



**STATEMENT OF BASIS**  
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BAQ Air Permitting Division

<b>Company Name:</b>	BMW Training Center	<b>Permit Writer:</b>	Amanda N. Cruley
<b>Agency Air Number:</b>	2060-0555	<b>Date:</b>	DRAFT
<b>Permit Number:</b>	TV-2060-0555 v2.0		

**DATE APPLICATION RECEIVED:** March 13, 2024

**DATE OF LAST INSPECTION:** March 12, 2024

No violations of the operating permit were observed.

**PROJECT DESCRIPTION**

Issuance of a Title V operating permit renewal. The facility currently operates under a Title V operating permit issued on August 29, 2019, that expires on September 30, 2024. The renewal application was received on March 13, 2024. The facility is covered under an application shield.

**FACILITY DESCRIPTION**

SIC CODE: 8249 (Vocational Schools)

NAICS CODE: 611519 (Other Technical and Trade Schools)

The Training Center consists of classrooms, office areas, storage facilities, two spray and bake combination booths, two prep stations, a paint mix room, and a 70 kW natural gas-fired emergency generator.

The Training Center Paint Shop consists of two fully enclosed spray and bake combination booths. Each booth is equipped with paint pocket filters designed with an overall efficiency of 99.8% for particles 10 microns in diameter or greater. High volume low pressure (HVLP) spray technology is used for primer, basecoat, topcoat, and filler applications. Each booth is equipped with a 2.16 million Btu/hr direct natural gas-fired burner for seasonal preheating of booth intake air and curing of painted parts/vehicles.

Two prep stations are also located at the Training Center. These stations consist of three walls with a curtain as the fourth wall. The same filtration and HVLP technology used in the combination booths is used at the prep stations. Each prep station is equipped with a direct natural gas fired air preheater rated at 1.04 million Btu/hr heat input.

**SINGLE SOURCE DETERMINATION**

The facility is considered a single source with BMW Manufacturing Co. LLC (Plant Spartanburg) (2060-0230) for Title III only (see determination from statement of basis dated August 29, 2019).

**CHANGES DURING THE RENEWAL**

As part of the renewal process, the facility discovered that the burners were direct fired and therefore subject to Standard 4 instead of Standard 1. All Standard 1 requirements have been removed from the permit.

During the renewal, the facility corrected the maximum throughput from 2 cars per day to 6 cars per day which led to an increase in VOCs, particulate matter, and HAP emissions.

**EMISSIONS**

BMW calculates emissions from painting using an operating schedule of 11 hours a day, 23 days a month. This is based on historical operating data as well as the facility being a training center with regular hours, not a manufacturing facility. This approach has previously been reviewed and determined to be appropriate for this operation.

Emissions from all fuel burning operations except for the generators are calculated at 8760 hours. Emissions factors are from AP-42, Chapter 1, Section 1.4, Tables 1, 2, 3, and 4.



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The facility calculated emissions from the emergency generator using a max operating time of 500 hours.

FACILITY WIDE EMISSIONS			
Pollutant	Uncontrolled	Controlled	PTE
	TPY	TPY	TPY
PM (filterable)	5.21	0.16	5.21
PM <sub>10</sub>	5.37	0.31	5.37
PM <sub>2.5</sub>	5.37	0.31	5.37
SO <sub>2</sub>	0.0166	--	0.0166
NO <sub>x</sub>	2.9	--	2.9
CO	2.41	--	2.41
VOC	9.06	--	9.06
Xylene (H, T, V)	2.93	--	2.93
Toluene (H, T, V)	1.7	--	1.7
Ethylbenzene (H, T, V)	0.841	--	0.841
Methyl Isobutyl Ketone (H, T, V)	0.334	--	0.334
Phthalates**	0.854	--	0.854
Total HAP*	6.79	--	6.79

\* Only HAPs with a PTE of over 0.1 tpy are quantified in the table above. For a complete list, see the application.

\*\* Phthalates are a family of compounds. Classification depends on the specific compound used.

Aggregated EMISSIONS			
Pollutant	Uncontrolled	Controlled	PTE
	TPY	TPY	TPY
Formaldehyde (H, T, V)	1.97	--	1.97
Hexane (H, T, V)	10.7	--	10.7
Hydrochloric Acid (H, T)	3.42	--	3.42
Total Painting HAPs* (H, T, V)	18,685	940.7	940.7
Phthalates**	0.854	--	0.854
Total HAP***	18,661	956.79	956.79

BMW Manufacturing Emissions are taken from the August 2011 Permit Renewal Application.

\* BMW set the controlled equal to the allowable under 40 CFR 63 Subpart IIII and back calculated the uncontrolled assuming a 95% control efficiency (minimum required for the RTO). They have been combined with the speciated painting HAPs from the Training center. Controlled is equal to the PTE due to requirements of Subpart IIII.

\*\* Phthalates are a family of compounds. Classification depends on the specific compound used.

\*\*\* HAPs with a PTE of over 0.5 tpy are quantified in the table above. For a complete list, see the application.



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**SPECIAL CONDITIONS, MONITORING, LIMITS**

BMW may maintain required records for the Training Center at BMW Manufacturing - Plant Spartanburg or the BMW Performance Center. The facility will still be required to make the records available upon request.

**REGULATIONS**

**Not Applicable - Section II(E) (Synthetic Minor)**

The facility has not requested any limits.

**Not Applicable - Standard No. 1 (Emissions from Fuel Burning Operations)**

The burners are direct fired.

**Not Applicable - Standard No. 3 (state only) (Waste Combustion and Reduction)**

The facility does not combust waste.

**Applicable - Standard No. 4 (Emissions from Process Industries)**

Section IX: The burners, paint booths, and prep stations are subject to a 20% opacity limit.

Process	Max Process Weight Rate (tons/hr)	PM Allowable at Max (lb/hr)	Uncontrolled Emissions PM (lb/hr)	Controlled Emissions PM (lb/hr)	Monitoring
IA-TC-01, IA-TC-02	0.25	1.62	3.2	0.08	Weekly checks of the paint booth filters

**Not Applicable - Standard No. 5 (Volatile Organic Compounds)**

The facility was not in operation in 1979 or 1980.

**Not Applicable - Standard No. 5.2 (Control of Oxides of Nitrogen (NOx))**

The burners are exempt due to having a PTE for NOx of below 5 tpy.

**Not Applicable - Standard No. 7 (Prevention of Significant Deterioration)**

The facility is not a single source for PSD purposes with the Manufacturing Center. Aggregated emissions calculations only apply to HAPs. The facility is not part of a 28 source category and does not have a PTE over 250.0 tpy for any criteria pollutant.

**Applicable - 61-62.6 (Control of Fugitive Particulate Matter)**

The facility is subject to the statewide requirements of Section III.

**40 CFR 60 and 61-62.60 (New Source Performance Standards (NSPS))**

**Not Applicable - Subpart MM (Standards of Performance for Automobile and Light Duty Truck Surface Coating Operations for which Construction, Modification or Reconstruction Commenced After October 5, 1979, and On or Before May 18, 2022)** – While the training center does coat vehicles, it is not an assembly plant. Instead, it teaches coating on fully assembled vehicles.



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**Applicable - Subpart JJJJ** (*Standards of Performance for Stationary Spark Ignition Internal Combustion Engines*)  
- The facility's emergency generator is subject to this regulation and must comply with the appropriate limits and requirements.

**40 CFR 61 and 61-62.61** (*National Emission Standards for Hazardous Air Pollutants (NESHAP)*)

**Not Applicable** - This facility does not emit the pollutants in a way that is subject to this standard (asbestos, benzene, beryllium, coke oven emissions, arsenic, mercury, radio nuclide, radon, or vinyl chloride).

**40 CFR 63 and 61-62.63** (*National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories*)

(technically) **Applicable - Subpart MMMM** (*National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products*) - The painting operations are technically subject to this regulation. However, 40 CFR 63 Subpart IIII is the applicable MACT for the manufacturing center. Subpart IIII states that operations typically subject to MMMM can instead be regulated under IIII as part of the affected source (§ 63.3082(c)). Using this, BMW has previously decided to incorporate the painting operations under IIII.

**Applicable - Subpart IIII** (*National Emission Standards for Hazardous Air Pollutants: Surface Coating of Automobiles and Light-Duty Trucks*) - As discussed above, the facility has decided to include the painting operations under this regulation. The facility uses compliant coatings and has a work practice plan to minimize emissions.

**Applicable - Subpart ZZZZ** (*National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*) - The emergency generator is subject to this regulation. Compliance will be demonstrated by complying with 40 CFR 60 Subpart JJJJ.

**Not Applicable - 61-62.68** (*Chemical Accident Prevention Provisions*)

The facility does not use or store subject materials above threshold values.

**Not Applicable - 40 CFR 64** (*Compliance Assurance Monitoring*)

This facility is Title V due to being a single source under Title III. However, the facility itself does not have emissions above major source thresholds.

**AMBIENT AIR STANDARDS REVIEW**

**Not Applicable - Standard No. 2** (*Ambient Air Quality Standards*)

All emissions are below de minimis and are therefore exempt from modeling.

**Not Applicable - Standard No. 8 (state only)** (*Toxic Air Pollutants*)

Painting operations are subject to 40 CFR 63 Subpart MMMM (compliance demonstrated through complying with Subpart IIII) and are therefore exempt from modeling. The burners combust natural gas which is not required to be modeled for HAPs or TAPs.



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PERIODIC MONITORING					
ID	Regulatory Requirement	Measured Parameter	Required Monitoring Frequency	Reporting Frequency	Monitoring Basis/ Justification
IA-TC-01, IA-TC-02	Standard 4, Section VIII	Presence of filters	Weekly	Semiannual	Uncontrolled emissions are close to the allowable so weekly inspections are sufficient to ensure compliance with the limits
IA-TC-01, IA-TC-02	Standard 4, Section IX	Opacity	Semiannual	Semiannual	Minimal opacity expected with the paint filters as a control device.

#### **PUBLIC NOTICE**

This Title V Permit will undergo a 30-day public notice period and a 45-day EPA comment period in accordance with SC Regulation 61-62.1, Section II(N) and SC Regulation 61-62.70.7(h).

#### **SUMMARY AND CONCLUSIONS**

It has been determined that this source, if operated in accordance with the submitted application, will meet all applicable requirements and emission standards.