



State of Utah

GARY R. HERBERT  
*Governor*

SPENCER J. COX  
*Lieutenant Governor*

Department of  
Environmental Quality

L. Scott Baird  
*Executive Director*

DIVISION OF AIR QUALITY  
Bryce C. Bird  
*Director*

DAQE-IN141800011-20

November 9, 2020

Charlie Hill  
eBay Inc.  
6614 West Crimson View Drive  
South Jordan, UT 84095

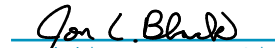
Dear Mr. Hill:

Re: Intent to Approve:  
Modification of Approval Order DAQE-AN141800010-19 to Add Six (6) Emergency Generators  
and Update the Site Name  
Project Number: N141800011

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, **John Jenks**, as well as the DAQE number as shown on the upper right-hand corner of this letter. John Jenks, can be reached at (385) 306-6510 or [jjenks@utah.gov](mailto:jjenks@utah.gov), if you have any questions.

Sincerely,

  
Jon Black (Nov 1, 2020 21:13 MST)

Jon L. Black, Manager  
New Source Review Section

JLB:JJ:sa

cc: Salt Lake County Health Department


**STATE OF UTAH**  
**Department of Environmental Quality**  
**Division of Air Quality**

**INTENT TO APPROVE**  
**DAQE-IN141800011-20**  
**Modification of Approval Order DAQE-AN141800010-19 to Add**  
**Six (6) Emergency Generators and Update the Site Name**

**Prepared By**  
**John Jenks, Engineer**  
**(385) 306-6510**  
**jjenks@utah.gov**

**Issued to**  
**eBay Inc. - SLC Data Center**

**Issued On**  
**November 9, 2020**

  
Jon Black (Nov 1, 2020 21:13 MST)

**New Source Review Section Manager**  
**Jon L. Black**

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## GENERAL INFORMATION

### CONTACT/LOCATION INFORMATION

**Owner Name**

eBay Inc.

**Source Name**

eBay Inc. - SLC Data Center

**Mailing Address**

6614 West Crimson View Drive  
South Jordan, UT 84095

**Physical Address**

6614 West Crimson View Drive  
South Jordan, UT 84095

**Source Contact**

Name Charlie Hill  
Phone (480) 217-8872  
Email charlhill@ebay.com

**UTM Coordinates**

411,299 m Easting  
4,490,858 m Northing  
Datum NAD83  
UTM Zone 12

**SIC code** 7374 (Computer Processing & Data Preparation & Processing Services)

### SOURCE INFORMATION

**General Description**

eBay SLC Data Center (eBay), is a computer data center located in South Jordan. The facility consists of diesel-fired emergency backup generators that provide electricity to the facility's data servers and backup storage devices in the event of an emergency, diesel-powered fire pump engines, cooling towers, and a number of bloom energy servers.

**NSR Classification**

Minor Modification at Minor Source

**Source Classification**

Located in Salt Lake City UT PM<sub>2.5</sub> NAA, Salt Lake County SO<sub>2</sub> 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  
MACT (Part 63), A: General Provisions  
MACT (Part 63), ZZZZ: NESHAP for Stationary Reciprocating Internal Combustion Engines

**Project Description**

eBay has submitted a NOI for the addition of six (6) additional diesel-fired emergency back-up generators at its existing data center in South Jordan. eBay has also requested a name change for the facility, currently listed as "Topaz (South Jordan) Data Center" to "SLC Data Center".

### **SUMMARY OF EMISSIONS**

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

<b>Criteria Pollutant</b>	<b>Change (TPY)</b>	<b>Total (TPY)</b>
CO <sub>2</sub> Equivalent	-1139	41355.00
Carbon Monoxide	2.59	11.38
Nitrogen Oxides	1.78	56.35
Particulate Matter - PM <sub>10</sub>	0.34	3.00
Particulate Matter - PM <sub>2.5</sub>	-1.91	0.71
Sulfur Oxides	-0.06	0.06
Volatile Organic Compounds	0.51	2.26

<b>Hazardous Air Pollutant</b>	<b>Change (lbs/yr)</b>	<b>Total (lbs/yr)</b>
Generic HAPs (CAS #GHAPS)	-160	80
	<b>Change (TPY)</b>	<b>Total (TPY)</b>
Total HAPs	-0.08	0.04

### **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 ITA will be published in the Salt Lake Tribune and Deseret News on November 12, 2020. 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/installation of the new emergency generators listed in II.A.8 to the Director within 18 months from the date of this AO. This AO may become invalid if construction/installation is not commenced within 18 months from the date of this AO or if construction/installation 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	<b>Data Center</b>  Computer data center
II.A.2	<b>Cooling Tower Plants (2)</b>  1. 35 MW cooling capacity  2. 6 MW cooling capacity
II.A.3	<b>Bloom Energy Servers</b>  Number of servers: thirty (30) Rating: 200 kW - each Number of servers: twenty (20) Rating: 250 kW – each

II.A.4	<b>Fire System Pump Engines (2)</b>  Rating: 148 hp and 86 hp Fuel: Diesel
II.A.5	<b>Emergency Generator Engines - SLC01</b>  Fuel: Diesel G1 rating 3.25 MW G2 rating 3.25 MW G3 rating 3.25 MW G4 rating 3.25 MW G5 rating 3.25 MW G6 rating 3.25 MW G7 rating 3.25 MW
II.A.6	<b>Emergency Generator Engines - SLC02</b>  Type: Tier 2 or better Fuel: Diesel G8 rating 3.1 MW G9 rating 3.0 MW G10 rating 3.0 MW G11 rating 3.0 MW G12 rating 3.0 MW G13 rating 3.0 MW G14 rating 3.0 MW G24 rating 2.5 MW G25 rating 2.5 MW G26 rating 2.0 MW G27 rating 2.0 MW
II.A.7	<b>Emergency Generator Engines - SLC03</b>  Type: Tier 2 or better with manufacturer year October 2016 or newer Fuel: Diesel G15 rating 2.0 MW G16 rating 2.0 MW G17 rating 1.5 MW G18 rating 1.5 MW G19 rating 2.0 MW G20 rating 2.0 MW G21 rating 2.0 MW G22 rating 2.0 MW G23 rating 1.0 MW
II.A.8	<b>Emergency Generator Engines - SLC03 Phase 2</b>  Type: Tier 2 or better with manufacturer year October 2016 or newer Fuel: Diesel G28 rating 2.0 MW G29 rating 2.0 MW G30 rating 2.0 MW G31 rating 2.0 MW G32 rating 750 kW G33 rating 750 kW

## 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	<b>Source-Wide Requirements</b>
II.B.1.a	Visible emissions from any stationary point associated with the source or with the control facilities shall not exceed 20% opacity. [R307-305-3, R307-401-8]
II.B.1.a.1	Opacity observations of emissions from stationary sources shall be conducted in accordance with 40 CFR 60, Appendix A, Method 9. [R307-305-5]
II.B.2	<b>Emergency Generator Engine Requirements</b>
II.B.2.a	The owner/operator shall not operate each emergency engine listed in II.A.4 for more than 100 hours per calendar year during non-emergency situations. The owner/operator shall not operate each emergency engine listed in II.A.5 through II.A.8 for more than 66 hours per calendar year during non-emergency situations. There is no time limit on the use of the engines during emergencies. [40 CFR 60 Subpart ZZZZ, R307-401-8]
II.B.2.b	<p>For the emergency generator engines listed in II.A.5 through II.A.8, operations during engine operator training, engine maintenance, and engine compliance testing (OMT operations) shall be conducted as follows:</p> <ol style="list-style-type: none"> <li>1. All engine compliance testing shall be conducted as outlined in 40 CFR 60 Subpart IIII or 40 CFR 63 Subpart ZZZZ as appropriate.</li> <li>2. OMT operation of each generator (G1-through G7) may occur once per month from 8:00 am to 6:00 pm for 30 minutes, with a maximum of four (4) of these generators in operation simultaneously.</li> <li>3. OMT operation of each generator (G8-through G33) may occur once per month from 8:00 am to 6:00 pm for 30 minutes, with a maximum of two (2) of these generators in operation simultaneously.</li> <li>4. In addition to monthly OMT operation, each generator may be tested for one (1) hour once per calendar year from 8:00 am to 6:00 pm.</li> </ol> <p>[R307-401-8]</p>
II.B.2.c	A non-resettable hour meter shall be installed and operational on all engines. [R307-401-8, 40 CFR 63 Subpart ZZZZ]
II.B.2.d	<p>To determine compliance with the calendar year total, the owner/operator shall calculate a monthly total by the 20th day of each month. The sum of these monthly totals from January through December of any given year, inclusive, shall constitute the calendar year total. Records documenting the operation of each emergency engine shall be kept in a log and shall include the following:</p> <ol style="list-style-type: none"> <li>A. The date the emergency engine was used</li> <li>B. The duration of operation in hours</li> </ol>



	C. The reason for the emergency engine usage [40 CFR 60 Subpart ZZZZ, R307-401-8]
II.B.2.e	The owner/operator shall only use diesel fuel (fuel oil #1, #2 or diesel fuel oil additives) in any emergency generator engines located on site. All diesel burned shall meet the definition of ultra-low sulfur diesel (ULSD), and contain no more than 15 ppm sulfur. [40 CFR 60 Subpart IIII]
II.B.2.e.1	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 the diesel fuel meets the ULSD requirements. [R307-401-8]

## PERMIT HISTORY

This Approval Order shall supersede or will be based on the following documents:

Is Derived From  
Incorporates  
Incorporates

Source Submitted NOI dated June 1, 2020  
Additional Information Received dated June 8, 2020  
Additional Information Received dated July 24, 2020

## 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 <sub>2</sub>	Carbon Dioxide
CO <sub>2</sub> e	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 <sub>x</sub>	Oxides of nitrogen
NSPS	New Source Performance Standard
NSR	New Source Review
PM <sub>10</sub>	Particulate matter less than 10 microns in size
PM <sub>2.5</sub>	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 <sub>2</sub>	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