



South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

April 30, 2019

Michael Burrows
Executive Director
San Bernardino International Airport
1601 East Third Street, Suite 100
San Bernardino, CA 92408

Dear Mr. Burrows,

This letter is in response to your letter dated April 4, 2019 regarding the San Bernardino International Airport Eastgate Air Cargo Facility Project General Conformity Determination, which requests to accommodate the anticipated emissions from the proposed project in the Air Quality Management Plan (AQMP)/State Implementation Plan (SIP) set-aside general conformity budget.

The general conformity determination process is intended to demonstrate that a proposed Federal action will not: (1) cause or contribute to new violations of a national ambient air quality standard (NAAQS); (2) interfere with provisions in the applicable SIP for maintenance of any NAAQS; (3) increase the frequency or severity of existing violations of any standard; or (4) delay the timely attainment of any standard. As such, for general conformity determination, the proposed federal action needs to conform to the latest approved SIP/AQMP.

The South Coast Air Basin (Basin) is designated as an extreme non-attainment area for ozone, serious non-attainment for PM_{2.5} and maintenance area for Carbon Monoxide. In order to accommodate projects subject to general conformity requirements and to streamline the review process, general conformity budgets for NO_x and VOC emissions are established in the AQMP. While the 2016 AQMP (<https://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan/final-2016-aqmp>) is the latest AQMP submitted to U.S. EPA, it is still under U.S. EPA's review, and the latest approved AQMP is currently the Final 2012 AQMP ([https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2012-air-quality-management-plan/final-2012-aqmp-\(february-2013\)/main-document-final-2012.pdf](https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2012-air-quality-management-plan/final-2012-aqmp-(february-2013)/main-document-final-2012.pdf)), which established set aside accounts to accommodate emissions subject to general conformity requirements. The set-aside accounts include 1 ton per day (tpd) or 365 tons per year of NO_x and 0.2 tpd (73 tons per year) of VOC every year, starting in 2013 through 2030. South Coast AQMD has also set up a tracking system for projects subject to conformity determinations, whereby project emissions are debited from the applicable set aside accounts. In the 2016 AQMP, the set-aside accounts include 2 tpd (730 tons per year) of NO_x and 0.5 tpd (182.5 tons per year) of VOC every

year, starting in 2017 through 2030, and 0.5 tpd (182.5 tons per year) of NO_x and 0.2 tpd (73 tons per year) of VOC each year in 2031 and thereafter.

The anticipated emissions from the proposed project exceed the General Conformity *de minimis* thresholds of both NO_x and VOC in years 2019 and 2020 for construction and operations combined, and in years thereafter for operations. South Coast AQMD staff has reviewed the proposed project emissions and determined that they can be accommodated within the general conformity budgets established in the Final 2012 AQMP. The emissions allocated within the budget are listed in Attachment 2, supplemental submission of Updated Summary Tables of Annual Emissions from the Proposed Project, and summarized in the Table 1 below.

Table 1. Emissions from the Proposed Project accommodated in the Final 2012 AQMP General Conformity Budgets (tons per year)

Pollutants	Emission Phase	2019	2020	2021	2022	2023	2024
NO _x	Construction	8.8	0.1	0.0	0.0	0.0	0.0
VOC	Construction	1.0	0.5	0.0	0.0	0.0	0.0
NO _x	Operation	99.2	116.4	133.6	150.7	167.9	185.1
VOC	Operation	16.7	20.0	23.2	26.5	29.7	33.0

In addition to NO_x and VOC emissions, CO emissions are anticipated to exceed the *de minimis* threshold in during the operational phase in 2023 and afterwards. However, the results of the air dispersion modeling included in the April 4th letter indicate that the operation of the proposed project would result in ground level concentrations not exceeding the NAAQS, as shown in Table 11 of the reference letter. Therefore, even though CO emissions are above the *de minimis* threshold, the project is not expected to interfere with the CO maintenance status of the Basin. PM_{2.5} emissions from all the years covered in the proposed project are estimated to be below the *de minimis* threshold.

In summary, based on our evaluation, the proposed project will conform to the AQMP (i.e. project emissions are within AQMP budgets) and is not expected to result in any new or additional violations of the NAAQS or impede the projected attainment of the standards. However, in order to incorporate the projected aircraft operations in the next AQMP, South Coast AQMD staff recommends that detailed aircraft activity and emissions data for the San Bernardino International Airport be submitted to South Coast AQMD by the end of 2019. This way, these emissions can be appropriately included in the next AQMP emissions inventory and not rely on the general conformity budgets, which are in high demand and have a limited availability.

If you have any questions, please contact me at (909) 396-2239 or pfine@aqmd.gov.

Sincerely,



Philip M. Fine, Ph.D.
Deputy Executive Officer
Planning, Rule Development & Area Sources
South Coast Air Quality Management District

Attachments:

1. Letter from San Bernardino International Airport Authority dated April 4, 2019
2. Updated Summary Tables of Annual Emissions from the San Bernardino International Airport Eastgate Air Cargo Facility Project (2019-2024)

cc: Tom Kelly, US EPA Region IX
David Kessler, U.S. Department of Transportation, FAA
Rongsheng Luo, SCAG
Wayne Nastri, South Coast AQMD
Barbara Baird, South Coast AQMD
Sarah Rees, South Coast AQMD
Zorik Pirveysian, South Coast AQMD
Mike Krause, South Coast AQMD
Sang-Mi Lee, South Coast AQMD
Mark Gibbs, Director of Aviation, San Bernardino International Airport Authority

ZP:SL

Attachment 1

Letter from San Bernardino International Airport Authority



San Bernardino International Airport Authority

April 4, 2019

Mr. Wayne Nastri
Executive Officer
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, California 91765

Subject: San Bernardino International Airport
Eastgate Air Cargo Facility Project General Conformity Determination

Dear Mr. Nastri:

After extensive discussion with South Coast Air Quality Management District (SCAQMD) staff regarding the federal Clean Air Act general conformity process for federal actions, the San Bernardino International Airport Authority (Authority) is pleased to formally request confirmation from SCAQMD that relevant emissions associated with the proposed San Bernardino International Airport (Airport) Eastgate Air Cargo Facility (Proposed Project) are within the state implementation plan (SIP) conformity budgets established in the approved 2012 Air Quality Management Plan (AQMP), and the 2016 AQMP that is currently in review with the United States Environmental Protection Agency (EPA).

The Proposed Project would develop various facilities, supporting infrastructure and an air cargo hub on an approximately 101.5-acre site on the northern side of the Airport property. If the Proposed Project is approved, construction is anticipated to take one full year. Future analysis years include Opening Year (2019) and Opening Year + Five Years (2024). Opening day aircraft operations for the Proposed Project would include 12 daily take-offs and 12 daily landings for a total of 24 aircraft operations. Five years into the operation of the Proposed Project, the project sponsor anticipates that the number of project-related take-offs and landings would increase to 26 take-offs and 26 landings per day for a total of 52 aircraft operations, which would require a total of 14 aircraft parking positions. The Proposed Project would operate seven days per week with three daily employee shifts. On opening day, the Proposed Project would employ an estimated 1,700 people. At full operation, it is anticipated, the Proposed Project would employ an estimated 3,900 people.

Should the new cargo facility not be fully available by December 1, 2019, a phased move-in utilizing tenable portions of the proposed air cargo building and an existing eight-acre asphalt aircraft ramp located within the Proposed Project's future aircraft ramp footprint would support air cargo activities from December 1, 2019 through the remaining construction period ending in 2020. Therefore, construction and operation of the Proposed Project would potentially occur at the same time.

The Authority has asked the Federal Aviation Administration (FAA) for unconditional approval of the portion of the Airport Layout Plan (ALP) that would include the airside and landside

facilities related to the Proposed Project. Before the FAA can approve the ALP, it must determine that the approval conforms to the applicable SIP as required by Section 176(c) of the Clean Air Act (CAA) (42 U.S.C. 7401 *et seq.*) (Conformity Determination).

A Conformity Determination is required for each nonattainment and maintenance criteria air pollutant and its precursors where the total direct and indirect emissions resulting from the Proposed Project will exceed specified *de minimis* thresholds. The South Coast Air Basin (SCAB) is designated as an extreme nonattainment area for ozone, a nonattainment area for particulate matter less than or equal to 2.5 microns in diameter (PM_{2.5}), and a maintenance area for particulate matter less than 10 microns in diameter (PM₁₀) and carbon monoxide (CO). The applicable *de minimis* thresholds for a Conformity Determination are 10 tons per year (TPY) of volatile organic compounds (VOC), 10 TPY of nitrogen oxide (NO_x), 70 TPY for PM_{2.5}, and 100 TPY each for PM₁₀ and CO.

Construction of the Proposed Project will not result in an exceedance of *de minimis* thresholds (details provided below). However, as previously stated, should construction of the cargo facility not be completed by December 1, 2019, there is potential for construction and operation to occur simultaneously. A combination of construction and operational activities for the Proposed Project will exceed the *de minimis* thresholds for VOC and NO_x. However, CO, PM_{2.5}, PM₁₀, and SO₂ emissions would not exceed the *de minimis* thresholds. NO_x, VOC, and CO emissions associated with Proposed Project operations are expected to exceed the *de minimis* thresholds long-term. Emissions of PM_{2.5}, PM₁₀, and SO₂ are not expected to exceed the *de minimis* threshold during operation.

The SCAQMD has adopted by reference the federal General Conformity regulations set forth at Part 51, Subchapter C, Chapter I, Title 40, of the Code of Federal Regulations (CFR) as SCAQMD Rule 1901. In addition, to streamline the review process and to facilitate General Conformity Determinations, SCAQMD established two separate VOC and NO_x General Conformity Budgets in the 2012 AQMP, which is the current approved SIP for the SCAB. The budgets are 1 ton per day (TPD) of NO_x and 0.2 TPD of VOC for every year starting in 2013 until 2030. In the 2016 AQMP, which is currently under review by the U.S. EPA, the General Conformity Budgets were modified to 2.0 TPD of NO_x and 0.5 TPD of VOC for each year from 2017 to 2030, and 0.5 TPD of NO_x and 0.2 TPD of VOC each year in 2031 and thereafter.

The annual emission estimates generated from construction activities for the Proposed Project are provided in Table 1 and Table 4, for years 2019 and 2020 respectively. The construction calculations assume compliance with the Project commitment that contractors and building operators (by contract specifications) will utilize on-road heavy-duty diesel trucks with a gross vehicle weight rating greater than 14,000 pounds with a 2010 model year engine or newer. Included therein are comparisons with applicable *de minimis* thresholds. As shown in Tables 1 and 4, construction emissions are not expected to exceed *de minimis* levels in 2019 or 2020.

The 2019 and 2024 operational emissions inventories for the Proposed Project are presented in Table 2 and Table 6, respectively. The project's incremental increase (the difference calculated by subtracting the No Action emissions from the emissions with the Proposed Project) are then compared to the appropriate *de minimis* thresholds. During operation of the Proposed Project a commitment has been made for all on-site outdoor cargo-handling equipment (including yard

trucks, hostlers, yard goats, pallet jacks, forklifts, and other on-site equipment) and all on-site indoor forklifts to be powered by electricity. Furthermore, all ground support equipment (GSE) will operate on electric battery-power, with the exception of diesel lavatory and fuel trucks as battery-operated options are not available at this time. As shown in Table 2, operational emissions in 2019 would exceed the applicable *de minimis* thresholds for VOC and NO_x, while emissions of CO and PM_{2.5} would not exceed *de minimis* levels. Emissions of VOC, NO_x, and CO exceed the *de minimis* thresholds in 2024, as shown in Table 6. It should be noted that aircraft operations will peak in 2024 and remain constant through 2031. Therefore, the emissions generated in 2024 would be equivalent to emissions generated in the year 2031; the attainment year discussed in the 2016 AQMP.

Table 3 and Table 5 provide the estimated combined construction and operational emissions inventory (annual) for the analysis years of 2019 and 2020, respectively. As shown in Table 3, operational plus construction emissions in 2019 would exceed the *de minimis* threshold for VOC and NO_x. Additionally, 2020 emissions of VOC and NO_x from construction and operations combined exceed the *de minimis* thresholds, as provided in Table 5.

Daily emissions of VOC and NO_x are presented in Table 7 for 2019 operations only and Table 8 for 2019 operations and construction. Table 9 presents daily emissions for 2020 operations plus construction. Table 10 presents daily operational emissions for 2024 and beyond. Each of these tables include a comparison of project emissions to the VOC and NO_x emission budgets for calendar years 2017-2030 as presented in the 2012 AQMP, showing that the Proposed Project's emissions are within the SIP's General Conformity budgets.

The estimated annual CO emissions for 2024 operations was found to exceed the *de minimis* thresholds. However, the 2012 AQMP does not provide conformity budgets for CO emissions. Therefore, air dispersion modeling was conducted to determine if project impacts would result in an exceedance of the 1- and 8-hour CO National Ambient Air Quality Standards (NAAQS). The air dispersion modeling found that the operation of the Proposed Project would result in ground level concentrations (project + ambient) which do not exceed the relevant NAAQS, as shown in Table 11.

Although the 2016 AQMP has not yet been approved by the U.S. EPA, in response to a request by Mr. Michael Krause of the SCAQMD, the construction and operation emissions generated by the Proposed Project were compared to the General Conformity budgets provided in the 2016 AQMP. As shown in Table 12, the Proposed Project's emissions would also be within the SIP's General Conformity budgets as presented in the 2016 AQMP for calendar years 2017 – 2030 and 2031 and beyond.

The Authority respectfully requests that the SCAQMD confirm that these emissions are within the General Conformity Budgets identified in the 2012 AQMP (Appendix III, Chapter 2) and the 2016 AQMP (Appendix III, Chapter 2).

{{Signature Page Follows}}

Wayne Nastri
South Coast Air Quality Management District
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Please contact me at (909) 382-4100 extension 102 should you have any questions.

Sincerely,



Michael Burrows, Executive Director
San Bernardino International Airport

Attachments

Cc: Philip Fine, SCAQMD
Mike Krause, SCAQMD
Sang-Mi Lee, SCAQMD

TABLE 1

SUMMARY OF SAN BERNARDINO INTERNATIONAL AIRPORT EASTGATE AIR CARGO
FACILITY – 2019 MAXIMUM CONSTRUCTION EMISSIONS

Analysis Year	Emissions (tons/year)			
	VOC	NO _x	CO	PM _{2.5}
2019	1.0	8.8	15.4	0.9
De Minimis Thresholds	10	10	100	70
Exceeds De Minimis?	NO	NO	NO	NO

NOTES:

CO = carbon monoxide

VOC = volatile organic compound

NO_x = oxides of nitrogen

PM_{2.5} = particulate matter less than or equal to 2.5 microns in diameter

SOURCE: ESA Airport, March 2019.

TABLE 2

SUMMARY OF SAN BERNARDINO INTERNATIONAL AIRPORT EASTGATE AIR CARGO FACILITY -- 2019 PROPOSED PROJECT OPERATIONAL EMISSIONS

Analysis Year	Emissions (tons/year)			
	VOC	NO _x	CO	PM2.5
2019 with Proposed Project	38.7	185.0	514.6	10.3
2019 No Action	22.0	85.8	458.5	8.2
2019 Net Emissions	16.7	99.2	56.2	2.1
De Minimis Thresholds	10	10	100	70
Exceeds De Minimis?	YES	YES	NO	NO

NOTES:

CO = carbon dioxide

VOC = volatile organic compound

NO_x = oxides of nitrogen

PM2.5 = particulate matter less than or equal to 2.5 microns in diameter

SOURCE: ESA, Airports, March 2019.

TABLE 3

SUMMARY OF SAN BERNARDINO INTERNATIONAL AIRPORT EASTGATE AIR CARGO FACILITY – 2019 PROPOSED COMBINED CONSTRUCTION AND PROJECT OPERATIONAL EMISSIONS

Analysis Year	Emissions (tons/year)			
	VOC	NO _x	CO	PM2.5
2019 Construction Plus Operation	39.8	193.8	530.1	11.2
2019 No Action	22.0	85.8	458.5	8.2
2019 Net Emissions	17.8	108.0	71.6	3.0
De Minimis Thresholds	10	10	100	70
Exceeds De Minimis?	YES	YES	NO	NO

NOTES:

CO = carbon monoxide

VOC = volatile organic compound

NO_x = oxides of nitrogen

PM2.5 = particulate matter less than or equal to 2.5 microns in diameter

SOURCE: ESA, Airports, March 2019.

TABLE 4

SUMMARY OF SAN BERNARDINO INTERNATIONAL AIRPORT EASTGATE AIR CARGO
FACILITY – 2020 MAXIMUM CONSTRUCTION EMISSIONS

Analysis Year	Emissions (tons/year)			
	VOC	NO _x	CO	PM2.5
2020	0.5	0.1	0.8	0.0
De Minimis Thresholds	10	10	100	70
Exceeds De Minimis?	NO	NO	NO	NO

NOTES:

CO = carbon dioxide

VOC = volatile organic compound

NO_x = oxides of nitrogen

PM2.5 = particulate matter less than or equal to 2.5 microns in diameter

SOURCE: ESA, Airports, March 2019.

TABLE 5

SUMMARY OF SAN BERNARDINO INTERNATIONAL AIRPORT EASTGATE AIR CARGO FACILITY -- 2020 PROPOSED COMBINED CONSTRUCTION AND PROJECT OPERATIONAL EMISSIONS

Analysis Year	Emissions (tons/year)			
	VOC	NO _x	CO	PM2.5
2020 Construction Plus Operation	39.2	185.1	515.4	10.3
2020 No Action	22.0	85.8	458.5	8.2
2020 Net Emissions	17.2	99.3	56.9	2.1
De Minimis Thresholds	10	10	100	70
Exceeds De Minimis?	YES	YES	NO	NO

NOTES:

CO = carbon dioxide

VOC = volatile organic compound

NO_x = oxides of nitrogen

PM2.5 = particulate matter less than or equal to 2.5 microns in diameter

SOURCE: ESA, Airports, March 2019.

TABLE 6

SUMMARY OF SAN BERNARDINO INTERNATIONAL AIRPORT EASTGATE AIR CARGO FACILITY -- 2024 PROPOSED PROJECT OPERATIONAL EMISSIONS

Analysis Year	Emissions (tons/year)			
	VOC	NO _x	CO	PM2.5
2024 with Proposed Project	53.4	254.1	564.4	13.0
2024 No Action	20.5	69.0	451.0	9.2
2024 Net Emissions	33.0	185.1	113.4	3.8
De Minimis Thresholds	10	10	100	70
Exceeds De Minimis?	YES	YES	YES	NO

NOTES:

CO = carbon dioxide

VOC = volatile organic compound

NO_x = oxides of nitrogen

PM2.5 = particulate matter less than or equal to 2.5 microns in diameter

SOURCE: ESA, Airports, March 2019.

TABLE 7

SUMMARY OF SAN BERNARDINO INTERNATIONAL AIRPORT EASTGATE AIR CARGO FACILITY -- 2019 PROPOSED PROJECT OPERATIONAL EMISSIONS

Analysis Year	Emissions (tons/day)	
	VOC	NO _x
2019 with Proposed Project	0.1	0.5
2019 No Action	0.1	0.2
2019 Net Emissions	0.0	0.3
<i>2012 AQMP Budget for 2017 - 2030</i>	0.2	1.0
Exceeds Budget?	NO	NO
<i>2016 AQMP Budget for 2017 - 2030</i>	0.5	2.0
Exceeds Budget?	NO	NO

NOTES:

VOC = volatile organic compound
 NO_x = oxides of nitrogen

SOURCE: ESA, Airports, March 2019.

TABLE 8

SUMMARY OF SAN BERNARDINO INTERNATIONAL AIRPORT EASTGATE AIR CARGO FACILITY -- 2019 PROPOSED COMBINED CONSTRUCTION AND PROJECT OPERATIONAL EMISSIONS

Analysis Year	Emissions (tons/day)	
	VOC	NO _x
2019 Construction Plus Operation	0.1	0.5
2019 No Action	0.1	0.2
2019 Net Emissions	0.1	0.3
<i>2012 AQMP Budget for 2017 - 2030</i>	0.2	1.0
Exceeds Budget?	NO	NO

NOTES:

VOC = volatile organic compound

NO_x = oxides of nitrogen

SOURCE: ESA, Airports, March 2019.

TABLE 9

SUMMARY OF SAN BERNARDINO INTERNATIONAL AIRPORT EASTGATE AIR CARGO FACILITY -- 2020 PROPOSED COMBINED CONSTRUCTION AND PROJECT OPERATIONAL EMISSIONS

Analysis Year	Emissions (tons/day)	
	VOC	NO _x
2020 Construction Plus Operation	0.1	0.5
2020 No Action	0.1	0.2
2020 Net Emissions	0.1	0.3
<i>2012 AQMP Budget for 2017 - 2030</i>	0.2	1.0
Exceeds Budget?	NO	NO

NOTES:

VOC = volatile organic compound

NO_x = oxides of nitrogen

SOURCE: ESA, Airports, March 2019.

TABLE 10

SUMMARY OF SAN BERNARDINO INTERNATIONAL AIRPORT EASTGATE AIR CARGO FACILITY -- 2024 PROPOSED PROJECT OPERATIONAL EMISSIONS

Analysis Year	Emissions (tons/day)		
	VOC	NO _x	CO
2024 with Proposed Project	0.1	0.7	1.6
2024 No Action	0.1	0.2	1.3
2024 Net Emissions	0.1	0.5	0.3
<i>2012 AQMP Budget for 2017 - 2030</i>	0.2	1.0	NA
Exceeds Budget?	NO	NO	NA

NOTES:

VOC = volatile organic compound

NO_x = oxides of nitrogen

CO = carbon dioxide

N/A = Not Applicable, due to the maintenance status of CO there are no AQMP budgets are set for CO.

SOURCE: ESA, Airports, March 2019.

TABLE 10

SUMMARY OF SAN BERNARDINO INTERNATIONAL AIRPORT EASTGATE AIR CARGO FACILITY -- 2024 PROPOSED PROJECT OPERATIONAL EMISSIONS

Analysis Year	Emissions (tons/day)		
	VOC	NO _x	CO
2024 with Proposed Project	0.1	0.7	1.6
2024 No Action	0.1	0.2	1.3
2024 Net Emissions	0.1	0.5	0.3
<i>2012 AQMP Budget for 2017 - 2030</i>	0.2	1.0	NA
Exceeds Budget?	NO	NO	NA

NOTES:

VOC = volatile organic compound

NO_x = oxides of nitrogen

CO = carbon dioxide

N/A = Not Applicable, due to the maintenance status of CO there are no AQMP budgets are set for CO.

SOURCE: ESA, Airports, March 2019.

TABLE 11

SUMMARY OF SAN BERNARDINO INTERNATIONAL AIRPORT EASTGATE AIR CARGO FACILITY -- 2024 PROPOSED PROJECT OPERATIONAL EMISSIONS

Pollutant	Year of Impact	Averaging Period	Incremental Peak ($\mu\text{g}/\text{m}^3$)	Background ($\mu\text{g}/\text{m}^3$)	Total ($\mu\text{g}/\text{m}^3$)	Standard ($\mu\text{g}/\text{m}^3$)	Exceeds Standards?
CO	2024	1-hr NAAQS	143.6	2819	2963	40,000	No
		8-hr NAAQS	37.1	2476	2513	10,000	No

NOTES:

CO = carbon dioxide

Compliance with the 1-hr and 8-hr NAAQS is demonstrated by obtaining the 2nd highest ranked CO concentration for each modeled year.

The maximum concentration occurred in MET year 2015 and 2012 for the 1-hour standard for Study Year 2019 and 2024, respectively, and MET year 2016 for the 8-hour standard for both Study Years.

SOURCE: ESA, Airports, March 2019.

TABLE 12

SUMMARY OF SAN BERNARDINO INTERNATIONAL AIRPORT EASTGATE AIR CARGO FACILITY -- COMPARISON OF NET PROJECT EMISSIONS TO BUDGETS IN 2016 AQMP

Analysis Year	Emissions (tons/day)	
	VOC	NO _x
2019 Operations Only	0.0	0.3
2019 Construction Plus Operations	0.1	0.3
2020 Construction Plus Operations	0.1	0.3
2024 Operations Only	0.1	0.5
<i>2016 AQMP Budget for 2017 - 2030</i>	0.5	2.0
Exceeds Budget?	NO	NO
<i>2016 AQMP Budget for 2031+</i>	0.2	0.5
Exceeds Budget?	NO	NO

NOTES:

VOC = volatile organic compound
 NO_x = oxides of nitrogen

SOURCE: ESA, Airports, March 2019.

Attachment 2

Updated Summary Tables of Annual Emissions from
The San Bernardino International Airport
Eastgate Air Cargo Facility Project

TABLE 1

SUMMARY OF SAN BERNARDINO INTERNATIONAL AIRPORT EASTGATE AIR CARGO FACILITY – MAXIMUM VOC EMISSIONS

Analysis Year	<u>VOC Emissions (tons/year)</u>				Exceeds?
	Construction	Operations	Combined Const+Ops	<i>de minimis</i>	
2019	1.0	16.7	17.8	10	YES
2024	N/A	33.0	N/A	10	YES
2020 ^a	0.5	20.0	20.4	10	YES
2021 ^a	N/A	23.2	N/A	10	YES
2022 ^a	N/A	26.5	N/A	10	YES
2023 ^a	N/A	29.7	N/A	10	YES

NOTES:

- a) Operational activities are expected to increase steadily from opening year 2019 until maximum operating year 2024. Therefore, ongoing operational emissions were interpolated between 2019 and 2024.
- b) Due to rounding, numbers presented in this table may not add precisely to the totals indicated.

VOC = volatile organic compound

N/A = Not Applicable, construction only occurs in 2019 and 2020

SOURCE: ESA Airport, March 2019.

TABLE 2

SUMMARY OF SAN BERNARDINO INTERNATIONAL AIRPORT EASTGATE AIR CARGO
FACILITY - MAXIMUM NO_x EMISSIONS

Analysis Year	NO _x Emissions (tons/year)				Exceeds?
	Construction	Operations	Combined Const+Ops	de minimis	
2019	8.8	99.2	108.0	10	YES
2024	N/A	185.1	N/A	10	YES
2020 ^a	0.1	116.4	116.4	10	YES
2021 ^a	N/A	133.6	N/A	10	YES
2022 ^a	N/A	150.7	N/A	10	YES
2023 ^a	N/A	167.9	N/A	10	YES

NOTES:

- a) Operational activities are expected to increase steadily from opening year 2019 until maximum operating year 2024. Therefore, ongoing operational emissions were interpolated between 2019 and 2024.
- b) Due to rounding, numbers presented in this table may not add precisely to the totals indicated.

NO_x = oxides of nitrogen

N/A = Not Applicable, construction only occurs in 2019 and 2020

SOURCE: ESA, Airports, March 2019.

TABLE 3

SUMMARY OF SAN BERNARDINO INTERNATIONAL AIRPORT EASTGATE AIR CARGO FACILITY – MAXIMUM CO EMISSIONS

Analysis Year	CO Emissions (tons/year)				Exceeds?
	Construction	Operations	Combined Const+Ops	de minimis	
2019	15.4	56.2	71.6	100	NO
2024	N/A	113.4	N/A	100	YES
2020 ^a	0.8	67.6	68.4	100	NO
2021 ^a	N/A	79.0	N/A	100	NO
2022 ^a	N/A	90.5	N/A	100	NO
2023 ^a	N/A	101.9	N/A	100	YES

NOTES:

- a) Operational activities are expected to increase steadily from opening year 2019 until maximum operating year 2024. Therefore, ongoing operational emissions were interpolated between 2019 and 2024.
- b) Due to rounding, numbers presented in this table may not add precisely to the totals indicated.

CO = carbon monoxide

N/A = Not Applicable, construction only occurs in 2019 and 2020

SOURCE: ESA, Airports, March 2019.

TABLE 4

SUMMARY OF SAN BERNARDINO INTERNATIONAL AIRPORT EASTGATE AIR CARGO FACILITY –MAXIMUM PM2.5 EMISSIONS

Analysis Year	PM2.5 Emissions (tons/year)				Exceeds?
	Construction	Operations	Combined Const+Ops	de minimis	
2019	0.9	2.1	3.0	70	NO
2024	N/A	3.8	N/A	70	NO
2020 ^a	0.0	2.4	2.5	70	NO
2021 ^a	N/A	2.8	N/A	70	NO
2022 ^a	N/A	3.1	N/A	70	NO
2023 ^a	N/A	3.5	N/A	70	NO

NOTES:

- a) Operational activities are expected to increase steadily from opening year 2019 until maximum operating year 2024. Therefore, ongoing operational emissions were interpolated between 2019 and 2024.
- b) Due to rounding, numbers presented in this table may not add precisely to the totals indicated.

PM2.5 = particulate matter less than or equal to 2.5 microns in diameter
 N/A = Not Applicable, construction only occurs in 2019 and 2020

SOURCE: ESA, Airports, March 2019.