DAQC-CI160570001-25
Site ID 16057 (B1)

MEMORANDUM

TO: **FILE – CHRISTENSEN ARMS – Gunnison Gun Manufacturing Plant**

THROUGH: Chad Gilgen, Minor Source Compliance Section Manager CG

FROM: Connor Kijowski, Environmental Scientist CK Connor Kijowski

DATE: January 29, 2025

SUBJECT: **FULL COMPLIANCE EVALUATION, Minor, Sanpete County**

INSPECTION DATE:	July 17, 2024
SOURCE LOCATION:	550 North Cemetery Road Gunnison, UT 84634
SOURCE CONTACTS:	Thomas Kubota, Facilities and Maintenance Manager thomask@christensenarms.com, (435) 633-4667
OPERATING STATUS:	Partially operating at the time of inspection. The source was performing annual maintenance on many portions of the operation.
PROCESS DESCRIPTION:	Christensen Arms operates a gun manufacturing facility. Operations consist of carbon fiber and fiberglass composite manufacturing, metal and composite fabrication, painting, assembly, and testing. Particulate emissions from contouring, machining, sanding, abrasive blasting, and spray booths are controlled by dust collectors or filters.
APPLICABLE REGULATIONS:	Approval Order (AO) DAQE-AN160570001-22, dated March 16, 2022

SOURCE EVALUATION:

Name of Permittee:	**Permitted Location:**
Christensen Arms Gunnison Gun Manufacturing Plant P.O. Box 240 Gunnison, UT 84634	550 North Cemetery Road Gunnison, UT 84634

SIC Code: 3484: (Small Arms)

Section I: GENERAL PROVISIONS

I.1 All definitions, terms, abbreviations, and references used in this AO conform to those used in the UAC R307 and 40 CFR. Unless noted otherwise, references cited in these AO conditions refer to those rules. [R307-101]

I.2 The limits set forth in this AO shall not be exceeded without prior approval. [R307-401]

I.3 Modifications to the equipment or processes approved by this AO that could affect the emissions covered by this AO must be reviewed and approved. [R307-401-1]

I.4 All records referenced in this AO or in other applicable rules, which are required to be kept by the owner/operator, shall be made available to the Director or Director's representative upon request, and the records shall include the two-year period prior to the date of the request. Unless otherwise specified in this AO or in other applicable state and federal rules, records shall be kept for a minimum of two (2) years. [R307-401-8]

I.5 At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any equipment approved under this AO, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. All maintenance performed on equipment authorized by this AO shall be recorded. [R307-401-4]

I.6 The owner/operator shall comply with UAC R307-107. General Requirements: Breakdowns. [R307-107]

I.7 The owner/operator shall comply with UAC R307-150 Series. Emission Inventories. [R307-150]

Status: Out of Compliance. Unpermitted equipment was observed on site. A Compliance Advisory (DAQC-810-24) and Warning Letter (DAQC-1172-24) was submitted. This was addressed during a previous inspection and an Early Settlement Agreement (DAQC-235-23) was issued. The source submitted a Notice of Intent (NOI) on October 23, 2024. The remaining conditions from Section I were reviewed with the source and appeared to be in compliance.

Section II: SPECIAL PROVISIONS

II.A The approved installations shall consist of the following equipment:

II.A.1 **Christensen Arms**
Gun Manufacturing Facility

II.A.2 **Contouring and Machining Areas**
Including fifteen (15) CNC machines equipped with coolant reservoirs, hydraulic presses, rifling machines, saws, tumblers, and grinders
The work areas are controlled with a cyclone

II.A.3 **Various saws, tumblers and grinders**

II.A.4 **Fabrication of Carbon Fiber Composite Process**

II.A.5 **Epoxy Resin Usage and Composite Molding Process**
Polyurethane and epoxy resins are mixed and combined with fiberglass prior to being used in the composite molding process

II.A.6 **Two (2) Spray Booths**
Controlled with filters

II.A.7 **One (1) Abrasive Blasting Booth**
Controlled with a baghouse

II.A.8 **Sanding Operations**
Controlled with a baghouse

II.A.9 **Welding Operations**

II.A.10 **Firing Range**

II.A.11 **Misc. Natural Gas Combustion Equipment**
Including devices each rated less than 5 MMBtu/hr
For information purposes only

Status: Out of Compliance. The source operates two additional spray booths, ten additional abrasive blasting booths, and two additional baghouses. A Notice-of-Intent (NOI) was submitted on October 23, 2024, to include this equipment on an updated Approval Order (AO). The remaining equipment was observed during the inspection.

II.B Requirements and Limitations

II.B.1 **Site-Wide Requirements**

II.B.1.a Unless otherwise specified in this AO, the owner/operator shall not allow visible emissions from any source on site to exceed 20% opacity. [R307-401-8]

II.B.1.a.1 Unless otherwise specified in this AO, opacity observations of visible emissions from stationary sources shall be conducted according to 40 CFR 60, Appendix A, Method 9. [R307-401-8]

Status: In Compliance. No visible emissions were observed from any source on site. Emission observations were conducted according to 40 CFR 60 Method 9. Refer to the VEO Form in the attachments.

II.B.1.b The owner/operator shall not allow visible emissions from the following control equipment to exceed the following opacity limits:

A. Any baghouse or cyclone stack - 10%
B. Any filter stack - 10%. [R307-401-8]

Status: In Compliance. No visible emissions were observed from the control equipment. Refer to the VEO Form in the attachments.

II.B.2 **Contouring and Machining Operations**

II.B.2.a The owner/operator shall install and operate a cyclone to control process streams from the contouring and machining operations. All exhaust air from the contouring and machining operations shall be routed through the cyclone before being vented to the atmosphere. [R307-401-8]

Status: In Compliance. Emissions from the contouring and machining operations are routed through the cyclone before being vented to the atmosphere.

II.B.2.b The owner/operator shall install a manometer or magnehelic pressure gauge to measure the differential pressure across the cyclone. The static pressure differential across the cyclone shall be between 1.0 to 6.0 inches of water column. [R307-401-8]

II.B.2.b.1 The pressure gauge shall be located such that an inspector/operator can safely read the indicator at any time. The pressure gauge shall measure the pressure drop in 1-inch water column increments or less. The pressure gauge shall be calibrated according to the manufacturer's instructions at least once every 12 months. [R307-401-8]

II.B.2.b.2 The owner/operator shall record the reading of the pressure gauge at least once per operating day. [R307-401-8]

Status: In Compliance. A magnehelic pressure gauge is installed and was viewed during the inspection. The cyclone was undergoing routine maintenance during the site visit and a daily pressure reading had not been recorded. A measurement from the previous day read 2.3 inches of water column. Readings are recorded daily when the cyclone is in operation. The pressure gauge was last calibrated in March of 2024.

II.B.3 **VOC & HAPs Requirements**

II.B.3.a The owner/operator shall not emit more than the following from evaporative sources (solvent use, mold release, epoxy resin, lubricant use, adhesive, and paints) on site:

11.16 tons per rolling 12-month period of VOCs
0.95 tons per rolling 12-month period of ethyl benzene
0.19 tons per rolling 12-month period of methyl isobutyl ketone
0.28 tons per rolling 12-month period of phenol
2.86 tons per rolling 12-month period of Styrene
0.45 tons per rolling 12-month period of toluene
1.39 tons per rolling 12-month period of xylene
6.15 tons per rolling 12-month period of all HAPs combined. [R307-401-8]

II.B.3.a.1 The owner/operator shall calculate a new 12-month total by the 20th day of each month using data from the previous 12 months. The owner/operator shall use a mass-balance method to calculate emissions from evaporative sources. The owner/operator may use the following equations with applicable units to comply with the mass-balance method:

VOCs = [% VOCs by Weight/100] x [Density] x [Volume Consumed]

HAP = [% HAP by Weight/100] x [Density] x [Volume Consumed]

[R307-401-8]

II.B.3.a.2 The owner/operator shall use a mass-balance method to quantify any amount of VOCs and HAPs reclaimed. The owner/operator shall subtract the amount of VOCs and HAPs reclaimed from the quantities calculated above to provide the monthly total emissions of VOCs and HAPs. [R307-401-8]

II.B.3.a.3 The owner/operator shall keep records each month of the following:

A. The name (as per SDS) of the VOC- and HAP-emitting material

B. The maximum percent by weight of VOCs and each HAP in each material used

C. The density of each material used

D. The volume of each VOC- and HAP-emitting material used

E. The amount of VOCs and the amount of each HAP emitted from each material

F. The amount of VOCs and the amount of each HAP reclaimed and/or controlled from each material

G. The total amount of VOCs, the total amount of each HAP, and the total amount of all HAPs combined emitted from all materials (in tons)

[R307-401-8]

Status: In Compliance. Calculations are made according to this condition. Refer to an example of these calculations in the attachments. The rolling 12-month totals are as follows:

1.03 tons of VOCs
0.05 tons of ethyl benzene
0.00 tons of methyl isobutyl ketone
0.04 tons of phenol
0.03 tons of styrene
0.01 tons of toluene
0.17 tons of xylene
0.42 tons of combined HAPs

II.B.3.b The owner/operator shall install and operate a set of paint arrestor particulate filters for each paint booth to control particulate emissions. All air exiting the booths shall pass through this control system before being vented to the atmosphere (outside building/operation). The filters shall be maintained and replaced according to the manufacturer's instructions. [R307-401-8]

Status: In Compliance. Spray booths are equipped with paint arrestor particulate filters. Air is pulled through the filters before being vented to the atmosphere. Filters are changed weekly.

II.B.3.c The owner/operator shall store the VOC/HAP containing materials in closed and air tight containers when the materials are not in use. [R307-401-8]

Status: In Compliance. VOC/HAP containing materials are kept in closed, air tight containers.

II.B.4 **Sanding and Abrasive Blasting Operations**

II.B.4.a The owner/operator shall install and operate a baghouse to control process streams from the sanding and abrasive blasting operations. All exhaust air from the sanding and abrasive blasting operations shall be routed through the baghouse before being vented to the atmosphere. [R307-401-8]

Status: In Compliance. Process streams from the sanding and blasting operation are routed through a baghouse before being vented to the atmosphere.

II.B.4.b The owner/operator shall install a manometer or magnehelic pressure gauge to measure the differential pressure across the baghouse. The static pressure differential across the baghouse shall be between 1.0 to 6.0 inches of water column. [R307-401-8]

II.B.4.b.1 The pressure gauge shall be located such that an inspector/operator can safely read the indicator at any time. The pressure gauge shall measure the pressure drop in 1-inch water column increments or less. The pressure gauge shall be calibrated according to the manufacturer's instructions at least once every 12 months. [R307-401-8]

II.B.4.b.2 The owner/operator shall record the reading of the pressure gauge at least once per operating day. [R307-401-8]

Status: In Compliance. A magnehelic pressure gauge is installed and was viewed during the inspection. The baghouse was undergoing routine maintenance during the site visit and a daily pressure reading had not been recorded. A measurement from the previous day read 2.6 inches of water column. Readings are recorded daily when the baghouse is in operation. The pressure gauge was last calibrated in March of 2024.

Section III: APPLICABLE FEDERAL REQUIREMENTS

No applicable federal requirements apply at this time.

AREA SOURCE RULES EVALUATION:

The following Area Source Rules were evaluated during this inspection:

Emission Standards: Fugitive Emissions and Fugitive Dust [R307-205]

Status: In Compliance. No visible emissions were observed from any point during the inspection.

Emission Standards: Abrasive Blasting [R307-206]

Status: In Compliance. No visible emissions were observed from any of the blasting booths.

EMISSION INVENTORY:
The emissions listed below are an estimate of the total potential emissions (PTE) from Christensen Arms – Gunnison Gun Manufacturing Plant on the Approval Order (AO) DAQE-AN160570001-22, dated March 16, 2022. PTE are supplied for supplemental purposes only.

Criteria Pollutant	PTE tons/yr
CO_2 Equivalent	1465.00
Carbon Monoxide	1.12
Nitrogen Oxides	1.12
Particulate Matter - PM_{10}	0.31
Particulate Matter - $PM_{2.5}$	0.31
Sulfur Dioxide	0.01
Volatile Organic Compounds	11.22

Hazardous Air Pollutant	PTE lbs/yr
Ethyl Benzene (CAS #100414)	1900
Generic HAPs (CAS #GHAPS)	100
Methyl Isobutyl Ketone (Hexone) (CAS #108101)	380
Phenol (CAS #108952)	560
Styrene (CAS #100425)	5720
Toluene (CAS #108883)	900
Xylenes (Isomers And Mixture) (CAS #1330207)	2780

PREVIOUS ENFORCEMENT ACTIONS: Compliance Advisory (DAQC-023-23) and Early Settlement Agreement (DAQC-235-23).

COMPLIANCE STATUS & RECOMMENDATIONS: In regards to Approval Order (AO) DAQE-AN160570001-22, dated March 16, 2022, the overall status is: Out of Compliance. Unapproved equipment was observed operating at the time of inspection. A Compliance Advisory was issued (DAQC-810-24) to address the noncompliance. The source submitted a NOI on October 23, 2024. A Warning Letter (DAQC-1172-24) was issued to resolve the Compliance Advisory. The remaining conditions appeared to be in compliance. Records were current and made available during the inspection and via email.

HPV STATUS: Not Applicable.

RECOMMENDATION FOR NEXT INSPECTION: Inspect once an updated AO has been issued.

NSR RECOMMENDATIONS: None at this time.

ATTACHMENTS: VEO Form, Rolling 12-month Emission Totals and Calculations

STATE OF UTAH, DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF AIR QUALITY

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EPA METHOD 9 – VISIBLE EMISSION OBSERVATION FORM

Source Name: Christensen Arms - Gunnison
Street Address: 550 N Cemetery Road
City/County: Gunnison / Sanpete
Phone: 435-469-2459
Site ID: 16057
Facility: Gun Manufacturing
Equipment/Process: Paint Booth / Abrasive Blasting / Machining
Control Equipment: Baghouse / Filters

Emission Point: Stacks / Vents

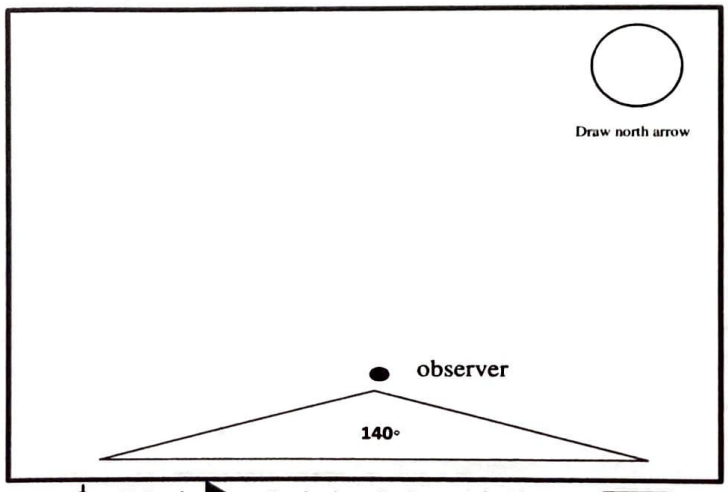
OBSERVATION DATE: 7/17/24

Start time: _____ Stop time: _____

min \ sec	0	15	30	45
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				

Sky Conditions: Clear [ ] Partly Cloudy [ ] Overcast [ ]
Precipitation: No [ ] Yes [ ] _____
Wind: Direction: _____ Speed: _____ mph
Ambient Temp: _____°F RH: _____%
Height Relative to Observer: _____
Distance From Observer: _____
Condensed Water Vapor Present: No [ ] Yes [ ]
Attached [ ] Detached [ ]
Length of Condensed Water Vapor Plume: _____
Background: _____

Sketch process unit: indicate observer position relative to source; indicate potential emission points and/or actual emission points.



Sun ⊕ Wind ▶ Emission Point with Plume ▭
Observer Position ✖

Observer's Signature: _____

Distrib: white-file; canary-inspector; pink-owner/operator

Rolling 12-month Period (July 2023 - June 2024)
COMMENTS:

II.B.3a: VOC & HAP Emission Totals
- Example of Calculations

- NOI Status Update

I have received a copy of these observations:

SIGNATURE: _____
Printed Name: Thomas Kubota
Title: EHS Manager

Manufacturer	Description	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24
SHERWIN WILLIAMS	PAINT CATALYST V66V27	16.5	1.5	10.0	5.0	11.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AMAZON	3M GENERAL PURPOSE ADHESIVE CLEANER	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AMAZON	70% ISOPROPYL ALCOHOL	8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
COMP ONE	ACETONE	220	165.0	275.0	165.0	165.0	165.0	55.0	220.0	165.0	220.0	220.0	440.0	275.0	220.0
COMP ONE	WATERSHIELD	8	0.0	0.0	0.0	0.0	0.0	4.0	4.0	4.0	4.0	8.0	8.0	20.0	0.0
COMP ONE	EPOXY RHINO LINER 1384 RESIN	50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.0	0.0	30.0	30.0	10.0	0.0
COMP ONE	EXPANDING FOAM HP-8212 PART A	110	0.0	0.0	0.0	55.0	0.0	55.0	55.0	55.0	0.0	55.0	0.0	0.0	0.0
COMP ONE	EXPANDING FOAM HP-8212 PART B	110	0.0	0.0	55.0	0.0	0.0	0.0	0.0	0.0	55.0	55.0	0.0	55.0	0.0
SHERWIN WILLIAMS	PAINT FLAT BLK F63B7	100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHERWIN WILLIAMS	PAINT CHICKADEE CHIRP GRY AM5584	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NCS	PAINT PRIMER VIETEK 34-200 TEK-200	110	40.0	65.0	125.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NCS	PAINT CATALYST VIETEK 34-202 TEK-200	27.5	11.0	17.3	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NIC	TUNGSTEN	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NCS	DOLPHIN GLAZE	30	0.0	0.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NCS	MS CLEAR ACTIVATOR	0.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NCS	MS URETHANE RAPID CLEAR	2	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
VAC OIL	VACOIL 19 GRADE VACUUM PUMP OIL	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
COMP ONE	EPOXY RHINO LINER 3184 HARDNER	55	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NIC	BURNT BRONZE CERAKOTE	2	0.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AIRGAS	GAS	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STAR METAL	QUALICHEM MET-DRILL 740L	220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STAR METAL	QUALICHEM XTREME COOL 055	55	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STAR METAL	QUALICHEM XTREME CUT 251C	110	0.0	0.0	0.0	0.0	110.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NIC	TUNGSTEN CERAKOTE	2	0.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
COMP ONE	EPOXY RHINO LINER 1391R-1 RESIN	0	55.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
COMP ONE	EPOXY / RESIN PART A	0	15.0	15.0	35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
COMP ONE	EPOXY / RESIN HARDNER PART B	0	3.3	1.1	6.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NIC	MIDNGHT BRONZE CERAKOTE	0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
COMP ONE	AD TECH	0	0.0	1.5	1.5	3.0	0.0	0.0	4.5	0.0	3.0	0.0	2.8	3.0	3.0
COMP ONE	BLACK CREME HARDNER	0	0.0	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.4	0.0
STAR METAL	BOSSE BURICANTS UNILUBE 32 R&O TURBINE HYDRAULIC OIL	0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STAR METAL	BOSSE LUBRICANTS AW32 ZINC FREE HYDRAULIC OIL	0	0.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STAR METAL	BOSSE LUBRICANTS AW46 PREMIUM HYDRAULIC OIL	0	0.0	10.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0	0.0
STAR METAL	QUALICHEM XTREME COOL 335	0	0.0	55.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NIC	GRAPHITE BLACK CERAKOTE	0	0.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHERWIN WILLIAMS	KEM LUSTRAL TRANSUCENT CONVERTER	0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DGR INDUSTRIAL	ALODINE T5900 RTU TRI-VALENT CHROMATE CONVERSION COATING	0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHEMICAL CONCEPTS	PACER PREMIUM ACETONE	0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STAR METAL FLUIDS	BOSSE PREMIUM SPINDLE 10 ISO VG 10	0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STAR METAL FLUIDS	LOW-VIS GUN DRILLING CUTTING OIL	0	0.0	0.0	0.0	220.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STAR METAL FLUIDS	LUBE USA MTI-4 GREASE TUBE (G-15)	0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STAR METAL FLUIDS	R&O TURBINE/HYDRAULIC OIL	0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0
STAR METAL FLUIDS	SLIDE-WAY LUBRICANT	0	0.0	0.0	0.0	55.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STAR METAL FLUIDS	SPECIAL UREA GREASE	0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0
SHERWIN WILLIAMS	PAINT PORTABELLO TAN SW6102	0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STAR METAL	BOSSE LUBRICANTS SLIDE-WAY LUBRICANT	0	0.0	0.0	0.0	0.0	55.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STAR METAL FLUIDS	QUAKER HOUGHTON AQUA QUENCH 3699	0	0.0	0.0	0.0	0.0	55.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
COMP ONE	ZYVAX MOLD SEALER	0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STAR METAL FLUIDS	BOSSE LUBRICANTS UNILUBE R&O TURBINE/HYDRAULIC OIL	0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STAR METAL FLUIDS	QUALICHEM MET-DRILL 740L LOW VIS GUN DRILLING OIL	0	0.0	0.0	0.0	0.0	0.0	110.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STAR METAL FLUIDS	QUALICHEM XTREME CUT 251C - 55GL	0	0.0	0.0	0.0	0.0	0.0	110.0	110.0	0.0	0.0	55.0	110.0	0.0	0.0
COMP ONE	BLACK CREME HARDENER	0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.3	0.6	0.0	0.0	0.0
COMP ONE	EXPANDING FOAM PART B	0	0.0	0.0	0.0	0.0	0.0	0.0	55.0	0.0	0.0	0.0	0.0	0.0	0.0
MIDWAY	SWEET'S GUN CLEANING SOLVENT	0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
STAR METAL FLUIDS	LOW-VIS GUN-DRILLING CUTTING OIL	0	0.0	0.0	0.0	0.0	0.0	0.0	110.0	0.0	0.0	0.0	0.0	0.0	0.0
STAR METAL FLUIDS	LUBE USA LHL-X 100-7 - 700 CC SPECIAL UREA GREASE	0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
STAR METAL FLUIDS	QUAKER HOUGHTON PRODRAW BB - 5GL	0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	5.0	0.0	0.0
WHOLESALE MARINE	GRAY MARINE TEX POLYMERS	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0
WHOLESALE MARINE	MARINE TEX CATALYST	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
HOPPES	HOPPES LUBRICATING OIL	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AMAZON	PROPANE	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0
AMAZON	PURPLE POWER CLEANER	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0
SUR FIN CHEMICAL	SUR FIN	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
AMAZON	WD-40	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
STAR METAL FLUIDS	BOSSE LUBRICANTS BOS-WAY 2 SLIDE-WAY LUBRICANT2	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	55.0	0.0	0.0	0.0	0.0	0.0
STAR METAL FLUIDS	QUALICHEM STREME CUT 251C - 55GL	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	110.0	0.0	0.0	0.0	0.0	0.0
COMP ONE	MONOCOTE RELEASE AGENT	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0
STAR METAL FLUIDS	QUAKER HOUGHTON PRODRAW BB	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0
STAR METAL FLUIDS	QUALICHEM MET-DDRILL LOW-VIS CUTTIN OIL	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	55.0	0.0	0.0	0.0	0.0
STAR METAL FLUIDS	QUALICHEM XTREME COOL 335 - 55GL	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	55.0	0.0	0.0	0.0	0.0
STAR METAL FLUIDS	QUALICHEM XTREME CUT 251C- 55 GL	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	110.0	0.0	0.0	0.0	0.0
COMP ONE	CARBON UNI TAPE BOLT GUN AX6201XL-C-300GT700 300 GSM	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STAR METAL FLUIDS	BOSSE LUBRICANTS BOS-WAY 2 - 55GL SLIDEWAY LUBRICANT	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	55.0	0.0	0.0	0.0
STAR METAL FLUIDS	BOSSE LUBRICANTS UNILUBE 32 - 55GL R&O TURBINE/HYDRAULIC OIL	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	55.0	0.0	0.0	0.0
STAR METAL FLUIDS	BRULIN AQUAVANTAGE CORROSIVE LIQUID	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	55.0	0.0	0.0	0.0
STAR METAL FLUIDS	COMMAND CLEAN DEGREASER - 5GL HEAVY DUTY WATER BASED DEGREASER	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0	0.0	0.0	0.0
STAR METAL FLUIDS	DOW CHEMICAL DOW FROST - 5GL FADAL SPSINDLE FLUID	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
STAR METAL FLUIDS	QUALICHEM MET-DRILL 740L - 55GL LOW VIS GUN-DRILLING CUTTING OIL	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	110.0	0.0	0.0	0.0
STAR METAL FLUIDS	BOSSE LUBRICANTS UNILUBE 150 - 55GL TURBINE/HYDRAULIC	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	55.0	0.0	0.0
STAR METAL FLUIDS	BOSSE LUBRICANTS UNILUBE 32 R&O TURBINE/HYDRAULIC OIL	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0
STAR METAL FLUIDS	LUBE USA MT1-4 GREASE TUBE (G-15)	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0
STAR METAL FLUIDS	QUALICHEM MET-DRILL 740L - 55GL LOW-VIS GUN-DRILLING CUTTING OIL	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	110.0	0.0	0.0
UTAH FOAM	MAVCOAT MOLD RELEASE DHRS-2	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	55.0	0.0
COMP ONE	PART A	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	55.0	0.0
COMP ONE	CHEM TREND ZYVAX MOLD SEALER	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
BOESHIELD	T-9 BOESHIELD	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	55.0
	Totals	**1248.5**	**296.8**	**478.6**	**464.0**	**523.1**	**393.0**	**339.4**	**563.9**	**437.2**	**512.7**	**718.6**	**777.0**	**474.4**	**278.0**

Christensen Arms, Monthly and 12 Month Rolling Total Emission Tracking

Monthly Emisions		Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24
Pollutants	**CAS**	**tpm**	**tpm**	**tpm**	**tpm**	**tpm**	**tpm**	**tpm**	**tpm**	**tpm**	**tpm**	**tpm**	**tpm**	**tpm**	**tpm**
VOCs	NA	0.68	0.13	0.21	0.39	0.05	0.03	0.03	0.03	0.04	0.03	0.05	0.03	0.11	0.05
Xylene	1330-20-7	0.11	0.04	0.06	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hexamethylene-1,6-diisocyanate	822-06-0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ethyl Benzene	100-41-4	0.04	0.01	0.02	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Styrene	100-42-5	0.03	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Toluene	108-88-3	0.04	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Methyl isobutyl ketone (Hexone)	108-10-1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,4-Toluene diisocyanate	584-84-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phenol	108-95-2	0.03	0.00	0.02	0.01	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Methyl Alcohol	67-56-1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cumene	98-82-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00

12 Month Rolling Total		Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24
Pollutants	**CAS**	**tpy**	**tpy**	**tpy**	**tpy**	**tpy**	**tpy**	**tpy**	**tpy**	**tpy**	**tpy**	**tpy**	**tpy**	**tpy**	**tpy**
VOCs	NA												**1.68**	**1.10**	**1.03**
Xylene	1330-20-7												0.32	0.21	0.17
Hexamethylene-1,6-diisocyanate	822-06-0												0.00	0.00	0.00
Ethyl Benzene	100-41-4												0.10	0.07	0.05
Styrene	100-42-5												0.07	0.03	0.03
Toluene	108-88-3												0.06	0.02	0.01
Methyl isobutyl ketone (Hexone)	108-10-1												0.00	0.00	0.00
2,4-Toluene diisocyanate	584-84-9												0.00	0.00	0.00
Phenol	108-95-2												0.07	0.04	0.04
Methyl Alcohol	67-56-1												0.00	0.00	0.00
Cumene	98-82-8												0.00	0.10	0.10
Total HAPs													**0.62**	**0.47**	**0.42**