ENVIRONMENTAL COMPLIANCE PLAN

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D.E.P.
SOUTHWEST DISTRICT

Prepared For:

MRC PRECISION METAL OPTICS, INC.
6455 PARKLAND DRIVE
SARASOTA, FL 34243

Prepared By:

ENVIRONMENTAL ENGINEERING CONSULTANTS, INC.
5119 NORTH FLORIDA AVENUE
TAMPA, FLORIDA 33603
EEC #2002097.002

May 6, 2003

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I. POLLUTION SOURCE

General Information:

MRC Precision Metal Optics, Inc. is authorized to operate a beryllium machine shop according to Permit No: 0810072-003-AC. produces high tolerance components manufactured from beryllium and other specialty metals. Equipment used in beryllium machining will consist of a lathe, a mill, and a six-axis machining center.

Dust and chips generated by the machining center, lathe, and milling machine are collected by vacuum pickup lines at each tool point. Beryllium emissions generated from the machining will be controlled by an emission control system which consists of a Spencer Industravac Model SB-515 vacuum type dust collector w/baghouse, cyclone and an inline HEPA filter (99.9% design efficiency) and exhausted through the roof vent. Stack dimensions and sampling locations can be found in the Compliance Test Report located in Appendix D.

II. B-SERIES INDUSTRAVAC

GENERAL INFORMATION:

The B-Series Industravac is manufactured by The Spencer Turbine Company and was installed by Machine Tool Finance. The Spencer Industravac Model SB-515 vacuum type dust collector consists of baghouse, cyclone, and inline HEPA filter (99.9% design efficiency.). Please see Figure 1 in Appendix A for the location of the control devices. The Spencer Industravac operates at a design air flow rate of 600 SCFM.

SPECIFIC INFORMATION:

Vacuum Producer:	-3500 RPM -5, 6, or 7 stages -6" dia. Outlet -standard overhung construction
Motor:	-Open drip-Proof 1.15 Service Factor -230 volt 3 Phase 60 Hertz -3500 RPM, 15 Horsepower
Separator:	-75 sq. ft. Filter Bag Area -Cotton Sateen Filter Bag Material -29 Filter Bags -Filter Bag Catalog Number 4380-N -Manual Bag Shaker -7.5"cu.ft. Capacity Removable Dirt Can
Available Options:	-Cotton Twill -Equalizing Line with One Liner Dirt Can -Discharge Silencer -Discharge Throttling Valve

Materials of Construction:	-Casing: ASTM A569 Hot Rolled Steel -Impellers: 5052-H34 Aluminum -Shaft: AISI 1045 Hot Rolled Bar Steel -Finish: Semi-Gloss Enamel Over Red Oxide Primer
Separator:	-Shell and Dirt Can: ASTM A569 Hot Rolled Steel -Intake Section Lining: Abrasive Resistant Steel -Finish: Semi-Gloss Enamel Over Red Oxide
Performance:	-Average Sound Pressure Level: 80 dBA at3 Feet -Maximum Vibration:1.5 Mils Peak to Peak -Average Filtration Efficiency: 99.9% at 3 Microns

OPERATION AND MAINTENANCE:

As discussed during the initial inspection with Mr. Frank Montone w/ MRC and Mr. David Zell and Nancy Knight of the Florida Department of Environmental Protection, MRC Precision Metal Optics plans to install an indicator device above the stack exhaust to ensure proper operation of the HEPA filter. This device could either be a white dry-erase board, white panel, or white filter, something that would visually indicate the buildup of fine particulate matter. In addition to the visual inspection, MRC Precision Metal Optics will perform particulate sampling by inserting a pre-weighed cartridge filter

with the use of a personal air sampling pump in order to perform a trend analysis to determine proper operation of the HEPA filter. The recommended collection media along with suggested sampling volumes and rates can be found in Appendix C.

If any type of inspection indicates that one of the control devices is not working properly, it will be noted on the proper checklist and addressed. The maintenance and inspections are broken down into daily, monthly, and quarterly requirements listed below.

Daily:

- Upon startup the outlets of the vacuum system shall be checked for vacuum flow.
- All vacuum lines that are not in use shall be plugged.
- The baghouse and HEPA filter shall be checked daily upon startup by looking through the observation window. Please see Appendix A. Please find the Daily Operation Checklist in Appendix B.

Monthly:

- Checks shall be performed by opening the observation door on the baghouse (Appendix A) and visually inspecting the bag collection system.
- Visually inspect the collection can to determine the remaining capacity.
- visually inspect the indicator panel above the exhaust stack located above the hanging ceiling to determine the operational status of the HEPA filter.
- Please find the Monthly and Quarterly Checklist in Appendix C

Quarterly: -Perform sampling according to the recommended NIOSH Method found in Appendix C.
-In order to have accurate trend analysis, sampling shall be performed with similar sampling rates and filter orientation in relation to the stack.

III. PERMIT TRACKING / RULE REVIEW

This facility has previously had air construction and operation permits (AO41-208651) for beryllium machining. The most recent permit, 0810072-001-AC expired on 12-15-00 without the equipment being installed or an operation permit being applied for. This emission unit is subject to 40 CFR 61 HESHAPS Subpart C - National Emission Standard for Beryllium and as such is considered a Title V major source required to get a Title V Permit upon completion of construction (0810072-003-AC) and initial testing of the beryllium machining operation.

RULE REVIEW (Florida Administrative Code, F.A.C.):

62-4.160	The permittee has reviewed the seventeen (17) listed General Conditions of their permit.
62-210.200	The permittee has reviewed the listed definition of PTE (203) "Potential Emissions" or "Potential to Emit" - the maximum capacity of an emission unit or facility to emit a pollutant under its physical and operational design. Any enforceable physical or operational limitation on the capacity of the emissions unit or amount of material combusted, stored, or processed shall be treated as part of its design provided that, for any regulated air pollutant, such physical or operational limitation is federally enforceable. The potential emissions of an emissions unit or facility do not include any secondary emissions that may be associated with the emissions unit or the facility.
62-210.300	The permittee shall comply with applicable emission limiting standards or other requirements

		of rules 62-200 through 62-297, or any other requirements under federal state, or local law.
62-210.370	(3)	Submit each calendar year on or before March 1 a completed DEP Form 62-210.900 (5) "Annual Operating Report for air pollutant emitting facility" for the preceding calendar year.
62-210.650		No person shall circumvent any air pollution control device, or allow the emission of air pollutants without the applicable air pollution control device operating properly.
62-296.320	(2)	The permittee has reviewed the listed definition of (2) Objectionable Odor Prohibited - No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor.
62-296.320	(4)	(B) General Visible Emission Standard, No visible emissions from the HEPA filter exhaust (i.e. less then 5% opacity) (C)Unconfined Emissions of Particulate Matter - No person shall cause, let, permit, suffer or Allow the emissions of unconfined particulate matter from an activity including vehicular movement, transportation of materials, construction, alteration, demolition or wrecking or industrial related activities such as loading, unloading, storing and handling without taking \ precautions to prevent such emissions.
62-297.310		15-day advance notification of date and time of compliance testing. Test beryllium emissions within 90 days of startup, have samples analyzed and emissions determined within 30 days from initial testing. Submit reports within 45 days to FDEP SW District office and Manatee County Department of Environmental Management. (Testing was performed on October 24, 2002 in accordance with the general compliance test requirements of this regulation)

62-400.800 Standards Adopted. The following National Emission Standards for Hazardous Air Pollutants contained in 40 CFR Part 61, revised as of July 1, 2001, or later as specifically indicated, are adopted and incorporate4d by reference. 40 CFR 61 Subpart C, Beryllium and 40 CFR 61.32 (Beryllium emission limitation). Beryllium emissions shall be determined using EPA Method 103 or 104. Records of emission test results shall be retained at the machine shop and made available for inspection. Total emissions of beryllium not to exceed 10 grams (.022lbs)/24 hr period.

Respectfully Submitted;

ENVIRONMENTAL ENGINEERING CONSULTANTS, INC.

Jason Lichtenstein

Jason Lichtenstein
Senior Environmental Scientist

Reviewed by:

MRC PRECISION METAL OPTICS

"I the undersigned, am the responsible official as defined in Chapter 62-210.200, F.A.C., of the Title V source for which this report is being submitted. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made and data contained in this report are true, accurate, and complete."

Frank Montone

Frank Montone
President

APPENDIX A

INDUSTRAVAC DIMENSIONAL DATA

B–SERIES INDUSTRAVAC DIMENSIONAL DATA

Dimensions Certified For

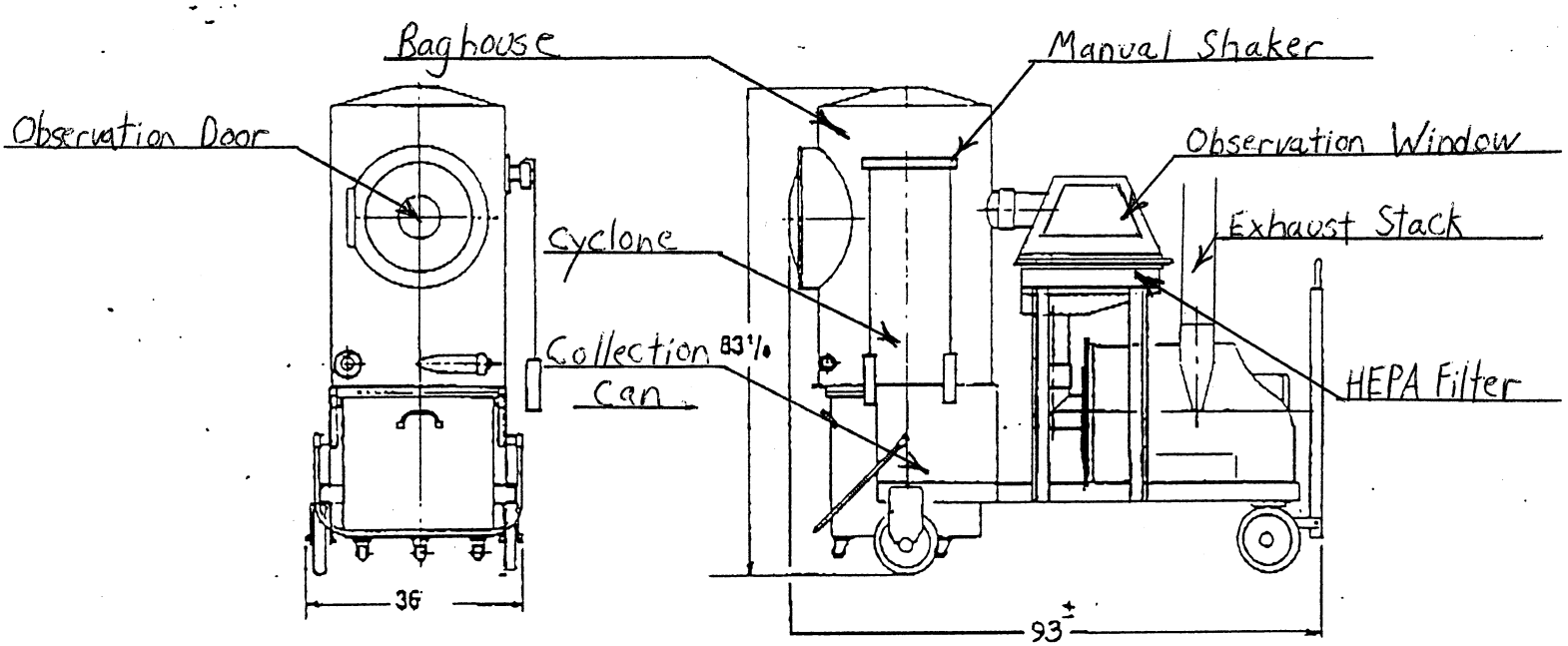
Installation: SARASOTA, FL

Customer: MACHINE TOOL FINANCE

Customer Order No.: 5469

Spencer Order No.: 311058

By: JWG Date: 10-4-89



B–SERIES INDUSTRAVAC CATALOG NO.: PB-515 MOD

PERFORMANCE DATA

Volume: 600 SCFM

Vacuum: 4.5 In. Hg

Discharge Pressure: 14.7 PSIA

Inlet Temperature: 70 °F

MOTOR DATA

Horsepower: 15

RPM: 3500

Voltage: 230/460 Volts 3 PH 60 Hz

Enclosure: ODP

Frame: 215TY

SEPARATOR DATA

Filter Area: 75 FT²

Filter Bag Quantity: 29

Filter Bag Cat. No.: 4380-N

Filter Bag Material: COTTON TWILL

THE SPENCER TURBINE COMPANY
600 Day Hill Road
Windsor, CT 06095
(203) 688-8361 Telex: 9-9281

Figure 1

APPENDIX B

DAILY OPERATIONAL CHECKLIST

EXAMPLE

Spencer Vacuum Daily Check List

Date	Time	Viewer	Site Glass Viewing (Description)
5-5-03	8:00 AM	[redacted] THAI	Good
5-6-03	7:00 AM	THAI	Good
5-7-03	8:00 AM	THAI	Good
5-8-03	8:00 AM	RC.	Good
5-9-03	8:00 AM	THAI	Good
5-12-03	8:00 AM	THAI	Good
5-13-03	8:00 AM	THAI	Good
5-14-03	7:00 AM	THAI	Good
5-15-03	7:00 AM	THAI	Good
5-16-03	7:00 AM	THAI	Good
5-19-03	7:30 AM	THAI	Good
5-20-03	7:05 AM	THAI	Good
5-21-03	7:00 AM	THAI	Good

APPENDIX C

MONTHLY & QUARTERLY OPERATIONAL CHECKLIST

EMISSION CONTROL SYSTEM OPERATION MONTHLY CHECKLIST

1 Open observation door on baghouse and check condition of bags _____
2 Check remaining capacity of dirt collection can _____
3 Inspect the indicator panel above the exhaust stack located above the hanging ceiling _____
4 Perform all daily operational checks

_____
Inspector's Name

_____
Date

ANALYTE	RECOMMENDED COLLECTION MEDIA	SUGGESTED VOLUME,L	SAMPLING RATE, LPM	1999 TLV (mg/m^3) TWA / STEL Ceil.(C)	ANALYTICAL METHOD	ANALYTICAL TECHNIQUE	ug Limit of Quantitation	LAB CODE	FEE
Benzo (a) pyrene	GFF (*1)	960	2.0		OSHA 58	HPLC/FL	0.12	NC	$ 77.00
Benzoyl Peroxide	0.8 micron MCEF	40 - 400	1.0 - 3.0	5 /	NIOSH 5009	HPLC	20	NC	$ 77.00
Benzyl Chloride	CT or POVM	6 - 50	0.01 - 0.2	5.2 /	NIOSH 1003	GC/FID	5	A	$ 39.00
Beryllium	0.8 micron MCEF	200 - 1000	1.0 - 4.0	2 /	NIOSH 7300M	ICP	0.1	T	$ 26.
Beryllium - GFAA	0.8 micron MCEF	25 - 200	1.0 - 4.0		NIOSH 7102	GFAA	0.005	T	$ 45.00
Biphenyl (Diphenyl)	Tenax 20/10	3 - 30	0.01 - 0.5	1 /	NIOSH 2530	GC/FID	2	NC	$ 39.00
Bismuth	0.8 micron MCEF	50 - 1000	1.0 - 3.0	NR	P&CAM 173	ICP	2	T	$ 26.00
Bisphenol A	GFF	300	1.6		NIOSH P333	HPLC	0.5	NC	$ 77.00
Boron, Soluble & Borates	0.8 micron MCEF	50 - 500	1.0 - 3.0	(*2)	NIOSH 7300M	ICP	2	T	$ 26.00
Bromine	IMP (bicarb/carb)	80 - 240	0.5	0.66 / 1.3	OSHA ID 108	IC	7.5	GG	$ 46.00
	0.45 micron Ag membrane	15 - 360	0.3 - 1.0		NIOSH 6011	IC	5	AA	$ 46.00
Bromoform	CT or POVM	4 - 70	0.01 - 0.2	5.2 /	NIOSH 1003	GC/FID	20	A	$ 39.00
BTEX	See BTEX Profile								
1,3-Butadiene	Treated CT (SKC226-73)(*3)	3	0.01 - 0.05	2.2 / 12 (OSHA)	OSHA 56	GC/FID	2	NC	$ 39.00
2-Butanone	See Methyl Ethyl Ketone								
2-Butoxyethanol	CT or POVM	1 - 10	0.01 - 0.05	121 /	NIOSH 1403	GC/FID	20	E	$ 39.00
2-Butoxyethyl Acetate	CT or POVM	1 - 10	0.01 - 0.2		NIOSH 1403M	GC/FID	20	E	$ 39.00
n-Butyl Acetate	CT or POVM	1 - 10	0.01 - 0.2	95 /	NIOSH 1450	GC/FID	20	A	$ 39.00

*1 Place filter into glass vial using tweezers and wrap with aluminum foil to protect from light. Ship refrigerated by overnight delivery.

*2 Consult TLV booklet for form of analyte.

*3 Ship refrigerated by overnight delivery.