



STATEMENT OF BASIS
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BAQ Air Permitting Division

Company Name:	Lockheed Martin Aeronautics Company	Permit Writer:	Amanda N. Cruley
Agency Air Number:	1200-0149	Date:	DRAFT
Permit Number:	TV-1200-0149 v1.2		

DATE APPLICATION RECEIVED: February 06, 2025
DATE OF LAST INSPECTION: September 18, 2023
There were no violations observed.

PROJECT DESCRIPTION

Issuance of a minor modification to the existing Title V permit for the incorporation of a new paint booth and the modification of an existing paint booth (C/P-50000220, full rollover).

FACILITY DESCRIPTION

SIC CODE: 3721 (Aircraft)
NAICS CODE: 336411 (Aircraft Manufacturing)

Lockheed Martin Aeronautics Company, located in Donaldson Air Park, Greenville, S.C. provides contract repair and maintenance service of various government, commercial, and private aircraft. The processes include combustion equipment, painting and de-painting operations, storage tanks, and miscellaneous sources.

EMISSIONS

The facility uses material balance to calculate VOC and organic HAP/TAP emissions from paints and solvents.

PM, PM₁₀, PM_{2.5}, and inorganic HAP/TAP emissions are calculated using an assumed 48% transfer efficiency and a 50% fall out rate (based on supporting documentation by EPA for high volume low pressure coating operations (HVLP)). This documentation was used by EPA to develop MACT HHHHHH and can be found as supporting documentation with that regulation. HVLP is required under MACT GG, which the paint booths are subject to unless the paint contains fillers that adversely impact atomization with HVLP. In that case the facility uses conventional spray guns (Air Atomized). The parts painted with this type of application method are considered flat which has a transfer efficiency of 50% according to a document prepared by the Texas Commission of Environmental Quality. A control efficiency of 99.2% was used for the filters based on testing performed by the manufacturer. This was the efficiency for the particulate range including PM_{2.5}. The facility has previously submitted a link to the Oxford journal article "Size Distribution of Chromate Paint Aerosol Generated in a Bench-Scale Spray Booth" in which testing of particulate sizes was performed to justify using that control efficiency. The average size of the particulates was well above PM_{2.5} (6.4 microns) and the standard deviation was relatively low (less than 0.5 microns for any paint tested). Based on this data, the control efficiency for PM_{2.5} was determined to be reflective of the operating conditions. Since the filters are required for compliance under MACT GG, the PTE is reflective of the controlled rates.

Lockheed Martin does not calculate emissions based on 8760 hours per year. The reason is they do not produce a product, instead they repair planes. They have a fixed schedule of 6 days per week, 52 weeks a year and also exclude holiday shutdowns. As demand is consistent and a large safety factor is applied to the plane throughput, this is consistent with previous permitting decisions.

FACILITY WIDE EMISSIONS			
Pollutant	Uncontrolled	Controlled	PTE
	TPY	TPY	TPY
PM	342.31	32.65	32.65



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FACILITY WIDE EMISSIONS			
Pollutant	Uncontrolled	Controlled	PTE
	TPY	TPY	TPY
PM ₁₀	318.29	32.22	32.22
PM _{2.5}	298.21	31.87	31.87
SO ₂	2.61	--	2.61
NO _x	73.24	--	73.24
VOC	155.4	--	155.4
CO	38.78	--	38.78
Total HAPs	179.96	166.92	166.92

SPECIAL CONDITIONS, MONITORING, LIMITS

The parametric monitoring condition of the new filters in the permit has been customized to align with the existing filters in the facility's Title V.

REGULATIONS

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

Section IX: The paint booths will be 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
H15PAINT5	1.69	5.83	20.71	0.71	Pressure drop on filters
H15PAINT6	1.69	5.83	20.71	0.71	Pressure drop on filters

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

The facility is not part of one of 28 source categories so the threshold for PSD is 250.0 tpy for all criteria pollutants. Since the filters are considered a federally enforceable limitation, the facility does not have the potential to emit of more than 250.0 tpy for any criteria pollutants so the facility is a minor source with respect to PSD.

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 - There are no applicable subparts for painting airplanes.



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

Applicable - Subpart GG (National Emission Standards for Aerospace Manufacturing and Rework Facilities) – Paint Booths 5 and 6 are subject to this regulation.

Not Applicable - 40 CFR 64 (Compliance Assurance Monitoring)

While the facility is a Title V facility and the paint booths have filters, uncontrolled emissions are not greater than major source thresholds.

AMBIENT AIR STANDARDS REVIEW

Applicable - Standard No. 2 (Ambient Air Quality Standards)

The facility has previously demonstrated compliance through modeling (see modeling summary 09/26/2022).

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

All HAP emissions are either from burning natural gas which is categorically exempt, have emissions below de minimis levels or are regulated under MACT GG.

PERIODIC MONITORING					
ID	Regulatory Requirement	Measured Parameter	Required Monitoring Frequency	Reporting Frequency	Monitoring Basis/ Justification
H15PAIN T5, H15PAIN T6	Std 4 PWR	Pressure Drop (of filters)	Each shift	Semiannual	See Std 4 above; Streamlined monitoring with MACT GG

PUBLIC NOTICE

A public notice was not required for this permit.

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.