PERMIT AMENDMENT NO. 4512-063-0105-V-03-2
ISSUANCE DATE:

GEORGIA
DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION

Air Quality - Part 70 Operating Permit Amendment

Facility Name: **Delta Air Lines, Inc. Technical Operations Center**

Facility Address: **1775 Aviation Boulevard**
Atlanta, Georgia 30354, Clayton and Fulton Counties

Mailing Address: **P.O. Box 20706**
Atlanta, Georgia 30320

Parent/Holding Company: **Delta Air Lines, Inc.**

Facility AIRS Number: **04-13-063-00105**

In accordance with the provisions of the Georgia Air Quality Act, O.C.G.A. Section 12-9-1, et seq and the Georgia Rules for Air Quality Control, Chapter 391-3-1, adopted pursuant to and in effect under the Act, the Permittee described above is issued a construction and operation permit for:

Construction and operation of Test Cell No. 5

This Permit Amendment is conditioned upon compliance with all provisions of The Georgia Air Quality Act, O.C.G.A. Section 12-9-1, et seq, the Rules, Chapter 391-3-1, adopted and in effect under that Act, or any other condition of this Amendment and Permit No. 4512-063-0105-V-03-0. Unless modified or revoked, this Amendment expires upon issuance of the next Part 70 Permit for this source. This Amendment may be subject to revocation, suspension, modification or amendment by the Director for cause including evidence of noncompliance with any of the above; or for any misrepresentation made in App No. 44147 dated February 21, 2017; any other applications upon which this Amendment or Permit No. 4512-063-0105-V-03-0 are based; supporting data entered therein or attached thereto; or any subsequent submittal or supporting data; or for any alterations affecting the emissions from this source.

This Amendment is further subject to and conditioned upon the terms, conditions, limitations, standards, or schedules contained in or specified on the attached **6** pages.

STATE OF GEORGIA
CONSTITUTION
WISDOM
JUSTICE
MODERATION
1776

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Richard E. Dunn, Director
Environmental Protection Division

Table of Contents

PART 1.0 FACILITY DESCRIPTION

1.3 Process Description of Modification

Delta Air Lines, Inc. Technical Operations Center performs aircraft maintenance and repair operations. Specific activities conducted at the facility include, but are not limited to, surface coating, solvent cleaning, electroplating, depainting, engine testing, and facilities support activities including boilers, emergency power generators, and fire pumps.

Application No. 44147 is for the construction and operation of an additional test cell which will be Test Cell No. 5 (SHEA ID No. 5898) in addition to supporting equipment. Test Cell No. 5 will accommodate future aircraft engines for which the current test cells do not have the capability to house. The supporting equipment for Test Cell No. 5 will include two, 25,000-gallon jet-A fuel storage tanks (SHEA ID Nos. 5894 and 5895) and a fuel pump package designed to provide fuel to the jet engines during testing. The two jet-A fuel storage tanks associated with Test Cell No. 5 will be filled via a fuel line connected to the existing system. Jet-A fuel will be transferred from the two jet-A storage tanks to Test Cell No. 5 via the fuel pump package. There will be two 200-gallon oil storage tanks installed as part of the project, (SHEA ID No. 5938) and (SHEA ID No. 5936). In addition, Delta is proposing the installation of one 2,000-gallon used oil storage tank (SHEA ID No. 5893) that will collect used lubrication oil from the jet engines through a line connecting to the pre-test bay of the Test Cell No. 5 building. Delta also plans to install one 200-gallon diesel storage tank and fuel pump station (SHEA ID No. 5890) to provide fuel to the vehicles used to transport jet engines in and around the Test Cell No. 5 building. A 40-gallon pneumatic pressure pot with spray gun (SHEA ID No. 5901) will also be used to perform engine flush cleaning operations for Test Cell No. 5.

PART 3.0 REQUIREMENTS FOR EMISSION UNITS

Note: Except where an applicable requirement specifically states otherwise, the averaging times of any of the Emissions Limitations or Standards included in this permit are tied to or based on the run time(s) specified for the applicable reference test method(s) or procedures required for demonstrating compliance.

3.1.1 Additional Emission Units

NSR AVOIDANCE GROUPS					
Emission Units/Groups		**Specific Limitations/Requirements**		**Air Pollution Control Devices**	
ID No.	**Description**	**Applicable Requirements/Standards**	**Corresponding Permit Conditions**	**ID No.**	**Description**
NSR14	Engine Test Cell No. 5 (SHEA ID No. 5898)	PSD Avoidance (NOx) NAA-NSR 391-3-1-.03(8)	3.2.11, 3.2.12, 3.2.13, 6.2.51 through 6.2.55	--	--

* Generally applicable requirements contained in this permit may also apply to emission units listed above. The lists of applicable requirements/standards and corresponding permit conditions are intended as a compliance tool and may not be definitive.
* See Attachment D for a detailed listing of individual emission units in each Equipment Group.

3.2 Equipment Emission Caps and Operating Limits

NEW CONDITION
3.2.11 The Permittee shall not discharge or cause the discharge into the atmosphere, from NSR Avoidance Group NSR14, nitrogen oxides (NOx) in amounts equal to or exceeding 39.5 tons during any consecutive 12-month period.
[Avoidance of 40 CFR 52.21 and 391-3-1-.03(8)(c)13.(iv)]

NEW CONDITION
3.2.12 The Permittee shall not exceed more than 3,000 hours of engine testing per year in Engine Test Cell No. 5 (SHEA ID No. 5898).
[391-3-1-.03(8)(c)13.(iv)]

NEW CONDITION
3.2.13 The Permittee shall limit the fuel used in Engine Test Cell No. 5 (SHEA ID No. 5898) to 0.3 percent sulfur by weight.
[391-3-1-.03(8)(c)13.(iv)]

3.3 Equipment Federal Rule Standards

NEW CONDITION
3.3.46 The Permittee shall obtain and retire at least 52 tons of NOx emission reduction credits prior to the startup of Engine Test Cell No. 5 (SHEA ID No. 5898).
[40 CFR 51.165 and 391-3-1-.03(8)(c)]

PART 6.0 OTHER RECORD KEEPING AND REPORTING REQUIREMENTS

6.1 General Record Keeping and Reporting Requirements

6.1.7 For the purpose of reporting excess emissions, exceedances or excursions in the report required in Condition 6.1.4, the following excess emissions, exceedances, and excursions shall be reported:
[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

a. [no changes]

b. Exceedances: (means for the purpose of this Condition and Condition 6.1.4, any condition that is detected by monitoring or record keeping that provides data in terms of an emission limitation or standard and that indicates that emissions (or opacity) do not meet the applicable emission limitation or standard consistent with the averaging period specified for averaging the results of the monitoring)

i. though xv. [no changes]

NEW CONDITION
xvi. Identification of any exceedance(s) of the limit for NSR Avoidance Group NSR14 and a table containing, for each month in the reporting period, the monthly emissions and the 12-month rolling total period as specified in Condition 3.2.11.

NEW CONDITION
xvii. Identification of any exceedance(s) of 3,000 hours of performance tests per year in Engine Test Cell No. 5 (SHEA ID No. 5898).

NEW CONDITION
xviii. Identification of any fuel used in Engine Test Cell No. 5 (SHEA ID No. 5898) that exceeds 0.3 percent sulfur by weight.

c. [no changes]

d. [no changes]

6.2 Specific Record Keeping and Reporting Requirements

NOx NSR Avoidance Limit in NSR14

NEW CONDITION

6.2.51 The Permittee shall maintain monthly records of the following for NSR Avoidance Group NSR14:
[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

a. Quantity and types of engines tested

b. Total quantity of fuel consumed during test of each engine

c. Real time test data from each engine test to include raw data used to calculate NOx emission factors as well as NOx emitted

d. Record of total NOx emissions per tested engine

e. Records of how emission factors were derived for each test to include pertinent ICAO Emissions Databank (or similar acceptable source data) engine NOx emission factors

f. Total number of hours of engines tested.

g. Type of fuel used for testing.

NEW CONDITION

6.2.52 The Permittee shall use the NOx emission factors per tested engine required in Condition 6.2.51 to calculate total monthly NOx emissions from NSR Avoidance Group NSR14. The Permittee shall use emission factors obtained from the International Civil Aviation Organization (ICAO) Engine Emissions Databank2 for each engine model type and mode of operation.
[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

NEW CONDITION

6.2.53 The Permittee shall use the records required in Condition 6.2.51 and the monthly calculations of Condition 6.2.52 to calculate the 12-month rolling total of NOx emissions from NSR Avoidance Group NSR14 for each calendar month in the reporting period. The Permittee shall notify the Division in writing if 12-month rolling total NOx emissions exceed 35.5 tons (90% of limit). This notification shall be postmarked by the fifteenth day of the following month and shall include an explanation of how the Permittee intends to maintain compliance with the emission limits in Condition 3.2.11.
[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

NEW CONDITION

6.2.54 The Permittee shall use the records required in Condition 6.2.51 to calculate the 12-month rolling total of hours of engines tested in Engine Test Cell No. 5 (SHEA ID No. 5898) for each calendar month in the reporting period. The Permittee shall notify the Division in writing if 12-month rolling total hours of engines exceed 2,700 hours (90% of limit). This notification shall be postmarked by the fifteenth day of the following month and shall include an explanation of how the Permittee intends to maintain compliance with the emission limits in Condition 3.2.12.
[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

NEW CONDITION

6.2.55 The Permittee shall use the records required in Condition 6.2.51 of the type of fuels used in Engine Test Cell No. 5 (SHEA ID No. 5898) to verify compliance with Condition 3.2.13. The Permittee shall notify the Division in writing if any fuel exceeds 0.3 percent sulfur by weight.
[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

Attachments

B. Insignificant Activities Checklist, Insignificant Activities Based on Emission Levels and Generic Emission Groups
D. List of Emission Units Per Equipment Group

ATTACHMENT B

NOTE: Attachment B contains information regarding insignificant emission units/activities and groups of generic emission units/activities in existence at the facility at the time of Permit issuance. Future modifications or additions of insignificant emission units/activities and equipment that are part of generic emissions groups may not necessarily cause this attachment to be updated.

INSIGNIFICANT ACTIVITIES CHECKLIST

Category	Description of Insignificant Activity/Unit	Quantity
Mobile Sources	1. Cleaning and sweeping of streets and paved surfaces	1
Combustion Equipment	1. Fire fighting and similar safety equipment used to train fire fighters or other emergency personnel.	
	2. Small incinerators that are not subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act and are not considered a "designated facility" as specified in 40 CFR 60.32e of the Federal emissions guidelines for Hospital/Medical/Infectious Waste Incinerators, that are operating as follows: i) Less than 8 million BTU/hr heat input, firing types 0, 1, 2, and/or 3 waste. ii) Less than 8 million BTU/hr heat input with no more than 10% pathological (type 4) waste by weight combined with types 0, 1, 2, and/or 3 waste. iii) Less than 4 million BTU/hr heat input firing type 4 waste. (Refer to 391-3-1-.03(10)(g)2.(ii) for descriptions of waste types)	
	3. Open burning in compliance with Georgia Rule 391-3-1-.02 (5).	
	4. Stationary engines burning: i) Natural gas, LPG, gasoline, dual fuel, or diesel fuel which are used exclusively as emergency generators shall not exceed 500 hours per year or 200 hours per year if subject to Georgia Rule 391-3-1-.02(2)(mmm).7 ii) Natural gas, LPG, and/or diesel fueled generators used for emergency, peaking, and/or standby power generation, where the combined peaking and standby power generation do not exceed 200 hours per year. iii) Natural gas, LPG, and/or diesel fuel used for other purposes, provided that the output of each engine does not exceed 400 horsepower and that no individual engine operates for more than 2,000 hours per year. iv) Gasoline used for other purposes, provided that the output of each engine does not exceed 100 horsepower and that no individual engine operates for more than 500 hours per year.	11
Trade Operations	1. Brazing, soldering, and welding equipment, and cutting torches related to manufacturing and construction activities whose emissions of hazardous air pollutants (HAPs) fall below 1,000 pounds per year.	46
Maintenance, Cleaning, and Housekeeping	1. Blast-cleaning equipment using a suspension of abrasive in water and any exhaust system (or collector) serving them exclusively.	
	2. Portable blast-cleaning equipment.	
	3. Non-Perchloroethylene Dry-cleaning equipment with a capacity of 100 pounds per hour or less of clothes.	
	4. Cold cleaners having an air/vapor interface of not more than 10 square feet and that do not use a halogenated solvent.	
	5. Non-routine clean out of tanks and equipment for the purposes of worker entry or in preparation for maintenance or decommissioning.	1
	6. Devices used exclusively for cleaning metal parts or surfaces by burning off residual amounts of paint, varnish, or other foreign material, provided that such devices are equipped with afterburners.	
	7. Cleaning operations: Alkaline phosphate cleaners and associated cleaners and burners.	

INSIGNIFICANT ACTIVITIES CHECKLIST

Category	Description of Insignificant Activity/Unit	Quantity
Laboratories and Testing	1. Laboratory fume hoods and vents associated with bench-scale laboratory equipment used for physical or chemical analysis.	
	2. Research and development facilities, quality control testing facilities and/or small pilot projects, where combined daily emissions from all operations are not individually major or are support facilities not making significant contributions to the product of a collocated major manufacturing facility.	65
Pollution Control	1. Sanitary waste water collection and treatment systems, except incineration equipment or equipment subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act.	
	2. On site soil or groundwater decontamination units that are not subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act.	1
	3. Bioremediation operations units that are not subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act.	
	4. Landfills that are not subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act.	
Industrial Operations	1. Concrete block and brick plants, concrete products plants, and ready mix concrete plants producing less than 125,000 tons per year.	
	2. Any of the following processes or process equipment which are electrically heated or which fire natural gas, LPG or distillate fuel oil at a maximum total heat input rate of not more than 5 million BTU's per hour: i) Furnaces for heat treating glass or metals, the use of which do not involve molten materials or oil-coated parts.	
	ii) Porcelain enameling furnaces or porcelain enameling drying ovens.	
	iii) Kilns for firing ceramic ware.	
	iv) Crucible furnaces, pot furnaces, or induction melting and holding furnaces with a capacity of 1,000 pounds or less each, in which sweating or distilling is not conducted and in which fluxing is not conducted utilizing free chlorine, chloride or fluoride derivatives, or ammonium compounds.	
	v) Bakery ovens and confection cookers.	
	vi) Feed mill ovens.	
	vii) Surface coating drying ovens	18
	3. Carving, cutting, routing, turning, drilling, machining, sawing, surface grinding, sanding, planing, buffing, shot blasting, shot peening, or polishing; ceramics, glass, leather, metals, plastics, rubber, concrete, paper stock or wood, also including roll grinding and ground wood pulping stone sharpening, provided that: i) Activity is performed indoors; & ii) No significant fugitive particulate emissions enter the environment; & iii) No visible emissions enter the outdoor atmosphere.	194
	4. Photographic process equipment by which an image is reproduced upon material sensitized to radiant energy (e.g., blueprint activity, photographic developing and microfiche).	7
	5. Grain, food, or mineral extrusion processes	
	6. Equipment used exclusively for sintering of glass or metals, but not including equipment used for sintering metal-bearing ores, metal scale, clay, fly ash, or metal compounds.	
	7. Equipment for the mining and screening of uncrushed native sand and gravel.	
	8. Ozonization process or process equipment.	
	9. Electrostatic powder coating booths with an appropriately designed and operated particulate control system.	
	10. Activities involving the application of hot melt adhesives where VOC emissions are less than 5 tons per year and HAP emissions are less than 1,000 pounds per year.	
	11. Equipment used exclusively for the mixing and blending water-based adhesives and coatings at ambient temperatures.	
	12. Equipment used for compression, molding and injection of plastics where VOC emissions are less than 5 tons per year and HAP emissions are less than 1,000 pounds per year.	
	13. Ultraviolet curing processes where VOC emissions are less than 5 tons per year and HAP emissions are less than 1,000 pounds per year.	

INSIGNIFICANT ACTIVITIES CHECKLIST

Category	Description of Insignificant Activity/Unit	Quantity
Storage Tanks and Equipment	1. All petroleum liquid storage tanks storing a liquid with a true vapor pressure of equal to or less than 0.50 psia as stored.	4
	2. All petroleum liquid storage tanks with a capacity of less than 40,000 gallons storing a liquid with a true vapor pressure of equal to or less than 2.0 psia as stored that are not subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act.	5
	3. All petroleum liquid storage tanks with a capacity of less than 10,000 gallons storing a petroleum liquid.	50
	4. All pressurized vessels designed to operate in excess of 30 psig storing petroleum fuels that are not subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act.	3
	5. Gasoline storage and handling equipment at loading facilities handling less than 20,000 gallons per day or at vehicle dispensing facilities that are not subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act.	
	6. Portable drums, barrels, and totes provided that the volume of each container does not exceed 550 gallons.	150
	7. All chemical storage tanks used to store a chemical with a true vapor pressure of less than or equal to 10 millimeters of mercury (0.19 psia).	32

INSIGNIFICANT ACTIVITIES BASED ON EMISSION LEVELS

Description of Emission Units / Activities	Quantity
Anodizing Process Tank	1
Aqueous Non-VOC Acid Etch Process Tanks (Metal Finishing)	12
Chromic Acid Bright Dip Tanks (Metal Finishing)	4
Fixture Treatment Tanks	2
Heated Petroleum Liquid Storage Tanks	1
Inorganic Acid Process Tanks (Metal Finishing)	4
Non-Chrome Plating and Anodizing Tanks (Metal Finishing)	21
Non-Spray Gun Surface Coating Ventilation Booths	16
Plasma Spray Units	13
Portable Cadmium Plating Units	6
Ultrasonic Cleaners	2

ATTACHMENT B (continued)

GENERIC EMISSION GROUPS

Emission units/activities appearing in the following table are subject only to one or more of Georgia Rules 391-3-1-.02 (2) (b), (e) &/or (n). Potential emissions of particulate matter, from these sources based on TSP, are less than 25 tons per year per process line or unit in each group. Any emissions unit subject to a NESHAP, NSPS, or any specific Air Quality Permit Condition(s) are not included in this table.

Description of Emissions Units / Activities	Number of Units (if appropriate)	Applicable Rules		
		Opacity Rule (b)	PM from Mfg Process Rule (e)	Fugitive Dust Rule (n)
None				

The following table includes groups of fuel burning equipment subject only to Georgia Rules 391-3-1-.02 (2) (b) & (d).Any emissions unit subject to a NESHAP, NSPS, or any specific Air Quality Permit Condition(s) are not included in this table.

Description of Fuel Burning Equipment	Number of Units
Fuel burning equipment with a rated heat input capacity of less than 10 million BTU/hr burning only natural gas and/or LPG.	2
Fuel burning equipment with a rated heat input capacity of less than 5 million BTU/hr, burning only distillate fuel oil, natural gas and/or LPG.	2
Any fuel burning equipment with a rated heat input capacity of 1 million BTU/hr or less.	10

ATTACHMENT D

LIST OF EMISSION UNITS PER EQUIPMENT GROUP

REGULATORY GROUPS	
EQUIPMENT GROUP	**EMISSION UNIT I.D. NUMBERS**
BF02	0634, 0636, 0657, 0658, 0659, 0660
BF03	0650, 0677
BF04	4794
CP01	0840, 0841, 0842, 0917, 0918, 0919, 0920, 0933, 0935, 0937, 0948
DG01	0136, 0137, 0485, 0912, 0924, 0967, 4845, 8354
DP01	1235, 1236, 1237, any other depainting conducted facility-wide
ET01	0077, 0078, 0080, 0081, 1123, 5898
FC01	0021, 0023, 0024, 0025, 0027, 0029, 0030, 0032, 0074, 0084, 0088, 0103, 0104, 0197, 0201, 0202, 0215, 0216, 0220, 0244, 0258, 0268, 0274, 0288, 0289, 0290, 0291, 0299, 0362, 0380, 0383, 0418, 0499, 0527, 0528, 0529, 0533, 0534, 0547, 0549, 0553, 0587, 0590, 0592, 0593, 0600, 0615, 0768, 0802, 0805, 0834, 0846, 0861, 0862, 0864, 0869, 0872, 0873, 0875, 0878, 0930, 0936, 0940, 0947, 0949, 0964, 1029, 1030, 1031, 1064, 1072, 1073, 1103, 1105, 1110, 1112, 1113, 1114, 1128, 1163, 1223, 1224, 1225, 1386, 1447, 1455, 1655, 1686, 1687, 1697, 1699, 1701, 1711, 1718, 1720, 1776, 1823, 1824, 2009, 2013, 2016, 2020, 2038, 2039, 2044, 2057, 2058, 2114, 2122, 2138, 2139, 2140, 2141, 2142, 2168, 2173, 2216, 4473, 4515, 4523, 4540, 4657, 4674, 4685, 4690, 4757, 4798, 4844, 4847, 4851, 4853, 4873, 4878, 4879, 4880, 4881, 4882, 4883, 4886, 4894, 4905, 4912, 4940, 4942, 4972, 4973, 4993, 4994, 4999, 5119, 6164, 6227, 6247, 6248, 6255, 6263, 6264, 6265, 6268, 6285, 6361, 6532, 6533, 6574, 6580, 6581, 6593, 6630, 6679, 6809, 6811, 6874, 6875, 6876, 6879, 6943, 6993, 7107, 7265, 7279, 7420, 7459, 7484, 8043, 8335, 8336, 8356, 9406, 9412, 9416, 9472, 9473, 9548, 5901
IC03	2086, 2087, 2088, 2089
PG01	0495, 1064, 1779, 1782, 1783, 4466, 4902
	0849, 0853, 0855, 0856, 0860, 0871, 0895, 0896, 0901,

PR01	0911, 0923, 0941, 8024, 9393
PT01	Existing Booths: 0243, 0363, 0410, 0487, 0490, 0491, 0492, 0500, 0503, 1220, 1235, 1236, 1237, 1328 New Booths: 0174, 4469, 6321, 9407
SC04	Facility-wide Aerospace Hand-wipe Cleaning
ST01	1494, 1495, 2019, 4542
NSR AVOIDANCE GROUPS	
EQUIPMENT GROUP	**EMISSION UNIT I.D. NUMBERS**
NSR5 (pka AP01)	6557, 6559, 6560, 6561, 6562
NSR6 (pka BF04 for NOx)	4794
NSR7 (pka BF04 for SO_2)	4794
NSR8 (pka DG01 + SC01)	Vapor degreasers in Equipment Group DG01 and the solvent cleaners in Equipment Group FC01, with a surface area of 10 square feet or more, that do not use aqueous or semi-aqueous cleaning solvents at any time during the reporting period.
NSR9 (pka ET01)	0077, 0078
NSR10 (pka TOC3)	1235,1236, 1237, 0495
NSR11 (pka Vapor Degreaser 4845)	4845
NSR12 (pka Paint Booth 6321)	6321
NSR13	9407
NSR14	5898