

Statement of Basis

**Permit to Construct No. P-2013.0056
Project ID 61288**

**Mobile Component Distributors, Inc
Boise, Idaho**

Facility ID 001-00296

Final

June 27, 2014

**Shawnee Chen, P.E. *Signature*
Senior Air Quality Engineer**

The purpose of this Statement of Basis is to satisfy the requirements of IDAPA 58.01.01. et seq, Rules for the Control of Air Pollution in Idaho, for issuing air permits.

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ACRONYMS, UNITS, AND CHEMICAL NOMENCLATURE

AAC	acceptable ambient concentrations
AACC	acceptable ambient concentrations for carcinogens
acfm	actual cubic feet per minute
ASTM	American Society for Testing and Materials
BACT	Best Available Control Technology
BMP	best management practices
BRC	below regulatory concern
Btu	British thermal units
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CAS No.	Chemical Abstracts Service registry number
CBP	concrete batch plant
CEMS	continuous emission monitoring systems
cfm	cubic feet per minute
CFR	Code of Federal Regulations
CI	compression ignition
CMS	continuous monitoring systems
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	CO ₂ equivalent emissions
COMS	continuous opacity monitoring systems
DEQ	Department of Environmental Quality
dscf	dry standard cubic feet
EI	emissions inventory
EL	screening emission levels
EPA	U.S. Environmental Protection Agency
FEC	Facility Emissions Cap
GHG	greenhouse gases
gal	gallon
gph	gallons per hour
gpm	gallons per minute
gr	grains (1 lb = 7,000 grains)
HAP	hazardous air pollutants
HHV	higher heating value
HMA	hot mix asphalt
hp	horsepower
hr/yr	hours per consecutive 12 calendar month period
HVLP	high volume, low pressure
ICE	internal combustion engines
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
iwg	inches of water gauge
km	kilometers
lb/hr	pounds per hour
lb/qtr	pound per quarter
m	meters
MACT	Maximum Achievable Control Technology
MCD	Mobile Component Distributors, Inc.
mg/dscm	milligrams per dry standard cubic meter
MCD	Mobile Component Distributors, Inc.
MMBtu	million British thermal units

MMscf	million standard cubic feet
MSDS	Material Safety Data Sheet
NAAQS	National Ambient Air Quality Standard
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO ₂	nitrogen dioxide
NO _x	nitrogen oxides
NSPS	New Source Performance Standards
O&M	operation and maintenance
O ₂	oxygen
PAH	polyaromatic hydrocarbons
PC	permit condition
PCB	polychlorinated biphenyl
PERF	Portable Equipment Relocation Form
PM	particulate matter
PM _{2.5}	particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers
PM ₁₀	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
POM	polycyclic organic matter
ppm	parts per million
ppmw	parts per million by weight
PSD	Prevention of Significant Deterioration
psig	pounds per square inch gauge
PTC	permit to construct
PTC/T2	permit to construct and Tier II operating permit
PTE	potential to emit
PW	process weight rate
RAP	recycled asphalt pavement
RFO	reprocessed fuel oil
RICE	reciprocating internal combustion engines
Rules	Rules for the Control of Air Pollution in Idaho
scf	standard cubic feet
SCL	significant contribution limits
SDS	Safety Data Sheet, formerly known as MSDS
SIP	State Implementation Plan
SM	synthetic minor
SM80	synthetic minor facility with emissions greater than or equal to 80% of a major source threshold
SO ₂	sulfur dioxide
SO _x	sulfur oxides
T/day	tons per calendar day
T/hr	tons per hour
T/yr	tons per consecutive 12 calendar month period
T2	Tier II operating permit
TAP	toxic air pollutants
TEQ	toxicity equivalent
T-RACT	Toxic Air Pollutant Reasonably Available Control Technology
ULSD	ultra-low sulfur diesel
U.S.C.	United States Code
VOC	volatile organic compounds
yd ³	cubic yards
µg/m ³	micrograms per cubic meter

FACILITY INFORMATION

Description

Mobile Component Distributors, Inc. (MCD) is a steel fabrication company specializing in manufacturing chassis and miscellaneous steel parts for modular building industry. Manufacturing consists of several processes including raw material storage, welding chassis components, application of protective coating, assembly of parts, and shipment.

The main sources of emissions are welding, grinding, coating, and natural gas combustion of the heaters.

At the time of permit issuance, all productions are performed under one building structure that has several separate rooms, such as two paint booths, welding, grinding, and assembling room, and machining room. The building has gates, doors, and exhaust vents. An air cleaner also called smog-hog fume collector is located at the center of the welding, grinding, and assembling room. It collects the captured particulates from the intake air and resends the cleaned air back to the room. Part of the air in the room is intaken into the smog-hog fume collector through two vertical squared ducts with two duck openings near the roof of the room. The installation and operation of the smog-hog fume collector as described do not meet the definition of "control device" in accordance with 40 CFR 63 Subpart XXXXXX. Adjacent to the welding, grinding, and assembling room are the two separate paint booths. Each paint booth has its own filter system with three exhaust vents on the side of the wall with various heights. All the spray guns are high volume, low pressure (HVLP) type or equivalent with 65% or greater material transfer efficiency.

The permit will impose control requirements in accordance with 40 CFR 63, Subpart XXXXXX.

Permitting History

This is the initial PTC for an existing facility that was constructed in 1972 thus there is no permitting history.

Application Scope

This permit is the initial PTC for this facility.

Application Chronology

February 12, 2013	DEQ sent a notice of violation to the facility, which included notification that a PTC was required (Enforcement Case No. E-2012.0015).
October 31, 2013	DEQ received an application.
November 5, 2013	DEQ received an application fee.
November 18, 2013 – December 3, 2013	DEQ provided an opportunity to request a public comment period on the application and proposed permitting action.
November 25, 2013	DEQ determined that the application was incomplete.
December 24, 2013	DEQ received supplemental information from the applicant.
January 21, 2014	DEQ determined that the application was incomplete the second time.
March 25, 2014	DEQ received the response to DEQ's 2 nd incompleteness letter.
April 21, 2014	DEQ determined that the application was complete.
May 22, 2014	DEQ made available the draft permit and statement of basis for peer and regional office review.
June 11, 2014	DEQ made available the draft permit and statement of basis for applicant review.
June 20, 2014	DEQ received the facility comments on the draft permit.

June 20, 2014

DEQ received the permit processing fee.

June 27, 2014

DEQ issued the final permit and statement of basis.

TECHNICAL ANALYSIS

Emissions Units and Control Equipment

Table 1 EMISSIONS UNIT AND CONTROL EQUIPMENT INFORMATION

Source ID No.	Sources	Control Equipment	Emission Point ID No.
PB-1	<p><u>Two paint booths:</u> Manufacturer: NA Model: NA Construction date: 1972</p> <p><u>Spray guns</u></p> <p>Two types of guns are used at the facility. Four spray guns can be used simultaneously at each spray booth.</p> <p><u>Type 1:</u> Manufacturer: Husky or equivalent Model: H4840GHVSG or equivalent Type: HVLP or equivalent Transfer efficiency: 65% Rated capacity: unknown</p> <p><u>Type 2:</u> Manufacturer: Central Pnuematic or equivalent Model: 93305 or equivalent Type: HVLP or equivalent Transfer efficiency: 65% Rated capacity: unknown</p>	<p><u>North spray booth filter system:</u> Booth type: side draft Particulate filtration method: dry filters Manufacturer: unknown Model: unknown</p> <p><u>South spray booth filter system:</u> Booth type: side draft Particulate filtration method: dry filters Manufacturer: unknown Model: unknown</p>	Each paint booth has three exhaust vents on the side of the wall with various heights.

SW-1	<p><u>Welding:</u> Manufacturer: NA Model: NA Construction Date: 1972</p> <p>Gas Metal Arc Welding (GMAW) Flux Cored Arc Welding (FCAW)</p>	In accordance with requirements in 40 CFR 63, Subpart XXXXXX. Refer to the permit for details.	Various
WG-1 GW-1	<p><u>Grinding</u></p> <p>Pedestal grinders Hand-held grinders</p>		
SH 1-4	<p><u>Machining</u></p> <p><u>Four Natural Gas Heaters</u></p> <p>Manufacturer: Modine Model: PA 300A Heat input rating: 0.24 MMBtu/hr Fuel: natural gas</p> <p>Manufacturer: Reznor Model: UBAP 3000 Heat input rating: 0.24 MMBtu/hr Fuel: natural gas</p> <p>The other two have the following parameters: Manufacturer: Modine Model: PDP300AE0130 Heat input rating: 0.24 MMBtu/hr Fuel: natural gas</p> <p><u>Air Cleaner (dry electrostatic precipitator style, also called smog-hog fume collector):</u> Manufacturer: United air specialist Model: SMOG-HOG SH 20 Series Type: Dry</p> <p>Note: At the time of the permit issuance, installation and operation of the air cleaner do not meet the definition of "control device" in 40 CFR 63 Subpart XXXXXX</p>		

Emissions Inventories

Potential to Emit (PTE)

IDAPA 58.01.01 defines Potential to Emit as the maximum capacity of a facility or stationary source to emit an air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the facility or source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is state or federally enforceable. Secondary emissions do not count in determining the potential to emit of a facility or stationary source.

Uncontrolled Potential to Emit

Using the definition of Potential to Emit, uncontrolled Potential to Emit is then defined as the maximum capacity of a facility or stationary source to emit an air pollutant under its physical and operational design. Any physical or

operational limitation on the capacity of the facility or source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored or processed, shall **not** be treated as part of its design **since** the limitation or the effect it would have on emissions **is not** state or federally enforceable.

The uncontrolled Potential to Emit is used to determine if a facility is a “Synthetic Minor” source of emissions. Synthetic Minor sources are facilities that have an uncontrolled Potential to Emit for regulated air pollutants or hazardous air pollutants (HAP) above the applicable Major Source threshold without permit limits.

The following table presents the uncontrolled Potential to Emit for regulated air pollutants as submitted by the Applicant on 3/25/2014 and verified by DEQ staff. See Appendix A for more discussions on emissions estimation. DEQ has corrected a few MCD’s calculations in the 3/25/2014 EI.

Table 2 UNCONTROLLED POTENTIAL TO EMIT FOR REGULATED AIR POLLUTANTS ¹

	PM ₁₀ /PM _{2.5}	SO ₂	NO _x	CO	VOC	CO _{2e}
Source	T/yr	T/yr	T/yr	T/yr	T/yr	T/yr
Point Sources						
Parts Paint Booth	2.20	---	---	---	6.25	---
Shop Welding	0.39	---	---	---	---	---
Grinding operation (from ground off welds)	0.14	---	---	---	---	---
Grinding operation (from grinding wheels and discs)	0.16	---	---	---	---	---
Shop Heaters	0.03	0.002	0.39	0.16	0.02	495
Total, Point Sources	2.92	0.002	0.39	0.16	6.27	495

¹Small amount of emissions are likely generated when cutting the steel using plasma. Due to lack of emissions factors and emissions information, the emissions from cutting steels are not quantifiable at this time.

The following table presents the uncontrolled Potential to Emit for HAP as submitted by the Applicant on 3/25/2014 and reviewed by DEQ staff. Couple errors are corrected in the 3/25/2014 EI spreadsheet, such as that welding fume emissions percentage is corrected from 0.07% to 0.67% as provided by the supplier.

Table 3 UNCONTROLLED POTENTIAL TO EMIT FOR HAP

Hazardous Air Pollutants	PTE (T/yr)
2-Methylnaphthalene	9.89E-08
Benzene (including benzene from gasoline)	8.66E-06
Dichlorobenzene	4.95E-06
ethyl benzene	7.72E-01
Fluoranthene	1.24E-08
Fluorene	1.15E-08
Formaldehyde	3.09E-04
Hexane	7.42E-03
Naphthalene	2.51E-06
Phenanathrene	7.01E-08
Pyrene	2.06E-08
Toluene	2.03E-01
Arsenic Compounds (inorganic including arsine)	8.24E-07
Cadmium Compounds	4.53E-06
Chromium Compounds	5.77E-06

Hazardous Air Pollutants	PTE (T/yr)
Cobalt Compounds	9.63E-04
Manganese Compounds	1.07E-06
Mercury Compounds	1.07E-06
Molybdenum	3.30E-03
Nickel Compounds	6.60E-03
Xylene	4.59E+00
HAP List below detection limit	
3-Methylchloranthrene	7.42E-09
2-Dimethylbenz(a)anthracene	6.60E-08
Acenaphthene	7.42E-09
Acenaphthylene	7.42E-03
Anthracene	9.89E-09
Benzo(g,h,i)perylene	4.95E-09
Beryllium	4.95E-08
Selenium	9.89E-08
Polycyclic Organic Matter	4.70E-08
Selenium Compounds	9.89E-08
Total	5.59

Pre-Project Potential to Emit

Pre-project Potential to Emit is used to establish the change in emissions at a facility as a result of this project.

This is an existing facility. However, since this is the first time the facility is receiving a permit, pre-project emissions are set to zero for all criteria pollutants.

Post Project Potential to Emit

Post project Potential to Emit is used to establish the change in emissions at a facility and to determine the facility's classification as a result of this project. Post project Potential to Emit includes all permit limits resulting from this project.

The following table presents the post project Potential to Emit for criteria and greenhouse gases (GHG) from all emissions units at the facility as submitted by the applicant on 3/25/2014 and reviewed by DEQ staff. Minor corrections have been made to the PTE worksheet as mentioned in Appendix A.

Table 4 POST PROJECT POTENTIAL TO EMIT FOR REGULATED AIR POLLUTANTS

Source	PM ₁₀ /PM _{2.5} T/yr	SO ₂ T/yr	NO _x T/yr	CO T/yr	VOC T/yr	CO ₂ e T/yr
Paint Booths	0.013 (0.63) ¹	---	---	---	1.78	---
Shop Welding	0.11	---	---	---	---	---
Grinding operation (from ground off welds)	0.039					
Grinding operation (from grinding wheels)	0.0456	---	---	---	---	---
Shop Heaters	0.003	1.99E-4	0.031	0.01	0.0018	39.76
Total, Point Sources	0.21 (0.82)¹	1.99E-4	0.031	0.01	1.78	39.76

¹ The emissions in parentheses are calculated emissions from the paint booths without using 98% control efficiency of the filters.

Change in Potential to Emit

The change in facility-wide PTE is used to determine if a public comment period may be required and to determine the processing fee per IDAPA 58.01.01.225. Because the pre-project PTE is zero, the change in PTE is the same as the post project PTE in the above table.

Non-Carcinogenic TAP Emissions

For each non-carcinogenic TAP, DEQ staff has divided the TAP increment by the respective EL. Silica quartz increment over the EL gives the highest percentage. Therefore, DEQ staff reviewed silica quartz emissions calculation and used it to evaluate calculation methods for non-carcinogenic TAP emissions estimation.

The hourly emissions should be calculated based on 24-hour average because non-carcinogenic TAP standards are based on 24-hr average; however, MCD calculated the hour rate by dividing actual annual materials usage over actual annual operating hours of the facility (i.e., 8 hr/day, 5 day/wk, and 52 wk/yr) or by dividing proposed annual materials usage over proposed annual operating hours of the facility (i.e., 8 hr/day, 6 day/wk, and 52 wk/yr) and yielded an annualized hourly rate.

Welding and Grinding

Without knowing what could be the maximum production of a day (i.e., in a 24 hours period), DEQ staff has assumed that a proposed averaged weekly production (based on 6 day/wk and 8 hr/day) could happen in one day (based on 24 hours a day) for welding. Therefore, the 24-hour average hourly rate is calculated by (MCD's annualized hourly rate) * (8 hr/day * 6 day/wk) / (24 hr/day). The corresponding averaged weekly throughput for each welding wire is calculated by dividing MCD's proposed annual throughput by 52 weeks per year.

During facility draft permit review, MCD requested to use the weekly average throughput as a daily throughput limit and to monitor the throughput daily to comply with 24-hr average non-carcinogenic TAP standards.

The proposed annual throughputs are included in the permit to ensure annual emissions below modeling thresholds because MCD used them to avoid the requirement of modeling PM₁₀/PM_{2.5}. MCD is required to monitor and calculate the throughputs monthly to demonstrate compliance with the annual throughput limits.

For grinding wheels and grinding discs, the 24-hour average hourly rate is calculated by (MCD's annualized hourly rate) * (8 hr/day * 6 day/wk * 4.345 wks/month that was calculated as 365 day/7day/12 month) / (24 hr/day). This 24-hr average hourly emission estimation was based on the assumption that averaged monthly emissions from grinding wheels and grinding discs are emitted in one day. Therefore, only monthly throughputs and record keeping for grinding wheels and grinding discs are required in the permit.

Painting

Without knowing what could be the maximum production of a day for painting, DEQ staff has assumed that a proposed averaged monthly production (based 8 hr/day, 6 day/wk, and 4.345wk/month) could happen in one day (based on 24 hours per day) for painting. Therefore, the 24-hour average hourly rate is calculated by (MCD's annualized hourly rate) * (8 hr/day * 6 day/wk * 4.345 wks/month) / (24 hr/day). More details on non-carcinogenic TAP emissions can be found in Appendix A.

Monthly throughput limits are imposed in the permit and corresponding monthly monitoring are required in the permit for painting. The monthly limits inherently limit the paint material annual throughputs.

DEQ staff estimated 24-hr average emissions increment, as described above, based on aforementioned assumptions and MCD's 3/25/2014 EI. All increments are below ELs as shown in Table 5. Pre-project is set to be zero because this is the initial PTC of the facility. More details on non-carcinogenic TAP emissions can be found in Appendix A.

Table 5 EMISSIONS INCREMENT FOR NON-CARCINOGENIC TOXIC AIR POLLUTANTS

Non-Carcinogenic Toxic Air Pollutants	Annualized Rate ^d	24-hr Average Increment ^e	Non-Carcinogenic Screening Emission Level	Exceeds Screening Level?	Increment/EL
(Sum of all emissions)	(lb/hr)	(lb/hr)	(lb/hr)	(Y/N)	%
aluminum	1.13E-03	2.26E-03	6.67E-01	N	0.3%
aluminum oxide	1.10E-02	8.79E-02	6.67E-01	N	13.2%
barium	4.14E-06	1.38E-06	3.30E-02	N	0.0%
calcium carbonate	4.29E-04	2.59E-03	6.67E-01	N	0.4%
carbon black ^{a, b}	5.59E-03	4.86E-02	2.30E-01	N	21.1%
chromium	1.13E-03	2.26E-03	3.30E-02	N	6.8%
cobalt	3.76E-04	7.52E-04	3.30E-03	N	22.8%
copper	7.53E-04	1.50E-03	1.30E-02	N	11.6%
Ethylbenzene ^a	1.76E-01	1.53E+00	2.90E+01	N	5.3%
hexane	1.69E-03	5.65E-04	1.20E+01	N	0.0%
iron oxide	5.36E-03	1.07E-02	3.33E-01	N	3.2%
magnesium oxide	7.52E-04	1.50E-03	6.67E-01	N	0.2%
manganese fumes	2.33E-03	4.66E-03	6.70E-02	N	7.0%
1-methoxy-2-propanol acetate ^a	1.30E-01	1.13E+00	2.40E+01	N	4.7%
naphthalene	5.74E-07	1.91E-07	3.33E+00	N	0.0%
molybdenum	7.53E-04	1.50E-03	6.67E-01	N	0.2%
pentane	2.45E-03	8.16E-04	1.18E+02	N	0.0%
selenium	2.26E-08	7.53E-09	1.30E-02	N	0.0%
silica fused	6.49E-04	1.30E-03	6.70E-03	N	19.4%
silica quartz	1.11E-03	3.51E-03	6.70E-03	N	52.4%
silicon	1.59E-03	3.18E-03	6.67E-01	N	0.5%
Toluene ^c	4.63E-02	4.02E-01	2.50E+01	N	1.6%
Xylene ^a	1.05E+00	9.11E+00	2.90E+01	N	31.4%
zinc	2.73E-05	9.10E-06	6.67E-01	N	0.0%
zinc oxide ^{a, b}	9.26E-03	8.05E-02	6.67E-01	N	12.1%
zirconium	1.67E-03	1.20E-02	3.33E-01	N	3.6%

a) From paint operation.

b) TAP from painting booths emitted in PM form did not take credit of using painting booths' filter system in the 3/25/2014 EI.

c) from paint operation and heaters

d) MCD calculated the hour rate by dividing actual annual materials usage over actual annual operating hours of the facility (i.e., 8 hr/day, 5 day/wk, and 52 wk/yr) or by dividing proposed annual materials usage over proposed annual operating hours of the facility (i.e., 8 hr/day, 6 day/wk, and 52 wk/yr).

e) The 24-hour average hourly rate is calculated by (MCD's annualized hourly rate) * (8 hr/day * 6 day/wk) / (24 hr/day) for welding and grinding welds. The 24-hour average hourly rate is calculated by (MCD's annualized hourly rate) * (8 hr/day * 6 day/wk * 4.345 wk/month) / (24 hr/day) for painting and grinding wheels and grinding discs.

Modeling is not required for any non-carcinogenic TAP because none of the 24-hour average carcinogenic screening ELs identified in IDAPA 58.01.01.586 were exceeded.

Carcinogenic TAP Emissions

A summary of the estimated PTE for emissions increase of carcinogenic TAP was provided in the 3/25/2014 EI as

listed in Table 6. Pre-project is set to be zero because this is the initial PTC of the facility.

Table 6 PRE- AND POST PROJECT POTENTIAL TO EMIT FOR CARCINOGENIC TOXIC AIR POLLUTANTS

Carcinogenic Toxic Air Pollutants	Pre-Project	Post Project	Increment	Carcinogenic Screening Emission Level	Exceeds Screening Level?
(sum of all emissions)	Annual Average Emissions Rates for Units at the Facility (lb/hr)	Annual Average Emissions Rates for Units at the Facility (lb/hr)	Annual Average Emissions Rates for Units at the Facility (lb/hr)	(lb/hr)	(Y/N)
3-Methylchloranthrene	0.00E+00	4.83E-10	4.83E-10	2.50E-06	N
arsenic	0.00E+00	5.36E-08	5.36E-08	1.50E-06	N
benzene	0.00E+00	5.63E-07	5.63E-07	8.00E-04	N
beryllium	0.00E+00	3.22E-09	3.22E-09	2.80E-05	N
cadmium	0.00E+00	3.22E-09	3.22E-09	3.70E-06	N
formaldehyde	0.00E+00	2.01E-05	2.01E-05	5.10E-04	N
nickel	0.00E+00	1.50E-03	1.50E-03	2.70E-05	Y
POM *	0.00E+00	3.06E-09	3.06E-09	2.00E-06	N

a) Polycyclic Organic Matter (POM) is considered as one TAP comprised of: benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenzo(a,h)anthracene, chrysene, indeno(1,2,3-cd)pyrene, benzo(a)pyrene. The total is compared to benzo(a)pyrene.

All carcinogenic TAP emissions increments are well below their respective ELs except for nickel. In accordance with IDAPA 58.01.01.210, no further procedures for demonstrating compliance with nickel will be required because welding and grinding at MCD are subject to 40 CFR Part 63 Subpart XXXXXX National Emission Standards for Hazardous Air Pollutants for Area Source Standards for Metal Fabrication Source Categories that has addressed nickel emissions from the welding and grinding operations. Nickel emissions from the heaters are well below the EL. Therefore, modeling is not required for any carcinogenic TAP.

Post Project HAP Emissions

The 3/25/2014 EI has only provided the uncontrolled facility-wide HAP PTE. Because uncontrolled HAP PTE is below major source thresholds, the facility-wide HAP PTE will also be below major source thresholds.

Ambient Air Quality Impact Analyses

Modeling is not required because the emissions are below the respective modeling thresholds.

REGULATORY ANALYSIS

Attainment Designation (40 CFR 81.313)

The facility is located in Ada County, which is designated as attainment or unclassifiable for PM_{2.5}, PM₁₀, SO₂, NO₂, CO, and Ozone. North Ada County is under the CO and PM₁₀ maintenance plan for the classification. Refer to 40 CFR 81.313 for additional information.

Facility Classification

The facility is a minor source because its uncontrolled PTE is below major source thresholds. Refer to Tables 2 and 3 for details.

Permit to Construct (IDAPA 58.01.01.201)

IDAPA 58.01.01.201Permit to Construct Required

The permittee has requested that a PTC be issued to the facility. Therefore, a permit to construct is required to be issued in accordance with IDAPA 58.01.01.220. This permitting action was processed in accordance with the procedures of IDAPA 58.01.01.200-228.

Visible Emissions (IDAPA 58.01.01.625)

IDAPA 58.01.01.625 Visible Emissions

The sources of PM emissions at this facility are subject to the State of Idaho visible emissions standard of 20% opacity.

Standards for New Sources (IDAPA 58.01.01.676)

IDAPA 58.01.01.677 Standards for New Sources

The fuel burning equipment located at this facility, with a maximum rated input of less than ten (10) million BTU per hour, are subject to a particulate matter limitation of 0.015 gr/dscf of effluent gas corrected to 3% oxygen by volume when combusting gaseous fuels. Fuel-Burning Equipment is defined as any furnace, boiler, apparatus, stack and all appurtenances thereto, used in the process of burning fuel for the primary purpose of producing heat or power by indirect heat transfer. These requirements apply to space heaters using indirect heat transfer. Compliance with this requirement is assured by combusting only natural gas fuel.

Particulate Matter – New Equipment Process Weight Limitations (IDAPA 58.01.01.701)

IDAPA 58.01.01.701 Particulate Matter – New Equipment Process Weight Limitations

IDAPA 58.01.01.700 through 703 set PM emission limits for process equipment based on when the piece of equipment commenced operation and the piece of equipment’s process weight (PW) in pounds per hour (lb/hr). IDAPA 58.01.01.701 and IDAPA 58.01.01.702 establish PM emission limits for equipment that commenced operation on or after October 1, 1979 and for equipment operating prior to October 1, 1979, respectively.

MCD’s 3/25/2014 EI has shown that none of the processes exceed process weight limitations.

Title V Classification (IDAPA 58.01.01.300, 40 CFR Part 70)

IDAPA 58.01.01.301 Requirement to Obtain Tier I Operating Permit

Post project facility-wide emissions from this facility do not have a potential to emit greater than 100 tons per year for all regulated pollutants or 10 tons per year for any one HAP or 25 tons per year for all HAP combined as demonstrated previously in the Emissions Inventories Section of this analysis. Therefore, the facility is not a Tier I source in accordance with IDAPA 58.01.01.006 and the requirements of IDAPA 58.01.01.301 do not apply.

PSD Classification (40 CFR 52.21)

40 CFR 52.21 Prevention of Significant Deterioration of Air Quality

The facility is not a major stationary source as defined in 40 CFR 52.21(b)(1), nor is it undergoing any physical change at a stationary source not otherwise qualifying under paragraph 40 CFR 52.21(b)(1) as a major stationary source, that would constitute a major stationary source by itself as defined in 40 CFR 52.21(b)(1). Therefore in accordance with 40 CFR 52.21(a)(2), PSD requirements are not applicable to this permitting action. The facility is/is not a designated facility as defined in 40 CFR 52.21(b)(1)(i)(a), and does not have facility-wide emissions of any criteria pollutant that exceed 250 T/yr.

NSPS Applicability (40 CFR 60)

The facility is not subject to any NSPS requirements in 40 CFR Part 60.

NESHAP Applicability (40 CFR 61)

The facility is not subject to any NESHAP requirements in 40 CFR 61.

MACT/NESHAP Applicability (40 CFR 63)

The facility has proposed to operate as a minor source of HAP emissions and is subject to the requirements of 40 CFR 63, Subpart XXXXXX– National Emission Standards for Hazardous Air Pollutants Area Source Standards for Nine Metal Fabrication and Finishing Source Categories. Refer to Appendix D for detailed regulatory analysis.

Permit Conditions Review

This section describes the permit conditions for this initial permit.

Permit Scope; Permit Section 1

This section states that this is the initial permit for this facility and provides a list of regulated sources.

Facility-Wide Permit Conditions; Permit Section 2

Unless specified, permit conditions in this section apply to all emissions units at the facility.

Permit Conditions 2.1 - 2.4, Fugitive Dust

All reasonable precautions shall be taken to prevent PM from becoming airborne in accordance with IDAPA 58.01.01.650-651. Compliance with the fugitive requirements is assured by following the operating, monitoring and recordkeeping requirements listed in Permit Conditions 2.1 - 2.4 (fugitive dust monitoring).

Because welding, grinding, and machining operations have been regulated under 40 CFR 63, Subpart XXXXXX, a quarterly fugitive inspection, as a facility-wide requirement, is considered adequate.

Permit Conditions 2.5 - 2.6, Odors

The permittee shall not allow, suffer, cause, or permit the emission of odorous gases, liquids, or solids to the atmosphere in such quantities as to cause air pollution per IDAPA 58.01.01.775-776. Compliance with this requirement is demonstrated by maintaining records of all odor complaints received and the corrective action taken in response to the complaint.

Permit Conditions 2.7 - 2.9, Visible Emissions

The permittee shall not discharge any air pollutant to the atmosphere from any point of emission for a period or periods aggregating more than three minutes in any 60-minute period which is greater than 20% opacity as determined by procedures contained in IDAPA 58.01.01.625. These provisions shall not apply when the presence of uncombined water, nitrogen oxides, and/or chlorine gas is the only reason for the failure of the emission to comply with the requirements of this section. Compliance with this requirement is demonstrated by conducting a periodic (i.e., quarterly) facility-wide inspection of potential sources of visible emissions to determine if visible emissions are present, and maintaining records of the inspections and any corrective actions taken.

Because welding, grinding, and machining operations have been regulated under 40 CFR 63, Subpart XXXXXX, and the space heaters are limited to burn natural gas only, a quarterly visible emissions evaluation, as a facility-wide requirement, is considered adequate.

Permit Condition 2.10, Open Burning

This is a standard permit condition. The open burning rules apply to all facilities throughout the state at all times. No specific monitoring or recordkeeping is necessary to demonstrate compliance with this requirement for this facility.

Permit Condition 2.11, Reports and Certifications

This permit condition establishes generally applicable requirements for submittal of reports, certifications, and notifications to DEQ and/or EPA as specified.

Permit Condition 2.12, Incorporation of Federal Requirements by Reference

This is a standard permit condition to make it clear that the federal regulations take precedence over text presented in a DEQ-issued permit condition. Often times federal regulations are paraphrased in order to fit them into a permit, and there is a chance that the meaning of the regulation might be altered. In the event that this occurs, the text, as printed in the federal regulations, must be followed.

Permit Condition 2.13, Material Purchase Records and Safety Data Sheet (SDS)

The analysis in the application and for this permitting action has been based on the specific materials and their quantities used or to be used in the facility. Permit Condition 2.13 is a recordkeeping requirement documenting that the materials and quantities used at the facility are consistent with what has been used for analyses and permitting.

Permit Condition 2.14, Obligation to Comply and New TAP or HAP

Permit Condition 2.14 states that receiving a PTC shall not relieve any owner or operator of the responsibility to comply with all applicable local, state, and federal rules and regulations.

The permittee is allowed to use equivalent new materials as defined in the permit. If a new material contains new TAP or HAP, it is not an equivalent new material as defined in the permit. The permittee is required to document compliance with the Rules when using new materials containing new TAP or HAP. That could mean permits, or exemption documents.

Painting; Permit Section 3

Permit Conditions 3.1, 3.2 and Table 3.1

PCs 3.1 and 3.2 and Table 3.1 describe the painting operation and its emissions control.

Permit Condition 3.3

PC 3.3 includes opacity limit that applies to paint booth vents/stacks.

Permit Condition 3.4

The monthly throughput limit in PC 3.4 is calculated by dividing MCD's proposed annual throughput by 12 months per year. PC 3.4 also specifies the paint types. These limits ensure that PM PTE stays below modeling thresholds to avoid modeling and that TAP emissions stay below all ELs. More discussions can be found under Non-Carcinogenic TAP Emissions section.

PC 3.4 allows MCD to use paint materials that generate same PM, VOC, TAP, and HAP emissions as or less than what are proposed and listed in Table 3.2 of the permit. Any paint materials with new TAP or HAP are not allowed under this permit condition.

Permit Condition 3.5

PC 3.5 states that all painting operations shall be conducted in the paint booths with filter systems.

PC 3.5 does not specify the control efficiency of the filters because even without taking the credit of filter control efficiency, the PM/PM₁₀/PM_{2.5} PTE are below regulatory concern (BRC), and therefore, modeling is not required.

In addition, MCD did not apply paint booth filter control efficiency when estimating TAP emissions in particulate form from painting operation in the 3/25/2014 EI.

Permit Condition 3.6

PC 3.6 is a monitoring requirement to demonstrate compliance with the paint type and throughput limits in Table 3.2 of the permit.

Permit Condition 3.7

PC 3.7 is a standard language for filter system, taken from DEQ's internal guidance. Monthly instead of weekly see-no-see is required in PC 3.7 because the painting production is not very big at MCD. PC 3.7 ensures compliance with opacity limit for paint booths' vents/stacks.

Welding, Grinding, Machining, and Heaters; Permit Section 4

Permit Conditions 4.1, 4.2 and Table 4.1

PCs 4.1 and 4.2 and Table 4.1 describe the welding, grinding, and machining operations at the facility. The emissions control requirements are imposed in Section 5 of the permit in accordance with 40 CFR 63, Subpart XXXXXX. Current installation and operation of the air cleaner also called smog-hog fume collector do not meet the definition of “control device” in 40 CFR 63 Subpart XXXXXX.

Welding, grinding, and machining operations are subject to the requirements in 40 CFR 63 Subpart XXXXXX that are included in section 5 of the permit.

Permit Condition 4.3

PC 4.3 includes fuel-burning grain loading standard that applies to heaters using indirect heat transfer.

Permit Condition 4.4

The daily, or weekly throughput limit for each welding wire in PC 4.4 is calculated by dividing MCD’s proposed annual throughput by 52 weeks per year. Annual throughput limit in PC 4.4 is what MCD proposed in the application and used in the 3/25/2014 EI calculation. PC 4.4 also specifies the welding processes and welding wires. These limits ensure that PM PTE stays below modeling thresholds to avoid modeling and that TAP emissions stay below all ELs. More discussions can be found under Non-Carcinogenic TAP Emissions section.

PC 4.4 allows MCD to use equivalent welding wires that generate same PM, VOC, TAP, and HAP emissions as or less than what are proposed and listed in Table 4.2 of the permit. Any welding wires with new TAP or HAP are not allowed under this permit condition.

Permit Condition 4.5

The monthly throughput limit for each grinding wheel and grinding disc in PC 4.5 is calculated by dividing MCD’s proposed annual throughput by 12 months per year. PC 4.5 also specifies the types of grinding wheels and grinding discs. These limits ensure that PM PTE stays below modeling thresholds to avoid modeling and that TAP emissions stay below all ELs. More discussions can be found under Non-Carcinogenic TAP Emissions section.

PC 4.5 allows MCD to use equivalent grinding wheels and grinding discs that generate same PM, VOC, TAP, and HAP emissions as or less than what are proposed and listed in Table 4.3 of the permit. Any grinding wheel and grinding disc with new TAP or HAP are not allowed under this permit condition.

Permit Condition 4.6

PC 4.6 limits the fuel type and annual operating hours of the heaters that were proposed by MCD and were used in the MCD’s 3/15/2014 EI .

Permit Conditions 4.7 and 4.8

PCs 4.7 and 4.8 are monitoring requirements for demonstrating compliance with welding wire daily, weekly, and annual throughput limits and grinding wheel and disc monthly throughput limits.

Permit Condition 4.9

PC 4.9 is a monitoring requirement to demonstrate compliance with each heater’s annual operating hour limit.

40 CFR 63, Subpart XXXXXX; Permit Section 5

MCD’s machining, grinding, and welding operations are subject to the requirements in 40 CFR 63, Subpart XXXXXX. The requirements are included in Section 5 of the permit. Detailed regulatory analysis can be found in Appendix D of this Statement of Basis.

The original citations from 40 CFR 63, Subpart XXXXXX are included in the permit for each permit conditions in Section 5.

It is important to point out that dry grinding and dry polishing with machines is defined in the regulation as grinding or polishing without the use of lubricating oils or fluids in fixed or stationary machines. Hand grinding,

hand polishing, and bench top dry grinding and dry polishing are not included under this definition.

General Provisions; Permit Section 6

General provisions are taken from current PTC template.

General Provision 1

The duty to comply general compliance provision requires that the permittee comply with all of the permit terms and conditions pursuant to Idaho Code §39-101.

General Provision 2

The maintenance and operation general compliance provision requires that the permittee maintain and operate all treatment and control facilities at the facility in accordance with IDAPA 58.01.01.211.

General Provision 3

The obligation to comply general compliance provision specifies that no permit condition is intended to relieve or exempt the permittee from compliance with applicable state and federal requirements, in accordance with IDAPA 58.01.01.212.01.

General Provision 4

The inspection and entry provision requires that the permittee allow DEQ inspection and entry pursuant to Idaho Code §39-108.

General Provision 5

The permit expiration construction and operation provision specifies that the permit expires if construction has not begun within two years of permit issuance or if construction has been suspended for a year in accordance with IDAPA 58.01.01.211.02.

General Provision 6

The notification of construction and operation provision requires that the permittee notify DEQ of the dates of construction and operation, in accordance with IDAPA 58.01.01.211.03.

General Provision 7

The performance testing notification of intent provision requires that the permittee notify DEQ at least 15 days prior to any performance test to provide DEQ the option to have an observer present, in accordance with IDAPA 58.01.01.157.03.

General Provision 8

The performance test protocol provision requires that any performance testing be conducted in accordance with the procedures of IDAPA 58.01.01.157, and encourages the permittee to submit a protocol to DEQ for approval prior to testing.

General Provision 9

The performance test report provision requires that the permittee report any performance test results to DEQ within 30 days of completion, in accordance with IDAPA 58.01.01.157.04-05.

General Provision 10

The monitoring and recordkeeping provision requires that the permittee maintain sufficient records to ensure compliance with permit conditions, in accordance with IDAPA 58.01.01.211.

General Provision 11

The excess emissions provision requires that the permittee follow the procedures required for excess emissions events, in accordance with IDAPA 58.01.01.130-136.

General Provision 12

The certification provision requires that a responsible official certify all documents submitted to DEQ, in accordance with IDAPA 58.01.01.123.

General Provision 13

The false statement provision requires that no person make false statements, representations, or certifications, in accordance with IDAPA 58.01.01.125.

General Provision 14

The tampering provision requires that no person render inaccurate any required monitoring device or method, in accordance with IDAPA 58.01.01.126.

General Provision 15

The transferability provision specifies that this permit to construct is transferable, in accordance with the procedures of IDAPA 58.01.01.209.06.

General Provision 16

The severability provision specifies that permit conditions are severable, in accordance with IDAPA 58.01.01.211.

PUBLIC REVIEW

Public Comment Opportunity

An opportunity for public comment period on the application was provided in accordance with IDAPA 58.01.01.209.01.c. During this time, there were no comments on the application and there was not a request for a public comment period on DEQ's proposed action. Refer to the chronology for public comment opportunity dates.

APPENDIX A – EMISSIONS INVENTORIES

MCD submitted a revised EI spreadsheet on March 25, 2014 (2014AAG1031). Detailed calculation can be found in that submittal. Due to the large size of the spreadsheet, it is not practical to include it in this document. The following are the examples of MCD's EI calculations with corrections made by DEQ.

Painting

Particulate matter (PM/PM₁₀/PM_{2.5})

Uncontrolled PTE

Annual uncontrolled PM/PM₁₀/PM_{2.5} emissions were calculated in the 3/25/14 EI spreadsheet as:

{[actual annual blended colors usage (gal/yr)] / [actual annual operating hours of the facility (hr/yr)] * [density of the paint (lb/gal) - VOC content (lb/gal)] for worst case of blended colors * (1-65%, spray gun transfer efficiency) * (8,760 hr/yr) / (2000 lb/T)} + { [actual annual white primer usage (gal/yr)] / [actual annual operating hours of the facility (hr/yr)] * [density of the paint (lb/gal) - VOC content (lb/gal)] for white primer * (1-65%, spray gun transfer efficiency) * (8,760 hr/yr) / (2000 lb/T)}

= (445 gal/yr) / (2080 hrs/yr) * (8.71 lb/gal - 4.56 lb/gal) * (1-65%) * (8,760 hr/yr) / (2000 lb/T) + (180 lb/yr) / (2080 hr/yr) * (10.7 lb/gal - 4.41 lb/gal) * (1-65%) * (8,760 hr/yr) / (2000 lb/T)

= 1.36 T/yr + 0.83 T/yr = 2.20 T/yr.

PM/PM₁₀/PM_{2.5} PTE

Annual controlled PM/PM₁₀/PM_{2.5} PTE is calculated based on uncontrolled PTE as:

Uncontrolled PTE * (1-98% filter control efficiency) * (2,496 hr/yr, proposed annual operating hours, 8 hr/day, 6 day/week, and 52 wk/yr) / (8,760 hr/yr) = 0.013 T/yr

Without taking the PM control efficiency of the filter, the PM/PM₁₀/PM_{2.5} PTE will be 0.63 T/yr

Volatile Organic Compounds (VOC)

Uncontrolled VOC emissions were calculated in the 3/25/14 EI spreadsheet as:

{[actual thinner annual usage (gal/yr)] / [actual annual operating hours of the facility (hr/yr)] * [thinner VOC content (lb/gal)] * (8,760 hr/yr) / (2000 lb/T)} + { [actual annual blended colors usage (gal/yr)] / [actual annual operating hours of the facility (hr/yr)] * [worst case blended colors VOC content (lb/gal)] * (8,760 hr/yr) / (2000 lb/T)} + { [actual white primer annual usage (gal/yr)] / [actual annual operating hours of the facility (hr/yr)] * [white primer VOC content (lb/gal)] * (8,760 hr/yr) / (2000 lb/T)} = 0.305 T/yr + 4.273 T/yr + 1.67 T/yr = 6.25 T/yr

VOC PTE

Annual controlled VOC PTE is calculated based on uncontrolled PTE as:

Uncontrolled PTE * (2,496 hr/yr, proposed annual operating hours) / (8,760 hr/yr) = 6.25 T/yr * 0.2849 = 1.78 T/yr

Shop Welding

Uncontrolled PM/PM₁₀/PM_{2.5} PTE

Annual uncontrolled PM/PM₁₀/PM_{2.5} emissions were calculated in the 3/25/14 EI spreadsheet as:

[Sum of actual wire annual usage (lb/yr)] / [actual annual operating hours of the facility (hr/yr)] / (1000 lb/lb) * EF (lb/1,000 lbs of wire, using the highest value for GMAW welding) * (8,760 hr/yr) / (2000 lb/T)}

= (6824, Element 71T1M + 400, Lincoln 6011 + 400, Jetwood 7024) lb/yr / (2080 hr/yr) / (1000 lb/lb) * (24.1 lb/1000 lb of wire) * (8,760 hr/yr) / (2000 lb/T) = (7624 lb/yr) / (2080 hr/yr) / (1000 lb/lb) * (24.1 lb/1000 lb of wire) * (8,760 hr/yr) / (2,000 lb/T) = 0.39 T/yr.

PM/PM₁₀/PM_{2.5} PTE

Annual controlled PM/PM₁₀/PM_{2.5} PTE is calculated based on uncontrolled PTE as:

Uncontrolled PTE * (2,496 hr/yr, proposed annual operating hours) / (8,760 hr/yr) = 0.39 * 0.2849 = 0.11 T/yr

The control efficiency of the filtration system of the welding operation was not used in the calculation in the 3/25/2014 EI.

Grinding (Weld grinding & grinding wheel)

Uncontrolled PM/PM₁₀/PM_{2.5} PTE

Annual uncontrolled PM/PM₁₀/PM_{2.5} emissions were calculated in the 3/25/14 EI spreadsheet as:

Emissions from welds removed: (4 oz of welds removed per day¹) / (1 lb/16 oz) / (8 hrs/day) * (8,760 hr/yr) / (2000 lb/T) = 0.14 T/yr

¹The weight of welded metal removed during grinding was determined by the facility based on estimated daily average weight of four ounces of welds removed.

Emissions from grinding wheels and discs: without a good emissions factor, it is conservatively assumed that consumed grinding wheels/discs are emitted as particulates: {[actual annual usage of grinding materials/wheels (gal/yr)] / [actual annual operating hours of the facility (hr/yr)] * (8,760 hr/yr) / (2000 lb/T)} = (76 lb/yr grinding wheels) / (2080 hr/yr²) * (8,760 hr/yr) / (2000 lb/T) = 0.16 T/yr

²8760 hr/yr was mistakenly used in the spreadsheet as the actual hours and is corrected to 2,080 hr/yr.

The total uncontrolled PTE from grinding is estimated to be 0.14 T/yr + 0.16 T/yr = 0.3 T/yr.

PM/PM₁₀/PM_{2.5} PTE

Uncontrolled PTE * (2,496 hr/yr, proposed annual operating hours) / (8760 hr/yr) = 0.3 T/yr * 0.2849 = 0.08 T/yr

The control efficiency of the filtration system of the grinding operation is not used in the calculation of the 3/25/2014 EI.

Shop Heaters

Annual uncontrolled PM/PM₁₀/PM_{2.5} emissions are calculated in the 3/25/2014 spreadsheet as:

(Hourly maximum capacity MMBtu/yr) * 4 heaters * EF lb/MMBtu * (8760 hr/yr) / (2000 lb/T) = (0.24 MMBtu/hr) * 4 * (0.0075 lb/MMBtu) * (8,760 hr/yr) / (2000 lb/T) = 0.031 T/yr

PM/PM₁₀/PM_{2.5} PTE

Uncontrolled PTE * (704 hr/yr, proposed annual operating hours) / (8,760 hr/yr) = 0.0315 T/yr * 0.08 = 0.0025 T/yr

NO_x, CO, SO₂, and VOC

Annual uncontrolled emissions are calculated as:

(Hourly maximum capacity MMBtu/yr) * 4 heaters * EF lb/MMBtu * (8,760 hr/yr) / (2000 lb/T).

PTE of NO_x, CO, SO₂, and VOC are calculated as:

Uncontrolled PTE * (704 hr/yr, proposed annual operating hours) / (8,760 hr/yr) = uncontrolled PTE T/yr * 0.08.

Non-Carcinogenic TAP Emissions Calculation

Silica quartz

Silica quartz emissions are calculated in the 3/25/2014 spreadsheet as follows. The calculated annualized rate from the 3/25/2014 spreadsheet is 1.11E-03 lb/hr. Without knowing what could be the maximum production of a day, DEQ staff has assumed that a proposed averaged weekly production for welding, operating six days per week, could happen in one day. The calculated hour rate $1.11E-03 \times 6 \text{ times} = 0.00666 \text{ lb/hr}$ is still below the EL.

Some corrections are made to the 3/25/2014 spreadsheet, such as correcting EL for silica quartz and silicon, switching table heads "Silicon and CAS No. 7440-21-3" with "Silica Quartz with CAS No. 14808-60-7" in "TAP Emissions Calculations" worksheet to correspond to calculation/information in the "TAP Summary Table" worksheet row 29 for silica quartz and row 30 for silicon.

$$\begin{aligned} \text{"TAP Summary Table" D29} &= \text{"TAP Summary Table" C29} = \text{"TAP Emission Calculations" V35} \\ &= \text{"TAP Emission Calculations" (V26 + V28 + V30)} \end{aligned}$$

From welding

$$\begin{aligned} \text{"TAP Emission Calculations" V26} &= \text{"EF and Documentation" (K94 + K101+K106)} \\ &= \text{"EF and Documentation" (F94*J94*D7 + F101*J101*D7+ F106*J106*D7)} \\ &= \text{"Production Data" (D18*0.02, Silica quartz content*0.67%, welding fume EF from welding wire supplier}^1 \text{ +} \\ &\quad \text{D19*0.005, Silica quartz content*0.67%, welding fume EF + D20*0.005, Silica quartz content*0.67%, welding} \\ &\quad \text{fume EF)} \\ &= \text{"Production Data" (K18/I18*0.02, Silica quartz content*0.67%, welding fume EF + K19/I19*0.005, Silica} \\ &\quad \text{quartz content*0.67%, welding fume EF + K20/I20*0.005, Silica quartz content*0.67%, welding fume EF)} \\ &= \text{"Production Data" (J18/J28*0.02, Silica quartz content*0.67%, welding fume EF + J19/J28*0.005, Silica quartz} \\ &\quad \text{content*0.67%, welding fume EF + J20/J28*0.005, Silica quartz content*0.67%, welding fume EF)} \\ &= \text{"Production Data"((actual annual welding wire usage for Element 71T1M in lb/yr)/(2080 hr/yr, 9 hrs Monday} \\ &\quad \text{to Thursday and 4 hrs Friday and 52 weeks/yr) *0.02, Silica quartz content*0.67%, welding fume EF + (actual} \\ &\quad \text{annual welding wire usage for Lincoln 6011 in lb/yr)/(2080 hr/yr) *0.005, Silica quartz content*0.67%, welding} \\ &\quad \text{fume EF + (actual annual welding wire usage for Jetwood 7024 in lb/yr)/(2080 hr/yr) *0.005, Silica quartz} \\ &\quad \text{content*0.67%, welding fume EF))} \\ &= (6824 \text{ lb/yr})/(2080 \text{ hr/yr}) * (0.02, \text{Silica quartz content}) * (0.67\%, \text{welding fume EF}) + (400 \text{ lb/yr})/(2080 \text{ hr/yr}) \\ &\quad * (0.005, \text{Silica quartz content}) * (0.67\%, \text{welding fume EF}) + (400 \text{ lb/yr})/(2080 \text{ hr/yr}) * (0.005, \text{Silica quartz} \\ &\quad \text{content}) * (0.67\%, \text{welding fume EF}) \\ &= (6824 \text{ lb/yr})/(2080 \text{ hr/yr}) * (0.02, \text{Silica quartz content}) * (0.67\%, \text{welding fume EF}) + (400 \text{ lb/yr})/(2080 \text{ hr/yr}) \\ &\quad * (0.005, \text{Silica quartz content}) * (0.67\%, \text{welding fume EF}) + (400 \text{ lb/yr})/(2080 \text{ hr/yr}) * (0.005, \text{Silica quartz} \\ &\quad \text{content}) * (0.67\%, \text{welding fume EF}) \\ &= (3.3 \text{ lb/yr, annualized}) * (0.02, \text{Silica quartz content}) * (0.67\%, \text{welding fume EF}) + (0.2 \text{ lb/yr, annualized}) * \\ &\quad (0.005, \text{Silica quartz content}) * (0.67\%, \text{welding fume EF}) + (0.2 \text{ lb/yr, annualized}) * (0.005, \text{Silica quartz} \\ &\quad \text{content}) * (0.67\%, \text{welding fume EF}) \\ &= 4.53 \text{ E-04 lb/hr, annualized.} \end{aligned}$$

¹ 0.07% was mistakenly entered in the spreadsheet (i.e., 'EF and Documentation' cell D7-9), it is corrected to 0.67% based on welding wire supplier's data.

From grinding off welding material (welds) on surface

$$\begin{aligned} \text{"TAP Emission Calculations" V28} \\ &= \text{"EF and Documentation" (F119*J119*D12 + F126*J126*D12+ F131*J131*D12)} \end{aligned}$$

$$= (4 \text{ oz of welds removed per day}^2 / (16 \text{ oz/lb}) / (8 \text{ hr/day}) * (0.02, \text{ silica quartz content of welding wire Element 71T1M}) * (50\% \text{ }^3) + (4 \text{ oz} / (16 \text{ oz/lb}) / (8 \text{ hr/day}) * (0.005, \text{ silica quartz content of welding wire Lincoln 6011}) * 50\% \text{ }^3 + (4 \text{ oz} / (16 \text{ oz/lb}) / (8 \text{ hr/day}) * (0.005, \text{ silica quartz content of welding wire Jetwood 7024}) * 50\% \text{ }^3$$

$$= 0.03125 \text{ lb/hr} * 50\% \text{ }^3 * (0.02+0.005+0.005)$$

$$= 4.69 \text{ E-4 lb/hr, estimated rate based on averaged production.}$$

²The weight of welded metal removed during grinding was determined by the facility based on estimated daily average weight of four ounces of welds removed.

³ MCD assumed that 50% of 4 oz welds removed was converted to fume. DEQ was not able to confirm or verify this assumption. However, for this project, even using 100%, TAP emissions are still below ELs.

From grinding wheel

$$\text{"TAP Emission Calculations" V30} = \text{"EF and Documentation" (F139*J139*D13)}$$

$$= \text{"production data" D15} * (0.2, \text{ silica quartz content in grinding wheel}) * (50\%, \text{ based on facility assumption of a fume generation rate of 50\% of grinding discs consumed }^4)$$

$$= \text{"production data" K15/I15} * (0.2, \text{ silica quartz content in grinding wheel}) * (50\%, \text{ based on facility assumption of a fume generation rate of 50\% of grinding discs consumed }^4)$$

$$= (4 \text{ lb/yr, based on facility estimated annual consumption rate of 2 wheels at a weight of 32 oz per wheel}) / (2080 \text{ hr/yr, 9 hrs Monday to Thursday and 4 hrs Friday and 52 weeks/yr}) * 0.2 * 50\%$$

$$= 1.92 \text{ E-04 lb/hr, annualized rate.}$$

⁴ MCD assumed that 50% of wheels converted to fume. DEQ was not able to confirm or verify this assumption. But for this project, even using 100%, TAP emissions are still below ELs..

Xylene

From painting materials

$$\text{"TAP Summary Table" D32} = \text{"TAP Summary Table" C32} = \text{"TAP Emissions Calculations" Y35}$$

$$= \text{"TAP Emissions Calculations" Y24}$$

$$= \text{"EF and Documentation" K73} + \text{"EF and Documentation" K76} + \text{"EF and Documentation" K80}$$

$$= \text{"EF and Documentation" H73} * \text{"Production Data" F\$8}$$

$$+ \text{"EF and Documentation" H76} * \text{"Production Data" F\$7}$$

$$+ \text{"EF and Documentation" H80} * \text{"Production Data" F\$9}$$

$$= \text{Kem 400 Blended Colors enamel density (lb/gal)} * \text{Xylene content} * \text{annualized actual hourly usage}^5$$

$$+ \text{Thinner density (lb/gal)} * \text{Xylene content} * \text{annualized actual hourly usage}^5$$

$$+ \text{White Primer density (lb/gal)} * \text{Xylene content} * \text{annualized actual hourly usage}^5$$

$$= 8.71 \text{ (lb/gal)} * 0.38 * (\text{actual usage}/2080)$$

$$+ 7.24 \text{ (lb/gal)} * 0.9 * (\text{actual usage}/2080)$$

$$+ 10.7 \text{ (lb/gal)} * 0.3 * (\text{actual usage}/2080)$$

$$= 8.71 \text{ (lb/gal)} * 0.38 * (445 \text{ gal/yr} / 2080)$$

$$+ 7.24 \text{ (lb/gal)} * 0.9 * (20 \text{ gal/yr} / 2080)$$

$$+ 10.7 \text{ (lb/gal)} * 0.3 * (180 \text{ gal/yr} / 2080)$$

$$= 1.05 \text{ lb/hr; annualized rate}$$

Zinc Oxide

From painting materials

"TAP Summary Table" D34 = "TAP Summary Table" C34 = 'TAP Emissions Calculations' AA35

= 'TAP Emissions Calculations' AA24 = 'EF and Documentation' K81

= 'EF and Documentation' H81 * J81 * 'Production Data' F\$9

= White Primer density (lb/gal) * Zinc Oxide content * annualized actual hourly usage¹

= 10.7 (lb/gal) * 0.01 * (180 gal/yr / 2080 hr/yr)

= 9.26 E-3 lb/hr, annualized rate ⁶

⁵ In 'Production Data' F7, the worst case paint usage was calculated by dividing gallons/day rate (E7) by 6. The gallons per day (E7) were calculated by dividing actual paint usage (J7) by 416. It was not clear what 416 stood for. The 'Production Data' F7 has been changed to annualized actual hourly usage (J7) by dividing actual usage by 2080 actual operating hour of the facility for that year (H7). Same changes are made to F8 and F9. This change is reflected in above xylene and zinc oxide calculations.

⁶ The calculation in MCD's EI did not use PM filter control efficiency of paint booths for zinc oxide emissions.

APPENDIX B – FACILITY DRAFT COMMENTS

The following comments were received from the facility on June 20, 2014:

Facility Comment: The draft permit identified additional required information regarding equipment manufacturers and model numbers:

- a. Paint Booth: Both the North and South paint booths were field constructed when the facility was placed in service during the early 1970's. Manufacturer and model number information do not apply to this equipment.
- b. Natural Gas Heaters: The facility has four natural gas fired building heaters. See data sheet attached.
- c. Paint Guns: The facility has two different paint guns that are used to coat parts. See data sheet attached.

DEQ Response: The above information is added to the permit and the statement of basis.

Facility Comment: Please change the welding wire consumption limit from 157 pounds per week to 157 pounds per day. This will require the following additional revisions to the permit:

- a. Include an annual permit limit of 8188.8 pounds.
- b. Include a permit condition to conduct daily monitoring of welding wire consumption to demonstrate compliance with the 157 pound per day limit.
- c. Include a permit condition to require monthly monitoring and addition of monthly throughput to demonstrate compliance with the annual limit of 8188.8 pounds per year.

DEQ Response: The change is made.

157 lb/week in the draft permit was for compliance with 24-hr and annual PM limits and TAP limits. MCD did not provide maximum daily welding wire usage in the application. Therefore, in the draft permit, it was assumed that average weekly production (i.e., $8188.8 \text{ lb/yr} / 52 \text{ wk/yr} = 157 \text{ lb/wk}$) would happen in 24-hr period. During the review of the draft permit, MCD indicated that their weekly production could exceed this assumption and proposed the above new limits and monitoring methods. The request changes are acceptable and are included in Section 4 of the final permit. Corresponding changes are also made to the final statement of basis.

APPENDIX C – PROCESSING FEE

Emissions Inventory			
Pollutant	Annual Emissions Increase (T/yr)	Annual Emissions Reduction (T/yr)	Annual Emissions Change (T/yr)
NO _x	3.1E-02	0	3.1E-02
SO ₂	2.0E-04	0	2.0E-04
CO	1.3E-02	0	1.3E-02
PM10	8.2E-01	0	8.2E-01
VOC	1.8E+00	0	1.8E+00
TAPS/HAPS ^a	1.6E+00	0	1.6E+00
Total:	4.24	0	4.2
Fee Due	\$ 2,500.00		

^a HAP PTE was estimated as uncontrolled HAP PTE * (2,496 hr/yr) / (8,760 hr/yr).

APPENDIX D – FEDERAL REGULATION ANALYSIS

(2014AAG1030)

The following regulatory analysis is taken from MCD's 3/25/2014 submittal. It is review and revised by DEQ staff. The applicable requirements are highlighted.

40 CFR 63 subpart XXXXXX

This federal rule is applicable to the MCD facility. Monitoring, reporting and record keeping apply including periodic opacity evaluations of the building vent. The regulatory analysis for this rule is presented as follows:

§63.11514 Am I subject to this subpart?

(a) You are subject to this subpart if you own or operate an area source that is primarily engaged in the operations in one of the nine source categories listed in paragraphs (a)(1) through (9) of this section. Descriptions of these source categories are shown in Table 1 of this subpart. "Primarily engaged" is defined in §63.11522, "What definitions apply to this subpart?"

(1) Electrical and Electronic Equipment Finishing Operations;

(2) Fabricated Metal Products;

(3) Fabricated Plate Work (Boiler Shops);

(4) Fabricated Structural Metal Manufacturing;

(5) Heating Equipment, except Electric;

(6) Industrial Machinery and Equipment Finishing Operations;

(7) Iron and Steel Forging;

(8) Primary Metal Products Manufacturing; and

(9) Valves and Pipe Fittings.

(b) The provisions of this subpart apply to each new and existing affected source listed and defined in paragraphs (b)(1) through (5) of this section if you use materials that contain or have the potential to emit metal fabrication or finishing metal HAP (MFHAP), defined to be the compounds of cadmium, chromium, lead, manganese, and nickel, or any of these metals in the elemental form with the exception of lead. Materials that contain MFHAP are defined to be materials that contain greater than 0.1 percent for carcinogens, as defined by OSHA at 29 CFR 1910.1200(d)(4) and greater than 1.0 percent for noncarcinogens. For the MFHAP, this corresponds to materials that contain cadmium, chromium, lead, or nickel in amounts greater than or equal to 0.1 percent by weight (of the metal), and materials that contain manganese in

amounts greater than or equal to 1.0 percent by weight (of the metal), as shown in formulation data provided by the manufacturer or supplier, such as the Material Safety Data Sheet for the material.

(1) A dry abrasive blasting affected source is the collection of all equipment and activities necessary to perform dry abrasive blasting operations which use materials that contain MFHAP or that have the potential to emit MFHAP.

(2) A machining affected source is the collection of all equipment and activities necessary to perform machining operations which use materials that contain MFHAP, as defined in §63.11522, "What definitions apply to this subpart?", or that have the potential to emit MFHAP.

According to structure steel MSDS, the steel contains MFHAP as defined above. MCD has machining operation as defined in 40 CFR 63.11522.

(3) A dry grinding and dry polishing with machines affected source is the collection of all equipment and activities necessary to perform dry grinding and dry polishing with machines operations which use materials that contain MFHAP, as defined in §63.11522, "What definitions apply to this subpart?", or have the potential to emit MFHAP.

According to MSDS for structure steel, the steel contains MFHAP as defined in this subpart. In addition, the welding wires contain MFHAP as defined in this subpart.

(4) A spray painting affected source is the collection of all equipment and activities necessary to perform spray-applied painting operations using paints which contain MFHAP. A spray painting affected source includes all equipment used to apply cleaning materials to a substrate to prepare it for paint application (surface preparation) or to remove dried paint; to apply a paint to a substrate (paint application) and to dry or cure the paint after application; or to clean paint operation equipment (equipment cleaning). Affected source(s) subject to the requirements of this paragraph are not subject to the miscellaneous surface coating provisions of subpart HHHHHH of this part, "National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources."

According to MSDS for the paints used at MCD, the paint materials do not contain MFHAP. Therefore, the painting process do not subject to this subpart.

(5) A welding affected source is the collection of all equipment and activities necessary to perform welding operations which use materials that contain MFHAP, as defined in §63.11522, "What definitions apply to this subpart?", or have the potential to emit MFHAP.

According to MSDS for structure steel, the steel contains MFHAP as defined in this subpart. In addition, the welding wires contain MFHAP as defined in this subpart.

(c) An affected source is existing if you commenced construction or reconstruction of the affected source, as defined in §63.2, "General Provisions" to part 63, before April 3, 2008.

All affected sources at MCD are existing sources.

(d) An affected source is new if you commenced construction or reconstruction of the affected source, as defined in §63.2, "General Provisions" to part 63, on or after April 3, 2008.

(e) This subpart does not apply to research or laboratory facilities, as defined in section 112(c)(7) of the Clean Air Act (CAA).

(f) This subpart does not apply to tool or equipment repair operations, facility maintenance, or quality control activities as defined in §63.11522, "What definitions apply to this subpart?"

(g) This subpart does not apply to operations performed on site at installations owned or operated by the Armed Forces of the United States (including the Coast Guard and the National Guard of any such state), the National Aeronautics and Space Administration, or the National Nuclear Security Administration.

(h) This subpart does not apply to operations that produce military munitions, as defined in §63.11522, "What definitions apply to this subpart?", manufactured by or for the Armed Forces of the United States (including the Coast Guard and the National Guard of any such state), or equipment directly and exclusively used for the purposes of transporting military munitions.

(i) You are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, provided you are not otherwise required by law to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a). Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart.

MCD is an existing facility that is subject to this subpart because it is a metal fabricating/manufacturing operation that performs welding, grinding, and machining operations. MCD is not subject to 40 CFR part 70 and is not required to obtain Teri I operating permit.

§63.11515 What are my compliance dates?

(a) If you own or operate an existing affected source, you must achieve compliance with the applicable provisions in this subpart by July 25, 2011.

(b) If you own or operate a new affected source, you must achieve compliance with the applicable provisions in this subpart by July 23, 2008, or upon startup of your affected source, whichever is later.

MCD as an existing affected source. The compliance date is July 25, 2011. According to MCD, the source is in compliance with the applicable provisions of this subpart.

STANDARDS AND COMPLIANCE REQUIREMENTS

§63.11516 What are my standards and management practices?

(a) *Dry abrasive blasting standards.* If you own or operate a new or existing dry abrasive blasting affected source, you must comply with the requirements in paragraphs (a)(1) through (3) of this section, as applicable, for each dry abrasive blasting operation that uses materials that contain MFHAP, as defined in §63.11522, "What definitions apply to this subpart?", or has

the potential to emit MFHAP. These requirements do not apply when abrasive blasting operations are being performed that do not use any materials containing MFHAP or do not have the potential to emit MFHAP.

.....

MCD does not perform dry blasting for surface preparation or parts cleaning, and therefore this standard does not apply

(b) *Standards for machining.* If you own or operate a new or existing machining affected source, you must implement management practices to minimize emissions of MFHAP as specified in paragraph (b)(1) and (2) of this section for each machining operation that uses materials that contain MFHAP, as defined in §63.11522, "What definitions apply to this subpart?", or has the potential to emit MFHAP. These requirements do not apply when machining operations are being performed that do not use any materials containing MFHAP and do not have the potential to emit MFHAP.

(1) You must take measures necessary to minimize excess dust in the surrounding area to reduce MFHAP emissions, as practicable; and

(2) You must operate all equipment associated with machining according to manufacturer's instructions.

MCD performs machining, and steel contains MFHAP.

(c) *Standards for dry grinding and dry polishing with machines.* If you own or operate a new or existing dry grinding and dry polishing with machines affected source, you must comply with the requirements of paragraphs (c)(1) and (2) of this section for each dry grinding and dry polishing with machines operation that uses materials that contain MFHAP, as defined in §63.11522, "What definitions apply to this subpart?", or has the potential to emit MFHAP. These requirements do not apply when dry grinding and dry polishing operations are being performed that do not use any materials containing MFHAP and do not have the potential to emit MFHAP.

(1) You must capture emissions and vent them to a filtration control device. You must demonstrate compliance with this requirement by maintaining a record of the manufacturer's specifications for the filtration control devices, as specified by the requirements in §63.11519(c)(4), "Notification, recordkeeping, and reporting Requirements."

(2) You must implement management practices to minimize emissions of MFHAP as specified in paragraphs (c)(2)(i) and (ii) of this section.

(i) You must take measures necessary to minimize excess dust in the surrounding area to reduce MFHAP emissions, as practicable;

(ii) You must operate all equipment associated with the operation of dry grinding and dry polishing with machines, including the filtration control device, according to manufacturer's instructions.

MCD uses dry grinding for surface preparation and therefore this section is applicable.

According to MSDS for structure steel, the steel contains MFHAP as defined in this subpart. In addition, the welding wires contain MFHAP as defined in this subpart.

(d) *Standards for control of MFHAP in spray painting.* If you own or operate a new or existing spray painting affected source, as defined in §63.11514 (b)(4), "Am I subject to this subpart?," you must implement the management practices in paragraphs (d)(1) through (9) of this section when a spray-applied paint that contains MFHAP is being applied. These requirements do not apply when spray-applied paints that do not contain MFHAP are being applied.

.....

According to MSDS for the paints used at MCD, the paint materials do not contain MFHAP. Therefore, the painting process do not subject to this subpart.

(e) [Reserved]

(f) *Standards for welding.* If you own or operate a new or existing welding affected source, you must comply with the requirements in paragraphs (f)(1) and (2) of this section for each welding operation that uses materials that contain MFHAP, as defined in §63.11522, "What definitions apply to this subpart?," or has the potential to emit MFHAP. If your welding affected source uses 2,000 pounds or more per year of welding rod containing one or more MFHAP (calculated on a rolling 12-month basis), you must demonstrate that management practices or fume control measures are being implemented by complying with the requirements in paragraphs (f)(3) through (8) of this section. The requirements in paragraphs (f)(1) through (8) of this section do not apply when welding operations are being performed that do not use any materials containing MFHAP or do not have the potential to emit MFHAP.

(1) You must operate all equipment, capture, and control devices associated with welding operations according to manufacturer's instructions. You must demonstrate compliance with this requirement by maintaining a record of the manufacturer's specifications for the capture and control devices, as specified by the requirements in §63.11519(c)(4), "Notification, recordkeeping, and reporting requirements."

(2) You must implement **one or more** of the management practices specified in paragraphs (f)(2)(i) through (v) of this section to minimize emissions of MFHAP, as practicable, while maintaining the required welding quality through the application of sound engineering judgment.

(i) Use welding processes with reduced fume generation capabilities (e.g., gas metal arc welding (GMAW)—also called metal inert gas welding (MIG));

(ii) Use welding process variations (e.g., pulsed current GMAW), which can reduce fume generation rates;

(iii) Use welding filler metals, shielding gases, carrier gases, or other process materials which are capable of reduced welding fume generation;

(iv) Optimize welding process variables (e.g., electrode diameter, voltage, amperage, welding angle, shield gas flow rate, travel speed) to reduce the amount of welding fume generated; and

(v) Use a welding fume capture and control system, operated according to the manufacturer's specifications.

According to MCD, MCD has implemented fume reduction management strategies for all welding machines at the facility.

According to MSDS for steel, the steel contains MFHAP as defined in this subpart. In addition, the welding wires contain MFHAP as defined in this subpart.

(3) *Tier 1 compliance requirements for welding.* You must perform visual determinations of welding fugitive emissions as specified in §63.11517(b), "Monitoring requirements," at the primary vent, stack, exit, or opening from the building containing the welding operations. You must keep a record of all visual determinations of fugitive emissions along with any corrective action taken in accordance with the requirements in §63.11519(c)(2), "Notification, recordkeeping, and reporting requirements."

(4) *Requirements upon initial detection of visible emissions from welding.* If visible fugitive emissions are detected during any visual determination required in paragraph (f)(3) of this section, you must comply with the requirements in paragraphs (f)(4)(i) and (ii) of this section.

(i) Perform corrective actions that include, but are not limited to, inspection of welding fume sources, and evaluation of the proper operation and effectiveness of the management practices or fume control measures implemented in accordance with paragraph (f)(2) of this section. After completing such corrective actions, you must perform a follow-up inspection for visible fugitive emissions in accordance with §63.11517(a), "Monitoring Requirements," at the primary vent, stack, exit, or opening from the building containing the welding operations.

(ii) Report all instances where visible emissions are detected, along with any corrective action taken and the results of subsequent follow-up inspections for visible emissions, and submit with your annual certification and compliance report as required by §63.11519(b)(5), "Notification, recordkeeping, and reporting requirements."

According to MCD, MCD currently conducts daily vent fugitive emission monitoring (using EPA Method 22. Records are available at the facility for review. No visible emissions have been detected from the vent since monitoring was implemented.

(5) *Tier 2 requirements upon subsequent detection of visible emissions.* If visible fugitive emissions are detected more than once during any consecutive 12 month period (notwithstanding the results of any follow-up inspections), you must comply with paragraphs (f)(5)(i) through (iv) of this section.

(i) Within 24 hours of the end of the visual determination of fugitive emissions in which visible fugitive emissions were detected, you must conduct a visual determination of emissions opacity, as specified in §63.11517(c), "Monitoring requirements," at the primary vent, stack, exit, or opening from the building containing the welding operations.

(ii) In lieu of the requirement of paragraph (f)(3) of this section to perform visual determinations of fugitive emissions with EPA Method 22, you must perform visual determinations of emissions opacity in accordance with §63.11517(d), "Monitoring

Requirements,” using EPA Method 9, at the primary vent, stack, exit, or opening from the building containing the welding operations.

(iii) You must keep a record of each visual determination of emissions opacity performed in accordance with paragraphs (f)(5)(i) or (ii) of this section, along with any subsequent corrective action taken, in accordance with the requirements in §63.11519(c)(3), “Notification, recordkeeping, and reporting requirements.”

(iv) You must report the results of all visual determinations of emissions opacity performed in accordance with paragraphs (f)(5)(i) or (ii) of this section, along with any subsequent corrective action taken, and submit with your annual certification and compliance report as required by §63.11519(b)(6), “Notification, recordkeeping, and reporting requirements.”

(6) *Requirements for opacities less than or equal to 20 percent but greater than zero.* For each visual determination of emissions opacity performed in accordance with paragraph (f)(5) of this section for which the average of the six-minute average opacities recorded is 20 percent or less but greater than zero, you must perform corrective actions, including inspection of all welding fume sources, and evaluation of the proper operation and effectiveness of the management practices or fume control measures implemented in accordance with paragraph (f)(2) of this section.

(7) *Tier 3 requirements for opacities exceeding 20 percent.* For each visual determination of emissions opacity performed in accordance with paragraph (f)(5) of this section for which the average of the six-minute average opacities recorded exceeds 20 percent, you must comply with the requirements in paragraphs (f)(7)(i) through (v) of this section.

(i) You must submit a report of exceedence of 20 percent opacity, along with your annual certification and compliance report, as specified in §63.11519(b)(8), “Notification, recordkeeping, and reporting requirements,” and according to the requirements of §63.11519(b)(1), “Notification, recordkeeping, and reporting requirements.”

(ii) Within 30 days of the opacity exceedence, you must prepare and implement a Site-Specific Welding Emissions Management Plan, as specified in paragraph (f)(8) of this section. If you have already prepared a Site-Specific Welding Emissions Management Plan in accordance with this paragraph, you must prepare and implement a revised Site-Specific Welding Emissions Management Plan within 30 days.

(iii) During the preparation (or revision) of the Site-Specific Welding Emissions Management Plan, you must continue to perform visual determinations of emissions opacity, beginning on a daily schedule as specified in §63.11517(d), “Monitoring Requirements,” using EPA Method 9, at the primary vent, stack, exit, or opening from the building containing the welding operations.

(iv) You must maintain records of daily visual determinations of emissions opacity performed in accordance with paragraph (f)(7)(iii) of this section, during preparation of the Site-Specific Welding Emissions Management Plan, in accordance with the requirements in §63.11519(b)(9), “Notification, recordkeeping, and reporting requirements.”

According to MCD, MCD has not noted any visible emissions from the primary vent to date, but will comply with the Tier 2 and if required Tier 3 standards for determining opacity if a visual emission is identified.

(v) You must include these records in your annual certification and compliance report, according to the requirements of §63.11519(b)(1), "Notification, recordkeeping, and reporting requirements."

(8) *Site-Specific Welding Emissions Management Plan.* The Site-Specific Welding Emissions Management Plan must comply with the requirements in paragraphs (f)(8)(i) through (iii) of this section.

(i) Site-Specific Welding Emissions Management Plan must contain the information in paragraphs (f)(8)(i)(A) through (F) of this section.

(A) Company name and address;

(B) A list and description of all welding operations which currently comprise the welding affected source;

(C) A description of all management practices and/or fume control methods in place at the time of the opacity exceedance;

(D) A list and description of all management practices and/or fume control methods currently employed for the welding affected source;

(E) A description of additional management practices and/or fume control methods to be implemented pursuant to paragraph (f)(7)(ii) of this section, and the projected date of implementation; and

(F) Any revisions to a Site-Specific Welding Emissions Management Plan must contain copies of all previous plan entries, pursuant to paragraphs (f)(8)(i)(D) and (E) of this section.

(ii) The Site-Specific Welding Emissions Management Plan must be updated annually to contain current information, as required by paragraphs (f)(8)(i)(A) through (C) of this section, and submitted with your annual certification and compliance report, according to the requirements of §63.11519(b)(1), "Notification, recordkeeping, and reporting requirements."

(iii) You must maintain a copy of the current Site-Specific Welding Emissions Management Plan in your records in a readily-accessible location for inspector review, in accordance with the requirements in §63.11519(c)(12), "Notification, recordkeeping, and reporting requirements."

MCD has completed the Site Specific Welding Emission Management Plan and submitted it to the Department June 2013. MCD is subject to this standard and will continue to comply with the recordkeeping requirement of this standard.

§63.11517 What are my monitoring requirements?

(a) *Visual determination of fugitive emissions, general.* Visual determination of fugitive emissions must be performed according to the procedures of EPA Method 22, of 40 CFR part 60, Appendix A-7. You must conduct the EPA Method 22 test while the affected source is operating under normal conditions. The duration of each EPA Method 22 test must be at least 15 minutes, and visible emissions will be considered to be present if they are detected for more than six minutes of the fifteen minute period.

(b) *Visual determination of fugitive emissions, graduated schedule.* Visual determinations of fugitive emissions must be performed in accordance with paragraph (a) of this section and according to the schedule in paragraphs (b)(1) through (4) of this section.

(1) *Daily Method 22 Testing.* Perform visual determination of fugitive emissions once per day, on each day the process is in operation, during operation of the process.

(2) *Weekly Method 22 Testing.* If no visible fugitive emissions are detected in consecutive daily EPA Method 22 tests, performed in accordance with paragraph (b)(1) of this section for 10 days of work day operation of the process, you may decrease the frequency of EPA Method 22 testing to once every five days of operation of the process (one calendar week). If visible fugitive emissions are detected during these tests, you must resume EPA Method 22 testing of that operation once per day during each day that the process is in operation, in accordance with paragraph (b)(1) of this section.

(3) *Monthly Method 22 Testing.* If no visible fugitive emissions are detected in four consecutive weekly EPA Method 22 tests performed in accordance with paragraph (b)(2) of this section, you may decrease the frequency of EPA Method 22 testing to once per 21 days of operation of the process (one calendar month). If visible fugitive emissions are detected during these tests, you must resume weekly EPA Method 22 in accordance with paragraph (b)(2) of this section.

(4) *Quarterly Method 22 Testing.* If no visible fugitive emissions are detected in three consecutive monthly EPA Method 22 tests performed in accordance with paragraph (b)(3) of this section, you may decrease the frequency of EPA Method 22 testing to once per 60 days of operation of the process (3 calendar months). If visible fugitive emissions are detected during these tests, you must resume monthly EPA Method 22 in accordance with paragraph (b)(3) of this section.

(c) *Visual determination of emissions opacity for welding Tier 2 or 3, general.* Visual determination of emissions opacity must be performed in accordance with the procedures of EPA Method 9, of 40 CFR part 60, Appendix A-4, and while the affected source is operating under normal conditions. The duration of the EPA Method 9 test shall be thirty minutes.

(d) *Visual determination of emissions opacity for welding Tier 2 or 3, graduated schedule.* You must perform visual determination of emissions opacity in accordance with paragraph (c) of this section and according to the schedule in paragraphs (d)(1) through (5) of this section.

(1) *Daily Method 9 testing for welding, Tier 2 or 3.* Perform visual determination of emissions opacity once per day during each day that the process is in operation.

(2) *Weekly Method 9 testing for welding, Tier 2 or 3.* If the average of the six minute opacities recorded during any of the daily consecutive EPA Method 9 tests performed in accordance with paragraph (d)(1) of this section does not exceed 20 percent for 10 days of operation of the process, you may decrease the frequency of EPA Method 9 testing to once per five days of consecutive work day operation. If opacity greater than 20 percent is detected during any of these tests, you must resume testing every day of operation of the process according to the requirements of paragraph (d)(1) of this section.

(3) *Monthly Method 9 testing for welding Tier 2 or 3.* If the average of the six minute opacities recorded during any of the consecutive weekly EPA Method 9 tests performed in accordance with paragraph (d)(2) of this section does not exceed 20 percent for four consecutive weekly tests, you may decrease the frequency of EPA Method 9 testing to once per every 21 days of operation of the process. If visible emissions opacity greater than 20 percent is detected during any monthly test, you must resume testing every five days of operation of the process according to the requirements of paragraph (d)(2) of this section.

(4) *Quarterly Method 9 testing for welding Tier 2 or 3.* If the average of the six minute opacities recorded during any of the consecutive weekly EPA Method 9 tests performed in accordance with paragraph (d)(3) of this section does not exceed 20 percent for three consecutive monthly tests, you may decrease the frequency of EPA Method 9 testing to once per every 120 days of operation of the process. If visible emissions opacity greater than 20 percent is detected during any quarterly test, you must resume testing every 21 days (month) of operation of the process according to the requirements of paragraph (d)(3) of this section.

(5) *Return to Method 22 testing for welding, Tier 2 or 3.* If, after two consecutive months of testing, the average of the six minute opacities recorded during any of the monthly EPA Method 9 tests performed in accordance with paragraph (d)(3) of this section does not exceed 20 percent, you may resume EPA Method 22 testing as in paragraphs (b)(3) and (4) of this section. In lieu of this, you may elect to continue performing EPA Method 9 tests in accordance with paragraphs (d)(3) and (4) of this section.

MCD currently complies with the visual emission monitoring standards presented in this section.

§63.11518 [Reserved]

§63.11519 What are my notification, recordkeeping, and reporting requirements?

(a) *What notifications must I submit?—(1) Initial notification.* If you are the owner or operator of an area source in one of the nine metal fabrication and finishing source categories, as defined in §63.11514 “Am I subject to this subpart?,” you must submit the Initial Notification required by §63.9(b) “General Provisions,” for a new affected source no later than 120 days after initial startup or November 20, 2008, whichever is later. For an existing affected source, you must submit the Initial Notification no later than July 25, 2011. Your Initial Notification must provide the information specified in paragraphs (a)(1)(i) through (iv) of this section.

(i) The name, address, phone number and e-mail address of the owner and operator;

(ii) The address (physical location) of the affected source;

(iii) An identification of the relevant standard (i.e., this subpart); and

(iv) A brief description of the type of operation. For example, a brief characterization of the types of products (e.g., aerospace components, sports equipment, etc.), the number and type of processes, and the number of workers usually employed.

MCD provided Initial Notification on January 25, 2013

(2) *Notification of compliance status.* If you are the owner or operator of an existing affected source, you must submit a notification of compliance status on or before November 22, 2011. If you are the owner or operator of a new affected source, you must submit a notification of compliance status within 120 days after initial startup, or by November 20, 2008, whichever is later. You are required to submit the information specified in paragraphs (a)(2)(i) through (iv) of this section with your notification of compliance status:

(i) Your company's name and address;

(ii) A statement by a responsible official with that official's name, title, phone number, e-mail address and signature, certifying the truth, accuracy, and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of this subpart;

(iii) If you operate any spray painting affected sources, the information required by §63.11516(e)(3)(vi)(C), "Compliance demonstration," or §63.11516(e)(4)(ix)(C), "Compliance demonstration," as applicable; and

(iv) The date of the notification of compliance status.

MCD provided Notification of Compliance Status on January 25, 2013.

(b) *What reports must I prepare or submit?-(1) Annual certification and compliance reports.* You must prepare and submit annual certification and compliance reports for each affected source according to the requirements of paragraphs (b)(2) through (7) of this section. The annual certification and compliance reporting requirements may be satisfied by reports required under other parts of the CAA, as specified in paragraph (b)(3) of this section.

(2) *Dates.* Unless the Administrator has approved or agreed to a different schedule for submission of reports under §63.10(a), "General Provisions," you must prepare and submit each annual certification and compliance report according to the dates specified in paragraphs (b)(2)(i) through (iii) of this section. Note that the information reported for each of the months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation.

(i) The first annual certification and compliance report must cover the first annual reporting period which begins the day after the compliance date and ends on December 31.

(ii) Each subsequent annual certification and compliance report must cover the subsequent semiannual reporting period from January 1 through December 31.

(iii) Each annual certification and compliance report must be prepared and submitted no later than January 31 and kept in a readily-accessible location for inspector review. If an

exceedence has occurred during the year, each annual certification and compliance report must be submitted along with the exceedence reports, and postmarked or delivered no later than January 31.

MCD understands the annual certification requirements and will comply with the submittal dates.

(3) *Alternate dates.* For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, "Title V."

....

MCD is a minor source and will not be reporting using these sections standards.

(4) *General requirements.* The annual certification and compliance report must contain the information specified in paragraphs (b)(4)(i) through (iii) of this section, and the information specified in paragraphs (b)(5) through (7) of this section that is applicable to each affected source.

(i) Company name and address;

(ii) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report; and

(iii) Date of report and beginning and ending dates of the reporting period. The reporting period is the 12-month period ending on December 31. Note that the information reported for the 12 months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation.

(5) *Visual determination of fugitive emissions requirements.* The annual certification and compliance report must contain the information specified in paragraphs (b)(5)(i) through (iii) of this section for each affected source which performs visual determination of fugitive emissions in accordance with §63.11517(a), "Monitoring requirements."

(i) The date of every visual determination of fugitive emissions which resulted in detection of visible emissions;

(ii) A description of the corrective actions taken subsequent to the test; and

(iii) The date and results of the follow-up visual determination of fugitive emissions performed after the corrective actions.

(6) *Visual determination of emissions opacity requirements.* The annual certification and compliance report must contain the information specified in paragraphs (b)(6)(i) through (iii) of this section for each affected source which performs visual determination of emissions opacity in accordance with §63.11517(c), "Monitoring requirements."

(i) The date of every visual determination of emissions opacity;

(ii) The average of the six-minute opacities measured by the test; and

(iii) A description of any corrective action taken subsequent to the test.

(7) [Reserved]

(8) *Exceedences of 20 percent opacity for welding affected sources.* As required by §63.11516(f)(7)(i), "Requirements for opacities exceeding 20 percent," you must prepare an exceedence report whenever the average of the six-minute average opacities recorded during a visual determination of emissions opacity exceeds 20 percent. This report must be submitted along with your annual certification and compliance report according to the requirements in paragraph (b)(1) of this section, and must contain the information in paragraphs (b)(8)(iii)(A) and (B) of this section.

(A) The date on which the exceedence occurred; and

(B) The average of the six-minute average opacities recorded during the visual determination of emissions opacity.

(9) *Site-specific Welding Emissions Management Plan reporting.* You must submit a copy of the records of daily visual determinations of emissions recorded in accordance with §63.11516(f)(7)(iv), "Tier 3 requirements for opacities exceeding 20 percent," and a copy of your Site-Specific Welding Emissions Management Plan and any subsequent revisions to the plan pursuant to §63.11516(f)(8), "Site-specific Welding Emission Management Plan," along with your annual certification and compliance report, according to the requirements in paragraph (b)(1) of this section.

(c) *What records must I keep?* You must collect and keep records of the data and information specified in paragraphs (c)(1) through (13) of this section, according to the requirements in paragraph (c)(14) of this section.

(1) *General compliance and applicability records.* Maintain information specified in paragraphs (c)(1)(i) through (ii) of this section for each affected source.

(i) Each notification and report that you submitted to comply with this subpart, and the documentation supporting each notification and report.

(ii) Records of the applicability determinations as in §63.11514(b)(1) through (5), "Am I subject to this subpart," listing equipment included in its affected source, as well as any changes to that and on what date they occurred, must be maintained for 5 years and be made available for inspector review at any time.

(2) *Visual determination of fugitive emissions records.* Maintain a record of the information specified in paragraphs (c)(2)(i) through (iii) of this section for each affected source which performs visual determination of fugitive emissions in accordance with §63.11517(a), "Monitoring requirements."

(i) The date and results of every visual determination of fugitive emissions;

(ii) A description of any corrective action taken subsequent to the test; and

(iii) The date and results of any follow-up visual determination of fugitive emissions performed after the corrective actions.

(3) *Visual determination of emissions opacity records.* Maintain a record of the information specified in paragraphs (c)(3)(i) through (iii) of this section for each affected source which performs visual determination of emissions opacity in accordance with §63.11517(c), "Monitoring requirements."

(i) The date of every visual determination of emissions opacity; and

(ii) The average of the six-minute opacities measured by the test; and

(iii) A description of any corrective action taken subsequent to the test.

(4) Maintain a record of the manufacturer's specifications for the control devices used to comply with §63.11516, "What are my standards and management practices?"

(5) *Spray paint booth filter records.* Maintain a record of the filter efficiency demonstrations and spray paint booth filter maintenance activities, performed in accordance with §63.11516(d)(1)(ii) and (iii), "Requirements for spray painting objects in spray booths or spray rooms."

(6) Waterspray booth or water curtain efficiency tests. Maintain a record of the water curtain efficiency demonstrations performed in accordance with §63.11516(d)(1)(ii), "Requirements for spray painting objects in spray booths or spray rooms."

(7) *HVLP or other high transfer efficiency spray delivery system documentation records.* Maintain documentation of HVLP or other high transfer efficiency spray paint delivery systems, in compliance with §63.11516(d)(3), "Requirements for spray painting of all objects." This documentation must include the manufacturer's specifications for the equipment and any manufacturer's operation instructions. If you have obtained written approval for an alternative spray application system in accordance with §63.11516(d)(2), "Spray painting of all objects," you must maintain a record of that approval along with documentation of the demonstration of equivalency.

(8) *HVLP or other high transfer efficiency spray delivery system employee training documentation records.* Maintain certification that each worker performing spray painting operations has completed the training specified in §63.11516(d)(6), "Requirements for spray painting of all objects," with the date the initial training and the most recent refresher training was completed.

(9)-(10) [Reserved]

(11) *Visual determination of emissions opacity performed during the preparation (or revision) of the Site-Specific Welding Emissions Management Plan.* You must maintain a record of each visual determination of emissions opacity performed during the preparation (or revision) of a Site-Specific Welding Emissions Management Plan, in accordance with §63.11516(f)(7)(iii), "Requirements for opacities exceeding 20 percent."

(12) *Site-Specific Welding Emissions Management Plan*. If you have been required to prepare a plan in accordance with §63.11516(f)(7)(iii), "Site-Specific Welding Emissions Management Plan," you must maintain a copy of your current Site-Specific Welding Emissions Management Plan in your records and it must be readily available for inspector review.

(13) *Manufacturer's instructions*. If you comply with this subpart by operating any equipment according to manufacturer's instruction, you must keep these instructions readily available for inspector review.

(14) *Welding Rod usage*. If you operate a new or existing welding affected source which is not required to comply with the requirements of §63.11516(f)(3) through (8) because it uses less than 2,000 pounds per year of welding rod (on a rolling 12-month basis), you must maintain records demonstrating your welding rod usage on a rolling 12-month basis.

(15) Your records must be maintained according to the requirements in paragraphs (c)(14)(i) through (iii) of this section.

(i) Your records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1), "General Provisions." Where appropriate, the records may be maintained as electronic spreadsheets or as a database.

(ii) As specified in §63.10(b)(1), "General Provisions," you must keep each record for 5 years following the date of each occurrence, measurement, corrective action, report, or record.

(iii) You must keep each record on-site for at least 2 years after the date of each occurrence, measurement, corrective action, report, or record according to §63.10(b)(1), "General Provisions." You may keep the records off-site for the remaining 3 years.

MCD has read and understands the requirements of the annual certification report and will comply with these standards.

§63.11520 [Reserved]

OTHER REQUIREMENTS AND INFORMATION

§63.11521 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by EPA or a delegated authority such as your state, local, or tribal agency. If the EPA Administrator has delegated authority to your state, local, or tribal agency, then that agency, in addition to EPA, has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to your state, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a state, local, or tribal agency under 40 CFR part 63, subpart E, the authorities contained in paragraph (c) of this section are retained by the EPA Administrator and are not transferred to the state, local, or tribal agency.

(c) The authorities that cannot be delegated to state, local, or tribal agencies are specified in paragraphs (c)(1) through (5) of this section.

(1) Approval of an alternative non-opacity emissions standard under §63.6(g), of the General Provisions of this part.

(2) Approval of an alternative opacity emissions standard under §63.6(h)(9), of the General Provisions of this part.

(3) Approval of a major change to test methods under §63.7(e)(2)(ii) and (f), of the General Provisions of this part. A “major change to test method” is defined in §63.90.

(4) Approval of a major change to monitoring under §63.8(f), of the General Provisions of this part. A “major change to monitoring” under is defined in §63.90.

(5) Approval of a major change to recordkeeping and reporting under §63.10(f), of the General Provisions of this part. A “major change to recordkeeping/reporting” is defined in §63.90.

MCD understands the delegation of enforcement authority associated with this regulation.

§63.11522 What definitions apply to this subpart?

The terms used in this subpart are defined in the CAA; and in this section as follows:

Adequate emission capture methods are hoods, enclosures, or any other duct intake devices with ductwork; dampers, manifolds, plenums, or fans designed to draw greater than 85 percent of the airborne dust generated from the process into the control device.

Capture system means the collection of components used to capture gases and fumes released from one or more emissions points and then convey the captured gas stream to a control device or to the atmosphere. A capture system may include, but is not limited to, the following components as applicable to a given capture system design: duct intake devices, hoods, enclosures, ductwork, dampers, manifolds, plenums, and fans.

Cartridge collector means a type of control device that uses perforated metal cartridges containing a pleated paper or non-woven fibrous filter media to remove PM from a gas stream by sieving and other mechanisms. Cartridge collectors can be designed with single use cartridges, which are removed and disposed after reaching capacity, or continuous use cartridges, which typically are cleaned by means of a pulse-jet mechanism.

Confined abrasive blasting enclosure means an enclosure that includes a roof and at least two complete walls, with side curtains and ventilation as needed to insure that no air or PM exits the enclosure while dry abrasive blasting is performed. Apertures or slots may be present in the roof or walls to allow for mechanized transport of the blasted objects with overhead cranes, or cable and cord entry into the dry abrasive blasting chamber.

Control device means equipment installed on a process vent or exhaust system that reduces the quantity of a pollutant that is emitted to the air.

Dry abrasive blasting means cleaning, polishing, conditioning, removing or preparing a surface by propelling a stream of abrasive material with compressed air against the surface. Hydroblasting, wet abrasive blasting, or other abrasive blasting operations which employ liquids to reduce emissions are not dry abrasive blasting.

Dry grinding and dry polishing with machines means grinding or polishing without the use of lubricating oils or fluids in fixed or stationary machines. Hand grinding, hand polishing, and bench top dry grinding and dry polishing are not included under this definition.

Fabric filter means a type of control device used for collecting PM by filtering a process exhaust stream through a filter or filter media; a fabric filter is also known as a baghouse.

Facility maintenance means operations performed as part of the routine repair or renovation of process equipment, machinery, control equipment, and structures that comprise the infrastructure of the affected facility and that are necessary for the facility to function in its intended capacity. Facility maintenance also includes operations associated with the installation of new equipment or structures, and any processes as part of janitorial activities. Facility maintenance includes operations on stationary structures or their appurtenances at the site of installation, to portable buildings at the site of installation, to pavements, or to curbs. Facility maintenance also includes operations performed on mobile equipment, such as fork trucks, that are used in a manufacturing facility and which are maintained in that same facility. Facility maintenance does not include spray-applied coating of motor vehicles, mobile equipment, or items that routinely leave and return to the facility, such as delivery trucks, rental equipment, or containers used to transport, deliver, distribute, or dispense commercial products to customers, such as compressed gas canisters.

Filtration control device means a control device that utilizes a filter to reduce the emissions of MFHAP and other PM.

Grinding means a process performed on a workpiece to remove undesirable material from the surface or to remove burrs or sharp edges. Grinding is done using belts, disks, or wheels consisting of or covered with various abrasives.

Machining means dry metal turning, milling, drilling, boring, tapping, planing, broaching, sawing, cutting, shaving, shearing, threading, reaming, shaping, slotting, hobbing, and chamfering with machines. Shearing operations cut materials into a desired shape and size, while forming operations bend or conform materials into specific shapes. Cutting and shearing operations include punching, piercing, blanking, cutoff, parting, shearing and trimming. Forming operations include bending, forming, extruding, drawing, rolling, spinning, coining, and forging the metal. Processes specifically excluded are hand-held devices and any process employing fluids for lubrication or cooling.

Material containing MFHAP means a material containing one or more MFHAP. Any material that contains cadmium, chromium, lead, or nickel in amounts greater than or equal to 0.1 percent by weight (as the metal), and contains manganese in amounts greater than or equal to 1.0 percent by weight (as the metal), as shown in formulation data provided by the manufacturer or supplier, such as the Material Safety Data Sheet for the material, is considered to be a material containing MFHAP.

Metal fabrication and finishing HAP (MFHAP) means any compound of the following metals: Cadmium, chromium, lead, manganese, or nickel, or any of these metals in the elemental form, with the exception of lead.

Metal fabrication and finishing source categories are limited to the nine metal fabrication and finishing source categories with the activities described in Table 1, "Description of Source Categories Affected by this Subpart." Metal fabrication or finishing operations means dry abrasive blasting, machining, spray painting, or welding in any one of the nine metal fabrication and finishing area source categories listed in Table 1, "Description of Source Categories Affected by this Subpart."

Military munitions means all ammunition products and components produced or used by or for the U.S. Department of Defense (DoD) or for the U.S. Armed Services for national defense and security, including military munitions under the control of the DoD, the U.S. Coast Guard, the National Nuclear Security Administration (NNSA), U.S. Department of Energy (DOE), and National Guard personnel. The term military munitions includes: Confined gaseous, liquid, and solid propellants, explosives, pyrotechnics, chemical and riot control agents, smokes, and incendiaries used by DoD components, including bulk explosives and chemical warfare agents, chemical munitions, biological weapons, rockets, guided and ballistic missiles, bombs, warheads, small arms ammunition, grenades, mines, torpedoes, depth charges, cluster munitions and dispensers, demolition charges, nonnuclear components of nuclear weapons, wholly inert ammunition products, and all devices and components of any items listed in this definition.

Paint means a material applied to a substrate for decorative, protective, or functional purposes. Such materials include, but are not limited to, paints, coatings, sealants, liquid plastic coatings, caulks, inks, adhesives, and maskants. Decorative, protective, or functional materials that consist only of protective oils for metal, acids, bases, or any combination of these substances, or paper film or plastic film which may be pre-coated with an adhesive by the film manufacturer, are not considered paints for the purposes of this subpart.

Polishing with machines means an operation which removes fine excess metal from a surface to prepare the surface for more refined finishing procedures prior to plating or other processes. Polishing may also be employed to remove burrs on castings or stampings. Polishing is performed using hard-faced wheels constructed of muslin, canvas, felt or leather, and typically employs natural or artificial abrasives. Polishing performed by hand without machines or in bench top operations are not considered polishing with machines for the purposes of this subpart.

Primarily engaged means the manufacturing, fabricating, or forging of one or more products listed in one of the nine metal fabrication and finishing source category descriptions in Table 1, "Description of Source Categories Affected by this Subpart," where this production represents at least 50 percent of the production at a facility, and where production quantities are established by the volume, linear foot, square foot, or other value suited to the specific industry. The period used to determine production should be the previous continuous 12 months of operation. Facilities must document and retain their rationale for the determination that their facility is not "primarily engaged" pursuant to §63.10(b)(3) of the General Provisions.

Quality control activities means operations that meet all of the following criteria:

(1) The activities are intended to detect and correct defects in the final product by selecting a limited number of samples from the operation, and comparing the samples against specific performance criteria.

(2) The activities do not include the production of an intermediate or final product for sale or exchange for commercial profit; for example, parts that are not sold and do not leave the facility.

(3) The activities are not a normal part of the operation;

(4) The activities do not involve fabrication of tools, equipment, machinery, and structures that comprise the infrastructure of the facility and that are necessary for the facility to function in its intended capacity; that is, the activities are not facility maintenance.

Responsible official means responsible official as defined in 40 CFR 70.2.

Spray-applied painting means application of paints using a hand-held device that creates an atomized mist of paint and deposits the paint on a substrate. For the purposes of this subpart, spray-applied painting does not include the following materials or activities:

(1) Paints applied from a hand-held device with a paint cup capacity that is less than 3.0 fluid ounces (89 cubic centimeters).

(2) Surface coating application using powder coating, hand-held, non-refillable aerosol containers, or non-atomizing application technology, including, but not limited to, paint brushes, rollers, hand wiping, flow coating, dip coating, electrodeposition coating, web coating, coil coating, touch-up markers, or marking pens.

(3) Painting operations that normally require the use of an airbrush or an extension on the spray gun to properly reach limited access spaces; the application of paints that contain fillers that adversely affect atomization with HVLP spray guns, and the application of paints that normally have a dried film thickness of less than 0.0013 centimeter (0.0005 in.).

(4) Thermal spray operations (also known as metallizing, flame spray, plasma arc spray, and electric arc spray, among other names) in which solid metallic or non-metallic material is heated to a molten or semi-molten state and propelled to the work piece or substrate by compressed air or other gas, where a bond is produced upon impact.

Spray booth or spray room means an enclosure with four sides and a roof where spray paint is prevented from leaving the booth during spraying by the enclosure. The roof of the spray booth or spray room may contain narrow slots for connecting the parts and products to overhead cranes, or for cord or cable entry into the spray booth or spray room.

Tool or equipment repair means equipment and devices used to repair or maintain process equipment or to prepare molds, dies, or other changeable elements of process equipment.

Totally enclosed and unvented means enclosed so that no air enters or leaves during operation.

Totally enclosed and unvented dry abrasive blasting chamber means a dry abrasive blasting enclosure which has no vents to the atmosphere, thus no emissions. A typical example of this sort of abrasive blasting enclosure is a small “glove box” enclosure, where the worker places their hands in openings or gloves that extend into the box and enable the worker to hold the objects as they are being blasted without allowing air and blast material to escape the box.

Vented dry abrasive blasting means dry abrasive blasting where the blast material is moved by air flow from within the chamber to outside the chamber into the atmosphere or into a control device.

Welding means a process which joins two metal parts by melting the parts at the joint and filling the space with molten metal.

Welding rod containing MFHAP means a welding rod that contains cadmium, chromium, lead, or nickel in amounts greater than or equal to 0.1 percent by weight (as the metal), or that contains manganese in amounts greater than or equal to 1.0 percent by weight (as the metal), as shown in formulation data provided by the manufacturer or supplier, such as the Material Safety Data Sheet for the welding rod.

MCD has read and understands the definitions presented above and used them when developing this regulatory analysis.

§63.11523 What General Provisions apply to this subpart?

The provisions in 40 CFR part 63, subpart A, applicable to sources subject to §63.11514(a) are specified in Table 2 of this subpart.

Table 1 to Subpart XXXXXX of Part 63—Description of Source Categories Affected by This Subpart

Metal fabrication and finishing source category	Description
Electrical and Electronic Equipment Finishing Operations	Establishments primarily engaged in manufacturing motors and generators; and electrical machinery, equipment, and supplies, not elsewhere classified. The electrical machinery equipment and supplies industry sector of this source category includes establishments primarily engaged in high energy particle acceleration systems and equipment, electronic simulators, appliance and extension cords, bells and chimes, insect traps, and other electrical equipment and supplies not elsewhere classified. The motors and generators sector of this source category includes establishments primarily engaged in manufacturing electric motors (except engine starting motors) and power generators; motor generator sets; railway motors and control equipment; and motors, generators and control equipment for gasoline, electric, and oil-electric buses and trucks.
Fabricated Metal Products	Establishments primarily engaged in manufacturing fabricated metal products, such as fire or burglary resistive steel safes and vaults and

	similar fire or burglary resistive products; and collapsible tubes of thin flexible metal. Also, establishments primarily engaged in manufacturing powder metallurgy products, metal boxes; metal ladders; metal household articles, such as ice cream freezers and ironing boards; and other fabricated metal products not elsewhere classified.
Fabricated Plate Work (Boiler Shops)	Establishments primarily engaged in manufacturing power marine boilers, pressure and nonpressure tanks, processing and storage vessels, heat exchangers, weldments and similar products.
Fabricated Structural Metal Manufacturing	Establishments primarily engaged in fabricating iron and steel or other metal for structural purposes, such as bridges, buildings, and sections for ships, boats, and barges.
Heating Equipment, except Electric	Establishments primarily engaged in manufacturing heating equipment, except electric and warm air furnaces, including gas, oil, and stoker coal fired equipment for the automatic utilization of gaseous, liquid, and solid fuels. Products produced in this source category include low-pressure heating (steam or hot water) boilers, fireplace inserts, domestic (steam or hot water) furnaces, domestic gas burners, gas room heaters, gas infrared heating units, combination gas-oil burners, oil or gas swimming pool heaters, heating apparatus (except electric or warm air), kerosene space heaters, gas fireplace logs, domestic and industrial oil burners, radiators (except electric), galvanized iron nonferrous metal range boilers, room heaters (except electric), coke and gas burning salamanders, liquid or gas solar energy collectors, solar heaters, space heaters (except electric), mechanical (domestic and industrial) stokers, wood and coal-burning stoves, domestic unit heaters (except electric), and wall heaters (except electric).
Industrial Machinery and Equipment Finishing Operations	Establishments primarily engaged in construction machinery manufacturing; oil and gas field machinery manufacturing; and pumps and pumping equipment manufacturing. The construction machinery manufacturing industry sector of this source category includes establishments primarily engaged in manufacturing heavy machinery and equipment of types used primarily by the construction industries, such as bulldozers; concrete mixers; cranes, except industrial plant overhead and truck-type cranes; dredging machinery; pavers; and power shovels. Also establishments primarily engaged in manufacturing forestry equipment and certain specialized equipment, not elsewhere classified, similar to that used by the construction industries, such as elevating platforms, ship cranes, and capstans, aerial work platforms, and automobile wrecker hoists. The oil and gas field machinery manufacturing industry sector of this source category includes establishments primarily engaged in manufacturing machinery and equipment for use in oil and gas fields or for drilling water wells, including portable drilling rigs. The pumps and pumping equipment manufacturing sector of this source category includes establishments primarily engaged in manufacturing pumps and pumping equipment for general industrial, commercial, or household use, except fluid power pumps and motors. This category includes

	establishments primarily engaged in manufacturing domestic water and sump pumps.
Iron and Steel Forging	Establishments primarily engaged in the forging manufacturing process, where purchased iron and steel metal is pressed, pounded or squeezed under great pressure into high strength parts known as forgings. The forging process is different from the casting and foundry processes, as metal used to make forged parts is never melted and poured.
Primary Metals Products Manufacturing	Establishments primarily engaged in manufacturing products such as fabricated wire products (except springs) made from purchased wire. These facilities also manufacture steel balls; nonferrous metal brads and nails; nonferrous metal spikes, staples, and tacks; and other primary metals products not elsewhere classified.
Valves and Pipe Fittings	Establishments primarily engaged in manufacturing metal valves and pipe fittings; flanges; unions, with the exception of purchased pipes; and other valves and pipe fittings not elsewhere classified.

Table 2 to Subpart XXXXX of Part 63—Applicability of General Provisions to Metal Fabrication or Finishing Area Sources

Instructions for Table 2—As required in §63.11523, "General Provisions Requirements," you must meet each requirement in the following table that applies to you.

Citation	Subject
63.1 ¹	Applicability.
63.2	Definitions.
63.3	Units and abbreviations.
63.4	Prohibited activities.
63.5	Construction/reconstruction.
63.6(a), (b)(1)-(b)(5), (c)(1), (c)(2), (c)(5), (g), (i), (j)	Compliance with standards and maintenance requirements.
63.9(a)-(d)	Notification requirements.
63.10(a), (b) except for (b)(2), (d)(1), (d)(4)	Recordkeeping and reporting.
63.12	State authority and delegations.
63.13	Addresses of State air pollution control agencies and EPA

	regional offices.
63.14	Incorporation by reference.
63.15	Availability of information and confidentiality.
63.16	Performance track provisions.

¹§63.11514(g), "Am I subject to this subpart?" exempts affected sources from the obligation to obtain title V operating permits.

MCD has read and understands the general provisions of the Rule.