402B PF Storage Bin	10-A-379-S1
HD054-P	HD054-U	F-0402C PF Storage Bin	10-A-380-S1
HD055-P	HD055-U	F-0402D PF Storage Bin	10-A-381-S1
HD056-P	HD056-U	F-0402E PF Storage Bin	10-A-382-S1
HD057-P	HD057-U	F-0432A PF Storage Bin	None
HD058-P	HD058-U	F-0432B PF Storage Bin	None
HD059-P	HD059-U	F-0432C PF Storage Bin	None
HD060-P	HD060-U	F-0432D PF Storage Bin	None
HD061-P	HD061-U	F-0432E PF Storage Bin	None
HD062-P	HD062-U	F-0412A PF Storage Bin	10-A-383-S2
HD063-P	HD063-U	F-0412B PF Storage Bin	10-A-384-S2
HD064-P	HD064-U	F-0412C PF Storage Bin	10-A-385-S2
HD065-P	HD065-U	F-0412D PF Storage Bin	10-A-386-S2
HD066-P	HD066-U	F-0412E PF Storage Bin	10-A-387-S2
HD067-P	HD067-U	F-0412F PF Storage Bin	78-A-074
HD068-P	HD068-U	F-0412G PF Storage Bin	78-A-074
HD069-P	HD069-U	F-0412H PF Storage Bin	10-A-388-S1
HD070-P	HD070-U	F-0412J PF Storage Bin	10-A-389-S1
HD071-P	HD071-U	F-0412K PF Storage Bin	10-A-390-S2
HD072-P	HD072-U	F-0404A Plexar Storage/Feed Bin	80-A-075
HD073-P	HD073-U	F-0404B Plexar Storage/Feed Bin	80-A-076
HD074-P	HD074-U	F-0404C Plexar Rundown Bin	None
HD075-P	HD075-U	F-0444A Pellet Blender	None
HD076-P	HD076-U	F-0444B Pellet Blender	None
HD077-P	HD077-U	F-0444C Pellet Blender	89-A-068-S3
HD078-P	HD078-U	F-0444D Pellet Blender	07-A-1191-S2
HD079-P	HD079-U	F-0444E Pellet Blender	07-A-1192-S2
HD080-P	HD080-U	F-0444F Pellet Blender	07-A-1193-S2
HD081-P	HD081-U	F-0441A Pellet Blender	None
HD082-P	HD082-U	F-0441B Pellet Blender	None
HD083-P	HD083-U	F-0445 Pellet Blender	None
HD084-P	HD084-U	F-0437A Pellet Blender	89-A-067-S3
HD085-P	HD085-U	F-0437B Pellet Blender	07-A-1183-S2
HD086-P	HD086-U	F-0437C Pellet Blender	07-A-1184-S2
HD087-P	HD087-U	F-0437D Pellet Blender	07-A-1185-S2
HD088-P	HD088-U	F-0437E Pellet Blender	07-A-1186-S2
HD089-P	HD089-U	F-0437F Pellet Blender	07-A-1187-S2
HD090-P	HD090-U	F-0437G Pellet Blender	07-A-1188-S2
HD091-P	HD091-U	F-0437H Pellet Blender	07-A-1189-S2
HD092-P	HD092-U	F-0443A Pellet Storage Bin	None
HD093-P	HD093-U	F-0443B Pellet Storage Bin	None
HD094-P	HD094-U	F-0443C Pellet Storage Bin	None
HD095-P	HD095-U	F-0443D Pellet Storage Bin	None
HD096-P	HD096-U	F-0443E Pellet Storage Bin	None

Emission Point Number	Emission Unit Number	Emission Unit Description	DNR Construction Permit Number
HD097-P	HD097-U	F-0443F Pellet Storage Bin	None
HD098-P	HD098-U	F-0443G Pellet Storage Bin	None
HD099-P	HD099-U	F-0443H Pellet Storage Bin	None
HD100-P	HD100-U	F-0443J Pellet Storage Bin	None
HD101-P	HD101-U	F-0443K Pellet Storage Bin	None
HD102-P	HD102-U	F-0443L Pellet Storage Bin	None
HD103-P	HD103-U	F-0443M Pellet Blending Silo	None
HD104-U	HD104-U	F-0447A Divert Quad Bin	None
HD105-P	HD105-U	F-0447B Divert Quad Bin	None
HD106-P	HD106-U	F-0447C Divert Quad Bin	None
HD107-P	HD107-U	F-0447D Divert Quad Bin	None
HD108-P	HD108-U	Fugitive Emission: High Density Unit	None
HD109-P	HD109-U	F-0438A Divert Quad Bin	None
HD110-P	HD110-U	F-0438B Divert Quad Bin	None
HD111-P	HD111-U	F-0438C Divert Quad Bin	None
HD112-P	HD112-U	F-0438D Divert Quad Bin	None
HD113-P	HD113-U	F-0442A Divert Quad Bin	None
HD114-P	HD114-U	F-0442B Divert Quad Bin	None
HD115-P	HD115-U	F-0442C Divert Quad Bin	None
HD116-P	HD116-U	F-0442D Divert Quad Bin	None
HD117-P	HD117-U	L-0918 PF4 Purge Conveyor	None
HD118-P	HD118-U	Fugitive Emission: F-0425 Plexar Maleic Anhydride Tank	None
HD119-P	HD119-U	L-0428A A-line Pellet Dryer	None
HD120-P	HD120-U	L-0428B B-line Pellet Dryer	None
HD121-P	HD121-U	L-1409 F-line Spin Dryer	89-A-066-S3
HD122-P	HD122-U	L-0413 J-line Spin Dryer	89-A-069-S3
HD123-P	HD123-U	L-0406A Plexar Graft Dryer	None
HD124-P	HD124-U	L-0477 D-line Pellet Dryer	None
HD125-P	HD125-U	L-0487 E-line Pellet Dryer	None
HD126-P	HD126-U	F-0455 E-Line Feed Bin	None
HD127-P	HD127-U	F-0456 E-Line Feed Bin	None
HD128-P	HD128-U	F-0464 D-Line Feed Bin	None
HD129-P	HD129-U	F-0465 D-Line Feed Bin	None
HD130A/B-P	HD130-U	F-0498 E-Line Additive Bin	03-A-1016/1017
HD132A/B-P	HD132-U	F-0497 D-Line Additive Bin	03-A-1018/1019
HD134-P	HD134-U	L-4001 Plexar Extruder	None
HD135-P	HD135A-U	F-0410A Quality Control Bin	03-A-1020
HD135-P	HD135B-U	F-0410B Quality Control Bin	03-A-1020
HD136-P	HD136-U	F-0408 Plexar Weigh Hopper	80-A-077
HD141-P	HD141-U	DB-0910 Gas 2 (D-0910) Activator Jacket Heater	99-A-422
HD142-P	HD141-U	DL-910 Gas 2 Activator Filter	90-A-406-S4
HD143-P	HD141-U	F-929 Gas 2 Activator Coalescing Filter	01-A-585
HD144-P	HD043-U	L-0302 PF-1 Purge Conveyor RD	None
HD145-P	HD044-U	L-0603 PF-3 Purge Conveyor RD	None
HD146-P	HD045-U	L-0604 PF-2 Purge Conveyor RD	None
HD149-P	HD149-U	Fugitive Emission: L-301 PF-1 Dryer	None
HD150-P	HD150-U	Fugitive Emission: L-602 PF-2 Dryer	None
HD151-P	HD151-U	Fugitive Emission: L-601 PF-3 Dryer	None
HD152-P	HD152-U	Fugitive Emission: L-0917 PF-4 Dryer	None
HD153-P	HD153-U	Fugitive Emission: F-0303 PF-1 Slide Valves (2)	None
HD154-P	HD154-U	Fugitive Emission: F-602 PF-2 Slide Valves (2)	None

Emission Point Number	Emission Unit Number	Emission Unit Description	DNR Construction Permit Number
HD155-P	HD155-U	Fugitive Emission: F-0601 PF-3 Slide Valves (2)	None
HD156-P	HD156-U	Fugitive Emission: F-0909 PF-4 Slide Valves (2)	None
HD157-P	HD157-U	Fugitive Emission: L-0918 PF-4 Slide Valve	None
HD158-P	HD158-U	Fugitive Emission: J-0330 PF-1 Purge Conveyor Blower	None
HD159-P	HD159-U	Fugitive Emission: J-0628B PF-2 Purge Conveyor Blower	None
HD160-P	HD160-U	Fugitive Emission: J-0628A PF-3 Purge Conveyor Blower	None
HD161-P	HD161-U	Fugitive Emission: J-0906 PF-4 Purge Conveyor Blower	None
HD162-P	HD162-U	Fugitive Emission: KV33107AB PF-1 Dryer V-Ball Valves	None
HD163-P	HD163-U	Fugitive Emission: KV36107AB PF-2 Dryer V-Ball Valves	None
HD164-P	HD164-U	Fugitive Emission: KV37107AB PF-3 Dryer V-Ball Valves	None
HD165-P	HD165-U	Fugitive Emission: KV39226AB PF-4 Dryer V-Ball Valves	None
HD166-P	HD166-U	HDPE Vacuum System Bag filter	11-A-290-S1
HD167-P	HD167-U	MAH Neutralization Tank	11-A-557
HD168-P	HD168-U	J-1431 Powder Vacuum blower	None
HD169-P	HD169-U	J 0408 Powder Vacuum Blower	None
HD170-P	HD170-U	J 0418 Powder Vacuum Blower	None
HD171-P	HD171-U	J 1401 Powder Vacuum Blower	None
HD172-P	HD172-U	J 0409 Powder Vacuum Blower	None
HD173-P	HD173-U	J0406A Pellet Vacuum Blower	None
HD174-P	HD174-U	J0406B Pellet Vacuum Blower	None
HD175-P	HD175-U	J0406C- Pellet Vacuum Blower	None
HD176-P	HD176-U	Fugitive Emission: F-314 PF1,2, 3 Dump Tanks Slide Valve	None
HD177-P	HD177-U	Fugitive Emission: F-915 PF-4 Dump Tank Slide Valve	None
HD178-P	HD117-U	L-0918 PF-4 Purge Conveyor RV	None
HD179-P	HD043-U	Fugitive Emission: L-0302 PF-1 Purge Conveyor	None
HD180-P	HD044-U	Fugitive Emission: L-0603 PF-3 Purge Conveyor	None
HD181-P	HD045-U	Fugitive Emission: L-0604 PF-2 Purge Conveyor	None
HD182-P	HD117-U	Fugitive Emission: L-0918 PF-4 Purge Conveyor	None
HD183-P	HD183A-U	D301 PF1 Loop Reactor	16-A-383
	HD183B-U	F303 PF1 Flash Tank	
	HD183C-U	L0301 PF1 Dryer	
	HD183-U	L0302 Purge Column	
Low Density Polyethylene Production Lines			
EP033-P	LD001-U	F-2134A VA Tank	00-A-911-S5
EP033-P	LD002-P	F-2134B VA Tank	00-A-911-S5
LD005E-P	LD005-U	D-0201 LD-1 Reactor (Depressure Emissions)	97-A-807
LD005W-P	LD005-U	D-0201 LD-1 Reactor (Rupture Disc Emissions)	97-A-808
LD006N-P	LD006-U	D-0702A LD-2A Reactor (North Rupture Disc Emissions)	None
LD006S-P	LD006-U	D-0702A LD-2A Reactor (South Rupture Disc Emissions)	None
LD006W-P	LD006-U	D-0702A LD-2A Reactor (Depressure Emissions)	None

Emission Point Number	Emission Unit Number	Emission Unit Description	DNR Construction Permit Number
LD007N-P	LD007-U	D-0702B LD-2B Reactor (North Rupture Disc Emissions)	None
LD007S-P	LD007-U	D-0702B LD-2B Reactor (South Rupture Disc Emissions)	None
LD007W-P	LD007-U	D-0702B LD-2B Reactor (Depressure Emissions)	None
LD008E-P	LD008-U	D-0801 LD-3 Reactor (East Rupture Disc Emissions)	97-A-647-S2
LD008S-P	LD008-U	D-0801 LD-3 Reactor (Depressure Emissions)	97-A-648-S2
LD008W-P	LD008-U	D-0801 LD-3 Reactor (West Rupture Disc Emissions)	97-A-649-S2
EP033-P	LD011-U	F-0785 VA Rundown Tank	00-A-911-S5
LD012-P	LD012-U	F-0739 Non-VA Mineral Spirits Storage Tank	None
LD013-P	LD013-U	F-0751 VA Storage Tank	None
LD014-P	LD014-U	L-0207A LD-1 "A" Spin Dryer	97-A-809-S2
LD015-P	LD015-U	L-0207B LD-1 "B" Spin Dryer	97-A-810-S2
LD016-P	LD016-U	L-0210 LD-1 "C" Spin Dryer	97-A-811-S3
LD017A-P	LD017A-U	LD-2A Dewatering Bin	94-A-137
LD017B-P	LD017B-U	L-0738A LD-2A Spin Dryer	94-A-138-S2
LD018A-P	LD018A-U	LD-2B Dewatering Bin	94-A-111
LD018B-P	LD018B-U	L-0738B LD-2B Spin Dryer	94-A-112-S2
LD019-P	LD019-U	L-0838 LD-3 Dewatering Bin & Spin Dryer	97-A-650-P4
LD020-P	LD020-U	F-0451A LD-1 Rundown Blender	97-A-812
LD021-P	LD021-U	F-0451B LD-1 Rundown Blender	97-A-813
LD022-P	LD022-U	F-0451C LD-1 Rundown Blender	97-A-814
LD023-P	LD023-U	F-0451D LD-1 Rundown Blender	97-A-815
LD024-P	LD024-U	F-0451E LD-1 Rundown Blender	97-A-816
LD025-P	LD025-U	F-0451F LD-1 Rundown Blender	97-A-817
LD026-P	LD026-U	F-0457A LD-2B Rundown Blender	None
LD027-P	LD027-U	F-0457B LD-2A Rundown Blender	None
LD028-P	LD028-U	F-0457C LD-2A Rundown Blender	None
LD029-P	LD029-U	F-0457D LD-2A Rundown Blender	None
LD030-P	LD030-U	F-0457E LD-2B Rundown Blender	None
LD031-P	LD031-U	F-0457F LD-2B Rundown Blender	None
LD032-P	LD032-U	F-0457G LD-2 Spare Blender	None
LD033-P	LD033-U	F-0457H LD-2 Spare Blender	None
LD034-P	LD034-U	F-0457J LD-2 Spare Blender	None
LD035-P	LD035-U	F-0458A E Line Rundown Blender	None
LD036-P	LD036-U	F-0458B E Line Rundown Blender	None
LD037-P	LD037-U	F-0458C E Line Rundown Blender	None
LD038-P	LD038-U	F-0458D D Line Rundown Blender	None
LD039-P	LD039-U	F-0458E D Line Rundown Blender	None
LD040-P	LD040-U	F-0458F D Line Rundown Blender	None
LD041-P	LD041-U	F-0459A LD-2/3 Rundown Storage Bin	97-A-685-S2
LD042-P	LD042-U	F-0459B LD-2/3 Rundown Storage Bin	97-A-686-S2
LD043-P	LD043-U	F-0459C LD-2/3 Rundown Storage Bin	97-A-687-S2
LD044-P	LD044-U	F-0459D LD-2/3 Rundown Storage Bin	97-A-688-S2
LD045-P	LD045-U	F-0459E LD-3 Rundown Blender	97-A-689-S2
LD046-P	LD046-U	F-0459F LD-3 Rundown Blender	97-A-690-S2
LD047-P	LD047-U	F-0459G LD-3 Rundown Blender	97-A-691-S2
LD048-P	LD048-U	F-0459H LD-3 Rundown Blender	97-A-692-S2
LD049-P	LD049-U	F-0459J LD-3 Rundown Blender	97-A-693-S2
LD050-P	LD050-U	F-0459K LD-3 Rundown Blender	97-A-694-S2

Emission Point Number	Emission Unit Number	Emission Unit Description	DNR Construction Permit Number
LD051-P	LD051-U	F-0459L LD-2/3 Rundown Storage Bin	97-A-695-S2
LD052-P	LD052-U	F-0459M LD-2/3 Rundown Storage Bin	97-A-696-S2
LD053-P	LD053-U	F-0459N LD-2/3 Rundown Storage Bin	97-A-697-S2
LD054-P	LD054-U	F-0459P LD-2/3 Rundown Storage Bin	97-A-698-S2
LD055-P	LD055-U	F-0459Q LD-2/3 Rundown Storage Bin	97-A-699-S2
LD056-P	LD056-U	F-0459R LD-2/3 Rundown Storage Bin	97-A-700-S2
LD057-P	LD057-U	F-0459S LD-2/3 Rundown Storage Bin	97-A-701-S2
LD058-P	LD058-U	F-0459T LD-2/3 Rundown Storage Bin	97-A-702-S2
LD059-P	LD059-U	F-0459U LD-2/3 Rundown Storage Bin	97-A-703-S2
LD060-P	LD060-U	F-0453A LD-1 Storage Bin	97-A-818
LD061-P	LD061-U	F-0453B LD-1 Storage Bin	97-A-819
LD062-P	LD062-U	F-0453C LD-1 Blending Silo	97-A-820
LD063-P	LD063-U	F-0453D Finishing Storage Bin	None
LD064-P	LD064-U	F-0453E Finishing Storage Bin	None
LD065-P	LD065-U	F-0453F LD-1 Storage Bin	97-A-821
LD066-P	LD066-U	F-0453G LD-1 Storage Bin	97-A-822
LD067-P	LD067-U	F-0453H LD-1 Storage Bin	97-A-823
LD068-P	LD068-U	F-0453J Finishing Storage Bin	None
LD069-P	LD069-U	F-0453K Finishing Storage Bin	None
LD070-P	LD070-U	F-0453L LD-1 Storage Bin	97-A-824
LD071-P	LD071-U	F-0453M LD-1 Storage Bin	97-A-825
LD072-P	LD072-U	F-0453N LD-1 Storage Bin	97-A-826
LD073-P	LD073-U	F-0453P LD-1 Storage Bin	97-A-827
LD074-P	LD074-U	F-0453Q LD-1 Storage Bin	97-A-828
LD075-P	LD075-U	F-0453R LD-1 Storage Bin	97-A-829
LD076-P	LD076-U	F-0453S LD-1 Storage Bin	97-A-830
LD077-P	LD077-U	F-0454A LD-1 Storage Bin	97-A-831
LD078-P	LD078-U	F-0454B LD-1 Storage Bin	97-A-832
LD079-P	LD079-U	F-0454C LD-1 Storage Bin	97-A-833
LD080-P	LD080-U	F-0454D LD-1 Storage Bin	97-A-834
LD081-P	LD081-U	F-0454E LD-1 Storage Bin	97-A-835
LD082-P	LD082-U	F-0454F LD-1 Storage Bin	97-A-836
LD083-P	LD083-U	Low Density Unit Fugitives	None
LD084-P	LD084-U	F-0452A LD-1 Quad Storage Bin	97-A-837
LD085-P	LD085-U	F-0452B LD-1 Quad Storage Bin	97-A-838
LD086-P	LD086-U	F-0452C LD-1 Quad Storage Bin	97-A-839
LD087-P	LD087-U	F-0452D LD-1 Quad Storage Bin	97-A-840
LD088-P	LD088-U	F-0452E LD-1 Quad Storage Bin	97-A-841
LD089-P	LD089-U	F-0452F LD-1 Quad Storage Bin	97-A-842
LD090-P	LD090-U	F-0452G LD-1 Quad Storage Bin	97-A-843
LD091-P	LD091-U	F-0452H LD-1 Quad Storage Bin	97-A-844
LD092-P	LD092-U	F-0452J LD-2/3 Quad Storage Bin	97-A-651-S2
LD093-P	LD093-U	F-0452K LD-2/3 Quad Storage Bin	97-A-652-S2
LD094-P	LD094-U	F-0452L LD-2/3 Quad Storage Bin	97-A-653-S2
LD095-P	LD095-U	F-0452M LD-2/3 Quad Storage Bin	97-A-654-S2
LD096-P	LD096A-U	J-0201A LD-1 "A" Make Up Compressor	97-A-845
LD096-P	LD096B-U	J-0202A LD-1 "A" Purge Compressor	97-A-846
LD096F-P	LD096AB-U	Fugitive Emission: J-0201A/J-0202A Purge/Make-up Compressor	None
LD097-P	LD097A-U	J-0201B LD-1 "B" Make Up Compressor	97-A-847
LD097-P	LD097B-U	J-0202B LD-1 "B" Purge Compressor	97-A-848

Emission Point Number	Emission Unit Number	Emission Unit Description	DNR Construction Permit Number
LD97F-P	LD097AB-U	Fugitive Emission: J-0201B/J-0202B LD-1 Purge/Make-up Compressor	None
LD098-P	LD098-U	J-0202C LD-1 Purge Booster Compressor	97-A-849
LD98F-P	LD098-U	Fugitive Emission: J-0202C LD-1 Purge Compressor	None
LD099-P	LD099-U	J-0203A LD-1 "A" Recycle Compressor	97-A-850
LD099F-P	LD099-U	Fugitive Emission: J-0203A LD-1 "A" Recycle Compressor	None
LD100-P	LD100-U	J-0203B LD-1 "B" Recycle Compressor	97-A-851
LD100F-P	LD100-U	Fugitive Emission: J-0203B LD-1 "B" Recycle Compressor	None
LD101-P	LD101-U	J-0204A LD-1 "A" Hyper Compressor	97-A-852
LD101F-P	LD101-U	Fugitive Emission: J-0204A LD-1 "A" Hyper Compressor	None
LD102-P	LD102-U	J-0204B LD-1 "B" Hyper Compressor	97-A-853
LD102F-P	LD102-U	Fugitive Emission: J-0204B LD-1 "B" Hyper Compressor	None
LD103-P	LD103-U	J-0223 LD-1 Recycle Compressor	97-A-854
LD103F-P	LD103-U	Fugitive Emission: J-0223 LD-1 Recycle Compressor	None
LD104-P	LD104-U	J-0224 LD-1 Hyper Compressor	97-A-855
LD104F-P	LD104-U	Fugitive Emission: J-0224 LD-1 Hyper Compressor	None
LD105-P	LD105A-U	J-0701A LD-2A Primary/Flash Gas Compressor	None
LD105-P	LD105B-U	F-0701A LD-2A Make Up Gas Suction Drum	None
LD105-P	LD105C-U	F-0705A LD-2A Purge Compressor Suction Drum	None
LD105-P	LD105D-U	F-0755A LD-2A Purge Gas Knockout Drum	None
LD105-P	LD105E-U	F-0709A LD-2A Flash Gas 3rd St. Knockout Drum	None
LD105-P	LD105F-U	F-0708A LD-2A Flash Gas 2nd St. Knockout Drum	None
LD105-P	LD105G-U	F-0707A LD-2A Flash Gas 1st St. Knockout Drum	None
LD105A-P	LD105H-U	J-0701A LD-2A Primary Compressor Leak Gas	None
LD105A-P	LD105I-U	J-0701A LD-2A Primary Compressor 2nd St	None
LD105A-P	LD105J-U	J-0702A Secondary Compressor Leak Gas	None
LD105F-P	LD105A-U	Fugitive Emission: J-0701A Primary Compressor Leak Gas	None
LD106-P	LD106A-U	J-0701B LD-2B Primary/Flash Gas Compressor	None
LD106-P	LD106B-U	F-0701B LD-2B Make Up Gas Suction Drum	None
LD106-P	LD106C-U	F-0705B LD-2B Purge Compressor Suction Drum	None
LD106-P	LD106D-U	F-0755B LD-2B Purge Gas Knockout Drum	None
LD106-P	LD106E-U	F-0709B LD-2B Flash Gas 3rd St. Knockout Drum	None
LD106-P	LD106F-U	F-0708B LD-2B Flash Gas 2nd St. Knockout Drum	None
LD106-P	LD106G-U	F-0707B LD-2B Flash Gas 1st St. Knockout Drum	None
LD106A-P	LD106H-U	J-0701B LD-2B Primary Compressor Leak Gas	None
LD106A-P	LD106I-U	J-0701B LD-2B Primary Compressor 2nd St	None
LD106A-P	LD106J-U	J-0702B Secondary Compressor Leak Gas	None
LD106F-P	LD106A-U	Fugitive Emission: J-0701B Primary Compressor Leak Gas	None
LD107-P	LD107-U	J-0702A LD-2A Secondary Compressor	None

Emission Point Number	Emission Unit Number	Emission Unit Description	DNR Construction Permit Number
LD107F-P	LD107-U	Fugitive Emission: J-0702A LD-2A Secondary Compressor	None
LD108-P	LD108-U	J-0702B LD-2B Secondary Compressor	None
LD108F-P	LD108-U	Fugitive Emission: J-0702B LD-2B Secondary Compressor	None
LD109-P	LD109A-U	J-0801 LD-3 Primary/Flash Gas Compressor	97-A-655-S2
LD109AF-P	LD109A-U	Fugitive Emission: J-0801 LD-3 Primary/Flash Gas Compressor	None
LD109-P	LD109B-U	J-0802 LD-3 Secondary Compressor	97-A-655-S2
LD109BF-P	LD109B-U	Fugitive Emission: J-0802 LD-3 Secondary Compressor	None
LD109A-P	LD109C-U	F-0809 LD-3 Flash Gas 3rd St. Knockout Drum	None
LD109A-P	LD109D-U	F-0801 LD-3 Make up Gas Suction Drum	None
LD109A-P	LD109E-U	J-0820 LD-3 Modifier Pump	None
LD109B-P	LD109F-U	J-0801 LD-3 Primary Compressor 2nd St	None
LD109B-P	LD109G-U	F-0807 LD-3 Flash gas 1st St. Knockout Drum	None
LD109B-P	LD109H-U	F-0808 LD-3 Flash Gas 2nd St. Knockout Drum	None
LD109B-P	LD109I-U	J-0801 LD-3 Primary Compressor Leak Gas	None
LD109B-P	LD109J-U	J-0802 LD-3 Secondary Compressor Leak Gas	None
LD109B-P	LD109K-U	J-0802 LD-3 Secondary Compressor Leak Gas	None
LD110-P	LD110-U	LD-1 Wax Works	97-A-856
LD111-P	LD111-U	LD-2A Wax Works	None
LD112-P	LD112-U	LD-2B Wax Works	None
LD113-P	LD113-U	LD-3 Wax Works	97-A-656-S2
LD114-P	LD114A-U	F-0201 LD-1 Make-Up Gas Suction Drum	97-A-857
LD114-P	LD114B-U	F-0205 LD-1 Purge Compressor Suction Drum	97-A-858
LD115-P	LD115-U	F-0220 LD-1 High Pressure Separator dump valve	97-A-859
LD115A-P	LD115-U	F-0220 LD-1 High Pressure Separator RV	None
LD116-P	LD116-U	F-0703A LD-2A High Pressure Separator dump Valve	None
LD116A-P	LD116-U	F-0703A LD-2A High Pressure Separator RV	None
LD116B-P	LD116-U	F-0703A LD-2A High Pressure Separator RV	None
LD117-P	LD117-U	F-0703B LD-2B High Pressure Separator dump Valve	None
LD117A-P	LD117-U	F-0703B LD-2B High Pressure Separator RV	None
LD117B-P	LD117-U	F-0703B LD-2B High Pressure Separator RV	None
LD118-P	LD118-U	F-0704A LD-2A Low Pressure Separator dump Valve	None
LD118A-P	LD118-U	F-0704A LD-2A Low Pressure Separator RV	None
LD119-P	LD119-U	F-0704B LD-2B Low Pressure Separator dump Valve	None
LD119A-P	LD119-U	F-0704B LD-2B Low Pressure Separator RV	None
LD120-P	LD120-U	F-0803 LD-3 High Pressure Separator Dump Valve	97-A-657-S2
LD120A-P	LD120-U	F-0803 LD-3 High Pressure Separator RV	None
LD120B-P	LD120-U	F-0803 LD-3 High Pressure Separator RV	None
LD121-P	LD121-U	F-0804 LD-3 Low Pressure Separator Dump Valve	97-A-658-S2
LD121A-P	LD121-U	F-0804 LD-3 Low Pressure Separator RV	None
LD124-P	LD124-U	F-0231A LD-1 Low Pressure Separator Dump Valve	None
LD124A-P	LD124-U	F-0231A LD-1 Low Pressure Separator RV	None
LD125-P	LD125-U	F-0231B LD-1 Low Pressure Separator Dump Valve	None

Emission Point Number	Emission Unit Number	Emission Unit Description	DNR Construction Permit Number
LD125A-P	LD125-U	F-0231B LD-1 Low Pressure Separator RV	None
LD126-P	LD126-U	F-0232 LD-1 Low Pressure Separator Dump Valve	None
LD126A-P	LD126-U	F-0232 LD-1 Low Pressure Separator RV	None
LD127-P	LD127-U	LD 1, 2 Analyzer House	03-A-405 to 03-A-408
LD128-P	LD128-U	LD 2, 3 Analyzer House	03-A-409 to 03-A-411
LD129-P	LD129-U	Maintenance Activities	None
LD130-P	LD130-U	L829 Extruder Seals	None
Product Packaging and Shipping			
PP005-P	PP005-U	L-0501 HDPE Old Hopper Car Elutriator	16-A-365
PP006-P	PP006-U	L-0551 LDPE Old Hopper Car Elutriator	16-A-366
PP007-P	PP007-U	L-0597 LDPE Old Hopper Car Scalperator	None
PP008-P	PP008-U	L-0503 HDPE Old Hopper Car Scalperator	None
PP009-P	PP009-U	L-0593 LDPE Hopper Truck Elutriator	None
PP010-P	PP010-U	L-0568 HDPE Hopper Truck Elutriator	None
PP011-P	PP011-U	L-0502 HDPE New Hopper Car Elutriator	79-A-102-S1
PP012-P	PP012-U	L-0509 HDPE New Hopper Car Scalperator	13-A-255
PP013-P	PP013-U	L-0557 LDPE New Hopper Car Scalperator	13-A-256
PP014-P	PP014-U	L-0559 LDPE New Hopper Car Elutriator	13-A-257
PP015-P	PP015-U	L-0594 LDPE Hopper Truck Scalperator	None
PP016-P	PP016-U	L-0569 HDPE Hopper Truck Scalperator	None
PP017-P	PP017-U	L-0589A LDPE New Hopper Car Deduster through L-0589B Baghouse	98-A-599
PP020-P	PP020-U	F-0504 HDPE North Powder Feed Bin	None
PP021-P	PP021-U	F-0505 HDPE South Powder Feed Bin	None
PP022-P	PP022-U	F-0508 PEX Boxing Line	08-A-659-S1

Insignificant Activities Equipment List

Insignificant Emission Unit Number	Insignificant Emission Unit Description
WH001-U	Welding Hood
WH002-U	Welding Hood
WH003-U	Welding Hood
PC001-U	Parts Cleaner
PC002-U	Parts Cleaner
SV001-U	Sewer Vents
SV002-U	Sewer Vents
SV003-U	Sewer Vents
SV004-U	Sewer Vents
SV005-U	Sewer Vents
SV006-U	Sewer Vents
SV007-U	Sewer Vents
SV008-U	Sewer Vents
SV009-U	Sewer Vents
SV010-U	Sewer Vents
SV011-U	Sewer Vents
SV012-U	Sewer Vents
SV013-U	Sewer Vents
SV014-U	Sewer Vents
SV015-U	Sewer Vents
SV016-U	Sewer Vents
SV017-U	Sewer Vents
SV018-U	Sewer Vents
SV019-U	Sewer Vents
SV020-U	Sewer Vents
SV021-U	Sewer Vents
SV022-U	Sewer Vents
PB001-U	Poly Burning
BH001-U	Building Heater - ENG/QC (1.5 MMBtu/hr)
BH002-U	Building Heater - ENG (0.51 MMBtu/hr)
BH003-U	Building Heater - E&I (0.13 MMBtu/hr)
BH004-U	Building Heater - E&I (0.13 MMBtu/hr)
BH005-U	Building Heater - E&I (0.56 MMBtu/hr)
BH007-U	Building Heater - Admin (1.05 MMBtu/hr)
BH008-U	Building Heater - Warehouse (0.125 MMBtu/hr)
BH009-U	Building Heater - Warehouse (0.13 MMBtu/hr)
BH010-U	Building Heater - Warehouse (0.125 MMBtu/hr)
BH011-U	Building Heater - Warehouse (0.125 MMBtu/hr)
BH012-U	Building Heater - Warehouse (0.125 MMBtu/hr)
BH013-U	Building Heater - Warehouse (0.125 MMBtu/hr)
BH014-U	Building Heater - Warehouse (0.125 MMBtu/hr)
BH015-U	Building Heater - Warehouse (0.125 MMBtu/hr)
BH016-U	Building Heater - Safety (0.56 MMBtu/hr)
BH017-U	Building Heater - Safety WH (0.075MMBtu/hr)
BH018-U	BH0017-U Building Heater - Safety (0.56 MMBtu/hr)
BH019-U	Building Heater - Safety WH (0.075 MMBtu/hr)
BH020-U	Building Heater - Safety WH (0.075 MMBtu/hr)
BH021-U	Building Heater - Safety WH (0.075 MMBtu/hr)

Insignificant Emission Unit Number	Insignificant Emission Unit Description
BH022-U	Building Heater - Main Gate (0.563 MMBtu/hr)
BH023-U	Building Heater - Ambulance Garage (0.15 MMBtu/hr)
SF001-U	Solvent Flushing
VB001-U	J-0503 K-Tron Purge Vacuum Blower
VB002-U	J-0510 HD Reclaim Vacuum Blower
VB003-U	J-0503 Car washing Reclaim Vacuum Blower
VB004-U	FJ-0346 Catalyst Activation Blower
VB005-U	Catalyst Activation Vacuum Blower
AH001-U	H-110 Analyzer House
AH002-U	H-120 Analyzer House
TK001-U	F 0336- Catalyst contact tank (v.p. 0.35 psi)
TK002-U	F 0337- Catalyst contact tank (v.p. 0.35 psi)
TK003-U	F 0725- Lubricating Oil (v.p. 0.002 psi)
TK004-U	F 0726- Lubricating Oil (v.p. 0.002 psi)
TK005-U	F 0727- Lubricating Oil (v.p. 0.002 psi)
TK006-U	Fire Training Grounds – gasoline storage (3 identical 200 gal tanks)
TK007-U	F 0142R-Diglycolamine (v.p. 0.000193 psi)
TK008-U	F 0147 Elementary Neutralization (v.p. 0.35 psi)
TK009-U	F 0164 – 50% Sodium Hydroxide (v.p. 0.06 psi)
TK010-U	F 0175 Lubricating Oil (v.p. 0.002 psi)
TK011-U	Additive Storage Tank (v.p. 0.10 psi)
TK012-U	Additive Storage Tank (v.p. 0.35 psi)
TK013-U	Additive Storage Tank (v.p. 0.35 psi)
TK014-U	Additive Storage Tank (v.p. 0.35 psi)
TK015-U	Additive Storage Tank (v.p. 0.35 psi)
TK016-U	F 2108 Mineral Spirits (v.p. 0.01)
TK017-U	F 2110 Mineral Spirits (v.p. 0.01)
TK018-U	F 2117 Mineral Spirits (v.p. 0.01)
TK019-U	F 2204 Mineral Spirits (v.p. 0.01)
TK020-U	L 2252 Additive Tank (v.p. 0.35 psi)
TK021-U	L 2253 Additive Tank (v.p. 0.35 psi)
TK022-U	Bleach, 12.5% (v.p. 0.23 psi)
TK023-U	Additive Storage Tank (v.p. 0.35 psi)
TK024-U	Additive Storage Tank (v.p. 0.35 psi)
TK025-U	Additive Storage Tank (v.p. 0.35 psi)
TK026-U	F 2415 Calcium Oxide Slurry (v.p. 0.35 psi)
TK027-U	F 2419 Sulfuric Acid Tank (v.p. 0.01 psi)
TK028-U	J2204 D- #2 Diesel Fuel Storage Tank (vp 0.0076)
TK029-U	J2204 E- #2 Diesel Fuel Storage Tank (vp 0.0076)
TK030-U	J2204 F- #2 Diesel Fuel Storage Tank (vp 0.0076)

Insignificant Activities Equipment List (Small Unit Exemption) ⁽¹⁾

Insignificant Emission Unit Number	Insignificant Emission Unit Description
PP018-U	L-0528 HDPE North Powder Loading
PP019-U	L-0529 HDPE South Powder Loading

⁽¹⁾ Emission Units qualify for Small Unit Exemption under 567 IAC 22.1(2)"w". Records shall be kept in accordance with 567 IAC 22.1(2)"w"(3).

II. Plant-Wide Conditions

Facility Name: Equistar Chemicals, LP

Permit Number: 04-TV-008R2

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

Permit Duration

The term of this permit is: Five Years from permit issuance

Commencing on: April 25, 2017

Ending on: April 24, 2022

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 Source 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 (SO₂): 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 - 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, with the exception of farming operations or dust generated by ordinary travel on unpaved public roads, without taking reasonable precautions to prevent particulate matter in quantities sufficient to create a nuisance, as defined in Iowa Code section 657.1, from becoming airborne. 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 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 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, fertilizers 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.

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

III. Emission Point-Specific Conditions

Facility Name: Equistar Chemicals, LP

Permit Number: 04-TV-008R2

Part A. Ethylene Plant

Emission Point ID Number: Furnaces (EP001-P through EP013-P)

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	Emission Unit Description	Raw Material	Rated Capacity MMBtu/hr	DNR Construction Permit
EP001-P	EP001-U	LB-0101A A-Furnace	Non-sulfured Natural Gas	LHV: 82 HHV: 90	11-A-723
EP002-P	EP002-U	LB-0101B B-Furnace	Non-sulfured Natural Gas	LHV: 82 HHV: 90	11-A-042
EP003-P	EP003-U	LB-0101C C-Furnace	Non-sulfured Natural Gas	LHV: 82 HHV: 90	11-A-043
EP004-P	EP004-U	LB-0101D D-Furnace	Non-sulfured Natural Gas	LHV: 82 HHV: 90	08-A-245-S1
EP005-P	EP005-U	LB-0101E E-Furnace	Non-sulfured Natural Gas	LHV: 82 HHV: 90	08-A-246-S1
EP006-P	EP006-U	LB-0101F F-Furnace	Non-sulfured Natural Gas	LHV: 82 HHV: 90	11-A-044
EP007-P	EP007-U	LB-0101G G-Furnace	Non-sulfured Natural Gas	LHV: 82 HHV: 90	11-A-045
EP008-P	EP008-U	LB-0101H H-Furnace	Non-sulfured Natural Gas	LHV: 82 HHV: 90	11-A-046
EP009-P	EP009-U	LB-0101I I-Furnace	Non-sulfured Natural Gas	LHV: 82 HHV: 90	11-A-047
EP010-P	EP010-U	LB-0101J J-Furnace	Non-sulfured Natural Gas	LHV: 82 HHV: 90	11-A-048
EP011-P	EP011-U	LB-0107A K-Furnace	Non-sulfured Natural Gas	LHV: 143 HHV: 158	None
EP012-P	EP012-U	LB-107B L-Furnace	Non-sulfured Natural Gas	LHV: 143 HHV: 158	None
EP013-P	EP013-U	LB-0120 M-Furnace	Non-sulfured Natural Gas	LHV: 167 HHV: 189	89-A-030

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.

EP	EU	Opacity	PM gr./dscf	PM ₁₀ lb/hr.	SO ₂ ppmv	NO _x	Authority for Requirement
EP001-P	EP001-U	40% ⁽¹⁾	0.1	0.75	500	--	567 IAC 23.3(2)"a" 567 IAC 23.3(2)"d" 567 IAC 23.3(3)"e" DNR Construction Permit 11-A-723
EP002-P	EP002-U	40% ⁽²⁾	0.1	0.6	500	--	567 IAC 23.3(2)"a" 567 IAC 23.3(2)"d" 567 IAC 23.3(3)"e" DNR Construction Permit 11-A-042
EP003-P	EP003-U	40% ⁽²⁾	0.1	0.6	500	--	567 IAC 23.3(2)"a" 567 IAC 23.3(2)"d" 567 IAC 23.3(3)"e" DNR Construction Permit 11-A-043
EP004-P	EP004-U	40% ⁽³⁾	0.1	--	500	--	567 IAC 23.3(2)"a" 567 IAC 23.3(2)"d" 567 IAC 23.3(3)"e" DNR Construction Permit 08-A-245-S1
EP005-P	EP005-U	40% ⁽³⁾	0.1	--	500	--	567 IAC 23.3(2)"a" 567 IAC 23.3(2)"d" 567 IAC 23.3(3)"e" DNR Construction Permit 08-A-246-S1
EP006-P	EP006-U	40% ⁽²⁾	0.1	0.6	500	--	567 IAC 23.3(2)"a" 567 IAC 23.3(2)"d" 567 IAC 23.3(3)"e" DNR Construction Permit 11-A-044
EP007-P	EP007-U	40% ⁽²⁾	0.1	0.6	500	--	567 IAC 23.3(2)"a" 567 IAC 23.3(2)"d" 567 IAC 23.3(3)"e" DNR Construction Permit 11-A-045
EP008-P	EP008-U	40% ⁽²⁾	0.1	0.6	500	--	567 IAC 23.3(2)"a" 567 IAC 23.3(2)"d" 567 IAC 23.3(3)"e" DNR Construction Permit 11-A-046
EP009-P	EP009-U	40% ⁽²⁾	0.1	0.6	500	--	567 IAC 23.3(2)"a" 567 IAC 23.3(2)"d" 567 IAC 23.3(3)"e" DNR Construction Permit 11-A-047
EP010-P	EP010-U	40% ⁽²⁾	0.1	0.6	500	--	567 IAC 23.3(2)"a" 567 IAC 23.3(2)"d" 567 IAC 23.3(3)"e" DNR Construction Permit 11-A-048
EP011-P	EP011-U	40%	0.1	--	500	--	567 IAC 23.3(2)"a" 567 IAC 23.3(2)"d" 567 IAC 23.3(3)"e"
EP012-P	EP012-U	40%	0.1	--	500	--	567 IAC 23.3(2)"a" 567 IAC 23.3(2)"d" 567 IAC 23.3(3)"e"
EP013-P	EP013-U	40%	0.1	--	500	38.3 lb/hr. 167 tons/yr.	567 IAC 23.3(2)"a" 567 IAC 23.3(2)"d" 567 IAC 23.3(3)"e" DNR Construction Permit 89-A-030

(1) An exceedance of the indicator opacity of “no visible emissions” or “No VE” 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) If visible emissions are observed, the owner/operator shall 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).

(3) 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).

Operational Limits & Requirements

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

EU001-U through EU010-U

Operating limits for these emission units shall be:

- A. These emission units are limited to firing on natural gas, hydrogen, or onsite generated fuel gas.

Authority for Requirement: DNR Construction Permits 11-A-723, 11-A-042, 11-A-043, 08-A-245-S1, 08-A-246-S1, 11-A-044, 11-A-045, 11-A-046, 11-A-047, 11-A-048

NSPS and NESHAP Applicability:

These emission units are subject to 40 CFR 63 Subpart YY – National Emission Standards for Hazardous Air Pollutants: Generic Maximum Achievable Control Technology.

Authority for Requirement: 567 IAC 23.1(4)"ay"
40 CFR 63 Subpart YY

Emission Point Characteristics

These emission points shall conform to the specifications listed below.

EP001-P, EP004-P, EP005-P

Stack Height, (ft, from the ground): 84

Stack Opening, (inches, dia.): 48

Exhaust Flow Rate (scfm): 18,000

Exhaust Temperature (°F): 220

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permits 11-A-723, 08-A-245-S1, 08-A-246-S1

EP002-P, EP003-P, EP006-P, EP007-P, EP008-P, EP009-P, EP0010-P,

Stack Height, (ft, from the ground): 84

Stack Opening, (inches, dia.): 48

Exhaust Flow Rate (scfm): 18,250

Exhaust Temperature (°F): 210

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permits 11-A-042, 11-A-043, 11-A-044, 11-A-045, 11-A-046, 11-A-047, 11-A-048

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: Boilers (EP014-P through EP018-P)

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	Emission Unit Description	Raw Material	Rated Capacity MMBtu/hr	DNR Construction Permit
EP014-P	EP014-U	B-0103 Gas Drier	Nonsulfured Fuel Gas	9	None
EP015E-P EP015W-P	EP015-U	LB-0102A A-Boiler	Nonsulfured Fuel Gas	794	89-A-028
EP016E-P EP016W-P	EP016-U	LB-0102B B-Boiler	Nonsulfured Fuel Gas	794	89-A-029
EP017-P	EP017-U	Package Boiler	Nonsulfured Fuel Gas	178	None
EP018-P	EP018-U	Package Boiler	Nonsulfured Fuel Gas	178	None

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.

EP	EU	Opacity	PM	SO ₂	NO _x	Authority for Requirement
EP014-P	EP014-U	40%	0.1 gr/dscf	--	--	567 IAC 23.3(2)"a" 567 IAC 23.3(2)"d"
EP015E-P	EP015-U	40%	0.8 lb/MMBtu	500 ppmv	176.7 lb/hr 774 tons/yr.	567 IAC 23.3(2)"a"
EP015W-P	EP015-U	40%		500 ppmv		567 IAC 23.3(2)"d" 567 IAC 23.3(3)"e" 567 IAC 23.2(3)"b"(1)
EP016E-P	EP016-U	40%	0.8 lb/MMBtu	500 ppmv	176.7 lb/hr 774 tons/yr.	567 IAC 23.3(2)"a"
EP016W-P	EP016-U	40%		500 ppmv		567 IAC 23.3(2)"d" 567 IAC 23.3(3)"e" 567 IAC 23.2(3)"b"(1)
EP017-P	EP017-U	40%	0.8 lb/MMBtu	500 ppmv	--	567 IAC 23.3(2)"a" 567 IAC 23.3(2)"d" 567 IAC 23.3(3)"e"
EP018-P	EP018-U	40%	0.8 lb/MMBtu	500 ppmv	--	567 IAC 23.3(2)"a" 567 IAC 23.3(2)"d" 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.

No operating limits are required at this time.

NSPS & NESHAP Applicability:

These emission points are subject to 40 CFR 63 Subpart DDDDD – Industrial, Commercial and Institutional Boilers and Process Heaters

Authority for Requirement: 567 IAC 23.1(4)"dd"
40 CFR 63 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: Cooling Towers (EP020H-P through EP020V-P)

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	Emission Unit Description	Raw Material	Rated Capacity MMgal/hr	DNR Construction Permit
EP020H-P	EP020H-U	U-2202 Cooling Tower	Cooling Water	0.66	None
EP020I-P	EP020I-U	U-2202 Cooling Tower	Cooling Water	0.66	None
EP020J-P	EP020J-U	U-2202 Cooling Tower	Cooling Water	0.66	None
EP020K-P	EP020K-U	UJ-2210 Cooling Tower	Cooling Water	0.385	None
EP020L-P	EP020L-U	UJ-2210 Cooling Tower	Cooling Water	0.385	None
EP020M-P	EP020M-U	UJ-2210 Cooling Tower	Cooling Water	0.385	None
EP020N-P	EP020N-U	UJ-2210 Cooling Tower	Cooling Water	0.385	None
EP020O-P	EP020O-U	UJ-2210 Cooling Tower	Cooling Water	0.385	None
EP020P-P	EP020P-U	UJ-2210 Cooling Tower	Cooling Water	0.385	None
EP020Q-P	EP020Q-U	UJ-2210 Cooling Tower	Cooling Water	0.385	None
EP020R-P	EP020R-U	UJ-2210 Cooling Tower	Cooling Water	0.385	None
EP020S-P	EP020S-U	UJ-2210 Cooling Tower	Cooling Water	0.385	None
EP020T-P	EP020T-U	UJ-2210 Cooling Tower	Cooling Water	0.385	None
EP020U-P	EP020U-U	UJ-2210 Cooling Tower	Cooling Water	0.385	None
EP020V-P	EP020V-U	UJ-2210 Cooling Tower	Cooling Water	0.385	None

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: 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.

NSPS & NESHAP Applicability:

These cooling towers are subject to NESHAP Subpart XX – National Emission Standards for Ethylene Manufacturing Process Units: Heat Exchange Systems and Waste Operations and NESHAP Subpart YY - National Emission Standards for Hazardous Air Pollutants for Source Categories: Generic Maximum Achievable Control Technology Standards.

- A. The permittee must comply with the heat exchange system monitoring, leak detection and repair, record keeping and reporting requirements in 40 CFR 63.1085.
- B. The permittee must comply with the requirements for continuous butadiene waste streams in 40 CFR 63.1095(a), and the requirements for benzene waste streams in 40 CFR 63.1095(b).
- C. Compliance date, initial notification, SSM plan, and notification of compliance status are the same as those for 40 CFR 63 Subpart YY.

Authority for Requirement: 40 CFR 63 Subpart XX
 40 CFR 63 Subpart YY
 567 IAC 23.1(4) "ax"
 567 IAC 23.1(4) "ay"

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: EP021-P (Fugitive)

Associated Equipment

Emission Unit vented through this Emission Point: EP021-U

Emission Unit Description: Ethylene Unit Fugitive

Raw Material/Fuel: Process Gas

Rated Capacity: 8,760 hr/yr

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.

No emission limits are required at this time.

Operational Limits & Requirements

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

NESHAP Part 61 Subpart J Requirements:

- A. Fugitive emission sources reported under EP021-U are subject to 40 CFR 61 Subpart J. The affected units include pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, surge control vessels, bottoms receivers, and control devices or systems that either contain or contact a fluid (liquid or gas) that is at least 10 percent benzene by weight.
- B. Per 40 CFR 61.112(a), the units that are subject to subpart J shall comply with the requirements of part 61 subpart V.

Authority for Requirement: 40 CFR 61 Subpart J
567 IAC 23.1(3)"f"

- A. The facility shall compile and maintain a list of equipment that are subject to subparts J and V. The list shall be maintained on-site and available for inspection upon request by representatives of the Department of Natural Resources.

Authority for Requirement: 567 IAC 22.108(4)

- A. Per 40 CFR 63.1100(g)(4), affected units that are subject to Part 61 Subparts J, V and Part 63 Subpart YY are required only to comply with the equipment leak requirements of Part 63 Subpart YY.

Authority for Requirement: 40 CFR 63 Subpart YY
567 IAC 23.1(4)"ay"

NESHAP Part 61 Subpart V Requirements:

- A. Fugitive emission sources reported under EP021-U are subject to Part 61 Subpart V due to the reference by Part 61 Subpart J. The affected units include pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, surge control vessels, bottoms receivers, and control devices or systems that either contain or contact a fluid (liquid or gas) that is at least 10 percent benzene by weight.

- B. Each piece of equipment to which this subpart applies shall be marked in such a manner that it can be distinguished readily from other pieces of equipment as required by 40 CFR 61.242-1(d).
- C. Pumps shall be monitored to detect leaks and repaired if leaks are detected in compliance with 40 CFR 61.242-2.
- D. Compressors shall be equipped with a seal system, monitored to detect leaks, and repaired if leaks are detected in compliance with 40 CFR 61.242-3.
- E. Pressure relief devices in gas/vapor service shall be operated and maintained in compliance with 40 CFR 61.242-4.
- F. Sampling connecting systems shall be equipped with a vent system, operated and maintained in compliance with 40 CFR 61.242-5.
- G. Open-ended valves or lines shall be operated in compliance with 40 CFR 61.242-6.
- H. Valves shall be monitored to detect leaks and repaired if leaks are detected in compliance with 40 CFR 61.242-7.
- I. Pressure relief devices in liquid service and connectors shall be monitored to detect leaks and repaired if leaks are detected in compliance with 40 CFR 61.242-8.
- J. Surge control vessels and bottoms receivers, if applicable, shall be equipped with a capturing system in compliance with 40 CFR 61.242-9.
- K. Closed-vent systems and control devices shall be designed, operated, and maintained in compliance with 40 CFR 61.242-11.
- L. The facility shall comply with the monitoring and testing procedures in 40 CFR 61.245.
- M. The facility shall comply with the record keeping requirements in 40 CFR 61.246.
- N. The facility shall comply with the reporting requirements, including the semiannual reports, in 40 CFR 61.247.

Authority for Requirement: 40 CFR 61 Subpart V
567 IAC 23.1(3)"g"

- A. The facility shall compile and maintain a list of equipment that are subject to subparts J and V. The list shall be maintained on-site and available for inspection upon request by representatives of the Department of Natural Resources.
- B. All records as required by 40 CFR 61.246 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.

Authority for Requirement: 567 IAC 22.108(4)

- A. Per 40 CFR 63.1100(g)(4), affected units that are subject to part 61 subparts J, V and part 63 subpart YY are required only to comply with the equipment leak requirements of part 63 subpart YY.

Authority for Requirement: 40 CFR 63 Subpart YY
567 IAC 23.1(4)"ay"

NESHAP Part 61 Subpart FF Requirements:

- A. Fugitive emission sources reported under EP021-U are subject to Part 61 Subpart FF.
- B. The facility shall determine the total annual benzene quantity from facility waste in compliance with 40 CFR §61.355(a)(1), (a)(2), (a)(6), (b), and (c).
- C. Because the total annual benzene quantity from facility waste is equal to or greater than 11 tpy, the facility should comply with 40 CFR §61.355(a)(3) by complying with the control requirements of 40 CFR §61.342(c), (d), or (e), 346, 348 and record keeping and requirements of 40 CFR §61.356 and 357. However, per 40 CFR §342(c)(2), a waste stream is exempt from the control requirements provided that the facility demonstrates initially and, thereafter, at least once per year that the flow-weighted annual average benzene concentration for the waste stream is less than 10 ppmw as determined by the procedures specified in §61.355(c)(2) or §61.355(c)(3).

Authority for Requirement: 40 CFR 61 Subpart FF
567 IAC 23.1(3)"n"

- A. Per 40 CFR §63.1100(g)(6)(ii), compliance with 40 CFR §63.1103(e) of Part 63 Subpart YY shall constitute compliance with the Benzene Waste Operations NESHAP (40 CFR Part 61Subpart FF) for waste streams that are subject to both the control requirements of §63.1103(e)(3) for ethylene production sources and the control requirements of 40 CFR Part 61 Subpart FF.

Authority for Requirement: 40 CFR 63 Subpart YY
567 IAC 23.1(4)"ay"

Fugitive emission sources reported under EP021-U are also subject to the following:

- A. NESHAP Part 63 Subpart SS – National Emission Standards for Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process.
- B. NESHAP Part 63 Subpart FFFF – National Emission Standards for Hazardous Air Pollutants for Miscellaneous Organic Chemical Manufacturing

Authority for Requirement: 567 IAC 23.1(4)"as", "au"

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: EP022-P (Fugitive Emissions)

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	Emission Unit Description	Raw Material	Rated Capacity
EP022-P	EP022B-U	Fugitive Emissions: DAC Truck Loading	Aromatic Compounds	18360 gal/hr
	EP022C-U	Residual Oil Truck Loading (F 199)	Residual Oil	10 ton/hr
	EP022D-U	Fugitive Emissions: DAC Rail Car Loading	Aromatic Compounds	18360 gal/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.

Emission limits are not required at this time.

Operational Limits & Requirements

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

- A. This emission point is subject to 40 CFR Part 61 Subpart BB – National Emission Standard for Benzene Emissions from Benzene Transfer Operations. Because the facility loads only liquid containing less than 70 weight-percent benzene, the facility is exempted from the requirements of this subpart except the recordkeeping and reporting requirements in §61.305(i).
- B. The facility shall comply with the recordkeeping and reporting requirements in 40 CFR 61.305(i).

Authority for Requirement: 40 CFR 61 Subpart BB
567 IAC 23.1(3) "m"

- A. All records as required by 40 CFR 61.305(i) 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.

Authority for Requirement: 567 IAC 22.108(4)

NSPS and NESHAP Applicability

This emission point is subject to the following:

- A. 40 CFR Part 61 Subpart BB – National Emission Standard for Benzene Emissions from Benzene Transfer Operations.
- B. 40 CFR Part 63 Subpart SS – National Emission Standards for Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process.
- C. 40 CFR Part 63 Subpart UU – National Emission Standards for Equipment Leaks – Control Level 2 Standards
- D. 40 CFR Part 63 Subpart YY – National Emission Standards for Hazardous Air Pollutants for Source Categories: Generic Maximum Achievable Control Technology Standards

Authority for Requirement: 567 IAC 23.1(3) "m"
 567 IAC 23.1(4) "as", "au", "ay"
 40 CFR 61 Subpart BB
 40 CFR 63 Subparts, SS, UU, YY

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: DAC Tanks (EP023-P and EP025-P)

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity
EP023-P	EP023-U	F-2105 DAC Tank	Internal Floating Roof	Aromatic Compounds	18,360 gal/hr
EP025-P	EP025-U	F-2147 DAC Tank	Internal Floating Roof	Aromatic Compounds	18,000 gal/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.

Emission limits are not required at this time.

Operational Limits & Requirements

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

Operating Limits are not required at this time.

NSPS and NESHAP Applicability

These emission points are subject to the following:

- A. 40 CFR 61 Subpart Y – National Emission Standard For Benzene Emissions From Benzene Storage Vessels
- B. 40 CFR 61 Subpart BB – National Emission Standards for Benzene Emissions from Benzene Transfer Operations..
- C. 40 CFR 63 Subpart UU – National Emission Standards for Equipment Leaks – Control Level 2 Standards
- D. 40 CFR 63 Subpart WW – National Emission Standards for Storage Vessels (Tanks) Control Level 2
- E. 40 CFR 63 Subpart YY – National Emission Standards for Hazardous Air Pollutants: Generic Maximum Achievable Control Technology

Authority for Requirement: 567 IAC 23.1(3) "l", "m"
567 IAC 23.1(4) "au", "aw", "ay"
40 CFR 61 Subparts Y, BB
40 CFR 63 Subparts UU, WW, YY

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: EP026-P

Associated Equipment

Emission Unit vented through this Emission Point: EP026-U

Emission Unit Description: F-2139 Wash Oil Tank

Raw Material/Fuel: Wash Oil

Rated Capacity: 120 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.

Emission limits are not required at this time.

Operational Limits & Requirements

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

Operating Limits are not required 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: Fugitive Emission: E+N Tanks (EP027-P)

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	Emission Unit Description	Raw Material	Rated Capacity gal/hr	DNR Construction Permit
EP027-P	EP027-U	Fugitive Emissions: F-2407 Equalization & Neutralization Tank	Waste water	NA	None

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.

Emission limits are not required at this time.

Operational Limits & Requirements

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

Operational limits are not required 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: EP031-P

Associated Equipment

Emission Unit vented through this Emission Point: EP031-U
Emission Unit Description: Cold Vent Heater
Raw Material/Fuel: Emergency Vent Gases
Rated Capacity: 150,000 lb. VOC/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.

Emission limits are not required at this time.

Operational Limits & Requirements

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

Operational limits are not required at this time.

Monitoring Requirements

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

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: EP033-P (Facility Flare)

Associated Equipment

Associated Emission Unit ID Numbers: See the table below

Emissions Control Equipment ID Number: EP033CE1

Emissions Control Equipment Description: Stream Assisted Flare

Continuous Emissions Monitors ID Numbers: None

EP=Emission Point, EU=Emission Unit

EP	EU	Emission Unit Description	Raw Material	Maximum Capacity	DNR Construction Permit
EP033-P	EP033A-U	B-2401 Ethylene Flare Pilot Lights	Natural Gas	0.21 MMBtu/hr	None
	EP033B-U	Emergency Vent Gases	Waste Gas	700 MMBTU/hr	00-A-911-S5
	EP033C-U	H-110 Analyzer House, 2 gas chromatographs	Process Gases	400 cc/minute combined flow	
	EP033D-U	Diglycolamine (DGA) Unit	DGA	45 gal/min	
	EP037-U	H-120 Ethylene Analyzer House	Process Gases	920 lb/yr	
	EP047-U	H-107B Ethylene Analyzer House	Ethylene Gases	3,750 lb/yr	
	EP048-U	H-108 Analyzer House, 10 gas chromatographs	Process Gases	8.73 lb/hr	
	NA	Hexene Removal Tower	Hexene	1100 lb/hr	
	NA	Truck/Railcar Loading/Unloading	Hexene, Vinyl Acetate, DAC, Wash Oil, Ethylene, Propylene, Crude C4s, Mineral Spirits, Isobutane	3,500 lb/hr vapors	
	LD001-U	VA Storage Vessel Pressure Tank F-2134A	Vinyl Acetate	25,445 gallons	
	LD002-U	VA Storage Vessel Pressure Tank F-2134B	Vinyl Acetate	25,445 gallons	
	LD011-U	Waste VA & Mineral Spirits Run Down Tank F-785	Vinyl Acetate	9,518 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.

Pollutant: Opacity

Emission Limit(s): 40%⁽¹⁾

Authority for Requirement: DNR Construction Permit 00-A-911-S5
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: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 00-A-911-S5
567 IAC 23.3(2) "a"

Pollutant: Sulfur Dioxide (SO₂)

Emission Limit(s): 6.86 lb/hr⁽²⁾

Authority for Requirement: DNR Construction Permit 00-A-911-S5
567 IAC 23.3(3)

⁽²⁾Contribution of DGA unit alone to previously grandfathered plant flare.

Operational Limits & Requirements

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

Operating Limits

Operating limits for the emission sources shall be:

- A. The feedstock treated by the DGA unit (EU EP033C-U) shall be tested for sulfur content a minimum of once per month.
- B. The owner or operator shall vent all emissions from the VA Tanks (EUs F-785, F-2134A and F-2134B) through a closed vent system to the flare, as required in 40 CFR 63.2470 (a). Periods of planned routine maintenance, during which the control system does not meet the requirements of Table 4 of Subpart FFFF, shall not exceed 240 hours per year (40 CFR 63.2470(d)).
- C. The owner or operator shall keep documents available, such as P&ID drawings or a list of units, which identify the units that are part of the Emergency Vent Gases (EU EP033B-U) onsite, and shall not remove any of said units from the control device unless the units are no longer operable.

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 shall be legible and maintained in an orderly manner.

- A. The owner or operator shall calculate on a monthly basis the amount of sulfur dioxide emitted from the DGA unit (EU EP033C-U). This calculation shall be based on the sulfur content of the incoming feedstock and the amount of feedstock used, and shall assume that all the sulfur from the DGA unit is converted to SO₂ at the flare.
- B. The owner or operator shall follow the applicable reporting requirements of 40 CFR 63.2520 and recordkeeping requirements of 40 CFR 63.2525.

Authority for Requirement: DNR Construction Permit 00-A-911-S5

NSPS and NESHAP Applicability

The VA Tanks (EUs F-0785, F-2134A and F-2134B) are subject to Subpart FFFF of the National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing (NESHAP).

Authority for Requirement: DNR Construction Permit 00-A-911-S5

This emission point is also subject to the following:

- A. 40 CFR 60 Subpart A- General Provisions (60.18)
- B. 40 CFR Part 61 Subpart FF – National Emission Standards for Benzene Waste Operations
- C. 40 CFR Part 63 Subpart SS – National Emission Standards for Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process.
- D. 40 CFR Part 63 Subpart UU – National Emission Standards for Equipment Leaks – Control Level 2 Standards
- E. 40 CFR Part 63 Subpart YY – National Emission Standards for Hazardous Air Pollutants for Source Categories: Generic Maximum Achievable Control Technology Standards
- F. 40 CFR 63 Subpart FFFF – National Emission Standards for Hazardous Air Pollutants for Miscellaneous Organic Chemical Manufacturing

Authority for Requirement: 567 IAC 23.1(3) "n"
567 IAC 23.1(4) "as", "au", "ay", "cf"
40 CFR 61 Subpart FF
40 CFR 63 Subparts SS, UU, YY, FFFF

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 199

Stack Opening, (inches, dia.): 42

Exhaust Flow Rate (scfm): 1,975

Exhaust Temperature (°F): 1,580

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 00-A-911-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 any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department 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: Fire Water Pump Diesel Engines (EP034-P, EP035-P, and EP036-P)

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	Emission Unit Description	Raw Material	Rated Capacity MMBtu/hr	DNR Construction Permit
EP034-P	EP034-U	J-2204D Fire Water Pump Diesel Engine	Diesel Fuel	15.62	None
EP035-P	EP035-U	J-2204E Fire Water Pump Diesel Engine	Diesel Fuel	15.62	None
EP036-P	EP036-U	J-2204F Fire Water Pump Diesel Engine	Diesel Fuel	15.62	None

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: 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 (SO₂)

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.

Operating Limits

A. No person shall allow, cause or permit the combustion of number 1 or number 2 fuel oil exceeding a sulfur content of 0.5 percent by weight.

Authority for Requirement: 567 IAC 23.3(3)"b"(1)

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 shall be legible and maintained in an orderly manner.

A. The facility shall monitor the percent of sulfur by weight in the fuel oil as delivered. The documentation may be vendor supplied or facility generated.

Authority for Requirement: 567 IAC 22.108(3)

NSPS and NESHAP Applicability

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 compression ignition emergency engines, located at a major source, are existing stationary RICE as they were constructed prior to June 12, 2006.

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 and emergency demand response. 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.)

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 Number: EP038-P and EP039-P

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	Emission Unit Description	Raw Material	Maximum Capacity	DNR Construction Permit
EP038-P	EP038-U	F-0154 Furnace Decoke Pot	Coke, Air and Stream	36 decoke/yr	None
EP039-P	EP039-U	F-0154A Furnace Decoke Pot	Coke, Air and Stream	36 decoke/yr	None

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.

Emission limits are not required at this time.

Operational Limits & Requirements

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

Operational limits are not required 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: EP040-P

Associated Equipment

Emission Unit vented through this Emission Point: EP040-U
Emission Unit Description: B-0107 Regeneration Gas Heater
Raw Material/Fuel: Stream, Air and Natural Gas
Rated Capacity: 3.2 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% ⁽¹⁾

Authority for Requirement: DNR Construction Permit 97-A-804-S1
567 IAC 23.3(2) "d"

⁽¹⁾ If visible emissions are observed other than startup, shutdown, or malfunction, a stack test may be required to demonstrate compliance with the particulate standard.

Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 97-A-804-S1
567 IAC 23.3(2) "a"

Pollutant: Sulfur Dioxide (SO₂)

Emission Limit(s): 500 ppmv

Authority for Requirement: DNR Construction Permit 97-A-804-S1
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.

Operating Limits

- A. The fuel used by the 3.2 MMBtu/hr regeneration gas heater is limited to pipeline quality natural gas.

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 shall be legible and maintained in an orderly manner.

The owner or operator of the equipment shall maintain the following records:

- A. The type of fuel used for the 3.2 MMBtu/hr regeneration gas heater.

Authority for Requirement: DNR Construction Permit 97-A-804-S1

NSPS and NESHAP Applicability

This emission point is subject to 40 CFR 63 Subpart DDDDD – National Emission Standards for Industrial, Commercial and Institutional Boilers and Process Heaters

Authority for Requirement: 567 IAC 23.1(4) "dd"
40 CFR 63 Subpart DDDDD

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (from the ground): 22'7"
Stack Opening, (inches, dia.): 10
Exhaust Flow Rate (acfm): 1,500
Exhaust Temperature (°F): 1,250
Discharge Style: N/A
Authority for Requirement: DNR Construction Permit 97-A-804-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 any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department 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: EP041-P

Associated Equipment

Emission Unit vented through this Emission Point: EP041-U
Emission Unit Description: Plant Incidental Releases
Raw Material/Fuel: Process Gases
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.

Emission limits are not required at this time.

Operational Limits & Requirements

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

Operational limits are not required at this time.

NSPS and NESHAP Applicability

This emission point is subject to:

- A. 40 CFR Part 61 Subpart FF – National Emission Standards for Benzene Waste Operations
- B. 40 CFR Part 63 Subpart UU – National Emission Standards for Equipment Leaks – Control Level 2 Standards
- C. 40 CFR Part 63 Subpart YY – National Emission Standards for Hazardous Air Pollutants for Source Categories: Generic Maximum Achievable Control Technology Standards

Authority for Requirement: 567 IAC 23.1(3)"n"
567 IAC 23.1(4)"au", "ay"
40 CFR 61 Subpart FF
40 CFR 63 Subparts UU, YY

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: Refrigeration Compressors (EP042N-P through EP044W-P)

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	Emission Unit Description	Raw Material	VOC Emission Rate lb/hr	DNR Construction Permit
EP042N-P	EP042-U	J-0102 Propylene Refrigeration Compressor	Propylene	0.106	None
EP042S-P	EP042-U	J-0102 Propylene Refrigeration Compressor	Propylene	0.137	None
EP043N-P	EP043-U	J-0103 Ethylene Refrigeration Compressor	Ethylene	0.094	None
EP043S-P	EP043-U	J-0103 Ethylene Refrigeration Compressor	Ethylene	0.178	None
EP044E-P	EP044-U	J-0104 Ethylene Refrigeration Compressor	Ethylene	0.094	None
EP044W-P	EP044-U	J-0104 Ethylene Refrigeration Compressor	Ethylene	0.178	None

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.

Emission limits are not required at this time.

Operational Limits & Requirements

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

Operational limits are not required 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: EP045-P

Associated Equipment

Emission Unit vented through this Emission Point: EP045-U
Emission Unit Description: OAH Tripod Temporary Smokeless Flare
Raw Material/Fuel: Ethylene
Rated Capacity: 54.11 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.

Emission limits are not required at this time.

Operational Limits & Requirements

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

Operational limits are not required 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: EP046-P

Associated Equipment

Emission Unit vented through this Emission Point: EP046-U

Emission Unit Description: F-144 Wash Oil Day Tank

Raw Material/Fuel: Wash Oil

Rated Capacity: 120 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.

Emission limits are not required at this time.

Operational Limits & Requirements

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

Operational limits are not required 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: Ethylene Analyzer Houses (EP049-P, EP050-P)

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	Emission Unit Description	Raw Material	Rated Capacity lb/hr, VOC emission rate	DNR Construction Permit
EP049-P	EP049-U	H-112 Ethylene Analyzer House	Ethylene	1.08	None
EP050-P	EP050-U	H-115 Ethylene Analyzer House	Ethylene	0.25	None

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.

Emission limits are not required at this time.

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements

Operational limits are not required at this time.

NSPS and NESHAP Applicability

These emission points are subject to 40 CFR Part 63 Subpart UU – National Emission Standards for Equipment Leaks – Control Level 2 Standards

Authority for Requirement: 567 IAC 23.1(4)"au"

40 CFR 63 Subpart UU

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: EP051-P and EP052-P (Fugitive)

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	Emission Unit Description	Raw Material	Rated Capacity lb/hr	DNR Construction Permit
EP051-P	EP051-U	Fugitive Emissions: E-118 Quench Water Stripper Blowdown	Quench Water	200,160	None
EP052-P	EP052-U	Fugitive Emissions: E-129 Caustic Stripper Blowdown	Caustic	15,012	None

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.

Emission limits are not required at this time.

Operational Limits & Requirements

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

NESHAP Part 61 Subpart FF Requirements

- A. The facility shall determine the total annual benzene quantity from facility waste in compliance with 40 CFR §61.355(a)(1), (a)(2), (a)(6), (b), and (c).
- B. Because the total annual benzene quantity from facility waste is equal to or greater than 11 tpy, the facility should comply with 40 CFR 61.355(a)(3) by complying with the control requirements of 40 CFR §61.342(c), (d), or (e), §61.346, §61.348 and record keeping and requirements of 40 CFR §61.356 and §61.357. However, per 40 CFR §61.342(c)(2), a waste stream is exempt from the control requirements provided that the facility demonstrates initially and, thereafter, at least once per year that the flow-weighted annual average benzene concentration for the waste stream is less than 10 ppmw as determined by the procedures specified in §61.355(c)(2) or §61.355(c)(3).

Authority for Requirement: 40 CFR 61 Subpart FF
567 IAC 23.1(3) "n"

NSPS and NESHAP Applicability

EP051-P and EP052-P are subject to:

- A. NESHAP Part 61 Subpart SS – National Emission Standards for Closed Vent Systems, Control Devices, Recovery Devices and routing to a fuel gas system or a process.

Authority for Requirement: 567 IAC 23.1(4)"as"
40 CFR 63 Subpart SS

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: Waste Water Treatment Tanks
(EP055-P through EP058-P)**

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	Emission Unit Description	Raw Material	Rated Capacity gal/hr	DNR Construction Permit
EP055-P	EP055-U	Fugitive Emissions: F-2450 Equalization & Neutralization Tank	Waste Water	90,000	None
EP056-P	EP056-U	Fugitive Emissions: F-2451 Rapid Mix Tank	Waste Water	90,000	None
EP057-P	EP057-U	Fugitive Emissions: F-2452 Flocculation Tank	Waste Water	90,000	None
EP058-P	EP058-U	Fugitive Emissions: F-2453 Dissolved Air Flotation Tank	Waste Water	90,000	None

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.

Emission limits are not required at this time.

Operational Limits & Requirements

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

Operational limits are not required 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: Furnace Decoke Vents (EP059-P through EP071S-P)

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	Emission Unit Description	Raw Material	Rated Capacity decoke/hr	DNR Construction Permit
EP059-P	EP001-U	LB-0101A A-Furnace (decoke)	Nonsulfured Natural Gas	1.14×10 ⁻⁴	11-A-724
EP060-P	EP002-U	LB-0101B B-Furnace (decoke)	Nonsulfured Natural Gas	1.14×10 ⁻⁴	11-A-049
EP061-P	EP003-U	LB-0101C C-Furnace (decoke)	Nonsulfured Natural Gas	1.14×10 ⁻⁴	11-A-050
EP062-P	EP004-U	LB-0101D D-Furnace (decoke)	Nonsulfured Natural Gas	1.14×10 ⁻⁴	08-A-247-S1
EP063-P	EP005-U	LB-0101E E-Furnace (decoke)	Nonsulfured Natural Gas	1.14×10 ⁻⁴	08-A-248-S1
EP064-P	EP006-U	LB-0101F F-Furnace (decoke)	Nonsulfured Natural Gas	1.14×10 ⁻⁴	11-A-051
EP065-P	EP007-U	LB-0101G G-Furnace (decoke)	Nonsulfured Natural Gas	1.14×10 ⁻⁴	11-A-052
EP066-P	EP008-U	LB-0101H H-Furnace (decoke)	Nonsulfured Natural Gas	1.14×10 ⁻⁴	11-A-053
EP067-P	EP009-U	LB-0101I I-Furnace (decoke)	Nonsulfured Natural Gas	1.14×10 ⁻⁴	11-A-054
EP068-P	EP010-U	LB-0101J J-Furnace (decoke)	Nonsulfured Natural Gas	1.14×10 ⁻⁴	11-A-055
EP069N-P	EP011-U	LB-0107A K-Furnace (decoke)	Nonsulfured Natural Gas	1.14×10 ⁻⁴	None
EP069S-P		LB-0107A K-Furnace (decoke)	Nonsulfured Natural Gas	1.14×10 ⁻⁴	None
EP070N-P	EP012-U	LB-107B L-Furnace (decoke)	Nonsulfured Natural Gas	1.14×10 ⁻⁴	None
EP070S-P		LB-107B L-Furnace (decoke)	Nonsulfured Natural Gas	1.14×10 ⁻⁴	None
EP071N-P	EP013-U	LB-0120 M-Furnace (decoke)	Nonsulfured Natural Gas	1.14×10 ⁻⁴	None
EP071S-P		LB-0120 M-Furnace (decoke)	Nonsulfured Natural Gas	1.14×10 ⁻⁴	None

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.

EP	EU	Opacity	PM gr./dscf	PM ₁₀ lb/hr	SO ₂ ppmv	Authority for Requirement
EP059-P	EP001-U	40% ⁽¹⁾	0.1	0.25	500	567 IAC 23.3(2)"d" 567 IAC 23.3(2)"a" 567 IAC 23.3(3)"e" DNR Construction Permit 11-A-724
EP060-P	EP002-U	40% ⁽²⁾	0.1	0.2	500	567 IAC 23.3(2)"d" 567 IAC 23.3(2)"a" 567 IAC 23.3(3)"e" DNR Construction Permit 11-A-049
EP061-P	EP003-U	40% ⁽²⁾	0.1	0.2	500	567 IAC 23.3(2)"d" 567 IAC 23.3(2)"a" 567 IAC 23.3(3)"e" DNR Construction Permit 11-A-050
EP062-P	EP004-U	40% ⁽³⁾	0.1	--	500	567 IAC 23.3(2)"d" 567 IAC 23.3(2)"a" 567 IAC 23.3(3)"e" DNR Construction Permit 08-A-247-S1
EP063-P	EP005-U	40% ⁽³⁾	0.1	--	500	567 IAC 23.3(2)"d" 567 IAC 23.3(2)"a" 567 IAC 23.3(3)"e" DNR Construction Permit 08-A-248-S1
EP064-P	EP006-U	40% ⁽²⁾	0.1	0.2	500	567 IAC 23.3(2)"d" 567 IAC 23.3(2)"a" 567 IAC 23.3(3)"e" DNR Construction Permit 11-A-051
EP065-P	EP007-U	40% ⁽²⁾	0.1	0.2	500	567 IAC 23.3(2)"d" 567 IAC 23.3(2)"a" 567 IAC 23.3(3)"e" DNR Construction Permit 11-A-052
EP066-P	EP008-U	40% ⁽²⁾	0.1	0.2	500	567 IAC 23.3(2)"d" 567 IAC 23.3(2)"a" 567 IAC 23.3(3)"e" DNR Construction Permit 11-A-053
EP067-P	EP009-U	40% ⁽²⁾	0.1	0.2	500	567 IAC 23.3(2)"d" 567 IAC 23.3(2)"a" 567 IAC 23.3(3)"e" DNR Construction Permit 11-A-054
EP068-P	EP010-U	40% ⁽²⁾	0.1	0.2	500	567 IAC 23.3(2)"d" 567 IAC 23.3(2)"a" 567 IAC 23.3(3)"e" DNR Construction Permit 11-A-055
EP069N-P	EP011-U	40%	0.1	--	500	567 IAC 23.3(2)"d" 567 IAC 23.3(2)"a" 567 IAC 23.3(3)"e"
EP069S-P		40%	0.1	--	500	567 IAC 23.3(2)"d" 567 IAC 23.3(2)"a" 567 IAC 23.3(3)"e"

EP	EU	Opacity	PM gr./dscf	PM ₁₀ lb/hr	SO ₂ ppmv	Authority for Requirement
EP070N-P	EP012-U	40%	0.1	--	500	567 IAC 23.3(2)"d" 567 IAC 23.3(2)"a" 567 IAC 23.3(3)"e"
EP070S-P		40%	0.1	--	500	567 IAC 23.3(2)"d" 567 IAC 23.3(2)"a" 567 IAC 23.3(3)"e"
EP071N-P	EP013-U	40%	0.1	--	500	567 IAC 23.3(2)"d" 567 IAC 23.3(2)"a" 567 IAC 23.3(3)"e"
EP071S-P		40%	0.1	--	500	567 IAC 23.3(2)"d" 567 IAC 23.3(2)"a" 567 IAC 23.3(3)"e"

⁽¹⁾An exceedance of the indicator opacity of “no visible emissions” or “No VE” 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⁾If visible emissions are observed, the owner/operator shall 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).

⁽³⁾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).

Operational Limits & Requirements

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

Operating limits for EP059-P, EP062-P, EP063-P

A. This emission unit is limited to firing on natural gas, hydrogen, or onsite generated fuel gas.

Authority for Requirement: DNR Construction Permits 11-A-724, 08-A-247-S1, 08-A-248-S1

Operating limits for EP060-P, EP061-P, EP064-P, EP065-P, EP066-P, EP067-P, EP068-P

A. Decoking shall be accomplished using steam and air only.

Authority for Requirement: DNR Construction Permits 11-A-049, 11-A-050, 11-A-051, 11-A-052, 11-A-053, 11-A-054, 11-A-055

Emission Point Characteristics

The emission points listed shall conform to the specifications listed below.

EP001-P, EP060-P, EP061-P, EP004-P, EP063-P, EP064-P, EP065-P, EP066-P, EP067-P, EP068-P

Stack Height, (ft, from the ground): 71

Stack Opening, (inches, dia.): 4

Exhaust Flow Rate (scfm): 3,100

Exhaust Temperature (°F): 480

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permits 11-A-724, 11-A-049, 11-A-050, 08-A-247-S1, 08-A-248-S1, 11-A-051, 11-A-052, 11-A-053, 11-A-054, 11-A-055

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 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: EP072-P

Associated Equipment

Associated Emission Unit ID Numbers: EP072-U
Emissions Control Equipment ID Number: EP072-CE1
Emissions Control Equipment Description: Dry Filters

Emission Unit vented through this Emission Point: EP072-U
Emission Unit Description: Maintenance Paint Booth
Raw Material/Fuel: Paint
Rated Capacity: 5,000 gallons/yr

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%⁽¹⁾

Authority for Requirement: DNR Construction Permit 10-A-371
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).

Particulate Matter (PM)

Emission Limit(s): 0.01 gr/dscf

Authority for Requirement: DNR Construction Permit 10-A-371
567 IAC 23.4(13)

Pollutant: Particulate Matter 10 (PM₁₀)

Emission Limit(s): 0.6 lb/hr

Authority for Requirement: DNR Construction Permit 10-A-371

Operational Limits & Requirements

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

Operating Limits

- A. The amount of paint, solvent and reducer used in this booth shall not exceed 5000 gallons per 12-month rolling period.
- B. The VOC content of any paint, solvent or reducer used in this booth shall not exceed 7.0 pounds per gallon.
- C. This booth shall be used for janitorial, building and facility maintenance operations only.
- D. Maintain the booth and control equipment according to the manufacturer's specifications.

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 shall be legible and maintained in an orderly manner.

The owner or operator of the equipment shall maintain the following records:

- A. Record the amount of paint, solvent and reducer used in this booth, in gallons. Calculate and record the monthly and 12-month rolling totals.
- B. Maintain MSDS sheets showing the VOC and HAP content of each paint, solvent and reducer used in this booth.
- C. Maintain a record of all maintenance activities performed on this booth and control equipment.

Authority for Requirement: DNR Construction Permit 10-A-371

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (from the ground): 28

Stack Opening, (inches, dia.): 34

Exhaust Flow Rate (scfm): 13,965

Exhaust Temperature (°F): 70

Discharge Style: Vertical Obstructed

Authority for Requirement: DNR Construction Permit 10-A-371

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 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

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 manufacturer's recommendations.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP073-P

Associated Equipment

Emission Unit vented through this Emission Point: EP073-U
Emission Unit Description: Wastewater Treatment Plant (WWTP) Lift Station
Raw Material/Fuel: Wastewater
Rated Capacity: 90,000 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.

Emission limits are not required at this time.

Operational Limits & Requirements

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

Operating Limits

- A. The owner or operator shall follow the applicable standards of NESHAP Subpart FF (40 CFR §61.340 – 40 CFR §61.359).

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 shall be legible and maintained in an orderly manner.

The owner or operator of the equipment shall maintain the following records:

- A. The owner or operator shall keep all records as required by NESHAP Subpart FF (40 CFR §61.340 – 40 CFR §61.359).

Authority for Requirement: DNR Construction Permit 13-A-336
567 IAC 23.1 (3)"n"
40 CFR 61 Subpart FF

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (from the ground): 6.8

Stack Opening, (inches, dia.): 13

Exhaust Flow Rate (scfm): 800

Exhaust Temperature (°F): 90

Discharge Style: Vertical Obstructed

Authority for Requirement: DNR Construction Permit 13-A-336

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 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: EP074A-P and EP074B-P

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	Emission Unit Description	Raw Material	Rated Capacity	DNR Construction Permit
EP074A-P	EP074-U	F-2103 Mixed C4 Sphere- RV1	Aromatic Compounds	2,880 lb/hr	None
EP075B-P	EP074-U	F-2103 Mixed C4 Sphere- RV2	Aromatic Compounds	2,880 lb/hr	None

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.

Emission limits are not required at this time.

Operational Limits & Requirements

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

Operating limits are not required at this time.

NSPS and NESHAP Applicability:

These emission points are subject to 40 CFR 63 Subpart YY – National Emission Standards for Hazardous Air Pollutants: Generic Maximum Achievable Control Technology

Authority for Requirement: 567 IAC 23.1(4) "ay"

40 CFR 63 Subpart YY

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: EP075-P

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	Emission Unit Description	Raw Material	Rated Capacity	Control Equipment	DNR Construction Permit
EP075-P	EP075-U	F1116 Spent Caustic Tank	Aromatic Compounds	840 gal/hr	EP075CE1 – Carbon Filter	None

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.

Emission limits are not required at this time.

Operational Limits & Requirements

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

Operating limits are not required at this time.

NSPS and NESHAP Applicability

This emission point is subject to 40 CFR 61 Subpart FF – National Emission Standard for Benzene Waste Operations

Authority for Requirement: 567 IAC 23.1(3)"n"
40 CFR 61 Subpart FF

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: EP076-P and EP077-P

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	Emission Unit Description	Raw Material	Rated Capacity	DNR Construction Permit
EP076-P	EP076-U	F 0143 Ethanol Storage Tank-Closed Loop System	Ethanol	NA	None
EP077-P	EP077-U	F 0151N Ethanol Storage Tank- Closed Loop System	Ethanol	NA	None

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.

Emission limits are not required at this time.

Operational Limits & Requirements

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

Operating limits are not required 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: EP078-P and EP079-P

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	Emission Unit Description	Raw Material	Rated Capacity	Control Equipment	DNR Construction Permit
EP078-P	EP078-U	F 0145R1 Fuel Oil Mix Tank	Residual Oil	40 gal/hr	EP033CE1 – Flare Tip & Carbon Canister (Backup)	None
EP079-P	EP079-U	F 0176 Contaminated Lube Storage Tank	Lubricating Oil	10 gal/hr		None

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.

Emission limits are not required at this time.

Operational Limits & Requirements

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

Operating limits are not required at this time.

NSPS and NESHAP Applicability

EP078-P is subject to the following:

- A. 40 CFR Part 61 Subpart FF – National Emission Standards for Benzene Waste Operations
- B. 40 CFR 63 Subpart UU – National Emission Standards for Equipment Leaks – Control Level 2 Standards
- C. 40 CFR 63 Subpart YY – National Emission Standards for Hazardous Air Pollutants: Generic Maximum Achievable Control Technology.

EP079-P is subject to 40 CFR Part 61 Subpart FF – National Emission Standards for Benzene Waste Operations.

Authority for Requirement: 567 IAC 23.1 (3)"n"
 567 IAC 23.1(4) "au", "ay"
 40 CFR 61 Subpart FF
 40 CFR 63 Subpart UU, YY

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: EP080-P, EP081-P, EP082-P, EP083A/B-P, EP084-P, EP085-P, EP086-P, & EP087-P

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	Emission Unit Description	Raw Material	Rated Capacity	DNR Construction Permit
EP080-P	EP080-U	F169 Process Additive Storage Tank	Process Additives	0.5 gal/hr	None
EP081-P	EP081-U	Process Additive Storage Tank	Process Additives	0.5 gal/hr	None
EP082-P	EP082-U	Process Additive Storage Tank	Process Additives	0.5 gal/hr	None
EP083A/B-P	EP083A/B-U	Process Additive Storage Tank	Process Additives	0.5 gal/hr	None
EP084-P	EP084-U	F2150A Plant Gasoline Storage Tank	Gasoline	60 gal/hr	None
EP085-P	EP085-U	F2150B Plant Diesel Storage Tank	Diesel Fuel	60 gal/hr	None
EP086-P	EP086-P	Material Tote	Aromatic Compounds	0.375 gal/hr.	None
EP087-P	EP087-U	Material Tote	Aromatic Compounds	0.208 gal/hr.	None

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.

Emission limits are not required at this time.

Operational Limits & Requirements

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

Operating limits are not required at this time.

NSPS and NESHAP Applicability

EP080-P, EP081-P, EP083A/B-P, EP-086-P, & EP087-P: These emission points are subject to the following:

- A. 40 CFR 63 Subpart UU – National Emission Standards for Equipment Leaks – Control Level 2 Standards
- B. 40 CFR 63 Subpart YY – National Emission Standards for Hazardous Air Pollutants: Generic Maximum Achievable Control Technology.

Authority for Requirement: 567 IAC 23.1(4) "au", "ay"
40 CFR 63 Subpart UU, YY

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)

Part B. High Density Polyethylene Product Lines

Emission Point ID Number: HD001A-P and HD001B-P

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	Emission Unit Description	Raw Material	Rated Capacity	DNR Construction Permit
HD001A-P	HD001A-U	PF-4 Analyzer House	Isobutane	0.015 lb/hr	None
HD001B-P	HD001B-U	PF-1, PF-2, and PF-3 Analyzer House	Isobutane	0.030 lb/hr	None

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.

Emission limits are not required at this time.

Operational Limits & Requirements

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

Operational limits are not required 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: HD002N-P and HD002S-P

Associated Equipment

Emission Unit vented through this Emission Point: HD002-U
Emission Unit Description: C-0316 Gas1 (D-0307) Activator Jacket Heater
Raw Material/Fuel: Nonsulfured Natural Gas
Rated Capacity: 5 MMBtu/hr for each emission point

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: 567 IAC 23.3(2) "d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.8 lb/MMBtu
Authority for Requirement: 567 IAC 23.3(2) "b"

Pollutant: Sulfur Dioxide (SO2)
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.

Operational limits are not required at this time.

NSPS and NESHAP Applicability

This emission point is subject to 40 CFR 63 Subpart DDDDD – National Emission Standards for Industrial, Commercial and Institutional Boilers and Process Heaters
Authority for Requirement: 567 IAC 23.1(4)"dd"
40 CFR 63 Subpart DDDDD

Monitoring Requirements

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

- 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: Rundown Bins (HD004-P through HD009-P)

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	EU Description	Raw Material	Rated Capacity lb/hr	Control Equipment	DNR Construction Permit
HD004-P	HD004-U	F-0401A PF-1 Rundown Bin	Polyethylene Powder	14,000	HD004CE1 Cyclone	None
HD005-P	HD005-U	F-0401B PF-1 Rundown Bin	Polyethylene Powder	14,000	HD005CE1 Cyclone	None
HD006-P	HD006-U	F-0401C PF-1 Rundown Bin	Polyethylene Powder	14,000	HD006CE1 Cyclone	None
HD007-P	HD007-U	F-0401D PF-1 Rundown Bin	Polyethylene Powder	14,000	HD007CE1 Cyclone	None
HD008N-P	HD008A-U	F-0411C PF-3 Rundown Bin Through L-1417B Bag House	Polyethylene Powder	13,500	HD008 CE3 Cyclone	94-A-110-S1
	HD008B-U	F-0411D PF-3 Rundown Bin Through L-1417B Bag House	Polyethylene Powder	13,500	HD008 CE4 Cyclone	
	HD008C-U	F-0431C PF-2 Rundown Bin Through L-1417B Bag House	Polyethylene Powder	13,500	HD008 CE5 Cyclone	
	HD008D-U	F-0431D PF-2 Rundown Bin Through L-1417B Bag House	Polyethylene Powder	13,500	HD008 CE6 Cyclone	
HD008S-P	HD008E-U	F-0411A PF-3 Rundown Bin Through L-1417A Bag HousePF-3 Rundown Bin	Polyethylene Powder	13,500	HD008 CE7 Cyclone	94-A-109-S1
	HD008F-U	F-0411B PF-3 Rundown Bin Through L-1417A Bag House	Polyethylene Powder	13,500	HD008 CE8 Cyclone	
	HD008G-U	F-0431A PF-2 Rundown Bin Through L-1417A Bag House	Polyethylene Powder	13,500	HD008 CE9 Cyclone	
	HD008H-U	F-0431B PF-2 Rundown Bin Through L-1417A Bag House	Polyethylene Powder	13,500	HD008 CE10 Cyclone	

EP	EU	EU Description	Raw Material	Rated Capacity lb/hr	Control Equipment	DNR Construction Permit
HD009N-P	HD009A-U	F-0439A PF-4 Rundown Bin Through L-1416B Bag House	Polyethylene Powder	35,000	HD009 CE3 Cyclone	HD009CE1 Baghouse 93-A-158-S4
	HD009B-U	F-0439B PF-4 Rundown Bin Through L-1416B Bag House	Polyethylene Powder	35,000	HD009 CE4 Cyclone	
	HD009C-U	F-0439C PF-4 Rundown Bin Through L-1416B Bag House	Polyethylene Powder	35,000	HD009 CE5 Cyclone	
	HD009D-U	F-0439D PF-4 Rundown Bin Through L-1416B Bag House	Polyethylene Powder	35,000	HD009 CE6 Cyclone	
HD009S-P	HD009E-U	F-0439E PF-4 Rundown Bin Through L-1416A Bag House	Polyethylene Powder	35,000	HD009 CE7 Cyclone	HD009CE2 Baghouse 93-A-157-S4
	HD009F-U	F-0439F PF-4 Rundown Bin Through L-1416A Bag House	Polyethylene Powder	35,000	HD009 CE8 Cyclone	
	HD009G-U	F-0439G PF-4 Rundown Bin Through L-1416A Bag House	Polyethylene Powder	35,000	HD009 CE9 Cyclone	
	HD009H-U	F-0439H PF-4 Rundown Bin Through L-1416A Bag House	Polyethylene Powder	35,000	HD009 CE10 Cyclone	

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.

EP	EU	Opacity	PM ₁₀	PM	VOC	Authority of Requirement
HD004-P	HD004-U	40%	N/A	15.1 lb/hr ⁽²⁾	NA	567 IAC 23.3(2)"d" 567 IAC 23.3(2)"a"(2)
HD005-P	HD005-U	40%	N/A	15.1 lb/hr ⁽²⁾	NA	567 IAC 23.3(2)"d" 567 IAC 23.3(2)"a"(2)
HD006-P	HD006-U	40%	N/A	15.1 lb/hr ⁽²⁾	NA	567 IAC 23.3(2)"d" 567 IAC 23.3(2)"a"(2)
HD007-P	HD007-U	40%	N/A	15.1 lb/hr ⁽²⁾	NA	567 IAC 23.3(2)"d" 567 IAC 23.3(2)"a"(2)
HD008N-P	HD008A-U	40% ⁽¹⁾	0.30 lb/hr	0.30 lb/hr 0.1 gr/dscf	NA	567 IAC 23.3(2)"d" 567 IAC 23.3(2)"a" DNR Construction Permit 94-A-110-S1
	HD008B-U					
	HD008C-U					
	HD008D-U					
HD008S-P	HD008E-U	40% ⁽¹⁾	0.30 lb/hr	0.30 lb/hr 0.1 gr/dscf	NA	567 IAC 23.3(2)"d" 567 IAC 23.3(2)"a" DNR Construction Permit 94-A-109-S1
	HD008F-U					
	HD008G-U					
	HD008H-U					
HD009N-P	HD009A-U	40% ⁽¹⁾	0.30 lb/hr	0.30 lb/hr 0.1 gr/dscf	2,047 lb/MM lb ⁽³⁾	567 IAC 23.3(2)"d" 567 IAC 23.3(2)"a" DNR Construction Permit 93-A-158-S4
	HD009B-U					
	HD009C-U					
	HD009D-U					
HD009S-P	HD009E-U	40% ⁽¹⁾	0.30 lb/hr	0.30 lb/hr 0.1 gr/dscf	2,047 lb/MM lb ⁽³⁾	567 IAC 23.3(2)"d" 567 IAC 23.3(2)"a" DNR Construction Permit 93-A-157-S4
	HD009F-U					
	HD009G-U					
	HD009H-U					

⁽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).

⁽²⁾ Based on a process weight rate of 14,000 lb/hr.

⁽³⁾ Emission limit units are in pounds of VOC per million pounds of polymer processed. This emission limit is sum of the emission rates for EP HD009N-P or EP HD009S-P and EP HD020-P.

Operational Limits & Requirements

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

Operating Limits

HD004-P through HD007-P

Operating limits are not required at this time.

HD008N-P and HD008S-P:

Operating limits are not required at this time.

HD009N-P and HD009S-P:

- A. The maximum amount of High Density Polyethylene (HDPE) produced on this line shall not exceed 35,000 pounds per hour (lb/hr). For purposes of determining the production rate of this line (PF-4 Reactor), the facility shall track production through the PF-4 Surge Hopper (EP HD020-P).
- B. The maximum amount of High Density Polyethylene (HDPE) produced on this line shall

not exceed 286,900,000 pounds twelve-month rolling period. For purposes of determining the production rate of this line (PF-4 Reactor), the facility shall track production through the PF-4 Surge Hopper (EP HD020-P).

Authority for Requirement: DNR Construction Permits 93-A-158-S4, 93-A-157-S4

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 shall be legible and maintained in an orderly manner.

HD004-P through HD007-P:

Reporting and Recordkeeping are not required at this time.

HD008N-P and HD008S-P:

Reporting and Recordkeeping are not required at this time.

HD009N-P and HD009S-P:

- A. The facility shall record the date and the amount of HDPE produced on this line (PF-4 Reactor) on an hourly basis for that day.
- B. For the purposes of determining the hourly production rate, the facility (plant number 23-01-004) may record the following:
 1. The date;
 2. The amount of material produced during the day;
 3. The hours of operation for the process line; and,
 4. Divide the production for the day by the hours of operation for the day.
- C. The facility shall calculate and record the total amount of HDPE produced on this line (PF-4 Reactor) per month (in pounds); and,
- D. The facility shall monthly calculate and record the 12-month rolling total amount of HDPE produced on this line (PF-4 Reactor).

Authority for Requirement: DNR Construction Permits 93-A-158-S4, 93-A-157-S4

NSPS and NESHAP Applicability

HD009N-P and HD009S-P:

These emission units are of the source category for Subpart DDD [*Standards of Performance for Volatile organic Compound (VOC) Emissions from the Polymer Manufacturing Industry*; 40 CFR §60.560 – 40 CFR §60.566] of the New Source Performance Standards (NSPS). However, the unit was installed prior to the applicability dates of September 30, 1987 and January 10, 1989 and by definition has not been modified or reconstructed after those dates.

Authority for Requirement: DNR Construction Permits 93-A-158-S3, 93-A-157-S3

Emission Point Characteristics

These emission points shall conform to the specifications listed below.

EP	EU	Con. Permit	Stack Height (ft, above ground)	Stack Opening (inches)	Exhaust Flow Rate (scfm)	Exhaust Temperature (°F)	Discharge Type
HD008N-P	HD008A-U	94-A-110-S1	18	8x8	2,400	160	Horizontal
	HD008B-U						
	HD008C-U						
	HD008D-U						
HD008S-P	HD008E-U	94-A-109-S1	18	8x8	2,400	160	Horizontal
	HD008F-U						
	HD008G-U						
	HD008H-U						
HD009N-P	HD009A-U	93-A-158-S4	18	8x8	1,500	90	Horizontal
	HD009B-U						
	HD009C-U						
	HD009D-U						
HD009S-P	HD009E-U	93-A-157-S4	18	8x8	1,500	90	Horizontal
	HD009F-U						
	HD009G-U						
	HD009H-U						

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 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

Facility O&M Plans are required for cyclones HD008CE1, HD008CE2, HD008CE3, HD008CE4, HD008CE5, HD008CE6, HD008CE7, HD008CE8, HD008CE9, HD008CE10, HD009CE1, HD009CE1, HD009CE3, HD009CE4, HD009CE5, HD009CE6, HD009CE7, HD009CE8, HD009CE9, and HD009CE10.

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 shall 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: Feed Bins (HD010-P through HD019-P)

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	Emission Unit Description	Raw Material	Rated Capacity of Finishing Line lb/hr	Control Equipment	DNR Construction Permit
HD010-P	HD010-U	F-0415A J-line Feed Bin	Polyethylene Powder	31,500	HD010CE-1, Cyclone	78-A-075-S2
HD011-P	HD011-U	F-0415B J-line Feed Bin	Polyethylene Powder	31,500	HD011CE-1, Cyclone	07-A-1181-S1
HD012-P	HD012-U	F-0421A A-line Feed Bin	Polyethylene Powder	9,000	HD012CE-1, Cyclone	None
HD013-P	HD013-U	F-0421B B-line Feed Bin	Polyethylene Powder	9,000	HD013CE-1, Cyclone	None
HD014-P	HD014-U	F-0422A A-line Feed Bin	Polyethylene Powder	9,000	HD014CE-1, Cyclone	None
HD015-P	HD015-U	F-0422B B-line Feed Bin	Polyethylene Powder	9,000	HD015CE-1, Cyclone	None
HD016-P	HD016-U	F-0423A A-line Feed Bin	Polyethylene Powder	9,000	HD016CE-1, Cyclone	None
HD017-P	HD017-U	F-0423B B-line Feed Bin	Polyethylene Powder	9,000	HD017CE-1, Cyclone	None
HD018-P	HD018-U	F-0462 F-line Feed Bin	Polyethylene Powder	30,000	HD018CE-1, Cyclone	89-A-065-S2
HD019-P	HD019-U	F-0463 F-line Feed Bin	Polyethylene Powder	30,000	HD019CE-1, Cyclone	07-A-1190-S1

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.

EP	EU	Opacity	PM ₁₀	PM	VOC	Authority for Requirement
HD010-P	HD010-U	40% ⁽¹⁾	0.08 lb/hr	3.93 lb/hr	8.0x10 ⁻⁶ lb/lb	567 IAC 23.3(2) "d" DNR Construction Permit 78-A-075-S2
HD011-P	HD011-U	40% ⁽¹⁾	0.08 lb/hr	3.93 lb/hr	8.0x10 ⁻⁶ lb/lb	567 IAC 23.3(2) "d" DNR Construction Permit 07-A-1181-S1
HD012-P	HD012-U	40%	NA	11.2 lb/hr ⁽²⁾	--	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a"(2)
HD013-P	HD013-U	40%	NA	11.2 lb/hr ⁽²⁾	--	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a"(2)
HD014-P	HD014-U	40%	NA	11.2 lb/hr ⁽²⁾	--	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a"(2)
HD015-P	HD015-U	40%	NA	11.2 lb/hr ⁽²⁾	--	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a"(2)
HD016-P	HD016-U	40%	NA	11.2 lb/hr ⁽²⁾	--	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a"(2)
HD017-P	HD017-U	40%	NA	11.2 lb/hr ⁽²⁾	--	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a"(2)
HD018-P	HD018-U	40% ⁽¹⁾	0.15 lb/hr	1.49 lb/hr 0.1 gr/dscf	--	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 89-A-065-S2
HD019-P	HD019-U	40% ⁽¹⁾	0.15 lb/hr	1.49 lb/hr 0.1 gr/dscf	--	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 07-A-1190-S1

⁽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).

⁽²⁾ Limit based on the Process Weight Rate of 9,000 lbs/hr.

Operational Limits & Requirements

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

Operating Limits

HD010-P and HD011-P:

- A. The maximum amount of High Density Polyethylene (HDPE) produced on this line shall not exceed 31,500 pounds per hour (lb/hr). For purposes of determining the production rate of this line, the facility shall track production through the J-line Spin Dryer (EP HD122-P).

Authority for Requirement: DNR Construction Permits 78-A-075-S2, 07-A-1181-S1

HD012-P through HD017-P:

Operating limits are not required at this time.

HD018-P and HD019-P:

- A. The maximum amount of HDPE processed through emission units, HD018-U and HD019-U, combined shall not exceed 2.23 x 108 pounds per twelve month rolling period.
- B. The facility shall follow the applicable standards of NSPS Subpart DDD, 40 CFR 60.560 through 60.566.

Authority for Requirement: DNR Construction Permit 89-A-065-S2 & 07-A-1190-S1
567 IAC 23.1(2)"mmm"

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 shall be legible and maintained in an orderly manner.

HD010-P and HD011-P:

- A. The date and the amount of HDPE produced on this line on an hourly basis for the day. For purposes of determining the hourly production rate, the facility (plant number 23-01-004) may record:
 - The date,
 - The amount of material produced during the day,
 - The hours of operation for the process line, and
 - Divide the production for the day by the hours of operation for the day.
- B. The facility shall calculate and record the total amount of HDPE produced on this line per month. The facility shall monthly update and record the 12-month rolling total amount of HDPE produced on this line.

Authority for Requirement: DNR Construction Permits 78-A-075-S2, 07-A-1181-S1

HD012-P through HD017-P:

Reporting and Recordkeeping are not required at this time.

HD018-P and HD019-P:

- A. The facility shall record the amount of HDPE processed through emission units, HD018-U and HD019-U, on a monthly basis, and calculate and record the twelve month rolling total for each month of operation.
- B. The facility shall keep records as required in NSPS Subpart DDD, 40 CFR 60.560 through 60.566.
- C. The owner or operator shall inspect and maintain the control equipment (HD018-CE1 & HD019-CE1) according to the facility's (Plant No. 23-01-004) operation and maintenance plan.
 - i. The owner or operator shall keep a log of all maintenance and inspection activities performed on the control equipment. This log shall include, but is not limited to:
 - The date and time any inspection and/or maintenance was performed on the control equipment;
 - Any issues identified during the inspection;
 - Any issues addressed during the maintenance activities; and,
 - Identification of the staff member performing the maintenance or inspection.

Authority for Requirement: DNR Construction Permit 89-A-065-S2 & 07-A-1190-S1
567 IAC 23.1(2)"mmm"

Emission Point Characteristics

These emission points shall conform to the specifications listed below.

EP	EU	Con. Permit	Stack Height (ft, above ground)	Stack Opening (inches)	Exhaust Flow Rate (scfm)	Exhaust Temp.(°F)	Discharge Type
HD010-P	HD010-U	78-A-075-S2	95	4 (dia.)	1,600	Ambient	Horizontal
HD011-P	HD011-U	07-A-1181-S1	95	4 (dia.)	1,600	Ambient	Horizontal
HD018-P	HD018-U	89-A-065-S2	105	10 x 30	1,550	Ambient	Downward
HD019-P	HD019-U	07-A-1190-S1	105	10 x 30	1,550	Ambient	Downward

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 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

Required for HD012CE-1, HD013CE-1, HD014CE-1, HD015CE-1, HD016CE-1, HD017CE-1

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Required for HD010CE-1, HD011CE-1, HD018CE-1, HD019CE-1

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 shall 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: HD020-P

Associated Equipment

Emission Unit vented through this Emission Point: HD020-U

Emission Unit Description: F-0918 PF-4 Surge Hopper

Raw Material/Fuel: Polyethylene Powder

Rated Capacity: 35,000 lb/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%⁽¹⁾

Authority for Requirement: DNR Construction Permit 07-A-1182-S3
567 IAC 23.3(2) "a"

⁽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: Particulate Matter (PM₁₀)

Emission Limit(s): 0.10 lb/hr

Authority for Requirement: DNR Construction Permit 07-A-1182-S3

Pollutant: Particulate Matter (PM)

Emission Limit(s): 1.75 lb/hr

Authority for Requirement: DNR Construction Permit 07-A-1182-S3

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 2,047 lb/MMlb⁽²⁾

Authority for Requirement: DNR Construction Permit 07-A-1182-S3

⁽²⁾ Emission limit units are in pounds of VOC per million pounds of polymer processed. This emission limit is sum of the emission rates for EP HD009N-P or EP HD009S-P and EP HD020-P.

Operational Limits & Requirements

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

Operating Limits

- A. The maximum amount of High Density Polyethylene (HDPE) produced on this line shall not exceed 35,000 pounds per hour (lb/hr). For purposes of determining the production rate of this line (PF-4 Reactor), the facility shall track production through the PF-4 Surge Hopper (EP HD020-P).
- B. The maximum amount of High Density Polyethylene (HDPE) produced on this line shall not exceed 286,900,000 pounds twelve-month rolling period. For purposes of determining the production rate of this line (PF-4 Reactor), the facility shall track production through the PF-4 Surge Hopper (EP HD020-P).

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 shall be legible and maintained in an orderly manner.

- A. The facility shall record the date and the amount of HDPE produced on this line (PF-4 Reactor) on an hourly basis for that day.
- B. For the purposes of determining the hourly production rate, the facility (plant number 23-01-004) may record the following:
 - 1. The date;
 - 2. The amount of material produced during the day;
 - 3. The hours of operation for the process line; and,
 - 4. Divide the production for the day by the hours of operation for the day.
- C. The facility shall calculate and record the total amount of HDPE produced on this line (PF-4 Reactor) per month (in pounds); and,
- D. The facility shall monthly calculate and record the 12-month rolling total amount of HDPE produced on this line (PF-4 Reactor).

Authority for Requirement: DNR Construction Permit 07-A-1182-S3

NSPS and NESHAP Applicability

This emission unit is of the source category for Subpart DDD [*Standards of Performance for Volatile organic Compound (VOC) Emissions from the Polymer Manufacturing Industry*; 40 CFR §60.560 – 40 CFR §60.566] of the New Source Performance Standards (NSPS). However, the unit was installed prior to the applicability dates of September 30, 1987 and January 10, 1989 and by definition has not been modified or reconstructed after those dates.

Authority for Requirement: DNR Construction Permit 07-A-1182-S2

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 8

Stack Opening, (inches, dia.): 8

Exhaust Flow Rate (scfm): 65

Exhaust Temperature (°F): 135

Discharge Style: Unobstructed Vertical

Authority for Requirement: DNR Construction Permit 07-A-1182-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 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: HD021-P and HD022-P

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	Emission Unit Description	Raw Material	Rated Capacity	DNR Construction Permit
HD021-P	HD021-U	J-0303A PF-1 Recycle Compressor	Isobutane	410,681 gal/hr	None
HD022-P	HD022-U	J-0303B PF-1 Recycle Compressor	Isobutane	410,681 gal/hr	None
HD022F-P	HD021-U/HD022-U	Fugitive Emissions: J-0303A/B PF-1 Recycle Compressors	Isobutane	4 equip-leak hr/hr	None

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.

Emission limits are not required at this time.

Operational Limits & Requirements

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

Operational limits are not required 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: HD027-P, HD028-P, and HD029-P

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	Emission Unit Description	Raw Material	Rated Capacity	DNR Construction Permit
HD027-P	HD027-U	J-0603 PF-2/3 Recycle Compressor	Isobutane	407,090 gal/hr	None
HD028-P	HD028-U	J-0604 PF-2/3 Recycle Compressor	Isobutane	407,090 gal/hr	None
HD029-P	HD029-U	J-0605 PF-2/3 Recycle Compressor	Isobutane	407,090 gal/hr	None
HD029F-P		Fugitive Emissions: J-0603/0604/0605 PF-2/3 Recycle Compressors	Isobutane	6 Equip-Leak hr/hr	None

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.

Emission limits are not required at this time.

Operational Limits & Requirements

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

Operational limits are not required 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: HD033-P and HD033F-P

Associated Equipment

Emission Unit vented through this Emission Point: HD033-U

Emission Unit Description:

J-0623 IC4 Recovery Compressor and Fugitive Emissions from Compressor Leaks

Raw Material/Fuel: Isobutane

Rated Capacity: 86,176 gal/hr/ 2 equipment leak-hr/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.

Emission limits are not required at this time.

Operational Limits & Requirements

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

Operational limits are not required 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: HD036-P through HD038-P (Compressors)

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	Emission Unit Description	Raw Material	Rated Capacity	DNR Construction Permit
HD036-P	HD036-U	J-0908A PF-4 Recycle Compressor	Isobutane	62.2 MMgal/hr	None
HD036F-P		Fugitive Emissions: J-0908A Compressor Unloader Valves	Isobutane	16 equip-leak-hr/hr	None
HD037-P	HD037-U	J-0908B PF-4 Recycle Compressor	Isobutane	62.2 MMgal/hr	None
HD037F-P		Fugitive Emissions: J-0908B Compressor Unloader Valves	Isobutane	16 equip-leak-hr/hr	None
HD038-P	HD038-U	J-0908C PF-4 Recycle Compressor	Isobutane	62.2 MMgal/hr	None
HD038F-P		Fugitive Emissions: J-0908C Compressor Unloader Valves	Isobutane	16 equip-leak-hr/hr	None

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.

Emission limits are not required at this time.

Operational Limits & Requirements

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

Operational limits are not required 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: HD039-P through HD042-P

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	Emission Unit Description	Raw Material	Rated Capacity MMgal/hr	DNR Construction Permit
HD039-P	HD039-U	J-0301 PF-1 Reactor Pump	Isobutane, Ethylene	1.404	None
HD040-P	HD040-U	J-0601 PF-3 Reactor Pump	Isobutane, Ethylene	1.404	None
HD041-P	HD041-U	J-0602 PF-2 Reactor Pump	Isobutane, Ethylene	1.404	None
HD042-P	HD042-U	J-0903 PF-4 Reactor Pump	Isobutane, Ethylene	2.034	None

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.

Emission limits are not required at this time.

Operational Limits & Requirements

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

Operational limits are not required 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 Numbers: HD043-P, HD144-P, HD179-P, HD044-P, HD145-P, HD180-P, HD045-P, HD146-P, HD181-P, HD117-P, HD178-P, HD182-P

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	Emission Unit Description	Raw Material	Rated Capacity	DNR Construction Permit
HD043-P	HD043-U	L-0302 PF-1 Purge Conveyor	Purge Gas	33,000 lb./yr	None
HD144-P		L-0302 PF-1 Purge Conveyor RD	Purge Gas		None
HD179-P		L-0302 PF-1 Purge Conveyor Fugitive	Purge Gas	1 equip-leak-hr/hr	None
HD044-P	HD044-U	L-0603 PF-3 Purge Conveyor	Purge Gas	33,000 lb./yr	None
HD145-P		L-0603 PF-3 Purge Conveyor RD	Purge Gas		None
HD180-P		L-0603 PF-3 Purge Conveyor Fugitive	Purge Gas	1 equip-leak-hr/hr	None
HD045-P	HD045-U	L-0604 PF-2 Purge Conveyor	Purge Gas	33,000 lb./yr	None
HD146-P		L-0603 PF-3 Purge Conveyor RV	Purge Gas		None
HD181-P		L-0604 PF-2 Purge Conveyor Fugitive	Purge Gas	1 equip-leak-hr/hr	None
HD117-P	HD117-U	L-0918 PF-4 Purge Conveyor	Purge Gas	33,000 lb./yr	None
HD178-P		L-0918 PF-4 Purge Conveyor RV	Purge Gas		None
HD182-P		L-0918 PF-4 Purge Conveyor Fugitive	Purge Gas	1 equip-leak-hr/hr	None

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.

Emission limits are not required at this time.

Operational Limits & Requirements

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

Operational limits are not required 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: HD183-P

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	Emission Unit Description	Raw Material	Control Equipment	Rated Capacity	DNR Construction Permit
HD183-P	HD183A-U	D0301 PF1 Loop Reactor		HD183CE1: Bin Vent Filter	25,000 lb./hr.	16-A-383
	HD183B-U	F303 PF1 Flash Tank			12' diameter x 12; tall w/60° cone bottom	
	HD183C-U	L0301 PF1 Dryer			340,000 MMBtu/hr.	
	HD183-U	L0302 Purge Column			25,000 lb./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%⁽¹⁾

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

Iowa DNR Construction Permit 16-A-383

⁽¹⁾ An exceedance of the indicator opacity of no visible emissions will require the owner or 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 Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter

Emission Limit(s): 0.1 gr/dscf

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

Iowa DNR Construction Permit 16-A-383

Operational Limits & Requirements

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

- A. Per 567 IAC 33.3(18)"f"(1), prior to beginning actual construction of the project (Project Number 16-331) the owner or operator shall document and maintain a record of the following:
 - 1. A description of the project (Project Number 16-331),
 - 2. Identification of the emission unit(s) whose emissions of a regulated NSR pollutant could be affected by the project (Project Number 16-331), 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 the following list:

Emission Unit No.	Unit Description
HD001B-U	PF-1, PF-2, and PF-3 Analyzer House
HD002-U	C-0316 Gas1 (D-0307) Activator Jacket Heater
HD002-U	C-0316 Gas1(D-0307) Activator Jacket Heater
HD004-U	F-0401A PF-1 Rundown Bin
HD005-U	F-0401B PF-1 Rundown Bin
HD006-U	F-0401C PF-1 Rundown Bin
HD007-U	F-0401D PF-1 Rundown Bin
HD012-U	F-0421A A-line Feed Bin
HD014-U	F-0422A A-line Feed Bin
HD016-U	F-0423A A-line Feed Bin
HD021-U	J-0303A PF-1 Recycle Compressor
HD022-U	J-0303B PF-1 Recycle Compressor
HD021-U/HD022-U	J-303A/B PF-1 Recycle Compressors
HD029-U	PF-2/3 Recycle Compressors
HD033-U	J-0623 IC4 Recovery Compressor
HD033-U	J-0623 IC4 Recovery Compressor
HD039-U	J-0301 PF-1 Reactor Pump
HD049A-U	L-0349 Scrubber for GAS1 D-0307
HD049C-U	L-0348 Scrubber for Electric1 D-0310
HD050A-U	L-0426A A-Line Dust Collector
HD052-U	F-0402A PF Storage Bin
HD053-U	F-0402B PF Storage Bin
HD054-U	F-0402C PF Storage Bin
HD055-U	F-0402D PF Storage Bin
HD056-U	F-0402E PF Storage Bin
HD057-U	F-0432A PF Storage Bin
HD058-U	F-0432B PF Storage Bin
HD059-U	F-0432C PF Storage Bin
HD060-U	F-0432D PF Storage Bin
HD061-U	F-0432E PF Storage Bin
HD062-U	F-0412A PF Storage Bin
HD063-U	F-0412B PF Storage Bin

Emission Unit No.	Unit Description
HD092-U	F-0443A Pellet Storage Bin
HD093-U	F-0443B Pellet Storage Bin
HD094-U	F-0443C Pellet Storage Bin
HD095-U	F-0443D Pellet Storage Bin
HD096-U	F-0443E Pellet Storage Bin
HD097-U	F-0443F Pellet Storage Bin
HD098-U	F-0443G Pellet Storage Bin
HD099-U	F-0443H Pellet Storage Bin
HD100-U	F-0443J Pellet Storage Bin
HD101-U	F-0443K Pellet Storage Bin
HD102-U	F-0443L Pellet Storage Bin
HD103-U	F-0443M Pellet Blending Silo
HD104-U	F-0447A Divert Quad Bin
HD105-U	F-0447B Divert Quad Bin
HD106-U	F-0447C Divert Quad Bin
HD107-U	F-0447D Divert Quad Bin
HD108-U	High Density Fugitives
HD118-U	F-0425 Plexar Maleic Anhydride Tank
HD119-U	L-0428A A-line Pellet Dryer
HD123-U	L-0406A Plexar Graft Dryer
HD134-U	L-4001 Plexar Extruder
HD135A-U	F-0410A Quality Control Bin
HD135B-U	F-0410B Quality Control Bin
HD136-U	F-0408 Plexar Weigh Hopper
HD149-U	L-301 PF-1 Dryer
HD153-U	F-0303 PF-1 Slide Valves (2)
HD158-U	J-0330 PF-1Blower
HD162-U	KV33107AB PF-1 Dryer V-ball valves
HD169-U	J 408- Powder Vacuum Blower
HD170-U	J 418- Powder Vacuum Blower
HD171-U	J 1401- Powder Vacuum Blower
HD172-U	J 409- Powder Vacuum Blower

Emission Unit No.	Unit Description
HD064-U	F-0412C PF Storage Bin
HD065-U	F-0412D PF Storage Bin
HD066-U	F-0412E PF Storage Bin
HD067-U	F-0412F PF Storage Bin
HD068-U	F-0412G PF Storage Bin
HD069-U	F-0412H PF Storage Bin
HD070-U	F-0412J PF Storage Bin
HD071-U	F-0412K PF Storage Bin
HD072-U	F-0404A Plexar Storage/Feed Bin
HD073-U	F-0404B Plexar Storage/Feed Bin
HD074-U	F-0404C Plexar Rundown Bin
HD075-U	F-0444A Pellet Blender
HD076-U	F-0444B Pellet Blender
HD081-U	F-0441A Pellet Blender
HD082-U	F-0441B Pellet Blender
HD083-U	F-0445 Pellet Blender

Emission Unit No.	Unit Description
HD173-U	J406A- Pellet Vacuum Blower
HD174-U	J406B- Pellet Vacuum Blower
HD175-U	J406C- Pellet Vacuum Blower
HD176-U	F-314 PF1,2, 3 Dump Tanks Slide Valve
HD183A-U	D0301 PF1 Loop Reactor
HD183B-U	F303 PF1 Flash Tank
HD183C-U	L0301 PF1 Dryer
HD183-U	L 0302PF1 Purge Column
PP005-U	L-0501 HDPE Old Hopper Car Elutriator
PP008-U	L-0503 HDPE Old Hopper Car Scalperator
PP011-U	L-0502 HDPE New Hopper Car Elutriator
PP012-U	L-0509 HDPE New Hopper Car Scalperator
PP018-U	L-0528 HDPE North Powder Loading Dust Collector
PP019-U	L-0529 HDPE South Powder Loading Dust Collector
PP020-U	F-0504 HDPE North Powder Feed Bin
PP021-U	F-0505 HDPE South Powder Feed Bin

1. Calculate the annual emissions, in tons per year on a calendar-year basis, for a period of ten (10) years following resumption of regular operations and maintain a record of regular operations after the change.

C. Per 567 IAC 33.3(18)“f”(5), the owner or operator shall retain a written record containing the information required in Condition 5.A. and 5.B. of this permit for a period of ten (10) years after the project (Project Number 16-331) is completed.

D. 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).

E. The owner or operator shall maintain onsite a copy of the most recent VOC performance test conducted on emission point HD183-P.

F. The owner or operator shall inspect and maintain the control equipment according to the manufacture’s operation and maintenance plan.

G. The owner or operator shall keep records of all control equipment inspections and maintenance.

Authority for Requirement: Iowa DNR Construction Permit 16-A-383

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

- Stack Height, (ft, from the ground): 10 feet, 9 inches
- Stack Opening, (inches, dia.): 6
- Exhaust Flow Rate (scfm): 100
- Exhaust Temperature (°F): 140
- Discharge Style: Horizontal
- Authority for Requirement: Iowa DNR Construction Permit 16-A-383

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.

Stack Testing:

- Pollutant – Volatile Organic Compounds
- Stack Test to be Completed by - Within sixty (60) days after achieving the maximum production rate and no later than one hundred eighty (180) days after the initial startup date of the proposed equipment for the addition of new equipment or the physical modification of existing equipment or control equipment.
- Test Method - 40 CFR 63, Appendix A, Method 320 or
40 CFR 60, Appendix A, Method 18
- Authority for Requirement – Iowa DNR Construction Permit 16-A-383

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

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 shall 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: HD046-P, HD047-P, and HD048-P (Surge Bins)

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	Emission Unit Description	Raw Material	Rated Capacity lb/hr	DNR Construction Permit
HD046-P	HD046-U	Fugitive Emission: VF-0402 PF-1 Surge Bin	Polyethylene Powder	14,000	None
HD047-P	HD047-U	Fugitive Emission: VF-0432A PF-3 Surge Bin	Polyethylene Powder	14,000	None
HD048-P	HD048-U	Fugitive Emission: VF-0432B PF-2 Surge Bin	Polyethylene Powder	14,000	None

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.

Emission limits are not required at this time.

Operational Limits & Requirements

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

Operational limits are not required 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: HD049A-P and HD049C-P (Scrubbers)

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	EU Description	Raw Material	Rated Capacity lb/hr	Control Equipment	DNR Construction Permit
HD049A-P	HD049A-U	L-0349 Scrubber for GAS1 D-0307	Catalyst	13.80	HD049CE1 Venturi Scrubber	03-A-1013-S1
HD049C-P	HD049C-U	L-0348 Scrubber for Electric1 D-0310	Catalyst	15	HD049CE2 Venturi Scrubber	08-A-442-S1

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.

HD049A-P:

Pollutant: Opacity

Emission Limit(s): 40%⁽¹⁾

Authority for Requirement: Iowa DNR Construction Permit 03-A-1013-S1
567 IAC 23.3(2) "d"

⁽¹⁾ An exceedance of the indicator opacity of 10% will require the owner or 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 Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf

Authority for Requirement: Iowa DNR Construction Permit 03-A-1013-S1
567 IAC 23.3(2) "a"

HD049C-P:

Pollutant: Opacity

Emission Limit(s): 40%⁽¹⁾

Authority for Requirement: DNR Construction Permit 08-A-442-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: Particulate Matter (PM)

Emission Limit(s): 0.02 lb/hr; 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 08-A-442-S1
567 IAC 23.3(2) "a"

Pollutant: VOC
 Emission Limit(s): 13.14 ton/yr
 Authority for Requirement: DNR Construction Permit 08-A-442-S1

Operational Limits & Requirements

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

Control equipment parameters:

- B. The control equipment shall be inspected and maintained according to the manufactures operation and maintenance plan.

Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

- A. The owner or operator shall keep records of control equipment inspections and maintenance.

Authority for Requirement: Iowa DNR Construction Permit 03-A-1013-S1 & 08-A-442-S1

Emission Point Characteristics

These emission points shall conform to the specifications listed below.

	HD049A-P	HD050C-P
Stack Height, (ft, from the ground)	20	20
Stack Opening (diameter, inches)	3	4
Exhaust Flow Rate (scfm)	60	60
Exhaust Temperature (°F)	150	150
Discharge Style	Horizontal	Horizontal
Authority for Requirement:	03-A-1013-S1	08-A-442-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 any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department 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: HD050A-P through HD050D-P (Dust Collector)

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	Emission Unit Description	Raw Material	Rated Capacity lb/hr	Control Equipment	DNR Construction Permit
HD050A-P	HD050A-U	L-0426A A-Line Dust Collector	Polyethylene Powder	9,000	HD050ACE1 Dust Collector	None
HD050B-P	HD050B-U	L-0426B B-Line Dust Collector	Polyethylene Powder	9,000	HD050BCE1 Dust Collector	None
HD050C-P	HD050C-U	L-0470 F-Line Conveyor	Polyethylene Powder	30,000	HD050CCE1 Dust Collector	89-A-070-S2
HD050D-P	HD050D-U	L-0410 J-Line Dust Collector	Polyethylene Powder	31,500	HD050DCE1 Dust Collector	03-A-1014-S1

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.

EP	EU	Opacity	PM ₁₀	PM	Authority of Requirement
HD050A-P	HD050A-U	40%	NA	11.2 lb/hr ⁽²⁾	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a"
HD050B-P	HD050B-U	40%	NA	11.2 lb/hr ⁽²⁾	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a"
HD050C-P	HD050C-U	40% ⁽¹⁾	0.03 lb/hr	0.324 lb/hr 0.1 gr/dscf	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 89-A-070-S2
HD050D-P	HD050D-U	40% ⁽¹⁾	NA	0.1 gr/dscf	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 03-A-1014-S1

⁽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).

⁽²⁾ PM emission limit of 11.2 lb/hr were based on the process weights for these units using the formulas in 567 IAC 23.3(2) "a" (2).

Operational Limits & Requirements

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

Operating Limits

HD050A-P and HD050B-P:

Operating limits are not required at this time.

HD050D-P:

- A. The maximum amount of High Density Polyethylene (HDPE) produced on this line shall not exceed 31,500 pounds per hour.
- B. The facility shall follow the applicable standards of NSPS Subpart DDD, 40 CFR 60.560 through 60.566

Authority for Requirement: DNR Construction Permit 03-A-1014-S1567 IAC 23.1(2)"mmm"

HD050C-P:

- A. The owner or operator shall inspect and maintain the control equipment (CE HD050-CE) according to the facility's (Plant No. 23-01-004) operation and maintenance plan.

Authority for Requirement: DNR Construction Permits 89-A-070-S2

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 shall be legible and maintained in an orderly manner.

HD050A-P and HD050B-P:

Reporting and Recordkeeping are not required at this time.

HD050C-P

- A. The facility shall keep records as required in NSPS Subpart DDD, 40 CFR §60.560 through §60.566.
- B. The owner or operator shall keep a log of all maintenance and inspection activities performed on the control equipment. This log shall include, but is not limited to:
 - 1. The date and time any inspection and/or maintenance was performed on the control equipment;
 - 2. Any issues identified during the inspection;
 - 3. Any issues addressed during the maintenance activities; and,
 - 4. Identification of the staff member performing the maintenance or inspection.

Authority for Requirement: DNR Construction Permits 89-A-070-S2
567 IAC 23.1(2)"mmm"

HD050D-P:

- A. The facility shall record on a daily basis, the amount of HDPE produced on this line on an hourly basis. For purposes of determining the hourly production rate the facility may record the amount of material produced during a calendar day and divide by the number of hours the process line was in operation.
- B. Retain manufacturer/vendor provided information (i.e., Material Safety Data Sheets (MSDS), technical data sheets, etc.) of all materials used in the affected operations.
- C. The facility shall keep records as required in NSPS Subpart DDD, 40 CFR §60.560 through §60.566.

Authority for Requirement: DNR Construction Permit 03-A-1014-S1
567 IAC 23.1(2)"mmm"

Emission Point Characteristics

These emission points shall conform to the specifications listed below.

	HD050C-P	HD050D-P
Stack Height, (ft, from the ground)	27	22
Stack Opening (diameter, inches)	10	6
Exhaust Flow Rate (scfm)	120	120
Exhaust Temperature (°F)	150	200
Discharge Style	Horizontal	Horizontal
Authority for Requirement:	DNR Construction Permit 89-A-070-S2	DNR Construction Permit 03-A-1014-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 any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department 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

Required for HD050ACE1, HD050BCE1, HD050CCE1, & HD050DCE1

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 shall 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: HD051-P

Associated Equipment

Emission Unit vented through this Emission Point: HD051-U
Emission Unit Description: J-1402 Additive Vacuum System
Raw Material/Fuel: Additives
Rated Capacity: 160 lb/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%⁽¹⁾

Authority for Requirement: DNR Construction Permit 03-A-1015-S1
567 IAC 23.3(2) "d"

⁽¹⁾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: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 03-A-1015-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.

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 shall be legible and maintained in an orderly manner.

A. The facility shall follow the applicable standards of NSPS Subpart DDD, 40 CFR 60.560 through 60.566.

Authority for Requirement: DNR Construction Permit 03-A-1015-S1
567 IAC 23.1(2)"mmm"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 7

Stack Opening, (inches, dia.): 4

Exhaust Flow Rate (scfm): 220

Exhaust Temperature (°F): 150

Discharge Style: Horizontal

Authority for Requirement: DNR Construction Permit 03-A-1015-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 any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department 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: HD052-P through HD071-P (Storage Bins)

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	Emission Unit Description	Raw Material	Rated Capacity lb/hr	Control Equipment	DNR Construction Permit
HD052-P	HD052-U	F-0402A PF Storage Bin	Polyethylene Powder	30,000	HD052CE1 Cyclone	None
HD053-P	HD053-U	F-0402B PF Storage Bin	Polyethylene Powder	30,000	HD053CE1 Baghouse	10-A-379-S1
HD054-P	HD054-U	F-0402C PF Storage Bin	Polyethylene Powder	30,000	HD054CE1 Baghouse	10-A-380-S1
HD055-P	HD055-U	F-0402D PF Storage Bin	Polyethylene Powder	30,000	HD055CE1 Baghouse	10-A-381-S1
HD056-P	HD056-U	F-0402E PF Storage Bin	Polyethylene Powder	30,000	HD056CE1 Baghouse	10-A-382-S1
HD057-P	HD057-U	F-0432A PF Storage Bin	Polyethylene Powder	30,000	HD057CE1 Cyclone	None
HD058-P	HD058-U	F-0432B PF Storage Bin	Polyethylene Powder	30,000	HD058CE1 Cyclone	None
HD059-P	HD059-U	F-0432C PF Storage Bin	Polyethylene Powder	30,000	HD059CE1 Cyclone	None
HD060-P	HD060-U	F-0432D PF Storage Bin	Polyethylene Powder	30,000	HD060CE1 Cyclone	None
HD061-P	HD061-U	F-0432E PF Storage Bin	Polyethylene Powder	30,000	HD061CE1 Cyclone	None
HD062-P	HD062-U	F-0412A PF Storage Bin	Polyethylene Powder	30,000	HD062CE1 Cyclone	10-A-383-S2
HD063-P	HD063-U	F-0412B PF Storage Bin	Polyethylene Powder	30,000	HD063CE1 Cyclone	10-A-384-S2
HD064-P	HD064-U	F-0412C PF Storage Bin	Polyethylene Powder	30,000	HD064CE1 Cyclone	10-A-385-S2
HD065-P	HD065-U	F-0412D PF Storage Bin	Polyethylene Powder	30,000	HD065CE1 Cyclone	10-A-386-S2
HD066-P	HD066-U	F-0412E PF Storage Bin	Polyethylene Powder	30,000	HD066CE1 Cyclone	10-A-387-S2
HD067-P	HD067-U	F-0412F PF Storage Bin	Polyethylene Powder	30,000	HD067CE1 Cyclone	78-A-074
HD068-P	HD068-U	F-0412G PF Storage Bin	Polyethylene Powder	30,000	HD068CE1 Cyclone	78-A-074
HD069-P	HD069-U	F-0412H PF Storage Bin	Polyethylene Powder	30,000	HD069CE1 Baghouse	10-A-388-S1
HD070-P	HD070-U	F-0412J PF Storage Bin	Polyethylene Powder	30,000	HD070CE1 Baghouse	10-A-389-S1
HD071-P	HD071-U	F-0412K PF Storage Bin	Polyethylene Powder	30,000	HD071CE1 Cyclone	10-A-390-S2

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.

EP	EU	Opacity	PM10	PM	VOC	Authority of Requirement
HD052-P	HD052-U	40%	None	25.16 lb/hr	None	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a"
HD053-P	HD053-U	40% ⁽¹⁾	0.039 lb/hr	0.13 lb/hr 0.1 gr/dscf	0.32 lb/hr	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 10-A-379-S1
HD054-P	HD054-U	40% ⁽¹⁾	0.039 lb/hr	0.13 lb/hr 0.1 gr/dscf	0.32 lb/hr	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 10-A-380-S1
HD055-P	HD055-U	40% ⁽¹⁾	0.039 lb/hr	0.13 lb/hr 0.1 gr/dscf	0.32 lb/hr	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 10-A-381-S1
HD056-P	HD056-U	40% ⁽¹⁾	0.039 lb/hr	0.13 lb/hr 0.1 gr/dscf	0.32 lb/hr	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 10-A-382-S1
HD057-P	HD057-U	40%	None	25.16 lb/hr	None	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a"
HD058-P	HD058-U	40%	None	25.16 lb/hr	None	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a"
HD059-P	HD059-U	40%	None	25.16 lb/hr	None	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a"
HD060-P	HD060-U	40%	None	25.16 lb/hr	None	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a"
HD061-P	HD061-U	40%	None	25.16 lb/hr	None	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a"
HD062-P	HD062-U	40% ⁽²⁾	3.30 lb/hr	25.2 lb/hr	None	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 10-A-383-S2
HD063-P	HD063-U	40% ⁽²⁾	3.30 lb/hr	25.2 lb/hr	None	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 10-A-384-S2
HD064-P	HD064-U	40% ⁽²⁾	3.30 lb/hr	25.2 lb/hr	None	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 10-A-385-S2
HD065-P	HD065-U	40% ⁽²⁾	3.30 lb/hr	25.2 lb/hr	None	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 10-A-386-S2
HD066-P	HD066-U	40% ⁽²⁾	3.30 lb/hr	25.2 lb/hr	None	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 10-A-387-S2

EP	EU	Opacity	PM10	PM	VOC	Authority of Requirement
HD067-P	HD067-U	40%	None	25.16 lb/hr	None	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 78-A-074
HD068-P	HD068-U	40%	None	25.16 lb/hr	None	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 78-A-074
HD069-P	HD069-U	40% ⁽¹⁾	0.039 lb/hr	0.13 lb/hr 0.1 gr/dscf	0.32 lb/hr	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 10-A-388-S1
HD070-P	HD070-U	40% ⁽¹⁾	0.039 lb/hr	0.13 lb/hr 0.1 gr/dscf	0.32 lb/hr	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 10-A-389-S1
HD071-P	HD071-U	40% ⁽²⁾	3.30 lb/hr	25.2 lb/hr	None	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 10-A-390-S2

⁽¹⁾ An exceedance of the indicator opacity of "no visible emissions (No VE)" 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⁾ 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).

Operational Limits & Requirements

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

Operating Limits

HD053-P, HD054-P, HD055-P, HD056-P, HD069-P, HD070-P:

Operating limits for this emission unit shall be:

- A. There shall not be more than four (4) transfer blowers for filling the storage silos.
- B. The control equipment shall be maintained per manufacturer's recommendations

HD062-P, HD063-P, HD064-P, HD065-P, HD066-P, HD071-P:

Operating limits for this emission unit shall be:

- A. No more than two (2) storage silos shall be used for emission units HD062-U through HD066-U and HD071-U at one time. These total transfer time of these emission units shall not exceed 8,727 hours per twelve (12) month rolling period.
- B. The control equipment shall be maintained per manufacturer's recommendations.

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 shall be legible and maintained in an orderly manner.

HD053-P, HD054-P, HD055-P, HD056-P, HD065-P, HD066-P, HD069-P, HD070-P:

- A. The owner or operator shall keep a record of the number of transfer blowers that fill the storage bins.
- B. The owner or operator shall keep records of all maintenance conducted on the control equipment.

HD062-P, HD063-P, HD064-P, HD065-P, HD066-P, HD071-P:

- A. The owner or operator shall keep a record of the number of transfer blowers that fill the storage bins.
- B. The owner or operator shall record on a monthly basis the total transfer time for emission units HD062-U through HD066-U and HD071-U. In addition, the owner or operator shall calculate and record the rolling twelve (12) month totals.
- C. The owner or operator shall keep records of all maintenance conducted on the control equipment.

Authority for Requirement: DNR Construction Permit 10-A-379-S1, 10-A-380-S1, 10-A-381-S1, 10-A-382-S1, 10-A-383-S2, 10-A-384-S2, 10-A-385-S2, 10-A-386-S2, 10-A-387-S2, 10-A-388-S1, 78-A-074, 10-A-389-S1, 10-A-390-S2

Emission Point Characteristics

These emission points shall conform to the specifications listed below.

	Stack Height, (ft, from the ground)	Stack Opening (in)	Exhaust Flow Rate (scfm)	Exhaust Temperature (°F)	Discharge Style	Authority for Requirement, DNR Construction Permit
HD053-P	44	10×14	1,500	100	Horizontal	10-A-379-S1
HD054-P	44	10×14	1,500	100	Horizontal	10-A-380-S1
HD055-P	44	10×14	1,500	100	Horizontal	10-A-381-S1
HD056-P	44	10×14	1,500	100	Horizontal	10-A-382-S1
HD062-P	44	10×14	1,500	100	Horizontal	10-A-383-S2
HD063-P	44	8 (dia.)	1,500	100	Horizontal	10-A-384-S2
HD064-P	44	8 (dia.)	1,500	100	Horizontal	10-A-385-S2
HD065-P	44	8 (dia.)	1,500	100	Horizontal	10-A-386-S2
HD066-P	44	8 (dia.)	1,500	100	Horizontal	10-A-387-S2
HD069-P	44	10×14	1,500	100	Horizontal	10-A-388-S1
HD070-P	44	10×14	1,500	100	Horizontal	10-A-389-S1
HD071-P	44	8 (dia.)	1,500	100	Horizontal	10-A-390-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 any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department 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

Facility O&M plans are required for baghouses HD053CE1, HD054CE1, HD055CE1, HD056CE1, HD069CE1, HD070CE1, and cyclones HD052CE1, HD057CE1, HD058CE1, HD059CE1, HD060CE1, HD061CE1, HD062CE1, HD063CE1, HD064CE1, HD065CE1, HD066CE1, HD067CE1, HD068CE1, HD070CE1, HD071CE1,

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 shall 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: HD072-P and HD073-P (Storage/Feed Bins)

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	EU Description	Raw Material	Rated Capacity	Control Equipment	DNR Construction Permit
HD072-P	HD072-U	F-0404A Plexar Storage/Feed Bin	Polyethylene Powder	500 lb/hr	HD072CE1 Cyclone	80-A-075
HD073-P	HD073-U	F-0404B Plexar Storage/Feed Bin	Polyethylene Powder	500 lb/hr	HD073CE1 Cyclone	80-A-076

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: 567 IAC 23.3(2) "d"

Pollutant: Particulate Matter (PM)

Emission Limit(s): 1.62 lb/hr⁽¹⁾

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

⁽¹⁾ PM emission limit of 1.62 lb/hr was based on the process weights for these units using the formulas in 567 IAC 23.3(2) "a"(2).

Operational Limits & Requirements

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

Operational limits are not required 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: HD074-P

Associated Equipment

Emission Unit vented through this Emission Point: HD074-U
Emission Unit Description: F-0404C Plexar Rundown Bin
Raw Material/Fuel: Polyethylene Pellets
Rated Capacity: 500 lb/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 (PM)

Emission Limit(s): 1.62 lb/hr ⁽¹⁾

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

⁽¹⁾ PM emission limit of 1.62 lb/hr was based on the process weights for these units using the formulas in 567 IAC 23.3(2) "a" (2).

Operational Limits & Requirements

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

Operational limits are not required 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: HD075-P through HD091-P (Pellet Blenders)

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	EU Description	Raw Material	Rated Capacity lb/hr	DNR Construction Permit
HD075-P	HD075-U	F-0444A Pellet Blender	Polyethylene Pellets	70,000	None
HD076-P	HD076-U	F-0444B Pellet Blender	Polyethylene Pellets	70,000	None
HD077-P	HD077-U	F-0444C Pellet Blender	Polyethylene Pellets	70,000	89-A-068-S2
HD078-P	HD078-U	F-0444D Pellet Blender	Polyethylene Pellets	70,000	07-A-1191-S2
HD079-P	HD079-U	F-0444E Pellet Blender	Polyethylene Pellets	192,000	07-A-1192-S1
HD080-P	HD080-U	F-0444F Pellet Blender	Polyethylene Pellets	192,000	07-A-1193-S2
HD081-P	HD081-U	F-0441A Pellet Blender	Polyethylene Pellets	70,000	None
HD082-P	HD082-U	F-0441B Pellet Blender	Polyethylene Pellets	70,000	None
HD083-P	HD083-U	F-0445 Pellet Blender	Polyethylene Pellets	70,000	None
HD084-P	HD084-U	F-0437A Pellet Blender	Polyethylene Pellets	70,000	89-A-067-S3
HD085-P	HD085-U	F-0437B Pellet Blender	Polyethylene Pellets	70,000	07-A-1183-S2
HD086-P	HD086-U	F-0437C Pellet Blender	Polyethylene Pellets	70,000	07-A-1184-S2
HD087-P	HD087-U	F-0437D Pellet Blender	Polyethylene Pellets	70,000	07-A-1185-S2
HD088-P	HD088-U	F-0437E Pellet Blender	Polyethylene Pellets	70,000	07-A-1186-S2
HD089-P	HD089-U	F-0437F Pellet Blender	Polyethylene Pellets	70,000	07-A-1187-S2
HD090-P	HD090-U	F-0437G Pellet Blender	Polyethylene Pellets	70,000	07-A-1188-S2
HD091-P	HD091-U	F-0437H Pellet Blender	Polyethylene Pellets	70,000	07-A-1189-S2

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.

EP	EU	Opacity	PM10	PM	VOC	Authority of Requirement
HD075-P	HD075-U	40%	NA	11.23 lb/hr ⁽³⁾	NA	567 IAC 23.3 (2) "d" 567 IAC 23.3(2)"a"(2)
HD076-P	HD076-U	40%	NA	11.23 lb/hr ⁽³⁾	NA	567 IAC 23.3 (2) "d" 567 IAC 23.3(2)"a"(2)
HD077-P	HD077-U	40% ⁽¹⁾	0.06 lb/hr	2.19 lb/hr	NA	567 IAC 23.3 (2) "d" 567 IAC 23.3 (2) "a"(2) DNR Construction Permit 89-A-068-S3
HD078-P	HD078-U	40% ⁽¹⁾	0.06 lb/hr	2.19 lb/hr	NA	567 IAC 23.3 (2) "d" 567 IAC 23.3 (2) "a"(2) DNR Construction Permit 07-A-1191-S2
HD079-P	HD079-U	40% ⁽¹⁾	0.06 lb/hr	2.19 lb/hr	NA	567 IAC 23.3 (2) "d" 567 IAC 23.3 (2) "a"(2) DNR Construction Permit 07-A-1192-S2
HD080-P	HD080-U	40% ⁽¹⁾	0.06 lb/hr	2.19 lb/hr	NA	567 IAC 23.3 (2) "d" 567 IAC 23.3 (2) "a"(2) DNR Construction Permit 07-A-1193-S2

EP	EU	Opacity	PM10	PM	VOC	Authority of Requirement
HD081-P	HD081-U	40%	NA	11.23 lb/hr ⁽³⁾	NA	567 IAC 23.3 (2) "d" 567 IAC 23.3(2)"a"(2)
HD082-P	HD082-U	40%	NA	11.23 lb/hr ⁽³⁾	NA	567 IAC 23.3 (2) "d" 567 IAC 23.3(2)"a"(2)
HD083-P	HD083-U	40%	NA	11.23 lb/hr ⁽³⁾	NA	567 IAC 23.3 (2) "d" 567 IAC 23.3(2)"a"(2)
HD084-P	HD084-U	40% ⁽²⁾	0.080 lb/hr	2.71 lb/hr	1.3x10 ⁻⁶ lb/lb	567 IAC 23.3 (2) "d" 567 IAC 23.3 (2) "a"(2) DNR Construction Permit 89-A-067-S3
HD085-P	HD085-U	40% ⁽²⁾	0.080 lb/hr	2.71 lb/hr	1.3x10 ⁻⁶ lb/lb	567 IAC 23.3 (2) "d" 567 IAC 23.3 (2) "a"(2) DNR Construction Permit 07-A-1183-S2
HD086-P	HD086-U	40% ⁽²⁾	0.080 lb/hr	2.71 lb/hr	1.3x10 ⁻⁶ lb/lb	567 IAC 23.3 (2) "d" 567 IAC 23.3 (2) "a"(2) DNR Construction Permit 07-A-1184-S2
HD087-P	HD087-U	40% ⁽²⁾	0.080 lb/hr	2.71 lb/hr	1.3x10 ⁻⁶ lb/lb	567 IAC 23.3 (2) "d" 567 IAC 23.3 (2) "a"(2) DNR Construction Permit 07-A-1185-S2
HD088-P	HD088-U	40% ⁽²⁾	0.080 lb/hr	2.71 lb/hr	1.3x10 ⁻⁶ lb/lb	567 IAC 23.3 (2) "d" 567 IAC 23.3 (2) "a"(2) DNR Construction Permit 07-A-1186-S2
HD089-P	HD089-U	40% ⁽²⁾	0.080 lb/hr	2.71 lb/hr	1.3x10 ⁻⁶ lb/lb	567 IAC 23.3 (2) "d" 567 IAC 23.3 (2) "a"(2) DNR Construction Permit 07-A-1187-S2
HD090-P	HD090-U	40% ⁽²⁾	0.080 lb/hr	2.71 lb/hr	1.3x10 ⁻⁶ lb/lb	567 IAC 23.3 (2) "d" 567 IAC 23.3 (2) "a"(2) DNR Construction Permit 07-A-1188-S2
HD091-P	HD091-U	40% ⁽²⁾	0.080 lb/hr	2.71 lb/hr	1.3x10 ⁻⁶ lb/lb	567 IAC 23.3 (2) "d" 567 IAC 23.3 (2) "a"(2) DNR Construction Permit 07-A-1189-S2

⁽¹⁾ 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).

⁽²⁾ 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).

⁽³⁾ PM emission limit of 11.23 lb/hr was based on the process weights for these units using the formulas in 567 IAC 23.3(2) "a" (2).

Operational Limits & Requirements

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

Operating Limits

HD075-P, HD076-P, HD081-P, HD082-P, and HD083-P:

Operating limits are not required at this time.

HD084-P through HD091-P:

- A. The maximum amount of High Density Polyethylene (HDPE) produced on this line shall not exceed 31,500 pounds per hour (lb/hr). For purposes of determining the production rate of this line, the facility shall track production through the J-line Spin Dryer (EP HD122-P).

Authority for Requirement: DNR Construction Permits 89-A-067-S3, 07-A-1183-S2, 07-A-1184-S2, 07-A-1185-S2, 07-A-1186-S2, 07-A-1187-S2, 07-A-1188-S2, 07-A-1189-S2

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 shall be legible and maintained in an orderly manner.

HD075-P, HD076-P, HD081-P, HD082-P, and HD083-P:

Operating limits are not required at this time.

HD077-P, HD078-P, HD079-P, and HD080-P:

- A. The facility shall follow the applicable standards of NSPS Subpart DDD, 40 CFR 60.560 through 60.566.

Authority for Requirement: DNR Construction Permits 89-A-068-S3, 07-A-1191-S2, 07-A-1192-S2, 07-A-1193-S2
567 IAC 23.1(2)"mmm"

HD084-P through HD091-P:

- A. The date and the amount of HDPE produced on this line on an hourly basis for the day. For purposes of determining the hourly production rate, the facility (plant number 23-01-004) may record:
- The date,
 - The amount of material produced during the day,
 - The hours of operation for the process line, and
 - Divide the production for the day by the hours of operation for the day.

Authority for Requirement: DNR Construction Permit 89-A-067-S3, 07-A-1183-S2, 07-A-1184-S2, 07-A-1185-S2, 07-A-1186-S2, 07-A-1187-S2, 07-A-1188-S2, 07-A-1189-S2

Emission Point Characteristics

These emission points shall conform to the specifications listed below.

	Stack Height, (ft, from the ground)	Stack Opening (inches)	Exhaust Flow Rate (scfm)	Exhaust Temperature (°F)	Discharge Style	Authority for Requirement, INDR Construction Permit
HD077-P	76	16x15	1,500	100	Horizontal	89-A-068-S2
HD078-P	76	16x15	1,500	100	Horizontal	07-A-1191-S1
HD079-P	76	16x15	1,500	100	Horizontal	07-A-1192-S1
HD080-P	76	16x15	1,500	100	Horizontal	07-A-1193-S2
HD084-P	76	10 (dia)	1,500	100	Downward	89-A-067-S3
HD085-P	76	10 (dia)	1,500	100	Downward	07-A-1183-S2
HD086-P	76	10 (dia)	1,500	100	Downward	07-A-1184-S2
HD087-P	76	10 (dia)	1,500	100	Downward	07-A-1185-S2
HD088-P	76	10 (dia)	1,500	100	Downward	07-A-1186-S2
HD089-P	76	10 (dia)	1,500	100	Downward	07-A-1187-S2
HD090-P	76	10 (dia)	1,500	100	Downward	07-A-1188-S2
HD091-P	76	10 (dia)	1,500	100	Downward	07-A-1189-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 any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department 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: HD092-P through HD103-P (Pellet Storage Bins and Silo)

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	EU Description	Raw Material	Rated Capacity lb/hr	DNR Construction Permit
HD092-P	HD092-U	F-0443A Pellet Storage Bin	Polyethylene Pellet	60,000	None
HD093-P	HD093-U	F-0443B Pellet Storage Bin	Polyethylene Pellet	60,000	None
HD094-P	HD094-U	F-0443C Pellet Storage Bin	Polyethylene Pellet	60,000	None
HD095-P	HD095-U	F-0443D Pellet Storage Bin	Polyethylene Pellet	60,000	None
HD096-P	HD096-U	F-0443E Pellet Storage Bin	Polyethylene Pellet	60,000	None
HD097-P	HD097-U	F-0443F Pellet Storage Bin	Polyethylene Pellet	60,000	None
HD098-P	HD098-U	F-0443G Pellet Storage Bin	Polyethylene Pellet	60,000	None
HD099-P	HD099-U	F-0443H Pellet Storage Bin	Polyethylene Pellet	60,000	None
HD100-P	HD100-U	F-0443J Pellet Storage Bin	Polyethylene Pellet	60,000	None
HD101-P	HD101-U	F-0443K Pellet Storage Bin	Polyethylene Pellet	60,000	None
HD102-P	HD102-U	F-0443L Pellet Storage Bin	Polyethylene Pellet	60,000	None
HD103-P	HD103-U	F-0443M Pellet Blending Silo	Polyethylene Pellet	60,000	None

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: 567 IAC 23.3(2) "d"

Pollutant: Particulate Matter (PM)

Emission Limit(s): 40.04 lb/hr⁽¹⁾

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

⁽¹⁾ PM emission limit of 40.04lb/hr was based on the process weights for these units using the formulas in 567 IAC 23.3(2) "a" (2).

Operational Limits & Requirements

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

Operational limits are not required 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: HD104-P through HD107-P (Divert Quad Bin)

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	Emission Unit Description	Raw Material	Rated Capacity lb/hr	DNR Construction Permit
HD104-P	HD104-U	F-0447A Divert Quad Bin	Polyethylene Pellet	31,500	None
HD105-P	HD105-U	F-0447B Divert Quad Bin	Polyethylene Pellet	31,500	None
HD106-P	HD106-U	F-0447C Divert Quad Bin	Polyethylene Pellet	31,500	None
HD107-P	HD107-U	F-0447D Divert Quad Bin	Polyethylene Pellet	31,500	None

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: 567 IAC 23.3(2) "d"

Pollutant: Particulate Matter (PM)

Emission Limit(s): 17.87 lb/hr ⁽¹⁾

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

⁽¹⁾ PM emission limit of 17.87lb/hr was based on the process weights for these units using the formulas in 567 IAC 23.3(2) "a" (2).

Operational Limits & Requirements

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

Operational limits are not required 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: HD108-P

Associated Equipment

Emission Unit vented through this Emission Point: HD108-U
Emission Unit Description: High Density Polyethylene Fugitive
Raw Material/Fuel: Isobutane
Rated Capacity: 8760 hr/yr

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.

Emission limits are not required at this time.

Operational Limits & Requirements

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

Operational limits are not required at this time.

NSPS and NESHAP Applicability

This emission point is subject to 40 CFR 63 Subpart FFFF – National Emission Standards for Hazardous Air Pollutants for Miscellaneous Organic Chemical Manufacturing
Authority for Requirement: 567 IAC 23.1(3)"cf"
40 CFR 63 Subpart FFFF

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: HD109-P through HD116-P (Divert Quad Bins)

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	Emission Unit Description	Raw Material	Rated Capacity lb/hr	DNR Construction Permit
HD109-P	HD109-U	F-0438A Divert Quad Bin	Polyethylene Pellets	31,500	None
HD110-P	HD110-U	F-0438B Divert Quad Bin	Polyethylene Pellets	31,500	None
HD111-P	HD111-U	F-0438C Divert Quad Bin	Polyethylene Pellets	31,500	None
HD112-P	HD112-U	F-0438D Divert Quad Bin	Polyethylene Pellets	31,500	None
HD113-P	HD113-U	F-0442A Divert Quad Bin	Polyethylene Pellets	31,500	None
HD114-P	HD114-U	F-0442B Divert Quad Bin	Polyethylene Pellets	31,500	None
HD115-P	HD115-U	F-0442C Divert Quad Bin	Polyethylene Pellets	31,500	None
HD116-P	HD116-U	F-0442D Divert Quad Bin	Polyethylene Pellets	31,500	None

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.

EP	EU	Opacity	PM	Authority of Requirement
HD109-P	HD109-U	40%	38.68 lb/hr ⁽¹⁾	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a"(2)
HD110-P	HD110-U	40%	38.68 lb/hr ⁽¹⁾	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a"(2)
HD111-P	HD111-U	40%	38.68 lb/hr ⁽¹⁾	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a"(2)
HD112-P	HD112-U	40%	38.68 lb/hr ⁽¹⁾	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a"(2)
HD113-P	HD113-U	40%	17.87 lb/hr ⁽¹⁾	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a"(2)
HD114-P	HD114-U	40%	17.87 lb/hr ⁽¹⁾	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a"(2)
HD115-P	HD115-U	40%	17.87 lb/hr ⁽¹⁾	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a"(2)
HD116-P	HD116-U	40%	17.87 lb/hr ⁽¹⁾	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a"(2)

⁽¹⁾ PM emission limits of 38.68 lb/hr and 17.87 lb/hr were based on the process weights for these units using the formulas in 567 IAC 23.3(2) "a" (2).

Operational Limits & Requirements

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

Operational limits are not required 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: HD118-P

Associated Equipment

Emission Unit vented through this Emission Point: HD118-U
Emission Unit Description: F-0425 Plexar Maleic Anhydride Tank
Raw Material/Fuel: Unreacted Monomer
Rated Capacity: 7043 lb/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.

Emission limits are not required at this time.

Operational Limits & Requirements

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

Operational limits are not required at this time.

NSPS and NESHAP Applicability

This emission point is subject to 40 CFR 63 Subpart FFFF – National Emission Standards for Hazardous Air Pollutants for Miscellaneous Organic Chemical Manufacturing
Authority for Requirement: 567 IAC 23.1(3)"cf"
40 CFR 63 Subpart FFFF

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: HD119-P through HD125-P (Dryers)

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	EU Description	Raw Material	Rated Capacity lb/hr	DNR Construction Permit
HD119-P	HD119-U	L-0428A A-line Pellet Dryer	Polyethylene Pellets	9,000	None
HD120-P	HD120-U	L-0428B B-line Pellet Dryer	Polyethylene Pellets	9,000	None
HD121-P	HD121-U	L-1409 F-line Spin Dryer	Polyethylene Pellets	30,000	89-A-066-S3
HD122-P	HD122-U	L-0413 J-line Spin Dryer	Polyethylene Pellets	31,500	89-A-069-S3
HD123-P	HD123-U	L-0406A Plexar Graft Dryer	Polyethylene Pellets	500	None
HD124-P	HD124-U	L-0477 D-line Pellet Dryer	Polyethylene Pellets	7,000	None
HD125-P	HD125-U	L-0487 E-line Pellet Dryer	Polyethylene Pellets	7,000	None

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.

EP	EU	Opacity	PM10	PM	VOC	Authority of Requirement
HD119-P	HD119-U	40%	NA	11.23 lb/hr ⁽²⁾	NA	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a"
HD120-P	HD120-U	40%	NA	11.23 lb/hr ⁽²⁾	NA	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a"
HD121-P	HD121-U	40% ⁽¹⁾	0.64lb/hr	2.19 lb/hr 0.1 gr/dscf	NA	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 89-A-066-S3
HD122-P	HD122-U	40% ⁽¹⁾	0.64 lb/hr	2.19 lb/hr	1.551x10 ⁻⁵ lb/lb	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a"(2) DNR Construction Permit 89-A-069-S3
HD123-P	HD123-U	40%	NA	1.62 lb/hr ⁽²⁾	NA	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a"
HD124-P	HD124-U	40%	NA	9.49 lb/hr ⁽²⁾	NA	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a"
HD125-P	HD125-U	40%	NA	9.49 lb/hr ⁽²⁾	NA	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a"

⁽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).

⁽²⁾ PM emission limits of 11.23 lb/hr, 1.62 lb/hr, and 17.87 lb/hr were based on the process weights for these units using the formulas in 567 IAC 23.3(2) "a" (2).

Operational Limits & Requirements

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

Operating Limits

HD119-P, HD120-P, HD123-P, HD124-P, and HD125-P:

Operating limits are not required at this time.

HD122-P:

- A. The maximum amount of High Density Polyethylene (HDPE) produced on this line shall not exceed 31,500 pounds per hour (lb/hr). For purposes of determining the production rate of this line, the facility shall track production through the J-line Spin Dryer (EP HD122-P).

Authority for Requirement: DNR Construction Permit 89-A-069-S3

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 shall be legible and maintained in an orderly manner.

HD119-P, HD120-P, HD123-P, HD124-P, and HD125-P:

Report and recordkeeping are not required at this time.

HD121-P:

- B. The facility shall follow the applicable standards of NSPS Subpart DDD, 40 CFR 60.560 through 60.566.

Authority for Requirement: DNR Construction Permit 89-A-066-S3
567 IAC 23.1(2)"mmm"

HD122-P:

- A. The date and the amount of HDPE produced on this line on an hourly basis for the day. For purposes of determining the hourly production rate, the facility (plant number 23-01-004) may record:
- The date,
 - The amount of material produced during the day,
 - The hours of operation for the process line, and
 - Divide the production for the day by the hours of operation for the day.

Authority for Requirement: DNR Construction Permit 89-A-069-S3

Emission Point Characteristics

These emission points shall conform to the specifications listed below.

	HD121-P	HD122-P
Stack Height, (ft, from the ground)	50	40
Stack Opening (diameter, inches)	12	20
Exhaust Flow Rate (scfm)	2,050	1,200
Exhaust Temperature (°F)	160	140
Discharge Style	Horizontal	Vertical Unobstructed
Authority for Requirement:	DNR Construction Permit 89-A-066-S3	DNR Construction Permit 89-A-069-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 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: HD126-P through HD129-P (Feed Bins)

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	Emission Unit Description	Raw Material	Rated Capacity lb/hr	DNR Construction Permit
HD126-P	HD126-U	F-0455 E-Line Feed Bin	Polyethylene Pellets	7,000	None
HD127-P	HD127-U	F-0456 E-Line Feed Bin	Polyethylene Pellets	7,000	None
HD128-P	HD128-U	F-0464 D-Line Feed Bin	Polyethylene Pellets	7,000	None
HD129-P	HD129-U	F-0465 D-Line Feed Bin	Polyethylene Pellets	7,000	None

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: 567 IAC 23.3(2) "d"

Pollutant: Particulate Matter (PM)

Emission Limit(s): 9.49 lb/hr⁽¹⁾

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

⁽¹⁾ PM emission limit of 9.49lb/hr was based on the process weights for these units using the formulas in 567 IAC 23.3(2) "a" (2).

Operational Limits & Requirements

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

Operational limits are not required 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: HD130-P and HD132-P (Additive Bins)

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	EU Description	Raw Material	Rated Capacity of Finishing Line lb/hr	CE	DNR Construction Permit
HD130A-P	HD130-U	F-0498 E-Line Feed Bin	Polyethylene Pellets, Additives	7,000	HD130CE1 Cyclone	03-A-1016
HD130B-P			Polyethylene Pellets, Additives		None	03-A-1017
HD132A-P	HD132-U	F-0497 D-Line Feed Bin	Polyethylene Pellets, Additives	7,000	HD132CE1 Cyclone	03-A-1018
HD132B-P			Polyethylene Pellets, Additives		None	03-A-1019

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.

EP	EU	Opacity	PM10	PM	Authority of Requirement
HD130A-P	HD130-U	40%	0.1 lb/hr	1.2 lb/hr	567 IAC 23.3(2)"d" 567 IAC 23.3(2)"a" DNR Construction Permit 03-A-1016
HD130B-P		40%	0.1 lb/hr	1.2 lb/hr	567 IAC 23.3(2)"d" 567 IAC 23.3(2)"a" DNR Construction Permit 03-A-1017
HD132A-P	HD132-U	40%	0.1 lb/hr	1.2 lb/hr	567 IAC 23.3(2)"d" 567 IAC 23.3(2)"a" DNR Construction Permit 03-A-1018
HD132B-P		40%	0.1 lb/hr	1.2 lb/hr	567 IAC 23.3(2)"d" 567 IAC 23.3(2)"a" DNR Construction Permit 03-A-1019

Operational Limits & Requirements

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

Operational limits are not required at this time.

Emission Point Characteristics

These emission points shall conform to the specifications listed below.

	Stack Height (ft, from the ground)	Stack Opening (inch)	Exhaust Flow Rate (scfm)	Exhaust Temperature (°F)	Discharge Style	Authority for Requirement DNR Construction Permit
HD130A-P	100	6 (dia.)	360	115	Vertical Obstructed	03-A-1016
HD130B-P	100	16×16	360	115	Downward	03-A-1017
HD132A-P	100	6 (dia.)	360	115	Vertical Obstructed	03-A-1018
HD132B-P	100	16×16	360	115	Downward	03-A-1019

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 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

Required for HD130CE1 & HD132CE1

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 shall 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: HD134-P

Associated Equipment

Emission Unit vented through this Emission Point: HD134-U
Emission Unit Description: L-4001 Plexar Extruder
Raw Material/Fuel: Polyethylene Slurry
Rated Capacity: 500 lb/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 (PM)
Emission Limit(s): 1.62 lb/hr⁽¹⁾
Authority for Requirement: 567C 23.3(2) "a"

⁽¹⁾ PM emission limit of 1.62 lb/hr was based on the process weights for these units using the formulas in 567 IAC 23.3(2) "a" (2).

Operational Limits & Requirements

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

Operational limits are not required 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: HD135-P (Quality Control Bin)

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	Emission Unit Description	Raw Material	Rated Capacity	DNR Construction Permit
HD135-P	HD135A-U	F-0410A Quality Control Bin	Polyethylene Pellets	500 lb/hr	03-A-1020
	HD135B-U	F-0410B Quality Control Bin	Polyethylene Pellets	500 lb/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% ⁽¹⁾

Authority for Requirement: DNR Construction Permit 03-A-1020
567 IAC 23.3(2) "d"

⁽¹⁾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: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 03-A-1020
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.

Operational limits are not required at this time.

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

- Stack Height, (ft, from the ground): 22
- Stack Opening, (inches, dia.): 2
- Exhaust Flow Rate (scfm): 330
- Exhaust Temperature (°F): 120
- Discharge Style: Horizontal
- Authority for Requirement: DNR Construction Permit 03-A-1020

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 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: HD136-P

Associated Equipment

Emission Unit vented through this Emission Point: HD136-U
Emission Unit Description: F-0408 Plexar Weigh Hopper
Emissions Control Equipment ID Number: HD136CE1
Emissions Control Equipment Description: Cyclone
Raw Material/Fuel: Polyethylene Powder
Rated Capacity: 500 lb/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 (PM)

Emission Limit(s): 1.62 lb/hr ⁽¹⁾

Authority for Requirement: Iowa DNR Construction Permit 80-A-077
567 IAC 23.3(2) "a"

⁽¹⁾PM emission limit of 1.62 lb/hr was based on the process weights for these units using the formulas in 567 IAC 23.3(2) "a" (2).

Operational Limits & Requirements

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

Operational limits are not required 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 shall 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: HD141-P, HD142-P, and HD143-P

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	EU Description	Raw Material	Rated Capacity	Control Equipment	DNR Construction Permit
HD141-P	HD141-U	DB-0910 Gas 2 (D-0910) Activator Jacket Heater	Nonsulfured Natural Gas	5 MMBtu/hr	None	99-A-422
HD142-P		F-0926 Gas 2 Activator	Catalyst	15,000 dscf/hr	HD142CE1, Internal Filter	90-A-406-S4
HD143-P		L-0931 Gas 2 Activator	Catalyst	15,000 dscf/hr	HD143CE1, Coalescing Filter	01-A-585

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.

EP	Opacity	PM	SO ₂	VOC	Total HAP	Authority of Requirement
HD141-P	40% ⁽¹⁾	0.8 lb/MMBtu	500 ppmv	NA	NA	567 IAC 23.3 (2) "d" 567 IAC 23.3(2) "b" (1) 567 IAC 23.3 (3) "e" DNR Construction Permit 99-A-422
HD142-P	40% ⁽²⁾	0.1 gr/dscf	NA	39.3 lb/hr ⁽³⁾	9.4 lb/hr ⁽³⁾	567 IAC 23.3 (2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 90-A-406-S4
HD143-P	40% ⁽²⁾	0.1 gr/dscf	NA			567 IAC 23.3 (2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 01-A-585

⁽¹⁾ If an opacity of 25% or greater is observed other than at startup, shutdown or malfunction, a stack test may be required to demonstrate compliance with the particulate standard.

⁽²⁾ 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).

⁽³⁾ Total over units that exhaust through stacks permitted as 90-A-406-S4 (HD142-P) and 01-A-585 (HD143-P).

Operational Limits & Requirements

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

Operating Limits

HD141-P:

- A. The source shall be limited to combusting natural gas only.

Authority for Requirement: DNR Construction Permit 99-A-422

HD142-P:

- A. The owner or operator shall report the final total cost (including labor) of the project to the DNR within 60 days of completing the project.
- B. Catalysts processed shall have a maximum HAP content of 0.11 lb HAP/lb catalyst, and a maximum VOC content of 0.46 lb VOC/lb catalyst.
- C. The source that vents through the stacks permitted as 90-A-406-S4 and 01-A-585 shall use no more than 171,000 lb catalyst per twelve-month rolling period.
- D. HD142-P (90-A-406-S4) shall not be used for venting emissions when activating "wire and cable" catalysts.

Authority for Requirement: DNR Construction Permit 90-A-406-S4

HD143-P:

- A. Catalysts processed shall have a maximum HAP content of 0.11 lb HAP/lb catalyst, and a maximum VOC content of 0.46 lb VOC/lb catalyst.
- B. The source that vents through the stacks permitted as 90-A-406-S4 and 01-A-585 shall use no more than 171,000 lb catalyst per twelve-month rolling period.
- C. Emissions from this source shall be vented through HD143-P (01-A-585) when activating any "wire and cable" catalysts.

Authority for Requirement: DNR Construction Permit 01-A-585

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 shall be legible and maintained in an orderly manner.

HD141-P:

Reporting and recordkeeping are not required at this time.

HD142-P and HD143-P:

- A. The owner or operator shall keep a record of the amount of catalyst processed, and update the twelve-month rolling total on a monthly basis.
- B. The owner or operator shall keep records of the type of catalysts used in the activator, which shall include information on the lbs VOC/lbs catalyst and the lbs HAP/lbs catalyst, along with information as to whether it is a "wire and cable" catalyst or not.
- C. For each batch of catalyst activated, the owner or operator shall record the type of catalyst and the emission point it is vented through.

Authority for Requirement: DNR Construction Permit 90-A-406-S4; 01-A-585

NSPS and NESHAP Applicability

HD141-U is subject to 40 CFR 63 Subpart DDDDD- National Emission Standards for Industrial, Commercial and Institutional Boilers and Process Heaters

Authority for Requirement: 567 IAC 23.1(3)"dd"
40 CFR 63 Subpart DDDDD

Emission Point Characteristics

These emission points shall conform to the specifications listed below.

	Stack Height (ft, from the ground)	Stack Opening (dia. inch)	Exhaust Flow Rate (scfm)	Exhaust Temperature (°F)	Discharge Style	Authority for Requirement DNR Construction Permit
HD141-P	61.8	34.375	2,300	1,202	Horizontal	99-A-422
HD142-P	30	3	250	100	Obstructed Vertical	90-A-406-S4
HD143-P	29	4	250	100	Obstructed Vertical	01-A-585

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 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
Required for HD142CE1 and HD143CE1

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 shall 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: HD149-P through HD165-P (Fugitive)

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	EU Description	Raw Material	Rated Capacity Equip-Leak-hr/hr	DNR Construction Permit
HD149-P	HD149-U	Fugitive Emission: L-301 PF-1 Dryer	Polyethylene Powder	2	None
HD150-P	HD150-U	Fugitive Emission: L-602 PF-2 Dryer	Polyethylene Powder	2	None
HD151-P	HD151-U	Fugitive Emission: L-601 PF-3 Dryer	Polyethylene Powder	2	None
HD152-P	HD152-U	Fugitive Emission: L-0917 PF-4 Dryer	Polyethylene Powder	2	None
HD153-P	HD153-U	Fugitive Emission: F-0303 PF-1 Slide Valves (2)	Polyethylene Powder	2	None
HD154-P	HD154-U	Fugitive Emission: F-602 PF-2 Slide Valves (2)	Polyethylene Powder	2	None
HD155-P	HD155-U	Fugitive Emission: F-0601 PF-3 Slide Valves (2)	Polyethylene Powder	2	None
HD156-P	HD156-U	Fugitive Emission: F-0909 PF-4 Slide Valves (2)	Polyethylene Powder	2	None
HD157-P	HD157-U	Fugitive Emission: L-0918 PF-4 Slide Valve	Polyethylene Powder	1	None
HD158-P	HD158-U	Fugitive Emission: J-0330 PF-1 Purge Conveyor Blower	Polyethylene Powder	1	None
HD159-P	HD159-U	Fugitive Emission: J-0628B PF-2 Purge Conveyor Blower	Polyethylene Powder	1	None
HD160-P	HD160-U	Fugitive Emission: J-0628A PF-3 Purge Conveyor Blower	Polyethylene Powder	1	None
HD161-P	HD161-U	Fugitive Emission: J-0906 PF-4 Purge Conveyor Blower	Polyethylene Powder	1	None
HD162-P	HD162-U	Fugitive Emission: KV33107AB PF-1 Dryer V-ball valves	Polyethylene Powder	2	None
HD163-P	HD163-U	Fugitive Emission: KV36107AB PF-2 Dryer V-ball valves	Polyethylene Powder	2	None
HD164-P	HD164-U	Fugitive Emission: KV37107AB PF-3 Dryer V-ball valves	Polyethylene Powder	2	None
HD165-P	HD165-U	Fugitive Emission: KV39226AB PF-4 Dryer V-ball valves	Polyethylene Powder	2	None

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.

Emission limits are not required at this time.

Operational Limits & Requirements

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

Operational limits are not required 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: HD166-P

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	EU Description	Raw Material	Rated Capacity - lb/hr	Control Equipment	DNR Construction Permit
HD166-P	HD166-U	HDPE Vacuum System	Polyethylene Powder	30,000	HD166CE1 Pulse Jet Baghouse	11-A-290-S1

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%⁽¹⁾

Authority for Requirement: DNR Construction Permit 11-A-290-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: PM₁₀

Emission Limit(s): 0.11 lb/hr

Authority for Requirement: DNR Construction Permit 11-A-290-S1

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.11 lb/hr, 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 11-A-290-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.

Operating Limits:

Operating limits for this emission unit shall be:

- A. The owner or operator shall inspect and maintain the control equipment according to manufacturer's specifications.
- B. This unit is limited to a maximum of 2,000 hours per twelve month rolling period of operation.

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 shall be legible and maintained in an orderly manner.

- A. The owner or operator shall keep records of control equipment inspections and maintenance.
- B. The owner or operator shall record the hours of operation of this unit, and update the twelve month rolling total on a monthly basis.

Authority for Requirement: DNR Construction Permit 11-A-290-S1

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 7

Stack Opening, (inches, dia.): 18

Exhaust Flow Rate (scfm): 1,225

Exhaust Temperature (°F): 70

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 11-A-290-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 any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department 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

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 shall 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: HD167-P

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	EU Description	Raw Material	Rated Capacity	DNR Construction Permit
HD167-P	HD167-U	Maleic Anhydride Neutralization Tank	MAH	150 gal/hr	11-A-557

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.

There are no applicable emission limits for this emission point at this time

Operational Limits & Requirements

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

Operating Limits:

Operating limits for this emission unit shall be:

- A. The owner or operator shall follow the applicable limits in Subpart FFFF, 40 CFR 63.2430 through 63.2550.

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 shall be legible and maintained in an orderly manner.

- A. The owner or operator shall follow the applicable notification, recordkeeping and reporting requirements of Subpart FFFF, 40 CFR 63.2515 through 63.2525.

Authority for Requirement: DNR Construction Permit 11-A-557
567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 20

Stack Opening, (inches, dia.): 3

Exhaust Flow Rate (scfm): Natural Draft

Exhaust Temperature (°F): 140

Discharge Style: Horizontal

Authority for Requirement: Iowa DNR Construction Permit 11-A-557

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 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: HD168-P through HD175-P

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	EU Description	Raw Material	Rated Capacity lb/hr	Control Equipment	DNR Construction Permit
HD168-P	HD168-U	J1431-Powder Vacuum blower	Polyethylene Powder	60,000	HD168CE1 Filter Receiver	None
HD169-P	HD169-U	J0408-Powder Vacuum Blower	Polyethylene Powder	60,000	HD169CE1 Filter Receiver	None
HD170-P	HD170-U	J 0418-Powder Vacuum Blower	Polyethylene Powder	60,000	HD170CE1 Filter Receiver	None
HD171-P	HD171-U	J 1401-Powder Vacuum Blower	Polyethylene Powder	60,000	HD171CE1 Filter Receiver	None
HD172-P	HD172-U	J 0409-Powder Vacuum Blower	Polyethylene Powder	60,000	HD172CE1 Filter Receiver	None
HD173-P	HD173-U	J 0406A-Pellet Vacuum Blower	Polyethylene Powder	60,000	HD173CE1 Filter Receiver	None
HD174-P	HD174-U	J 0406B-Pellet Vacuum Blower	Polyethylene Powder	60,000	HD174CE1 Filter Receiver	None
HD175-P	HD175-U	J 0406C-Pellet Vacuum Blower	Polyethylene Powder	60,000	HD175CE1 Filter Receiver	None

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: 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.

Operating limits are not required 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

Required for HD168CE1, HD169CE1, HD170CE1, HD171CE1, HD172CE1, HD173CE1, HD174CE1, HD175CE1

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 shall 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: HD176-P through HD177-P

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	EU Description	Raw Material	Rated Capacity – lb/hr	DNR Construction Permit
HD176-P	HD176-U	Fugitive Emission: F-0314 PF-1,2, 3 Dump Tanks Slide Valve	Polyethylene Powder	Fugitive	None
HD177-P	HD177-U	Fugitive Emission: F-0915 PF-4 Dump Tank Slide Valve	Polyethylene Powder	Fugitive	None

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.

No emission limits are required at this time.

Operational Limits & Requirements

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

Operating limits are not required 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: HD178-P

Associated Equipment

Emission Unit vented through this Emission Point: HD117-U
Emission Unit Description: L-0918 PF-4 Purge Conveyor RV
Raw Material/Fuel: Purge Gases
Rated Capacity: 10 lb/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.

Emission limits are not required at this time.

Operational Limits & Requirements

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

Operational limits are not required 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)

Part C. Low Density Polyethylene Product Lines

Emission Point ID Number: LD005-P through LD008-P (Reactors)

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	EU Description	Raw Material	Rated Capacity	DNR Construction Permit
LD005E-P	LD005-U	D-0201 LD-1 Reactor (Depressure Emissions)	Ethylene	450 lb/depress 5 depress/yr	97-A-807
LD005W-P		D-0201 LD-1 Reactor (Rupture Disc Emissions)	Ethylene	1,337 lb/release 5 release/yr	97-A-808
LD006N-P	LD006-U	D-0702A LD-2A Reactor (North Rupture Disc Emissions)	Ethylene	375.5 lb/release 5 release/yr	None
LD006S-P		D-0702A LD-2A Reactor (South Rupture Disc Emissions)	Ethylene	375.5 lb/release 5 release/yr	None
LD006W-P		D-0702A LD-2A Reactor (Depressure Emissions)	Ethylene	450 lb/depress 5 depress/yr	None
LD007N-P	LD007-U	D-0702B LD-2B Reactor (North Rupture Disc Emissions)	Ethylene	375.5 lb/release 5 release/yr	None
LD007S-P		D-0702B LD-2B Reactor (South Rupture Disc Emissions)	Ethylene	375.5 lb/release 5 release/yr	None
LD007W-P		D-0702B LD-2B Reactor (Depressure Emissions)	Ethylene	450 lb/depress 5 depress/yr	None
LD008E-P	LD008-U	D-0801 LD-3 Reactor (East Rupture Disc Emissions)	Ethylene	807 lb/release 5 release/yr	97-A-647-S2
LD008S-P		D-0801 LD-3 Reactor (Depressure Emissions)	Ethylene	1100 lb/depress 5 depress/yr	97-A-648-S2
LD008W-P		D-0801 LD-3 Reactor (West Rupture Disc Emissions)	Ethylene	807 lb/release 5 release/yr	97-A-649-S2

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.

EP	EU	Opacity	PM10	PM	VOC	Authority for Requirement
LD005E-P	LD005-U	NA	NA	NA	3.77 ton/yr	DNR Construction Permit 97-A-807
LD005W-P		40%	NA	3.20 lb/hr. ⁽³⁾ , 0.03 ton/yr	0.7 ton/yr	567 IAC 23.3(2)"d" 567 IAC 23.3(2)"a"(2) DNR Construction Permit 97-A-808
LD006N-P	LD006-U	40%	NA	1.34 lb/hr. ⁽⁴⁾	NA	567 IAC 23.3(2)"d" 567 IAC 23.3(2)"a"(2)
LD006S-P		40%	NA	1.34 lb/hr. ⁽⁴⁾	NA	567 IAC 23.3(2)"d" 567 IAC 23.3(2)"a"(2)

EP	EU	Opacity	PM10	PM	VOC	Authority for Requirement
LD006W-P		NA	NA	NA	NA	NA
LD007N-P	LD007-U	40%	NA	1.34 lb/hr. ⁽⁴⁾	NA	567 IAC 23.3(2)"d" 567 IAC 23.3(2)"a"(2)
LD007S-P		40%	NA	1.34 lb/hr. ⁽⁴⁾	NA	567 IAC 23.3(2)"d" 567 IAC 23.3(2)"a"(2)
LD007W-P		NA	NA	NA	NA	NA
LD008E-P	LD008-U	40% ⁽¹⁾	2.75 ton/yr. ⁽²⁾	47.5 lb/decomp	106.7 ton/yr. ⁽²⁾ , 2.0 lb/ton of product ⁽⁵⁾	567 IAC 23.3(2) "d" 567 IAC 23.3(2)"a" DNR Construction Permit 97-A-647-S2
LD008S-P		40% ⁽¹⁾		47.5 lb/decomp		567 IAC 23.3(2) "d" 567 IAC 23.3(2)"a" DNR Construction Permit 97-A-648-S2
LD008W-P		40% ⁽¹⁾		47.5 lb/decomp		567 IAC 23.3(2) "d" 567 IAC 23.3(2)"a"(2) DNR Construction Permit 97-A-649-S2

⁽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).

⁽²⁾ Limit for the total emissions from LD-3 Line.

⁽³⁾ Based on process weight of 1,377 lb/hr.

⁽⁴⁾ Based on process weight of 376 lb/hr.

⁽⁵⁾ This limit does not apply to malfunction and emergency release.

Operational Limits & Requirements

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

Operating Limits

LD005E-P through LD007W-P:

Operating limits are not required at this time.

LD008E-P, LD008S-P, and LD008W-P:

A. The amount of LDPE produced in the LD-3 line shall not exceed 197,100,000 pounds per 12-month rolling period.

B. Nitrogen shall be used to purge LD008S-P.

Authority for Requirement: DNR Construction Permits 97-A-647-S2, 97-A-648-S2, & 97-A-649-S2

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 shall be legible and maintained in an orderly manner.

LD005E-P through LD007W-P:

Reporting and recordkeeping are not required at this time.

LD008E-P, LD008S-P, and LD008W-P:

- A. Record the amount of LDPE produced in the LD-3 line, in pounds. Calculate and record monthly and 12-month rolling totals.
- B. Calculate the VOC emissions on a 12-month basis rolled monthly from emission points LD005E-P and LD005W-P to show compliance with the annual VOC limits.
- C. Calculate the PM emission on a 12-month basis rolled monthly from emission point LD005WP to show compliance with the annual PM limit.

Authority for Requirement: DNR Construction Permits 97-A-647-S2, 97-A-648-S2, & 97-A-649-S2
567 IAC 22.108 (4)

Emission Point Characteristics

These emission points shall conform to the specifications listed below.

	Stack Height (ft, from the ground)	Stack Opening (dia. inch)	Exhaust Flow Rate	Exhaust Temperature (°F)	Discharge Style	Authority for Requirement DNR Construction Permit
LD005E-P	70	4	NA	Variable	NA	97-A-807
LD005W-P	75	24	63.6 acfm	-10	NA	97-A-808
LD008E-P	100	30	63.6 scfm	-10	Vertical Unobstructed	97-A-647-S2
LD008S-P	90	16	63.6 scfm	Variable	Vertical Unobstructed	97-A-648-S2
LD008W-P	100	30	64.0 scfm	-10	Vertical Unobstructed	97-A-649-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 any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department 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: LD012-P

Associated Equipment

Emission Unit vented through this Emission Point: LD012-U
Emission Unit Description: F-0739 Tank
Raw Material/Fuel: Mineral Spirits
Rated Capacity: 204 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.

There are no emission limits at this time.

Operational Limits & Requirements

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

Operational limits are not required 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: LD013-P

Associated Equipment

Emission Unit vented through this Emission Point: LD013-U
Emission Unit Description: F-0751 VA Storage Tank
Raw Material/Fuel: Vinyl Acetate
Rated Capacity: 284 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.

Emission limits are not required at this time.

Operational Limits & Requirements

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

Operational limits are not required at this time.

NSPS and NESHAP Applicability

This emission point is subject to NESHAP Part 63 Subpart FFFF – National Emission Standards for Hazardous Air Pollutants for Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: 567 IAC 23.1(4)"cf"
40 CFR 63 Subpart FFFF

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: LD014-P through LD016-P (Spin Dryers)

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	EU Description	Raw Material	Rated Capacity lb/hr	DNR Construction Permit
LD014-P	LD014-U	L-0207A LD-1 "A" Spin Dryer	Polyethylene Pellets	12,500	97-A-809-S2
LD015-P	LD015-U	L-0207B LD-1 "B" Spin Dryer	Polyethylene Pellets	12,500	97-A-810-S2
LD016-P	LD016-U	L-0210 LD-1 "C" Spin Dryer	Polyethylene Pellets	15,000	97-A-811-S3

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.

EP	EU	Opacity	PM10	PM	VOC	Authority of Requirement
LD014-P	LD014-U	40% ⁽¹⁾	0.312 lb/hr 1.37 ton/yr	1.10 lb/hr 5.0 ton/yr 0.1 gr/dscf	0.6 lb/hr 2.63 ton/yr	567 IAC 23.3 (2) "d" 567 IAC 23.3 (2) "a" DNR Construction Permit 97-A-809-S2
LD015-P	LD015-U	40% ⁽¹⁾	0.312 lb/hr 1.37 ton/yr	1.10 lb/hr 5.0 ton/yr 0.1 gr/dscf	0.6 lb/hr 2.63 ton/yr	567 IAC 23.3 (2) "d" 567 IAC 23.3 (2) "a" DNR Construction Permit 97-A-810-S2
LD016-P	LD016-U	40% ⁽¹⁾	0.375 lb/hr	1.10 lb/hr 0.1 gr/dscf	0.6 lb/hr	567 IAC 23.3 (2) "d" 567 IAC 23.3 (2) "a" DNR Construction Permit 97-A-811-S3

⁽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).

Operational Limits & Requirements

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

Operational limits are not required at this time.

Emission Point Characteristics

These emission points shall conform to the specifications listed below.

	Stack Height (ft, from the ground)	Stack Opening (inch)	Exhaust Flow Rate (scfm)	Exhaust Temperature (°F)	Discharge Style	Authority for Requirement DNR Construction Permit
LD014-P	25	8×10	2,901	88	Vertical Unobstructed	97-A-809-S2
LD015-P	25	8×10	2,901	88	Vertical Unobstructed	97-A-810-S2
LD016-P	25	8×10	3,400	88	Vertical Unobstructed	97-A-811-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 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: LD017-P through LD019-P (Bins and Spin Dryers)

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	EU Description	Raw Material	Rated Capacity lb/hr	DNR Construction Permit
LD017A-P	LD017A-U	LD-2A Dewatering Bin	Polyethylene Pellets	9,000	94-A-137
LD017B-P	LD017B-U	L-0738A LD-2A Spin Dryer	Polyethylene Pellets	9,000	94-A-138-S2
LD018A-P	LD018A-U	LD-2B Dewatering Bin	Polyethylene Pellets	9,000	94-A-111
LD018B-P	LD018B-U	L-0738B LD-2B Spin Dryer	Polyethylene Pellets	9,000	94-A-112-S2
LD019-P	LD019-U	L-0838 LD-3 Dewatering Bin & Spin Dryer	Polyethylene Pellets	22,500	97-A-650-S4

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.

EP	EU	Opacity	PM10	PM	VOC	Authority of Requirement
LD017A-P	LD017A-U	40%	NA	11.23 lb/hr ⁽³⁾	0.3 lb/hr 1.3 ton/yr	567 IAC 23.3 (2) "d" 567 IAC 23.3 (2) "a" DNR Construction Permit 94-A-137
LD017B-P	LD017B-U	40% ⁽¹⁾	0.225 lb/hr	1.84 lb/hr 0.1 gr/dscf	0.6 lb/hr	567 IAC 23.3 (2) "d" 567 IAC 23.3 (2) "a" DNR Construction Permit 94-A-138-S2
LD018A-P	LD018A-U	40%	NA	11.23 lb/hr ⁽⁴⁾	0.3 lb/hr 1.3 ton/yr	567 IAC 23.3 (2) "d" 567 IAC 23.3 (2) "a" DNR Construction Permit 94-A-111
LD018B-P	LD018B-U	40% ⁽¹⁾	0.225 lb/hr	1.84 lb/hr 0.1 gr/dscf	0.6 lb/hr	567 IAC 23.3 (2) "d" 567 IAC 23.3 (2) "a" DNR Construction Permit 94-A-112-S2
LD019-P	LD019-U	40% ⁽²⁾	2.75 ton/yr ⁽³⁾	1.47 lb/hr	106.7 ton/yr ⁽³⁾ 98.55 ton/yr (BACT) 2.0 lb/ton of product ⁽⁴⁾	567 IAC 23.3 (2) "d" 567 IAC 23.3 (2) "a" DNR Construction Permit 97-A-650-S4

⁽¹⁾ An exceedance of the indicator opacity of “no visible emissions (No VE)” 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⁾ 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).

- ⁽³⁾ Limit for the total emissions from LD-3 Line.
⁽⁴⁾ Does not apply to malfunctions and emergency releases.

Operational Limits & Requirements

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

Operating Limits

LD017A-P through LD018B-P:

Operating limits are not required at this time.

LD019-P:

- A. The amount of LDPE produced in the LD-3 line shall not exceed 197,100, 000 pounds per 12-month rolling period.

Authority for Requirement: DNR Construction Permit 97-A-650-S4

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 shall be legible and maintained in an orderly manner.

LD017A-P through LD018B-P:

Operating limits are not required at this time.

LD019-P:

- A. Record the amount of LDPE produced in the LD-3 line, in pounds. Calculate and record monthly and 12-month rolling totals.

Authority for Requirement: DNR Construction Permit 97-A-650-S4

NSPS and NESHAP Applicability

LD017B-P and LD018B-P:

These emission units are subject to NESHAP Subpart FFFF – National Emission Standard for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 94-A-138-S2; 94-S-112-S2

Emission Point Characteristics

These emission points shall conform to the specifications listed below.

	Stack Height (ft, from the ground)	Stack Opening (dia. inch)	Exhaust Flow Rate (scfm)	Exhaust Temperature (°F)	Discharge Style	Authority for Requirement DNR Construction Permit
LD017A-P	32	7	250	85	NA	94-A-137
LD017B-P	33	12	2,100	90	Vertical Unobstructed	94-A-138-S2
LD018A-P	32	7	250	85	NA	94-A-111
LD018B-P	33	12	2,100	90	Vertical Unobstructed	94-A-112-S2
LD019-P	55	10	700	130	Vertical Unobstructed	97-A-650-S4

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 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: LD020-P through LD025-P (F-451 Rundown Blenders)

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	Emission Unit Description	Raw Material	Rated Capacity lb/hr	DNR Construction Permit
LD020-P	LD020-U	F-0451A LD-1 Rundown Blender	Polyethylene Pellets	38,400	97-A-812
LD021-P	LD021-U	F-0451B LD-1 Rundown Blender	Polyethylene Pellets	38,400	97-A-813
LD022-P	LD022-U	F-0451C LD-1 Rundown Blender	Polyethylene Pellets	38,400	97-A-814
LD023-P	LD023-U	F-0451D LD-1 Rundown Blender	Polyethylene Pellets	38,400	97-A-815
LD024-P	LD024-U	F-0451E LD-1 Rundown Blender	Polyethylene Pellets	38,400	97-A-816
LD025-P	LD025-U	F-0451F LD-1 Rundown Blender	Polyethylene Pellets	38,400	97-A-817

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 97-A-812, 97-A-813, 97-A-814, 97-A-815, 97-A-816, & 97-A-817
567 IAC 23.3(2)"d"

Pollutant: PM₁₀

Emission Limit(s): 0.3 tons/yr.

Authority for Requirement: Iowa DNR Construction Permits 97-A-812, 97-A-813, 97-A-814, 97-A-815, 97-A-816, & 97-A-817

Pollutant: Particulate Matter

Emission Limit(s): 26.69 lb/hr.⁽¹⁾, 3.6 ton/yr.

Authority for Requirement: Iowa DNR Construction Permits 97-A-812, 97-A-813, 97-A-814, 97-A-815, 97-A-816, & 97-A-817
567C 23.3(2)"a"(2)

⁽¹⁾ PM emission limit of 26.69 lb/hr was based on the process weights for these units using the formulas in 567 IAC 23.3(2) "a" (2).

Pollutant: Volatile Organic Compounds (VOC's)

Emission Limit(s): 21.9 ton/yr.

Authority for Requirement: Iowa DNR Construction Permits 97-A-812, 97-A-813, 97-A-814, 97-A-815, 97-A-816, & 97-A-817

Operational Limits & Requirements

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

Operational limits are not required.

Emission Point Characteristics

Each emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 85

Stack Opening, (inches): 16 x 16

Exhaust Flow Rate (acfm): 3,000

Exhaust Temperature (°F): 115

Discharge Style: NA

Authority for Requirement: Iowa DNR Construction Permits 97-A-812, 97-A-813, 97-A-814, 97-A-815, 97-A-816, & 97-A-817

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 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: LD026-P through LD034-P (F-457 Rundown Blenders and Spare Blenders)

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	Emission Unit Description	Raw Material	Rated Capacity lb/hr	DNR Construction Permit
LD026-P	LD026-U	F-0457A LD-2B Rundown Blender	Polyethylene Pellets	9,000	None
LD027-P	LD027-U	F-0457B LD-2A Rundown Blender	Polyethylene Pellets	9,000	None
LD028-P	LD028-U	F-0457C LD-2A Rundown Blender	Polyethylene Pellets	9,000	None
LD029-P	LD029-U	F-0457D LD-2A Rundown Blender	Polyethylene Pellets	9,000	None
LD030-P	LD030-U	F-0457E LD-2B Rundown Blender	Polyethylene Pellets	9,000	None
LD031-P	LD031-U	F-0457F LD-2B Rundown Blender	Polyethylene Pellets	9,000	None
LD032-P	LD032-U	F-0457G LD-2 Spare Blender	Polyethylene Pellets	9,000	None
LD033-P	LD033-U	F-0457H LD-2 Spare Blender	Polyethylene Pellets	9,000	None
LD034-P	LD034-U	F-0457J LD-2 Spare Blender	Polyethylene Pellets	9,000	None

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: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter

Emission Limit(s): 11.23 lb/hr.⁽¹⁾

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

⁽¹⁾ PM emission limit of 11.23 lb/hr was based on the process weights for these units using the formulas in 567 IAC 23.3(2) "a" (2).

Operational Limits & Requirements

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

Operational limits are not required at this time.

NSPS and NESHAP Applicability

These emission units are considered to be Group 2 batch process vents by definition under 40 CFR 63 Subpart FFFF – National Emission Standards for Hazardous Air Pollutants for Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: 567 IAC 23.1(4)"cf"
40 CFR 63 Subpart FFFFF

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: LD035-P through LD040-P (F-0458 Rundown Blenders)

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	Emission Unit Description	Raw Material	Rated Capacity lb/hr	DNR Construction Permit
LD035-P	LD035-U	F-0458A E Line Rundown Blender	Polyethylene Pellets	9,000	None
LD036-P	LD036-U	F-0458B E Line Rundown Blender	Polyethylene Pellets	9,000	None
LD037-P	LD037-U	F-0458C E Line Rundown Blender	Polyethylene Pellets	9,000	None
LD038-P	LD038-U	F-0458D D Line Rundown Blender	Polyethylene Pellets	9,000	None
LD039-P	LD039-U	F-0458E D Line Rundown Blender	Polyethylene Pellets	9,000	None
LD040-P	LD040-U	F-0458F D Line Rundown Blender	Polyethylene Pellets	9,000	None

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: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter

Emission Limit(s): 11.23 lb/hr.⁽¹⁾

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

⁽¹⁾ PM emission limit of 11.23 lb/hr was based on the process weights for these units using the formulas in 567 IAC 23.3(2) "a" (2).

Operational Limits & Requirements

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

Operational limits are not required 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: LD041-P through LD059-P (LD2A, LD2B and LD3 Silos)

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	Emission Unit Description	Raw Material	Rated Capacity lb/hr	DNR Construction Permit
LD041-P	LD041-U	F-0459A LD-2/3 Rundown Storage Bin	Polyethylene Pellets	60,000	97-A-685-S2
LD042-P	LD042-U	F-0459B LD-2/3 Rundown Storage Bin	Polyethylene Pellets	60,000	97-A-686-S2
LD043-P	LD043-U	F-0459C LD-2/3 Rundown Storage Bin	Polyethylene Pellets	60,000	97-A-687-S2
LD044-P	LD044-U	F-0459D LD-2/3 Rundown Storage Bin	Polyethylene Pellets	60,000	97-A-688-S2
LD045-P	LD045-U	F-0459E LD-3 Rundown Blender	Polyethylene Pellets	60,000	97-A-689-S2
LD046-P	LD046-U	F-0459F LD-3 Rundown Blender	Polyethylene Pellets	60,000	97-A-690-S2
LD047-P	LD047-U	F-0459G LD-3 Rundown Blender	Polyethylene Pellets	60,000	97-A-691-S2
LD048-P	LD048-U	F-0459H LD-3 Rundown Blender	Polyethylene Pellets	60,000	97-A-692-S2
LD049-P	LD049-U	F-0459J LD-3 Rundown Blender	Polyethylene Pellets	60,000	97-A-693-S2
LD050-P	LD050-U	F-0459K LD-3 Rundown Blender	Polyethylene Pellets	60,000	97-A-694-S2
LD051-P	LD051-U	F-0459L LD-2/3 Rundown Storage Bin	Polyethylene Pellets	60,000	97-A-695-S2
LD052-P	LD052-U	F-0459M LD-2/3 Rundown Storage Bin	Polyethylene Pellets	60,000	97-A-696-S2
LD053-P	LD053-U	F-0459N LD-2/3 Rundown Storage Bin	Polyethylene Pellets	60,000	97-A-697-S2
LD054-P	LD054-U	F-0459P LD-2/3 Rundown Storage Bin	Polyethylene Pellets	60,000	97-A-698-S2
LD055-P	LD055-U	F-0459Q LD-2/3 Rundown Storage Bin	Polyethylene Pellets	60,000	97-A-699-S2
LD056-P	LD056-U	F-0459R LD-2/3 Rundown Storage Bin	Polyethylene Pellets	60,000	97-A-700-S2
LD057-P	LD057-U	F-0459S LD-2/3 Rundown Storage Bin	Polyethylene Pellets	60,000	97-A-701-S2
LD058-P	LD058-U	F-0459T LD-2/3 Rundown Storage Bin	Polyethylene Pellets	60,000	97-A-702-S2
LD059-P	LD059-U	F-0459U LD-2/3 Rundown Storage Bin	Polyethylene Pellets	60,000	97-A-703-S2

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%⁽¹⁾

Authority for Requirement: Iowa DNR Construction Permits 97-A-685-S2 through 97-A-703-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: PM₁₀

Emission Limit(s): 2.75 tons/yr.⁽²⁾

Authority for Requirement: Iowa DNR Construction Permits 97-A-685-S2 through 97-A-703-S2

Pollutant: Particulate Matter

Emission Limit(s): 0.022 gr/dscf.

Authority for Requirement: Iowa DNR Construction Permits 97-A-685-S2 through 97-A-703-S2
567 IAC 23.3(2)"a"

Pollutant: Volatile Organic Compounds (VOC's)

Emission Limit(s): 106.7 ton/yr.⁽²⁾, 2.0 lb/ton of product⁽³⁾

Authority for Requirement: Iowa DNR Construction Permits 97-A-685-S2 through 97-A-703-S2

⁽²⁾ Limit for the total emissions from LD-3 Line.

⁽³⁾ Does not apply to malfunctions and emergency releases.

Operational Limits & Requirements

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

Operating Limits:

- A. The amount of LDPE produced in the LD-3 line shall not exceed 197,100,000 pounds per 12-month rolling period.

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 shall be legible and maintained in an orderly manner.

- A. Record the amount of LDPE produced in the LD-3 line, in pounds. Calculate and record monthly and 12-month rolling totals.

Authority for Requirement: Iowa DNR Construction Permits 97-A-685-S2 through 97-A-703-S2

Emission Point Characteristics

These emission points shall conform to the specifications listed below.

	Stack Height (ft, from the ground)	Stack Opening (dia. inch)	Exhaust Flow Rate (scfm)	Exhaust Temperature (°F)	Discharge Style	Authority for Requirement DNR Construction Permit
LD041-P	75	16×16	1,500	110	Downward	97-A-685-S2
LD042-P	75	16×16	1,500	110	Downward	97-A-686-S2
LD043-P	75	16×16	1,500	110	Downward	97-A-687-S2
LD044-P	75	16×16	1,500	110	Downward	97-A-688-S2
LD045-P	75	16×16	2,654	115	Downward	97-A-689-S2
LD046-P	75	16×16	2,654	115	Downward	97-A-690-S2
LD047-P	75	16×16	2,654	115	Downward	97-A-691-S2
LD048-P	75	16×16	2,654	115	Downward	97-A-692-S2
LD049-P	75	16×16	2,654	115	Downward	97-A-693-S2
LD050-P	75	16×16	2,654	115	Downward	97-A-694-S2
LD051-P	75	16×16	1,500	110	Downward	97-A-695-S2
LD052-P	75	16×16	1,500	110	Downward	97-A-696-S2
LD053-P	75	16×16	1,500	110	Downward	97-A-697-S2
LD054-P	75	16×16	1,500	110	Downward	97-A-698-S2
LD055-P	75	16×16	1,500	110	Downward	97-A-699-S2
LD056-P	75	16×16	1,500	110	Downward	97-A-700-S2
LD057-P	75	16×16	1,500	110	Downward	97-A-701-S2
LD058-P	75	16×16	1,500	110	Downward	97-A-702-S2
LD059-P	75	16×16	1,500	110	Downward	97-A-703-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 any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department 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: LD060-P through LD076-P (F-0453 Storage Bins and Blending Silo)

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	Emission Unit Description	Raw Material	Rated Capacity lb/hr	DNR Construction Permit
LD060-P	LD060-U	F-0453A LD-1 Storage Bin	Polyethylene Pellets	60,000	97-A-818
LD061-P	LD061-U	F-0453B LD-1 Storage Bin	Polyethylene Pellets	60,000	97-A-819
LD062-P	LD062-U	F-0453C LD-1 Blending Silo	Polyethylene Pellets	60,000	97-A-820
LD063-P	LD063-U	F-0453D Finishing Storage Bin	Polyethylene Pellets	60,000	None
LD064-P	LD064-U	F-0453E Finishing Storage Bin	Polyethylene Pellets	60,000	None
LD065-P	LD065-U	F-0453F LD-1 Storage Bin	Polyethylene Pellets	60,000	97-A-821
LD066-P	LD066-U	F-0453G LD-1 Storage Bin	Polyethylene Pellets	60,000	97-A-822
LD067-P	LD067-U	F-0453H LD-1 Storage Bin	Polyethylene Pellets	60,000	97-A-823
LD068-P	LD068-U	F-0453J Finishing Storage Bin	Polyethylene Pellets	60,000	None
LD069-P	LD069-U	F-0453K Finishing Storage Bin	Polyethylene Pellets	60,000	None
LD070-P	LD070-U	F-0453L LD-1 Storage Bin	Polyethylene Pellets	60,000	97-A-824
LD071-P	LD071-U	F-0453M LD-1 Storage Bin	Polyethylene Pellets	60,000	97-A-825
LD072-P	LD072-U	F-0453N LD-1 Storage Bin	Polyethylene Pellets	60,000	97-A-826
LD073-P	LD073-U	F-0453P LD-1 Storage Bin	Polyethylene Pellets	60,000	97-A-827
LD074-P	LD074-U	F-0453Q LD-1 Storage Bin	Polyethylene Pellets	60,000	97-A-828
LD075-P	LD075-U	F-0453R LD-1 Storage Bin	Polyethylene Pellets	60,000	97-A-829
LD076-P	LD076-U	F-0453S LD-1 Storage Bin	Polyethylene Pellets	60,000	97-A-830

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.

EP	EU	Opacity	PM10	PM	VOC	Authority of Requirement
LD060-P	LD060-U	40%	0.1 ton/yr	40.04 lb/hr ⁽¹⁾ 0.7 ton/yr	0.1 ton/yr	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 97-A-818
LD061-P	LD061-U	40%	0.1 ton/yr	40.04 lb/hr ⁽¹⁾ 0.7 ton/yr	0.1 ton/yr	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 97-A-819
LD062-P	LD062-U	40%	0.1 ton/yr	40.04 lb/hr ⁽¹⁾ 0.7 ton/yr	0.1 ton/yr	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 97-A-820
LD063-P	LD063-U	40%	NA	40.04 lb/hr ⁽¹⁾	NA	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a"
LD064-P	LD064-U	40%	NA	40.04 lb/hr ⁽¹⁾	NA	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a"
LD065-P	LD065-U	40%	0.1 ton/yr	40.04 lb/hr ⁽¹⁾ 0.7 ton/yr	0.1 ton/yr	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 97-A-821

LD066-P	LD066-U	40%	0.1 ton/yr	40.04 lb/hr ⁽¹⁾ 0.7 ton/yr	0.1 ton/yr	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 97-A-822
LD067-P	LD067-U	40%	0.1 ton/yr	40.04 lb/hr ⁽¹⁾ 0.7 ton/yr	0.1 ton/yr	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 97-A-823
LD068-P	LD068-U	40%	NA	40.04 lb/hr ⁽¹⁾	NA	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a"
LD069-P	LD069-U	40%	NA	40.04 lb/hr ⁽¹⁾	NA	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a"
LD070-P	LD070-U	40%	0.1 ton/yr	40.04 lb/hr ⁽¹⁾ 0.7 ton/yr	0.1 ton/yr	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 97-A-824
LD071-P	LD071-U	40%	0.1 ton/yr	40.04 lb/hr ⁽¹⁾ 0.7 ton/yr	0.1 ton/yr	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 97-A-825
LD072-P	LD072-U	40%	0.1 ton/yr	40.04 lb/hr ⁽¹⁾ 0.7 ton/yr	0.1 ton/yr	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 97-A-826
LD073-P	LD073-U	40%	0.1 ton/yr	40.04 lb/hr ⁽¹⁾ 0.7 ton/yr	0.1 ton/yr	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 97-A-827
LD074-P	LD074-U	40%	0.1 ton/yr	40.04 lb/hr ⁽¹⁾ 0.7 ton/yr	0.1 ton/yr	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 97-A-828
LD075-P	LD075-U	40%	0.1 ton/yr	40.04 lb/hr ⁽¹⁾ 0.7 ton/yr	0.1 ton/yr	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 97-A-829
LD076-P	LD076-U	40%	0.1 ton/yr	40.04 lb/hr ⁽¹⁾ 0.7 ton/yr	0.1 ton/yr	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 97-A-830

⁽¹⁾ PM emission limit of 40.04 lb/hr was based on the process weights for these units using the formulas in 567 IAC 23.3(2) "a" (2).

Operational Limits & Requirements

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

Operational limits are not required at this time.

Emission Point Characteristics

These emission points shall conform to the specifications listed below.

	Stack Height (ft, from the ground)	Stack Opening (dia. inch)	Exhaust Flow Rate (acfm)	Exhaust Temperature (°F)	Discharge Style	Authority for Requirement DNR Construction Permit
LD060-P	75	16×16	1,500	110	NA	97-A-818
LD061-P	75	16×16	1,500	110	NA	97-A-819
LD062-P	75	16×16	1,500	110	NA	97-A-820
LD065-P	75	16×16	1,500	110	NA	97-A-821
LD066-P	75	16×16	1,500	110	NA	97-A-822
LD067-P	75	16×16	1,500	110	NA	97-A-823
LD070-P	75	16×16	1,500	110	NA	97-A-824
LD071-P	75	16×16	1,500	110	NA	97-A-825
LD072-P	75	16×16	1,500	110	NA	97-A-826
LD073-P	75	16×16	1,500	110	NA	97-A-827
LD074-P	75	16×16	1,500	110	NA	97-A-828
LD075-P	75	16×16	1,500	110	NA	97-A-829
LD076-P	75	16×16	1,500	110	NA	97-A-830

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 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: LD077-P through LD082-P (F-0454 Storage Bins)

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	EU Description	Raw Material	Rated Capacity lb/hr	DNR Construction Permit
LD077-P	LD077-U	F-0454A LD-1 Storage Bin	Polyethylene Pellets	60,000	97-A-831
LD078-P	LD078-U	F-0454B LD-1 Storage Bin	Polyethylene Pellets	60,000	97-A-832
LD079-P	LD079-U	F-0454C LD-1 Storage Bin	Polyethylene Pellets	60,000	97-A-833
LD080-P	LD080-U	F-0454D LD-1 Storage Bin	Polyethylene Pellets	60,000	97-A-834
LD081-P	LD081-U	F-0454E LD-1 Storage Bin	Polyethylene Pellets	60,000	97-A-835
LD082-P	LD082-U	F-0454F LD-1 Storage Bin	Polyethylene Pellets	60,000	97-A-836

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.

EP	EU	Opacity	PM10	PM	VOC	Authority of Requirement
LD077-P	LD077-U	40%	0.1 ton/yr	40.04 lb/hr ⁽¹⁾ 0.7 ton/yr	0.1 ton/yr	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 97-A-831
LD078-P	LD078-U	40%	0.1 ton/yr	40.04 lb/hr ⁽¹⁾ 0.7 ton/yr	0.1 ton/yr	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 97-A-832
LD079-P	LD079-U	40%	0.1 ton/yr	40.04 lb/hr ⁽¹⁾ 0.7 ton/yr	0.1 ton/yr	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 97-A-833
LD080-P	LD080-U	40%	0.1 ton/yr	40.04 lb/hr ⁽¹⁾ 0.7 ton/yr	0.1 ton/yr	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 97-A-834
LD081-P	LD081-U	40%	0.1 ton/yr	40.04 lb/hr ⁽¹⁾ 0.7 ton/yr	0.1 ton/yr	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 97-A-835
LD082-P	LD082-U	40%	0.1 ton/yr	40.04 lb/hr ⁽¹⁾ 0.7 ton/yr	0.1 ton/yr	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 97-A-836

⁽¹⁾ PM emission limit of 40.04 lb/hr was based on the process weights for these units using the formulas in 567 IAC 23.3(2) "a" (2).

Operational Limits & Requirements

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

Operational limits are not required at this time.

Emission Point Characteristics

Each emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 75

Stack Opening, (inches): 16 x 16

Exhaust Flow Rate (scfm): 1,500

Exhaust Temperature (°F): 110

Discharge Style: NA

Authority for Requirement: Iowa DNR Construction Permits 97-A-831, 97-A-832, 97-A-833, 97-A-834, 97-A-835, 97-A-836

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 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: LD083-P (Fugitive)

Associated Equipment

Emission Unit vented through this Emission Point: LD083-U
Emission Unit Description: Low Density Unit Fugitives
Raw Material/Fuel: Ethylene
Rated Capacity: 8760 hr/yr

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.

Emission limits are not required at this time.

Operational Limits & Requirements

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

Operational limits are not required at this time.

NSPS and NESHAP Applicability

This emission unit is subject to 40 CFR 63 Subpart FFFF – National Emission Standards for Hazardous Air Pollutants for Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: 567 IAC 23.1(3) "cf"
40 CFR 63 Subpart FFFF

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: LD084-P through LD095-P (F-0452 Quad Storage Bins)

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	Emission Unit Description	Raw Material	Rated Capacity lb/hr	DNR Construction Permit
LD084-P	LD084-U	F-0452A LD-1 Quad Storage Bin	Polyethylene Pellet	60,000	97-A-837
LD085-P	LD085-U	F-0452B LD-1 Quad Storage Bin	Polyethylene Pellet	60,000	97-A-838
LD086-P	LD086-U	F-0452C LD-1 Quad Storage Bin	Polyethylene Pellet	60,000	97-A-839
LD087-P	LD087-U	F-0452D LD-1 Quad Storage Bin	Polyethylene Pellet	60,000	97-A-840
LD088-P	LD088-U	F-0452E LD-1 Quad Storage Bin	Polyethylene Pellet	60,000	97-A-841
LD089-P	LD089-U	F-0452F LD-1 Quad Storage Bin	Polyethylene Pellet	60,000	97-A-842
LD090-P	LD090-U	F-0452G LD-1 Quad Storage Bin	Polyethylene Pellet	60,000	97-A-843
LD091-P	LD091-U	F-0452H LD-1 Quad Storage Bin	Polyethylene Pellet	60,000	97-A-844
LD092-P	LD092-U	F-0452J LD-2/3 Quad Storage Bin	Polyethylene Pellet	60,000	97-A-651-S2
LD093-P	LD093-U	F-0452K LD-2/3 Quad Storage Bin	Polyethylene Pellet	60,000	97-A-652-S2
LD094-P	LD094-U	F-0452L LD-2/3 Quad Storage Bin	Polyethylene Pellet	60,000	97-A-653-S2
LD095-P	LD095-U	F-0452M LD-2/3 Quad Storage Bin	Polyethylene Pellet	60,000	97-A-654-S2

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.

EP	EU	Opacity	PM10	PM	VOC	Authority of Requirement
LD084-P	LD084-U	40%	0.1 ton/yr	40.04 lb/hr ⁽³⁾ 0.2 ton/yr	0.1 ton/yr	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 97-A-837
LD085-P	LD085-U	40%	0.1 ton/yr	40.04 lb/hr ⁽³⁾ 0.2 ton/yr	0.1 ton/yr	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 97-A-838
LD086-P	LD086-U	40%	0.1 ton/yr	40.04 lb/hr ⁽³⁾ 0.2 ton/yr	0.1 ton/yr	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 97-A-839
LD087-P	LD087-U	40%	0.1 ton/yr	40.04 lb/hr ⁽³⁾ 0.2 ton/yr	0.1 ton/yr	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 97-A-840
LD088-P	LD088-U	40%	0.1 ton/yr	40.04 lb/hr ⁽³⁾ 0.2 ton/yr	0.1 ton/yr	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 97-A-841
LD089-P	LD089-U	40%	0.1 ton/yr	40.04 lb/hr ⁽³⁾ 0.2 ton/yr	0.1 ton/yr	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 97-A-842

LD090-P	LD090-U	40%	0.1 ton/yr	40.04 lb/hr ⁽³⁾ 0.2 ton/yr	0.1 ton/yr	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 97-A-843
LD091-P	LD091-U	40%	0.1 ton/yr	40.04 lb/hr ⁽³⁾ 0.2 ton/yr	0.1 ton/yr	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 97-A-844
LD092-P	LD092-U	40% ⁽¹⁾	2.75 ton/yr ⁽²⁾	0.022 gr/scf	106.7 ton/yr ⁽²⁾ 2 lb/ton product ⁽⁴⁾	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 97-A-651-S2
LD093-P	LD093-U	40% ⁽¹⁾		0.022 gr/scf		567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 97-A-652-S2
LD094-P	LD094-U	40% ⁽¹⁾		0.022 gr/scf		567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 97-A-653-S2
LD095-P	LD095-U	40% ⁽¹⁾		0.022 gr/scf		567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 97-A-654-S2

⁽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).

⁽²⁾ Limit for the total emissions from LD-3 Line.

⁽³⁾ PM emission limit of 40.04 lb/hr was based on the process weights for these units using the formulas in 567 IAC 23.3(2) "a" (2).

⁽⁴⁾ Does not apply to malfunctions and emergency releases.

Operational Limits & Requirements

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

Operating Limits

LD084-P through LD091-P:

Operating limits are not required at this time.

LD092-P through LD095-P:

A. The amount of LDPE produced in the LD-3 line shall not exceed 197,100,000 pounds per 12-month rolling period.

Authority for Requirement: DNR Construction Permits 97-A-651-S2, 97-A-652-S2, 97-A-653-S2, & 97-A-654-S2

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 shall be legible and maintained in an orderly manner.

LD084-P through LD091-P:

Reporting and Recordkeeping are not required at this time.

LD092-P through LD095-P:

A. Record the amount of LDPE produced in the LD-3 line, in pounds. Calculate and record monthly and 12-month rolling totals.

Authority for Requirement: DNR Construction Permits 97-A-651-S2, 97-A-652-S2, 97-A-653-S2, & 97-A-654-S2

Emission Point Characteristics

These emission points shall conform to the specifications listed below.

	Stack Height (ft, from the ground)	Stack Opening (inch)	Exhaust Flow Rate (acfm)	Exhaust Temperature (°F)	Discharge Style	Authority for Requirement DNR Construction Permit
LD084-P	75	16×16	500	110	NA	97-A-837
LD085-P	75	16×16	500	110	NA	97-A-838
LD086-P	75	16×16	500	110	NA	97-A-839
LD087-P	75	16×16	500	110	NA	97-A-840
LD088-P	75	16×16	500	110	NA	97-A-841
LD089-P	75	16×16	500	110	NA	97-A-842
LD090-P	75	16×16	500	110	NA	97-A-843
LD091-P	75	16×16	500	110	NA	97-A-844
LD092-P	75	16×16	500 scfm	110	Downward	97-A-651-S2
LD093-P	75	16×16	500 scfm	110	Downward	97-A-652-S2
LD094-P	75	16×16	500 scfm	110	Downward	97-A-653-S2
LD095-P	75	16×16	500 scfm	110	Downward	97-A-654-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 any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department 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: LD096-P through LD109-P (Compressors and Drums)

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	EU Description	Raw Material	Rated Capacity	DNR Constructi on Permit
LD096-P	LD096A-U	J-0201A LD-1 "a" Make Up Compressor	Ethylene	5 depressures 118 lb/dpr	97-A-845
	LD096B-U	J-0202A LD-1 "a" Purge Compressor	Ethylene		97-A-846
LD096F-P	LD096A/B-U	Fugitive Emissions: J-0201A/J-202A Purge/Make-up Compressor	Ethylene	1 leak hr/hr	None
LD097-P	LD097A-U	J-0201B LD-1 "B" Make Up Compressor	Ethylene	5 depressures 450 lb/dpr	97-A-847
	LD097B-U	J-0202B LD-1 "B" Purge Compressor	Ethylene		97-A-848
LD097F-P	LD097A/B-U	Fugitive Emissions: J-0201B/J-202B LD-1 Purge/Make-up Compressor	Ethylene	1 leak hr/hr	None
LD098-P	LD098-U	J-0202C LD-1 Purge Booster Compressor	Ethylene	5 depressures 182 lb/dpr	97-A-849
LD098F-P		Fugitive Emissions: J-0202C LD-1 Purge Booster Compressor	Ethylene	1 leak hr/hr	None
LD099-P	LD099-U	J-0203A LD-1 "a" Recycle Compressor	Ethylene	5 depressures 118 lb/dpr	97-A-850
LD099F-P		Fugitive Emissions: J-0203A LD-1 "a" Recycle Compressor	Ethylene	1 leak hr/hr	None
LD100-P	LD100-U	J-0203B LD-1 "B" Recycle Compressor	Ethylene	5 depressures 118 lb/dpr	97-A-851
LD100F-P		Fugitive Emissions: J-0203B LD-1 "B" Recycle Compressor	Ethylene	1 leak hr/hr	None
LD101-P	LD101-U	J-0204A LD-1 "a" Hyper Compressor	Ethylene	5 depressures 1376 lb/dpr	97-A-852
LD101F-P		Fugitive Emissions: J-0204A LD-1 "a" Hyper Compressor	Ethylene	1 leak hr/hr	None
LD102-P	LD102-U	J-0204B LD-1 "B" Hyper Compressor	Ethylene	5 depressures 1376 lb/dpr	97-A-853
LD102F-P		Fugitive Emissions: J-0204B LD-1 "B" Hyper Compressor	Ethylene	1 leak hr/hr	None
LD103-P	LD103-U	J-0223 LD-1 Recycle Compressor	Ethylene	5 depressures 118 lb/dpr	97-A-854
LD103F-P		Fugitive Emissions: J-0223 LD-1 Recycle Compressor	Ethylene	1 leak hr/hr	None
LD104-P	LD104-U	J-0224 LD-1 Hyper Compressor	Ethylene	5 depressures 1,376 lb/dpr	97-A-855
LD104F-P		Fugitive Emissions: J-0224 LD-1 Hyper Compressor	Ethylene	1 leak hr/hr	None

EP	EU	EU Description	Raw Material	Rated Capacity	DNR Constructi on Permit
LD105-P	LD105A-U	J-0701A LD-2A Primary/Flash Gas Compressor	Ethylene	650 lb/lift (2 lifts)	None
	LD105B-U	F-0701A LD-2A Make Up Gas Suction Drum	Ethylene	350 lb/lift (2 lifts)	None
	LD105C-U	F-0705A LD-2A Purge Compressor Suction Drum	Ethylene	400 lb/lift (2 lifts)	None
	LD105D-U	F-0755A LD-2A Purge Gas Knockout Drum	Ethylene	350 lb/lift (2 lifts)	None
	LD105E-U	F-0709A LD-2A Flash Gas 3rd St. Knockout Drum	Ethylene	350 lb/lift (2 lifts)	None
	LD105F-U	F-0708A LD-2A Flash Gas 2nd St. Knockout Drum	Ethylene	650 lb/lift (2 lifts)	None
	LD105G-U	F-0707A LD-2A Flash Gas 1st St. Knockout Drum	Ethylene	350 lb/lift (2 lifts)	None
LD105A-P	LD105H-U	J-0701A LD-2A Primary Compressor Leak Gas	Ethylene	250 lb/lift (2 lifts)	None
	LD105I-U	J-0701A LD-2A Primary Compressor	Ethylene	600 lb/lift (2 lifts)	None
	LD105J-U	J-0702A Secondary Compressor Leak Gas	Ethylene	1,200 lb/lift (2 lifts)	None
LD105F-P	LD105A-U	Fugitive Emissions: J-0701A Primary Compressor	Ethylene	1 leak hr/hr	None
LD106-P	LD106A-U	J-0701B LD-2B Primary/Flash Gas Compressor	Ethylene	650 lb/lift (2 lifts)	None
	LD106B-U	F-0701B LD-2B Make Up Gas Suction Drum	Ethylene	350 lb/lift (2 lifts)	None
	LD106C-U	F-0705B LD-2B Purge compressor Suction Drum	Ethylene	400 lb/lift (2 lifts)	None
	LD106D-U	F-0755B LD-2B Purge Gas Knockout Drum	Ethylene	400 lb/lift (2 lifts)	None
	LD106E-U	F-0709B LD-2B Flash Gas 3rd St. Knockout Drum	Ethylene	350 lb/lift (2 lifts)	None
	LD106F-U	F-0708B LD-2B Flash Gas 2nd St. Knockout Drum	Ethylene	650 lb/lift (2 lifts)	None
	LD106G-U	F-0707B LD-2B Flash Gas 1st St. Knockout Drum	Ethylene	1250 lb/lift (2 lifts)	None
LD106A-P	LD106H-U	J-0701B LD-2B Primary Compressor Leak Gas	Ethylene	2,000 lb/lift (2 lifts)	None
	LD106I-U	J-0701B LD-2B Primary Compressor	Ethylene	560 lb/lift (2 lifts)	None
	LD106J-U	J-0702B Secondary Compressor Leak Gas	Ethylene	215 lb/lift (2 lifts)	None
LD106F-P	LD106A-U	Fugitive Emissions: J-0701B Primary Compressor	Ethylene	1 leak hr/hr	None

EP	EU	EU Description	Raw Material	Rated Capacity	DNR Construction Permit
LD107-P	LD107-U	J-0702A LD-2A Secondary Compressor	Ethylene	5 depressures 445 lb/dpr	None
LD107F-P		Fugitive Emissions: J-0702A LD-2A Secondary Compressor	Ethylene	1 leak hr/hr	None
LD108-P	LD108-U	J-0702B LD-2B Secondary Compressor	Ethylene	5 depressures 445 lb/dpr	None
LD108F-P		Fugitive Emissions: J-0702B LD-2B Secondary Compressor	Ethylene	1 leak hr/hr	None
LD109-P	LD109A-U	J-0801 LD-3 Primary/Flash Gas Compressor	Ethylene	30,000 lb/hr (2 lifts) 1,420 lb/lift	97-A-655-S2
	LD109B-U	J-0802 LD-3 Secondary Compressor	Ethylene	108,000 lb/hr (2 lifts) 2,050 lbs/lift	
LD109AF-P	LD109A-U	Fugitive Emission: J-0801 LD-3 Primary Compressor	Ethylene	1 leak hr/hr	None
LD109BF-P	LD109B-U	Fugitive Emission: J-0802 Secondary Compressor	Ethylene	1 leak hr/hr	None
LD109A-P	LD109C-U	F-0809 LD-3 Flash Gas 3rd St. Knockout Drum	Ethylene	250 lb/lift (2 lifts)	None
	LD109D-U	F-0801 LD-3 Make up Gas Suction Drum	Ethylene	600 lb/lift (2 lifts)	None
	LD109E-U	J-0820 LD-3 Modifier Pump	Ethylene	100 lb/lift (2 lifts)	None
LD109B-P	LD109F-U	F-0805 LD-3 Flash Gas Suction Drum	Ethylene	2,000 lb/lift (2 lifts)	None
	LD109G-U	J-0801 LD-3 Primary Compressor 2 nd stage	Ethylene	2,000 lb/lift (2 lifts)	None
	LD109H-U	F-0807 LD-3 Flash gas 1st St. Knockout Drum	Ethylene	500 lb/lift (2 lifts)	None
	LD109I-U	F-0808 LD-3 Flash Gas 2nd St. Knockout Drum	Ethylene	500 lb/lift (2 lifts)	None
	LD109J-U	J-0801 LD-3 Primary Compressor Leak Gas	Ethylene	810 lb/lift (2 lifts)	None
	LD109K-U	J-0802 LD-3 Secondary Compressor Leak Gas	Ethylene	810 lb/lift (2 lifts)	None

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.

EP	EU	Opacity	PM10	PM	VOC	Authority of Requirement
LD096-P	LD096A-U	NA	NA	NA	0.1 ton/yr	DNR Construction Permit 97-A-845
	LD096B-U	NA	NA	NA	0.1 ton/yr	DNR Construction Permit 97-A-846
LD097-P	LD097A-U	NA	NA	NA	0.1 ton/yr	DNR Construction Permit 97-A-847
	LD097B-U	NA	NA	NA	0.1 ton/yr	DNR Construction Permit 97-A-848
LD098-P	LD098-U	NA	NA	NA	0.2 ton/yr	DNR Construction Permit 97-A-849
LD099-P	LD099-U	NA	NA	NA	0.1 ton/yr	DNR Construction Permit 97-A-850
LD100-P	LD100-U	NA	NA	NA	0.1 ton/yr	DNR Construction Permit 97-A-851
LD101-P	LD101-U	NA	NA	NA	3.4 ton/yr	DNR Construction Permit 97-A-852
LD102-P	LD102-U	NA	NA	NA	3.4 ton/yr	DNR Construction Permit 97-A-853
LD103-P	LD103-U	NA	NA	NA	0.1 ton/yr	DNR Construction Permit 97-A-854
LD104-P	LD104-U	NA	NA	NA	3.4 ton/yr	DNR Construction Permit 97-A-855
LD105-P	LD105A-U	NA	NA	NA	NA	None
	LD105B-U	NA	NA	NA	NA	None
	LD105C-U	NA	NA	NA	NA	None
	LD105D-U	NA	NA	NA	NA	None
	LD105E-U	NA	NA	NA	NA	None
	LD105F-U	NA	NA	NA	NA	None
	LD105G-U	NA	NA	NA	NA	None
LD105A-P	LD105H-U	NA	NA	NA	NA	None
	LD105I-U	NA	NA	NA	NA	None
	LD105J-U	NA	NA	NA	NA	None
LD105F-P	LD105-U	NA	NA	NA	NA	None
LD106-P	LD106A-U	NA	NA	NA	NA	None
	LD106B-U	NA	NA	NA	NA	None
	LD106C-U	NA	NA	NA	NA	None
	LD106D-U	NA	NA	NA	NA	None
	LD106E-U	NA	NA	NA	NA	None
	LD106F-U	NA	NA	NA	NA	None
	LD106G-U	NA	NA	NA	NA	None
LD106A-P	LD106H-U	NA	NA	NA	NA	None
	LD106I-U	NA	NA	NA	NA	None
	LD106J-U	NA	NA	NA	NA	None
LD106F-P	LD106-U	NA	NA	NA	NA	None
LD107-P	LD107-U	NA	NA	NA	NA	None
LD108-P	LD108-U	NA	NA	NA	NA	None

EP	EU	Opacity	PM10	PM	VOC	Authority of Requirement
LD109-P	LD109A-U	40% ⁽¹⁾	2.75 ton/yr ⁽²⁾	0.022 gr/dscf	106.7 ton/yr ⁽²⁾ 2 lb/ton product ⁽³⁾	567 IAC 23.3 (2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 97-A-655-S2
	LD109B-U					
LD109A-P	LD109C-U	NA	NA	NA	NA	None
	LD109D-U	NA	NA	NA	NA	None
	LD109E-U	NA	NA	NA	NA	None
LD109B-P	LD109F-U	NA	NA	NA	NA	None
	LD109G-U	NA	NA	NA	NA	None
	LD109H-U	NA	NA	NA	NA	None
	LD109I-U	NA	NA	NA	NA	None
	LD109J-U	NA	NA	NA	NA	None
LD109AF-P	LD109A-U	NA	NA	NA	NA	None
LD109BF-P	LD109B-U	NA	NA	NA	NA	None

⁽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).

⁽²⁾ Limit for the total emissions from LD-3 Line.

⁽³⁾ Does not apply to malfunctions and emergency releases.

Operational Limits & Requirements

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

Operating Limits

LD096-P through LD108-P:

Operating limits are not required at this time.

LD109-P:

A. The amount of LDPE produced in the LD-3 line shall not exceed 197,100,000 pounds per 12-month rolling period.

Authority for Requirement: DNR Construction Permit 97-A-655-S2

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 shall be legible and maintained in an orderly manner.

LD096-P through LD108-P:

Reporting and Recordkeeping are not required at this time.

LD109-P:

A. Record the amount of LDPE produced in the LD-3 line, in pounds. Calculate and record monthly and 12-month rolling totals.

Authority for Requirement: DNR Construction Permit 97-A-655-S2

NSPS and NESHAP Applicability

LD105F-P, LD106F-P, LD107F-P, LD108F-P are considered to be Group 2 batch process vents by definition under 40 CFR 63 Subpart FFFF – National Emission Standards for Hazardous Air Pollutants for Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: 567 IAC 23.1(4) "cf"
40 CFR 63 Subpart FFFF

Emission Point Characteristics

These emission points shall conform to the specifications listed below.

		Stack Height (ft, from the ground)	Stack Opening (dia. inch)	Exhaust Flow Rate (scfm)	Exhaust Temperature (°F)	Discharge Style	Authority for Requirement DNR Construction Permit
LD096-P	LD096A-U	40	3	Variable	Variable	NA	97-A-845
	LD096B-U	40	3	Variable	Variable	NA	97-A-846
LD097-P	LD097A-U	40	3	Variable	Variable	NA	97-A-847
	LD097B-U	40	3	Variable	Variable	NA	97-A-848
LD098-P	LD098-U	40	6	Variable	Variable	NA	97-A-849
LD099-P	LD099-U	45	6	Variable	Variable	NA	97-A-850
LD100-P	LD100-U	32	1.5	Variable	Variable	NA	97-A-851
LD101-P	LD101-U	50	1.5	Variable	Variable	NA	97-A-852
LD102-P	LD102-U	50	1.5	Variable	Variable	NA	97-A-853
LD103-P	LD103-U	45	1.5	Variable	Variable	NA	97-A-854
LD104-P	LD104-U	50	1.5	Variable	Variable	NA	97-A-855
LD109-P	LD109A-U	55	12	Variable	Variable	Vertical Unobstructed	97-A-655-S2
	LD109B-U						

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 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: LD110-P through LD113-P (Wax Works)

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	Emission Unit Description	Raw Material	Rated Capacity lb/hr	DNR Construction Permit
LD110-P	LD110-U	LD-1 Wax Works	Ethylene	5,660	97-A-856
LD111-P	LD111-U	LD-2A Wax Works	Ethylene	4,360	None
LD112-P	LD112-U	LD-2B Wax Works	Ethylene	4,360	None
LD113-P	LD113-U	LD-3 Wax Works	Ethylene	22,500	97-A-656-S2

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.

EP	Opacity	PM10	PM	VOC	Authority of Requirement
LD110-P	NA	NA	NA	5.7 ton/yr	DNR Construction Permit 97-A-856
LD111-P	NA	NA	NA	NA	NA
LD112-P	NA	NA	NA	NA	NA
LD113-P	40% ⁽¹⁾	2.75 ton/yr ⁽²⁾	0.022 gr/scf	106.7 ton/yr ⁽²⁾ 2 lb/ton product ⁽³⁾	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 97-A-656-S2

⁽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).

⁽²⁾ Limit for the total emissions from LD-3 Line.

⁽³⁾ Does not apply to malfunctions and emergency releases.

Operational Limits & Requirements

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

Operating Limits

LD110-P through LD112-P:

Operating Limits are not required at this time.

LD113-P:

A. The amount of LDPE produced in the LD-3 line shall not exceed 197,100,000 pounds per 12-month rolling period.

Authority for Requirement: DNR Construction Permit 97-A-656-S2

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 shall be legible and maintained in an orderly manner.

LD110-P through LD112-P:

Reporting and Recordkeeping are not required at this time.

LD113-P:

A. Record the amount of LDPE produced in the LD-3 line, in pounds. Calculate and record monthly and 12-month rolling totals.

Authority for Requirement: DNR Construction Permit 97-A-656-S2

Emission Point Characteristics

These emission points shall conform to the specifications listed below.

	Stack Height (ft, from the ground)	Stack Opening (dia. inch)	Exhaust Flow Rate (scfm)	Exhaust Temperature (°F)	Discharge Style	Authority for Requirement DNR Construction Permit
LD110-P	65	2.0	Variable	Variable	NA	97-A-856
LD113-P	30	1.5	Variable	Variable	Vertical Unobstructed	97-A-656-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 any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department 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: LD114-P through LD121-P (Low Pressure Separators)

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	Emission Unit Description	Raw Material	Rated Capacity lb/hr	DNR Construction Permit
LD114-P	LD114A-U	F-0201 LD-1 Make-Up Gas Suction Drum	Ethylene	102	97-A-857
	LD114B-U	F-0205 LD-1 Purge Compressor Suction Drum	Ethylene	102	97-A-858
LD115-P	LD115-U	F-0220 LD-1 High Pressure Separator dump valve	Ethylene	3,550	97-A-859
LD115A-P		F-0220 LD-1 High Pressure Separator RV	Ethylene	3,550	None
LD116-P	LD116-U	F-0703A LD-2A High Pressure Separator dump valve	Ethylene	4,410	None
LD116A/B-P		F-0703A LD-2A High Pressure Separator RV	Ethylene	4,410	None
LD117-P	LD117-U	F-0703B LD-2B High Pressure Separator dump valve	Ethylene	4,410	None
LD117A/B-P		F-0703B LD-2B High Pressure Separator RV	Ethylene	4,410	None
LD118-P	LD118-U	F-0704A LD-2A Low Pressure Separator dump valve	Ethylene	4,410	None
LD118A-P		F-0704A LD-2A Low Pressure Separator RV	Ethylene	4,410	None
LD119-P	LD119-U	F-0704B LD-2B Low Pressure Separator dump valve	Ethylene	4,410	None
LD119A-P		F-0704B LD-2B Low Pressure Separator RV	Ethylene	4,410	None
LD120-P	LD120-U	F-0803 LD-3 High Pressure Separator dump valve	Ethylene	22,500	97-A-657-S2
LD120A-P		F-0803 LD-3 High Pressure Separator RV	Ethylene	22,500	None
LD121-P	LD121-U	F-0804 LD-3 Low Pressure Separator dump valve	Ethylene	22,500	97-A-658-S2
LD121A-P		F-0804 LD-3 Low Pressure Separator RV	Ethylene	22,500	None

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.

EP	EU	Opacity	PM10	PM	VOC	Authority of Requirement
LD114-P	LD114A-U	NA	NA	NA	0.1 ton/yr	DNR Construction Permit 97-A-857
	LD114B-U	NA	NA	NA	0.1 ton/yr	DNR Construction Permit 97-A-858
LD115-P	LD115-U	NA	NA	NA	1.8 ton/yr	DNR Construction Permit 97-A-859
LD115A-P	LD115-U	NA	NA	NA	NA	NA
LD116-P	LD116-U	NA	NA	NA	NA	NA
LD116A/B-P		NA	NA	NA	NA	NA
LD117-P	LD117-U	NA	NA	NA	NA	NA
LD117A/B-P		NA	NA	NA	NA	NA
LD118-P	LD118-U	NA	NA	NA	NA	NA
LD118A-P		NA	NA	NA	NA	NA
LD119-P	LD119-U	NA	NA	NA	NA	NA
LD119A-P		NA	NA	NA	NA	NA
LD120-P	LD120-U	40% ⁽¹⁾	2.75 ton/yr ⁽²⁾	0.022 gr/scf	106.7 ton/yr ⁽²⁾ 2 lb/ton product ⁽³⁾	567 IAC 23.3(2) "d"
LD120A-P						567 IAC 23.3(2) "a"
LD121-P	LD121-U	40% ⁽¹⁾		0.022 gr/scf		567 IAC 23.3(2) "d"
LD121A-P						567 IAC 23.3(2) "a"
						DNR Construction Permit 97-A-657-S2
						DNR Construction Permit 97-A-658-S2

⁽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).

⁽²⁾ Limit for the total emissions from LD-3 Line.

⁽³⁾ Does not apply to malfunctions and emergency releases.

Operational Limits & Requirements

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

Operating Limits

LD114-P through LD119A-P:

Operating limits are not required at this time.

LD120-P, LD120A-P, LD121-P, and LD121A-P:

A. The amount of LDPE produced in the LD-3 line shall not exceed 197,100,000 pounds per 12-month rolling period.

Authority for Requirement: DNR Construction Permits 97-A-657-S2 & 97-A-658-S2

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 shall be legible and maintained in an orderly manner.

LD114-P through LD119A-P:

Reporting and Recordkeeping are not required at this time.

LD120-P, LD120A-P, LD121-P, and LD121A-P:

A. Record the amount of LDPE produced in the LD-3 line, in pounds. Calculate and record monthly and 12-month rolling totals.

Authority for Requirement: DNR Construction Permit 97-A-657-S2 & 97-A-658-S2

Emission Point Characteristics

These emission points shall conform to the specifications listed below.

		Stack Height (ft, from the ground)	Stack Opening (dia. inch)	Exhaust Flow Rate (scfm)	Exhaust Temp. (°F)	Discharge Style	Authority for Requirement DNR Construction Permit
LD114-P	LD114A-U	40	4	Variable	Variable	NA	97-A-857
	LD114B-U	40	4	Variable	Variable	NA	97-A-858
LD115-P	LD115-U	65	2	Variable	Variable	NA	97-A-859
LD115A-P							
LD120-P	LD120-U	30	1.5	Variable	Variable	Vertical Unobstructed	97-A-657-S2
LD120A-P							
LD121-P	LD121-U	65	3	Variable	Variable	Vertical Unobstructed	97-A-658-S2
LD121A-P							

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 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: LD124-P through LD126-P (Low Pressure Separators)

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	Emission Unit Description	Raw Material	Rated Capacity lb/hr	DNR Construction Permit
LD124-P	LD124-U	F-0231A LD-1 Low Pressure Separator dump valve	Ethylene	1,200	None
LD124A-P	LD124-U	F-0231A LD-1 Low Pressure Separator RV	Ethylene	1,200	None
LD125-P	LD125-U	F-0231B LD-1 Low Pressure Separator dump valve	Ethylene	1,200	None
LD125A-P	LD125-U	F-0231B LD-1 Low Pressure Separator RV	Ethylene	1,200	None
LD126-P	LD126-U	F-0232 LD-1 Low Pressure Separator dump valve	Ethylene	1,200	None
LD126A-P	LD126-U	F-0232 LD-1 Low Pressure Separator RV	Ethylene	1,200	None

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.

Emission limits are not required at this time.

Operational Limits & Requirements

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

Operational Limits are not required 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: LD127-P and LD128-P (Analyzer Houses)

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	EU Description	Raw Material	Rated Capacity liter/hr	Control Equipment	DNR Construction Permit
LD127-P	LD127-U	H207 Analyzer House, Analyzer 1	Ethylene	60	LD127CE1 LD127CE2 LD127CE3 LD127CE4 Combustors	03-A-405 03-A-406 03-A-407 03-A-408
		H207 Analyzer House, Analyzer 2	Ethylene			
		H207 Analyzer House, Analyzer 3	Ethylene			
LD128-P	LD128-U	H706 Analyzer House, Analyzer 1	Ethylene	60	LD128CE1 LD128CE2 LD128CE3 Combustors	03-A-409 03-A-410 03-A-411
		H706 Analyzer House, Analyzer 2	Ethylene			
		H706 Analyzer House, Analyzer 3	Ethylene			

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.

Emission limits are not required at this time.

Operational Limits & Requirements

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

Operational limits are not required at this time.

Emission Point Characteristics

These emission points shall conform to the specifications listed below.

	Stack Height (ft, from the ground)	Stack Opening (dia. inch)	Exhaust Flow Rate (liter/min)	Exhaust Temperature (°F)	Discharge Style	Authority for Requirement DNR Construction Permit
LD127-P	8	3	1.0	100	Vertical Unobstructed	03-A-405; 03-A-406 03-A-407; 03-A-408
LD128-P	8	3	1.0	100	Vertical Unobstructed	03-A-409; 03-A-410 03-A-411

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 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: LD130-P

Associated Equipment

Emission Unit vented through this Emission Point: LD130-U
Emission Unit Description: L829 Rear Seals
Raw Material/Fuel: Polyethylene-Extruder
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.

Emission limits are not required at this time.

Operational Limits & Requirements

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

Operational limits are not required 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: LD129-P

Associated Equipment

Emission Unit vented through this Emission Point: LD129-U
Emission Unit Description: Maintenance Emissions
Raw Material/Fuel: Ethylene
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.

Emission limits are not required at this time.

Operational Limits & Requirements

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

Operational limits are not required 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)

Part D. Product Packing and Shipping

Emission Point ID Number: PP005-P through PP016-P (Loading Equipment)

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	EU Description	Raw Material	Rated Capacity lb/hr	Control Equipment	DNR Construction Permit
PP005-P	PP005-U	L-0501 HDPE Old Hopper Car Elutriator	Polyethylene Pellets	65,000	PP005CE1 Cyclone	16-A-365
PP006-P	PP006-U	L-0551 LDPE Old Hopper Car Elutriator	Polyethylene Pellets	65,000	PP006CE1 Cyclone	16-A-366
PP007-P	PP007-U	L-0597 LDPE Old Hopper Car Scalperator	Polyethylene Pellets	65,000	PP007CE1 Cyclone	None
PP008-P	PP008-U	L-0503 HDPE Old Hopper Car Scalperator	Polyethylene Pellets	65,000	PP008CE1 Cyclone	None
PP009-P	PP009-U	L-0593 LDPE Hopper Truck Elutriator	Polyethylene Pellets	65,000	PP009CE1 Cyclone	None
PP010-P	PP010-U	L-0568 HDPE Hopper Truck Elutriator	Polyethylene Pellets	65,000	PP010CE1 Cyclone	None
PP011-P	PP011-U	L-0502 HDPE New Hopper Car Elutriator	Polyethylene Pellets	65,000	PP011CE1 Cyclone	79-A-102-S1
PP012-P	PP012-U	L-0509 HDPE New Hopper Car Scalperator	Polyethylene Pellets	65,000	PP012CE1 Cyclone	13-A-255
PP013-P	PP013-U	L-0557 LDPE New Hopper Car Scalperator	Polyethylene Pellets	65,000	PP013CE1 Cyclone	13-A-256
PP014-P	PP014-U	L-0559 LDPE New Hopper Car Elutriator	Polyethylene Pellets	65,000	PP014CE1 Cyclone	13-A-257
PP015-P	PP015-U	L-0594 LDPE Hopper Truck Scalperator	Polyethylene Pellets	65,000	PP015CE1 Cyclone	None
PP016-P	PP016-U	L-0569 HDPE Hopper Truck Scalperator	Polyethylene Pellets	65,000	PP016CE1 Cyclone	None

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.

EP	EU	Opacity	PM	Authority of Requirement
PP005-P	PP005-U	40% ⁽¹⁾	0.1 gr/dscf	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 16-A-365
PP006-P	PP006-U	40% ⁽¹⁾	0.1 gr/dscf	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 16-A-366
PP007-P	PP007-U	40%	41.94 lb/hr ⁽³⁾	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a"
PP008-P	PP008-U	40%	41.94 lb/hr ⁽³⁾	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a"
PP009-P	PP009-U	40%	41.94 lb/hr ⁽³⁾	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a"
PP010-P	PP010-U	40%	41.94 lb/hr ⁽³⁾	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a"
PP011-P	PP011-U	40% ⁽²⁾	40.7 lb/hr ⁽³⁾	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 79-A-102-S1
PP012-P	PP012-U	40% ⁽²⁾	40.7 lb/hr ⁽³⁾	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 13-A-255
PP013-P	PP013-U	40% ⁽²⁾	40.7 lb/hr ⁽³⁾	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 13-A-256
PP014-P	PP014-U	40% ⁽²⁾	40.7 lb/hr ⁽³⁾	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a" DNR Construction Permit 13-A-257
PP015-P	PP015-U	40%	41.94 lb/hr ⁽³⁾	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a"
PP016-P	PP016-U	40%	41.94 lb/hr ⁽³⁾	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a"

⁽¹⁾ An exceedance of the indicator opacity of no visible emissions will require the owner or 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 Department may require additional proof to demonstrate compliance (e.g., stack testing).

⁽²⁾ 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).

⁽³⁾ PM emission limit was based on the process weights for these units using the formulas in 567 IAC 23.3(2) "a" (2)

Operational Limits & Requirements

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

PP005-P & P006-P:

Control equipment parameters:

- A. The control equipment shall be inspected and maintained according to the manufactures operation and maintenance plan.

Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

A. The owner or operator shall keep records of control equipment inspections and maintenance.

Authority for Requirement: Iowa DNR Construction Permits 16-A-365 & 13-A-366

Emission Point Characteristics

These emission points shall conform to the specifications listed below.

	Stack Height (ft, from the ground)	Stack Opening (dia. inch)	Exhaust Flow Rate (scfm)	Exhaust Temperature (°F)	Discharge Style	Authority for Requirement DNR Construction Permit
PP005-P	28	24	7,000	68	Vertical Obstructed	16-A-365
PP006-P	28	24	7,000	68	Vertical Obstructed	16-A-366
PP011-P	22	30	5,000	100	Vertical Obstructed	79-A-102-S1
PP012-P	22	16x20	5,000	100	Vertical Obstructed	13-A-255
PP013-P	22	16x20	5,000	100	Vertical Obstructed	13-A-256
PP014-P	22	30	5,000	100	Vertical Obstructed	13-A-257

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 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

Required for PP005CE1 through PP016CE1

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 shall 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: PP017-P

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	EU Description	Raw Material	Rated Capacity lb/hr	Control Equipment	DNR Construction Permit
PP017-U	PP017-U	L-0589A LDPE New Hopper Car Deduster	Polyethylene Pellets	65,000	PP017CE1 Baghouse	98-A-599

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%⁽¹⁾

Authority for Requirement: DNR Construction Permit 98-A-599
567 IAC 23.3(2) "d"

⁽¹⁾ If visible emissions are observed other than startup, shutdown, or malfunction, a stack test may be required to demonstrate compliance with the particulate standard.

Pollutant: Particulate Matter (PM₁₀)

Emission Limit(s): 3.29 lb/hr; 14.4 ton/yr

Authority for Requirement: DNR Construction Permit 98-A-599

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 98-A-599
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.

Operational limits are not required at this time.

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

- Stack Height, (ft, from the ground): 19.83
- Stack Opening, (inches, dia.): 16
- Exhaust Flow Rate (scfm): 4,777
- Exhaust Temperature (°F): 250
- Discharge Style: NA
- Authority for Requirement: DNR Construction Permit 98-A-599

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 and obtain a permit amendment, if required.

Monitoring Requirements

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

Opacity

The facility shall check the opacity weekly during a period when the emission unit on this emission point is at or near full capacity and record the reading. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. The facility shall use EPA Method 9 with a certified smoke reader for the monitoring method.

If an opacity > 20% is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

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 shall 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: PP020-P and PP021-P (Feed Bins)

Associated Equipment

EP=Emission Point, EU=Emission Unit

EP	EU	Emission Unit Description	Raw Material	Rated Capacity lb/hr	DNR Construction Permit
PP020-P	PP020-U	F-0504 HDPE North Powder Feed Bin	Polyethylene Powder	30,000	None
PP021-P	PP021-U	F-0505 HDPE South Powder Feed Bin	Polyethylene Powder	30,000	None

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.

EP	EU	Opacity	PM	Authority of Requirement
PP020-P	PP020-U	40%	25.16 lb/hr ⁽¹⁾	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a"
PP021-P	PP021-U	40%	25.16 lb/hr ⁽¹⁾	567 IAC 23.3(2) "d" 567 IAC 23.3(2) "a"

⁽¹⁾ PM emission limit of 25.16 lb/hr was based on the process weights for these units using the formulas in 567 IAC 23.3(2) "a" (2).

Operational Limits & Requirements

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

Operational limits are not required 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: PP022-P (PEX Boxing Line)

Associated Equipment

EP	EU	EU Description	Raw Material	Rated Capacity lb/hr	Control Equipment	DNR Construction Permit
PP022-P	PP022-U	PEX Boxing Line	Polyethylene Powder	37,000	PP022CE1 Baghouse	08-A-659-S1

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%⁽¹⁾

Authority for Requirement: DNR Construction Permit 08-A-659-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

Pollutant: Particulate Matter (PM₁₀)

Emission Limit(s): 0.27 lb/hr

Authority for Requirement: DNR Construction Permit 08-A-659-S1

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf; 0.27 lb/hr

Authority for Requirement: DNR Construction Permit 08-A-659-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.

NSPS and NESHAP Applicability

The facility is subject to NSPS Subpart DDD - Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industry. Per 40 CFR §60.560(g), the facility claims exception from the VOC control requirements of 40 CFR §60.562-1 because the vent streams emit annual uncontrolled total organic compounds (TOC) emission of less than 1.75 tpy, or with a weight percent TOC of less than 0.1 percent. All the reporting and record keeping requirements of 40 CFR §60.565(a), (a)(10), (h), (k), (k)(6), and (k)(7) shall be fulfilled.

Authority for Requirement: DNR Construction Permit 08-A-659-S1
567 IAC 23.1(2)"mmm"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 15.75

Stack Opening, (inches): 10×20

Exhaust Flow Rate (scfm): 1,800

Exhaust Temperature (°F): 70

Discharge Style: Horizontal

Authority for Requirement: DNR Construction Permit 08-A-659-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 any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

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 shall 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)

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. Exceedances 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)

G32. 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

V. Appendix A: Federal Rule Weblinks

- A. 40 CFR 60 Subpart A Requirements – General Provisions
<http://www.ecfr.gov/cgi-bin/text-idx?SID=6e1e4ec8a4b902668b8bf53446d5e28a&mc=true&node=sp40.7.60.a&rgn=div6>
- B. 40 CFR 60 Subpart DDD Requirements – Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industry
<http://www.ecfr.gov/cgi-bin/text-idx?node=sp40.7.60.ddd>
- C. 40 CFR 61 Subpart A Requirements – General Provisions
<http://www.ecfr.gov/cgi-bin/text-idx?SID=dd895c46b9e47054dc69de164c90bfab&mc=true&node=sp40.10.61.a&rgn=div6>
- D. 40 CFR 61 Subpart J Requirements – National Emission Standard for Equipment Leaks (Fugitive Emission Sources) of Benzene
<http://www.ecfr.gov/cgi-bin/text-idx?SID=dd895c46b9e47054dc69de164c90bfab&mc=true&node=sp40.10.61.j&rgn=div6>
- E. 40 CFR 61 Subpart V Requirements – National Emission Standard for Equipment Leaks (Fugitive Emission Sources)
<http://www.ecfr.gov/cgi-bin/text-idx?SID=dd895c46b9e47054dc69de164c90bfab&mc=true&node=sp40.10.61.v&rgn=div6>
- F. 40 CFR 61 Subpart Y – National Emission Standards for Benzene Emissions from Benzene Storage Vessels.
<http://www.ecfr.gov/cgi-bin/text-idx?SID=dd895c46b9e47054dc69de164c90bfab&mc=true&node=sp40.10.61.y&rgn=div6>
- G. 40 CFR 61 Subpart BB Requirements – National Emission Standard for Benzene Emissions from Benzene Transfer Operations
<http://www.ecfr.gov/cgi-bin/text-idx?SID=dd895c46b9e47054dc69de164c90bfab&mc=true&node=sp40.10.61.bb&rgn=div6>
- H. 40 CFR 61 Subpart FF Requirements – National Emission Standard for Benzene Waste Operations
<http://www.ecfr.gov/cgi-bin/text-idx?SID=dd895c46b9e47054dc69de164c90bfab&mc=true&node=sp40.10.61.ff&rgn=div6>
- I. 40 CFR 63 Subpart A Requirements – General Provisions
<http://www.ecfr.gov/cgi-bin/text-idx?SID=3355219fa729329b0848b689e3a25fb8&mc=true&node=sp40.11.63.a&rgn=div6>
- J. 40 CFR 63 Subpart SS – National Emission Standards for Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process.
<http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&SID=adae5e4b5f5450b0625bfdcc930f3958&mc=true&r=PART&n=pt40.12.63#sp40.12.63.ss>
- K. 40 CFR 63 Subpart UU – National Emission Standards for Equipment Leaks – Control Level 2 Standards.
<http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&SID=adae5e4b5f5450b0625bfdcc930f3958&mc=true&r=PART&n=pt40.12.63#sp40.12.63.uu>

- L. 40 CFR 63 Subpart WW – National Emission Standards for Storage Vessels (Tanks) – Control Level 2.
<http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&SID=adae5e4b5f5450b0625bfdcc930f3958&mc=true&r=PART&n=pt40.12.63#sp40.12.63.ww>
- M. 40 CFR 63 Subpart XX Requirements – National Emission Standards for Ethylene Manufacturing Process Units: Heat Exchange Systems and Waste Operations
<http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&SID=adae5e4b5f5450b0625bfdcc930f3958&mc=true&r=PART&n=pt40.12.63#sp40.12.63.xx>
- N. 40 CFR 63 Subpart YY Requirements – National Emission Standards for Hazardous Air Pollutants for Source Categories: Generic Maximum Achievable Control Technology Standards
<http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&SID=adae5e4b5f5450b0625bfdcc930f3958&mc=true&r=PART&n=pt40.12.63#sp40.12.63.yy>
- O. 40 CFR 63 Subpart FFFF Requirements – National Emission Standard for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing
<http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&SID=adae5e4b5f5450b0625bfdcc930f3958&mc=true&r=PART&n=pt40.14.63#sp40.14.63.ffff>
- P. 40 CFR 63 Subpart ZZZZ Requirements – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
<http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&SID=adae5e4b5f5450b0625bfdcc930f3958&mc=true&r=PART&n=pt40.15.63#sp40.15.63.zzzz>
- Q. 40 CFR 63 Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers and Process Heaters.
<http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&SID=adae5e4b5f5450b0625bfdcc930f3958&mc=true&r=PART&n=pt40.15.63#sp40.15.63.ddddd>

Appendix B: CAM Plan

Compliance Assurance Monitoring Plan

HDPE Finishing Feed Bins

1. *Identification of the emissions unit, applicable emissions limit or standard, and description of the control technology;*

HDPE Unit					
EP	EU	EU Description	CE	CE Model	Con. Permit
HD010-P	HD010-U	F-0415A J-line Feed Bin	HD010CE1	20" Diameter	78-A-075-S1
HD011-P	HD011-U	F-0415B J-line Feed Bin	HD011CE1	20" Diameter	07-A-1181-S1
HD018-P	HD018-U	F-0462 F-line Feed Bin	HD018CE1	20" Diameter	89-A-065-S2
HD019-P	HD019-U	F-0463 F-line Feed Bin	HD019CE1	20" Diameter	07-A-1190-S1

2. *Description of the indicators to be monitored for trouble shooting purposes;*

Potential indicators that can be monitored: Visible emissions – once daily (if operating).

3. *Description of the indicator ranges, or the process by which indicators are to be established;*

Visible emissions shall be observed on a daily basis. If visible emissions are observed, then a Method 9 observation will be required. If an opacity (>10 %) is observed, corrective action shall be taken as soon as possible, but no later than eight hours from observation.

If weather conditions prevent the observer from conducting a visible emission observation, the observer shall note such conditions on observation sheet. At least three attempts shall be made to retake readings at approximately two hour intervals throughout the day. If weather prohibits all three attempts, an observation shall be made on the next operating day that weather permits.

4. *Description of the performance criteria for monitoring, including:*

This section is based upon good practices for the operation and maintenance of cyclone separators.

- specifications for representative operating data – n/a
- verification procedures to confirm the monitoring equipment's operational status- daily observations of plant equipment – see Silo Cyclone Operations and Maintenance Plan (HD24-01-004).
- Visible Emission Monitoring Frequency – daily (**post**-control emissions are less than the major source thresholds)
- data averaging period; - not applicable

5. *Justification for the proposed monitoring;*

Visible emission detection was selected as the performance indicator because it demonstrates the proper operating conditions of this control device and therefore the optimal PM control performance.

6. *Emissions test data;*

Source testing performed by METCO Environmental, file number 06-165 was conducted on the HD016-P stack, HD018-P stack, and the PP008-P stack. All three of PM results demonstrated that the tested emissions were a small fraction of the PM allowable claimed from the Title V permit application and the allowable emission rates. The testing was performed during June 2006 to comply with the Title V periodic monitoring requirement.

7. *An implementation plan for installing, testing, and operating the monitoring equipment if necessary.*

Operating Discipline (OD) rounds data are collected with hand held data loggers which contain entry spaces for the daily cyclone visible emission observations.

8. *QIP Threshold*

The QIP threshold is six excursions in a six month period.