

## Henderson, Katie

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**From:** Torrence, Rufus  
**Sent:** Friday, May 11, 2012 3:08 PM  
**To:** Jones Chuck (Chuck.Jones@danfoss.com)  
**Subject:** AFIN 10-00102 ARP001040 Danfoss Site Visit for Compliance Assurance: Inspection  
**Attachments:** SCT Insp 20120418.doc; SCT Lab Report 20120503.pdf

# ADEQ

ARKANSAS  
Department of Environmental Quality

May 11, 2012

Chuck Jones, EHS Manager  
Danfoss, LLC  
One Scroll Drive  
Arkadelphia, AR 71923

Re: April 18, 2012 Site Visit for Compliance Assurance: Inspection  
(Tracking No. ARP001040 AFIN 10-00102 AR0020605)

Dear Mr. Jones:

Part of ADEQ responsibility to EPA is to ensure that inspections of industries regulated by categorical pretreatment standards (40 CFR Part 405 – 471) are performed on a periodic basis. These industries are referred to as Categorical Industrial Users (CIUs) if they discharge the regulated wastewater into the local Publicly Owned Treatment Works (POTW). Scroll has processes (Coating-Phosphate/Zirconium & Passivation) in the Arkadelphia facility that are regulated by 40 CFR Part 433 and discharges to the City of Arkadelphia POTW. Therefore, Danfoss is a CIU. In accordance to 40 CFR 403.12(e), SCT must submit periodic reports to the Control Authority (ADEQ or Department) and in accordance with 40 CFR 403.8(f)(2)(v) be inspected by the Control Authority at least bi-annually. The Department appreciates Scroll taking the time on Wednesday (April 18, 2012) to show the ADEQ Engineer/Inspector (Rufus Torrence) the facility in Arkadelphia.

The inspection consisted of inspecting the shop operations (constructing scroll compressors), acid tanks and wastewater sampling. The inspector noticed that Danfoss uses steel coils (about 18" wide and 1/8" thick). The coils are on a spool that provides continuous feed to a metal cutter and cold-working former. During a previous site visit, the inspector considered placing Danfoss' metal working operation under 40CFR420. After the

inspector reviewed 40CFR420, the inspector determined that Danfoss Arkadelphia operations fall under 40CFR433 only. In accordance with 40CFR420.100(a) the "unheated steel is passed through rolls...to reduce its thickness, to produce a smooth surface, or to develop controlled mechanical properties in the steel." Based on the inspector's observation, Danfoss is only rolling the steel to produce a tube (no reduction in thickness, no change in surface or no new mechanical properties in the steel). Therefore, Danfoss rolling operation does not fall under 40CFR420. Nonetheless, during the recent April 2012 site visit, the inspector noticed that Danfoss has three possible 40CFR433 core operations. In addition Parco/Phosphate conversion coating operation, the recently modify seven stage washer (Zircobond/Zirconium Coating) and the rust removal (passivation) may also be core operations. Core operations are the key processes in determining the applicability of the 40CFR433 category.

Danfoss has no open floor drains in the plant which connect directly to the POTW. Wastewater enters open floor drains and all wastewater is pumped to the pretreatment system which consists of pH adjustment/floc. The treated wastewater is sampled at the end of the pretreatment system, metered and released to the POTW.

During the June 2005 exit interview, I pointed out that Danfoss limits have been adjusted to account for dilution from the stormwater which Danfoss pumps into the pretreatment system; therefore, Scroll limits are not shown in 40CFR433 as they have been reduced by using the Combined Wastestream Formula (CWF) shown in 40CFR403.6(e); for example, the zinc limits are 2.573 & 1.459 mg/l. During the pre-inspection meeting on May 20, 2009, the inspector illustrated the procedure for calculating these alternative limits using the CWF. If Danfoss has any questions about the procedure, let the Department know.

According to 40CFR433.12(a) Danfoss may submit a Toxic Organic Management Plan in lieu of sampling for TTOs; presently, Danfoss is required to sample for the 110 toxic organic, seven metals and total cyanide for each semi-annual report. Danfoss may review the EPA Guidance Manual for Implementing Total Toxic Organics Pretreatment Standards by accessing this web site:

<http://www.epa.gov/npdes/pubs/owm0021.pdf>

Danfoss can find an example of a Toxic Organic Management Plan in Appendix D of this manual.

During the inspection, the inspector took a sample of the regulated wastewater that will enter the local POTW. The ADEQ lab analysis is attached. The wastewater complies with the limits in 40 CFR 433.

Danfoss must continue sampling (at least semi-annually) all regulated wastewater for all 40 CFR 433 parameters before it enters the POTW.

The Department appreciates Danfoss' continued efforts in periodic reporting.

If you have any questions or concerns, please contact the Department at (501) 682-0626 or [torrence@adeq.state.ar.us](mailto:torrence@adeq.state.ar.us) .

Sincerely,



Rufus Torrence,  
ADEQ Engineer/Inspector

Attachments: ADEQ Lab Analysis  
ADEQ Inspection Report dated April 18, 2012



5301 Northshore Drive  
North Little Rock, AR 72118  
Telephone: 501-682-0744

**Client Report For:** Danfoss Scroll Tech 2012 1210  
**Attention:**  
**Client Address:**

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**Report Date:** May 03, 2012  
**LAB ID:** AR12APR19-02  
**Comment:**

Approved By: \_\_\_\_\_

Date: May 03, 2012

**Client:** Special Samples

**Client Sample ID:** SCT

**Lab ID:** 2012-1210

**Collection Date:** 4/18/2012 10:30:00 AM

**Matrix:** Water

**Analyses**

**Total Metals by EPA 200.8**

**EPA 200.8**

**Batch: 12043002 Run: 1**

	<b>Result</b>	<b>Reporting Limit</b>	<b>MDL</b>	<b>Qual</b>	<b>Unit</b>
Aluminum	<200	200	20		ug/L
Antimony	<100	100	5		ug/L
Arsenic	<10	10	0.5		ug/L
Barium	<100	100	2.0		ug/L
Beryllium	<5	5	0.1		ug/L
Boron	3700	250	5.0		ug/L
Cadmium	<10	10	0.3		ug/L
Calcium	82.9	0.4	0.04		mg/L
Chromium	<10	10	0.3		ug/L
Cobalt	<10	10	0.5		ug/L
Copper	30.5	10	0.5		ug/L
Iron	2390	200	10.0		ug/L
Lead	14.9	10	0.1		ug/L
Magnesium	1.43	1	0.1		mg/L
Manganese	1670	10	0.2		ug/L
Nickel	120	25	0.5		ug/L
Potassium	57.1	10	0.05		mg/L
Selenium	<20	20	0.5		ug/L
Silver	<50	50	1.0		ug/L
Sodium	50.0	0.4	0.02		mg/L
Thallium	<25	25	0.05		ug/L
Vanadium	<25	25	1.0		ug/L
Zinc	104	30	2.0		ug/L
Dilution Factor	1				
Analyzed By	Joe Semberski				
Analysis Date/Time	Apr 26 2012 2:38PM				
Prep By					
Prep Date/Time					

## Analytical Quality Control Results Report

<b>Batch: 12043002</b>	<b>ICP Metals - water (total)</b>
<b>SCT</b>	<b>LIMS ID: 2012-1210</b>

<i>ICP Metals - water (Total) DUP</i>						<i>Run: 1</i>
<i>Parameter</i>	<i>Result</i>	<i>DL</i>	<i>RL</i>	<i>Accuracy Control</i>	<i>Precision Control</i>	
Magnesium	1.61 mg/L	1	1			
Manganese	1900 ug/L	2	10			
Manganese (RPD)	12 %					0 - 20
Nickel (RPD)	11 %					0 - 20
Nickel	130 ug/L	5	25			
Potassium	64.3 mg/L	0.5	10			
Potassium (RPD)	11.8 %					0 - 20
Selenium (RPD)	11.8 %					0 - 20
Selenium	<20 ug/L	5	20			
Silver	<50 ug/L	10	50			
Silver (RPD)	22.2 %					0 - 20
Sodium	55.9 mg/L	0.2	0.4			
Sodium (RPD)	11.2 %					0 - 20
Thallium (RPD)	0 %					0 - 20
Thallium	<25 ug/L	0.5	25			
Vanadium (RPD)	12.8 %					0 - 20
Vanadium	<25 ug/L	10	25			
Zinc	118 ug/L	20	30			
Zinc (RPD)	12.8 %					0 - 20
Dilution Factor	1					
Analyzed By	Joe Semberski					
Analysis Date/Time	Apr 26 2012 2:43PM					
Aluminum	<200 ug/L	200	200			
Aluminum (RPD)	3.3 %					0 - 20
Antimony (RPD)	2.8 %					0 - 20
Antimony	<100 ug/L	50	100			
Arsenic	<10 ug/L	5	10			
Arsenic (RPD)	11.6 %					0 - 20
Barium (RPD)	13.9 %					0 - 20
Barium	<100 ug/L	20	100			
Beryllium	<5 ug/L	1	5			
Beryllium (RPD)	%					0 - 20
Boron (RPD)	12.2 %					0 - 20
Boron	4180 ug/L	50	250			
Cadmium	<10 ug/L	3	10			

## Analytical Quality Control Results Report

<b>Batch: 12043002</b>	<b>ICP Metals - water (total)</b>
<b>SCT</b>	<b>LIMS ID: 2012-1210</b>

<i>ICP Metals - water (Total) DUP</i>						<i>Run: 1</i>
<i>Parameter</i>	<i>Result</i>	<i>DL</i>	<i>RL</i>	<i>Accuracy Control</i>	<i>Precision Control</i>	
Cadmium (RPD)	0 %					0 - 20
Calcium (RPD)	13.8 %					0 - 20
Calcium	95.2 mg/L	0.4	0.4			
Chromium	<10 ug/L	3	10			
Chromium (RPD)	8.3 %					0 - 20
Cobalt (RPD)	12.7 %					0 - 20
Cobalt	<10 ug/L	5	10			
Copper	33.5 ug/L	5	10			
Copper (RPD)	9.3 %					0 - 20
Iron (RPD)	10.7 %					0 - 20
Iron	2660 ug/L	100	200			
Lead	17.4 ug/L	1	10			
Lead (RPD)	14.9 %					0 - 20
Magnesium (RPD)	12.2 %					0 - 20

<b>SCT</b>	<b>LIMS ID: 2012-1210</b>
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<i>ICP Metals - water (Total) MS</i>						<i>Run: 1</i>
<i>Parameter</i>	<i>Result</i>	<i>DL</i>	<i>RL</i>	<i>Accuracy Control</i>	<i>Precision Control</i>	
Aluminum (% Recovery)	98.8 %					70 - 130
Antimony (% Recovery)	98.7 %					70 - 130
Arsenic (% Recovery)	102 %					70 - 130
Barium (% Recovery)	95.5 %					70 - 130
Beryllium (% Recovery)	106 %					70 - 130
Boron (% Recovery)	96.4 %					70 - 130
Cadmium (% Recovery)	104 %					70 - 130
Calcium (% Recovery)	94.5 %					70 - 130
Chromium (% Recovery)	98.5 %					70 - 130
Cobalt (% Recovery)	96.0 %					70 - 130
Copper (% Recovery)	97.9 %					70 - 130
Iron (% Recovery)	93.8 %					70 - 130
Lead (% Recovery)	95.9 %					70 - 130
Magnesium (% Recovery)	99.7 %					70 - 130
Manganese (% Recovery)	65 %			70 - 130		
Nickel (% Recovery)	97 %					70 - 130
Potassium (% Recovery)	95.9 %					70 - 130
Selenium (% Recovery)	112 %					70 - 130
Silver (% Recovery)	90.3 %					70 - 130

## Analytical Quality Control Results Report

<b>Batch: 12043002</b>	<b>ICP Metals - water (total)</b>
<b>SCT</b>	<b>LIMS ID: 2012-1210</b>

<i>ICP Metals - water (Total) MS</i>						<i>Run: 1</i>
<i>Parameter</i>	<i>Result</i>	<i>DL</i>	<i>RL</i>	<i>Accuracy Control</i>	<i>Precision Control</i>	
Sodium (% Recovery)	106 %			70 - 130		
Thallium (% Recovery)	95.4 %			70 - 130		
Vanadium (% Recovery)	96.9 %			70 - 130		
Zinc (% Recovery)	107 %			70 - 130		
Dilution Factor	1					
Analyzed By	Joe Semberski					
Analysis Date/Time	Apr 27 2012 7:50AM					

<b>SCT</b>	<b>LIMS ID: 2012-1210</b>
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<i>ICP Metals - water (Total) MSD</i>						<i>Run: 1</i>
<i>Parameter</i>	<i>Result</i>	<i>DL</i>	<i>RL</i>	<i>Accuracy Control</i>	<i>Precision Control</i>	
Aluminum (% Recovery)	98.9 %			70 - 130		
Aluminum (RPD)	0.1 %				0 - 20	
Antimony (% Recovery)	98.5 %			70 - 130		
Antimony (RPD)	0.3 %				0 - 20	
Arsenic (% Recovery)	103 %			70 - 130		
Arsenic (RPD)	0.8 %				0 - 20	
Barium (% Recovery)	96.0 %			70 - 130		
Barium (RPD)	0.5 %				0 - 20	
Beryllium (% Recovery)	106 %			70 - 130		
Beryllium (RPD)	0.7 %				0 - 20	
Boron (% Recovery)	98.2 %			70 - 130		
Boron (RPD)	0.6 %				0 - 20	
Cadmium (% Recovery)	102 %			70 - 130		
Cadmium (RPD)	1.0 %				0 - 20	
Calcium (% Recovery)	95.9 %			70 - 130		
Calcium (RPD)	0.8 %				0 - 20	
Chromium (% Recovery)	97.6 %			70 - 130		
Chromium (RPD)	0.8 %				0 - 20	
Cobalt (% Recovery)	95.7 %			70 - 130		
Cobalt (RPD)	0.3 %				0 - 20	
Copper (% Recovery)	97.9 %			70 - 130		
Copper (RPD)	0 %				0 - 20	
Iron (% Recovery)	94.0 %			70 - 130		
Iron (RPD)	0.1 %				0 - 20	
Lead (% Recovery)	96.9 %			70 - 130		
Lead (RPD)	0.9 %				0 - 20	



## Analytical Quality Control Results Report

<b>Batch: 12043002</b>	<b>ICP Metals - water (total)</b>
<b>SCT</b>	<b>LIMS ID: 2012-1210</b>

<i>ICP Metals - water (Total) MSD</i>	<i>Run: 1</i>				
<i>Parameter</i>	<i>Result</i>	<i>DL</i>	<i>RL</i>	<i>Accuracy Control</i>	<i>Precision Control</i>
Magnesium (% Recovery)	99.8 %			70 - 130	
Magnesium (RPD)	0.1 %				0 - 20
Manganese (% Recovery)	68 %			70 - 130	
Manganese (RPD)	0.4 %				0 - 20
Nickel (% Recovery)	97 %			70 - 130	
Nickel (RPD)	0.6 %				0 - 20
Potassium (% Recovery)	96.3 %			70 - 130	
Potassium (RPD)	0.3 %				0 - 20
Selenium (% Recovery)	114 %			70 - 130	
Selenium (RPD)	1.8 %				0 - 20
Silver (% Recovery)	91.0 %			70 - 130	
Silver (RPD)	0.8 %				0 - 20
Sodium (% Recovery)	107 %			70 - 130	
Sodium (RPD)	0.4 %				0 - 20
Thallium (% Recovery)	96.3 %			70 - 130	
Thallium (RPD)	1.0 %				0 - 20
Vanadium (% Recovery)	96.6 %			70 - 130	
Vanadium (RPD)	0.3 %				0 - 20
Zinc (% Recovery)	108 %			70 - 130	
Zinc (RPD)	0.2 %				0 - 20
Dilution Factor	1				
Analysis Date/Time	Apr 27 2012 7:55AM				
Analyzed By	Joe Semberski				

## Pretreatment Industrial Inspection

### Facility Information

Facility Name: <b>Danfoss, LLC</b>	Site Address: <b>One Scroll Drive</b>
	<b>Arkadelphia, AR 71923</b>
Signatory Authority (Name & Title): <b>T. Paul Dean, General Manager</b>	
Phone: <b>870-246-0700</b>	Mailing Address (if different):
Fax:	<b>Same</b>
Address: <b>Same</b>	Corporate Owner Name and address (if applicable):
	<b>Member of the Danfoss Group</b>
Phone:	<b>Nordborgvej 81 6430 Nordborg Denmark</b>
Fax:	Phone: <b>+45 7488 2222</b>
Contact Person (Name & Title):	Fax: <b>+45 7449 0949</b>
<b>Chuck Jones, Env Health and Safety Mgr.</b>	Corporate CEO: <b>Neils B. Christiansen</b>
e-mail: <a href="mailto:chuck.jones@danfoss.com">chuck.jones@danfoss.com</a>	e-mail:
Facility Permit # <b>ARP001040</b> AFIN <b>10-00102</b>	Last Inspection Date: <b>May11, 2011</b>


POTW (City) IU discharges to: <b>Arkadelphia Water Dept (Utility)</b>	POTW's NPDES # <b>AR0020605</b>
Industrial Classification: <input checked="" type="checkbox"/> <b>Categorical</b>	<input type="checkbox"/> <b>Significant</b>

If Categorical, list which CFR #(s) the facility is subject to: **40 CFR 433**

### Table of Contents

I. Summary of Inspection	Page	of
A. Inspection Objectives		
B. Inspection Analysis		
II. Pre-Inspection Meeting	Page	of
A. General Information		
B. Facility Permits		
C. Additional Comments		
III. Attachments "Yes" indicates item exists at the facility and attachments will be included		
"No" indicates item does not exist at the facility and attachments aren't necessary		
A. Industrial Processes	yes <input checked="" type="checkbox"/> no <input type="checkbox"/>	Page of
B. Pollution Prevention Activities	yes <input checked="" type="checkbox"/> no <input type="checkbox"/>	Page of
C. Pretreatment System	yes <input checked="" type="checkbox"/> no <input type="checkbox"/>	Page of
D. Chemical Storage	yes <input checked="" type="checkbox"/> no <input type="checkbox"/>	Page of
E. Spill/Slug Control Plan	yes <input checked="" type="checkbox"/> no <input type="checkbox"/>	Page of
F. Self-Monitoring/TOMP	yes <input checked="" type="checkbox"/> no <input type="checkbox"/>	Page of

Comments : **This facility has three possible core processes: Parco (Phosphatizing-Coating), Zircobond (Zirconium Coating) and Rust Removal (Coating).**

Inspector's Name (Print): <b>Rufus Torrence</b>	Signature: 
IU Rep's Name (Print): <b>Chuck Jones</b>	Signature: <b>Not Applicable</b>

Date and Time Inspection Ended: **April 18, 2012 @ 11:30 pm**

<b>I. Summary of Inspection</b>			
<b>A. Inspection and Objective (Complete Before Inspection)</b>			
<input type="checkbox"/> Permit Renewal	<input checked="" type="checkbox"/> Annual	<input type="checkbox"/> Spill/Slug	<input type="checkbox"/> Unscheduled
<input type="checkbox"/> New Construction	<input type="checkbox"/> Noncompliance	<input type="checkbox"/> Follow-up	<input type="checkbox"/> Complaint
Inspection Objective(s): <i>Compliance Assurance</i>			
Checklist of items to be reviewed and/or visually inspected:			
<input checked="" type="checkbox"/> Pre-inspection Meeting	<input type="checkbox"/> Permit Conditions	<input type="checkbox"/> Safety Concerns	
<input checked="" type="checkbox"/> Process Inspection	<input checked="" type="checkbox"/> Pretreatment Process	<input type="checkbox"/> TOMP*	
<input checked="" type="checkbox"/> Chemical Storage	<input checked="" type="checkbox"/> Discharge point(s)	<input type="checkbox"/> Spills/Slug Control Plan**	
<input checked="" type="checkbox"/> Records Review	<input type="checkbox"/> RCRA information	<input type="checkbox"/> Process/Flow/Pretreatment Schematics	
<input checked="" type="checkbox"/> IU sampling procedures	<input type="checkbox"/> Flow/pH Meter(s)	<input type="checkbox"/> Calibration Records	
<input type="checkbox"/> MSDS Inventory List	<input type="checkbox"/> New MSDS	<input type="checkbox"/>	
Comments: *Danfoss Scroll has elected to sample for TTOs in lieu of submitting a TOMP to ADEQ.			
**A Spills/Slug Control Plan appears unnecessary at this time.			
<b>B. Inspection Analysis</b>			
Were there any deficiencies/violations identified and noted during the inspection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Provide a brief narrative of deficiencies/violations or other concerns in the following areas:			
Records Review			
Process Area(s): <i>In addition to the Parco and Phosphate Washer, Danfoss is employing a "Derust" operation which uses Citric Acid. The Parco and Phosphating are core processes; the Derust may also be a core process.</i>			
Pretreatment System			
Self Monitoring Procedures			
Diversion/Sewer Meters			
Spill/Slug Control Plan			
Sampling Point			
Chemical Storage			

<b>II. Pre-Inspection Meeting</b>		
<b>A. General Information</b>		
Date and Time Inspection Started: <i>April 18, 2012 @ 9:45 am</i>		SIC code(s): <i>3585</i>
IU Reps/Titles	Control Authority Reps/Titles	
<i>Chuck Jones, Env Health and Safety Mgr.</i>	<i>Rufus Torrence, Engineer</i>	
<i>Gregg Newton, WW Operator</i>		
<i>Hoyle Guber, Maintenance Supv</i>		
End product(s): <i>Scroll A/C compressors</i>		Approx. # of units produced: <i>1900/day</i>
Days of Operation: <i>7 days/week</i>		Days of Production (if different): <i>same</i>
Hours of Operation: <i>24 hours/day</i>		Hours of Production (if different): <i>same</i>
Shift 1, hrs.: <i>8:00 am to 5:00 pm</i>	Shift 2, hrs.: <i>N/A</i>	Shift 3, hrs.: <i>N/A</i>
# of Employees: <i>237 (as of April 2012)</i>	Peak Mos.:	"Off" Mos.:
Are there any scheduled plant shutdowns? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> If yes, when? <i>July &amp; December</i>		
Are there designated plant clean-up days? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/> If yes, when?		
Is the facility currently in compliance with all pretreatment reporting requirements and limits? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
If No, explain:		
Are there any Special Entry Procedures for the Discharge/Sample point locations? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
If Yes, explain:		
Are there any Safety Concerns or Identified Hazards that the inspector should be aware of: <input type="checkbox"/> Yes. <input checked="" type="checkbox"/> No		
If Yes, explain:		
Has there been any changes since the last inspection regarding the following items:		
Plant/flow/process layout? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, obtain copy of updated schematic for facility file.		
Processes? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, explain:		
Production Levels? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, explain:		
Raw materials? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, explain:		
Flow rates? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, explain:		
Are regulated and non-regulated wastestreams combined?	Yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>
Prior to Pretreatment System?	Yes <input checked="" type="checkbox"/>	no <input type="checkbox"/> N/A <input type="checkbox"/>
If Yes, was the CWF used to calculate limits?	Yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>
Prior to connection to the POTW sanitary sewer?	yes <input type="checkbox"/>	no <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
At connection to sanitary sewer?	yes <input type="checkbox"/>	no <input checked="" type="checkbox"/> N/A <input type="checkbox"/>
Production and flows verified for Production-Based Standards?	yes <input type="checkbox"/>	no <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
What is the current avg. production rate and process flow? <i>Not Applicable</i>		
Is the prod. rate or flow substantially different (+/- 20%) from those used in calculating limits? yes <input type="checkbox"/> no <input type="checkbox"/> N/A <input checked="" type="checkbox"/>		
<i>Not Applicable</i>		

B. Facility Permits		
Permit Type	Permit No.	Expiration Date
Air	1223-A	Voided
RCRA	Not Applicable	N/A
NPDES	ARR00B641	Active
Other	ARR00A240	Voided
C. Additional Comments		
(Note which section or attachment comments are regarding)		
1. Danfoss has both ISO 9001 and ISO 14001 Certification		
2. The Parco process is actually a phosphate conversion coating process that uses phosphoric acid, nitric acid and nickel nitrate. This coating provides lubricity to the moving parts during start-up.		
3. The seven stage phosphate washer recently was modified to produce a "Zircobond" coating. The process produces a zirconium coating.		
4. Danfoss also receives cast steel parts which are machined on site to create parts for the compressors. Danfoss receives round steel stock in eight-foot lengths which are cut to length and machined to form "eccentric" shafts for the compressors. Danfoss purchases the stator and rotor from outside vendors. Danfoss has automated assembly lines which piece together the parts for the compressors. The stationery scroll and orbiting scroll are washed in alkaline and phosphoric baths. Furthermore, the steel tube housing is also washed in an alkaline bath prior to painting. Danfoss ships the finish product to the two owners (Carlyle/Carrier and Bristol/York...sold to Danfoss Group).		
5. Copeland is Scroll Tech main competitor; the compressors are sold to York (about 60%), to Carrier (about 20%) and 20% to others.		

<b>Attachment A: Industrial Process(es)</b>			
List process(es) generating wastewater. Note if it's categorical (federally regulated w/pretreatment limits) or not			
1. <b>Ransohoff (Soap) Wash</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	4. <b>Derust (Citric Acid)</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. <b>Parco Coating (Core Process)</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	5.	Yes <input type="checkbox"/> No <input type="checkbox"/>
3. <b>Zircobond Coating (Core)</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	6.	Yes <input type="checkbox"/> No <input type="checkbox"/>
Were processes visually inspected? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>			
Brief description of process(es):			
<b>Ransohoff is a hydroxide soapy wash to remove oil, grease and other contaminants and is a 40 CFR 433 "ancillary" operation.</b>			
<b>Parco is a phosphate conversion process that falls under 40 CFR 433 as a "core" operation.</b>			
<b>Zircobond Coating is performed in the old "phosphate" seven-stage washer and also is a 40 CFR 433 core operation.</b>			
General observations of facility's indoor housekeeping: <b>Excellent</b>			
General observations of area outside facility's building: <b>Excellent</b>			
Check all sources of wastewater being discharged into the City's collection system. Indicate avg. gal/day, measured (M) or estimated (E). If batch (B) discharged, list frequency and volume (1000 gal/month, e.g.).			
<input type="checkbox"/> Process Rinse Overflows	<input type="checkbox"/> Equip. Cleanup	<input checked="" type="checkbox"/> Floor Cleanup	<input type="checkbox"/> Spent Bath Solutions
<input checked="" type="checkbox"/> Product Cleaning	<input type="checkbox"/> Forklifts Maint./Wash	<input type="checkbox"/> Tank Dragout	<input type="checkbox"/> Air Pollution Devices
<input type="checkbox"/> Boiler Blowdown	<input type="checkbox"/> Spent Rinse Tanks	<input type="checkbox"/> Equipment Coolants	<input type="checkbox"/> Non-Contact Cooling Water
<input checked="" type="checkbox"/> Stormwater	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
List Major Raw Materials and Chemicals used:			
<b>Cast parts machined to form "scroll" fixed and orbiting parts. Steel rods are imported from China.</b>			
<b>Acids (phosphoric, nitric, etc.) for cleaning and coating.</b>			
<b>Lubricating oils for moving parts in compressor</b>			
Check Waste Stream Pollutants of Concern from Process(es)			
<input type="checkbox"/> BOD	<input type="checkbox"/> CN <sup>-</sup>	<input checked="" type="checkbox"/> Metals (List) <b>Cd, Cu, Cr, Ni, Pb, Ag &amp; Zn</b>	<input type="checkbox"/> Solvents (List)
<input type="checkbox"/> TSS	<input type="checkbox"/> Cl <sub>2</sub>		
<input type="checkbox"/> O&G	<input type="checkbox"/> S <sup>-</sup>		
<input type="checkbox"/> pH	<input type="checkbox"/>		
Are there floor drains in the Process area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes list number and the location of all floor drains:			

**Attachment B: Pollution Prevention (P2) / Recycling Activities**

Does the facility have a written P2 Plan?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/> <i>But documentation is pending</i>
Does this facility practice P2?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/> <i>In practice, but system still under development</i>
Environmental Management System in place?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/> <i>EMS is being developed for ISO Certification</i>
ISO Certified?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/> <i>ISO 9001 &amp; ISO 14001</i>
Written Standard Operating Procedures?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Explain:		
Preventative Maintenance Program	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/> (hydraulic systems, valves, pumps, etc)
Explain:		
Water Reuse:	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Explain:		
Cost Accounting to Track Savings:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Explain:		
Inventory Control / "Green Purchasing":	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/> (lean manufacturing/"env. friendly purchasing", etc)
Explain:		
Employee Training:	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Explain:		
Spent Solvent Reclamation?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Explain:		
Recycle Paper, Aluminum, Boxes, and Pallets?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Explain:		
Recycle Waste Oil, Solvents, and Lubricants?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Explain:		
Other Activities		
P2 Equipment/Practices in use:		
<input type="checkbox"/> Overflow Alarms	<input type="checkbox"/> Aqueous Cleaning Solutions	
<input type="checkbox"/> Fog Spray Rinsing	<input type="checkbox"/> Countercurrent Rinsing	
<input type="checkbox"/> Dragout Collection Trays	<input type="checkbox"/> Seal-Less Pumps	
<input type="checkbox"/> Air Jets to Blow Parts Dry	<input type="checkbox"/> Secondary Containment of Process Solutions	
<input type="checkbox"/> Aqueous Paint Stripping Solutions	<input checked="" type="checkbox"/> Bead Blasting to Remove Paint	
<input checked="" type="checkbox"/> Water Soluble Cutting Fluids	<input type="checkbox"/> Recycle Overspray	
<input type="checkbox"/> In-Process Recycle (Ion Exchange, Reverse Osmosis)	<input type="checkbox"/> Conductivity Meters	
<input type="checkbox"/> Dead Rinse Tanks	<input type="checkbox"/> Bath / Rinse Filtration	

**Attachment C: Pretreatment System**

Are wastestreams segregated before pretreatment?  Yes  No  N/A

Are they pretreated prior to discharge to the sanitary sewer?  Yes  No  N/A

Was the pretreatment system visually inspected during this visit?  Yes  No  N/A

Check which of the following are utilized for pretreatment prior to discharge to sanitary sewer:

<input type="checkbox"/> Dissolved air floatation	<input type="checkbox"/> Membrane Tech.	<input type="checkbox"/> Ion Exchange	<input type="checkbox"/> Biological Treatment
<input type="checkbox"/> Centrifugation	<input type="checkbox"/> Flow Equalization	<input type="checkbox"/> Ozonation	<input type="checkbox"/> Chlorinating
<input checked="" type="checkbox"/> Chemical Precipitation	<input type="checkbox"/> Oil/Water Separation	<input type="checkbox"/> Reverse Osmosis	<input type="checkbox"/> Grit Removal
<input type="checkbox"/> Sludge Filter Press	<input type="checkbox"/> Grease Trap	<input type="checkbox"/> Screen	<input type="checkbox"/> Solvent Separation
<input checked="" type="checkbox"/> pH Adjustment	<input type="checkbox"/> Sand Trap	<input type="checkbox"/> Sedimentation	<input type="checkbox"/> Silver Recovery
<input type="checkbox"/> Belt/Disk Oil Skimmer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Provide Brief Description of Pretreatment System (leaks, cleanliness, equipment not in working order):

***System appears to well operated and maintained.***

Does the description match the schematic currently on file?  Yes  No  N/A

System Operator(s) Name: ***Joe May, Melissa Franklin, James Diemer have Industrial Operator license.***  
***Greg Newton, Mike Bell, Kenneth Langley, and Greg Conant have Advance Industrial Operator license.***

Does discharge permit require licensed operator?  Yes  No  N/A

Is the System Operator(s) licensed by the State of Arkansas (per Reg. # 3?)  Yes  No  N/A

List Name(s) and License classification: ***(Listed above)***

Is training provided to the Pretreatment System Operator(s)?  Yes  No  N/A

If Yes, list type and frequency:

Is the discharge from the Pretreatment System?  Batch  Continuous  Combination

If any discharges are batch type or combination, describe the following:

Volume of each batch: \_\_\_\_\_ gallons per

Describe process from which batch originated (spent bath, e.g.):

Approximate duration of batch discharge:

Meter Type	Calibration Procedure and Frequency	Comments (Totalizer Reading)



<b>Attachment D: Chemical Storage Area(s)</b>		
Does the facility have a designated chemical storage area(s)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No ( <i>Decentralized; see comment below</i> )		
Was this area(s) visually inspected? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		
Describe Chemical Storage Area(s)	Are there floor drains in this area?	If yes, where does this drain lead to?
1.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Pretreatment <input type="checkbox"/> Sanitary Sewer <input type="checkbox"/> Storm Sewer
2.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Pretreatment <input type="checkbox"/> Sanitary Sewer <input type="checkbox"/> Storm Sewer
3.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Pretreatment <input type="checkbox"/> Sanitary Sewer <input type="checkbox"/> Storm Sewer
4.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Pretreatment <input type="checkbox"/> Sanitary Sewer <input type="checkbox"/> Storm Sewer
Does the Chemical Storage Area(s) contain any of the following?		
<input type="checkbox"/> Dikes, Berms for Containment	<input type="checkbox"/> Plugs for Floor Drains	
<input type="checkbox"/> Secondary Tanks for Holding	<input type="checkbox"/> Premix (low) Concentrations	
<input type="checkbox"/> Alarms	<input type="checkbox"/> Chain restraints, limited access	
<input type="checkbox"/> Spills Control Kits for Cleanup	<input type="checkbox"/> Notification Procedures	
<input type="checkbox"/> Chemical desegregation within Storage Area	<input type="checkbox"/> Other	
Chemical Inventory List (MSDS) on file? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Were any new MSDS reviewed during the Inspection? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
If yes, list below:		
Chemical storage comments:		
<i>Danfoss was leasing a nearby warehouse. The lease expired and was not renewed. Danfoss elected to use the chemical storage area as warehouse space. All the chemicals were relocated to new locations throughout the plant and close to the process which uses them. Presently, Danfoss has “decentralized chemical storage”. The decentralized location are equipped with berms for spill control.</i>		
Chemical handling procedures (totes, dolly, buckets, hardline, etc):		
<i>Totes, Forklifts,</i>		

**Attachment E: Spill/Slug Control Plan**

Does the facility have a Spill/Slug control plan?	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no <sup>1</sup>
If yes are the following: 403.8(f)(2)(v)(A-D) requirements in place?	
Is the spill/slug control plan <2 years old?	<input type="checkbox"/> yes <input type="checkbox"/> no <input checked="" type="checkbox"/> N/A
(A) Describes discharge practices including non routine batch (slug) discharges	<input type="checkbox"/> yes <input type="checkbox"/> no <input checked="" type="checkbox"/> N/A
(B) Describes storage and handling of chemicals	<input type="checkbox"/> yes <input type="checkbox"/> no <input checked="" type="checkbox"/> N/A
(C) Procedures for immediate notification to POTW of slug discharges	<input type="checkbox"/> yes <input type="checkbox"/> no <input checked="" type="checkbox"/> N/A
(D) 1. Describes measures for controlling toxic/hazardous pollutants	<input type="checkbox"/> yes <input type="checkbox"/> no <input checked="" type="checkbox"/> N/A
2. Describes procedures and equipment for emergency response	<input type="checkbox"/> yes <input type="checkbox"/> no <input checked="" type="checkbox"/> N/A
3. Describes follow-up to limit damage suffered by POTW or environment	<input type="checkbox"/> yes <input type="checkbox"/> no <input checked="" type="checkbox"/> N/A
4. Does the facility have Spill/Slug Notification Procedures posted?	<input type="checkbox"/> yes <input type="checkbox"/> no <input checked="" type="checkbox"/> N/A
5. Are worker personnel provided training in the event of a spill or slug discharge?	<input type="checkbox"/> yes <input type="checkbox"/> no <input checked="" type="checkbox"/> N/A
If no:	
Does the facility have Spill/Slug Notification Procedures posted?	<input type="checkbox"/> yes <input type="checkbox"/> no
Is it posted in areas where chemicals are used and stored?	<input type="checkbox"/> yes <input type="checkbox"/> no
If Yes how many?	
Are appropriate personnel provided training in the event of a spill or slug discharge?	<input type="checkbox"/> yes <input type="checkbox"/> no
Have there been any non-routine, episodic discharges or chemical spills in the past year?	<input type="checkbox"/> yes <input type="checkbox"/> no
(Briefly Describe, Include Dates)	
<b>Not Applicable</b>	
Was the City notified of these occurrences? <input type="checkbox"/> yes <input type="checkbox"/> no <input checked="" type="checkbox"/> N/A	
<b>Visual Inspection of Discharge Lines/Points</b>	
Provide description of manhole condition and flow channel of the following where applicable:	
Sampling / Monitoring Point <i>Effluent tank with top spill to POTW.</i>	
Total Flow Monitoring Point <i>Inline flow totalizer on effluent pipe to POTW.</i>	
Upstream Manhole	
Point of Connection:	

<sup>1</sup> Facility has no open floor drains to the POTW so a SPCC for the POTW protection appears unnecessary.

**Attachment F: Self-Monitoring & if CFR 433, TTO/TOMP Requirements**

Have Operator (or person collecting the sample) to describe how composite and grab samples are collected and preserved. Record descriptions. Include name of individual and title.

*Sorrells Lab Technician takes 24-hour composite sample from tank/vat at the end of the pretreatment system.*

Where is the sample point located? *Effluent tank with top spill to POTW.*

<input type="checkbox"/> End of Process	<input checked="" type="checkbox"/> Pretreatment Effluent	<input type="checkbox"/> Total Flow
<input type="checkbox"/> Combined Flow	<input type="checkbox"/> Metered Flow	<input type="checkbox"/> Flow Actuator
<input type="checkbox"/> Private Manhole	<input type="checkbox"/> Utility Manhole	<input type="checkbox"/> Advance Notice Required
<input type="checkbox"/> Safety Hazards Identified	<input type="checkbox"/>	<input type="checkbox"/>

Is the Sample Collection Site Adequate? Yes  No  N/A

Does the facility rep. request a split sample on this sampling/inspection?  Yes  No

Does the facility perform self-monitoring tests in-house?  Yes  No  N/A

If no, record the name and address of Contract Lab: *Sorrells lab in Little Rock*

Automatic Sampler  or Manual

IU Self-Monitoring Results reviewed:  Yes  No  N/A

Is the Contract Lab certified by ADEQ for test parameters?  Yes  No  N/A

Dates and Times of Sample Analysis Recorded?  Yes  No  N/A

Correct Methods Used for Test Analysis (Refer To 40CFR Part 136)  Yes  No  N/A

EPA recommended holding times being met (Refer to 40CFR Part 136)  Yes  No  N/A

Chain of Custody Records for Self-Monitoring Samples Reviewed  Yes  No  N/A

Were correct Sample Types Collected  Yes  No  N/A

Dates and times of Sample Collection Recorded?  Yes  No  N/A

Were Samples preserved correctly (refer to 40CFR Part 136)  Yes  No  N/A

Were Self Monitoring records on file for past 3 years?  Yes  No  N/A

List the parameters the facility monitors and the frequency:

<input checked="" type="checkbox"/> Cd(t) 2/yr	<input checked="" type="checkbox"/> Cu(t) 2/yr	<input checked="" type="checkbox"/> Cr(t) 2/yr	<input checked="" type="checkbox"/> Ni(t) 2/yr	<input checked="" type="checkbox"/> Pb(t) 2/yr
<input checked="" type="checkbox"/> Ag(t) 2/yr	<input checked="" type="checkbox"/> Zn(t) 2/yr	<input type="checkbox"/> pH	<input checked="" type="checkbox"/> CN(t) 2/yr	<input type="checkbox"/> CN(a-c)
<input checked="" type="checkbox"/> TTO-Vol 2/yr	<input checked="" type="checkbox"/> TTO-B/N 2/yr	<input checked="" type="checkbox"/> TTO-A.E.	<input checked="" type="checkbox"/> TTO-Pest 2/yr	<input type="checkbox"/> Cr(hex)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Toxic Organic Management Plan (TOMP) for Metal Finishers under CFR 433**

How does the IU report TTO?  Analysis  Certification Statement

Does the facility have a Toxic Organic Management Plan?  Yes  No  N/A

**If yes**, Does the plan show how toxic organics are used, stored, and disposed?  Yes  No  N/A

List the date of the last revision to the TOMP:

Is the TOMP being followed as written?  Yes  No  N/A (If no, provide explanation in comments.)

**If no**, is there evidence that a TOMP is needed?  Yes  No  N/A (If yes, provide description of evidence in comments.)

Comments: