State of Utah

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Department of
Environmental Quality

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Executive Director

DIVISION OF AIR QUALITY
Bryce C. Bird
Director

DAQE-IN122260020-22

August 4, 2022

Brad Theurer
L3 Technologies, Inc.
640 North 2200 West
Salt Lake City, UT 84116
bradley.theurer@l3harris.com

Dear Mr. Theurer:

Re: Intent to Approve:
Modification to Approval Order DAQE-AN122260019-18 to Add a Diesel-Fired Emergency Engine Generator and an Associated Storage Tank, and Two (2) SO_2 Test Cells
Project Number: N122260020

The attached document is the Intent to Approve (ITA) for the above-referenced project. The ITA is subject to public review. Any comments received shall be considered before an Approval Order (AO) is issued. The Division of Air Quality is authorized to charge a fee for reimbursement of the actual costs incurred in the issuance of an AO. An invoice will follow upon issuance of the final AO.

Future correspondence on this ITA should include the engineer's name, **Mr. Enqiang He,** as well as the DAQE number as shown on the upper right-hand corner of this letter. Mr. Enqiang He, can be reached at (801) 556-1580 or ehe@utah.gov, if you have any questions.

Sincerely,

Alan D. Humpherys, Manager
New Source Review Section

ADH:EH:jg

cc: Salt Lake County Health Department

STATE OF UTAH
Department of Environmental Quality
Division of Air Quality

INTENT TO APPROVE
DAQE-IN122260020-22
Modification to Approval Order DAQE-AN122260019-18 to Add a Diesel-Fired Emergency Engine Generator and an Associated Storage Tank, and Two (2) SO_2 Test Cells

Prepared By
Mr. Enqiang He, Engineer
(801) 556-1580
ehe@utah.gov

Issued to
L3 Technologies, Inc. - Electronic Communications Equipment Manufacturing Plant

Issued On
August 4, 2022

New Source Review Section Manager
Alan D. Humpherys

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GENERAL INFORMATION

CONTACT/LOCATION INFORMATION

Owner Name
L3 Technologies, Inc.

Source Name
L3 Technologies, Inc. - Electronic Communications Equipment Manufacturing Plant

Mailing Address
640 North 2200 West
Salt Lake City, UT 84116

Physical Address
640 North 2200 West
Salt Lake City, UT 84116

Source Contact
Name Brad Theurer
Phone (801) 560-7845
Email bradley.theurer@l3harris.com

UTM Coordinates
419,600 m Easting
4,515,000 m Northing
Datum NAD83
UTM Zone 12

SIC code 3669 (Communications Equipment, NEC)

SOURCE INFORMATION

General Description
L3 Technologies, Inc. operates an electronic communications equipment manufacturing plant in Salt Lake City, Salt Lake County. The company operates the following equipment: painting equipment, emergency generator engines, boilers, an alodine solution tank, and other miscellaneous equipment. Annual natural gas consumption is limited to 31,298 decatherms.

NSR Classification
Minor Modification at Minor Source

Source Classification
Located in Northern Wasatch Front O3 NAA, Salt Lake City UT $PM_{2.5}$ NAA, Salt Lake County SO_2 NAA
Salt Lake County
Airs Source Size: B

Applicable Federal Standards
NSPS (Part 60), A: General Provisions
NSPS (Part 60), IIII: Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
NSPS (Part 60), JJJJ: Standards of Performance for Stationary Spark Ignition Internal Combustion Engines
MACT (Part 63), A: General Provisions
MACT (Part 63), ZZZZ: National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

MACT (Part 63), HHHHHH: National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources
MACT (Part 63), WWWWWW: National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Plating and Polishing Operations

Project Description
The source has requested a modification to Approval Order DAQE-AN122260019-18 to add a diesel-fired emergency generator engine rated at 755 hp and an associated diesel fuel storage tank. The emergency generator engine is limited to 100 hours per year of operation for maintenance and testing purposes. The source has also requested to add two (2) testing cells. In addition, the source requests the following changes to the equipment list:

1. Remove one of the paint booths in Condition II.A.2;
2. Relocate the diesel-fire emergency generator engine FC 2566 in Condition II.A.4 from Building D to Building O, and
3. Change the Condition II.A.5 for all small boilers less than 5 MMBtu/hr to "exempt equipment" per R307-401-10.

SUMMARY OF EMISSIONS

The emissions listed below are an estimate of the total potential emissions from the source. Some rounding of emissions is possible.

Criteria Pollutant	Change (TPY)	Total (TPY)
CO_2 Equivalent	34	1996.00
Carbon Monoxide	0.03	9.52
Nitrogen Oxides	0.35	14.12
Particulate Matter - PM_{10}	0.01	1.69
Particulate Matter - $PM_{2.5}$	0.01	1.69
Sulfur Oxides	0.07	0.52
Volatile Organic Compounds	0.02	9.83

Hazardous Air Pollutant	Change (lbs/yr)	Total (lbs/yr)
Chromium Compounds (CAS #CMJ500)	0	44
Chromium VI (CAS #18540299)	0	1
Formaldehyde (CAS #50000)	0	12
Generic HAPs (CAS #GHAPS)	1	5561
Toluene (CAS #108883)	0	3110
Xylenes (Isomers And Mixture) (CAS #1330207)	0	3036
	Change (TPY)	**Total (TPY)**
Total HAPs	0	5.88

PUBLIC NOTICE STATEMENT

The NOI for the above-referenced project has been evaluated and has been found to be consistent with the requirements of UAC R307. Air pollution producing sources and/or their air control facilities may not be constructed, installed, established, or modified prior to the issuance of an AO by the Director.

A 30-day public comment period will be held in accordance with UAC R307-401-7. A notification of the intent to approve will be published in the Salt Lake Tribune and Deseret News on August 7, 2022. During the public comment period the proposal and the evaluation of its impact on air quality will be available for the public to review and provide comment. If anyone so requests a public hearing within 15 days of publication, it will be held in accordance with UAC R307-401-7. The hearing will be held as close as practicable to the location of the source. Any comments received during the public comment period and the hearing will be evaluated. The proposed conditions of the AO may be changed as a result of the comments received.

SECTION I: GENERAL PROVISIONS

The intent is to issue an air quality AO authorizing the project with the following recommended conditions and that failure to comply with any of the conditions may constitute a violation of the AO.

I.1	All definitions, terms, abbreviations, and references used in this AO conform to those used in the UAC R307 and 40 CFR. Unless noted otherwise, references cited in these AO conditions refer to those rules. [R307-101]
I.2	The limits set forth in this AO shall not be exceeded without prior approval. [R307-401]
I.3	Modifications to the equipment or processes approved by this AO that could affect the emissions covered by this AO must be reviewed and approved. [R307-401-1]
I.4	All records referenced in this AO or in other applicable rules, which are required to be kept by the owner/operator, shall be made available to the Director or Director's representative upon request, and the records shall include the two-year period prior to the date of the request. Unless otherwise specified in this AO or in other applicable state and federal rules, records shall be kept for a minimum of two (2) years. [R307-401-8]
I.5	At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any equipment approved under this AO, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. All maintenance performed on equipment authorized by this AO shall be recorded. [R307-401-4]
I.6	The owner/operator shall comply with UAC R307-107. General Requirements: Breakdowns. [R307-107]
I.7	The owner/operator shall comply with UAC R307-150 Series. Emission Inventories. [R307-150]
I.8	The owner/operator shall submit documentation of the status of construction or modification to the Director within 18 months from the date of this AO. This AO may become invalid if construction is not commenced within 18 months from the date of this AO or if construction is discontinued for 18 months or more. To ensure proper credit when notifying the Director, send the documentation to the Director, attn.: NSR Section. [R307-401-18]

SECTION II: PERMITTED EQUIPMENT

The intent is to issue an air quality AO authorizing the project with the following recommended conditions and that failure to comply with any of the conditions may constitute a violation of the AO.

II.A THE APPROVED EQUIPMENT

II.A.1 **L3 Technologies, Inc.**
A communications equipment manufacturing plant

II.A.2 **Paint Booth Area, Building CA**

A. Machine solvent recycler, vented

B. One (1) paint booth equipped with filters, located in Building C Annex, MACT Subpart HHHHHH equipment

C. Outside Product Painting areas

D. HVLP Spray guns

II.A.3 **Natural Gas-Fired Emergency Generator Engines**

L3 ID #	Description	Building	Federal Standards
FC 1003	Generac	100 kW CA	MACT ZZZZ equipment
FC 2290	Generac	150 kW D	NSPS JJJJ/MACT ZZZZ equipment
FC 1002	Generac	100 kW E	MACT ZZZZ equipment
FC 1208	Generac	100 kW F	NSPS JJJJ/MACT ZZZZ equipment
FC 1004	Generac	100 kW Z	MACT ZZZZ equipment

II.A.4 **Diesel-Fired Emergency Generator engines**

L3 ID #	Rated Capacity	Building	Federal Standards
FC 2077	150 kW	X	NSPS IIII/MACT ZZZZ equipment
FC 2221	150 kW	C-Annex	NSPS IIII/MACT ZZZZ equipment
FC 2566	500 kW	O	NSPS IIII/MACT ZZZZ equipment
FC 891	375 kW	F	NSPS IIII/MACT ZZZZ equipment
FC 892	375 kW	F	NSPS IIII/MACT ZZZZ equipment
FC 3722*	755 hp	O	NSPS IIII/MACTZZZZ equipment

*New equipment

II.A.5 **Boilers (All boilers are fueled with natural gas)**
Various small boilers each rated at less than 5 MMBtu/hr (exempt per R307-401-10(1))
Included for information purposes only

II.A.6 **Alodine Process**
One (1) Alodine solution tank located in Building D, MACT Subpart WWWWWW equipment

II.A.7 **Two (2) SO_2 Test Cells**
New equipment
Location: Building O

II.A.8 **One (1) Diesel Fuel Storage Tank**
Capacity: 16 bbls
New equipment

II.A.9	**Miscellaneous Equipment** A. Miscellaneous small boilers and hot water heaters, welding equipment, area heaters, bench-top soldering, stand-alone soldering machines, cleaning equipment, mobile pressure washers, and mobile generators (14 kW each) B. Miscellaneous vents and electric ovens

SECTION II: SPECIAL PROVISIONS

The intent is to issue an air quality AO authorizing the project with the following recommended conditions and that failure to comply with any of the conditions may constitute a violation of the AO.

II.B REQUIREMENTS AND LIMITATIONS

II.B.1	**Plant-wide Requirements and Limitations**
II.B.1.a	The owner/operator shall not allow visible emissions from any emissions point to exceed 20% opacity except where specified otherwise. [R307-401-8]
II.B.1.a.1	Opacity observations of emissions from stationary sources shall be conducted according to 40 CFR 60, Appendix A, Method 9. [R307-401-8]
II.B.2	**Conditions on Fuel Combustion Equipment**
II.B.2.a	The owner/operator shall not allow visible emissions from the fuel combustion equipment to exceed the following limits: A. Natural gas/propane combustion - 10% opacity B. Diesel fuel combustion - 20% opacity. [R307-401-8]
II.B.2.b	The owner/operator shall not consume more than 31,298 decatherms of natural gas per rolling 12-month period. [R307-401-8]
II.B.2.b.1	The owner/operator shall: A. Determine natural gas consumption by monthly billing statements from the utility company B. Use the monthly billing statements to calculate a new rolling 12-month total by the 20th day of each month using data from the previous 12 months C. Keep the natural gas consumption records for all periods the plant is in operation. [R307-401-8]
II.B.2.c	The owner/operator shall not operate each of the emergency generator engines for more than 100 hours per rolling 12-month period for testing and maintenance operations. [R307-401-8]

II.B.2.c.1	The owner/operator shall: A. Determine hours of operation by monitoring and maintaining an operations log showing the date the generator engine was used, the type of fuel burned, the duration in hours of the engine usage, and the reason for each generator engine usage B. Use the hours of operation to calculate a new rolling 12-month total by the 20th day of each month using data from the previous 12-months. C. Keep hours of operation records for all periods the plant is in operation. [R307-401-8]
II.B.2.d	The owner/operator shall not test: A. Each emergency generator engine before 10:00 am or after 4:00 pm each day B. Each emergency generator engine more than once per week. This does not apply if the engine is retested after it is maintained or repaired. C. More than one emergency generator engines at a time. [R307-410-4]
II.B.2.d.1	The owner/operator shall: A. Determine compliance by monitoring and maintaining an operations log showing the date, the time, and the duration in hours each generator engine was tested B. Keep the testing records in A for all periods the plant is in operation, and C. Keep records of retesting associated with engine maintenance/repair. [R307-410-4]
II.B.2.e	The owner/operator shall install a 755-hp emergency engine that is certified to meet a NO_x + NMHC emission rate of 4.8 g/hp-hr. [R307-401-8]
II.B.2.e.1	The owner/operator shall keep a record of the manufacturer's certification of the emission rate. The record shall be kept for the life of the equipment. [R307-401-8]
II.B.2.f	The owner/operator may use propane as an alternative fuel during natural gas curtailment. [R307-401-8]
II.B.3	**Conditions on Diesel Fuel**
II.B.3.a	The owner/operator shall only use diesel fuel (e.g. fuel oil #1, #2, or diesel fuel oil additives) as fuel in each of the diesel-fired generator engines. [R307-401-8]
II.B.3.a.1	The owner/operator shall only combust diesel fuel that meets the definition of ultra-low sulfur diesel (ULSD), which has a sulfur content of 15 ppm or less. [R307-401-8]
II.B.3.a.2	To demonstrate compliance with the ULSD fuel requirement, the owner/operator shall maintain records of diesel fuel purchase invoices or obtain certification of sulfur content from the diesel fuel supplier. The diesel fuel purchase invoices shall indicate that the diesel fuel meets the ULSD requirements. [R307-203]

II.B.4	**Conditions on Paint Booths, Degreasers and Cleaning Stations**
II.B.4.a	The owner/operator shall control emissions from the paint spray booths with a set of paint arrestor particulate filters, or equivalent, at all times. All air exiting the booths shall pass through this control system before being vented to the atmosphere (outside building/operation). The filters shall be operated and replaced in accordance with manufacturer's recommendations. Equivalency determinations, when requested by the owner/operator, shall be submitted to the Director for approval. [R307-401-8]
II.B.4.b	The owner/operator shall not allow visible emissions from all degreasing stations and painting operations to exceed 5% opacity. [R307-401-8]
II.B.4.c	The owner/operator shall not emit more than the following from evaporative sources (painting, printing, coating, and/or cleaning) on site: 9.54 tons per rolling 12-month period of VOCs 1.56 tons per rolling 12-month period of toluene 1.52 tons per rolling 12-month period of xylenes 5.88 tons per rolling 12-month period of all HAPs combined. [R307-401-8]
II.B.4.c.1	The owner/operator shall calculate a new 12-month total by the 20th day of each month using data from the previous 12 months. The owner/operator shall use a mass-balance method to calculate emissions from evaporative sources. The owner/operator may use the following equations with applicable units to comply with the mass-balance method: VOCs = [% VOCs by Weight/100] x [Density] x [Volume Consumed] HAP = [% HAP by Weight/100] x [Density] x [Volume Consumed]. [R307-401-8]
II.B.4.c.2	The owner/operator shall use a mass-balance method to quantify any amount of VOCs and HAPs reclaimed. The owner/operator shall subtract the amount of VOCs and HAPs reclaimed from the quantities calculated above to provide the monthly total emissions of VOCs and HAPs. [R307-401-8]
II.B.4.c.3	The owner/operator shall keep records each month of the following: A. The name (as per SDS) of the VOC- and HAP-emitting material B. The maximum percent by weight of VOCs and each HAP in each material used C. The density of each material used D. The volume of each VOC- and HAP-emitting material used E. The amount of VOCs and the amount of each HAP emitted from each material F. The amount of VOCs and the amount of each HAP reclaimed and/or controlled from each material G. The total amount of VOCs, the total amount of each HAP, and the total amount of all HAPs combined emitted from all materials (in tons) [R307-401-8]

II.B.4.d	The VOC-containing materials and VOC-laden rags shall be stored in sealed containers (except when in use). [R307-401-8]
II.B.4.e	The owner/operator shall comply with the applicable requirements in R307-304, 335, and 350. [R307-304, R307-335, R307-350]

PERMIT HISTORY

This Approval Order shall supersede (if a modification) or will be based on the following documents:

Supersedes	AO DAQE-AN122260019-18 dated July 3, 2018
Incorporates	NOI dated October 26, 2021
Incorporates	Additional information dated February 10, 2022
Incorporates	Additional information dated March 30, 2022
Incorporates	Additional information dated May 12, 2022
Incorporates	Additional information dated May 16, 2022
Incorporates	DAQE-MN122260020-22 dated June 1, 2022
Incorporates	Additional information dated July 15, 2022
Incorporates	Additional information dated July 20, 2022

ACRONYMS

The following lists commonly used acronyms and associated translations as they apply to this document:

40 CFR	Title 40 of the Code of Federal Regulations
AO	Approval Order
BACT	Best Available Control Technology
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
CDS	Classification Data System (used by Environmental Protection Agency to classify sources by size/type)
CEM	Continuous emissions monitor
CEMS	Continuous emissions monitoring system
CFR	Code of Federal Regulations
CMS	Continuous monitoring system
CO	Carbon monoxide
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent - Title 40 of the Code of Federal Regulations Part 98, Subpart A, Table A-1
COM	Continuous opacity monitor
DAQ/UDAQ	Division of Air Quality
DAQE	This is a document tracking code for internal Division of Air Quality use
EPA	Environmental Protection Agency
FDCP	Fugitive dust control plan
GHG	Greenhouse Gas(es) - Title 40 of the Code of Federal Regulations 52.21 (b)(49)(i)
GWP	Global Warming Potential - Title 40 of the Code of Federal Regulations Part 86.1818-12(a)
HAP or HAPs	Hazardous air pollutant(s)
ITA	Intent to Approve
LB/YR	Pounds per year
MACT	Maximum Achievable Control Technology
MMBTU	Million British Thermal Units
NAA	Nonattainment Area
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standards for Hazardous Air Pollutants
NOI	Notice of Intent
NO_x	Oxides of nitrogen
NSPS	New Source Performance Standard
NSR	New Source Review
PM_{10}	Particulate matter less than 10 microns in size
$PM_{2.5}$	Particulate matter less than 2.5 microns in size
PSD	Prevention of Significant Deterioration
PTE	Potential to Emit
R307	Rules Series 307
R307-401	Rules Series 307 - Section 401
SO_2	Sulfur dioxide
Title IV	Title IV of the Clean Air Act
Title V	Title V of the Clean Air Act
TPY	Tons per year
UAC	Utah Administrative Code
VOC	Volatile organic compounds