

STATEMENT OF BASIS

For the issuance of Draft Air Permit # 1319-AR-8 AFIN: 73-00089

1. PERMITTING AUTHORITY:

Division of Environmental Quality
5301 Northshore Drive
North Little Rock, Arkansas 72118-5317

2. APPLICANT:

Danfoss Power Solutions II, LLC
400 East Lincoln Avenue
Searcy, Arkansas 72143

3. PERMIT WRITER:

Derrick Brown

4. NAICS DESCRIPTION AND CODE:

NAICS Description: Fluid Power Valve and Hose Fitting Manufacturing
NAICS Code: 332912

5. ALL SUBMITTALS:

The following is a list of ALL permit applications included in this permit revision.

Date of Application	Type of Application (New, Renewal, Modification, Deminimis/Minor Mod, or Administrative Amendment)	Short Description of Any Changes That Would Be Considered New or Modified Emissions
9/8/2021	Deminimis	Addition of a certified, 2021 Model Year, 459 Hp Emergency Generator.
1/31/22	Administrative Amendment	Update Insignificant Activities List for A-5, A-9, and A-13 activities.

6. REVIEWER'S NOTES:

Danfoss Power Solutions II, LLC operates a facility in Searcy, AR that manufactures hydraulic valves, valve components, filter assemblies, vane pumps, shafts and vane motors. The basic raw materials used in the processes include aluminum castings, cast iron castings, steel bar stock and other component and pre-machined parts. The facility submitted a modification to add a Certified, 2021 Model Year, 459 Hp Emergency

Generator. This modification increases permitted emissions by 0.1 tpy of PM₁₀, 0.1 tpy of SO₂, 0.2 tpy of VOC, 0.5 tpy of CO, and 0.3 tpy of HAPs.

7. COMPLIANCE STATUS:

The following summarizes the current compliance of the facility including active/pending enforcement actions and recent compliance activities and issues.

The facility's most recent inspection report stated there were no compliance issues.

8. PSD/GHG APPLICABILITY:

a) Did the facility undergo PSD review in this permit (i.e., BACT, Modeling, etc.)? N
If yes, were GHG emission increases significant? N/A

b) Is the facility categorized as a major source for PSD? N

- *Single pollutant ≥ 100 tpy and on the list of 28 or single pollutant ≥ 250 tpy and not on list*

If yes for 8(b), explain why this permit modification is not PSD.

9. SOURCE AND POLLUTANT SPECIFIC REGULATORY APPLICABILITY:

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
SN-08, SN-13	NO _x & CO	40 CFR Part 63, Subpart ZZZZ 40 CFR 40 Part 60, Subpart JJJJ
SN-03	HAPs	40 CFR Part 63, Subpart WWWWWW

10. UNCONSTRUCTED SOURCES:

Unconstructed Source	Permit Approval Date	Extension Requested Date	Extension Approval Date	If Greater than 18 Months without Approval, List Reason for Continued Inclusion in Permit
None this modification				

11. PERMIT SHIELD – TITLE V PERMITS ONLY: N/A (Minor Source)

12. COMPLIANCE ASSURANCE MONITORING (CAM) – TITLE V PERMITS ONLY: N/A

13. EMISSION CHANGES AND FEE CALCULATION:

See emission change and fee calculation spreadsheet in Appendix A.

14. AMBIENT AIR EVALUATIONS:

The following are results for ambient air evaluations or modeling.

a) NAAQS

A NAAQS evaluation is not required under the Arkansas State Implementation Plan, National Ambient Air Quality Standards, Infrastructure SIPs and NAAQS SIP per Ark. Code Ann. § 8-4-318, dated March 2017 and the DEQ Air Permit Screening Modeling Instructions.

b) Non-Criteria Pollutants:

Based on Division of Environmental Quality procedures for review of non-criteria pollutants, emissions of non-criteria pollutants are below thresholds of concern.

c) H₂S Modeling: N/A

15. CALCULATIONS:

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
SN-A	MSDS	6.26 lb/gal VOC	none	N/A	0.30 gal/hr
SN-02	AP-42 Table 1.4-1& 1.4-2, MSDS	7.6 lb/MMft ³ PM, 5.5 lb/MMft ³ VOC, 0.6 lb/MMft ³ SO _x , 100 lb/MMft ³ NO _x , 84 lb/MMft ³ CO, 7.17 lb/gal VOC in AAA Oil, 6.45 lb/gal VOC in Oil 22, 0.0002 Toluene lb/gal in Oil 22	none	N/A	0.5 MMBtu/hr
SN-03	Characterizing Site Specific Source Emissions for EPA's Risk Assessment Tool for Metal Finishing Industry Table 4	41 grams/day Nickel	none	N/A	Nitec 8200A = 0.165 gal/hr
SN-04	MSDS	1.46 lb/gal VOC in Metex	none	N/A	Metex SCB B

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
		SCB B, 1.67 lb VOC in Oakite 33, 6.59 lb/gal VOC in Pen Dip Super			= 0.015 gal/hr Oakite 33 = 0,0275 gal/hr Pen Dip Super = 0.275 gal/hr
SN-05	MSDS	6.59 lb/gal VOC in Pen Dip Super, 2.02 lb/gal VOC in Presto Prep P2	none	N/A	Pen Dip Super = 0.275 gal/hr Presto Prep P2 Surface Conditioner = 0.055 gal/hr
SN-06	Mass Balance/MSDS	lb/gal VOC: 5.2 PM: 6.2 Single HAP 2.7 Total HAP 3.30	Water Curtain	50% Particulate	0.84 gal/hr 1,584 gal/yr
SN-07	MSDS	6.59 lb/gal Acetone 0.0003 lb/gal Benzene	none	N/A	0.51 gal/hr
SN-08	AP-42 Table 3.2-3	(lbs/mmBtu) PM/PM ₁₀ : 0.0095 VOC: 0.0296 SO _x : 0.000588 NO _x : 2.27 CO: 3.72	None	N/A	0.3876 MMBtu/hr
SN-09	Mass Balance/MSDS	Superpaint lb/gal VOC: 4.47 PM: 9.78 Acetone: 3.42 Single HAP 0.42 Total HAP 1.23	3-stage filter	99% Particulate	23.8 gal/hr 11,376 gal/yr
SN-11	Mass Balance/MSDS	lb/gal VOC: 2.198 Acetone: 6.64 Single HAP 0.01	N/A	N/A	1.5 gal/hr 12,672 gal/yr
SN-13	CO, NO _x , and VOC from engine's Certificate of Conformity, other pollutants	CO – 2.0 g/(hp-hr) NO _x – 1.0 g/(hp-hr) VOC – 7.0 g/(hp-hr) PM – 1.94E-2 lb/MMBtu SO ₂ – 5.88E-4 lb/MMBtu HAPs -varies			

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
	AP-42				

16. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
See Specific Condition #40				

17. MONITORING OR CEMS:

The permittee must monitor the following parameters with CEMS or other monitoring equipment (temperature, pressure differential, etc.)

SN	Parameter or Pollutant to be Monitored	Method (CEM, Pressure Gauge, etc.)	Frequency	Report (Y/N)
None this modification.				

18. RECORDKEEPING REQUIREMENTS:

The following are items (such as throughput, fuel usage, VOC content, etc.) that must be tracked and recorded.

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
SN-A	Mineral Spirits used	219.0 gal/month 2628 gal/yr	Monthly	N
SN-A	VOC Content	6.26 lb/gal	Annual update of MSDS	N
SN-03, SN-04, SN-05	VOC emissions	See Specific Condition #1 & #2	Monthly	N
SN-03	Inspections & Maintenance	N/A	Continuous	N
SN-03	Compliance Certification	Subpart WWWW	Annual	N
SN-4	Liquid Additives used	352 gal/month 4224 gal/yr	Monthly	N
SN-5	Liquid Additives used	403 gal/month 4836 gal/yr	Monthly	N

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
SN-06	Coating used	1,584 gal/yr	Monthly	N
SN-06	Coating Content	VOC: 5.20 lb/gal Coating Single HAP: 2.7 lb/gal	Annual update of MSDS	N
SN-07	Acetone Used	371 gal/month 4467.6 gal/yr	Monthly	N
SN-08, SN-13	Hours of operation and type of use	Total: 500 hr/yr maintenance checks/testing: 100 hr/yr non-emergency: 50 hr/yr	Monthly	N
SN-08, SN-13	Maintenance Record and Manufacturer's instructions	See Manufacturer's instructions	Monthly	N
SN-08, SN-13 (certified)	Engine certification or Testing Results	See SC #33 & #34	Continuous	N
SN-08	Notifications for Subpart JJJJ	N/A	Continuous	N
SN-09	Coating used	11,376 gal/yr	Monthly	N
SN-09	Coating Content	VOC: 4.47 lb/gal Coating Single HAP: 0.42 lb/gal	Annual update of MSDS	N
SN-11	Solvent used	12,672 gal/yr	Monthly	N
SN-11	Solvent Content	Acetone - 6.64 lb/gal HAP - 0.01 lb/gal	Annual update of MSDS	N

19. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
02, 03, 06, 08 & 09	5%	Reg.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311	Inspector Observation
13	20%	Reg.19.503 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311	Inspector Observation

20. DELETED CONDITIONS:

Former SC	Justification for removal
	None this modification.

21. GROUP A INSIGNIFICANT ACTIVITIES:

The following is a list of Insignificant Activities including revisions by this permit.

Source Name	Group A Category	Emissions (tpy)						
		PM/PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs	
							Single	Total
Pre-Washer Stage 1 #PL03 – 1.5 MMBtu/hr	A-1	0.049	0.0039	0.035	0.54	0.64	0.012	0.012
Pre-Washer Stage 3 #PL03 - 1.5 MMBtu/hr	A-1	0.049	0.0039	0.035	0.54	0.64	0.012	0.012
Paint Booth Combination Oven #PL04 - 1.2 MMBtu/hr	A-1	0.039	0.0031	0.028	0.43	0.52	0.0097	0.0097
Paint Booth Air Make-up Unit #PL05 -2.6 MMBtu/hr	A-1	0.085	0.0067	0.061	0.93	1.11	0.021	0.021
Pre-Washer Tank Heater #PL03 - 0.5 MMBtu/hr	A-1	0.016	0.0013	0.012	0.18	0.21	0.0041	0.0041
Pre-Washer Air Knife #PL03 - 1.0 MMBtu/hr	A-1	0.033	0.0026	0.024	0.36	0.43	0.0081	0.0081
Thermal Deburring Unit #JEJ1 – 0.25 MMBtu/hr	A-1	0.0082	0.00064	0.0059	0.090	0.11	0.002	0.002
Pre-Washer Stage 1 #PW93 – 1.5 MMBtu/hr	A-1	0.049	0.0039	0.035	0.54	0.64	0.012	0.012
<i>Total for A-1 Category</i>		<i>0.33</i>	<i>0.026</i>	<i>0.24</i>	<i>3.62</i>	<i>4.31</i>	<i>0.081</i>	<i>0.081</i>
Coolant Makeup Tank (2000 gallons)	A-3			0.001			0.001	0.001
Coolant	A-3			0.001			0.001	0.001

Source Name	Group A Category	Emissions (tpy)						
		PM/PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs	
							Single	Total
Concentrate Tank (4000 gallons)								
Coolant Reclaim System Tank (1000 gallons)	A-3			0.001			0.001	0.001
AW 46 Hydraulic Oil Tank (4000 gallons)	A-3			0.001			0.001	0.001
AW 32 Hydraulic Oil Tank (4000 gallons)	A-3			0.001			0.001	0.001
Used Oil Storage Tank	A-3			0.001			0.001	0.001
Cutting Oil Reclaim #3	A-3			0.001			0.001	0.001
<i>Total for A-3 Category</i>				<i>0.007</i>			<i>0.007</i>	<i>0.007</i>
Gravimetric Lab				1.28			0.11	0.11
<i>Total for A-5 Category</i>				<i>1.28</i>				
Paint Storage in Small Containers (max 5 gallons in capacity)	A-8			0.152			0.075	0.084
<i>Total for A-8 Category</i>				<i>0.152</i>			<i>0.075</i>	<i>0.084</i>
Pre-Washer #PL03 - DuBois GF Clean 1052 – 0.025 lb/gal VOC	A-9			0.28				
Pre-Washer #PL03 - DuBois Secure – 0.017 lb/gal VOC	A-9			0.26				
Pre-Washer #PL03 – DuBois Secure – 0.013 lb/gal VOC	A-9						0.02	0.02
Pre-Washer #PL03 - DuBois SpectraLINK – 0.021 lb/gal VOC	A-9			0.23				
Pre-Washer #PW93 -	A-9			0.23				

Source Name	Group A Category	Emissions (tpy)						
		PM/PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs	
							Single	Total
Ransohoff Evercycle 225 – 0.013 lb/gal VOC								
Pre-Washer #PW93 - Cimclean Producto RI-600 – 0.081 lb/gal VOC	A-9			0.30				
BBO Washer – Cimcool Producto RI-600 – 0.108 lb/gal VOC	A-9			0.18				
<i>Total for A-9 Category</i>				0.72			0.02	0.02
Enclosed Sand Blasting Cabinet	A-13	0.45						
Low Vapor-pressure cleaners	A-13			0.9				
Assembly & Test Area	A-13			0.67			0.011	0.011
Empty Drum Label Painting	A-13			0.03			0.012	0.016
Two 500 Gallon Methanol Storage Tanks	A-13			0.011			0.011	0.011
Oil Reclaim System	A-13			0.31				
4 Grinders (3 connected to collector)	A-13	0.07						
Machining Operations	A-13	0.62						
Storage/Transfer from 55 gallon Paint Drums	A-13			0.38			0.180	0.212
Storage/Transfer of Metal Shavings	A-13	0.1						
Water Treating Process	A-13	0.61					0.002	0.002
Two Instapak foam-in-place systems	A-13			8.6E-07			8.6E-07	8.6E-07

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Source Name	Group A Category	Emissions (tpy)						
		PM/PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs	
							Single	Total
Paint Kitchen	A-13							
Batch Burn-off Oven	A-13	0.644	0.04	0.038	0.577	0.687	0.012	0.013
<i>Total of A-13 Category</i>		<i>2.494</i>	<i>0.04</i>	<i>2.339</i>	<i>0.577</i>	<i>0.687</i>	<i>0.228</i>	<i>0.265</i>

22. VOIDED, SUPERSEDED, OR SUBSUMED PERMITS:

The following is a list of all active permits voided/superseded/subsumed by the issuance of this permit.

Permit #
1319-AR-7

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Minor Source

Revised 03-11-16

Facility Name: Danfoss Power
Solutions II, LLC
Permit Number: 1319-AR-8
AFIN: 73-00089

		Old Permit	New Permit
\$/ton factor	25.13	Permit Predominant Air Contaminant	85.3
Minimum Fee \$	400	Net Predominant Air Contaminant Increase	0.2
Minimum Initial Fee \$	500		
		Permit Fee \$	400
Check if Administrative Amendment	<input type="checkbox"/>	Annual Chargeable Emissions (tpy)	85.5

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