BOARD MEETING DATE: December 6, 2019 AGENDA NO. 29

PROPOSAL: Determine That Facility-Based Mobile Source Measure for Commercial Airports Is Exempt from CEQA and Approve Facility-Based Mobile Source Measure for Commercial Airports

SYNOPSIS: In May 2018, the Board directed staff to pursue a voluntary Memorandum of Understanding (MOU) approach based on the airports' development of Air Quality Improvement Plans (AQIPs) to implement the 2016 AQMP Facility-Based Mobile Source Measure (FBMSM) MOB-04 (Emission Reductions at Commercial Airports). All five commercial airports have developed their own AQIPs or Air Quality Improvement Measures (AQIMs) for non-aircraft airport emissions. The draft MOUs specify State Implementation Plan (SIP) creditable AQIP or AQIM measures, which the airports agree to implement. In addition, the airports will provide annual reports to South Coast AQMD. South Coast AQMD is making an enforceable commitment to U.S. EPA to achieve the emission reductions associated with implementation of these measures and seeks to obtain SIP credit.

COMMITTEE: Mobile Source, October 18 and November 15, 2019, Reviewed

RECOMMENDED ACTIONS:
Adopt the attached Resolution to:

1. Determine that the FBMSM for Commercial Airports is exempt from the requirements of the California Environmental Quality Act;
2. Approve the MOU with the City of Los Angeles Department of Airports Regarding Los Angeles International Airport;
3. Approve the MOU with Orange County Regarding John Wayne Airport;
4. Approve the MOU with Burbank-Glendale-Pasadena Airport Authority Regarding Hollywood Burbank Airport;
5. Approve the MOU with The City of Long Beach Regarding Long Beach Airport;
6. Approve the MOU with Ontario International Airport Authority Regarding Ontario International Airport;

7. Approve the South Coast AQMD's enforceable commitment as specified in the attached Resolution; and
8. Direct the Executive Officer to submit the South Coast AQMD's enforceable commitment to CARB for approval and subsequent submittal to U.S. EPA for inclusion into the SIP.

Wayne Nastri
Executive Officer

JW:PF:SR:ZP:SML:EP

Background

The 2016 Air Quality Management Plan (AQMP) is the latest regional blue print for achieving the federal and state air quality standards in the South Coast Air Basin (Basin). Significant additional NOx reductions beyond what will be achieved through existing regulations are needed to achieve the federal 1997 and 2008 8-hour ozone standards in the Basin – a 45% reduction beyond baseline levels in 2023 and a 55% reduction beyond baseline levels in 2031. Controlling mobile source emissions is key to achieving these targets, as mobile sources comprise over 80% of Basin NOx emissions and are the largest contributor to the region's ozone problem. The Facility-Based Mobile Source Measures included in the 2016 AQMP are South Coast AQMD's proposed mobile source measures covering marine ports (MOB-01), railyards (MOB-02), warehouse/distribution centers (MOB-03), commercial airports (MOB-04), and new development and redevelopment projects (EGM-01). These measures are intended to help achieve the emission reductions attributed to CARB's Further Deployment of Cleaner Technology measures by reducing emissions from these facilities through South Coast AQMD actions (e.g., indirect source rules or other programs).

The Facility-Based Mobile Source Measure (FBMSM) for Commercial Airports implements the 2016 AQMP Control Measure MOB-04, Emission Reductions at Commercial Airports. This measure applies to Los Angeles International Airport (LAX), John Wayne Orange County Airport (SNA), Hollywood Burbank Airport (BUR), Ontario International Airport (ONT), and Long Beach Airport (LGB). Following the adoption of the 2016 AQMP, staff conducted 17 working group meetings to address the FBMSM sectors during a year-long public process. Based on the working group discussions, staff recommended that South Coast AQMD pursue a voluntary MOU approach for commercial airports.

On May 4, 2018, the Board considered staff's recommendations for all FBMSMs and provided specific direction regarding both regulatory and voluntary approaches. For commercial airports, the Board directed staff to pursue a voluntary MOU approach based on the airports' willingness to develop airport-specific Air Quality Improvement

Plans/Measures (AQIPs or AQIMs) for non-aircraft mobile source emissions. In the event that the MOU approach was not successful, staff was directed to report back to the Board and seek Board recommendation to pursue a regulatory approach (i.e., indirect source rule).

Following the Board's direction, staff established an Airports MOU working group consisting of representatives from the five commercial airports, passenger and cargo airlines, the California Airports Council, CARB, U.S. EPA, environmental organizations, and other stakeholders. Four working group meetings were conducted. During this process, staff communicated regularly with airport representatives and their consultants to provide technical guidance on the development of AQIPs/AQIMs. Specifically, guidance was provided regarding the emission benefit calculation methodologies and the development of base and future year emissions inventories. Subsequently, all five commercial airports developed their individual AQIPs/AQIMs with specific measures and initiatives to reduce emissions from non-aircraft mobile sources related to airport operations (e.g., ground support equipment, shuttle buses, delivery trucks). The AQIPs/AQIMs also include the 2017 baseline emissions as well as emissions forecasts in 2023 and 2031 under business as usual (BAU) and AQIP/AQIM implementation scenarios.

Based on the draft AQIPs/AQIMs developed by the five commercial airports, draft MOUs were developed for each of the five commercial airports through extensive negotiations between airport and airline representatives and technical/legal staff from South Coast AQMD. The draft MOUs are provided in Appendix A of the attached staff report. The MOUs represent voluntary agreements between South Coast AQMD and each commercial airport, with each party having specific responsibilities and commitments. Based on an evaluation of each airport's AQIP/AQIM, specific measures were identified that are potentially eligible for SIP emission reduction credit (i.e., reductions can be applied toward the attainment demonstration of ozone standards in 2023 and 2031). The purpose of the MOU is to quantify the emission reduction benefits associated with the implementation of the airports' AQIP/AQIM strategies that are eligible for SIP credit. For the MOU measures, staff also developed SIP credit calculation methodologies to convert the emissions reductions provided by the airports into the SIP currency (i.e., to be consistent with the 2016 AQMP emissions inventory). The SIP credit calculations are provided in Appendix B of the attached staff report. The potential SIP credit is estimated to be 0.52 and 0.37 tons per day of NOx reductions in 2023 and 2031, respectively. The emissions reductions for each of the AQIP/AQIM measures in the MOUs that are potentially eligible for SIP credit are provided in the attached staff report.

In order for emission reductions from the AQIP/AQIM measures specified in the MOUs to be eligible for SIP credit, these reductions need to meet the U.S. EPA's guidelines. These guidelines require that the emission reductions meet U.S. EPA's integrity

elements (i.e., reductions must be surplus, quantifiable, permanent, and enforceable), and that the SIP submittal has a federally enforceable backstop commitment, technical support, a demonstration of state funding and legal authority, public disclosure procedures, and provisions to assess progress. The emission reductions associated with implementation of the AQIP/AQIM measures included in the five MOUs with the commercial airports meet these requirements, as described in the attached staff report. For the federal enforceability requirement, South Coast AQMD is making an enforceable commitment to achieve the projected emission reductions associated with implementation of AQIP/AQIM measures in the MOUs with the airports and to develop and submit substitute measures to U.S. EPA in the event of any potential emission reduction shortfall.

Proposal

Staff is recommending approval of the FBMSM for Commercial Airports, which includes the MOUs with each of the five commercial airports and the South Coast AQMD's enforceable commitment to achieve NOx emission reductions of 0.52 tons per day in 2023 and 0.37 tons per day in 2031 associated with implementation of SIP creditable measures in the MOUs.

The key elements of the FBMSM for Commercial Airports include:

1) MOUs – The MOUs include schedules for AQIP/AQIM measures eligible for SIP credit that specify the performance targets, timeline for implementation, and the details of the annual reports to be prepared by the airports and submitted to South Coast AQMD. Under the MOUs, the airports agree to implement the AQIP/AQIM measures by the timelines specified in the MOUs and achieve the performance targets for these measures. The airports also agree to provide annual reports to South Coast AQMD, by June 1 of each year beginning in 2021 and through the end of the MOU term in 2032, on the implementation of these measures, including detailed equipment/vehicle data and emissions inventories with supporting methodology and calculations for emission benefits. South Coast AQMD agrees to quantify the corresponding SIP emission reductions associated with these AQIP/AQIM measures in the MOUs and to make an enforceable commitment for these reductions to U.S. EPA for inclusion into the SIP. Based on the annual reports submitted by the airports, staff will also quantify the actual emission reductions for these measures for the attainment years (2023 and 2031), and prepare and submit the necessary documentation to U.S. EPA and also make the information publicly available for tracking these reductions.

2) Federally Enforceable Commitment – South Coast AQMD is making an enforceable commitment to achieve 0.52 and 0.37 tons per day of NOx in 2023 and 2031, respectively. In the event that the actual emission reductions from the implementation of the AQIP/AQIM measures specified in the MOUs are less than the projected emission reduction benefits, South Coast AQMD will adopt and submit

substitute measures to U.S. EPA to remedy the potential shortfall by working with the airports and other stakeholders. A public process will be initiated to facilitate the consideration of potential new or enhanced programs, or better efforts to quantify existing programs, to help South Coast AQMD meet any potential shortfall.

Public Process

Staff has conducted four MOU working group meetings with representatives from the airports and passenger and cargo airlines, agencies, environmental organizations, other stakeholders, and members of the public. The preliminary draft staff report, including the draft AQIP/AQIMs and draft MOUs, was released on September 20, 2019. In addition, a public consultation meeting was held on October 10, 2019. Written comments were requested to be provided by October 21, 2019. Two comment letters were received and responses are provided in the attached staff report.

California Environmental Quality Act

Pursuant to the California Environmental Quality Act (CEQA), the South Coast Air Quality Management District (South Coast AQMD), as Lead Agency for the proposed project, has reviewed the proposed project pursuant to: 1) CEQA Guidelines Section 15002(k) – General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA; and 2) CEQA Guidelines Section 15061 - Review for Exemption, procedures for determining if a project is exempt from CEQA.

Entering into MOUs regarding voluntary airport AQIP/AQIM measures with the five airports, as well as quantifying emissions for the purpose of establishing an enforceable commitment and crediting the emission reductions into the SIP, are administrative and procedural actions. Further, the MOUs will have no new physical impacts beyond the potential environmental impacts that were previously analyzed under CEQA for each of the five commercial airport's AQIP or AQIM, as applicable. As a result, South Coast AQMD staff has determined that it can be seen with certainty that there is no possibility that the proposed project may have a significant adverse effect on the environment. Therefore, the project is considered to be exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Common Sense Exemption. In addition, as provided in CEQA Guidelines Section 15306 – Information Collection, the proposed project is exempt from CEQA because it will consist of basic data collection, research and resource evaluation activities and will not result in a serious or major disturbance to an environmental resource. Additionally, because the proposed project is designed to further protect or enhance the environment by supporting the reduction of non-aircraft mobile source emissions at five commercial airports within South Coast AQMD's jurisdiction, the proposed project is also categorically exempt from CEQA pursuant to CEQA Guidelines Section 15308 – Actions by Regulatory Agencies for Protection of the Environment. Further, South Coast AQMD staff has determined that there is no substantial evidence indicating that any of the exceptions to the categorical exemptions

apply to the proposed project pursuant to CEQA Guidelines Section 15300.2 – Exceptions. Therefore, the proposed project is exempt from CEQA. A Notice of Exemption for each airport MOU has been prepared pursuant to CEQA Guidelines Section 15062 – Notice of Exemption and can be found in Attachment C of this Board package. If the proposed project is approved, the Notices of Exemption will be filed with the county clerks of Los Angeles, Orange, Riverside and San Bernardino counties.

Resource Impacts

The action would be implemented using existing staff resources. Resources will be required for reviewing the annual reports, quantifying emission reduction benefits, ensuring public access to all relevant documentation by posting it online, reporting to U.S. EPA, and, if necessary, developing substitute measures through a public process to address any potential reduction shortfall.

Attachments

A. Resolution
B. Draft Staff Report – Facility-Based Mobile Source Measure for Commercial Airports
    a. Appendix A - Draft Revised MOUs with Commercial Airports
    b. Appendix B - SIP Credit Calculations
C. CEQA Notices of Exemption
D. Board Meeting Presentation

ATTACHMENT A

RESOLUTION NO. 19-_____

A Resolution of the Governing Board of the South Coast Air Quality Management District (South Coast AQMD) determining that the Facility-Based Mobile Source Measure (FBMSM) for Commercial Airports is exempt from the requirements of the California Environmental Quality Act (CEQA).

A Resolution of the South Coast AQMD Governing Board approving the FBMSM for Commercial Airports.

WHEREAS, the South Coast AQMD Governing Board finds and determines that the FBMSM for Commercial Airports is considered a "project" pursuant to CEQA per CEQA Guidelines Section 15002(k) – General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA; and

WHEREAS, the South Coast AQMD Governing Board finds and determines that after conducting a review of the proposed project in accordance with CEQA Guidelines Section 15002(k) - General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA, and CEQA Guidelines Section 15061 - Review for Exemption, procedures for determining if a project is exempt from CEQA, that the FBMSM for Commercial Airports is determined to be exempt from CEQA; and

WHEREAS, the South Coast AQMD Governing Board finds and determines that it can be seen with certainty that there is no possibility that the proposed project may have any significant adverse effects on the environment, and is therefore, exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Common Sense Exemption, because the proposed project: 1) is comprised of voluntary Memoranda of Understanding (MOUs) between the South Coast AQMD and five commercial airports, related to activities the airports have already agreed to implement, that outline each airport's Air Quality Improvement Plan/Measure (AQIP/AQIM) designed to achieve State Implementation Plan (SIP) creditable emission reductions from non-aircraft mobile sources related to airport operations, and the act of crediting these emission reductions into the SIP is administrative and procedural in nature; and 2) the MOUs will have no new physical impacts beyond the potential environmental impacts that were previously analyzed under CEQA for each of the five commercial airport's AQIP/AQIM, as applicable; and

WHEREAS, the South Coast AQMD Governing Board finds and determines that the proposed project is also categorically exempt from CEQA pursuant to CEQA Guidelines Section 15306 – Information Collection, because the proposed project will consist of basic data collection, research and resource evaluation activities and will not result in a serious or major disturbance to an environmental resource; and

WHEREAS, the South Coast AQMD Governing Board finds and determines that, the proposed project is also categorically exempt from CEQA pursuant to CEQA Guidelines Section 15308 – Actions by Regulatory Agencies for Protection of the Environment, because the proposed project is designed to further protect or enhance the environment by supporting the reduction of non-aircraft mobile source emissions at five commercial airports within South Coast AQMD's jurisdiction; and

WHEREAS, the South Coast AQMD Governing Board has determined that there is no substantial evidence indicating that any of the exceptions to the categorical exemptions apply to the proposed project pursuant to CEQA Guidelines Section 15300.2 – Exceptions; and

WHEREAS, the South Coast AQMD staff has prepared Notices of Exemption for the proposed project, that is completed in compliance with CEQA Guidelines Section 15062 – Notice of Exemption; and

WHEREAS, the proposed project and supporting documentation, including but not limited to, the Notices of Exemption, were presented to the South Coast AQMD Governing Board and the South Coast AQMD Governing Board has reviewed and considered this information, and has taken and considered staff testimony and public comment prior to approving the project; and

WHEREAS, the South Coast AQMD Governing Board has determined that no socioeconomic assessment is required under Health and Safety Code Section 40440.8(a) since the FBMSM for Commercial Airports will be implemented through voluntary MOUs with commercial airports based on the airports implementation of measures in the airports' AQIPs/AQIMs as specified in the MOUs, rather than through a South Coast AQMD rule; and

WHEREAS, the FBMSMs included in the 2016 Air Quality Management Plan (AQMP) are South Coast AQMD's proposed mobile source measures covering marine ports (MOB-01), railyards (MOB-02), warehouse/distribution centers (MOB-03), commercial airports (MOB-04), and new development and redevelopment projects (EGM-01); and

WHEREAS, the FBMSMs are intended to help achieve some of the emission reductions attributed to the California Air Resources Board's (CARB's) Further Deployment of Cleaner Technology measures by reducing emissions from these facilities through South Coast AQMD's actions; and

WHEREAS, the FBMSM for Commercial Airports implements the 2016 AQMP Control Measure MOB-04 – Emission Reductions at Commercial Airports covering Los Angeles International Airport (LAX), John Wayne Orange County Airport (SNA),

Hollywood Burbank Airport (BUR), Ontario International Airport (ONT), and Long Beach Airport (LGB); and

WHEREAS, following the adoption of the 2016 AQMP, staff conducted several working groups to address the FBMSM sectors and made recommendations to the South Coast AQMD Governing Board for either regulatory or voluntary approaches for all five FBMSM sectors including commercial airports; and

WHEREAS, on May 4, 2018, the South Coast AQMD Governing Board directed staff to pursue a voluntary memorandum of understanding (MOU) approach with the commercial airports in the Basin based on the airports' Air Quality Improvement Plans/Measures (AQIP or AQIM) for non-aircraft airport emissions; and

WHEREAS, in the event that the MOU approach is not successful with the commercial airports, staff will report back to the South Coast AQMD Governing Board and recommend consideration of a regulatory approach for the South Coast AQMD Governing Board's consideration; and

WHEREAS, through South Coast AQMD's airports MOU working group process, all five commercial airports have developed their own AQIP or AQIM with specific measures and initiatives to reduce emissions from non-aircraft mobile sources related to airport operations; and

WHEREAS, the South Coast AQMD Governing Board obtained its authority to enter into the MOUs from sections 40701(f) and 40702 of the California Health and Safety Code; and

WHEREAS, draft MOUs have been developed through a public process for each of the five commercial airports based the airports' AQIP/AQIM measures that are eligible for state implementation plan (SIP) credit; and

WHEREAS, the MOUs represent agreements between South Coast AQMD and each commercial airport to achieve SIP creditable emission reductions from non-aircraft mobile sources related to airport operations; and

WHEREAS, each MOU includes measures or schedules for the eligible SIP creditable AQIP/AQIM measures that specify the metrics, performance targets, timeline for implementation, and the details of the annual reports to be prepared by the airports and submitted to South Coast AQMD; and

WHEREAS, under the MOUs, the airports agree to implement the AQIP/AQIM measures specified in the MOUs and achieve the performance targets in these measures; and

WHEREAS, South Coast AQMD has quantified the corresponding SIP creditable emission reductions associated with the AQIP/AQIM measures specified in the MOUs and is making an enforceable commitment for these reductions to U.S. EPA for inclusion into the SIP; and

WHEREAS, under the MOUs, the airports also agree to provide annual reports to South Coast AQMD, by June 1st of each year beginning in 2021 and through the end of the MOU term in 2032, on the implementation of the AQIP/AQIM measures specified in the MOUs, including detailed equipment/vehicle data and emissions inventories with supporting methodology and calculations for emission benefits; and

WHEREAS, based on the annual reports submitted by the airports, South Coast AQMD will quantify the actual emission reductions for these measures for the attainment years (2023 and 2031), prepare and submit the necessary documentation to U.S. EPA, and make the emissions related information available to the public; and

WHEREAS, South Coast AQMD will report to the Mobile Source Committee on the progress of implementing the AQIP/AQIM measures in the MOUs and achieving corresponding emission reductions by November of each year beginning 2021; and

WHEREAS, the FBMSM for Commercial Airports includes both the MOUs with the five commercial airports and South Coast AQMD's enforceable commitment to provide substitute measures in the event of any potential shortfall; and

WHEREAS, the enforceable commitment by South Coast AQMD will be submitted for inclusion into the SIP; and

WHEREAS, the South Coast AQMD's enforceable commitment includes the following commitments:

1. Beginning in 2021 and every year thereafter until 2032, track the implementation of the airports' AQIP/AQIM measures with SIP creditable emissions reductions that are specified in the MOUs for the Los Angeles International Airport, John Wayne Airport, Burbank Airport, Ontario International Airport, and Long Beach Airport based on the annual reports submitted by these airports as specified in the MOU with each airport;

2. By January 1, 2023, achieve 0.52 ton per day (tpd) of NOx emission reductions from the 2023 baseline inventory contained in the 2016 AQMP;

3. By November 1st of each year beginning in 2021 and through 2024, report annually to U.S. EPA the following information:

    a. Identify the portion of NOx emission reductions achieved and all emissions-related information necessary to independently quantify emission reductions;

b. Document actions by the airports on implementation of the SIP creditable AQIP/AQIM measures in the MOUs; and

c. Determine whether the implementation of SIP creditable AQIP/AQIM measures in the MOUs is projected to achieve the full 0.52 tpd of NOx emission reductions in 2023.

4. If U.S. EPA determines by February 1, 2022 that information provided by South Coast AQMD is insufficient to demonstrate that the emissions reductions required under Paragraph 2 will occur on schedule, adopt and submit to U.S. EPA, no later than November 1, 2022, substitute measures and/or rules through a public process that will achieve emission reductions addressing the shortfall as expeditiously as practicable and no later than January 1, 2023.

5. By January 1, 2031, achieve 0.37 tpd of NOx reductions from the 2031 baseline inventory contained in the 2016 AQMP;

6. By November 1st of each year beginning in 2024 and through 2032, report annually to U.S. EPA the following information:

   a. Identify the portion of NOx emission reductions achieved and all emissions-related information necessary to independently quantify emission reductions;

   b. Document actions by the airports on implementation of SIP creditable AQIP/AQIM measures in the MOUs; and

   c. Determine whether the implementation of SIP creditable AQIP/AQIM measures in the MOUs is projected to achieve the full 0.37 tpd of NOx reductions in 2031.

7. If U.S. EPA determines by February 1, 2030 that information provided by South Coast AQMD is insufficient to demonstrate that emissions reductions required under Paragraph 5 will occur on schedule, adopt and submit to U.S. EPA, no later than November 1, 2030, substitute measures and/or rules through a public process that will achieve emission reductions addressing the shortfall as expeditiously as practicable and no later than January 1, 2031; and

8. Make each annual demonstration report publicly available or available by request.

WHEREAS, the public hearing has been properly noticed by providing a 30-day notice in the newspapers in accordance with U.S. EPA Code of Federal Regulations Part 40 Section 51.102(d); and

WHEREAS, the South Coast AQMD Governing Board has held a public hearing to consider approval of the FBMSM for Commercial Airports in accordance with all provisions of law; and

WHEREAS, the South Coast AQMD specifies the manager of the FBMSM for Commercial Airports as the custodian of the documents or other materials which constitute the record of proceedings upon which the approval is based, which are located at the South Coast Air Quality Management District, 21865 Copley Drive, Diamond Bar, California.

NOW, THEREFORE, BE IT RESOLVED, that the South Coast AQMD Governing Board does hereby determine, pursuant to the authority granted by law, that the proposed project is exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Common Sense Exemption, CEQA Guidelines Section 15306 – Information Collection, and CEQA Guidelines Section 15308 – Actions by Regulatory Agencies for Protection of the Environment. No exceptions to the application of the categorical exemptions set forth in CEQA Guidelines Section 15300.2 – Exceptions, apply to the proposed project. This information was presented to the South Coast AQMD Governing Board, whose members reviewed, considered and approved the information therein prior to acting on the proposed project; and

BE IT FURTHER RESOLVED, that the South Coast AQMD Governing Board does hereby approve, pursuant to the authority granted by law, the FBMSM for Commercial Airports, which includes the MOUs for LAX, BUR, SNA, LGB, and ONT as specified in Attachment B (Appendix A) of the Board Letter and the South Coast AQMD's enforceable commitment described herein.

BE IT FURTHER RESOLVED, that the South Coast AQMD Executive Officer is hereby directed to forward a copy of this Resolution, which contains South Coast AQMD's enforceable commitment, to CARB, and to request that these documents be forwarded to the U.S. EPA for approval as part of the California SIP. In addition, the South Coast AQMD Executive Officer is directed to forward any other information requested by the U.S. EPA in support of the SIP submittal.

DATE: _____ _____

CLERK OF THE BOARD

ATTACHMENT B

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Draft Final Staff Report
Facility-Based Mobile Source Measure for Commercial Airports

December 2019

Deputy Executive Officer
Planning, Rule Development, and Area Sources
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Assistant Deputy Executive Officer
Planning, Rule Development, and Area Sources
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SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
GOVERNING BOARD

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Speaker of the Assembly Appointee

Vice Chairman: BEN BENOIT
Council Member, Wildomar
Cities of Riverside County

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Cities of Orange County

JANICE RUTHERFORD
Supervisor, Second District
County of San Bernardino

VACANT
Governor's Appointee

EXECUTIVE OFFICER:

WAYNE NASTRI

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Executive Summary

The 2016 Air Quality Management Plan (AQMP) is the latest regional blue print for achieving the federal and state air quality standards in the South Coast Air Basin (Basin). Based on the analysis in the 2016 AQMP ~~analysis~~, significant additional NOx reductions beyond what will be achieved through existing regulations are needed to achieve the federal 8-hour ozone standards in the Basin – a 45% ~~reduction beyond baseline levels in 2023 and~~ and 55% reduction beyond baseline levels in 2023 and 2031~~.~~, respectively. Controlling mobile source emissions ~~are~~is key to achieving these targets, as mobile sources comprise over 80% of Basin NOx emissions and are the largest contributor to the region's ozone problem. The Facility-Based Mobile Source Measures included in the 2016 AQMP are South Coast AQMD's proposed mobile source measures covering marine ports (MOB-01), railyards (MOB-02), warehouse/distribution centers (MOB-03), commercial airports (MOB-04), and new development and redevelopment projects (EGM-01). These measures are intended to help achieve the emission reductions attributed to CARB's Further Deployment of Cleaner Technology measures by reducing emissions from these facilities through South Coast AQMD's actions (e.g., indirect source rules or other programs).

The Facility-Based Mobile Source Measure (FBMSM) for Commercial Airports implements the 2016 AQMP Control Measure MOB-04, Emission Reductions at Commercial Airports. This measure applies to Los Angeles International Airport (LAX), John Wayne Orange County Airport (SNA), Hollywood Burbank Airport (BUR), Ontario International Airport (ONT), and Long Beach Airport (LGB). Following the adoption of the 2016 AQMP, staff conducted 17 working ~~groups~~group meetings to address the FBMSM sectors during a year-long public process. Based on the working group discussions, staff recommended that South Coast AQMD pursue a voluntary Memorandum of Understanding (MOU) approach for commercial airports.

On May 4, 2018, the Board considered staff's recommendations for all FBMSMs and provided specific direction regarding both regulatory and voluntary approaches. For commercial airports, the Board approved staff's recommendation to pursue a voluntary MOU approach based on the airports' development of Air Quality Improvement Plans/Measures (AQIP or AQIM) for non-aircraft emissions. Following the Board's direction, South Coast AQMD established a new Airports MOU working group for the purpose of developing MOUs with individual commercial airports based on their respective AQIPs/AQIMs. All five commercial airports committed to preparing their own AQIPs/AQIMs and developing MOUs with South Coast AQMD.

Since that time, South Coast AQMD staff has conducted four working group meetings. During this process, staff has communicated regularly with airport representatives and their consultants to provide technical support regarding emission calculation methodologies for base and future years' emissions inventories. In addition, staff has reviewed the airports' preliminary emission inventory data, draft AQIPs or AQIM emission reduction measures and initiatives, and collaborated to ~~assisted with the~~ develop~~ment of~~ the draft MOUs.

As part of the MOU process, each airport has developed its own AQIP or AQIM with specific measures and initiatives. The AQIPs (or AQIMs) represent the airports' comprehensive plans to reduce emissions from non-aircraft mobile sources related to airport operations (e.g., ground

support equipment, shuttle buses, delivery trucks)[1]. In general, a measure represents a program in which the airport ~~commits~~agrees to a well-defined course of action with known emission reductions, while an initiative represents an objective that the airport intends to pursue, but the emission reductions are not readily quantifiable. The AQIPs/AQIMs also include the 2017 baseline emissions as well as emissions forecasts in 2023 and 2031 under business as usual (BAU) and AQIP/AQIM implementation scenarios.

Based on the draft AQIPs/AQIMs developed by the five commercial airports, draft MOUs have been developed for each of the five commercial airports. The MOUs represent voluntary agreements between South Coast AQMD and each commercial airport, with each party having specific responsibilities and commitments. The purpose of the ~~MOU~~MOUs is to quantify the emission reduction benefits associated with the implementation of the airports' AQIP/AQIM strategies that are eligible for SIP credit~~s~~. Each MOU includes schedules for the eligible SIP creditable AQIP/AQIM measures that specify the metrics, performance targets, timeline for implementation, and the details of the annual reports to be prepared by the airports and submitted to South Coast AQMD.

Under the MOUs, the airports ~~commit~~agree to implement the AQIP/AQIM measures eligible for SIP credit and achieve the performance targets in these measures. The airports also ~~commit~~agree to provide annual reports to South Coast AQMD, by June 1st of each year beginning in 2021 and through the end of the MOU term in 203~~2~~1, on the implementation of these measures, including detailed equipment/vehicle data and emissions inventories with supporting methodology and calculations for emission benefits. South Coast AQMD ~~commits~~agrees to quantify the corresponding SIP emission reductions associated with these AQIP/AQIM measures in the MOUs and to make an enforceable commitment for these reductions to U.S. EPA for inclusion into the SIP. Based on the annual reports submitted by the airports, South Coast AQMD will also quantify the actual emission reductions for these measures for the attainment milestone years (2023 and 2031) and prepare and submit the necessary documentation to U.S. EPA for tracking these reductions. South Coast AQMD also ~~commits~~agrees to ensure that the relevant data including the AQIPs/AQIM, MOUs, annual reports submitted by the airports, and South Coast AQMD's reports to U.S. EPA are accessible to the public.

In the event that the actual emission reductions from the implementation of the AQIP/AQIM measures specified in the MOUs are less than the projected emission reduction benefits, South Coast AQMD will be responsible for achieving the emission reduction shortfall. In such instances, South Coast AQMD also ~~commits~~agrees to adopt and submit substitute measures to U.S. EPA to meet the shortfall, working in conjunction with the airports and other stakeholders. A public process will be initiated to facilitate the consideration of potential new or enhanced programs, or better efforts to quantify existing programs, to help South Coast AQMD meet any shortfall.

In order for emission reductions from the AQIP/AQIM measures specified in the MOUs to be eligible for SIP credit, these reductions need to meet the U.S. EPA's guidelines. These guidelines require that the emission reductions meet U.S. EPA's integrity elements (i.e., reductions must be surplus, quantifiable, permanent, and enforceable), and ~~have~~ that the SIP submittal has federally

[1] Aircraft emissions are not covered in the AQIPs/AQIM/MOUs because of federal jurisdiction over aircraft.

enforceable backstop commitments, technical support, a demonstration of funding, and legal authority, public disclosure procedures, and provisions to assess progress. The emission reductions associated with implementation of the AQIP/AQIM measures included in the five MOUs with the commercial airports meet these requirements as described in this staff report.

The FBMSM for Commercial Airports is expected to achieve 0.52 and 0.3837 tons per day of NOx emission reductions in 2023 and 2031, respectively, based on the airports implementation of AQIP/AQIM measures in the MOUs. While these emission reductions are modest, they represent a significant reduction in emissions from ground support equipment. Tthere are other AQIP/AQIM measures that airports are implementing that will result in emission reductions that may not be easily quantifiable or SIP creditable.

The draft AQIPs/AQIM/MOUs for all five commercial airports are attached to the staff report. Each airport has its own public process and approval process for the draft AQIPs/AQIM and MOUs by its respective airport authority. Following South Coast AQMD's public process and the airports' approval of the MOUs, the FBMSM for Commercial Airports including the (draft MOUs with the commercial airports and theSouth Coast AQMD's enforceable commitment to backstop any emission reduction shortfall) will be considered by the South Coast AQMD Governing Board for approval.

Chapter 1: Background

Introduction
Airports MOU Working Group Activities
Regulatory Background
U.S. EPA's Requirements for SIP Emission Reduction Credits

Introduction

The 2016 Air Quality Management Plan (AQMP), adopted by the South Coast Air Quality Management District (South Coast AQMD) Governing Board in March 2017, is the latest regional blue print for achieving the federal and state air quality standards in the South Coast Air Basin (Basin). Based on the 2016 ~~AQMP~~AQMP's analysis, significant additional NOx reductions beyond existing regulations are needed to achieve the federal 8-hour ozone standards in the Basin (45% in 2023 and 55% in 2031). In addition to California Air Resources Board's (CARB's) State strategy, the 2016 AQMP also included mobile source measures proposed by South Coast AQMD including Facility-Based Mobile Source Measures (FBMSMs). FBMSMs cover facilities including ports (MOB-01), railyards (MOB-02), warehouse/distribution centers (MOB-03), commercial airports (MOB-04), and new development and redevelopment projects (EGM-01). These measures are intended to help achieve some of the emission reductions attributed to CARB's Further Deployment of Cleaner Technology measures by reducing emissions from these facilities through South Coast AQMD's actions (e.g., indirect source regulations, other programs).

MOB-04, Emission Reductions at Commercial Airports, applies to commercial airports located within the Basin. These include Los Angeles International Airport (LAX), John Wayne Orange County Airport (SNA), Hollywood Burbank Airport (BUR), Ontario International Airport (ONT), and Long Beach Airport (LGB). During the 2016 AQMP adoption, the South Coast AQMD Board (Board) approved a motion to amend MOB-04 and directed staff to "*Undertake a stakeholder process and draft for our consideration an indirect source rule for commercial airports within the South Coast Basin by February 1, 2019 to control emissions of NOx, PM2.5, lead and diesel particulate matter from non-aircraft sources*~~".~~." The Board discussion accompanying this amendment provided further direction, including a desire to let the airports prepare their own airport-specific Clean Air Action Plans (AirCAAPs). The Board would then consider this information to determine the level of control in any proposed Indirect Source Rule (ISR).

Following the adoption of the 2016 AQMP, staff initiated several working groups to address the FBMSM sectors including the commercial airports. During the year-long period, South Coast AQMD staff conducted 17 Working Group Meetings covering all five sectors. Some of the key topics discussed during the Working Group meetings included: 1) a framework for developing FBMSMs, 2) potential methods for obtaining SIP credit for voluntary measures, and 3) potential voluntary and regulatory emission reduction strategies for each facility sector. Based on working group discussions, South Coast AQMD Staff recommended that the Governing Board pursue a voluntary MOU approach for commercial airports because of the limited emissions reductions that would be available from the non-aircraft mobile sources operating at the airports, federal preemption of aircraft standards, existing emission reduction programs, and the potential willingness of airports to enter into cooperative agreements~~ were the additional reasons to purse a voluntary approach~~.

On May 4, 2018, ~~the~~South Coast AQMD's Board considered staff's recommendations for all FBMSMs and provided specific ~~directions~~direction regarding both regulatory and voluntary

approaches.[2] For commercial airports, the Board approved staff's recommendation to pursue a voluntary Memorandum of Understanding (MOU) approach (instead of an ISR approach) based on the ~~airports~~airports' willingness to develop airport-specific Air Quality Improvement Plans/Measures (AQIP or AQIM), and the fact that commercial airports contribute only about 8 tons per day of NOx (absent aircraft emissions). However, in the event that the MOU approach ~~is~~was not successful, staff ~~will~~ was directed to report back to the Board and recommend ~~consideration of~~ an airport ISR for the Board's consideration.

A. Airports MOU Working Group Activities

Following the May 2018 Board direction, South Coast AQMD established a new Airports MOU working group for the purpose of developing MOUs with individual commercial airports based on their respective AQIPs/~~AQIM~~AQIMs. The working group consisted of representatives from South Coast AQMD, five commercial airports, commercial airlines, the California Airports Council, CARB, U.S. Environmental Protection Agency (U.S. EPA), environmental organizations, freight industries, and other stakeholders. All five commercial airports concurred with the MOU approach and committed to develop individual MOUs with South Coast AQMD based on their respective AQIPs/~~AQIM~~AQIMs. Since the establishment of the working group, South Coast AQMD staff has conducted four working group meetings, which are summarized below. During this process, South Coast AQMD staff communicated regularly with airport representatives and their consultants to provide technical support on emission calculation methodologies for ~~base~~baseline and future years' emissions inventories, review preliminary emission inventory data, review draft AQIPs/AQIMs and proposed strategies, and develop draft MOUs.

During the first Airports MOU Working Group meeting ~~#1, held on February 28, 2019,~~,[3] group members discussed the framework and key principles of the MOU, the process of the MOU development, and the specific commitments required by the airports and South Coast AQMD to develop and implement the MOUs. The working group members were advised on the tight timeline for MOU development to accommodate South Coast AQMD's December 2019 deadline to address Further Deployment of Cleaner Technology measures (Section 182(e)(5) measures) included in the 1997 8-hour ozone attainment strategy~~, by the end of 2019.~~. Staff clarified that airports would develop their own respective AQIPs/~~AQIM~~AQIMs, which would represent the airports' best efforts to develop programs and strategies for reducing emissions from airport operations based on their existing authority over non-aircraft mobile source emissions. The AQIP/AQIM would then be used as the basis for the MOUs between South Coast AQMD and the airports. All five commercial airports confirmed their commitment to develop their own AQIPs/~~AQIM~~AQIMs and their willingness to enter into MOUs with South Coast AQMD. California Airports Council provided updates on the development of AQIPs/~~AQIM~~AQIMs on behalf of the airports. Staff discussed the U.S. EPA's integrity elements (i.e., emission reductions must quantifiable, permanent, surplus, and enforceable) and other requirements for emission reductions from AQIP/AQIM measures to be eligible for SIP credits. Staff also offered technical

[2] *Potential Strategies for Facility-Based Mobile Source Measures Adopted in 2016 AQMP* (http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2018/2018-may4-032.pdf?sfvrsn=2)
[3] Held February 28, 2019.

assistance to the airports in their development of emissions inventories and methodologies to estimate emission reduction benefits.

At the second Airports MOU working Group meeting ~~#2, held on May 8, 2019,~~,[4] staff provided an update on the MOU development, reiterating that the AQIPs/~~AQIM~~AQIMs would serve as the basis for the MOUs and that staff would provide technical assistance in the quantification of emissions benefits for the purpose of obtaining SIP credit~~s~~. Staff requested that the airports provide detailed emissions inventories for all non-aircraft mobile source emissions associated with airport operations that are under direct or indirect airport control. These sources include, but are not limited to, ground support equipment (GSE), trucks, off-road equipment/vehicles, and on-road vehicles (e.g., shuttles, buses, passenger vehicles). The truck category includes cargo trucks, delivery, and utility/service trucks. Inclusion of aircraft emissions in the ~~AQIP/AQIM~~AQIPs/AQIMs was mentioned as an option that airports could include at their discretion. For all AQIP/AQIM emission sources, the emissions inventories would include the 2017 baseline, as well as 2023 and 2031 future milestone years. For the future years, staff requested that airports provide business as usual (BAU) and AQIP/AQIM emissions forecasts. The latter was meant to reflect emission reductions due to the implementation of the AQIP/AQIM measures. Staff also discussed the responsibilities of the airports and South Coast AQMD under the MOUs. Representatives from each of the commercial airports presented their preliminary AQIP/AQIM measures under development, and their schedule and public process for AQIP/AQIM/MOU adoption by their respective airport authority consistent with South Coast AQMD's schedule for a public hearing in late 2019.

The third Airports MOU Working Group meeting ~~#3, held on July 18, 2019,~~[5] focused primarily on the presentations made by airport representatives regarding more details on the development of their AQIPs/~~AQIM~~AQIMs. The presentations were largely focused on the proposed AQIP/AQIM measures and initiatives including preliminary targets being considered by the airports. Staff provided suggestions and comments on the draft AQIPs/~~AQIM~~AQIMs and encouraged airports to consider stringent performance targets for all non-aircraft sources ~~which~~that were technically feasible and cost-effective through airport programs (e.g., requirements, incentives). The airports re-iterated their commitments to further refine their draft AQIPs/~~AQIM~~AQIMs and also work with South Coast AQMD on developing draft MOUs through both the airport and South Coast AQMD's public processes.

~~The Airports MOU Working Group meeting #4 will be held on October 15, 2019. South Coast AQMD staff will also conduct~~The fourth Airports MOU Working Group meeting was held on October 15, 2019. At this meeting, staff presented the following items: draft AQIPs/AQIMs prepared by the airports, draft MOUs developed by South Coast AQMD and the airports, specific AQIP/AQIM measures with potential SIP creditable emissions reductions included in the MOUs, and potential SIP creditable emission reductions for MOU measures in 2023 and 2031, which represents South Coast AQMD's enforceable commitment. Each airport also provided the timeline for the MOU adoption according to its own public process. In addition, the airports' annual reporting requirements for GSE MOU measures, including the annual operating data and information on replaced GSE, were discussed. South Coast AQMD staff also conducted a public

[4] Held May 8, 2019.
[5] Held July 18, 2019.

consultation meeting on October 10, 2019 at the South Coast AQMD headquarters. Responses to the comments received ~~will be~~are incorporated into the staff report. Additional changes to the GSE MOU measures ~~on~~ regarding the annual operating data and information on GSE being retired, sold, or relocated within the Basin were ~~identified~~ made based on comments received at the working group meeting and the public consultation meeting (refer to draft MOUs in Appendix A). The airport authorities will consider approval of the Draft MOUs with South Coast AQMD in October and November 2019. The South Coast AQMD Governing Board will consider approval of the FBMSM for Commercial Airports at its December 6, 2019 meeting.

B. Regulatory Background

This section provides a brief summary of the existing and proposed CARB and South Coast AQMD regulations affecting non-aircraft on-road and off-road mobile emission sources related to airport operations. In order for AQIP/AQIM emission reductions to be SIP creditable, these reductions have to be surplus to existing regulations.

South Coast AQMD's Fleet Rules

South Coast AQMD's fleet rules apply to several vehicle categories operating at airports. Rule 1191, Clean On-Road Light- and Medium-Duty Public Fleet Vehicles, applies to all state and local government agencies located in the South Coast AQMD's jurisdiction, including- state, regional, county, and city government departments and agencies, and any special districts such as water, air, sanitation, transit, and school districts, with 15 or more non-exempt light-duty vehicles. This regulation requires that these entities acquire low emission gasoline or ~~an~~ alternative fuel vehicles when procuring new vehicles. Rule 1196, Clean On-Road Heavy-Duty Public Fleet Vehicles, is a similar regulation that applies to on-road heavy-duty vehicles with a gross vehicle weight of at least 14,000 pounds. It requires all applicable government agencies and special districts with fleets of 15 or more vehicles (including commercial airports), to acquire a gasoline, dual-fuel or alternative fueled engine or vehicle when purchasing or leasing a new vehicle. Airports and operators must also comply with Rule 1194, Commercial Airport Ground Access, which requires all public ~~and private~~ fleets providing passenger transportation services out of commercial airports to acquire low emission or alternative-fueled vehicles. This rule applies to passenger cars, light-duty trucks, and medium- and heavy-duty transit vehicle fleets of 15 or more vehicles. Passenger shuttle buses and taxi cabs under a contract or exclusive franchise serving airports must comply with this rule as well.

CARB GSE MOU

In 2002, CARB executed an MOU with commercial airlines and cargo operators in the Basin for Ground Support Equipment (GSE). GSE is utilized for various functions at airports such as refueling aircraft, transporting cargo and luggage, and providing maintenance. The main objectives of the 2002 MOU were to have airlines meet a 2.65 g/bhp-hr hydrocarbon plus NOx performance target, convert at least 30% of the aggregate GSE fleet to electric, have at least 45% of new GSE purchases be electric, and reduce diesel GSE emissions by installing particle filters. The date to achieve these objectives was December 31, 2010. However, the MOU was terminated in 2006 because CARB's statewide regulations addressed many aspects of the GSE MOU.

CARB In-Use Off-Road Diesel-Fueled Fleets Regulation
CARB requires emission reductions from existing off-road diesel-fueled vehicles through its statewide In-Use Off-Road Diesel-Fueled Fleets Regulation. The regulation applies to all off-road diesel vehicles with engines greater than 25 horsepower including diesel-powered GSE and other diesel off-road equipment and vehicles operated at the airports. The regulation imposes limits on idling, restricts the addition of older vehicles to fleets, and requires fleets to retire, replace or repower older engines to achieve progressively lower average emission rates, or comply with the Best Available Control Technology (BACT) requirements. This rule requires mandatory reporting of applicable equipment to CARB through the Diesel Off-road On-line Reporting System (DOORS).[6]

CARB On-Road Heavy-Duty Diesel Vehicles (In-Use) Regulation
CARB's regulation requires emission controls and replacements for existing diesel trucks and buses through its statewide On-Road Heavy-Duty Diesel Vehicles (In-Use) Regulation, commonly referred to as the Truck and Bus Regulation. Heavy-duty vehicles with a gross vehicle weight greater than 14,000 pounds are required to be retrofitted with diesel particulate filters based on truck model years and according to specified schedules. In addition, replacement of older heavy-duty vehicles is mandated based on a tiered schedule that began in 2015. By 2023, nearly all trucks and buses will be required to have model year 2010 engines or newer.

CARB Large Spark-Ignition (LSI) Engine Fleet Requirements Regulation
CARB's LSI regulation applies to off-road LSI engine forklifts, sweepers/scrubbers, industrial tow tractors, and airport ground support equipment operated within the State of California. Additionally, it applies only to vehicles with engines of at least 25 horsepower and 1.0 liter displacement that are part of fleets of four vehicles or more. The regulation requires that applicable fleets achieve specific fleet average emission levels (FAELs) for hydrocarbons and NOx. These standards became more stringent over time until reaching the lowest regulated FAEL in 2013. The regulation also mandates reporting of applicable equipment to CARB through DOORS.

CARB Zero-Emission Airport Shuttle Regulation
CARB's Zero-Emission Airport Shuttle Regulation, adopted by the CARB Governing Board in June 2019, promotes the use of zero-emission ground transportation to and from airports in California. The regulation requires that at least 33%, 66%, and 100% of airport shuttle fleets be zero-emission vehicles by December 31, 2027, 2031 and 2035, respectively. It also requires fleet owners to report fleet information annually starting in 2022 and to have zero-emission certificates for 2026 and later model year vehicles.

CARB's Proposed Zero-Emission Airport Ground Support Equipment
CARB is currently in the process of developing a zero-emission measure for GSE at airports in California. The proposed regulation is intended to advance GSE conversion to zero-emission technologies while accelerating the goals and requirements provided in the LSI Engine Fleet Requirements Regulation. ~~A~~CARB staff has is considering a preliminary target of 100% zero-

[6] Available at https://ssl.arb.ca.gov/ssldoors/doors_reporting/doors_login.html

emission GSE by 2032 has been proposed. The proposed regulation is scheduled for Board consideration in late 2020.

C. U.S. EPA's Requirements for SIP Credits

In order for emission reductions from the MOUs and AQIPs/AQIMs measures in the MOUs to be SIP creditable, which means the reductions can be relied upon in the attainment demonstration, (i.e., allowing for the reductions to be counted towardtowards attainment in the attainment demonstration), these reductions need to meet the U.S. EPA's guidelines. These guidelines include requirements regarding U.S. EPA's integrity elements, federally enforceable backstop commitments, technical support, funding, legal authority, public disclosure, and provisions to assess progress. Chapter 4 provides details on how these requirements are met for the AQIP/AQIM measures specified in the MOUs. The U.S. EPA's guidelines are briefly discussed below:

1. U.S. EPA's Integrity Elements – For emission reductions resulting from AQIP/AQIM measures to meet the Integrity Elements, they must be surplus, permanent, quantifiable, and enforceable. These four elements are briefly explained below.

   i. Surplus
   Emission reductions are surplus if they are not otherwise required by or assumed in a SIP-related program (e.g., an attainment or reasonable further progress plan), any other adopted State, federal or local air quality regulationprograms, a consent decree, or a federal rule designed to reduce emissions of a criteria pollutant or its precursors.

   ii. Permanent
   Emission reductions are permanent if the reductions occur throughout the term stated in the airports' MOUs. The MOUs' terms are based on the 8-hour ozone National Ambient Air Quality Standards attainment dates of 2023 and 2031. Therefore, the emission reductions must continue through 2031.

   iii. Quantifiable
   Emission reductions are quantifiable if they can be measured and supported by acceptable operating and technical data provided by the airports. The quantification must use well-established and publicly available calculation methods, including approved emission factors.

   iv. Enforceable
   The emission reductions are enforceable if they are independently verifiable, program violations are defined, and if emission-related information is publicly available. The airports will be responsible for having specific procedures and mechanisms to ensure enforcement and implementation of the emission reduction measures identified in the MOUs.

2. Federal Enforceability
   The enforceable commitment must include: (1) a commitment to monitor, assess, and regularly report on emission reductions achieved; and (2) a commitment to adopt and submit substitute measures to the U.S. EPA by specific dates if necessary to remedy any emission reduction shortfalls.

3. Technical Support
   To explain how the emission reductions are translated into SIP credit~~s~~ and applied toward the attainment demonstration, documentation and technical analysis must be provided. This documentation should include a description of the assumptions used in estimating and tracking emissions and emissions reductions from affected sources. The level of information in the documentation should be sufficiently detailed so that the public can review and repeat the quantification of the emission benefits.

4. Funding
   In the case that an incentive funding program is utilized to achieve emission reductions, adequate funding for the project needs to be available to show that the funds are committed already or are reasonably expected to be available to generate committed reductions.

5. Legal Authority to Administer the Program
   In the case of incentive programs, the legal authority to administer these programs needs to be identified by South Coast AQMD~~.~~ or the implementing authority.

6. Public Disclosure and Tracking Results
   The emission reductions data and other pertinent information related to the MOU measures (i.e., emissions inventory, emission reduction benefits, and implementation of measures) must be fully accessible to the public and U.S. EPA in accordance with the requirements of CAA section 114 and U.S. EPA's implementing regulations in 40 CFR 2.301.

Chapter 2 provides a summary of the draft AQIPs/~~AQIM~~AQIMs developed by five commercial airports as part of this MOU process. In Chapter 3, a summary of the MOUs between South Coast AQMD and the five commercial airports is provided including the AQIP/AQIM measures for each airport that are potentially eligible for SIP credit~~s~~. Chapter 4 presents the proposed SIP creditable emission reductions (quantified by South Coast AQMD staff) associated with the implementation of the AQIP/AQIM measures in the MOUs including South Coast AQMD's enforceable commitments and a demonstration of how the emission reductions from these measures satisfy U.S. EPA's requirements. Appendix A includes the ~~draft AQIPs prepared by the five commercial airports. Appendix B includes the draft~~ MOUs between the South Coast AQMD and the five commercial airports. Appendix ~~C~~B includes the draft SIP credit calculation methodology. The airports AQIPs/AQIMs are posted on South Coast AQMD's website at http://www.aqmd.gov/airportsmous.

Chapter 2: Air Quality Improvement Plans/Measures

Introduction
Los Angeles International Airport (LAX) AQIM
John Wayne Airport (JWA) AQIP
Long Beach Airport (LGB) AQIP
Ontario Airport (ONT) AQIP
Burbank Airport (BUR) AQIP

Introduction

As part of the MOU process, each airport has developed its own Air Quality Improvement Plan (AQIP) or Air Quality Improvement Measures (AQIM). The AQIPs/AQIMs are the airports' comprehensive plans to reduce emissions from non-aircraft mobile sources related to airport operations. Specific measures and initiatives for the applicable sources are identified by each airport and included in the airports' AQIPs/AQIMs. The distinction between measures and initiatives varies among the airports. In general, a measure represents a program in which the airport ~~commits~~agrees to a well-defined course of action with known emission reductions, while an initiative represents an objective that the airport intends to pursue, but the emission reductions are not readily quantifiable.

The AQIPs/~~AQIM~~AQIMs include the 2017 baseline emissions as well as emissions forecasts in 2023 and 2031 under business as usual (BAU) and AQIP/AQIM implementation scenarios. The emission reduction benefits for the AQIP/AQIM measures presented in this chapter are estimates provided by the airports based on the difference between the BAU and AQIP/AQIM implementation scenarios. Although the airports have provided these estimated benefits, they are only committing to achieve the performance targets associated with these measures. Some of the measures do not have quantified emission reductions because they are either not well defined or they only include general goals or guidelines in lieu of specific performance targets.

The AQIPs/~~AQIM~~AQIMs also include implementation mechanisms for the measures and initiatives, which vary depending on the type of measure/initiative. For example, GSE measures establish airport-wide performance targets ~~which would~~to be achieved by GSE operators and tenants. Other measures affect vehicles or equipment ~~which~~that are entirely under the airport's authority. An incentive-based approach is also included in one of the AQIPs/AQIM.

This chapter provides summaries of the individual AQIPs or AQIMs including a brief description of each airport, baseline and BAU emissions inventories ~~and emission benefits, and~~ , a brief overview of the AQIP/AQIM measures~~.~~, estimated emission benefits and AQIP/AQIM measures that were determined by South Coast AQMD to be eligible for SIP credit~~able~~ (i.e., emissions for the source category covered by ~~in~~ the AQIP/AQIM measures were specifically identified in the SIP inventory and surplus reductions for the measures were quantifiable). The ~~draft~~ AQIPs/AQIMs for the five commercial airports are ~~included in Appendix A of this staff report~~provided on South Coast AQMD's website at http://www.aqmd.gov/airportsmous.

A. Los Angeles International Airport (LAX) AQIM

Background

Los Angeles International Airport (LAX), located at the western edge of the City of Los Angeles, is owned and operated by Los Angeles World Airports, which is a department of the City of Los Angeles. It is surrounded by Westchester, Inglewood, El Segundo, and the Pacific Ocean. LAX is the primary international airport serving the City and County of Los Angeles and surrounding metropolitan areas. LAX covers approximately 3,500 acres of land and has four runways.

LAX is the fourth busiest airport in the world and the second busiest in the United States. LAX served more than 87.5 million passengers in 2018 and currently offers an average of 700 daily nonstop flights to 109 cities in the U.S. and 1,281 weekly nonstop flights to 93 markets in 47 countries on 69 commercial airlines. LAX ranks 10th in the world in terms of air cargo, with more than 2.4 million tons of air cargo processed in 2018. In 2018, LAX handled over 700,000 total aircraft operations (i.e., landing and take-off).

Baseline and BAU Emissions Inventories

The non-aircraft mobile source emissions inventory included in the AQIM is summarized by source category in Table 2.1 and covers GSE~~, on-road mobile sources,~~ and traffic and parking (including on-airport and regional emissions). ~~The on-road category represents emissions from on-airport traffic from shuttles, buses, and trucks greater than 8,500 Gross Vehicle Weight Rating (GVWR). Traffic and parking represents emissions from the airport-owned fleet.~~

Table 2.1. Baseline and BAU Non-Aircraft Mobile Source Emissions for LAX by Source Category (NOx, tons per year)

Category	2017	2023	2031
GSE	184.93	150.69	121.31
~~**On-road (> 8,500 GVWR)**[1]~~	~~50.69~~	~~19.56~~	~~16.00~~
Traffic and Parking[2]	~~83.04~~ 1,402.63	~~25.29~~ 497.80	~~21.11~~ 389.50
Total	~~351.56~~ 1,587.56	~~195.54~~ 648.49	~~158.42~~ 510.81

~~[1] This inventory is for vehicles subject to the LAX Alternative Fuel Vehicle Requirement Policy~~
~~[2] This inventory is for LAWA-owned fleet vehicles only.~~

List of AQIM Measures

LAX's AQIM includes 11 measures affecting various source categories. A summary list of LAX's AQIM measures is presented in Table 2.2. The measures are grouped into ~~three~~ two categories – GSE, ~~on-road mobile,~~ and traffic and parking. ~~The categories are consistent with the ones listed in the emissions inventory.~~

There are two measures that affect GSE. The first is based on the airport's GSE Emissions Reduction Policy, which establishes airport-wide GSE fleet average emission rates. The other ~~two measures are~~measure is an incentive fund to accelerate the turnover of the GSE fleet to zero-emission equipment. Nine ~~Five~~ measures target the traffic and parking ~~on-road mobile source~~ category. The first measure is the LAX Alternative Fuel Vehicle Policy which requires that medium and heavy duty vehicles be 13 years old or newer in order to operate at LAX, and requires that vehicles meet LEV III or the optional low-NOx standard. The Alternative Fuel Vehicle Incentive Program creates a $500,000 fund to incentivize the conversion of 20 heavy-duty trucks to zero or near zero-emissions. The Clean Fleet Program for LAWA's Vehicle Fleet has three ~~programs~~elements. For LAWA's light duty fleet, 25% and 100% of LAWA's sedan fleet must be electric by 2023 and 2031, respectively. LAWA's medium and heavy-duty vehicles must meet the LAX Alternative Fuel Vehicle Policy requirements. Additionally, LAWA-owned shuttle buses will be converted to electric by the end of 2030.

Traffic and parking is covered by an additional four measures, which reduce vehicle miles traveled and vehicle idle time. These measures include improvements to public transit with connections to airport terminals, the installation of smart parking systems, and continuation of the LAX FlyAway and LAWA employee rideshare programs.

The corresponding emission benefits for the AQIM measures with quantifiable emission reductions in 2023 and 2031 are provided in Table 2.2. ~~The measures included in the MOU are also identified in this table.~~

Table 2.2. Summary of AQIM Measures and Initiatives for LAX

Measure Type [1]	**Source Category**	**Description**	**2023 AQIM Benefit (NOx, tpy) [2]**	**2031 AQIM Benefit (NOx, tpy) [2]**	**SIP creditable (Y/N)**
M	GSE	Ground Support Equipment (GSE) Emissions Reduction Policy - Require that the GSE fleet achieve average emission factors for Hydrocarbon and NOx combined of 1.8 g/hp-hr (2023) and 1.0 g/hp-hr (2031)	56.17	86.16	Y
M	GSE	GSE Incentive Program - $500,000 fund allocated to incentivize zero-emission GSE by 2023	NQ	NQ	N
M	Traffic and Parking~~On-road~~	LAX Alternative Fuel Vehicle Policy – Third party medium and heavy duty vehicles to utilize clean-fueled low-emission engines	6.98	9.18	N
M	Traffic and Parking~~On-road~~	LAX Alternative Fuel Vehicle Policy – LAWA-owned medium and heavy duty vehicles to utilize clean-fueled low-emission engines			N
I	Traffic and Parking~~On-road~~	Alternative Fuel Vehicle Incentive Program - $500,000 fund allocated to incentivize the conversion of 20 heavy-duty vehicles to zero or near-zero emission trucks by 2021			Y
I	Traffic and Parking~~On-road~~	LAWA Clean Fleet Program - 20% (2023) and 100% (2031) ZE buses	0.35	1.73	Y

Measure Type [1]	Source Category	Description	2023 AQIM Benefit (NOx, tpy) [2]	2031 AQIM Benefit (NOx, tpy) [2]	SIP creditable (Y/N)
I	Traffic and Parking~~On-road~~	LAWA Clean Fleet Program – 25% (2023) and 100% (2031) EV light-duty sedans~~.~~	0.01	0.03	N
I	Traffic and Parking	LAX Employee Rideshare Program - Continue operation of LAWA employee rideshare program	NQ	NQ	N
I	Traffic and Parking	LAX FlyAway Program – Continue operation	NQ	NQ	N
I	Traffic and Parking	LAX Landside Access Modernization Program - Public transit improvements including consolidated car rental, parking lot, and Metro connection	3.99	NQ	N
I	Traffic and Parking	Smart Parking Systems - Improve traffic flow and reduce idling in parking lots	0.24	0.21	N

[1] A measure (M) is an air quality improvement program that has been or will be adopted by LAWA's Board of Airport Commissioners and typically applies to LAWA tenants or third parties. An initiative (I) is a statement of airport policy and typically applies to LAWA-owned or controlled operations.
[2] NOx emission reduction benefit as determined by the airport.
NQ = Not Quantifiable

B. John Wayne Airport (JWA) AQIP

Background

John Wayne Airport (JWA), which is owned and operated by the County of Orange, is the only commercial service airport in Orange County, California. It is located approximately 35 miles southeast of Los Angeles, between the cities of Costa Mesa, Irvine, and Newport Beach. The service area includes more than three million people within the 34 cities and unincorporated areas of Orange County.

In 2018, JWA served approximately 10.7 million passengers. A maximum of 85 Class A Average Daily Departures (ADDs) are currently allowed under a 2014 settlement agreement ~~with municipalities and local stakeholders. An additional 2 ADDs are allocated to cargo flights~~between JWA, the City of Newport Beach and two community groups. As part of the agreement, commercial aircraft activity at the Airport is limited to 10.8 million passengers (MAP), 11.8 and 12.2 ~~or 12.5~~, for the years 2020, 2025 and 2030, respectively. If the number of passengers served in any one calendar year, between January 1, 2021 through December 31, 2025, is within 5 percent of 11.8 MAP, then the annual passenger level will be permitted to increase to 12.5 MAP through December 31, 2030. The average daily departures (ADDs) for

Class A aircraft at the Airport are limited to 85 ADDs in 2020 and 95 ADDs in 2025 and 2030; and up to four cargo ADDs.

Baseline and BAU Emissions Inventories

The non-aircraft mobile source emissions inventory included in the AQIP is summarized by source category in Table 2.3 and covers GSE, fuel trucks, on-road mobile and off-road mobile sources, and passenger traffic (only including on-airport emissions). The on-road category incorporates emissions related to airport shuttles, the airport-owned on-road fleet, and delivery trucks. The off-road category incorporates emissions related to the airport-owned off-road fleet ~~and construction equipment.~~. Passenger and employee traffic, which only considers on-airport roadways and parking lots, includes passenger vehicles, taxis, and ~~taxis~~Transportation Network Companies.

Table 2.3. Baseline and BAU Non-Aircraft Mobile Source Emissions for John Wayne Airport by Source Category (NOx, tons per year)

Category	2017	2023	2031
GSE	22.28	15.07	9.98
Fuel Trucks	3.69	1.70	1.51
On-road	0.~~35~~63	0.~~27~~57	0.~~24~~56
Off-road	0.13	0.06	0.03
Passenger and Employee Traffic	0.64	0.37	0.26
Total	~~27.09~~ 27.37	~~17.48~~ 17.77	~~12.03~~ 12.34

List of AQIP Measures

John Wayne Airport's AQIP includes 13 measures and initiatives covering various source categories. A summary list of JWA's AQIP measures and initiatives is presented in Table 2.4. The measures are grouped into five categories – GSE, fuel trucks, on-road mobile, off-road mobile, and passenger traffic. The categories are consistent with the ones listed in the emissions inventory.

The GSE measure ~~is based on the airport's GSE policy, which~~ establishes airport-wide fleet average emission rates. Another measure calls for the installation of a jet fuel pipeline, which will eliminate routine commercial passenger jet fuel truck deliveries. Three other measures affect the on-road mobile source category. These measures involve shifting the time of concession deliveries to the night, phasing out the existing Compressed Natural Gas (CNG) shuttle fleet in favor of electric vehicles, and introducing a greater percentage of low emission or alternative fueled vehicles in the JWA on-road fleet. The Concessions Nighttime Delivery Policy will require, where feasible, that deliveries are performed from 11 pm to 6 am. The JWA Owned Vehicle Clean Fleet Policy will require that vehicles and equipment with greater than 50 HP engines be replaced with ~~zero emission~~new electric, alternative fuel, or hybrid vehicles~~.~~ through a replacement process of existing vehicles. Finally, the Parking Shuttle Bus Electrification Measure will require that 50% ~~(six)~~ and 80% ~~(ten)~~ of the ~~twelve existing~~ CNG shuttle buses be replaced with electric buses in 2023 and 2031, respectively. JWA may choose to keep ~~two~~ CNG

shuttle buses, which would ~~only~~ be ~~used rarely as backup~~for standby and emergency use. Currently, there are twelve CNG shuttle buses.

The bulk of the measures benefit passenger traffic emissions by reducing vehicle miles traveled and vehicle idling time. These involve smart parking, congestion reduction, re-matching Transportation Network Company (TNC) rides to increase efficiency, and facilitating public transit access. The Smart Parking Features measure requires the installation of smart parking features to facilitate traffic movement and reduce idling. The Congestion and Passenger Vehicle Reduction measure is already implemented and has resulted in congestion reduction with existing holding lots for ~~standby~~taxis and passenger pick-up vehicles. The TNC Vehicle Miles Traveled Reduction Policy will designate pickup and drop-off locations and establish a re-matching system. Finally, the Passenger Transportation Mode Shifts ~~measure~~initiative will assign a liaison to work with the Orange County Transportation Agency (OCTA) to increase public transit access. In addition, the feasibility of installing EV charging infrastructure for transit vehicles and JWA employee rideshare programs will be explored.

Table 2.4. Summary of AQIP Measures and Initiatives for John Wayne Airport

Measure Type [1]	**Source Category**	**Description**	**2023 AQIP Benefit (NOx, tpy)** [2]	**2031 AQIP Benefit (NOx, tpy)** [2]	**SIP creditable (Y/N)**
M	GSE	Ground Support Equipment (GSE) - Require that the GSE fleet achieve average emission factors for NOx ~~and HC combined~~ of 1.7 (2023) and 0.9 (2031) g/bhp-hr	4.80	3.92	Y
M	Fuel trucks	Jet Fuel Delivery Trucks – Install a jet fuel pipeline by the end of 2019 and eliminate routine jet fuel delivery trucks by 2023	1.70	1.51	Y
M	On-road	Concessions Nighttime Delivery Policy - Require, where feasible, that deliveries are performed from 11 pm to 6 am	0.02	0.02	N
M	On-road	JWA Owned Vehicle Clean Fleet Policy - Replace vehicles with >50 HP engines with zero emission or hybrid vehicles	0.~~03~~001	0.~~02~~008	N
M	On-road	Parking Shuttle Bus Electrification - Replace 50% (2023) and 80% (2031) of existing 12 CNG buses with electric buses	0.16	0.~~35~~29	Y
M	Off-road	Clean Construction Program - Require that heavy-duty diesel-fueled construction equipment meets Tier 4 standards	NQ	NQ	N

Table 2.4. Summary of AQIP Measures and Initiatives for John Wayne Airport (cont'd)

Measure Type [1]	Source Category	Description	2023 AQIP Benefit (NOx, tpy) [2]	2031 AQIP Benefit (NOx, tpy) [2]	SIP creditable (Y/N)
I	Passenger ~~traffic~~and Employee Traffic	Taxi Clean Fleet Policy - Codify Rule 1194 into taxi operating agreements to encourage adoption of cleaner technologies	NQ	NQ	N
M	Passenger ~~traffic~~and Employee Traffic	Smart Parking Features - Install smart parking features to facilitate traffic movement and reduce idling	0.09	0.08	N
I	Passenger ~~traffic~~and Employee Traffic	Electric Vehicle Charging Infrastructure - Increase the number of EV chargers in passenger and employee parking lots	NQ	NQ	N
I	Passenger ~~traffic~~and Employee Traffic	Passenger Transportation Mode Shifts - Assign a liaison to work with OCTA to facilitate public transit access and explore feasibility of installing EV charging infrastructure for transit vehicles	NQ	NQ	N
M	Passenger ~~traffic~~and Employee Traffic	TNC Vehicle Miles Traveled Reduction Policy - Designate pickup/drop-off locations and establish a re-matching system	0.06	0.03	N
I	Passenger ~~traffic~~and Employee Traffic	Orange County Employee Rideshare Program - Continue implementation of OC Rideshare	~~NQ~~0.003	~~NQ~~0.002	N
M	Passenger ~~traffic~~and Employee Traffic	Congestion and Passenger Vehicle Reduction - Reduce congestion with existing holding lots for standby vehicles (passenger and taxi)	0.03	0.02	N

[1] A measure (M) represents a program, policy, or procedure ~~which~~that is anticipated to result in emission reductions. An initiative (I) represents a program, policy, or procedure with less certain emission reductions.
[2] This is the NOx emission reduction benefit as determined by the airport.
NQ = Not Quantifiable

C. Long Beach Airport (LGB) AQIP

Background

Long Beach Airport (LGB), which is owned and operated by the City of Long Beach, covers 1,166 acres and has five runways. It is one of the world's busiest airports in terms of general aviation activity. In 2018, LGB served 4 million passengers, with approximately 45 daily commercial departures. LGB operations are governed by a noise reduction ordinance that restricts certain activities such as engine run-ups, missed approaches, and hours of operation. The ordinance also limits the total number of commercial flights per day.

Baseline and BAU Emissions Inventories

Table 2.5 presents the non-aircraft mobile source emissions inventory included in the AQIP by source category including GSE~~, on-road mobile sources~~, construction, and traffic and parking (including on-airport and regional emissions). ~~The on-road category incorporates emissions related to the airport-owned fleet.~~ Traffic and parking~~, which only considers on-airport traffic,~~ includes passenger cars, taxis, limos, shuttles, buses, and cargo trucks.

Table 2.5. Baseline and BAU Non-Aircraft Mobile Source Emissions for Long Beach Airport by Source Category (NOx, tons per year)

Category	2017	2023	2031
GSE	16.78	13.23	10.54
~~**On-road**~~	~~0.07~~	~~0.09~~	~~0.13~~
Construction	2.91	8.59	2.91
Traffic and Parking	~~2.25~~ 51.80	~~1.04~~ 24.20	~~0.62~~ 14.99
Total	~~22.01~~ 71.49	~~22.95~~ 46.02	~~14.20~~ 28.44

List of AQIP Measures

Long Beach Airport's AQIP includes 7 measures and initiatives covering various source categories. A summary of LGB's measures is presented in Table 2.6. The measures are grouped into five categories – GSE, ~~on-road mobile sources,~~ construction, traffic and parking, and other. ~~The categories are consistent with the ones listed in the emissions inventory in the previous section, except for~~ Measures and initiatives that did not fall into any defined category (e.g. solar panel installation, LEED building certification)~~. These~~ are labeled "other" in the summary table.

The GSE measure is based on the airport's GSE Emission Reduction Policy, which establishes airport-wide GSE fleet emission rates. One measure ~~impacts the on-road category, which~~ involves a transition of the airport-owned fleet to low emission or alternative fueled vehicles. The target is to achieve 100% light duty compliance by 2023, and 75% compliance for ~~and 100%~~ medium and ~~to~~ heavy duty ~~compliance~~ by 2023 and 100% by 2031~~, respectively~~. Construction activities are targeted in a measure that will ensure the use of only the cleanest off-road equipment (e.g., compliance with U.S. EPA Tier 4). Two additional measures impact passenger traffic and will include a TNC re-match system, with designated pickup and drop-off locations, and the possible expansion of EV charging capabilities. The "other" category measures require a

minimum of LEED Silver certification for new buildings and the installation of a solar panel array.

Table 2.6. Summary of AQIP Measures and Initiatives for Long Beach Airport

Measure Type [1]	**Source Category**	**Description**	**2023 AQIP Benefit (NOx, tpy)** [2]	**2031 AQIP Benefit (NOx, tpy)** [2]	**SIP creditable (Y/N)**
M	GSE	Ground Support Equipment Emissions Reduction Policy - Require that the GSE fleet achieve average emission factors for ~~HC and~~ NOx ~~combined~~ of 0.93 (2023) and 0.44 (2031) g/bhp-hr	0.93	4.06	Y
M	Construction	Clean Construction Policy - Tier 4 compliance phase-in with full implementation in 2031	NQ	NQ	N
M	On-road	Airport-Owned Clean Fleet Policy - Transition to SULEV or alternative fuel vehicles. Light duty 100% by 2023; medium and heavy duty 75% by 2023, 100% by 2031	0.03	0.06	N
I	Traffic and Parking	Electric Vehicle Charging Infrastructure Initiative - Assess feasibility of equipping 2% of parking spaces with EVSE	NQ	NQ	N
I	Traffic and Parking	TNC Rematch Initiative - Designate pickup/drop-off locations with re-match system	NQ	NQ	N
M	Other	Sustainable Design Policy - LEED Silver minimum for Terminal Improvements Project	NQ	NQ	N
M	Other	Renewable Energy Policy - Implement solar power system by the end of 2020	NQ	NQ	N

[1] A measure (M) represents a program in which the airport ~~commits~~agrees to a well-defined course of action. An initiative (I) represents an objective that the airport seeks to achieve but is less well-defined.
[2] This is the NOx emission reduction benefit as determined by the airport.
NQ = Not Quantifiable

D. Ontario Airport (ONT) AQIP

Background

Ontario Airport (ONT), which is owned and operated by the Ontario International Airport Authority, is located 35 miles east of Los Angeles in the Inland Empire and covers 1,700 acres. ONT's service area includes a population of six million people in San Bernardino and Riverside counties, and portions of Orange and Los Angeles counties. In 2018, the airport served approximately 5.1 million passengers with 60 average daily departures. In addition to commercial passenger flights, ONT also serves cargo flights, with approximately 650,000 tons of freight processed annually.

Baseline and BAU Emissions Inventories

Table 2.7 presents the non-aircraft mobile source emissions inventory included in the AQIP by source category including GSE~~, on-road and off-road sources~~, fuel and crash trucks, airport-owned vehicles, delivery trucks, and passenger traffic (including on-airport and regional emissions). Crash trucks are designed and equipped to rescue victims in an air crash. ~~The on-road category incorporates emissions related to the airport-owned fleet and delivery trucks. The off-road category incorporates emissions related to fire department vehicles and the maintenance contractor fleet.~~ The fuel truck category accounts for emissions from refueling trucks operating on the tarmac. The crash truck inventory was compiled based on input received from the Ontario Fire Department. The Ontario International Airport Authority (OIAA) and maintenance vehicle category includes emissions from on-road vehicles and maintenance trucks driven by airport staff or contractors. The delivery truck category accounts for emissions from trucks servicing the commercial terminals. Passenger traffic considers regional travel.

Table 2.7. Baseline and BAU Non-Aircraft Mobile Source Emissions for Ontario Airport by Source Category (NOx, tons per year)

Category	2017	2023	2031
GSE	103.02	91.10	79.84
Fuel Trucks	2.21	1.98	0.60
Crash Trucks	7.45	7.45	7.45
~~**On-road**~~	~~0.80~~	~~0.36~~	~~0.40~~
~~**Off-road**~~	~~8.55~~	~~8.08~~	~~7.82~~
OIAA and Maintenance Vehicles	1.37	0.81	0.52
Delivery Trucks	0.72	0.30	0.35
Passenger Traffic	39.20	20.96	12.74
Total	~~153.78~~ 153.97	~~122.48~~ 122.60	~~101.40~~ 101.50

List of AQIP Measures

Ontario Airport's AQIP includes 9 measures and initiatives covering various source categories. A summary of the measures is presented in Table 2.8. The measures are grouped into five categories – GSE, fuel trucks, on-road mobile, off-road mobile, passenger traffic, and other. ~~The~~

~~categories are consistent with the ones listed in the emissions inventory in the previous section, except for~~ Measures and initiatives that did not fall into any defined category (e.g. solar panel installation, LEED building certification)~~. These~~ are labeled "other" in the summary table.

The GSE measure is based on the airport's GSE Policy, which establishes stringent airport-wide fleet average emission rates. Three measures affect the off-road portion of the crash trucks, and OIAA and maintenance categories, and they involve crash truck replacement, reducing the size of the airport maintenance fleet, and ensuring the use of only the cleanest off-road equipment for construction (e.g., compliance with U.S. EPA Tier 4). The Crash Truck Replacement measure will require the replacement of 7 out of 12 vehicles in the fire department fleet including four crash trucks. The new crash trucks will be Tier 4 compliant. Two measures, the Airport Fleet Policy and the Sally Port, affect the on-road portion of the OIAA and maintenance category. These measures involve a transition of the airport-owned fleet to low emission or alternative fueled vehicles and the creation of a centralized delivery location in lieu of terminal loading docks, which is anticipated to reduce vehicle miles travelled. Another measure will reduce passenger traffic emissions by expanding EV charging capability. Finally, the CalGreen and LEED Silver Requirement ~~affects~~affect the "other" category and will require new buildings to meet green building standards.

Table 2.8. Summary of AQIP Measures and Initiatives for Ontario Airport

Measure Type [1]	**Source Category**	**Description**	**2023 AQIP Benefit (NOx, tpy) [2]**	**2031 AQIP Benefit (NOx, tpy) [2]**	**SIP creditable (Y/N)**
M	GSE	GSE Policy - Require that the GSE fleet achieve average emission factors for NOx are 2.20 g/hp-hr (2023) and 1.00 g/hp-hr (2031)	22.66	46.03	Y
M	Fuel Trucks	Fuel Truck Operations - Addition of a second jet fuel loading rack to reduce distance travelled	NQ	NQ	N
M	Off-road	Crash Truck Replacement - Replace 7 of 12 vehicles in the fire department fleet, including 4 crash trucks, with Tier 4 compliant engines	3.26	3.26	N
M	On-road	Airport Fleet Policy - Gradually replace vehicles with CNG, hybrid, or electric. This measure is coupled to the following measure	0.05	0.05	N
M	Off-road	Maintenance Truck Reduction - Reduce size of maintenance fleet from 28 to 7 vehicles			N

M	On-road	Sally Port - Centralized delivery location in lieu of terminal loading docks	NQ	NQ	N
M	Off-road	Construction Equipment Policy - Require, where feasible, that contractors use Tier 4 equipment	NQ	NQ	N
I	Other	CalGreen and LEED Silver Requirement - Ensure future buildings meet CALGreen Title 24 regulations	NQ	NQ	N
I	Passenger traffic	EV Infrastructure in Passenger Parking Lots - Expand EV charging availability	NQ	NQ	N

[1] A measure (M) contains concrete goals that result in quantifiable emission reductions. An initiative (I) is a policy that provides infrastructure, incentives, or other tools that promote emission reductions, but ~~do~~does not contain specific requirements.
[2] This is the NOx emission reduction benefit as determined by the airport.
NQ = Not Quantifiable

E. Burbank Airport (BUR) AQIP

Background

Burbank Airport (BUR) is owned by the Burbank-Glendale-Pasadena Airport Authority and is operated by TBI Airport Management. It is located approximately 13 miles northwest of Los Angeles and occupies 555 acres with 14 passenger gates. In 2018, BUR served over 5 million passengers, processed 109 million pounds of cargo, and logged over 130,000 total aircraft operations.

Baseline and BAU Emissions Inventories

Table 2.9 presents the non-aircraft mobile source emissions inventory included in the AQIP by source category including GSE~~, airport fleet,~~ construction, and ~~passenger~~ traffic and parking (including on-airport and regional emissions). ~~The airport fleet category incorporates airport-owned on-road and off-road fleets. Passenger~~ Traffic and parking~~, which only considers on-airport roadways and parking lots,~~ accounts for passenger vehicles, taxis, TNC, and hotel and airport shuttle rides.

Table 2.9. Baseline and BAU Non-Aircraft Mobile Source Emissions for Burbank Airport by Source Category (NOx, tons per year)

Category	2017	2023	2031
GSE	17.85	17.46	16.72
~~**BUR Fleet**~~	~~1.27~~	~~0.78~~	~~0.44~~
Construction	2.37	7.76	2.37
~~**Passenger**~~ **Traffic and Parking**	~~0.54~~ 22.71	~~0.28~~ 11.84	~~0.18~~ 7.64
Total	~~22.03~~ 42.93	~~26.28~~ 37.06	~~19.71~~ 26.73

List of measures

Burbank Airport's AQIP includes 9 measures and initiatives covering various source categories. A summary of the measures is presented in Table 2.10. The measures are grouped into ~~five~~ four categories, which include GSE, construction, ~~on-road mobile, off-road mobile,~~ and passenger traffic, and other. ~~The categories are consistent with the ones listed in the emissions inventory in the previous section, except for~~ Measures and initiatives that did not fall into any defined category (e.g. solar panel installation, LEED building certification)~~. These~~ are labeled "other" in the summary table.

The GSE measure is based the airport's GSE Emissions Policy, which establishes airport-wide fleet average emission rates. One measure affects the construction category by ensuring the use of only the cleanest equipment. In addition to compliance with U.S. EPA Tier 4 for off-road sources, this measure requires the use of 2010 or newer model year engines for on-road construction vehicles. ~~One measure, t~~The Airport-Owned Clean Fleet policy~~,~~ benefits ~~the on-road category~~ traffic and parking and involves a transition of the airport-owned fleet to zero-emission vehicles, with 100% EV light duty and shuttle buses by 2023 and 2031, respectively. Four additional measures are aimed at ~~passenger~~ traffic and parking: the Regional Intermodal Transportation Center, the Burbank Airport Employee Ride Share Policy, the Burbank-Metrolink Shuttle Connection Program, and the Electrical Charging Infrastructure Initiative. The transportation center currently offers consolidated parking, car rental, and access to public transit. The Burbank-Metrolink Shuttle Connection Program will promote connections to Metrolink trains in an effort to increase ridership. The Electrical Charging Infrastructure Initiative will aim to equip 5% of parking lot spaces with EV chargers by 2031. Finally, the "other" category is affected by two measures which involve an existing LEED Platinum certified hangar and the installation of a solar panel array.

Table 2.10. Summary of AQIP Measures and Initiatives for Burbank Airport

Measure Type [1]	Source Category	Description	2023 AQIP Benefit (NOx, tpy) [2]	2031 AQIP Benefit (NOx, tpy) [2]	SIP creditable (Y/N)
M	GSE	Ground Support Equipment Emissions Policy - Require that the GSE fleet achieve average emission factors for ~~HC and~~ NOx ~~combined~~ of 1.~~92~~66 g/hp-hr (2023) and 0.~~82~~74 g/hp-hr (2031)	0.70	8.70	Y
M	Construction	Clean Construction Policy - Require U.S. EPA 2010 standard for on-road, Tier 4 for off-road. Use grid power where available	1.55	NQ	N
I	~~Passenger~~ Traffic and parking	Airport-Owned Clean Fleet - 100% EV light-duty by 2023; medium and heavy-duty 50% EV by 2031; 50% (2023) and 100% (2031) EV buses	0.04	0.09	Y
I	~~Passenger~~ Traffic and parking	Electrical Charging Infrastructure - 5% of parking spaces equipped by 2031	NQ	NQ	N
I	~~Passenger~~ Traffic and parking	The Regional Intermodal Transportation Center - Consolidated parking, car rental, and access to public transit	0.33	0.21	N
I	~~Passenger~~ Traffic and parking	Burbank-Metrolink Shuttle Connection Program – Promote Metrolink-Shuttle programs to increase participation			N
M	~~Passenger~~ Traffic and parking	Burbank Airport Employee Ride Share Policy – Increase ridership by 3% (2023) and 6% (2031)	0.04	0.05	N
I	Other	Replacement Terminal Project - CalGreen/LEED Silver terminal construction. LEED Platinum hanger	NQ	NQ	N
I	Other	RITC Solar Facility - Install 2.2 MWh solar array	NQ	NQ	N

[1] A measure (M) represents a program in which the airport ~~commits~~agrees to a well-defined course of action. An initiative (I) represents an objective that the airport seeks to achieve but is less well-defined.
[2] This is the NOx emission reduction benefit as determined by the airport.
NQ = Not Quantifiable

Chapter 3: ~~Memorandum~~Memoranda of ~~Understandings~~Understanding

Introduction
General MOU Sections Applicable to All Airports
Airport Specific MOU Sections

Introduction

This chapter provides a summary of the main elements contained in the five MOUs between South Coast AQMD and each of the commercial airports. The MOUs represent voluntary agreements between South Coast AQMD and the airports to implement the AQIP/AQIM measures that are eligible for SIP credit, as identified in Chapter 2. The airports agree to implement the measures and annually report progress to South Coast AQMD. South Coast AQMD ~~then~~ commits to quantify the emission reductions, and prepare and submit the necessary documentation to U.S. EPA for inclusion of the emission reductions into the SIP. South Coast AQMD's commitment also includes an enforceable commitment to achieve the emission reductions associated with implementation of AQIP/AQIM measures in the MOUs.

A. General MOU Sections Applicable to All Airports

The MOUs contain sections common to all airports, with the primary difference being the attached schedules, which will be discussed in detail later. This section will summarize the common elements including the purpose, term, and applicability of the MOUs, and airport and South Coast AQMD responsibilities.

MOU Purpose

The central objective of the AQIPs/AQIMs and MOUs is to help achieve ~~the~~ NOx reductions necessary for attainment of the 1997 and 2008 8-hour ozone standards in 2023 and 2031, respectively. The MOUs describe the process of how South Coast AQMD and the airports intend to quantify the emission reduction benefits associated with the implementation of AQIP/AQIM measures eligible for SIP credit. For each of these measures, the specific implementation, monitoring, and reporting mechanisms are presented in the schedules attached to the MOUs. The schedules provide technical details including metrics and performance targets, the timeline for implementation, and annual reporting by the airport to South Coast AQMD. The emission reductions achieved through the MOUs will be credited into the SIP to the extent that they satisfy U.S. EPA's integrity elements (i.e. quantifiable, surplus, permanent, and enforceable). In the event that the actual achieved reductions fall short of those defined in Chapter 4, South Coast AQMD will be solely responsible for ensuring that the remaining reductions are achieved.

MOU Term

The MOUs will remain in effect from the date of execution through December 31, 2032~~1~~, unless terminated earlier. South Coast AQMD or the airports may choose to terminate the MOU by providing written notice to the other party at least 90 days in advance of the specified termination date. South Coast AQMD and the airports ~~commit~~agree to work together to resolve any issues and negotiate an updated MOU. However, if no agreement is reached, the MOU will terminate on the date specified in the initial notice.

MOU Applicability

The MOUs ~~address only~~include the airports' specific AQIP/AQIM measures ~~and initiatives~~ that are deemed eligible for SIP credit and ~~do not supersede rules that are established by the~~

~~U.S. EPA or CARB, or legal obligations that the airports are subject to. Additionally, the MOUs~~ explicitly exclude sources that are not identified as an emission source in the AQIP ~~(e.g. all aircraft parts and systems).~~/AQIM. Furthermore, the MOUs do not establish an emissions cap or any other facility-wide limit for any pollutant for the airports.

Airport Responsibilities

The airports' implementation of the AQIP/AQIM measures is voluntary, thereby qualifying the airports for incentives through various programs (e.g., FAA Voluntary Aviation Low Emissions Program). Nevertheless, the airports ~~commit~~agree to implement the AQIP/AQIM measures eligible for SIP credit and monitor and report on the implementation of these measures. Details regarding the implementation, monitoring, and reporting of these measures are provided in the schedules attached to the MOUs. The schedules provide technical details including metrics and performance targets, the timeline for implementation, and annual reporting requirements. Where feasible, the airports agree to provide monetary or non-monetary incentives for mobile sources included in the AQIP/AQIM. Additionally, the airports agree to support grant funding efforts.

South Coast AQMD Responsibilities

South Coast AQMD's responsibility is to quantify the emission reduction benefits associated with implementation of the AQIP/AQIM measures in the MOUs ~~which~~that are eligible for potential SIP credit. The quantification of the emission reductions is based on the AQIP/AQIM measures and their supporting calculations provided by the airports as well as the SIP credit calculation methodology developed by South Coast AQMD (Appendix ~~C~~B). South Coast AQMD will provide a SIP update to U.S. EPA for the prospective SIP credit~~s~~ for these measures for the 2023 and 2031 attainment years. South Coast AQMD will also track the implementation of these measures based on the annual reports provided by the airports as specified in the schedules and submit the necessary documentation to U.S. EPA. All ~~emission reduction~~emissions related data and other pertinent information will be made fully accessible to the public.

South Coast AQMD is also responsible for the federally enforceable commitments and any potential emission reduction shortfall associated with implementation of the AQIP/AQIM measures in the MOUs. In the event that the actual reductions from the AQIP/AQIM measures in the MOUs fall short of those defined in Chapter 4, South Coast AQMD will be solely responsible for ensuring that the remaining reductions are achieved by developing and providing substitute measures to U.S. EPA. In such events, South Coast AQMD will work together with the airports and other stakeholders through a public process to consider potential new or enhanced programs, or better efforts to quantify existing programs.

South Coast AQMD may pursue additional funding programs and incentives, at the Governing Board's discretion, in order to accelerate the turnover of equipment to clean technology.

B. Airport Specific MOU Sections

The schedules are documents attached to the MOU that describe the metrics and performance targets of the AQIP/AQIM measures, the timeline for implementation, and the details of the annual reports prepared by the airports. One schedule is attached for each AQIP/AQIM measure that is eligible for SIP credit. In general, the airports' commitments include implementing the ~~measure~~AQIP/AQIM measures in the MOUs and submitting annual ~~progress~~ reports by June 1 of each year, beginning in 2021. ~~In 2023 and 2031,~~ South Coast AQMD will quantify the actual emission reductions ~~and~~achieved each year based on the annual reports provided by the airports to track progress toward achieving the emission reductions ~~SIP credits~~ in 2023 and 2031. South Coast AQMD will also ensure that the relevant emissions data is accessible to the public and submitted to U.S. EPA. The schedules for all airports are summarized below.

Los Angeles International Airport

The MOU schedules/measures[7] for LAX are summarized in Table 3.1.

Table 3.1. MOU ~~Schedules~~Measures for LAX

Schedule	Title and Program Description
1	Ground Support Equipment Emissions Reduction Policy - Require that all ground support equipment operators at LAX achieve fleet average NOx + Hydrocarbon emission factors of 1.8 and 1.0 grams per brake horsepower-hour in 2023 and 2031, respectively.
2	LAX Alternative Fuel Vehicle Incentive Program - Implement an incentive program that will distribute up to $500,000 dollars in funding to applicants based on the "incremental cost" differential of the zero or near-zero emission vehicles as compared to conventionally-fueled equivalents with a Gross Vehicle Weight Rating (GVWR) of 14,001 pounds or greater by December 31, 2021.
3	Zero Emission Bus Program – Replace 20% and 100% of LAWA-owned and operated buses with zero-emission buses by 2023 and 2031, respectively.

Under ~~Schedule~~Measure 1, Los Angeles World Airports (LAWA) ~~commits~~agrees to implement the AQIM measure by working with airport tenants to achieve the GSE performance targets. LAWA will also submit annual progress reports including detailed equipment and emissions inventories, in addition to data on replaced GSE. The data will include equipment type, fuel type, engine model year, power rating, engine tier level, and annual activity data ~~(specific activity data to be determined).~~.

Under ~~Schedule~~Measure 2, LAWA will submit annual progress reports that provide detailed information, accompanied by an emissions inventory, regarding the purchased zero or near-zero emission vehicles as well as ~~the details of~~data for the replaced vehicles.

[7] For the LAX MOU, the term "MOU Measures" are used instead of "MOU Schedules".

Under ~~Schedule~~Measure 3, LAWA will submit annual reports that include a list of buses in operation with associated vehicle identification number, model year, power rating, gross vehicle weight rating, fuel type, odometer reading, and annual vehicle miles travelled. Additionally, a detailed emissions inventory and a list of replaced and replacement buses will be provided by LAWA.

John Wayne Airport

The MOU schedules for John Wayne Airport are summarized in Table 3.2.

Table 3.2. MOU Schedules for John Wayne Airport

Schedule	Title and Program Description
1	Ground Support Equipment - Require that all ground support equipment associated with commercial operations achieve ~~a~~ fleet average NOx emission factors of 1.7 and 0.9 g/bhp-hr in 2023 and 2031, respectively.
2	Jet Fuel Delivery Trucks - Install a jet fuel pipeline by the end of 2019 and eliminate routine commercial aviation jet fuel delivery trucks by 2023.
3	Parking Shuttle Bus Electrification – Replace a minimum of 50% and 80% of airport employee and passenger remote parking compressed natural gas (CNG) shuttle buses with battery-electric shuttle buses by 2023 and 2031, respectively. The airport may continue to maintain standby shuttle buses for emergency use.

Under Schedule 1, the airport ~~commits~~agrees to implement the AQIP measure by working with airport tenants to achieve the performance targets. The airport will also submit annual progress reports including detailed equipment and emissions inventories, in addition to data on replaced GSE. The equipment data will include equipment type, fuel type, engine model year, power rating, engine tier level, and annual activity data.

Under Schedule 2, the airport will provide annual reports that include the number of commercial passenger jet fuel delivery truck trips, an estimate of vehicle miles travelled, total amount of jet fuel delivered by fuel trucks and fuel pipeline, and a detailed emissions inventory.

Under Schedule 3, the airport will provide annual reports that include a list of ~~conventionally-fueled~~ shuttle buses in operation with associated vehicle identification number, model year, power rating, gross vehicle weight rating, fuel type, odometer reading, and annual vehicle miles travelled. Additionally, a detailed emissions inventory and a list of replaced and replacement buses will be provided by the airport.

Burbank Airport

The MOU schedules for Burbank Airport are summarized in Table 3.3.

Table 3.3. MOU Schedules for Burbank Airport

Schedule	Title and Program Description
1	Ground Support Equipment - Require that all ground support equipment associated with commercial operations achieve fleet average ~~hydrocarbon plus~~ NOx ~~combined~~ emission factors of 1.~~92~~66 and 0.~~82~~74 g/bhp-hr in 2023 and 2031, respectively.
2	Zero-Emission Shuttle Bus Program – Replace 50% and 100% of BUR-owned and operated buses with electric buses by 2023 and 2031, respectively.

Under Schedule 1, the airport ~~commits~~agrees to implement the AQIP measure by working with airport tenants to achieve the performance targets. The airport will also submit annual progress reports including detailed equipment and emissions inventories, in addition to a list of replaced GSE. The equipment inventories must include equipment type, fuel type, engine model year, power rating, engine tier level, and annual activity data.

Under Schedule 2, the airport will provide annual reports that include a list of ~~conventionally-fueled~~ shuttle buses in operation with associated vehicle identification number, model year, power rating, gross vehicle weight rating, fuel type, odometer reading, and annual vehicle miles travelled. ~~Additionally, a detailed emissions inventory and a list of replaced and replacement buses will be provided by the airport.~~

Long Beach Airport

The MOU schedules for Long Beach Airport are summarized in Table 3.4.

Table 3.4. MOU Schedules for Long Beach Airport

Schedule	Title and Program Description
1	Ground Support Equipment - Require that all ground support equipment associated with commercial operations achieve fleet average NOx emission factors of 0.93 and 0.44 g/bhp-hr in 2023 and 2031, respectively.

Under Schedule 1, the airport ~~commits~~agrees to implement the AQIP measure by working with airport tenants to achieve the performance targets. The airport will also submit annual progress reports including detailed equipment and emissions inventories, in addition to data on replaced GSE. The equipment inventories must include equipment type, fuel type, engine model year, power rating, engine tier level, and annual activity data.

Ontario Airport

The MOU schedule for Ontario Airport is summarized in Table 3.5.

Table 3.5. MOU Schedule for Ontario Airport

Schedule	Title and Program Description
1	Ground Support Equipment Emissions Reductions Policy - Require that all ground support equipment achieve fleet average NOx emission factors of 2.20 and 1.00 g/bhp-hr in 2023 and 2031, respectively.

Under Schedule 1, the airport ~~commits~~agrees to implement the AQIP measure by working with airport tenants to achieve the performance targets. The airport will also submit annual progress reports including detailed equipment and emissions inventories, in addition to data on replaced GSE. The equipment data will include equipment type, fuel type, engine model year, power rating, engine tier level, and annual activity data.

Chapter 4: Potential SIP Creditable Emission Reductions

Introduction
Enforceable Commitment
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Introduction

In order for the emission reductions associated with implementation of the airports' AQIP/AQIM measures to be SIP creditable, South Coast AQMD is making an enforceable commitment to U.S. EPA to achieve these emissions reductions and to ~~make up~~remedy any potential shortfall. South Coast AQMD is making this commitment based on the airports' commitment to implement the AQIP/AQIM measures specified in their respective MOUs with South Coast AQMD. Although the airports' AQIPs/AQIM include a number of measures and initiatives with potential emission reduction benefits, South Coast AQMD's commitment only covers the reductions from AQIP/AQIM measures that are eligible for SIP credit~~s~~ (i.e., ~~meet~~satisfy U.S. EPA's integrity elements ~~requirements~~). This chapter includes South Coast AQMD's enforceable commitment and ~~provides a demonstration of~~demonstrates how the emission reductions from these AQIP/AQIM measures satisfy the U.S. EPA's requirements.

A. Enforceable Commitment

South Coast AQMD commits to achieve 0.52 and 0.~~38~~37 tons per day (tpd) of NOx reductions in 2023 and 2031, respectively, based on implementation of the airports' AQIP/AQIM measures that are potentially SIP creditable. In the event of any shortfall in the prospective emission reduction benefits in 2023 and 2031, South Coast AQMD commits to adopt and submit substitute measures to U.S. EPA to remedy the shortfall. South Coast AQMD will work together with the airports and other stakeholders to consider potential new or enhanced programs, or better efforts to quantify existing programs, in addressing any shortfalls.

Specifically, South Coast AQMD will do the following:

1. Beginning in 2021 and every year thereafter until 203~~2~~1, ~~monitor~~track the ~~airports'~~ implementation of the airports' AQIP/AQIM measures with SIP creditable ~~emission reductions~~ emissions reductions that are specified in the MOUs with the Los Angeles International Airport, John Wayne Airport, Burbank Airport, Ontario International Airport, and Long Beach Airport based on the annual reports submitted by ~~the~~these airports as specified in ~~each~~the MOU with each ~~individual~~ airport;

2. By ~~December 31~~January 1, 2023, achieve 0.52 tpd of NOx emission reductions from the 2023 baseline inventory~~, as detailed~~ contained in the 2016 South Coast Air Quality Management Plan;

3. By ~~December 31st~~November 1st of ~~2023 and~~ each year beginning in 2021 and through 2024, report annually to U.S. EPA the following information ~~to EPA~~:
   a. Identify the portion of NOx emission reductions achieved ~~in 2022 and 2023~~and all emissions-related information necessary to independently quantify emission reductions;
   b. Document actions by the airports on implementation of the SIP creditable AQIP/AQIM measures in the MOUs; and
   c. Determine whether the implementation of SIP creditable AQIP/AQIM measures ~~will~~ in the MOUs is projected to achieve the full 0.52 tpd of NOx emission reductions in 2023.

4. If U.S. EPA determines by February 1, 2022, that information provided by South Coast AQMD is insufficient to demonstrate that emission reductions required under Paragraph 2 will occur on schedule, adopt and submit to U.S. EPA, no later than November 1, 2022, substitute measures and/or rules through a public process that will achieve emission reductions addressing the shortfall as expeditiously as practicable and no later than January 1, 2023.

~~4.~~5. By ~~December 31~~January 1, 2031, achieve 0.~~38~~37 tpd of NOx reductions from the 2031 baseline inventory~~, as detailed~~ contained in the 2016 South Coast Air Quality Management Plan;

~~5.~~6. By ~~December 31st~~November 1st of ~~2031~~each year beginning in 2024 and through 2032, report annually to U.S. EPA the following information ~~to EPA~~:

a. Identify the portion of NOx emission reductions achieved ~~in 2030 and 2031~~and all emissions-related information necessary to independently quantify emission reductions;
b. Document actions by the airports on implementation of SIP creditable AQIP/AQIM measures in the MOUs; and
c. Determine whether the implementation of SIP creditable AQIP/AQIM measures ~~will~~in the MOUs is projected to achieve the full 0.~~38~~37 tpd of NOx reductions in 2031.

7. If U.S. EPA determines by February 1, 2030 that information provided by South Coast AQMD is insufficient to demonstrate that emission reductions required under Paragraph 5 will occur on schedule, adopt and submit to U.S. EPA, no later than November 1, 2030, substitute measures and/or rules through a public process that will achieve emission reductions addressing the shortfall as expeditiously as practicable and no later than January 1, 2031.

~~6.~~8. Make each annual demonstration report publicly available or available by request

~~By December 31st of 2024 and 2032, adopt and submit substitute measures to EPA in the event of any shortfall in 2023 and 2031 reductions, respectively.~~

The annual reporting by the airports to South Coast AQMD and the South Coast AQMD's periodic reporting to U.S. EPA ensure that the projected emissions reductions will be achieved.

Table 4.1 provides a list of the airports AQIP/AQIM measures in the MOUs eligible for SIP credit and their estimated emission reductions in 2023 and 2031. These prospective SIP creditable emission reductions were estimated by South Coast AQMD staff based on the performance targets and the emission benefits for these measures specified in the AQIPs/AQIM. The methodology to estimate the SIP creditable emission reductions is provided in Appendix ~~C~~B.

Table 4.1 List of Potentially SIP Creditable AQIP/AQIM Measures and Estimated Emission Reduction Benefits

Airport	AQIP/AQIM Measure Title and Description	2023 Reductions (NOx, tpy)	2031 Reductions (NOx, tpy)
LAX	Ground Support Equipment Emissions Reduction Policy - Require that all ground support equipment operators at LAX achieve fleet average NOx + Hydrocarbon emission factors of 1.8 and 1.0 grams per brake horsepower-hour in 2023 and 2031, respectively.	146.71	98.94
LAX	LAX Alternative Fuel Vehicle Incentive Program - Implement an incentive program that will distribute up to $500,000 dollars in funding to applicants based on the "incremental cost" differential of the zero or near-zero emission vehicles as compared to conventionally-fueled equivalents with a Gross Vehicle Weight Rating (GVWR) of 14,001 pounds or greater by December 31, 2021.	0.~~17~~39	0.~~21~~52
LAX	LAWA Clean Fleet Program – Replace 20% and 100% of LAWA-owned and operated buses with zero-emission buses by 2023 and 2031, respectively.	6.40	~~12.50~~8.25
BUR	Ground Support Equipment - Require that all ground support equipment associated with commercial operations achieve fleet average ~~hydrocarbon plus~~ NOx combined emission factors of 1.~~92~~66 and 0.~~82~~74 g/bhp-hr in 2023 and 2031, respectively.	10.19	6.07
BUR	Zero-Emission Shuttle Bus Program – Replace 50% and 100% of BUR-owned and operated buses with electric buses by 2023 and 2031, respectively.	0.11	0.~~10~~07
ONT	Ground Support Equipment Emissions Reductions Policy - Require that all ground support equipment achieve fleet average NOx emission factors of 2.20 and 1.00 g/bhp-hr in 2023 and 2031, respectively.	7.83	9.93
LGB	Ground Support Equipment - Require that all ground support equipment associated with commercial operations achieve fleet average NOx emission factors of 0.93 and 0.44 g/bhp-hr in 2023 and 2031, respectively.	0.92	0.49

Table 4.1 List of Potentially SIP Creditable AQIP/AQIM Measures and Estimated Emission Reduction Benefits (cont'd)

Airport	AQIP/AQIM Measure Title and Description	2023 Reductions (NOx, tpy)	2031 Reductions (NOx, tpy)
JWA	Ground Support Equipment - Require that all ground support equipment associated with commercial operations achieve ~~a~~ fleet average NOx emission factors of 1.7 and 0.9 g/bhp-hr in 2023 and 2031, respectively.	14.53	7.46
JWA	Jet Fuel Delivery Trucks - Install a jet fuel pipeline by the end of 2019 and eliminate routine commercial aviation jet fuel delivery trucks by 2023.	1.52	1.13
JWA	Parking Shuttle Bus Electrification – Replace a minimum of 50% and 80% of airport employee and passenger remote parking compressed natural gas (CNG) shuttle buses with battery-electric shuttle buses by 2023 and 2031, respectively.	1.34	~~1.06~~0.64
	Total	190	~~138~~134

B. U.S. EPA's Integrity Element Demonstration

This subsection demonstrates how each AQIP/AQIM measure that is eligible for SIP credit satisfies the U.S. EPA's four integrity element requirements (i.e., surplus, permanent, quantifiable, enforceable).

a. Ground Support Equipment (GSE) AQIP/AQIM measures

All five airports include a GSE measure in their AQIPs/AQIMs. As such, the demonstration provided in this section regarding the compliance with the U.S. EPA's integrity element requirements covers all five ~~airports~~airports' commitments to implement their respective GSE measure. Table 4.2 presents the GSE performance targets for the five airports as specified in their AQIPs/AQIM. The performance targets are defined in terms of an airport-wide fleet-average emission factor in g/bhp-hr unit. Some airports use Hydrocarbon (HC) and NOx combined emission factors while others use NOx emission factors. CARB's In-Use Off-Road Diesel-Fueled Fleets regulation[8] and Large Spark-Ignition (LSI) Engine Fleet regulation[9] are also based on fleet average targets. The performance targets reflect the unique mix of the GSE fleet at each airport and the estimated emission reductions that can be achieved based on each airport's best efforts.

[8] In-Use Off-Road Diesel-Fueled Fleets Regulation; https://ww2.arb.ca.gov/our-work/programs/use-road-diesel-fueled-fleets-regulation

[9] Large Spark-Ignition (LSI) Engine Fleet Requirements Regulation; https://ww3.arb.ca.gov/msprog/offroad/orspark/orspark.htm

Table 4.2 GSE Performance Targets <u>of NOx Emission Factors</u> by Airport ~~(NOx or HC + NOx g/bhp-hr)~~

Airport	2023	2031
~~BUR[1]~~<u>BUR</u>	1.~~92~~<u>66</u>	0.~~82~~<u>74</u>
~~JWA[2]~~<u>JWA</u>	1.7	0.9
LAX[1]	1.8	1.0
~~LGB[1]~~<u>LGB</u>	0.93	0.44
~~ONT[2]~~<u>ONT</u>	2.2	1.0

[1] ~~The airport~~<u>LAX</u> uses a HC + NOx combined emission factor
[2] ~~The airport uses a NOx emission factor~~

All the five airports' GSE measures meet the required integrity elements as described below.

i. Surplus

Emission reductions are considered surplus when they are not otherwise required by or assumed in the SIP, SIP-related <u>programs</u> ~~requirements~~, any other state or local air quality programs, a consent decree, or a federal rule designed to reduce criteria pollutant or precursor emissions. Also, emission reductions are surplus only for the remaining useful life of the vehicle, engine, or equipment being replaced.

For the GSE measures, surplus emission reductions will be achieved through the replacement of existing equipment with cleaner equipment that are above and beyond the requirements in the existing regulations applicable to GSEs. The airports have established more stringent <u>airport-wide</u> GSE fleet-average performance targets than those required under the current regulations affecting GSE. These regulations are briefly described below:

CARB's In-Use Off-Road Diesel-Fueled Fleets regulation applies to all off-road diesel vehicles with engines rated at 25 horsepower or greater including diesel-powered GSEs and other diesel off-road equipment and vehicles operated at the airports. The regulation requires <u>statewide</u> fleets to retire or retrofit older engines to achieve progressively lower average emission rates of NOx (Table 3 and 4 of CARB's regulation).
<u>https://ww3.arb.ca.gov/msprog/ordiesel/documents/finalregorder-dec2011.pdf</u>

CARB's LSI regulation applies to airport ground support equipment and other off-road vehicles powered by spark-ignited engines (e.g., gasoline, LPG) rated at 25 horsepower or more and greater than 1.0 liter displacement. The regulation requires that applicable <u>statewide</u> fleets achieve specific fleet average emission levels (FAELs) for HC and NOx. These FAELs became more stringent over time until

reaching the final level in 2013 (Table 2 of CARB's regulation). https://ww3.arb.ca.gov/msprog/offroad/orspark/largesparkappa-clean.pdf

Since the proposed GSE fleet average targets in the airports' AQIP/AQIM measures are generally more stringent than ~~those required~~the statewide fleet average requirements under these existing regulations and the reductions associated with these measures are not reflected in the SIP inventory, the emission reductions from these measures are considered surplus. To track and verify the actual emission reductions achieved, the airports will submit annual reports with detailed GSE equipment data and annual emissions inventories.

ii. Permanent

Emission reductions are considered permanent if they are achieved for the entire period that they are credited into the SIP. The emission reductions from the MOU measures are intended to help reach attainment of the 1997 and 2008 8-hour ozone National Ambient Air Quality Standards (NAAQS) in 2023 and 2031, respectively.

The emission reductions from the MOUs' GSE measures will be achieved by ~~the attainment deadlines of~~ 2023 and 2031. The airports have set their GSE fleet average performance targets to become effective by January 1, 2023 and January 1, 2031. Following the ~~MOU~~MOUs' adoption by the airport authorities and the South Coast AQMD Governing Board, the airports will begin implementing their GSE measures by working with their tenants to ~~provide sufficient time to~~ achieve the ~~target reductions~~performance targets in 2023 and 2031. The airports have ~~committed~~agreed to monitor the progress and track the implementation of their respective GSE measures to ensure that the emission reductions from these measures are permanent. Beginning 2021, the airports will provide detailed information on all GSEs subject to the measure for each preceding year to South Coast AQMD along with emission calculations to track progress toward meeting their performance targets. ~~The airports will also provide data on existing equipment that will be replaced with cleaner equipment.~~Achieving these targets will require a gradual transition to zero-emission GSE or the cleanest available GSE. The annual emissions inventories provided by the airports will represent the emissions for the remaining non-zero emission GSE and they will provide the basis for tracking progress toward achieving the projected SIP credit~~s~~ in 2023 and 2031, and demonstrating permanency of emission reductions. The airports will also provide data on the sale, retirement and relocation of existing equipment to other airports within the South Coast Air Basin as specified in the MOUs.

iii. Quantifiable

~~Emissions~~Emission reductions should be calculated by a reliable and replicable methodology and all analyses must be substantiated and documented.

All five airports have developed a 2017 base year GSE emissions inventory based on specific GSE data obtained from their tenants for equipment operated in 2017 at the airports (i.e., equipment type, fuel type, engine size, model year, and annual operating data). The GSE data at each airport was used in conjunction with

established calculation methodology from CARB's OFFROAD model[10] to estimate emissions. CARB's OFFROAD model provides specific parameters such as GSE emission factors by model year, deterioration factors, load factors, and average activity levels (hours/year/unit). For the 2023 and 2031 emission inventory projections, the age distribution of the GSE equipment was assumed to be the same as the 2017 base year equipment age distribution. Emission reductions expected from the implementation of the GSE measures are provided in the technical appendix of each AQIP/AQIM. While the emissions inventory and emission reduction benefits provided in the AQIPs/AQIM reflect the most updated operational data at each airport, the SIP emission reduction credits need to be based on the emissions inventory submitted to U.S. EPA as part of the 2016 AQMP. Therefore, the emission reductions provided by the airports were converted to SIP inventory currencies for consistency purposes. The reconciliation of the airports' emissions data with the 2016 AQMP emissions inventory is provided in Appendix ~~C~~B of this report.

As specified in the MOUs, airports have committed to monitor the progress of the implementation of their GSE measures and to submit annual reports to South Coast AQMD. The annual reports will include annual emission inventories including methodology and calculations as well as a detailed list of all GSE operating within their airports for each preceding year (i.e., equipment ID, equipment type, fuel type, engine model year, engine power rating, engine tier and ~~activity data).~~annual activity data). South Coast AQMD will quantify the actual reductions based on the SIP inventory currency. The SIP creditable emission reduction calculations and methodologies are provided in Appendix B of this report. As such, the emissions reductions associated with implementation of these measures are quantifiable.

iv. Enforceable

Emission reductions are enforceable if they are practically enforceable, independently verifiable, program violations are defined, and if emission-related information is publicly available. A mechanism needs to be established to monitor, assess and report on the implementation of measures and the emission reductions achieved from the measures.

Under the MOUs with South Coast AQMD, the airports have ~~committed~~agreed to implement their MOU measures including the GSE ~~measure~~measures. Each airport will implement its own mechanism to ensure that their GSE performance targets are achieved by working closely with their tenants. ~~For instance, LAWA will receive GSE fleet inventory information from their GSE operators by January 31 of each year. Based on the fleet inventory data, LAWA will calculate the GSE fleet average emission factor. If the average emission factor exceeds the GSE performance targets for LAX, the GSE operator will have to provide LAWA with an action plan within 30 days to comply with the LAX performance targets. In addition, LAWA will~~

[10] CARB Mobile Source Emission Inventory Off-Road Documentation: https://ww2.arb.ca.gov/our-work/programs/mobile-source-emissions-inventory/msei-road-documentation-0

~~require each operator to identify GSEs that are being replaced, the disposal method of retired equipment, and the specifications of the new GSEs to determine compliance with the GSE performance targets. If a GSE fleet does not meet the LAX emissions target, and the failure continues for more than 60 days after the GSE operator receives a notice of failure from LAWA, the GSE operator will be deemed in breach of the measure. In such event, LAWA would take remedial actions against the GSE operator to offset the failure to reduce emissions.~~Each airport will calculate the overall fleet average GSE emission factor based on data collected from their tenants and provide all pertinent emissions data and calculations to South Coast AQMD.

~~In addition, as~~As part of the GSE schedules in the MOUs, beginning in 2021, all the airports have ~~committed~~agreed to submit annual reports to the South Coast AQMD (by June of each year) for each preceding year including the following specific information, as specified in Attachment A of each MOU:

1. List of ground support equipment operating at the airport with the following information:
    a. Equipment ID
    b. Equipment type
    c. Fuel type
    d. Engine model year
    e. Power rating (hp or kW)
    f. Engine tier level (for diesel engines)
    ~~g. Annual activity data (TBD)~~

    ~~2~~g. Annual activity data for non-zero emission equipment that is sufficient to determine emission reductions at a reasonable level of accuracy (i.e., actual operating hours from hour meter readings/maintenance records, average operating hours representative of equipment type and airport, or average operating hours by equipment/fuel type from CARB's OFFROAD model, if applicable)

2. For non-zero emission ground support equipment subject to this GSE measure, information regarding the sale or retirement of equipment available through CARB's DOORS system and, for pre-Tier 4 diesel, pre-2010 gasoline, or pre-2010 LPG ground support equipment relocated from the airport to another airport within the South Coast Air Basin, identify: a) the airport to which equipment is relocated, b) date of relocation, and c) estimated projected usage hours.

3. A detailed annual emission inventory for all GSE operating at the airport, including methodology and calculations.

The airports' annual reports, the emission reductions achieved every year, and other pertinent emissions information related to the implementation of the MOU GSE measures will be fully accessible to the public and the U.S. EPA through a publicly accessible data portal on the internet provided by South Coast AQMD. As such, the emissions calculations can be independently verified.

b. LAWA's Alternative-Fuel Vehicle Incentive Program

To assist with implementation of its LAX Alternative Fuel Vehicle Requirement Program, LAWA is offering an incentive program to replace conventionally-fueled heavy-duty vehicles with zero or near-zero emission vehicles. Under this program, $500,000 of incentive funding is allocated to help offset the higher cost of zero and near-zero emission vehicles compared to conventional diesel-fueled vehicles. The funding amount is expected to incentivize the replacement of approximately 20 heavy-duty diesel trucks under this program. This measure is expected to achieve emission reductions by accelerating the natural fleet turnover from conventional diesel trucks to zero or near-zero emission trucks which are certified at 0.02 or lower g/bhp-hr of NOx. Emission reductions associated with the implementation of this measure are eligible for SIP credit as demonstrated below.

i. Surplus

Emission reductions from this measure are surplus because they are above and beyond the requirements under the existing regulations. The funding criteria of zero or near-zero emission vehicles required in this incentive measure is more stringent than the existing regulations for heavy-duty trucks, and therefore, the emission reductions that are expected to be achieved with the incentive funding are considered as surplus.

Currently, on-road heavy duty vehicles are subject to CARB's In-Use On Road Diesel-Fueled Vehicles Regulation[11], commonly referred to as the Truck and Bus Regulation. The regulation requires that heavy-duty vehicles with a gross vehicle weight rating (GVWR) greater than 14,000 pounds be retrofitted with diesel particulate filters, with implementation schedules based on truck model years. In addition, the older heavy-duty vehicles are required to be replaced according to a tiered schedule that began in 2015. By 2023, nearly all trucks and buses will be required to have model year 2010 engines or newer. The 2010 model year engine standard is 0.2 g/bhp-hr of NOx.

LAWA's Alternative-Fuel Vehicle Incentive program achieves surplus emission reductions above and beyond the existing requirements by funding near-zero or zero-emission trucks which are certified by CARB at 0.02 or lower g/bhp-hr of NOx. LAWA is administering this program through its own application process.[12]

[11] In-Use On Road Diesel-Fueled Vehicles regulation, commonly referred to as CARB Truck and Bus Regulation: https://ww2.arb.ca.gov/our-work/programs/truck-and-bus-regulation

[12] Zero & Near-Zero Emission Heavy-Duty Vehicle Incentive Program Application: https://www.lawa.org/-/media/lawa-web/environment/files/zero-and-near-zero-emission-heavy-duty-vehicle-incentive-program-application.ashx?la=en&hash=10DC4556153DEE5AECED40074B39D41AA0066EEE

ii. Permanent

LAWA is committed to complete the vehicle replacements through its incentive program before 2023. The emission reductions associated with these vehicle replacements are expected to be permanent as these new trucks continue their operation at LAWA as specified under the MOU. LAWA commits to submit annual reports to South Coast AQMD with specific operational activity data for these funded trucks. LAWA is also responsible for providing documentation on how the retired vehicles are scrapped or relocated outside of California. The annual reports will thus ensure the permanency of the emission reductions.

iii. Quantifiable

Emission reduction benefits from the implementation of this measure were estimated using the vehicle information provided by LAWA. The emission reductions were calculated based on the vehicle model year, CARB's 2023 requirement for trucks meeting the 2010 engine standard, and the emission certification level for near-zero trucks. Each vehicle selected for the funding award is required to submit the following information, as required by LAWA:

- <u>Existing vehicle that is being replaced:</u>
  - Vehicle type
  - Vehicle make
  - Vehicle Gross Vehicle Weight Rating (GVWR)
  - Vehicle Model
  - Vehicle Model Year
  - Engine Model Year
  - Registered Owner
  - Department of Transportation Number (if interstate)
  - California Highway Patrol CA Number (if applicable)
  - Total Annual Miles Traveled: or gallons of fuel used

- <u>Replacement vehicle:</u>
  - ARB Certification Executive Order (EO) Number
  - Propulsion System Engine Make
  - Propulsion System Engine Model Year
  - Propulsion System Engine Model
  - Fuel Type (Fuel Cell, Battery, etc.)
  - Engine Family

While detailed methodology to estimate emission reductions are provided in LAWA's AQIM, the above data will ensure that the actual emission reductions are quantified correctly under this measure. The SIP creditable emission reduction <u>calculations and</u> methodology ~~and calculation is~~<u>are</u> provided in Appendix ~~C~~<u>B</u> of this report.

iv. Enforceable

Under the MOU with South Coast AQMD, LAWA is committed to implement this program through its Alternative Fuel Vehicle Incentive Program described above. LAWA's Board of Airport Commissioners approved the Incentive Program in December 2018. Beginning in 2021, LAWA will also submit annual reports to the South Coast AQMD (by June of each year) for each preceding year including emissions inventory reports and the following specific information for trucks participating in this program:

1. Zero or near-zero Vehicle Identification Number
2. Zero or near-zero vehicle model year
3. Zero or near-zero vehicle GVWR
4. Zero or near-zero vehicle engine model year
5. Zero or near-zero vehicle engine power rating
6. Zero or near-zero vehicle fuel type
7. Executive Order number for the zero or near-zero vehicle engine
8. Zero or near-zero vehicle annual VMT
9. List of, and information on, replaced vehicles (e.g., scrapped)
10. A detailed emission inventory for near-zero or zero-emission trucks, including methodology and calculations.

The annual reports, the emission reductions achieved every year, and other pertinent emissions information related to the implementation of this MOU measure will be fully accessible to the public and the U.S. EPA through a publicly accessible data portal on the internet provided by South Coast AQMD. As such, the emissions calculations can be independently verified.

c. Bus Electrification measures

Three (LAX, BUR, and JWA) of the five airports propose to replace existing buses with zero-emission (ZE) electric buses. LAWA will replace its bus fleet (currently 84 buses) that provides transportation for passengers between the aircrafts' gates in the airfield and the airport terminals and for guests traveling between airport parking and passenger terminals (20% in 2023 and 100% in 2031). BUR will replace its buses providing transportation for guests traveling between airport parking and the passenger terminal (50% in 2023 and 100% in 2031). JWA will replace ~~10~~a minimum of ~~12~~ 50% and 80% of Airport employee and passenger remote parking compressed natural gas (CNG) shuttle buses ~~that operate for~~with battery-electric shuttle buses by 2023 and 2031, respectively. JWA airport currently has 12 CNG shuttle buses in operation to transfer passengers and airport employees between off-site parking lots and the airport terminal ~~(6 in 2023 and 4 in 2031).~~). The emissions calculations are based on conversion of these shuttle buses. All three measures target either existing diesel-fueled or CNG-fueled buses to be replaced with ZE electric buses. While the target fleets are different among three airports, the measures are similar for the purpose of demonstrating the integrity elements as described here.

i. Surplus

Emissions reductions from these measures are surplus because these reductions are above and beyond those required under existing regulations.

There are three existing regulations affecting buses operating at airports. First, CARB's In-Use On Road Diesel-Fueled Vehicles regulation requires the replacement of existing diesel trucks and buses with a GVWR greater than 14,000 pounds to be equivalent to the 2010 or newer engine model year exhaust emissions standards by 2023. Because the airports plan to replace their existing buses with electric zero-emission buses, the ~~emissions~~emission reductions ~~above~~beyond those achieved by compliance with the 2010 engine standard of 0.2 g/bhp-hr NOx would be considered surplus in 2023 and 2031.

Second, South Coast AQMD Rule 1194 requires airports and operators of ~~both~~ public ~~and private~~ fleets providing passenger transportation services out of commercial airports to acquire low emission or alternative-fueled vehicles. This rule applies to passenger cars, light-duty trucks, and medium- and heavy-duty transit vehicle fleets of 15 or more vehicles operated by the airport authority, ~~or~~ any other public ~~or private~~ fleet operators that transport passengers from commercial airports, ~~. Passenger or~~ and private fleets under contract or exclusive franchise to the airport. These described passenger shuttle buses and taxi cabs serving airports must comply with this rule as well. The rule requires fleets to use low-emission or alternative fuel vehicles for new purchases ~~when serving in and out of the airports~~. Because the airports plan to replace ~~its~~ their existing CNG shuttle buses with electric ZE buses, the resulting emission reductions would be surplus to the requirements of Rule 1194.

Third, CARB's Zero-Emission Shuttle Bus regulation[13], adopted by the CARB Governing Board in June 2019, requires that at least 33%, 66%, and 100% of airport shuttle fleets be zero-emission vehicles by December 31, 2027, 2031 and 2035, respectively. It also requires fleet owners to report fleet information annually starting in 2022 and to have zero-emission certificates for 2026 and later model year vehicles. LAWA plans to replace 20% of LAWA-owned buses with ZE buses at LAX by 2023. BUR plans to replace 50% of its contracted buses with ZE buses by 2023. JWA plans to replace ~~40~~50% of its contracted CNG buses with JWA-owned ZE buses by 2023. Because the replacement requirement under CARB's regulation does not start until 2027, all replaced buses by the airports by 2023 will be surplus to the regulation. ~~By~~In 2031, however, only ~~34~~67% of the buses that LAX and BUR plan to replace will be surplus based on the ~~66~~33% zero-emission bus replacement requirement in ~~2031~~2027 under CARB's regulation. For JWA ~~plans to replace 80% of buses with ZE buses by 2031. Thus, 16%,~~ six of the ~~replacement ZE~~ten electric buses will still be surplus to the regulation in 2031.

[13] CARB Zero-Emission Airport Shuttle regulation; https://ww2.arb.ca.gov/our-work/programs/zero-emission-airport-shuttle

ii. Permanent

All three airports have phase-in schedules for the deployment of ZE buses by January 1, 2023 and January 1, 2031 under their respective measures. Following the MOU adoption by the airport authorities and the South Coast AQMD Governing Board, the airports will begin implementing their respective bus electrification measure.

Beginning 2021, the airports will submit annual reports to South Coast AQMD that include detailed information on shuttle buses replaced for each preceding year along with emission calculations to track progress toward meeting the performance targets. In the annual reports, LAWA, BUR and JWA will also provide documentation regarding the ~~existing~~operation of their buses to ensure that the emission reductions are permanent.

iii. Quantifiable

Emission reduction benefits are estimated using vehicle specific information for ZE shuttle buses (i.e., vehicle miles traveled per year) along with applicable emission factors from CARB's EMFAC model.[14]

Under the MOUs, ~~both~~ the three airports have committed to monitor the progress of the implementation of their respective zero-emission bus replacements and to submit annual reports to South Coast AQMD including a detailed annual emission inventory for each preceding year. The report will also include information on the calculations and methodology to further substantiate the emission reductions from the measure.

Further details for calculating the emission reductions are included in the technical support document portion of each airport's AQIP/AQIM. The SIP credit calculation methodology for these measures will be based on the VMTs for these ZE buses and the corresponding EMFAC emission factors as described in Appendix ~~C~~B of this staff report.

iv. Enforceable

Under the MOUs with South Coast AQMD, LAWA, BUR, and JWA have ~~committed~~agreed to implement these measures. Beginning in 2021, LAWA, BUR and JWA are also committed to submit annual reports to the South Coast AQMD (by June of each year) for each preceding year including the following specific information for buses covered under these measures:

1. List of buses operating at the airport with the following information:
    a. Vehicle Identification Number
    b. Vehicle model year
    c. GVWR
    d. Engine model year
    e. Engine power rating

[14] https://ww2.arb.ca.gov/our-work/programs/mobile-source-emissions-inventory/msei-modeling-tools

f. Vehicle fuel type
g. Odometer reading
h. Annual vehicle miles travelled

2. A detailed emission inventory for buses, including methodology and calculations.
3. List of buses replaced during the reported year and above listed information on both replaced and replacement buses ~~including documentation for proof of scrappage or equipment or moved out of state.~~

The annual reports, the emission reductions achieved every year, and other pertinent emissions information related to the implementation of these MOU measures will be fully accessible to the public and the U.S. EPA through a publicly accessible data portal on the internet provided by South Coast AQMD. As such, the emissions calculations can be independently verified.

d. JWA Jet Fuel Pipeline Installation measure

JWA will install a new pipeline to transport jet fuel to a new storage tank at the airport facility by the end of 2019. This project eliminates routine commercial aviation jet fuel delivery trucks before 2023.

i. Surplus

Fuel delivery trucks are covered under CARB's In-Use On Road Diesel-Fueled Vehicles regulation (described in previous sections), which requires that all existing trucks meet the 2010 model year engine standard by 2023. Therefore, since this measure eliminates emissions from jet fuel delivery trucks to the airport, the reductions above and beyond the existing regulation (i.e., compliance with the 2010 engine standard) are considered surplus.

ii. Permanent

JWA plans to complete the pipeline project by the end of 2019 and once constructed, the pipeline will ~~replace the delivery of~~eliminate routine commercial passenger jet fuel ~~by~~delivery trucks ~~permanently~~.

Beginning 2021, JWA will submit annual reports to South Coast AQMD, for each preceding year, to document the implementation of this measure and the permanency of the emission reductions. The annual report will provide data on the existing routine and non-routine commercial ~~aviation~~passenger jet fuel delivery trucks (number of trucks trips, truck model year, and vehicle miles traveled), volume of fuel delivered by trucks, and an emissions inventory for trucks including methodology and calculations.

iii. Quantifiable

The new jet fuel pipeline will eliminate the emissions associated with the existing routine commercial passenger jet fuel delivery trucks. Emission reduction benefits resulting from the measure are estimated by using information provided by JWA on fuel delivery trucks and applying emission factors from CARB's EMFAC model.

The annual reports provided by JWA will ensure that the emission reductions estimated from the eliminated truck delivery trips are real and quantifiable in subsequent years.

Further details for calculating the emission reductions are included in the technical support document portion of JWA's AQIP. The SIP credit calculation methodology for these measures will be based on the VMTs for these trucks and the corresponding EMFAC emission factors as described in Appendix ~~C~~B of this staff report.

iv. Enforceable

Under the MOU with South Coast AQMD, JWA is committed to implement the measure. Beginning in 2021, JWA is also committed to submit an annual report to the South Coast AQMD (by June of each year) for each preceding year including the following specific information for this measure:

1. Total number of routine and non-routine truck trips delivering jet fuel for commercial passenger aviation, and truck model years, if available.
2. Total amount of jet fuel delivered by trucks.
3. An estimate of total vehicle miles travelled.
4. A detailed emission inventory for fuel delivery trucks, including methodology and calculations.

~~The annual reports provided by JWA will include specific information that will enable and~~to ~~independently verify emission reduction benefits. The information will also become part of the record keeping and will be maintained for public access throughout the MOU period.~~

The annual reports, the emission reductions achieved every year, and other pertinent emissions information related to the implementation of these MOU measures will be fully accessible to the public and the U.S. EPA through a publicly accessible data portal on the internet provided by South Coast AQMD. As such, the emissions calculations can be independently verified.

C. Technical Analyses

The airports have provided emissions inventories for base year (2017) and two future milestone years (2023 and 2031) under the business-as-usual scenario and the MOU implementation scenarios. These inventories are included in the airports' AQIPs and AQIM. The South Coast AQMD has also provided the necessary documentation and technical analysis for estimating SIP related emission reduction benefits in Appendix ~~C of this staff report.~~B of this staff report. South Coast will make the annual reports submitted by the airports (beginning in 2021), emissions calculations and methodologies, and other pertinent emissions data publicly accessible.

D. Funding

LAWA's Alternative-Fuel Vehicle Incentive Program is the only AQIP/AQIM measure that is based on incentive funding to implement the program. LAWA has allocated a total of $500,000

for this incentive program, which has already been approved by the airport's authority. LAWA will be responsible for administering its own program.

E. Legal Authority

Pursuant to Section 40702 of the California Health and Safety Code, South Coast AQMD "shall adopt rules and regulations and do such acts as may be necessary or proper to execute the powers and duties granted to, and imposed upon" South Coast AQMD. Moreover, Section 40701(f) of the California Health and Safety Code provides that a district shall have power to "cooperate and contract with any federal, state, or local governmental agencies, private industries, or civic groups necessary or proper to the accomplishment of the purposes of this division." Such acts that are necessary to attain the federal ozone NAAQS in 2023 and 2031 include entering into MOUs with the airport authorities to achieve emission reductions from non-aircraft related mobile sources at the airports.

F. Tracking actual emission reductions from MOU measures

Beginning in 2021, the airports have ~~committed~~agreed to submit annual reports to South Coast AQMD on their eligible SIP creditable AQIP/AQIM measures in the MOUs. The annual reports will contain detailed information on the implementation of these measures including equipment and vehicle data (e.g., engine size, model year, annual operating data, etc.), annual emissions inventories along with methodologies and calculations, and information on ~~replaced~~existing equipment and vehicles ~~including,~~(e.g., retired, sold, and relocated within South Coast Air Basin), where applicable~~, documentation regarding proof of scrappage or equipment being moved out of state~~. The annual reports will be made available to the public by South Coast AQMD so any progress on emission reduction benefits toward the final ~~goal~~emission reduction targets can be calculated and validated by the public.

G. Public disclosure

The South Coast AQMD will provide public access to all information related to the emission reductions associated with implementation of the ~~AQIP's~~AQIPs/AQIM's eligible SIP creditable measures in the MOUs. Also, the public will have access to the annual reports submitted by the airports to the South Coast AQMD, as described in the previous sections~~.~~, to independently verify emission calculations. The South Coast AQMD plans to post the annual reports within 30 days of ~~the~~ receipt for access by the public.

In order to ensure easy accessibility to the information, the South Coast AQMD will post the emission related documents on the South Coast AQMD website~~. A new~~ under the existing "Airports MOU" topic page ~~will be created once the MOUs have been adopted by the airport authorities and the South Coast AQMD Governing Board and subsequently submitted to CARB for submittal to EPA. Also, there will be contact~~. Contact information to address any further inquiries from the public regarding the posted information is also available on the page.

H. Reporting to U.S. EPA

By June 1st of each year beginning in 2021 and through the MOU term ending in ~~2031~~2032, the airports will provide annual reports to South Coast AQMD on implementation of the eligible SIP creditable AQIP/AQIM measures identified in the MOUs. The annual reports will include detailed equipment/vehicle data and emission calculations to demonstrate progress toward meeting the performance targets in these measures. Based on information in the annual reports provided by the airports, South Coast AQMD will quantify the corresponding SIP creditable actual emission benefits achieved from implementation of the MOU measures and provide reports to U.S. EPA to document these reductions. South Coast AQMD's detailed reporting commitments to U.S. EPA are specified in Section A of this chapter.

~~For the 2023 emission reduction commitment (0.52 tpd), South Coast AQMD will report to EPA by December 31st of 2023 and 2024. For the 2031 emission reduction commitment (0.38), South Coast AQMD will report to EPA by December 31st of 2031 and 2032. The reports to EPA will identify the emission reductions achieved each year, document actions by the airports on implementation of the eligible SIP creditable AQIP/AQIM measures, and determine whether the implementation of the MOU measures will achieve the full NOx reductions in 2023 and 2031. Each demonstration report will be publicly available or available by request.~~

~~In the event of any potential shortfalls of emission reduction benefits, a process will be triggered to remediate the shortfall with the airports as described above. By December 31st of 2024 and 2032, South Coast AQMD will adopt and submit substitute measures to EPA in the event of any shortfall in 2023 and 2031 reductions, respectively.~~

Chapter 5: California Environmental Quality Act (CEQA) and Socioeconomic Assessment

CEQA Analysis
Socioeconomic Assessment

California Environmental Quality Act Analysis

Pursuant to the California Environmental Quality Act (CEQA), the South Coast AQMD, as Lead Agency, has reviewed the proposed project pursuant to: 1) CEQA Guidelines Section 15002(k) – General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA; and 2) CEQA Guidelines Section 15061 – Review for Exemption, procedures for determining if a project is exempt from CEQA.

The proposed project is comprised of voluntary agreements related to activities the airports have already agreed to implement as specified in five MOUs between the South Coast AQMD and five commercial airports, and South Coast AQMD's enforceable commitment to U.S. EPA to backstop any emission reductions shortfall. The MOUs outline each airport's AQIP or AQIM measures that are capable of achieving SIP creditable emission reductions from non-aircraft mobile sources related to airport operations. The act of voluntarily agreeing to enter into MOUs with the five airports, as well as quantifying emissions for the purpose of establishing an enforceable commitment and crediting the emission reductions into the SIP are administrative and procedural in nature. As explained in the next section "Summary of CEQA Analyses Conducted by Each Airport," the MOUs will have no new physical impacts beyond the potential environmental impacts that were previously analyzed under CEQA for each of the five commercial airports AQIP or AQIM, as applicable. Thus, South Coast AQMD staff has determined that it can be seen with certainty that there is no possibility that the proposed project may have a significant adverse effect on the environment. Therefore, the project is considered to be exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Common Sense Exemption.

Further, as provided in CEQA Guidelines Section 15306 – Information Collection, the proposed project is exempt from CEQA because it will consist of basic data collection, research and resource evaluation activities and will not result in a serious or major disturbance to an environmental resource. Additionally, because the proposed project is designed to further protect or enhance the environment by supporting the reduction of non-aircraft mobile source emissions at five commercial airports within South Coast AQMD's jurisdiction, the proposed project is also categorically exempt from CEQA pursuant to CEQA Guidelines Section 15308 – Actions by Regulatory Agencies for Protection of the Environment.

Finally, South Coast AQMD staff has determined that there is no substantial evidence indicating that any of the exceptions to the categorical exemptions apply to the proposed project pursuant to CEQA Guidelines Section 15300.2 – Exceptions. Therefore, the proposed project is exempt from CEQA. A Notice of Exemption for each airport MOU has been prepared pursuant to CEQA Guidelines Section 15062 – Notice of Exemption and is included in Attachment C of this Governing Board package. If the proposed project is approved, the Notices of Exemption will be filed with the county clerks of Los Angeles, Orange, Riverside and San Bernardino counties.

Summary of CEQA Analyses Conducted by Each Airport

Each airport conducted a CEQA analysis of the potential environmental impacts of incorporating selected measures from their AQIP or AQIM, as applicable, into their respective MOUs. The following background summary of each airport's CEQA analysis has been provided for informational purposes.

Los Angeles International Airport

The LAX AQIM consists of 11 measures and the LAX MOU incorporates the following three measures: 1) the ground support equipment emissions reduction policy; 2) the LAX alternative fuel vehicle incentive program; and 3) the zero emission bus program. The CEQA analysis conducted by the City of Los Angeles Department of Airports, as presented in the following ~~pending~~ record of adoption, concluded that the LAX MOU is exempt from CEQA[15]:

> *"1. DETERMINE that this action is administratively exempt from the California Environmental Quality Act (CEQA) pursuant to Article II, Section 2.n of the Los Angeles City CEQA Guidelines.*
>
> *2. General policy procedure making is administratively exempt from California Environmental Quality Act (CEQA) requirements pursuant to Article II, Section 2.n of the Los Angeles City CEQA Guidelines."*

The ~~proposed adoption of the~~ LAX MOU and the corresponding CEQA exemption determination ~~will be considered~~ was approved by the City of Los Angeles Department of Airports at the November 7, 2019 regular meeting of the Board of Airport Commissioners.

John Wayne Airport

The JWA AQIP consists of 13 measures and initiatives and the JWA MOU incorporates the following three measures: 1) ground support equipment emission reduction policy; 2) jet fuel pipeline to replace delivery trucks; and 3) parking shuttle bus electrification. The County of Orange conducted multiple CEQA analyses for its various components of the JWA AQIP, as follows:

1. AQIP Measure "Jet Fuel Delivery Trucks" was previously analyzed in the Initial Study (No. CPP 2013-00087) and Mitigated Negative Declaration for the John Wayne Airport New Jet Fuel Pipeline and Tank Farm, which was adopted by the Director of Orange County Planning on May 8, 2014. Mitigation measures were made a condition of project approval and a Mitigation Monitoring and Reporting Program was also adopted for the project in May 2014[16].

2. The remaining AQIP measures and initiatives were previously analyzed in the Final Environmental Impact Report (EIR) No. 617 for the John Wayne Airport Settlement Agreement Amendment which was certified by the Orange County Board of Supervisors on September 30, 2014. Mitigation measures were made a condition of project approval and a Mitigation Monitoring and Reporting Program was also adopted for the project. In particular, Mitigation Measure AQ/GHG-4 required the development of a Climate Action Plan and the JWA MOU includes emission

[15] City of Los Angeles Department of Airports, Regular Meeting of the Board of Airport Commissioners, November 7, 2019. https://lawa.granicus.com/GeneratedAgendaViewer.php?view_id=4&clip_id=557

[16] County of Orange, Initial Study (No. CPP 2013-00087) and Mitigated Negative Declaration for the John Wayne Airport New Jet Fuel Pipeline and Tank Farm; http://www.ocpublicworks.com/ds/planning/projects/2nd_district/2nd_district_archived/is_mnd_john_wayne_airport_new_jet_fuel_pipeline_and_tank_farm_and_appendices.

reduction strategies that are consistent with and incorporated into this mitigation measure[17].

The Orange County Board of Supervisors also noted that no substantial changes have been made to the projects previously analyzed in the Initial Study and Mitigated Negative Declaration for the John Wayne Airport New Jet Fuel Pipeline and Tank Farm, the Final EIR No. 617 for the John Wayne Airport Settlement Agreement Amendment, or to Mitigation Measure AQ/GHG-4. Further, no substantial changes have occurred in the circumstances under which the JWA MOU is being undertaken, and no new information of substantial importance to the projects previously analyzed in the Initial Study and Mitigated Negative Declaration for the John Wayne Airport New Jet Fuel Pipeline and Tank Farm, the Final Environmental Impact Report No. 617 for the John Wayne Airport Settlement Agreement Amendment, or Mitigation Measure AQ/GHG-4, which was not known, or could not have been known, when the Initial Study and Mitigated Negative Declaration for the John Wayne Airport New Jet Fuel Pipeline and Tank Farm was adopted, and when the Final EIR No. 617 for the John Wayne Airport Settlement Agreement Amendment was certified. Therefore, no further environmental review of these project components is required.

The Orange County Board of Supervisors also conducted a CEQA analysis for incorporating the three measures of JWA AQIP into the JWA MOU and determined that the JWA MOU is exempt from CEQA because the JWA MOU: 1) will not have a significant effect on the environment because it is an action taken by a regulatory agency to assure the maintenance, restoration, enhancement, or protection of the environment per CEQA Guidelines Section 15308; and 2) includes basic data collection, research, experimental management, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource per CEQA Guidelines Section 15306.

The ~~proposed adoption of the~~ JWA MOU and the corresponding CEQA exemption determination ~~will be considered~~ was approved by the Orange County Board of Supervisors at the November 19, 2019 Meeting[18].

Long Beach Airport

The LGB AQIP consists of seven measures and initiatives and the LGB MOU incorporates one measure that pertains to ground support equipment. The CEQA analysis conducted by the City of

[17] County of Orange, Mitigation Monitoring and Reporting Program for Final Environmental Impact Report No. 617 for the John Wayne Airport Settlement Agreement Amendment, SCH No. 2001111135; https://www.ocair.com/communityrelations/settlementagreement/docs/MitigationMonitoringAndReportingProgramForEIR617.pdf; and http://cams.ocgov.com/Web_Publisher/Agenda05_07_2019_files/images/O00119-000429A.PDF.

[18] Orange County Board of Supervisors Meeting, ~~scheduled for~~ November 19, 2019. http://cams.ocgov.com/Web_Publisher/agenda.pdf

Long Beach as presented in the following ~~pending~~ record of adoption, concluded that the LGB MOU is exempt from CEQA[19]:

> *"This MOU is a project that has been determined to not have a significant effect on the environment and which, is therefore, exempt from the provisions of CEQA because it is an action taken by a regulatory agency to assure the maintenance, restoration, enhancement, or protection of the environment (CEQA Guidelines Section 15308) and includes basic data collection, research, experimental management, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource (CEQA Guidelines Section 15306)."*

The ~~proposed~~ adoption of the LGB MOU and the corresponding CEQA exemption determination ~~will be considered~~ by the Long Beach City Council at the November 19, 2019 meeting.

Ontario International Airport

The ONT AQIP consists of nine measures and initiatives and the ONT MOU incorporates one measure that pertains to the ground support equipment emission reductions policy. The CEQA analysis conducted by the Ontario International Airport Authority, as presented in the following record of adoption, concluded that the ONT MOU is exempt from CEQA[20]:

> *"The ONT MOU is a project that has been determined to not have a significant effect on the environment and which, is therefore, exempt from the provisions of CEQA because it is an action taken by a regulatory agency to assure the maintenance, restoration, enhancement, or protection of the environment (CEQA Guidelines Section 15308) and includes basic data collection, research, experimental management, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource (CEQA Guidelines Section 15306)."*

The ONT MOU and the corresponding CEQA exemption determination was considered and approved by the Ontario International Airport Authority Commission at the October 29, 2019 meeting.

Burbank Airport

The BUR AQIP consists of nine measures and initiatives and the BUR MOU incorporates the following two measures: 1) ground support equipment emission reduction policy; and 2) the zero-emission shuttle bus program. The CEQA analysis conducted by the Burbank-Glendale-

[19] City of Long Beach, Approve Memorandum of Understanding Between the South Coast Air Quality Management District and City of Long Beach (acting in its capacity as the owner and operator of Long Beach Airport), November 19, 2019. https://longbeach.legistar.com/View.ashx?M=A&ID=738240&GUID=6E70C945-6A16-482F-BBF5-623B80512713 (~~Pending~~)

[20] Ontario International Airport Authority, Agenda Item 10 10 (administrative discussion/action/report): Approve Memorandum of Understanding Between the South Coast Air Quality Management District and Ontario International Airport Authority, October 29, 2019. https://www.flyontario.com/sites/default/files/agenda_packet_-_20191029_-_public.pdf

Pasadena Airport Authority, as presented in the following record of adoption, concluded that the BUR MOU is exempt from CEQA[21]:

> *"This MOU is a project that has been determined to not have a significant effect on the environment and which, is therefore, exempt from the provisions of the California Environmental Quality Act (CEQA) because it is an action taken by a regulatory agency, as authorized by state of local ordinance, to assure the maintenance, restoration, enhancement, or protection of the environment (CEQA Guidelines Section 15308) and includes basic data collection, research, experimental management, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource (CEQA Guidelines Section 15306).*

The BUR MOU and the corresponding CEQA exemption determination was considered and approved by the Burbank-Glendale-Pasadena Airport Authority Commission at the November 4, 2019 meeting.

In addition, BUR AQIP measures pertaining to the sustainable design and construction program as well as the trip reduction measures were previously analyzed in the Final Environmental Impact Report for a Replacement Airline Passenger Terminal at Burbank Bob Hope Airport, which was previously certified on July 11, 2016. BUR representatives also provided the following statement regarding the details about their CEQA analysis for the sustainable design and construction program as well as the trip reduction measures[22]:

> *In addition, the Final Environmental Impact Report for a Replacement Airline Passenger Terminal at Burbank Bob Hope Airport (State Clearinghouse Number 2015121095) is previously certified by the Authority on July 11, 2016 and reflects the independent judgment of the Authority and satisfies the requirements of CEQA for the sustainable design and construction program and trip reduction measures in the BUR AQIP."*

Socioeconomic Assessment

The Facility-Based Mobile Source Measure for Commercial Airports will be implemented through voluntary Memorandum of Understandings (MOUs) with the five commercial airports based on each airports' implementation of Air Quality Improvement Plans/Measures (AQIPs/AQIMS) measures specified in the MOUs. No socioeconomic impacts beyond the impacts from the airports' implementation of the AQIP/AQIM measures ~~for these measures already proposed by the airports~~ are expected from implementing the MOUs~~se voluntary programs~~.

[21] Burbank-Glendale-Pasadena Airport Authority, Special Commission Meeting. November 4, 2019. http://hollywoodburbankairport.com/wp-content/uploads/2019/11/11-4-19-BGPAA-Commission-Agenda.pdf

[22] Hollywood Burbank Airport, Final Environmental Impact Report for a Replacement Airline Passenger Terminal at Burbank Bob Hope Airport, SCH No. 2015121095; https://elevatebur.com/documents/.

Chapter 6: Response to Public Comments

Delta Airlines
Sierra Club

Delta Air Lines, Inc.
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Atlanta, GA 30354

October 21, 2019

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South Coast AQMD
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RE: Commercial Airports Memoranda of Understanding

Delta Air Lines, Inc (Delta) is submitting this comment letter regarding the Facility-Based Mobile Source Measure for Commercial Airports and related Memoranda of Understanding (MOUs) with each commercial airport in the South Coast Basin. Delta understands that the MOUs represent voluntary agreements between South Coast AQMD and each commercial airport with each party having specific responsibilities and commitments.

Air Quality Improvement Plans (AQIPs) and/or Air Quality Improvement Measures (AQIMs) with specific measures and initiatives to reduce emissions from non-aircraft mobile sources related to each participating airport's operations have been drafted by each participating airport. The purpose of the MOUs with commercial airports is to set forth the procedures by which the South Coast AQMD will quantify the emission reduction benefits associated with the implementation of specified components of the airports' respective AQIP or/ AQIM strategies that are eligible for State Implementation Plan (SIP) credit.

Even though Delta and other airlines are not parties to the MOUs, the airlines will be asked to help the airports and the South Coast AQMD achieve the emission reduction benefits. This will require substantial capital investment by Delta and other participating equipment owners. Despite this significant cost, Delta looks forward to working with the airports, the South Coast AQMD and other stakeholders as part of Delta's overall commitment to environmental sustainability. 1-1

Delta would like to comment on five specific items we feel are critical to successful implementation, and ask that they be taken into consideration in the drafting of the MOU and associated goals:

1. Charging infrastructure at an airport must be sufficient to meet the demand for electric replacements;
2. Tracking individual unit activity is not feasible;
3. Emission factors need to be standardized and commonly applied at each airport;
4. Redevelopment initiatives must coincide with infrastructure upgrades;
5. Any decision to retire an asset is at the owner's discretion.

Delta provides the following additional commentary related to these five concerns:

1. Charging infrastructure at an airport must be sufficient to meet the demand for electric replacements

Delta's ground support equipment (GSE) fleet is a critical part of our overall operation. GSE must be readily available and operational in order to ensure we fulfill our commitments to passengers and other customers. There must be one charging station for every 2-3 electric GSE units to perform adequately and avoid out of service time. The chargers must fit the required physical specifications and electrical requirements in order for the GSE and batteries to have a prolonged life cycle. Furthermore, charging stations must be located such that they are readily accessible and do not require long travel times to be utilized. In order to ensure these operational requirements are met, each airport authority must achieve this minimum for charging capacity in advance of equipment owners exchanging additional equipment for electric powered GSE. Delta stands ready to invest in a cleaner GSE fleet, but it will be critical for each airport to coordinate with Delta and other airlines in order to ensure that the aggressive GSE emission reduction targets included in the MOUs can be achieved on schedule. 1-2

2. Tracking individual unit activity is not feasible

Delta does not currently have data for all GSE that would allow us to accurately account for usage to be reported on an individual piece-of-equipment by piece-of-equipment basis[1]. It would be an extreme burden to routinely collect usage data for all GSE due to the hundreds of pieces of equipment in active service. Further certain units do not have working hour meters and/or odometers. Particularly given the extraordinary investment that Delta is prepared to make to help the airports and South Coast AQMD achieve the emissions reductions targets set forth in the MOUs, it is vital that the MOUs not impose unnecessarily burdensome, and ultimately infeasible, requirements on the airlines. If the MOUs were to include unrealistic and unachievable methodologies—including without limitation a requirement to track individual unit activities—this would ultimately prevent the South Coast AQMD and the airports from fulfilling the MOUs' procedural requirements, and inhibit the South Coast AQMD's and airports' shared goals of achieving SIP-creditable emission reductions. Accordingly, Delta strongly urges that the MOUs allow the airports to identify GSE fleet emission reductions based on a per-piece utilization average. Final methodologies should be mutually determined following adoption of the MOU in cooperation with Delta and the other airlines, based on confirmation that the proposed methodology is feasible and not unnecessarily burdensome. Please remove the annual activity data requirement from the MOU. 1-3

3. Emission factors need to be standardized and commonly applied at each airport

Each airport must clearly define how emission factors will be assessed for each type of GSE and engine. These must correspond with the target units. Certain CARB standards, specifically those that apply to on-road equivalents, will evidently not be used by individual airports and when new standards are applied equipment owners need to understand how to identify the impact of each engine in their fleet. 1-4

4. Redevelopment initiatives must coincide with infrastructure upgrades

In light of the various redevelopment projects planned and underway at the commercial airports within the South Coast Basin, it is necessary to use good judgment with the timing of infrastructure changes so as not to create a burden with respect to existing construction timeframes. If unavoidable construction delays occur during redevelopment in particular, we urge that investments in electric charging infrastructure be (i) timed to coincide with the timeframes established in the MOUs; and (ii) properly coordinated to avoid the need to install and then promptly replace charging infrastructure as a result of a planned redevelopment project. In addition, because upgrades in electric charging infrastructure are 1-5

1. In cases where we wish to claim a low usage exemption then hour meter readings are collected monthly, but this is an extremely small portion of our fleet.

often timed to coincide with redevelopment projects, we caution that delays in the redevelopment process could impact an operators' ability to increase electric engines in their GSE fleets. Accordingly, coordination, regular communication, and advance planning between the airports and each airline and GSE fleet operator will be required. By way of example, but not limitation, increases in electric engines in Delta's GSE fleet at LAX is dependent on the timely completion of Terminals 2 and 3 because those upgrades will include the expanded charging infrastructure necessary to support additional electric GSE equipment. Similar coordination of redevelopment activities, new electric charging infrastructure, and purchases of electric GSE equipment will be needed at other South Coast Basin airports. 1-5

5. Any decision to retire an asset is at the owner's discretion

Within the past 72 hours, comments have been documented during public meetings that equipment removed from service in the South Coast basin must be scrapped. This last-minute change — made despite the fact that this issue was never raised at any of the public meetings held over the prior sixteen (16) months — is unacceptable. This idea does not take into account the fact that an asset removed from LAX, for instance, may very well be newer, be in better condition or have lower emissions levels than another asset it could replace in another area of Delta's operation outside of the South Coast basin. The owner should have full discretion as to whether or not an asset has met the end of its useful life, and if they will choose to retire it or relocate it out of the South Coast basin. In short, this last-minute change:

- would not reduce emissions within the South Coast basin;
- would impede efforts to reduce emissions outside the South Coast basin;
- violates basic principles of transparency in decision-making and the public process;
- would impose a heavy burden on equipment owners who will bear the burden of implementing measures contemplated by the MOU; and
- would put at risk the ability to implement other measures contemplated by the MOU.

1-6

For all these reasons, we strongly and respectfully urge the AQMD and airports to refrain from accepting this last-minute change to the MOUs and AQIPs / AQIMs.

Thank you for this opportunity to comment, and Delta looks forward to working with South Coast AQMD and each airport authority to ensure success in achieving the important goals of the MOUs.

Sincerely,

Cheryl Meyers
Program Manager – Air Quality, Delta

CC:
Los Angeles World Airports
John Wayne Airport, Orange County
Ontario International Airport Authority

Responses to Comment Letter from Delta Airlines, Inc. (Comment Letter 1)

Response to Comment 1-1:

Staff acknowledges the comments by Delta Airlines and appreciates Delta's commitment to environmental sustainability.

Response to Comment 1-2:

The airport-specific performance targets account for the unique circumstances and operational capabilities of each airport. The airports have agreed to the airport-wide fleet average performance targets while taking into account the necessary infrastructure to achieve these performance targets. The airports are expected to coordinate with all their tenants to ensure the infrastructure needs are met.

Response to Comment 1-3:

South Coast AQMD appreciates the concerns raised by Delta regarding the reporting of equipment-specific activity data. Annual activity data is critical for calculating GSE emissions reductions and satisfying U.S. EPA's integrity elements necessary for SIP credit. Given the upcoming attainment deadlines for meeting the ozone standard and the substantial amount of NOx reductions needed, it is critical that we obtain as many SIP-creditable reductions as possible.

The MOU schedules for GSE measures have been revised to allow for flexibility in reporting annual activity data. Specifically, airlines and operators may choose from the following three options:

1. Actual operating hours from hour meter readings/maintenance records
2. Average operating hours representative of equipment type and airport
3. Average operating hours by equipment/fuel type from CARB's OFFROAD model, if applicable

Staff believes that these options offer significant flexibility to airlines and operators for reporting annual activity data. However, it is imperative that activity data be reported as such data is necessary for South Coast AQMD and the public to independently verify emission reductions.

Response to Comment 1-4:

The emission factors can be obtained from CARB's OFFROAD Model for each piece of equipment based on fuel type, engine size, and model year. If airports use other data sources, they will need to substantiate the applicability of these factors.

Response to Comment 1-5:

Staff acknowledges the need to coordinate redevelopment projects with airlines and operators. It will be the airports' responsibilities to coordinate with their tenants on these efforts to achieve the performance targets.

Response to Comment 1-6:

There are no requirements in the MOUs for scrapping old equipment. However, for tracking purposes, airports are required to report information on the retirement and sale of equipment reported in CARB's DOORS system and identify any pre-Tier 4 diesel and pre-2010 gasoline/LPG GSE relocated to other airports within the Basin.

October 24, 2019

Zorik Pirveysian
Planning and Rules Manager
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765
zpirveysian@aqmd.gov

Dear Mr. Pirveysian:

Sierra Club is writing to comment on the Facility-Based Mobile Source Measures (FBMSM) for Commercial Airports Memorandum of Understanding (MOU) process, with a specific focus on the Ontario Airport, due to its proximity to several front line communities suffering from freight-related air quality impacts in the South Coast region.

Sierra Club is the nation's oldest and largest grassroots environmental organization with nearly 800,000 members nationwide and 170,000 in California. Sierra Club is dedicated to the protection of public health and the environment and has long been a leading voice for reducing our air pollution and greenhouse gas emissions by reducing the use of fossil fuels. 2-1

While Sierra Club is pleased that the airports and South Coast Air Quality Management District (SCAQMD) are working to reduce airport emissions, much work remains. Sierra Club offers the following comments on the MOU process.

I. NOx Emissions Reductions

A. Overall NOx reductions are fairly modest and could be more significant

The FBMSM for Commercial Airports is expected to achieve 0.52 and 0.38 tons per day of NOx emission reductions in 2023 and 2031, respectively, based on the airports' implementation of AQIP/AQIM measures in the MOUs. Even SCAQMD admits that "these emission reductions are modest" but claims that "there are other AQIP/AQIM measures that 2-2

airports are implementing that will result in emission reductions that may not be easily quantifiable or SIP creditable."[1] Sierra Club would like to see more ambitious targets embodied at the Ontario Airport in particular, similar to LAX. 2-2

B. Reported NOx reductions figures are inconsistent for Ontario Airport

The NOx reduction figures for the Ontario airport are not consistent. By way of a few examples:

1. SCAQMD public presentation notes that for Ontario, they expect to achieve 7.83 NOX tpy 2023 reductions, 9.93 tpy reductions in 2031.[2]
2. Preliminary Draft Staff Report at Table 4.1 notes that the GSE Policy alone at Ontario achieves 7.83 NOX tpy reduction by 2023 and 9.93 tpy reduction by 2031.[3]
3. In the Preliminary Draft Staff Report at Table 2.8, it also states that the GSE policy alone at Ontario would achieve 22.66 NOX tpy 2023 reductions, and 46.03 tpy reductions in 2031.[4]
4. In the Draft Ontario AQIP, Table 13 also notes the approximate 22.66 NOX tpy 2023 reduction and 46.03 Tpy reduction by 2031.[5]

2-3

It is thus unclear what NOx reductions the Ontario airport MOU plans to achieve. Is it 7.83 tpy or 22.66 tpy by 2023, and 9.93 tpy or 46.03 tpy by 2031? This is a major discrepancy and Sierra Club hopes to clarify the planned scope of emissions reductions. If the lower figure is

[1] Preliminary Draft Staff Report, Facility-Based Mobile Source Measure for Commercial Airports, September 2019, at p. 7 , accessed: http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/facility-based-mobile-source-measures/preliminary-draft-staff-report.pdf?sfvrsn=6 [hereinafter "Preliminary Draft Staff Report"].
[2] Presentation, Public Consultation Meeting, Oct 10, 2019, at p. 21, accessed: http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/facility-based-mobile-source-measures/presentation.pdf?sfvrsn=11.
[3] Preliminary Draft Staff Report, Table 4.1 List of SIP Creditable AQIP/AQIM Measures and Estimated Emission Reduction Benefits, at p. 41.
[4] Preliminary Draft Staff Report, Table 2.8 Summary of AQIP Measures and Initiatives for Ontario Airport, at p. 27.
[5] Draft Air Quality Improvement Plan, Ontario International Airport, September 17, 2019, at p. 20, accessed: http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/facility-based-mobile-source-measures/draft-aqip-ont.pdf?sfvrsn=7 [hereinafter "Draft Ontario AQIP"].

correct, it seems that the Ontario documents would all need to be recalculated, in addition to the overall planned scope of reductions in the south coast area. If the difference is just in what is creditable under the SIP, that should also be stated. 2-3

II. Ground Support Equipment Replacements Should be Clarified as Permanent

The Ground Support Equipment (GSE) provisions in the AQIP for Ontario Airport indicate that GSE equipment will be replaced.[6] However, the language about how such equipment will be retired is vague and lacks clarity. The Los Angeles World Airports (LAWA)'s Alternative-Fuel Vehicle Incentive Program, on the other hand, has explicit language discussing equipment scrappage and verifying that equipment is replaced.

> The emission reductions associated with these vehicle replacements are expected to be permanent as these new trucks continue their operation at LAWA as specified under the MOU. LAWA commits to submit annual reports to South Coast AQMD with specific operational activity data for these funded trucks. LAWA is also responsible for providing documentation on how the retired vehicles are scrapped or relocated outside of California. The annual reports will thus ensure the permanency of the emission reductions.[7]

2-4

Sierra Club suggests that Ontario use the LAWA's Alternative-Fuel Vehicle Incentive program language, noted above, in its MOU and accompanying documents to ensure permanent emissions reductions.

Moreover, there are generally weak goals for GSE for most of the airport MOUs, with the exception of LAX. This stands in stark contrast to other airports, like SFO, that pledge electric

[6] Draft Ontario AQIP at p. 7-8.
[7] Preliminary Draft Staff Report at p. 47.

GSE vehicles by 2021.[8] The current goals are based on fleetwide averages, which will likely result in near zero technologies and not zero emissions equipment. Sierra Club suggests that the Ontario airport and others adopt and implement a GSE fleet emission reduction program and similarly ensure that GSE vehicles are electric by 2021 like SFO. 2-4

III. Responsibility for Shortfalls in MOU Emissions Reductions Lacks Clear Public Process Requirement

The MOU language notes that in the event of any shortfall in emissions reductions that the SCAQMD will make up this shortfall with other measures:

> Responsibility for Shortfall. The South Coast AQMD shall be solely responsible to make up any emissions reduction shortfalls that may occur in the event that the actual voluntary airport AQIP emissions reduction benefits do not achieve the projected emissions reduction benefits resulting from implementation of the voluntary airport AQIP measures specified in Attachment A. South Coast AQMD will also commit to adopt and submit substitute measures to USEPA to remedy any potential emission reduction shortfall associated with implementation of the AQIP measures identified in Attachment A. The Airport shall have no obligation(s) and/or requirement(s) to implement any substitute measures to remedy any potential emission reduction shortfall associated with implementation of the AQIP measures identified in Attachment A, unless otherwise mutually agreed on by both parties.[9]

2-5

In essence there is no ramification for the Ontario Airport failing to meet its commitments, and the SCAQMD can just decide to substitute other measures in another geographical area or industry for any potential shortfall. While the Preliminary Staff Report

[8] *See* e.g., SFO Transit First Strategic Initiatives, accessed: https://www.flysfo.com/environment/transit-first.

[9] Draft Memorandum of Understanding between the South Coast Air Quality Management District and Ontario International Airport Regarding Ontario International Airport's Air Quality Improvement Plan, September 20, 2019, Section 3 at p. 6, accessed: http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/facility-based-mobile-source-measures/draft-mou-ont.pdf?sfvrsn=7 [hereinafter "Draft MOU"].

indicates that in the case of a shortfall, the SCAQMD would adopt a public process to discuss potential measures that the agency would undertake, this language is missing from the MOU itself:

> In the event that the actual emission reductions from the implementation of the AQIP/AQIM measures specified in the MOUs are less than the projected emission reduction benefits, South Coast AQMD will be responsible for achieving the reduction shortfall. *In such instances, South Coast AQMD also commits to adopt and submit substitute measures to EPA working with the airports and other stakeholders. A public process will be initiated to facilitate the consideration of potential new or enhanced programs, or better efforts to quantify existing programs, to help South Coast AQMD meet any shortfall.* (emphasis added.)[10]

2-5

Sierra Club recommends adding the above language to the draft MOU itself, either in Section 3 on page 6-7 discussing responsibility for shortfalls, or in Section 2 on the MOU public process on page 4. A public process would be important in that scenario to ensure that emissions reductions would occur in a similar location, either at the airport or in another sector in order to be assured that local residents see a benefit to this MOU program.

IV. Third Party Enforcement Provisions in MOUs are Lacking

Section C1(e) of the Draft MOU notes that "[t]he Parties specifically disavow any desire or intention to create any third-party beneficiary under this MOU, and specifically declare that no person or entity shall have any remedy or right of enforcement."[11] Yet, at the same time, the Draft MOU also highlights:

2-6

> 4. Responsibility to Community. The MOU supports and is made in recognition of the importance of ONT to the economic health and well-being of the communities surrounding ONT and the importance of balancing the needs of the City of Ontario, County of San Bernardino and other surrounding

[10] Preliminary Draft Staff Report, at p. 6.
[11] Draft MOU at p.4, Section C(1)e.

communities for adequate commercial air transportation facilities with environmentally responsible air transportation operations at ONT."[12]

Sierra Club expresses its disappointment that an agreement intended to protect the well-being of the community is not enforceable by that same community and therefore recommends striking this provision from the MOU. 2-6

Sierra Club thanks you for consideration of its comments and is available to answer any questions.

Sincerely,

/s/ Jessica Yarnall Loarie
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cc: Sang-Mi Lee, Program Supervisor, slee@aqmd.gov

[12] Draft MOU at p. 2.

Responses to Comment Letter from the Sierra Club (Comment Letter 2)

Response to Comment 2-1:

Staff appreciates the comment letter received from the Sierra Club and its participation at public meetings related to the FBMSM for Commercial Airports.

Response to Comment 2-2:

The AQIPs/AQIM represent the airports' best efforts to develop measures for reducing non-aircraft mobile source emissions and the measures that are eligible for SIP credit will be implemented through the voluntary MOUs with South Coast AQMD. During the MOU development process, staff repeatedly requested that airports consider the most stringent performance targets that were technically feasible and cost-effective.

Although the overall projected NOx reductions from the MOUs are modest (i.e., 0.52 tpd in 2023 and 0.37 tpd in 2031), they represent about 53% and 66% reductions from the GSE category, which are significant. The AQIPs/AQIM include other measures that the airports are implementing that will result in emission reductions but those measures are not included in the MOUs because they are not easily quantifiable or do not meet U.S. EPA's stringent requirements for SIP credit. Thus, the implementation of the AQIPs/AQIM is expected to yield additional reductions beyond 0.52 and 0.37 tons per day in 2023 and 2031, respectively, and we encourage the airports to continue to evaluate their programs and seek additional feasible and cost-effective emission reductions.

Response to Comment 2-3:

The presentations made by the airports, draft AQIPs/AQIM, and Chapter 2 of the staff report all reference emission reductions that were estimated by the airports. The apparent discrepancy arises when comparing the estimated emission reductions by the airport to the corresponding SIP credit~~s~~ calculated by South Coast AQMD in Chapter 4 of the staff report. It should be noted that the projected emission reductions in Chapter 4 account for the portion of the reductions that are considered SIP creditable based on the 2016 AQMP emissions inventory currency. To further clarify, 22.66 tpy is based on calculations performed by Ontario Airport, while 7.83 tpy is calculated by South Coast AQMD as SIP credit (based on SIP inventory) and is included in our enforceable commitment. Please refer to Appendix B of the staff report for an explanation of the SIP credit calculations for all MOU measures.

Response to Comment 2-4:

The revised MOU Schedule for GSE includes additional reporting requirements to document the sale or retirement of equipment. Additionally, any relocation of pre-Tier 4 diesel and pre-2010 gasoline/LPG GSE to another airport within the South Coast Air Basin is required to be reported including the name of the airport, date of relocation, and estimated projected usage hours. The performance target for the GSE measure represents the existing mix of GSE fleet at the airport

and represents what the airport deems feasible to achieve by 2023 and 2031. Staff will review the annual reports and emissions inventory submitted by the airport to track progress in implementation of this measure, including the reported information on the replaced equipment, and make all the information publicly available. South Coast AQMD will continue to encourage the airports to improve their programs by seeking additional feasible and cost-effective strategies.

Response to Comment 2-5:

Although the performance targets in the MOU measures and the corresponding emissions reductions associated with implementation of these measures are expected to be achieved, South Coast is fully committed to address any potential emission reduction shortfall through a public process, and develop substitute measures as required by U.S. EPA, as specified in the Resolution. We encourage Sierra Club to continue to participate during development of any potential future substitute measures.

Response to Comment 2-6:

While the MOU is not enforceable by the community, South Coast AQMD's enforceable commitment to achieve the projected emission reductions will be incorporated into the SIP and thus that commitment is enforceable by the community.

Appendix A: Draft Memoranda of Understanding

Los Angeles International Airport
Burbank Airport
John Wayne Airport
Long Beach Airport
Ontario Airport

MEMORANDUM OF UNDERSTANDING BETWEEN THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT AND THE CITY OF LOS ANGELES DEPARTMENT OF AIRPORTS

This Memorandum of Understanding (MOU) is entered into this day of 2019, by and between the City of Los Angeles Department of Airports (Los Angeles World Airports or LAWA) acting by and through its Board of Airport Commissioners, and the South Coast Air Quality Management District (South Coast AQMD), acting by and through its Governing Board. LAWA and South Coast AQMD shall be referred to collectively as Parties (each a Party) to this MOU.

I. RECITALS

A. RECITALS BY SOUTH COAST AQMD.

1. Air Regulatory Agencies. Air pollution remains a significant public health concern in many parts of California, and specifically in the South Coast Air Basin (Basin). The South Coast AQMD, California Air Resources Board (CARB), and the United States Environmental Protection Agency (USEPA) are the regional, state, and federal regulatory agencies, respectively, with jurisdiction over air quality in the Basin. The Basin consists of the County of Orange, and the non-desert portions of the Counties of Los Angeles, Riverside, and San Bernardino.

2. South Coast AQMD. The South Coast AQMD is the regional air pollution control agency primarily responsible for reducing air pollution in the Basin. Los Angeles International Airport (LAX or Airport) is located within the Basin.

3. Need for Emission Reductions. The USEPA designated the Basin as an extreme non-attainment area for the 1997 and 2008 8-hour ozone national ambient air quality standards (NAAQS) with statutory deadlines to reach attainment by 2023 and 2031, respectively. Despite significant air quality improvements achieved over the last several decades, to meet the ozone NAAQS, emissions of oxides of nitrogen (NOx) need to be reduced by 45% in 2023 and 55% in 2031 as outlined in the 2016 Air Quality Management Plan (AQMP). The 2016 AQMP includes Control Measure MOB-04 – Emissions Reductions at Commercial Airports, with the goal of achieving emission reductions from commercial airports. On March 3, 2017, the South Coast AQMD Governing Board adopted the 2016 Air AQMP. On March 23, 2017, CARB approved the 2016 AQMP and the 2016 State Strategy for the State Implementation Plan (SIP) for Federal Ozone and PM2.5 Standards. ~~, and submitted them to~~ On October 1, 2019, USEPA ~~for~~ approv~~al~~ed the 2016 AQMP and SIP.

4. Emissions from Sources at Commercial Airports. Emissions associated with operations at commercial airports contribute to adverse air quality in the Basin; these emissions are primarily due to airport-related mobile source activities. These sources include aircraft, cargo trucks, ground support equipment (GSE), off-road vehicles, shuttle buses, and passenger vehicles. NOx emission reductions from commercial airports can assist with the effort to attain the ozone standards in 2023 and 2031.

B. RECITALS BY LAWA.

1. LAWA. LAWA is a proprietary department of the City of Los Angeles. The City of Los Angeles is a Charter City and is subject to city, county, state, and federal law. The City of Los Angeles is the proprietor and certificated operator of LAX.

2. Authority. The City of Los Angeles acting by and through its proprietary department LAWA has the authority to enter into this MOU pursuant to the City of Los Angeles Charter. Obligations hereunder, are, however, limited to the extent in conflict with any Federal Aviation Authority (FAA) rules or regulations.

3. LAWA's History of Leadership in Successfully Implementing Air Quality Improvement Programs. LAWA has a long history of leadership in successfully implementing air quality improvement programs at LAX and is committed to improving air quality in and around its airports to the extent consistent with operating an airport.

4. LAX Air Quality Improvement Measures (LAX AQIM). LAWA has identified its existing non-aircraft related air quality improvement measures and proposed new initiatives for reducing NOx emissions from non-aircraft related mobile sources at the airport and included both into the LAX AQIM, which supports the South Coast AQMD's efforts to meet its obligations under the 2016 ~~AQMD~~AQMP. LAWA's LAX AQIM represents its best efforts to develop strategies for reducing NOx emissions from non-aircraft mobile source operations at LAX based on its existing authority over airport emission sources and includes specific voluntarily-created airport measures and new initiatives for certain non-aircraft emission sources operating at LAX.

5. Emissions Inventory. The LAX AQIM includes the 2017 base year emissions inventory and 2023 and 2031 business as usual emissions forecasts as well as the 2023 and 2031 emissions forecasts that include the estimated emissions benefits from LAX AQIM measures and new initiatives with quantifiable emission reductions. The LAX AQIM provides an emissions inventory only for non-aircraft airport sources (i.e., ground support equipment, on-road and off-road airport fleet vehicles, trucks, shuttle buses, and passenger transportation) for which the LAX AQIM includes specific measures and initiatives and LAWA has

provided the LAX AQIM and related LAX AQIM Emissions Inventory and Forecasts with supporting calculations to the South Coast AQMD.

C. JOINT RECITALS.

1. Purpose of MOU.

a. The purpose of this MOU is to set forth how the Parties, consistent with their respective legal authorities, intend to quantify the anticipated emission reduction benefits in the Basin through implementation of the three (3) voluntary LAX measures from LAWA's LAX AQIM set forth in Attachment A (hereinafter the "MOU Measures"). This MOU does not create SIP creditable reductions; rather, it identifies specific voluntary measures and provides the means for the South Coast AQMD to quantify the emission reductions from the MOU Measures to obtain SIP credits.

b. The MOU is not intended to limit Airport growth. The central objective of the LAX AQIM and this MOU is to reduce NOx emissions and achieve corresponding reductions of associated pollutants from non-aircraft airport mobile sources.

c. The MOU Measures set forth in Attachment A, ~~Schedules~~ MOU Measures 1 through 3, set forth metrics for quantification of estimated emission benefits associated with implementation of those MOU Measures.

d. The emission reduction benefits from the MOU Measures may be used by South Coast AQMD to obtain SIP credit to the extent the emission reduction benefits quantified by South Coast AQMD for these measures satisfy USEPA's integrity elements (i.e., the emission reductions are quantifiable, surplus, permanent, and enforceable). South Coast AQMD may seek SIP credit for the quantified emission reductions through a separate SIP submittal.

e. The Parties agree that the South Coast AQMD, and not LAWA, will be responsible for any difference between the estimated prospective emission reductions and actual emissions reductions achieved from the MOU Measures.

f. The Parties specifically disavow any desire or intention to create any third-party beneficiary under this MOU, and specifically declare that no person or entity shall have any remedy or right of enforcement.

g. The Parties will continue to work together in developing inventories of airport emission sources to support the development of future AQMPs outside of the MOU process.

h. LAWA and South Coast AQMD have a long history of successfully working together on air quality emission reduction projects; and LAWA and the South Coast AQMD desire to continue this successful collaboration through this voluntary MOU.

2. MOU Public Process.

a. Following the adoption of the 2016 AQMP, South Coast AQMD staff held a series of public working group meetings to solicit comments on implementing Control Measure MOB-04 for commercial airports. Based on input received during the public process, South Coast AQMD staff developed a recommendation for the South Coast AQMD Governing Board for the development of an MOU with the commercial airports. In the event that the MOU approach with the airports was not successful, staff also recommended consideration of a regulatory approach for reducing emissions from commercial airports.

b. On May 4, 2018, the South Coast AQMD Governing Board directed staff to pursue the approach for developing facility-based emission reduction strategies for commercial airports through voluntary measures only.

c. South Coast AQMD staff established an MOU Working Group, consisting of representatives from the South Coast AQMD, commercial airports (LAX, John Wayne Airport, Ontario International Airport, Hollywood Burbank Airport, and Long Beach Airport), CARB, USEPA, environmental organizations, labor, freight industry, airlines, other stakeholders, and the public to solicit comments on the MOU development, and to monitor the implementation of this MOU and provide reports to USEPA. In addition, South Coast AQMD may utilize other well-established means of communication, including the South Coast AQMD website, Subscribers lists, and Governing Board and Committee meetings, for disseminating information concerning the status of MOU implementation.

d. The MOU has been developed through the public process, discussed above, for consideration by the South Coast AQMD Governing Board and the LAWA Board of Airport Commissioners.

3. MOU Applicability. The MOU (1) does not apply to all measures and new initiatives identified in the LAX AQIM, (2) addresses only the MOU Measures identified in Attachment A, and (3) does not supersede conflicting rules that are established by the USEPA or CARB, or legal obligations that LAWA is subject to such as U.S. Department of Transportation (USDOT) or FAA regulations; federal statutes, including the Anti-Head Tax Act (AHTA), the Federal Aviation Act, and the Airline

Deregulation Act; international treaties; or the doctrines of federal preemption, the dormant Commerce Clause, and the Supremacy Clause.

a. Excluded Sources.

Nothing in this MOU is intended or shall be interpreted to apply to: (1) any source that is not specifically identified in the MOU Measures, or (2) the operation of any source that is not specifically identified in the MOU Measures

II. NOW THEREFORE, in consideration of the mutual interests and benefits of all parties to be derived from emissions reductions of NOx, and corresponding anticipated reductions to other pollutants, including VOC and PM, resulting from the implementation of the MOU Measures, the Parties agree as follows:

A. AGREEMENTS.

1. The Parties agree the MOU does not: (i) establish an emissions cap or any other facility-wide limit for NOx, or any other pollutant; (ii) constitute any new regulatory authority imposed on LAWA, its operations, or its tenants; (iii) obligate LAWA to provide a comprehensive, facility-wide inventory of NOx emissions; or (iv) limit LAWA's ability to seek incentive or grant funding through federal, State and local programs, including but not limited to the FAA Voluntary Aviation Low Emissions (VALE) program and other similar programs, which require emissions reductions achieved through such programs to be voluntary in nature and exceed existing obligations to achieve emissions reductions.

2. The Parties agree to coordinate to identify general conformity budgets in the next AQMP for LAWA's general conformity purposes.

B. LAWA'S RESPONSIBILITIES.

LAWA agrees to take the following actions:

1. Implementation of MOU Measures. LAWA voluntarily agrees to implement the MOU Measures.

2. Monitoring and Reporting. LAWA will monitor the implementation of the MOU Measures and provide data and annual emissions inventory reports to South Coast AQMD as specified in Attachment A, ~~Schedules~~ MOU Measures 1 – 3.

C. SOUTH COAST AQMD'S RESPONSIBILITIES.

South Coast AQMD commits to take the following actions:

1. Technical Analysis for SIP Credit from MOU Measures emission

reductions. The South Coast AQMD will provide the necessary documentation and technical analysis with respect to the calculation of estimated emission reductions benefits attributable to the MOU Measures. This would include, but not be limited to, an analysis of the AQMP/SIP baseline for affected airport sources, emission reductions achieved through the MOU Measures, and an estimation of emissions reductions benefits and corresponding SIP credits. Factors to be considered for purposes of calculating the emission reductions benefits attributable to the MOU Measures shall include, but not be limited to: growth forecasts from LAWA, implementation schedules for the MOU Measures, the availability of funding for relevant incentives programs, and the technical and economic feasibility of specific MOU Measures

2. Federal Enforceability. To the extent necessary to obtain SIP approval, the South Coast AQMD will provide its own federally enforceable commitments to USEPA in a SIP update document that is separate from this MOU after approval by the South Coast AQMD and CARB Boards. South Coast AQMD will monitor, assess, and report the emission reductions benefits from the voluntary MOU Measures as identified in Attachment A to the USEPA.

3. Responsibility for Shortfall. LAWA's emissions estimates will be reliant on performance-based targets and LAWA will not provide emissions reduction guarantees. In the event of any shortfall in estimated emission reductions from the MOU Measures, the Parties agree that the South Coast AQMD shall be solely responsible to make up the shortfall, and LAWA shall not be responsible for making up the shortfall. South Coast AQMD will commit to adopt and submit substitute measures to USEPA to remedy any potential emission reduction shortfall associated with implementation of the MOU Measures. The Airport shall have no obligation(s) and/or requirement(s) to implement any substitute measures to remedy any potential emission reduction shortfall associated with implementation of the MOU Measures, unless otherwise mutually agreed on by both parties. Notwithstanding the above, LAWA and South Coast AQMD agree that, in the event that the actual emission reductions associated with implementation of MOU Measures are less than the estimated emissions reduction benefits projected for implementation of these measures, LAWA and South Coast AQMD will work together to consider potential new or enhanced programs, or better efforts to quantify existing programs, to help South Coast AQMD address any shortfalls.

4. Funding. The South Coast AQMD, at its Governing Board's discretion, will support grant funding efforts with potential funding sources that may provide funding for the voluntary airport AQIM measures.

5. Monitoring. The South Coast AQMD will monitor and assess the implementation of the MOU Measures~~-~~ based on information provided by LAWA as outlined in Attachment A, ~~Schedules~~ MOU Measures 1 through 3.

6. Information Sharing. The South Coast AQMD will provide the means for ensuring that emission reduction data and other pertinent information related to the implementation of the MOU Measures are accessible to the public and the USEPA.

D. MOU MEASURES (ATTACHMENT "A").

The MOU Measures for which the South Coast AQMD may quantify emission reductions and seek SIP credit through a separate SIP submittal are identified in Attachment A and are incorporated as part of this MOU:

- MOU MEASURE NO. 1 – GROUND SUPPORT EQUIPMENT EMISSIONS REDUCTION POLICY
- MOU MEASURE NO. 2 – LAX ALTERNATIVE FUEL VEHICLE INCENTIVE PROGRAM
- MOU MEASURE NO. 3 – ZERO-EMISSION BUS PROGRAM

Each MOU Measure focuses on the specific MOU Measure and time frame aligned with the AQMP and SIP emission reduction target dates (i.e., 2023, 2031), and includes technical details pertinent to the equipment category such as:

- Metrics or performance targets
- Schedule for program implementation
- Annual reporting by LAWA to South Coast AQMD

E. TERM OF MOU. The term of this MOU shall be effective as of the day and year indicated on the first page of this MOU ("Effective Date") through December 31, ~~2031~~2032, unless terminated earlier pursuant to subsection F, below. Prior to expiration of this MOU, all Parties agree to meet to evaluate the need for continuing participation. If all Parties agree that continuing participation is desirable, they shall negotiate for their respective Boards' approval, a written extension of the term of this MOU, and any applicable additional MOU ~~Schedules~~Measures.

F. WITHDRAWAL AND EARLY TERMINATION. Any Party may terminate this MOU for any reason by providing ninety (90) days written notice to the other Party. The Parties commit to work together to resolve any issues and negotiate an updated MOU at least thirty (30) days in advance of the specified date of termination of the MOU. If the Parties are unable to reach agreement, the MOU shall terminate on the date specified in the notification. Termination of this MOU shall not terminate any grants or funds entered into prior to the termination.

G. IMPLEMENTATION. The Parties agree to implement the provisions under their respective commitments specified in the MOU. LAWA and the South Coast AQMD agree that LAWA's implementation of the MOU Measures is not to be construed as a regulation, rule, or requirement of the South Coast AQMD. In the event that any party fails to meet its commitment(s) or anticipates an inability to meet its commitment(s), the Party shall provide notice to the other Party within sixty (60) days of such determination and seek to negotiate a mutually agreeable solution within ninety (90) days of the date of the Notice. The Parties shall continue to comply with all other commitments under this MOU during the negotiations. Nothing contained in this paragraph is intended to limit any rights or remedies that the Parties may have under law. The Parties shall attempt to resolve any controversy that may arise out of or relating to this MOU. If a controversy or claim should arise that cannot be resolved informally by the respective staffs, executive level representatives of the Parties will meet at least once in person and, in addition, at least once in person or by telephone to attempt to resolve the matter. The Representatives will make every effort to meet as soon as reasonably possible at a mutually agreed time and place.

H. NOTICES. All notices that are required under this MOU shall be provided in the manner set forth herein, unless specified otherwise. Notice to a Party shall be delivered to the attention of the person listed below, or to such other person or persons as may hereafter be designated by that party in writing. Notice shall be in writing sent by U.S. Certified Mail, Return Receipt Requested, or a nationally recognized overnight courier service. Notice shall be deemed to be received when delivered (written receipt of delivery).

South Coast AQMD:	South Coast Air Quality Management District 21865 Copley Drive Diamond Bar, CA 91765-4178 Attn: Assistant Deputy Executive Officer Planning, Rule Development & Area Sources
LAWA:	Los Angeles World Airports Attn: Tamara McCrossen-Orr 7301 World Way West, 7th Floor Los Angeles, CA 90045
With a copy to:	General Counsel Los Angeles City Attorney Airport Division 1 World Way Los Angeles, CA 90045

I. COSTS. Each Party shall be responsible for its respective costs associated with this MOU. No Party will submit a claim for compensation to any other Party, or otherwise seek reimbursement of costs from any other Party, for activities carried out pursuant to this MOU.

J. FUTURE AGREEMENTS. This MOU does not restrict any future agreements between the Parties with respect to the subject matter stated herein or any other subject matter.

K. JOINT WORK PRODUCT. This MOU shall not be construed against the Party preparing the same, shall be construed without regard to the identity of the person who drafted such and shall be construed as if all Parties had jointly prepared this MOU and it shall be deemed their joint work product.

L. ENTIRE UNDERSTANDING. This MOU, including all attachments, constitutes the entire understanding between the Parties and supersedes all other agreements, oral or written, with respect to the subject matter herein.

M. VENUE. Venue for resolution of any disputes under this MOU shall be Los Angeles County, California, USA.

N. ATTORNEYS' FEES. In the event any action is filed in connection with the enforcement or interpretation of this MOU, each Party shall bear its own attorneys' fees and costs.

O. AUTHORITY. Except as expressly stated herein, nothing in this MOU shall be construed as a waiver of any Party's discretionary authority or deemed to restrict authority granted to any Party under law in any way with respect to future legislative, administrative, or other actions.

P. COUNTERPARTS. This MOU may be executed in one or more counterparts, each of which shall be deemed to be an original.

Q. MODIFICATIONS. This MOU may be subsequently modified at any time but no modification shall be valid or binding unless made in writing and signed by authorized representatives of both Parties.

R. AUTHORIZED SIGNATURES. Each signatory of this MOU represents that s/he is authorized to execute on behalf of the Party for which s/he signs. Each Party represents that it has legal authority to enter into this MOU and to perform all obligations under this MOU.

S. NO ENFORCEMENT AGAINST THIRD PARTIES. The South Coast AQMD shall not seek to enforce the MOU Measures or any of the measures or initiatives in the LAX AQIM or any of its terms against LAWA's tenants, concessionaries, third party licensees, vendors, or other relevant operators doing business at LAWA facilities.

T. AMENDMENTS AND CONSULTATION. LAWA may update or modify its

LAX AQIM at any time at its discretion. However, amendments to the MOU Measures must be made by the mutual agreement of both Parties and in writing signed by the Parties.

U. RELATIONSHIP TO LAWS. LAWA will not implement any MOU Measures or measures in the LAX AQIM or any provision or provisions thereof that would violate Federal law, federal regulations, international treaty obligations, FAA policy, or FAA instructions, or compromise the safety of the traveling public.

IN WITNESS WHEREOF, the Parties have executed this MOU as of the day and year indicated on the first page of this MOU.

APPROVED AS TO FORM:
MICHAEL N. FEUER, City Attorney

Date: _____

By: _____
Deputy City Attorney

CITY OF LOS ANGELES

By: _____
Chief Executive Officer
Department of Airports

By: _____
Chief Financial Officer
Department of Airports

APPROVED AS TO FORM:

_____
Bayron T. Gilchrist

Date: _____

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

By: _____
Dr. William Burke
Its: Chairman, South Coast Governing

Date: _____

ATTACHMENT A - LAX MOU Measures

MOU MEASURE NO. 1 – GROUND SUPPORT EQUIPMENT EMISSIONS REDUCTION POLICY

This MOU Measure No. 1 is based on LAWA's LAX AQIM measure, the Ground Support Emissions Reduction Policy for ground support equipment (GSE) at LAX and is attached to and a part of the MOU between LAWA and South Coast AQMD.

I. PROGRAM DESCRIPTION – Require that all ground support equipment operators at LAX achieve fleet average NOx + Hydrocarbon emission factors of 1.8 and 1.0 grams per brake horsepower-hour ~~in~~ by January 1, 2023 and January 1, 2031, respectively.

II. PROGRAM TIMEFRAME~~—~~ – Upon ~~Upon~~ execution through ~~2031~~2032.

III. LAWA OBLIGATIONS – LAWA shall:

A. Airport shall implement the measure by working with airport tenants to achieve the above performance targets. Airport shall have complete discretion as to mechanisms used to implement this measure.

B. Beginning in 2021, and every year thereafter through ~~2031~~2032, provide the following information to South Coast AQMD on an annual basis by June 1 for each preceding calendar year:

1. List of ground support equipment operating at LAX subject to this GSE measure with the following information:

   a. Equipment ID
   b. Equipment type
   c. Fuel type
   d. Engine model year
   e. Power rating (hp or kW)
   f. Engine tier level (for diesel engines)
   g. ~~[~~Annual ~~A~~activity ~~D~~data for non-zero emission equipment that is sufficient to determine emission reductions at a reasonable level of accuracy (i.e., actual operating hours from hour meter readings/maintenance records, average operating hours representative of equipment type and airport, or average operating hours by equipment/fuel type from CARB's OFFROAD model, if applicable).~~to be determined]~~[1]

2. For non-zero emission ground support equipment subject to this GSE measure, information regarding the sale or retirement of equipment available through CARB's DOORS system and, for pre-Tier 4 diesel, pre-2010 gasoline, or pre-2010 LPG ground support equipment relocated from LAX to another airport within the South Coast Air Basin, identify: a) the airport to which equipment is relocated, b) date of relocation, and c) estimated projected usage hours.

[1] ~~[Activity Data to be determined]~~

~~2.~~3. An annual emission inventory for ground support equipment operating at LAX, following the methodology and calculations used to generate the 2017 baseline inventory report for the LAX AQIM.

~~V.~~IV. SOUTH COAST AQMD OBLIGATIONS – South Coast AQMD shall:

A. Verify emission reductions from the implementation of this measure by LAWA to determine actual emission reductions.

~~B.~~ Ensure that the data set forth in Section III.B related to this measure is accessible to the public and the USEPA.

B.

~~VI.~~V. JOINT OBLIGATIONS – The Airport and the South Coast AQMD shall:

A. Work to identify and demonstrate clean technologies for ground support equipment in collaboration with technology providers, airport tenants, CARB, USEPA, and stakeholders.

B. Collaborate to identify additional sources of funding to accelerate turnover of existing ground support equipment to cleaner equipment.

MOU MEASURE NO. 2 – LAX ALTERNATIVE FUEL VEHICLE INCENTIVE PROGRAM

This MOU Measure No. 2 is based on LAWA's LAX AQIM measure, the LAX Zero and Near-Zero Emission Heavy-Duty Vehicle Incentive Program and is attached to and a part of the MOU between LAWA and South Coast AQMD.

I. PROGRAM DESCRIPTION – Implement an incentive program that will distribute up to $500,000 dollars in funding to applicants based on the "incremental cost" differential of the zero or near-zero emission vehicles as compared to conventionally-fueled equivalents with a Gross Vehicle Weight Rating (GVWR) of 14,001 pounds or greater by December 31, 2021.

II. PROGRAM TIMEFRAME~~–~~ – Upon ~~Upon~~ execution through ~~2031~~2032.

III. LAWA OBLIGATIONS – LAWA shall:

A. Ensure full subscription of incentive program funding, to the maximum extent feasible, to encourage the deployment of zero or near-zero emission vehicles at LAX.

B. Beginning in 2021, provide the following information to South Coast AQMD on an annual basis by June 1 for each preceding calendar year:

1. Zero or near-zero vehicle VIN number
2. Zero or near-zero vehicle model year
3. Zero or near-zero vehicle GVWR
4. Zero or near-zero vehicle engine model year
5. Zero or near-zero vehicle engine power rating
6. Zero or near-zero vehicle fuel type
7. Executive Order Number for the zero or near-zero vehicle engine
8. Zero or near-zero vehicle annual VMT (estimated)[2]
9. List of, and information on, replaced vehicle s (e.g., scrapped, moved out of state)
10. An emission inventory for the new near-zero or zero-emission vehicles acquired by LAX operators under the Alternative Fuel Vehicle Incentive Program, following the methodology and calculations used to generate the 2017 baseline inventory report for the LAX AQIM.

[2] Vehicle miles traveled (VMT) will be estimated from EMFAC2017 VMT for applicable vehicle size and technology categories in the South Coast Air Basin portion of Los Angeles County, unless CARB updates those activity levels at a future date within the Program.

IV. SOUTH COAST AQMD OBLIGATIONS – South Coast AQMD shall:

A. Verify emission reductions from the implementation of this measure by LAWA to determine actual emission reductions.

B. Ensure that the data set forth in Section III.B related to this measure is accessible to the public and the USEPA.

MOU MEASURE NO. 3 – ZERO-EMISSION BUS PROGRAM

This MOU Measure No. 3 is based on LAWA's LAX AQIM measure, the LAWA Zero- Emission Bus Program to convert LAWA-owned buses at LAX to zero-emission buses and is attached to and a part of the MOU between LAWA and South Coast AQMD.

I. PROGRAM DESCRIPTION – Replace 20% and 100% of LAWA-owned and operated buses with zero-emission buses by January 1, 2023 and January 1, 2031, respectively.

II. PROGRAM TIMEFRAME – Upon ~~– Upon~~ execution through ~~2031~~2032.

III. LAWA OBLIGATIONS – LAWA shall:

A. Replace LAWA-owned buses to meet the specified targets.

B. Beginning in 2021, provide the following information to South Coast AQMD on an annual basis by June 1 for each preceding calendar year:

1. List of buses operating at LAWA with the following information:

a. Vehicle Identification Number

b. Vehicle model year

c. Vehicle GVWR

d. Bus engine model year

e. Power rating (hp or kW)

f. Odometer reading

g. Vehicle miles traveled[3]

2. An emission inventory for the LAWA-owned bus fleet, following the methodology and calculations used to generate the 2017 baseline inventory report for the LAX AQIM.

3. List of buses replaced during the reported year and information specified in III.B.1 above on replaced and replacement buses (i.e., replaced buses scrapped or moved out of state).

IV. SOUTH COAST AQMD OBLIGATIONS – South Coast AQMD shall:

A. Verify emission reductions from the implementation of this measure by LAWA to determine actual emission reductions.

B. Ensure that the data set forth in Section III.B related to this measure is accessible to the public and the USEPA.

[3] Vehicle miles traveled (VMT) will be based on actual annual mileage traveled by each bus in the LAWA-owned bus fleet.

MEMORANDUM OF UNDERSTANDING BETWEEN
SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT AND
BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY
REGARDING HOLLYWOOD BURBANK AIRPORT'S AIR QUALITY IMPROVEMENT PLAN

This Memorandum of Understanding ("MOU") is entered into by South Coast Air Quality Management District ("South Coast AQMD"), acting by and through its Governing Board, and the Burbank-Glendale-Pasadena Airport Authority ("Authority"), a joint powers agency, in its capacity as the proprietor and certificated operator of the Bob Hope Airport, commonly known as Hollywood Burbank ("BUR" or "Airport"). The Authority and South Coast AQMD shall be referred to collectively as Parties (each a Party) to this MOU.

I. RECITALS

A. RECITALS BY SOUTH COAST AQMD

1. Air Regulatory Agencies. Air pollution remains a significant public health concern in many parts of California, and specifically in the South Coast Air Basin (Basin). South Coast AQMD, California Air Resources Board (CARB), and the United States Environmental Protection Agency (USEPA) are the regional, state, and federal regulatory agencies, respectively, with jurisdiction over air quality in the Basin. South Coast AQMD and CARB have developed and approved the 2016 Air Quality Management Plan (AQMP) for the Basin for incorporation into the California State Implementation Plan (SIP). The 2016 AQMP has been submitted to USEPA and ~~is pending its approval~~was approved on October 1, 2019.
2. South Coast AQMD. South Coast AQMD is the regional air pollution control agency primarily responsible for reducing air pollution in the Basin, which consists of the County of Orange, and the non-desert portions of the Counties of Los Angeles, Riverside, and San Bernardino. BUR is located within the Basin.
3. Need for Emission Reductions. The Basin is classified as an extreme non-attainment area for the 1997 and 2008 8-hour ozone national ambient air quality standards (NAAQS) with statutory deadlines to reach attainment by 2023 and 2031, respectively. Despite significant air quality improvements achieved over the last several decades, to meet these standards, emissions of oxides of nitrogen (NOx) must be reduced by 45% in 2023 and 55% in 2031 as outlined in the 2016 AQMP, adopted by South Coast AQMD Governing Board in March 2017. The 2016 AQMP included Control Measure MOB-04 (Emission Reductions at Commercial Airports), with the goal of achieving emission reductions from commercial airports through implementation of voluntary airport strategies.

4. Emissions from Sources at Commercial Airports. Emissions associated with operations at commercial airports contribute to adverse air quality in the Basin, primarily due to airport-related mobile source activities. These sources include aircraft, cargo trucks, ground support equipment (GSE), off-road vehicles, shuttle buses, and passenger vehicles. Therefore, NOx emission reductions from commercial airports can assist with the effort to attain the ozone standards in 2023 and 2031.

B. RECITALS BY THE AUTHORITY

1. Airport. The Authority is the proprietor and certificated operator of BUR.

2. Airport Obligations. The Authority has entered into this MOU pursuant to its proprietary and governmental powers and authority under the State Aeronautics Act (California Public Utilities Code Sections 21001, et seq.).

3. Management and Operation. The Air Quality Improvement Plan (AQIP) and this MOU reflect the experience of the Authority in the management and operation of the Airport including extensive experience with the federal government, commercial aviation operators, general aviation operators and suppliers, the community, local public entities, and the residents of areas in the general vicinity of BUR.

4. Responsibility to Community. The MOU supports and is made in recognition of the importance of BUR to the economic health and well-being of the community surrounding BUR and the importance of balancing the needs of the community for adequate commercial air transportation facilities with environmentally responsible air transportation operations at BUR.

5. Statement of Intent. The Authority's consideration of the matters and issues referred to in this MOU is not intended as a statement that such matters and issues are the only ones considered by the Authority in connection with the formulation of the AQIP and this MOU. Rather this MOU reflects consideration by the Authority of all of its state and federal obligations and responsibilities as the proprietor of the Airport and addresses only those emission sources that the Airport believes it can reasonably affect.

6. Air Quality Improvement Plan (AQIP). The Authority has developed its own voluntary AQIP, with technical support provided by South Coast AQMD. The AQIP represents the Authority's best efforts to develop programs and strategies for reducing NOx emissions from airport mobile source operations based on its existing authority over airport emission sources. The AQIP includes specific initiatives and measures for certain non-aircraft emission sources operating at the Airport.

7. Emissions Inventory - The BUR AQIP includes the 2017 base year emissions inventory and 2023 and 2031 business as usual emissions forecasts as well as the 2023 and 2031 forecasts that include the projected estimates of emissions benefits from voluntary airport AQIP measures with quantifiable emission reductions. The AQIP provides an emissions inventory only for non-aircraft airport sources for which the AQIP includes specific voluntary airport measures and initiatives (i.e., ground support equipment, fuel/delivery trucks, on-road and off-road airport fleet vehicles, shuttle buses, and passenger transportation). The Authority has provided the AQIP with supporting calculations to South Coast AQMD.

C. JOINT RECITALS

1. Purpose of MOU

The purpose of this MOU is to set forth how the Parties, consistent with their respective legal authorities, intend to quantify the emission reduction benefits in the Basin through the implementation of the voluntary airport strategies developed by the Authority under the AQIP and MOU, and adopted by the Authority on [**INSERT DATE**]. Attachment A, "MOU Schedules," sets forth the specific voluntary airport AQIP measures that are subject to the MOU. This MOU does not create SIP creditable reductions; rather, it identifies specific voluntary airport AQIP measures and provides the means for South Coast AQMD t~~o t~~o quantify the emission reductions from these voluntary airport AQIP measures to obtain SIP credits. The MOU is not intended to limit Airport growth. A central objective of the AQIP and MOU is to generate NOx reductions, and corresponding reductions of associated pollutants from non-aircraft airport mobile sources.

a. MOU Schedules 1 and 2, specified in Attachment A, establish metrics for quantification of emission benefits associated with implementation of voluntary airport AQIP measures for each emission source category consistent with the 2023 and 2031 dates for attainment of the ozone standards.

b. The Parties agree the MOU does not: (1) Establish an emissions cap or any other facility-wide limit for NOx, or any other pollutant; (2) Obligate the Airport to provide a facility-wide inventory of NOx or VOC emissions; however, the Parties agree to continue to work together in developing inventories of airport emission sources to support the development of future AQMPs outside of the AQIP/MOU process; or (3) Limit the Authority's ability to seek incentive or grant funding through federal, State and local programs, including but not limited to the FAA Voluntary

Airport Low Emissions (VALE) program and other similar programs, which require emissions reductions achieved through such programs to be voluntary in nature and exceed existing obligations to achieve emissions reductions.

c. The emission reduction benefits from the voluntary airport AQIP measures in Attachment A may be used by South Coast AQMD to obtain SIP credit to the extent the emission reduction benefits quantified by South Coast AQMD for these measures satisfy USEPA's integrity elements (i.e., the emission reductions are quantifiable, surplus, permanent, and enforceable). South Coast AQMD may seek SIP credit for the quantified emission reductions through a separate SIP submittal.

d. The Parties agree that South Coast AQMD, and not the Authority, will rectify any shortfall in prospective emission reductions from the voluntary airport AQIP measures specified in Attachment A.

e. The Parties specifically disavow any desire or intention to create any third-party beneficiary under this MOU, and specifically declare that no person or entity shall have any remedy or right of enforcement.

2. <u>MOU Public Process</u>

a. Following the adoption of the 2016 AQMP, South Coast AQMD staff held a series of public working group meetings to solicit comments on implementing Control Measure MOB-04 for commercial airports. Based on input received during the public process, South Coast AQMD staff developed a recommendation for South Coast AQMD Governing Board for the development of an MOU with the commercial airports. In the event that the MOU approach with the airports was not successful, staff also recommended consideration of a regulatory approach for reducing emissions from commercial airports.

b. In May 2018, South Coast AQMD Governing Board approved staff's recommendation and directed staff to pursue an MOU approach with the commercial airports to implement 2016 AQMP Control Measure MOB-04.

c. South Coast AQMD staff has established an MOU Working Group (WG), consisting of representatives from South Coast AQMD, commercial airports (Los Angeles International Airport, John Wayne Airport, Ontario International Airport, Hollywood Burbank Airport, and Long Beach Airport), CARB, USEPA, environmental organizations, labor, freight industry, airlines, other stakeholders, and the public to solicit comments on the MOU development. South Coast AQMD staff will also monitor the

implementation of this MOU and provide reports to USEPA. In addition, South Coast AQMD may utilize other well-established means of communication, including South Coast AQMD website, Subscribers lists, and Governing Board and Committee meetings, for disseminating information concerning the status of MOU implementation.

d. The MOU is developed through the public process outlined above for consideration by South Coast AQMD Governing Board and the Authority Commission.

3. MOU Applicability. The MOU (1) addresses only those initiatives and measures included in the BUR AQIP identified in Attachment A, and (2) does not supersede rules that are established by USEPA or CARB, or legal, regulatory, or contractual obligations that the Airport is subject to such as U.S. Department of Transportation (USDOT) or Federal Aviation Administration (FAA) regulations; federal statutes, including the Anti-Head Tax Act (AHTA), the Federal Aviation Act, and the Airline Deregulation Act; international treaties; or the doctrines of federal preemption, the dormant Commerce Clause, and the Supremacy Clause.

a. Excluded Sources. Nothing in the AQIP or this MOU is intended or shall be interpreted to regulate or otherwise apply to (1) any source that is not specifically identified as a AQIP Source in Attachment A, including aircraft, inclusive of Auxiliary Power Units (APUs), aircraft engines or any other aircraft parts or systems, or (2) the operation of any source that is not specifically identified as a AQIP Source in Attachment A, namely aircraft, inclusive of APUs, aircraft engines, or any other aircraft parts or systems, either in flight or on the ground, including while taxiing or parked at an aircraft gate, remain-overnight (RON) position, maintenance facility, or any other airport location, or (3) any and all activities associated with General Aviation (GA) operations including aircraft, GA related GSE and vehicles and equipment. For purposes of the AQIP and this MOU, GA is defined as all civil aviation operations *except*: operations by 14 C.F.R Part 121 commercial carriers and regularly scheduled air services.

II. NOW, THEREFORE, in consideration of the mutual interests and benefits of all Parties to be derived from emissions reductions of NOx, and corresponding anticipated reductions to other pollutants, including VOC and PM, resulting from the implementation of the strategies identified in the voluntary AQIP, the Parties hereto agree as follows:

A. <u>AUTHORITY'S RESPONSIBILITIES</u>

The Authority agrees to take the following actions:

1. AQIP Implementation. Implement AQIP voluntary airport measures identified in Attachment A, Schedules 1 and 2.

2. Monitoring and Reporting. Monitor the implementation of voluntary airport AQIP measures and provide data and annual emissions inventory reports to South Coast AQMD as described in Attachment A, Schedules 1 and 2.

3. Incentives. Provide monetary or non-monetary incentives for non-aircraft airport mobile sources to the extent possible and as included in the AQIP. Nothing in this MOU requires the Airport to provide incentives.

4. Funding. Support grant funding efforts with potential funding sources that may provide funding for the voluntary airport AQIP measures, at the Authority's discretion.

B. SOUTH COAST AQMD'S RESPONSIBILITIES

South Coast AQMD agrees to take the following actions:

1. Technical Analyses for SIP Credit from AQIP emission reductions. South Coast AQMD will provide the necessary documentation and technical analysis with respect to the calculation of the emission reductions benefits attributable to the voluntary airport AQIP measures identified in Attachment A. This would include, but not be limited to, an analysis of the AQMP/SIP baseline for affected airport sources, emission reductions achieved through AQIP measures in Attachment A based on the AQIP inventories, and an estimation of emissions reductions benefits and corresponding SIP credits. Factors to be considered for purposes of calculating the emission reductions benefits attributable to the voluntary airport AQIP measures in Attachment A shall include, but not be limited to: growth forecasts from the airports, implementation schedules for voluntary airport AQIP measures, the availability of funding for relevant incentives programs, and the technical and economic feasibility of specific voluntary airport AQIP measures.

2. Federal Enforceability. To the extent necessary to obtain SIP approval, South Coast AQMD will provide federally enforceable commitments in a SIP update document that is separate from this MOU to USEPA after approval by the South Coast AQMD and the CARB Boards. South Coast AQMD will monitor, assess, and report emission reductions benefits from the voluntary airport AQIP measures identified in Attachment A to USEPA.

3. Responsibility for Shortfall. South Coast AQMD shall be solely responsible to make up any emissions reduction shortfalls that may occur in the event that the actual voluntary airport AQIP emissions reduction benefits do not achieve the estimated emissions reduction benefits projected for implementation of

the voluntary airport AQIP measures specified in Attachment A. South Coast AQMD will also commit to adopt and submit substitute measures to USEPA to remedy any potential emission reduction shortfall associated with implementation of the AQIP measures identified in Attachment A. The Authority shall have no obligation(s) and/or requirement(s) to implement any substitute measures to remedy any potential emission reduction shortfall associated with implementation of the AQIP measures identified in Attachment A, unless otherwise mutually agreed on by both Parties. Notwithstanding the above, the Authority and South Coast AQMD agree that, in the event that the actual emission reductions associated with implementation of voluntary AQIP measures in Attachment A are less than the emissions reduction benefits projected for implementation of these voluntary AQIP measures, the Authority and South Coast AQMD will work together to consider potential new or enhanced programs, or better efforts to quantify existing programs, to help South Coast AQMD address any shortfalls.

4. Funding. South Coast AQMD, at its Governing Board's discretion, will support grant funding efforts with potential funding sources that may provide funding for the voluntary airport AQIP measures.

5. Monitoring. South Coast AQMD will monitor and assess the implementation of SIP creditable AQIP measures based on information provided by the Authority as outlined in Schedules 1 and 2 in Attachment A.

6. Information Sharing. South Coast AQMD will provide the means for ensuring that emission reduction data and other pertinent information related to the implementation of SIP creditable AQIP measures are fully accessible to the public and USEPA.

C. MOU SCHEDULES

The voluntary airport AQIP measures for which South Coast AQMD may quantify emission reductions and seek SIP credit through a separate SIP submittal are identified in Schedules 1 and 2 in Attachment A and are incorporated as part of this MOU:

1. MOU SCHEDULE NO. 1 - GROUND SUPPORT EQUIPMENT
2. MOU SCHEDULE NO. 2 – ZERO-EMISSION SHUTTLE BUS PROGRAM

Each Schedule focuses on the voluntary airport AQIP measure and time frame aligned with the AQMP and SIP emission reduction target dates (i.e., 2023 and 2031), and includes technical details pertinent to the equipment category such as:

- Metrics or performance targets

- Schedule for program implementation
- Annual reporting by the Authority to South Coast AQMD

Variations in the nature of information and data needed for each of the source measures may be addressed with focused and adaptive revisions to the individual equipment category schedules and may be revised by mutual agreement of the Parties without modifying this MOU.

D. TERM OF MOU. This MOU shall be in full force and in effect when signed by all Parties following their respective required authorization processes. The initial term of this MOU shall expire on December 31, 203~~1~~2 unless terminated earlier pursuant to Section II.E, below. Prior to expiration of this MOU, all Parties agree to meet to evaluate the need for continuing participation. If all Parties agree that continuing participation is desirable, they shall negotiate for their respective Boards' approval, a written extension of the term of this MOU, and any applicable additional MOU Schedules.

E. WITHDRAWAL AND EARLY TERMINATION. If any Party to this MOU determines that it wishes to no longer be a party to this MOU, then the Party shall provide notice to the other Party at least ninety (90) days in advance of the specified date of termination of the MOU. The Parties commit to work together to resolve any issues and to negotiate an updated MOU at least thirty (30) days in advance of the specified date of termination of the MOU. If the Parties are unable to reach agreement, the MOU shall terminate on the date specified in the notification.

F. ENFORCEABILITY. The Parties agree to implement the provisions in the MOU. The Parties agree that implementation of the measures specified in Attachment A is not to be construed as a regulation or requirement of South Coast AQMD. In the event that any party fails to meet its commitment(s) or anticipates an inability to meet its commitment(s), the Party shall provide notice to the other Party within sixty (60) days of such determination and seek to negotiate a mutually agreeable solution within ninety (90) days of the date of the Notice. The Parties shall continue to comply with all other commitments under this MOU during the negotiations. Nothing contained in this paragraph is intended to limit any rights or remedies that the Parties may have under law. The Parties shall attempt in good faith to resolve any controversy that may arise out of or relating to this MOU. If a controversy or claim should arise that cannot be resolved informally by the respective staffs, executive level representatives of the Parties will meet at least once in person and, in addition, at least once in person or by telephone to attempt to resolve the matter. The Representatives will make every effort to meet as soon as reasonably possible at a mutually agreed time and place.

G. NOTICES. All notices that are required under this MOU shall be provided in the manner set forth herein, unless specified otherwise. Notice to a Party shall be delivered to the attention of the person listed below, or to such other person or persons as may hereafter be designated by that party in writing. Notice shall be in writing sent by U.S. Certified Mail, Return Receipt Requested, or a nationally recognized overnight courier service. Notice shall be deemed to be received when delivered (written receipt of delivery).

South Coast AQMD: South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765-4178
Attn: Assistant Deputy Executive Officer - Planning, Rule Development & Area Sources

Authority: ~~[INSERT ADDRESS]~~
Hollywood Burbank Airport
2627 N. Hollywood Way
Burbank, CA 91505
Attn: ~~[INSERT NAME~~John Hatanaka~~]~~

H. AVAILABLE FUNDING. Each Party shall be responsible for its respective costs associated with this MOU and acknowledges that the commitments contained herein by the other Party are subject to the availability of appropriated funds. No Party will submit a claim for compensation to ~~any~~the other Party, or otherwise seek reimbursement of costs from ~~any~~the other Party, for activities carried out pursuant to this MOU.

I. FUTURE AGREEMENTS. This MOU does not restrict any future agreements between the Parties with respect to the subject matter stated herein or any other subject matter.

J. JOINT WORK PRODUCT. This MOU shall not be construed against the Party preparing the same, shall be construed without regard to the identity of the person who drafted such and shall be construed as if all Parties had jointly prepared this MOU and it shall be deemed their joint work product.

K. RECITALS. Each of the Recitals is incorporated into this MOU.

L. ENTIRE UNDERSTANDING. This MOU, including all attachments, constitutes the entire understanding between the Parties and supersedes all other agreements, oral or written, with respect to the subject matter herein. This MOU shall not be amended except in writing, signed by the Parties which expressly refers to this ~~contract~~MOU.

M. VENUE. This MOU shall be construed and interpreted and the legal relations created thereby shall be determined in accordance with the laws of the State of

California. Venue for resolution of any disputes under this MOU shall be Los Angeles County, California, USA.

N. SEVERABILITY. If a court of competent jurisdiction holds any provision of this MOU to be illegal, unenforceable, or invalid in whole or in part for any reason, the validity and enforceability of the remaining provisions, or portions of those provisions, will not be affected.

O. ATTORNEYS' FEES. In the event any action is filed in connection with the enforcement or interpretation of this MOU, each Party shall bear its own attorneys' fees and costs.

P. AUTHORITY. Except as expressly stated herein, nothing in this MOU shall be construed as a waiver of any Party's discretionary authority or deemed to restrict authority granted to any Party under law in any way with respect to future legislative, administrative, or other actions.

Q. VOLUNTARY AQIP. The Parties agree that the Airport's AQIP measures in Attachment A are voluntary and are not to be construed as a regulation or requirement of South Coast AQMD.

R. MOU Modification. This MOU may be subsequently modified at any time but no modification shall be valid or binding unless made in writing and signed by authorized representatives of both Parties.

S. COUNTERPARTS. The signature pages of this MOU are being executed in counterparts by authorized signatories of the Parties following the approvals by their respective public agency governing boards. When both Parties have signed, all executed counterparts taken together shall constitute one and the same instrument.

T. AUTHORIZED SIGNATURES. Each signatory of this MOU represents that s/he is authorized to execute on behalf of the Party for which s/he signs. Each Party represents that it has legal authority to enter into this MOU and to perform all obligations under this MOU.

U. NO ENFORCEMENT AGAINST THIRD PARTIES. South Coast AQMD shall not seek to enforce the measures and new initiatives specified in Attachment A or any of the measures or new initiatives in the AQIP or any of its terms against BUR's tenants, concessionaries, third party licensees, vendor, or other relevant operators doing business at BUR facilities.

IN WITNESS WHEREOF, the Parties hereto have caused this Memorandum of Understanding to be executed by their authorized representatives.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

By_____
Name: Dr. William Burke
Title: Chairman, South Coast Governing Board

Date:_____, 20___

Attest_____
Name:
Title:

APPROVED AS TO FORM:

Date:_____, 20___
BAYRON T. GILCHRIST,
General Counsel

By_____
Name:
Title:

~~**[INCLUDE AIRPORT SIGNATORIES]**~~**HOLLYWOOD BURBANK AIRPORT SIGNATORIES**

By_____
Name: John Hatanaka
Title: Senior Deputy Executive Director, Hollywood Burbank Airport

Date:_____, 20___

ATTACHMENT A

MOU SCHEDULE NO. 1 – GROUND SUPPORT EQUIPMENT

This MOU Schedule No. 1 is based on the Authority's AQIP measure for ground support equipment[1].

I. PROGRAM DESCRIPTION – Require that all ground support equipment associated with commercial operations achieve fleet average ~~hydrocarbon plus~~of NOx combined emission factors of 1.6692 and 0.7482 g/bhp-hr ~~in~~by January 1 of 2023 and 2031, respectively.

II. PROGRAM TIMEFRAME - Upon execution through 203~~1~~2.

III. AIRPORT OBLIGATIONS – The Authority agrees to:

A. Implement the measure by working with airport tenants to achieve the above performance targets by the specified dates through accelerated turnover to cleaner equipment. Airport shall have complete discretion as to mechanisms used to implement this measure. Such mechanisms may include leases, licenses, operational requirements, or other agreements.

B. Beginning in 2021, and every year thereafter through 203~~1~~2, provide the following information to South Coast AQMD on an annual basis by June 1 for each preceding calendar year:

1. List of ground support equipment as provided by airlines operating at BUR with the following information:

   a. Equipment ID
   b. Equipment type
   c. Fuel type
   d. Engine model year
   e. Power rating (hp or kW)
   f. Engine tier level (for diesel engines)
   g. Annual activity data for non-zero emission equipment that is sufficient to determine emission reductions at a reasonable level of accuracy (i.e., actual operating hours from hour meter readings/maintenance records, average operating hours representative of equipment type and airport, or average operating hours by equipment/fuel type from CARB's OFFROAD model, if applicable)

2. For non-zero emission ground support equipment subject to this GSE measure, information regarding the sale or retirement of equipment available through CARB's DOORS system and, for pre-Tier 4 diesel, pre-2010 gasoline, or pre-2010 LPG ground support equipment relocated from BUR to another airport within the South Coast Air Basin, identify: a) the airport to which equipment is relocated, b) date of relocation,

and c) estimated projected usage hours.

~~2.~~

3. An annual emission inventory for all ground support equipment associated with commercial operations at BUR, including methodology and calculations.

[1] Ground Support Equipment or "GSE" is any vehicle or equipment used to support aircraft operations that is subject to, or included in compliance plans to meet, the requirements of the California Air Resources Board (CARB) In-Use Off-Road Diesel (ORD) Vehicle Regulation Program, CARB Off-Road Large Spark-Ignition (LSI) Engine Fleet Requirements Regulation Program, or CARB Portable Equipment Registration Program and associated Portable Diesel Engine Airborne Toxic Control Measure. Furthermore, GSE as defined here only includes equipment that is not subject to compliance with SCAQMD Rule XX – RECLAIM, or included in a mobile source emission reduction credit program under SCAQMD Rule XVI.

IV. SOUTH COAST AQMD OBLIGATIONS – South Coast AQMD agrees to:

A. Verify emission reductions from the implementation of this AQIP measure in order to determine actual emission reductions.

B. Ensure that any emission reduction data related to this AQIP measure and other pertinent information are accessible to the public and USEPA.

MOU SCHEDULE NO. 2 –ZERO-EMISSION SHUTTLE BUS PROGRAM

This MOU Schedule No. 2 is based on the Authority's AQIP SIP creditable measure for zero-emission buses at BUR.

I. PROGRAM DESCRIPTION –Replace 50% and 100% of BUR-owned and operated or BUR airport contracted buses with electric buses by January 1 of 2023 and 203~~1~~1, respectively.

II. PROGRAM TIMEFRAME - Upon execution through 203~~1~~2.

III. AIRPORT OBLIGATIONS – The Authority agrees to:

A. Replace or require shuttle buses to meet the specified targets.

B. Beginning in 2021, provide the following information to South Coast AQMD on an annual basis by June 1 for each preceding calendar year:

1. List of shuttle buses operating at BUR with the following information:

a. Vehicle Identification Number
b. Vehicle model year
c. Gross Vehicle Weight Rating
d. Fuel type
e. Odometer reading
f. Annual vehicle miles travelled

2. An emission inventory for shuttle buses, including methodology and calculations.

IV. SOUTH COAST AQMD OBLIGATIONS – South Coast AQMD agrees to:

A. Verify emission reductions from the implementation of this SIP creditable AQIP measure by the Authority in order to determine actual emission reductions.

B. Ensure that any emission reduction data related to this AQIP measure and other pertinent information are accessible to the public and USEPA.

MEMORANDUM OF UNDERSTANDING BETWEEN
THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT AND
JOHN WAYNE AIRPORT, ORANGE COUNTY
REGARDING JOHN WAYNE AIRPORT'S AIR QUALITY IMPROVEMENT PLAN

This Memorandum of Understanding ("MOU") is entered into by the South Coast Air Quality Management District ("South Coast AQMD"), acting by and through its Governing Board, and John Wayne Airport, Orange County (SNA) ("JWA" or "Airport"), acting by and through the County of Orange, California ("County") in its capacity as the proprietor and certificated operator of JWA. The Airport and South Coast AQMD shall be referred to collectively as Parties (each a "Party") to this MOU.

I. RECITALS

A. RECITALS BY SOUTH COAST AQMD

1. Air Regulatory Agencies. Air pollution remains a significant public health concern in many parts of California, and specifically in the South Coast Air Basin (Basin). The South Coast AQMD, California Air Resources Board (CARB), and the United States Environmental Protection Agency (USEPA) are the regional, state, and federal regulatory agencies, respectively, with jurisdiction over air quality in the Basin. South Coast AQMD and CARB have developed and approved the 2016 Air Quality Management Plan (AQMP) for the Basin for incorporation into the California State Implementation Plan (SIP). The USEPA approved the 2016 AQMP on October 1, 2019.~~The 2016 AQMP has been submitted to USEPA and is pending its approval.~~.

2. South Coast AQMD. The South Coast AQMD is the regional air pollution control agency primarily responsible for reducing air pollution in the Basin, which consists of the County of Orange, and the non-desert portions of the Counties of Los Angeles, Riverside, and San Bernardino. JWA is located within the Basin.

3. Need for Emission Reductions. The Basin is classified as an extreme non-attainment area for the 1997 and 2008 8-hour ozone national ambient air quality standards (NAAQS) with statutory deadlines to reach attainment by 2023 and 2031, respectively. Despite significant air quality improvements achieved over the last several decades, to meet these standards, emissions of oxides of nitrogen (NOx) must be reduced by 45% in 2023 and 55% in 2031 as outlined in the 2016 AQMP, adopted by the South Coast AQMD Governing Board in March 2017. The 2016 AQMP included Control Measure MOB-04 (Emission Reductions at Commercial Airports), with the goal of achieving emission reductions from commercial airports through implementation of voluntary airport strategies.

4. Emissions from Sources at Commercial Airports. Emissions associated with operations at commercial airports contribute to adverse air quality in the Basin, primarily due to airport-related mobile source activities. These sources include aircraft, cargo trucks, ground support equipment (GSE), off-road vehicles, shuttle buses, and passenger vehicles. Therefore, NOx emission reductions from commercial airports can assist with the effort to attain the ozone standards in 2023 and 2031.

B. RECITALS BY JWA

1. Airport. The County of Orange is the proprietor and certificated operator of JWA.

2. Airport Obligations. JWA enters into this MOU pursuant to its proprietary and governmental powers and authority under the State Aeronautics Act (California Public Utilities Code Sections 21001, et seq.).

3. Management and Operation. The Air Quality Improvement Plan (AQIP) and this MOU reflect the experience of JWA in the management and operation of the Airport including extensive experience with the federal government, commercial aviation operators, general aviation operators and suppliers, the community, local public entities, and the residents of areas in the general vicinity of JWA.

4. Responsibility to Community. The MOU supports and is made in recognition of the importance of JWA to the economic health and well-being of the community surrounding JWA and the importance of balancing the needs of the Orange County community for adequate commercial air transportation facilities with environmentally responsible air transportation operations at JWA.

5. Statement of Intent. JWA's consideration of the matters and issues referred to in this MOU is not intended as a statement that such matters and issues are the only ones considered by the Airport in connection with the formulation of the AQIP and this MOU. Rather this MOU reflects consideration by JWA of all of its state and federal obligations and responsibilities as the proprietor of the Airport and addresses only those emission sources that the Airport believes it can reasonably affect.

6. Air Quality Improvement Plan (AQIP). JWA has developed its own voluntary AQIP, with technical support provided by the South Coast AQMD. The AQIP represents the Airport's best efforts to develop programs and strategies for reducing NOx emissions from airport mobile source operations based on its existing authority over airport emission sources. The AQIP includes specific initiatives and measures for certain non-aircraft emission sources operating at the Airport.

7. Emissions Inventory. The AQIP includes the 2017 base year emissions inventory and 2023 and 2031 business as usual emissions forecast as well as the 2023 and 2031 forecasts that include the projected estimates of emissions benefits from voluntary airport AQIP measures with quantifiable emission reductions. The AQIP provides an emissions inventory only for non-aircraft airport sources for which the AQIP includes specific voluntary airport measures and initiatives (i.e., ground support equipment, fuel/delivery trucks, on-road and off-road airport fleet vehicles, shuttle buses, and passenger transportation). JWA has provided the AQIP with supporting calculations to the South Coast AQMD.

C. JOINT RECITALS

1. Purpose of MOU

The purpose of this MOU is to set forth how the Parties, consistent with their respective legal authorities, intend to quantify the emission reduction benefits in the Basin through the implementation of the voluntary airport strategies developed by JWA under the AQIP and MOU, and ~~adopted~~ approved by the County on [**INSERT DATE**]. Attachment A, "MOU Schedules," sets forth the specific voluntary airport AQIP measures that are subject to the MOU. This MOU does not create SIP creditable reductions; rather, it identifies specific voluntary airport AQIP measures and provides the means for the South Coast AQMD to quantify the emission reductions from these voluntary airport AQIP measures to obtain SIP credits. The MOU is not intended to limit Airport growth. A central objective of the AQIP and MOU is to generate NOx reductions, and corresponding reductions of associated pollutants from non-aircraft airport mobile sources.

a. The MOU Schedules 1 through 3, specified in Attachment A, establish metrics for quantification of emission benefits associated with implementation of voluntary airport AQIP measures for each emissions source category consistent with the 2023 and 2031 dates for attainment of the ozone standards.

b. The Parties agree the MOU does not: i) Establish an emissions cap or any other facility-wide limit for NOx, or any other pollutant; ii) Obligate the Airport to provide a facility-wide inventory of NOx or VOC emissions; however, the parties agree to continue to work together in developing inventories of airport emission sources to support the development of future AQMPs outside of the AQIP/MOU process; or iii) Limit the Airport's ability to seek incentive or grant funding through federal, State and local programs, including but not limited to the FAA Voluntary Aviation Low Emissions (VALE) program and other similar programs, which require

emissions reductions achieved through such programs to be voluntary in nature and exceed existing obligations to achieve emissions reductions.

c. The emission reduction benefits from the voluntary airport AQIP measures in Attachment A may be used by South Coast AQMD to obtain SIP credit to the extent the emission reduction benefits quantified by South Coast AQMD for these measures satisfy USEPA's integrity elements (i.e., the emission reductions are quantifiable, surplus, permanent, and enforceable). South Coast AQMD may seek SIP credit for the quantified emission reductions through a separate SIP submittal.

d. The Parties agree that the South Coast AQMD, and not the Airport, will rectify any shortfall in prospective emission reductions from the voluntary airport AQIP measures specified in Attachment A.

e. The Parties specifically disavow any desire or intention to create any third-party beneficiary under this MOU, and specifically declare that no person or entity shall have any remedy or right of enforcement.

2. MOU Public Process

a. Following the adoption of the 2016 AQMP, South Coast AQMD staff held a series of public working group meetings to solicit comments on implementing Control Measure MOB-04 for commercial airports. Based on input received during the public process, South Coast AQMD staff developed a recommendation for the South Coast AQMD Governing Board for the development of an MOU with the commercial airports. In the event that the MOU approach with the airports was not successful, staff also recommended consideration of a regulatory approach for reducing emissions from commercial airports.

b. In May 2018, the South Coast AQMD Governing Board approved staff's recommendation and directed staff to pursue an MOU approach with the commercial airports to implement 2016 AQMP Control Measure MOB-04.

c. South Coast AQMD staff has established an MOU Working Group (WG), consisting of representatives from the South Coast AQMD, commercial airports (Los Angeles International Airport, John Wayne Airport, Ontario International Airport, Hollywood Burbank Airport, and Long Beach Airport), CARB, USEPA, environmental organizations, labor, freight industry, airlines, other stakeholders, and the public to solicit comments on the MOU development. South Coast AQMD staff will also monitor the implementation of this MOU and provide reports to USEPA. In addition, South Coast AQMD may utilize other well-established means of communication, including the South Coast AQMD website, Subscribers lists, and Governing Board and Committee meetings, for disseminating information concerning the status of MOU implementation.

d. The MOU is developed through the public process outlined above for consideration by the South Coast AQMD Governing Board and the Board of Supervisors for the County of Orange.

3. MOU Applicability

~~h.~~a. The MOU (1) addresses only the voluntary airport AQIP measures identified in Attachment A, and (2) does not supersede rules that are established by the USEPA or CARB, or legal, regulatory, or contractual obligations that the Airport is subject to such as U.S. Department of Transportation (USDOT) or Federal Aviation Administration (FAA) regulations; federal statutes, including the Anti-Head Tax Act (AHTA), the Federal Aviation Act, and the Airline Deregulation Act; international treaties; or the doctrines of federal preemption, the dormant Commerce Clause, and the Supremacy Clause.

~~h.~~b. Excluded Sources. Nothing in the AQIP or this MOU is intended or shall be interpreted to regulate or otherwise apply to (1) any source that is not specifically identified as a AQIP Source in Attachment A, including aircraft, inclusive of Auxiliary Power Units (APUs), aircraft engines or any other aircraft parts or systems, (2) the operation of any source that is not specifically identified as a AQIP Source in Attachment A, including aircraft, inclusive of APUs, aircraft engines, or any other aircraft parts or systems, either in flight or on the ground, including while taxiing or parked at an aircraft gate, remain-overnight (RON) position, maintenance facility, or any other airport location, or (3) any and all activities associated with General Aviation (GA) operations including aircraft, GA related GSE and vehicles and equipment. For purposes of the AQIP and this MOU, GA is defined as all civil aviation operations *except*: operations by 14 C.F.R. Part 121 commercial carriers, and regularly scheduled air services, defined as: (i) operated in support of, advertised, or otherwise made available to members of the public by any means for commercial air transportation purposes, and members of the public may travel or ship commercial cargo on the flights; (ii) the flights are scheduled to occur, or are represented as occurring (or available) at specified times and days; and (iii) the operator conducts, or proposes to operate, departures at JWA at a frequency greater than two (2) times per week during any consecutive three (3) week period.

II. NOW, THEREFORE, in consideration of the mutual interests and benefits of all parties to be derived from emissions reductions of NOx, and corresponding anticipated reductions of other pollutants, including VOC and PM, resulting from the implementation of the strategies identified in the voluntary AQIP, the Parties hereto agree as follows:

A. AIRPORT'S RESPONSIBILITIES

The County or Airport agrees to take the following actions:

1. AQIP Implementation. Implement voluntary airport AQIP measures identified in Attachment A, Schedules 1 through 3.
2. Monitoring and Reporting. Monitor the implementation of voluntary airport AQIP measures and provide data and annual emissions inventory reports to South Coast AQMD as described in Attachment A, Schedules 1 through 3.
3. Incentives. Provide monetary or non-monetary incentives for non-aircraft airport mobile sources to the extent possible and as included in the AQIP. Nothing in this MOU requires the Airport to provide incentives.
4. Funding. Support grant funding efforts with potential funding sources that may provide funding for the voluntary airport AQIP measures, at JWA's discretion.

B. SOUTH COAST AQMD'S RESPONSIBILITIES

South Coast AQMD agrees to take the following actions:

1. Technical Analyses for SIP Credit from AQIP emission reductions. The South Coast AQMD will provide the necessary documentation and technical analysis with respect to the calculation of the emission reductions benefits attributable to the voluntary airport AQIP measures identified in Attachment A. This would include, but not be limited to, an analysis of the AQMP/SIP baseline for affected airport sources, emission reductions achieved through AQIP measures in Attachment A based on the AQIP inventories, and an estimation of emissions reductions benefits and corresponding SIP credits. Factors to be considered for purposes of calculating the emission reductions benefits attributable to the voluntary airport AQIP measures in Attachment A shall include, but not be limited to: growth forecasts from the airports, implementation schedules for voluntary airport AQIP measures, the availability of funding for relevant incentives programs, and the technical and economic feasibility of specific voluntary airport AQIP measures.
2. Federal Enforceability. To the extent necessary to obtain SIP approval, the South Coast AQMD will provide federally enforceable commitments in a SIP update document that is separate from this MOU to the USEPA after approval by the South Coast AQMD and the CARB Boards. South Coast AQMD will monitor, assess, and report emission reductions benefits from the voluntary airport AQIP measures identified in Attachment A to the USEPA.
3. Responsibility for Shortfall. The South Coast AQMD shall be solely responsible to make up any emissions reduction shortfalls that may occur in the event that the actual voluntary airport AQIP emissions reduction benefits do not achieve

the projected emissions reduction benefits resulting from implementation of the voluntary airport AQIP measures specified in Attachment A. South Coast AQMD will also commit to adopt and submit substitute measures to USEPA to remedy any potential emission reduction shortfall associated with implementation of the AQIP measures identified in Attachment A. The Airport shall have no obligation(s) and/or requirement(s) to implement any substitute measures to remedy any potential emission reduction shortfall associated with implementation of the AQIP measures identified in Attachment A, unless otherwise mutually agreed on by both parties. Notwithstanding the above, JWA and South Coast AQMD agree that, in the event that the actual emission reductions associated with implementation of voluntary AQIP measures in Attachment A are less than the estimated emissions reduction benefits projected for implementation of these voluntary AQIP measures, JWA and South Coast AQMD will work together to consider potential new or enhanced programs, or better efforts to quantify existing programs, to help South Coast AQMD address any shortfalls.

4. Funding. The South Coast AQMD, at its Governing Board's discretion, will support grant funding efforts with potential funding sources that may provide funding for the voluntary airport AQIP measures.
5. Monitoring. The South Coast AQMD will monitor and assess the implementation of SIP creditable AQIP measures based on information provided by JWA as outlined in Schedules 1 through 3 in Attachment A.
6. Information Sharing. The South Coast AQMD will provide the means for ensuring that emission reduction data and other pertinent information related to the implementation of SIP creditable AQIP measures are fully accessible to the public and the USEPA.

C. MOU SCHEDULES

The voluntary airport AQIP measures for which the South Coast AQMD may quantify emission reductions and seek SIP credit through a separate SIP submittal are identified in the following Schedules 1 through 3 in Attachment A and are incorporated as part of this MOU:

1. MOU SCHEDULE NO. 1 - GROUND SUPPORT EQUIPMENT
2. MOU SCHEDULE NO. 2 – JET FUEL DELIVERY TRUCKS
3. MOU SCHEDULE NO. 3 – PARKING SHUTTLE BUS ELECTRIFICATION

Each Schedule focuses on the voluntary airport AQIP measure and time frame aligned with the AQMP and SIP emission reduction target dates (i.e., 2023, 2031), and includes technical details pertinent to the equipment category such as:

- Metrics or performance targets
- Schedule for program implementation

- Annual reporting by the Airport to South Coast AQMD

Variations in the nature of information and data needed for each of the source measures may be addressed with focused and adaptive revisions to the individual equipment category schedules and may be revised by mutual agreement of the Parties without modifying this MOU.

D. TERM OF MOU. This MOU shall be in full force and in effect when signed by all Parties following their respective required authorization processes. The initial term of this MOU shall expire on December 31, ~~2031~~ 2032 unless terminated earlier pursuant to Section II.E, below. Prior to expiration of this MOU, all Parties agree to meet to evaluate the need for continuing participation. If all Parties agree that continuing participation is desirable, they shall negotiate for their respective Boards' approval, a written extension of the term of this MOU, and any applicable additional MOU Schedules.

E. WITHDRAWAL AND EARLY TERMINATION. If any Party to this MOU determines that it wishes to no longer be a party to this MOU, then the Party shall provide notice to the other Party at least ninety (90) days in advance of the specified date of termination of the MOU. The Parties commit to work together to resolve any issues and negotiate an updated MOU at least thirty (30) days in advance of the specified date of termination of the MOU. If the Parties are unable to reach agreement, the MOU shall terminate on the date specified in the notification.

F. ENFORCEABILITY. The Parties agree to implement the provisions in the MOU. The parties agree that implementation of the measures specified in Attachment A is not to be construed as a regulation or requirement of the South Coast AQMD. In the event that any Party fails to meet its commitment(s) or anticipates an inability to meet its commitment(s), the Party shall provide notice to the other Party within sixty (60) days of such determination and seek to negotiate a mutually agreeable solution within ninety (90) days of the date of the notice. The Parties shall continue to comply with all other commitments under this MOU during the negotiations. Nothing contained in this paragraph is intended to limit any rights or remedies that the Parties may have under law. The Parties shall attempt in good faith to resolve any controversy that may arise out of or relating to this MOU. If a controversy or claim should arise that cannot be resolved informally by the respective staffs, executive level representatives of the Parties will meet at least once in person and, in addition, at least once in person or by telephone to attempt to resolve the matter. The representatives will make every effort to meet as soon as reasonably possible at a mutually agreed time and place.

G. NOTICES. All notices that are required under this MOU shall be provided in the manner set forth herein, unless specified otherwise. Notice to a Party shall be delivered to the attention of the person listed below, or to such other person or persons as may hereafter be designated by that Party in writing. Notice shall be in writing sent by U.S. Certified Mail, Return Receipt Requested, or a nationally

recognized overnight courier service. Notice shall be deemed to be received when delivered (written receipt of delivery).

South Coast AQMD: South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765-4178
Attn: Assistant Deputy Executive Officer - Planning, Rule Development & Area Sources

JOHN WAYNE AIRPORT: Mr. Barry Rondinella
Airport Director
3160 Airway Avenue
Costa Mesa, CA 92626
Attn: Airport Environmental Manager

H. AVAILABLE FUNDING. Each Party shall be responsible for its respective costs associated with this MOU and acknowledges that the agreements contained herein by ~~any~~ the Parties ~~other Party~~ are subject to the availability of appropriated funds. No Party will submit a claim for compensation to ~~any~~ the other Party, or otherwise seek reimbursement of costs from ~~any~~ the other Party, for activities carried out pursuant to this MOU.

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J. JOINT WORK PRODUCT. This MOU shall not be construed against the Party preparing the same, shall be construed without regard to the identity of the person who drafted such and shall be construed as if all Parties had jointly prepared this MOU and it shall be deemed their joint work product.

K. RECITALS. Each of the Recitals is incorporated into this MOU.

L. ENTIRE UNDERSTANDING. This MOU, including all attachments, constitutes the entire understanding between the Parties and supersedes all other agreements, oral or written, with respect to the subject matter herein. This MOU shall not be amended except in writing, signed by the Parties which expressly refers to this ~~contract~~MOU.

M. VENUE. This MOU shall be construed and interpreted and the legal relations created thereby shall be determined in accordance with the laws of the State of California. Venue for resolution of any disputes under this MOU shall be Orange County, California, USA.

N. SEVERABILITY. If a court of competent jurisdiction holds any provision of this MOU to be illegal, unenforceable, or invalid in whole or in part for any reason, the

validity and enforceability of the remaining provisions, or portions of those provisions, will not be affected.

O. ATTORNEYS' FEES. In the event any action is filed in connection with the enforcement or interpretation of this MOU, each Party shall bear its own attorneys' fees and costs.

P. AUTHORITY. Except as expressly stated herein, nothing in this MOU shall be construed as a waiver of any Party's discretionary authority or deemed to restrict authority granted to any Party under law in any way with respect to future legislative, administrative, or other actions.

Q. VOLUNTARY AQIP. The Parties agree that the Airport's AQIP measures set forth in Attachment A are voluntary and are not to be construed as a regulation or requirement of South Coast AQMD.

R. MOU Modification. This MOU may be subsequently modified at any time but no modification shall be valid or binding unless made in writing and signed by authorized representatives of both Parties.

S. COUNTERPARTS. The signature pages of this MOU are being executed in counterparts by authorized signatories of the Parties following the approvals by their respective public agency governing boards. When both Parties have signed, all executed counterparts taken together shall constitute one and the same instrument.

T. AUTHORIZED SIGNATURES. Each signatory of this MOU represents that s/he is authorized to execute on behalf of the Party for which s/he signs. Each Party represents that it has legal authority to enter into this MOU and to perform all obligations under this MOU.

U. NO ENFORCEMENT AGAINST THIRD PARTIES. The South Coast AQMD shall not seek to enforce the measures specified in Attachment A or any of the measures or new initiatives in the AQIP or any of its terms against JWA's tenants, concessionaries, third party licensees, vendors, or other relevant operators doing business at JWA facilities.

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IN WITNESS WHEREOF, the Parties hereto have caused this Memorandum of Understanding to be executed by their authorized representatives.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT	**JOHN WAYNE AIRPORT, ORANGE COUNTY**
By _____	By _____
Name: Dr. William Burke	Name: Mr. Barry Rondinella
Title: Chairman, South Coast Governing Board	Title: Airport Director
Date: _____, 20___	Date: _____, 20___
Attest _____	Attest _____
Name:	Name:
Title:	Title:
APPROVED AS TO FORM:	APPROVED AS TO FORM:
By _____	By _____
BAYRON T. GILCHRIST,	Deputy County Counsel
General Counsel	County of Orange
Date: _____, 20___	Date: _____, 20___

ATTACHMENT A

MOU Schedules

MOU SCHEDULE NO. 1 – GROUND SUPPORT EQUIPMENT

This MOU Schedule No. 1 is based on JWA's AQIP measure for ground support equipment[1].

I. PROGRAM DESCRIPTION – Require that all ground support equipment associated with commercial operations achieve a fleet average NOx emission factors of 1.7 and 0.9 grams per brake horsepower hour (g/bhp-hr) by January 1,~~in~~ 2023 and 2031, respectively.

II. PROGRAM TIMEFRAME - Upon execution through ~~2031~~2032.

III. AIRPORT OBLIGATIONS – JWA agrees to:

A. Implement the measure by working with Airport tenants to achieve the above performance targets by specified dates through accelerated turnover to cleaner equipment. JWA shall have complete discretion as to mechanisms used to implement this measure. Such mechanisms may include leases, licenses, operational requirements, or other agreements.

B. Beginning in 2021, and every year thereafter through 2032, provide the following information to South Coast AQMD on an annual basis by June 1 for each preceding calendar year:

1. List of ground support equipment subject to GSE measure with the following information:

a. Equipment ID
b. Equipment type
c. Fuel type
d. Engine model year
e. Power rating (hp or kW)
f. Engine tier level (for diesel engines)
g. Annual activity data for non-zero emission equipment that is sufficient to determine emission reductions at a reasonable level of accuracy (i.e., actual operating hours from hour meter readings/maintenance records, average operating hours representative of equipment type and airport, or average operating hours by equipment/fuel type from CARB's OFFROAD

[1] Ground Support Equipment or "GSE" is any vehicle or equipment used to support aircraft operations that is subject to, or included in compliance plans to meet, the requirements of the California Air Resources Board (CARB) In-Use Off-Road Diesel (ORD) Vehicle Regulation Program, CARB Off-Road Large Spark-Ignition (LSI) Engine Fleet Requirements Regulation Program, or CARB Portable Equipment Registration Program and associated Portable Diesel Engine Airborne Toxic Control Measure. Furthermore, GSE as defined here only includes equipment that is not subject to compliance with South Coast AQMD Rule XX – RECLAIM, or included in a mobile source emission reduction credit program under South Coast AQMD Rule XVI.

model, if applicable)

2. For non-zero emission GSE subject to this GSE measure, information regarding the sale or retirement of equipment available through CARB's DOORS system and, for pre-Tier 4 diesel, pre-2010 gasoline, or pre-2010 LPG ground support equipment relocated from JWA~~the AIRPORT~~ to another airport within the South Coast Air Basin, identify: a) the airport to which equipment is relocated, b) date of relocation, and c) ~~-~~estimated projected usage hours.

~~1.~~3. An annual emission inventory for all ground support equipment associated with commercial operations at JWA, including methodology and calculations.

IV. SOUTH COAST AQMD OBLIGATIONS – South Coast AQMD agrees to:

A. Verify emission reductions from the implementation of this AQIP measure in order to determine actual emission reductions.

B. Ensure that any emission reduction data related to this AQIP measure and other pertinent information are accessible to the public and the USEPA.

MOU SCHEDULE NO. 2 – JET FUEL DELIVERY TRUCKS

This MOU Schedule No. 2 is based on JWA's AQIP measure for jet fuel delivery trucks.

I. PROGRAM DESCRIPTION – Install a jet fuel pipeline by the end of 2019 and eliminate routine commercial passenger jet fuel delivery trucks by January 1, 2023.

II. PROGRAM TIMEFRAME - Upon execution through ~~2031~~2032.

III. AIRPORT OBLIGATIONS – JWA agrees to:

A. Work with third parties to complete the jet fuel pipeline installation and work with tenants to eliminate routine commercial passenger jet fuel truck deliveries.

B. Beginning in 2021, provide the following information to South Coast AQMD on an annual basis by June 1 for each preceding calendar year:

1. Total number of routine and non-routine truck trips delivering jet fuel for commercial passenger aviation, and truck model years, if available.

2. Total amount of jet fuel delivered.

3. An estimate of total vehicle miles travelled.

4. An emission inventory for commercial passenger jet fuel delivery trucks, including methodology and calculations.

IV. SOUTH COAST AQMD OBLIGATIONS – South Coast AQMD agrees to:

A. Verify emission reductions from the implementation of this AQIP measure by JWA in order to determine actual emission reductions.

B. Ensure that any emission reduction data related to this AQIP measure and other pertinent information are accessible to the public and the USEPA.

MOU SCHEDULE NO. 3 – PARKING SHUTTLE BUS ELECTRIFICATION

This MOU Schedule No. 3 is based on JWA's AQIP measure for shuttle bus (off airport employee and passenger parking lots) electrification.

I. PROGRAM DESCRIPTION Replace a minimum of 50% and 80% of Airport employee and passenger remote parking compressed natural gas (CNG) shuttle buses with battery-electric shuttle buses by January 1, 2023 and 2031, respectively. The Airport may continue to reserve non-battery-electric shuttle buses for standby and emergency use.

II. PROGRAM TIMEFRAME - Upon execution through ~~2031~~2032.

III. AIRPORT OBLIGATIONS – JWA agrees to:

A. Replace existing CNG shuttle buses, with zero-emission buses as described above.

B. Beginning in 2021, provide the following information to South Coast AQMD on an annual basis by June 1 for each preceding calendar year:

1. List of shuttle buses operating at JWA with the following information:

   a. Vehicle Identification Number
   b. Vehicle model year
   c. Vehicle GVWR
   d. Bus engine model year
   e. Power rating (hp or kW)
   f. Fuel type
   g. Odometer reading
   h. Vehicle miles travelled

2. An emission inventory for shuttle buses, including methodology and calculations.

3. List of shuttle buses replaced during the reported year and information specified in III.B.1 above on replaced and replacement buses.

IV. SOUTH COAST AQMD OBLIGATIONS – South Coast AQMD agrees to:

A. Verify emission reductions from the implementation of this AQIP measure by JWA in order to determine actual emission reductions.

B. Ensure that any emission reduction data related to this AQIP measure and other pertinent information are accessible to the public and the USEPA.

MEMORANDUM OF UNDERSTANDING BETWEEN
THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT AND
THE CITY OF LONG BEACH
REGARDING LONG BEACH AIRPORT'S AIR QUALITY IMPROVEMENT PLAN

This Memorandum of Understanding ("MOU") is entered into by the South Coast Air Quality Management District ("South Coast AQMD"), acting by and through its Governing Board, and the City of Long Beach ("City"), in its capacity as the proprietor and certificated operator of the Long Beach Airport ("LGB" or "Airport"). The City and South Coast AQMD shall be referred to collectively as Parties (each a Party) to this MOU.

I. RECITALS

A. RECITALS BY SOUTH COAST AQMD

1. Air Regulatory Agencies. Air pollution remains a significant public health concern in many parts of California, and specifically in the South Coast Air Basin (Basin). The South Coast AQMD, California Air Resources Board (CARB), and the United States Environmental Protection Agency (USEPA) are the regional, state, and federal regulatory agencies, respectively, with jurisdiction over air quality in the Basin. South Coast AQMD and CARB have developed and approved the 2016 Air Quality Management Plan (AQMP) for the Basin for incorporation into the California State Implementation Plan (SIP). The 2016 AQMP ~~has been submitted to~~was approved by USEPA ~~and is pending its approval~~on October 1, 2019.

2. South Coast AQMD. The South Coast AQMD is the regional air pollution control agency primarily responsible for reducing air pollution in the Basin, which consists of the County of Orange, and the non-desert portions of the Counties of Los Angeles, Riverside, and San Bernardino. LGB is located within the Basin.

3. Need for Emission Reductions. The Basin is classified as an extreme non-attainment area for the 1997 and 2008 8-hour ozone national ambient air quality standards (NAAQS) with statutory deadlines to reach attainment by 2023 and 2031, respectively. Despite significant air quality improvements achieved over the last several decades, to meet these standards, emissions of oxides of nitrogen (NOx) must be reduced by 45% in 2023 and 55% in 2031 as outlined in the 2016 AQMP, adopted by the South Coast AQMD Governing Board in March 2017. The 2016 AQMP included Control Measure MOB-04 (Emission Reductions at Commercial Airports), with the goal of achieving

emission reductions from commercial airports through implementation of voluntary airport strategies.

4. Emissions from Sources at Commercial Airports. Emissions associated with operations at commercial airports contribute to adverse air quality in the Basin, primarily due to airport-related mobile source activities. These sources include aircraft, cargo trucks, ground support equipment (GSE), off-road vehicles, shuttle buses, and passenger vehicles. The emissions from commercial airports are expected to increase in future years based on the latest airport growth forecasts. Therefore, NOx emission reductions from commercial airports can assist with the effort to attain the ozone standards in 2023 and 2031.

B. RECITALS BY THE CITY

1. Airport. The City is the proprietor and certificated operator of LGB.

2. Airport Obligations. The City has entered into this MOU pursuant to its proprietary and governmental powers and authority under the State Aeronautics Act (California Public Utilities Code Sections 21001, et seq.).

3. Management and Operation. The Air Quality Improvement Plan (AQIP) and this MOU reflect the experience of the City in the management and operation of the Airport including extensive experience with the federal government, commercial aviation operators, general aviation operators and suppliers, the community, local public entities, and the residents of areas in the general vicinity of LGB.

4. Responsibility to Community. The MOU supports and is made in recognition of the importance of LGB to the economic health and well-being of the community surrounding LGB and the importance of balancing the needs of the community for adequate commercial air transportation facilities with environmentally responsible air transportation operations at LGB.

5. Statement of Intent. The City's consideration of the matters and issues referred to in this MOU is not intended as a statement that such matters and issues are the only ones considered by the City in connection with the formulation of the AQIP and this MOU. Rather this MOU reflects consideration by the City of all of its state and federal obligations and responsibilities as the proprietor of the Airport and addresses only those emission sources that the Airport believes it can reasonably affect.

6. Air Quality Improvement Plan (AQIP). The City has developed its own voluntary AQIP, with technical support provided by the South Coast AQMD. The AQIP represents the Airport's best efforts to develop programs and

strategies for reducing NOx emissions from airport mobile source operations based on its existing authority over airport emission sources. The AQIP includes specific initiatives and measures for certain non-aircraft emission sources operating at the Airport.

7. Emissions Inventory - The LGB AQIP includes the 2017 base year emissions inventory and 2023 and 2031 business as usual emissions forecasts as well as the 2023 and 2031 forecasts that include the projected estimates of emissions benefits from voluntary airport AQIP measures with quantifiable emission reductions. The AQIP provides an emissions inventory only for non-aircraft airport sources for which the AQIP includes specific voluntary airport measures and initiatives (i.e., ground support equipment, fuel/delivery trucks, on-road and off-road airport fleet vehicles, shuttle buses, and passenger transportation). The City has provided the AQIP with supporting calculations to the South Coast AQMD.

C. JOINT RECITALS

1. Purpose of MOU

The purpose of this MOU is to set forth how the Parties, consistent with their respective legal authorities, intend to quantify the emission reduction benefits in the Basin through the implementation of the voluntary airport strategies developed by the City under the AQIP and MOU, and adopted by the City on [**INSERT DATE**]. Attachment A, "MOU Schedules" sets forth the specific voluntary airport AQIP measures that are the subject to the MOU. This MOU does not create SIP creditable reductions; rather, it identifies specific voluntary airport AQIP measures and provides the means for the South Coast AQMD to quantify the emission reductions from these voluntary airport AQIP measures to obtain SIP credits. The MOU is not intended to limit Airport growth. A central objective of the AQIP and MOU is to generate NOx reductions, and corresponding reductions of associated pollutants from non-aircraft airport mobile sources.

a. MOU Schedule 1, specified in Attachment A, establishes metrics for quantification of emission benefits associated with implementation of voluntary airport AQIP measures for each emission source category consistent with the 2023 and 2031 dates for attainment of the ozone standards.

b. The Parties agree the MOU does not: (1) Establish an emissions cap or any other facility-wide limit for NOx, or any other pollutant; (2) Obligate the Airport to provide a facility-wide inventory of NOx or VOC emissions; however, the parties agree to continue to work together in developing

inventories of airport emission sources to support the development of future AQMPs outside of the AQIP/MOU process; or (3) Limit the City's ability to seek incentive or grant funding through federal, State and local programs, including but not limited to the FAA Voluntary Aviation Low Emissions (VALE) program and other similar programs, which require emissions reductions achieved through such programs to be voluntary in nature and exceed existing obligations to achieve emissions reductions.

c. The emission reduction benefits from the voluntary airport AQIP measures in Attachment A may be used by South Coast AQMD to obtain SIP credit to the extent the emission reduction benefits quantified by South Coast AQMD for these measures satisfy USEPA's integrity elements (i.e., the emission reductions are quantifiable, surplus, permanent, and enforceable). South Coast AQMD may seek SIP credit for the quantified emission reductions through a separate SIP submittal.

d. The Parties agree that the South Coast AQMD, and not the City, will rectify any shortfall in prospective emission reductions from the voluntary airport AQIP measures specified in Attachment A.

e. The Parties specifically disavow any desire or intention to create any third-party beneficiary under this MOU, and specifically declare that no person or entity shall have any remedy or right of enforcement.

2. <u>MOU Public Process</u>

a. Following the adoption of the 2016 AQMP, South Coast AQMD staff held a series of public working group meetings to solicit comments on implementing Control Measure MOB-04 for commercial airports. Based on input received during the public process, South Coast AQMD staff developed a recommendation for the South Coast AQMD Governing Board for the development of an MOU with the commercial airports. In the event that the MOU approach with the airports was not successful, staff also recommended consideration of a regulatory approach for reducing emissions from commercial airports.

b. In May 2018, the South Coast AQMD Governing Board approved staff's recommendation and directed staff to pursue an MOU approach with the commercial airports to implement 2016 AQMP Control Measure MOB-04.

c. South Coast AQMD staff has established an MOU Working Group (WG), consisting of representatives from the South Coast AQMD, commercial airports (Los Angeles International Airport, John Wayne Airport, Ontario International Airport, Hollywood Burbank Airport, and Long Beach Airport),

CARB, USEPA, environmental organizations, labor, freight industry, airlines, other stakeholders, and the public to solicit comments on the MOU development. South Coast AQMD staff will also monitor the implementation of this MOU and provide reports to USEPA. In addition, South Coast AQMD may utilize other well-established means of communication, including the South Coast AQMD website, Subscribers lists, and Governing Board and Committee meetings, for disseminating information concerning the status of MOU implementation.

d. The MOU is developed through the public process outlined above for consideration by the South Coast AQMD Governing Board and the City Council.

3. MOU Applicability. The MOU (1) addresses only the voluntary Airport AQIP measure identified in Attachment A, and (2) does not supersede rules that are established by the USEPA or CARB, or legal, regulatory, or contractual obligations that the Airport is subject to such as U.S. Department of Transportation (USDOT) or Federal Aviation Administration (FAA) regulations; federal statutes, including the Anti-Head Tax Act (AHTA), the Federal Aviation Act, and the Airline Deregulation Act; international treaties; or the doctrines of federal preemption, the dormant Commerce Clause, and the Supremacy Clause.

   a. Excluded Sources. Nothing in the AQIP or this MOU is intended or shall be interpreted to regulate or otherwise apply to (1) any source that is not specifically identified as a AQIP Source in Attachment A, including aircraft, inclusive of Auxiliary Power Units (APUs), aircraft engines or any other aircraft parts or systems, (2) the operation of any source that is not specifically identified as a AQIP Source in Attachment A, namely aircraft, inclusive of APUs, aircraft engines, or any other aircraft parts or systems, either in flight or on the ground, including while taxiing or parked at an aircraft gate, remain-overnight (RON) position, maintenance facility, or any other airport location, or (3) any and all activities associated with General Aviation (GA) operations including aircraft, GA related GSE and vehicles and equipment.

II. NOW, THEREFORE, in consideration of the mutual interests and benefits of all parties to be derived from emissions reductions of NOx, and corresponding anticipated reductions to other pollutants, including VOC and PM, resulting from the implementation of the strategies identified in the voluntary AQIP, the Parties hereto agree as follows:

A. <u>CITY'S RESPONSIBILITIES</u>

The City agrees to take the following actions:

1. AQIP Implementation. Implement AQIP voluntary airport measures identified in Attachment A, Schedule 1.

2. Monitoring and Reporting. Monitor the implementation of voluntary airport AQIP measures and provide data and annual emissions inventory reports to South Coast AQMD as described in Attachment A, Schedule 1.

3. Incentives. Provide monetary or non-monetary incentives for non-aircraft airport mobile sources to the extent possible and as included in the AQIP. Nothing in this MOU requires the Airport to provide incentives.

4. Funding. Support grant funding efforts with potential funding sources that may provide funding for the voluntary airport AQIP measures, at the City's discretion.

B. SOUTH COAST AQMD'S RESPONSIBILITIES

South Coast AQMD agrees to take the following actions:

1. Technical Analyses for SIP Credit from AQIP emission reductions. The South Coast AQMD will provide the necessary documentation and technical analysis with respect to the calculation of the emission reductions benefits attributable to the voluntary airport AQIP measures identified in Attachment A. This would include, but not be limited to, an analysis of the AQMP/SIP baseline for affected airport sources, emission reductions achieved through AQIP measures in Attachment A based on the AQIP inventories, and an estimation of emissions reductions benefits and corresponding SIP credits. Factors to be considered for purposes of calculating the emission reductions benefits attributable to the voluntary airport AQIP measures in Attachment A shall include, but not be limited to: growth forecasts from the airports, implementation schedules for voluntary airport AQIP measures, the availability of funding for relevant incentives programs, and the technical and economic feasibility of specific voluntary airport AQIP measures.

2. Federal Enforceability. To the extent necessary to obtain SIP approval, the South Coast AQMD will provide federally enforceable commitments in a SIP update document that is separate from this MOU to the USEPA after approval by the South Coast AQMD and the CARB Boards. South Coast AQMD will monitor, assess, and report emission reductions benefits from the voluntary airport AQIP measures identified in Attachment A to the USEPA.

3. Responsibility for Shortfall. The South Coast AQMD shall be solely responsible to make up any emissions reduction shortfalls that may occur in the event that

the actual voluntary airport AQIP emissions reduction benefits do not achieve the projected emissions reduction benefits resulting from implementation of the voluntary airport AQIP measures specified in Attachment A. South Coast AQMD will also commit to adopt and submit substitute measures to USEPA to remedy any potential emission reduction shortfall associated with implementation of the AQIP measures identified in Attachment A. The City shall have no obligation(s) and/or requirement(s) to implement any substitute measures to remedy any potential emission reduction shortfall associated with implementation of the AQIP measures identified in Attachment A, unless otherwise mutually agreed on by both parties. Notwithstanding the above, the City and South Coast AQMD agree that, in the event that the actual emission reductions associated with implementation of voluntary AQIP measures in Attachment A are less than the estimated emissions reduction benefits from implementation of these voluntary AQIP measures, the City and South Coast AQMD will work together to consider potential new or enhanced programs, or better efforts to quantify existing programs, to help South Coast AQMD address any shortfalls.

4. Funding. The South Coast AQMD, at its Governing Board's discretion, will support grant funding efforts with potential funding sources that may provide funding for the voluntary airport AQIP measures.

5. Monitoring. The South Coast AQMD will monitor and assess the implementation of SIP creditable AQIP measures based on information provided by the City as outlined in Schedule 1 in Attachment A.

6. Information Sharing. The South Coast AQMD will provide the means for ensuring that emission reduction data and other pertinent information related to the implementation of SIP creditable AQIP measures are fully accessible to the public and the USEPA.

C. MOU SCHEDULES

The voluntary airport AQIP measures for which the South Coast AQMD may quantify emission reductions and seek SIP credit through a separate SIP submittal are identified in Schedule 1 in Attachment A and are incorporated as part of this MOU:

1. MOU SCHEDULE NO. 1 - GROUND SUPPORT EQUIPMENT

Schedule No. 1 focuses on the voluntary airport AQIP measure and time frame aligned with the AQMP and SIP emission reduction target dates (i.e., 2023 and 2031), and includes technical details pertinent to the equipment category such as:

- Metrics or performance targets
- Schedule for program implementation
- Annual reporting by the City to South Coast AQMD

Variations in the nature of information and data needed for each of the source measures may be addressed with focused and adaptive revisions to the individual equipment category schedules and may be revised by mutual agreement of the Parties without modifying this MOU.

D. TERM OF MOU. This MOU shall be in full force and in effect when signed by all Parties following their respective required authorization processes. The initial term of this MOU shall expire on December 31, ~~2031~~ 2032 unless terminated earlier pursuant to Section II.E, below. Prior to expiration of this MOU, all Parties agree to meet to evaluate the need for continuing participation. If all Parties agree that continuing participation is desirable, they shall negotiate for their respective Boards' approval, a written extension of the term of this MOU, and any applicable additional MOU Schedules.

E. WITHDRAWAL AND EARLY TERMINATION. If any Party to this MOU determines that it wishes to no longer be a party to this MOU, then the Party shall provide notice to the other Party at least ninety (90) days in advance of the specified date of termination of the MOU. The Parties commit to work together to resolve any issues and to negotiate an updated MOU at least thirty (30) days in advance of the specified date of termination of the MOU. If the Parties are unable to reach agreement, the MOU shall terminate on the date specified in the notification.

F. ENFORCEABILITY. The Parties commit to implement the provisions in the MOU. The parties agree that implementation of the measures specified in Attachment A is not to be construed as a regulation or requirement of the South Coast AQMD. In the event that any party fails to meet its commitment(s) or anticipates an inability to meet its commitment(s), the Party shall provide notice to the other Party within sixty (60) days of such determination and seek to negotiate a mutually agreeable solution within ninety (90) days of the date of the Notice. The Parties shall continue to comply with all other commitments under this MOU during the negotiations. Nothing contained in this paragraph is intended to limit any rights or remedies that the Parties may have under law. The Parties shall attempt in good faith to resolve any controversy that may arise out of or relating to this MOU. If a controversy or claim should arise that cannot be resolved informally by the respective staffs, executive level representatives of the Parties will meet at least once in person and, in addition, at least once in person or by telephone to attempt to resolve the matter. The Representatives will make every effort to meet as soon as reasonably possible at a mutually agreed time and place.

G. NOTICES. All notices that are required under this MOU shall be provided in the manner set forth herein, unless specified otherwise. Notice to a Party shall be delivered to the attention of the person listed below, or to such other person or persons as may hereafter be designated by that Party in writing. Notice shall be in writing sent by U.S. Certified Mail, Return Receipt Requested, or a nationally recognized overnight courier service. Notice shall be deemed to be received when delivered (written receipt of delivery).

South Coast AQMD:
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765-4178
Attn: Assistant Deputy Executive Officer - Planning, Rule Development & Area Sources

City:
Long Beach Airport
4100 E. Donald Douglas Drive, Floor 2
Long Beach, CA 90808
Attn: Cynthia Guidry – Director, Long Beach Airport

H. AVAILABLE FUNDING. Each Party shall be responsible for its respective costs associated with this MOU and acknowledges that the agreements ~~commitments~~ contained ~~herein~~ by ~~any~~ the ~~other~~ Part~~y~~ies are subject to the availability of appropriated funds. No Party will submit a claim for compensation to ~~any~~ the other Party, or otherwise seek reimbursement of costs from ~~any~~ the other Party, for activities carried out pursuant to this MOU.

I. FUTURE AGREEMENTS. This MOU does not restrict any future agreements between the Parties with respect to the subject matter stated herein or any other subject matter.

J. JOINT WORK PRODUCT. This MOU shall not be construed against the Party preparing the same, shall be construed without regard to the identity of the person who drafted such and shall be construed as if all Parties had jointly prepared this MOU and it shall be deemed their joint work product.

K. RECITALS. Each of the Recitals is incorporated into this MOU.

L. ENTIRE UNDERSTANDING. This MOU, including all attachments, constitutes the entire understanding between the Parties and supersedes all other agreements, oral or written, with respect to the subject matter herein. This MOU shall not be amended except in writing, signed by the Parties which expressly refers to this MOU.

M. VENUE. This MOU shall be construed and interpreted and the legal relations created thereby shall be determined in accordance with the laws of the State of California. Venue for resolution of any disputes under this MOU shall be Los Angeles County, California, USA.

N. SEVERABILITY. If a court of competent jurisdiction holds any provision of this MOU to be illegal, unenforceable, or invalid in whole or in part for any reason, the validity and enforceability of the remaining provisions, or portions of those provisions, will not be affected.

O. ATTORNEYS' FEES. In the event any action is filed in connection with the enforcement or interpretation of this MOU, each Party shall bear its own attorneys' fees and costs.

P. AUTHORITY. Except as expressly stated herein, nothing in this MOU shall be construed as a waiver of any Party's discretionary authority or deemed to restrict authority granted to any Party under law in any way with respect to future legislative, administrative, or other actions.

Q. VOLUNTARY AQIP. The Parties agree that the Airport's AQIP measures in Attachment A are voluntary and are not to be construed as a regulation or requirement of South Coast AQMD.

R. MOU Modification. This MOU may be subsequently modified at any time but no modification shall be valid or binding unless made in writing and signed by authorized representatives of both Parties.

S. COUNTERPARTS. The signature pages of this MOU are being executed in counterparts by authorized signatories of the Parties following the approvals by their respective public agency governing boards. When both Parties have signed, all executed counterparts taken together shall constitute one and the same instrument.

T. AUTHORIZED SIGNATURES. Each signatory of this MOU represents that s/he is authorized to execute on behalf of the Party for which s/he signs. Each Party represents that it has legal authority to enter into this MOU and to perform all obligations under this MOU.

U. NO ENFORCEMENT AGAINST THIRD PARTIES. The South Coast AQMD shall not seek to enforce the measure specified in Attachment A or any of the measures or initiatives in the AQIP or any of its terms against the Airport's tenants, concessionaires, third party licensees, vendor(s), or other relevant operators doing business at Airport or City facilities.

IN WITNESS WHEREOF, the Parties hereto have caused this Memorandum of Understanding to be executed by their authorized representatives.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT	**LONG BEACH AIRPORT**
By _____	By _____
Name: Dr. William Burke	Name: Thomas B. Modica
Title: Chairman, South Coast Governing Board	Title: Acting City Manager, City of Long Beach
Date: _____, 20___	Date: _____, 20___
Attest _____	Attest _____
Name:	Name:
Title:	Title:
APPROVED AS TO FORM:	APPROVED AS TO FORM:
Date: _____, 20___	Date: _____, 20___
BAYRON T. GILCHRIST,	MICHAEL J. MAIS,
General Counsel	Assistant City Attorney, City of Long Beach
By _____	By _____
Name:	Name:
Title:	Title:

ATTACHMENT A

MOU SCHEDULE NO. 1 – GROUND SUPPORT EQUIPMENT

This MOU Schedule No. 1 is based on the City's AQIP measure for ground support equipment[1].

I. PROGRAM DESCRIPTION – Require that all ground support equipment associated with commercial operations achieve a fleet average NOx emission factors of 0.93 and 0.44 g/bhp-hr ~~in 2023 and 2031~~by January 1, 2023 and January 1, 2031, respectively.

II. PROGRAM TIMEFRAME - Upon execution through ~~2031~~2032.

III. AIRPORT OBLIGATIONS – The City agrees to:

A. Implement the measure by working with airport tenants to achieve the above performance targets by specified dates through accelerated turnover to cleaner equipment. Airport shall have complete discretion as to mechanisms used to implement this measure. Such mechanisms may include leases, licenses, operational requirements, or other agreements.

B. Beginning in 2021, and every year thereafter through ~~2031~~2032, provide the following information to South Coast AQMD on an annual basis by June 1 for each preceding calendar year:

1. List of ground support equipment ~~as provided by airlines operating~~subject to this GSE measure ~~at LGB~~ with the following information:

a. Equipment ID
b. Equipment type
c. Fuel type
d. Engine model year
e. Power rating (hp or kW)
f. Engine tier level (for diesel engines)
g. Annual activity data for non-zero emission equipment that is sufficient to determine emission reductions at a reasonable level of accuracy (i.e., actual operating hours from hour meter readings/maintenance records, average operating hours representative of equipment type and airport, or average

[1] Ground Support Equipment or "GSE" is any vehicle or equipment used to support aircraft operations that is subject to, or included in compliance plans to meet, the requirements of the California Air Resources Board (CARB) In-Use Off-Road Diesel (ORD) Vehicle Regulation Program, CARB Off-Road Large Spark-Ignition (LSI) Engine Fleet Requirements Regulation Program, or CARB Portable Equipment Registration Program and associated Portable Diesel Engine Airborne Toxic Control Measure. Furthermore, GSE as defined here only includes equipment that is not subject to compliance with SCAQMD Rule XX – RECLAIM, or included in a mobile source emission reduction credit program under SCAQMD Rule XVI.

operating hours by equipment/fuel type from CARB's OFFROAD model, if applicable)

2. For non-zero emission ground support equipment subject to this GSE measure, information regarding the sale or retirement of equipment available through CARB's DOORS system and, for pre-Tier 4 diesel, pre-2010 gasoline, or pre-2010 LPG ground support equipment relocated from LGB to another airport within the South Coast Air Basin, identify: a) the airport to which equipment is relocated, b) date of relocation, and c) estimated projected usage hours.

~~2.~~3. An annual emission inventory for all ground support equipment associated with commercial operations at LGB, including methodology and calculations.

IV. SOUTH COAST AQMD OBLIGATIONS – South Coast AQMD agrees to:

A. Verify emission reductions from the implementation of this AQIP measure in order to determine actual emission reductions.

B. Ensure that any emission reduction data related to this AQIP measure and other pertinent information are accessible to the public and the USEPA.

MEMORANDUM OF UNDERSTANDING BETWEEN
THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT AND
ONTARIO INTERNATIONAL AIRPORT
REGARDING ONTARIO INTERNATIONAL AIRPORT'S AIR QUALITY IMPROVEMENT PLAN

This Memorandum of Understanding (MOU) is entered into by the South Coast Air Quality Management District (South Coast AQMD), acting by and through its Governing Board, and Ontario International Airport (ONT or Airport), acting by and through the Ontario International Airport Authority (OIAA) in its capacity as the proprietor and certificated operator of ONT. The Airport and South Coast AQMD shall be referred to collectively as Parties (each a Party) to this MOU.

I. RECITALS

A. RECITALS BY SOUTH COAST AQMD

1. Air Regulatory Agencies. Air pollution remains a significant public health concern in many parts of California, and specifically in the South Coast Air Basin (Basin). The South Coast AQMD, California Air Resources Board (CARB), and the United States Environmental Protection Agency (USEPA) are the regional, state, and federal regulatory agencies, respectively, with jurisdiction over air quality in the Basin. South Coast AQMD and CARB have developed and approved the 2016 Air Quality Management Plan (AQMP) for the Basin for incorporation into the California State Implementation Plan (SIP). The 2016 AQMP ~~has been submitted to USEPA and is pending its approval~~received approval by USEPA on October 1, 2019.

2. South Coast AQMD. The South Coast AQMD is the regional air pollution control agency primarily responsible for reducing air pollution in the Basin, which consists of the County of Orange, and the non-desert portions of the Counties of Los Angeles, Riverside, and San Bernardino. The ONT is located within the Basin.

3. Need for Emission Reductions. The Basin is classified as an extreme non-attainment area for the 1997 and 2008 8-hour ozone national ambient air quality standards (NAAQS) with statutory deadlines to reach attainment by 2023 and 2031, respectively. Despite significant air quality improvements achieved over the last several decades, to meet these standards, emissions of oxides of nitrogen (NOx) must be reduced by 45% in 2023 and 55% in 2031 as outlined in the 2016 AQMP, adopted by the South Coast AQMD Governing Board in March 2017. The 2016 AQMP included Control Measure MOB-04 (Emission Reductions at Commercial Airports), with the goal of achieving emission reductions from commercial airports through implementation of voluntary airport strategies.

4. Emissions from Sources at Commercial Airports. Emissions associated with operations at commercial airports contribute to adverse air quality in the Basin, primarily due to airport-related mobile source activities. These sources include aircraft, cargo trucks, ground support equipment (GSE), off-road vehicles, shuttle buses, and passenger vehicles. Therefore, NOx emission reductions from commercial airports can assist with the effort to attain the ozone standards in 2023 and 2031.

B. RECITALS BY ONT

1. Airport. The Ontario International Airport Authority is the proprietor and certificated operator of ONT.

2. Airport Obligations. ONT enters into this MOU pursuant to its proprietary and governmental powers and authority under the State Aeronautics Act (California Public Utilities Code Sections 21001, et seq.).

3. Management and Operation. The Air Quality Improvement Plan (AQIP) and this MOU reflect the experience of ONT in the management and operation of the Airport including extensive experience with the federal government, commercial aviation operators, general aviation operators and suppliers, the community, local public entities, and the residents of areas in the general vicinity of ONT.

4. Responsibility to Community. The MOU supports and is made in recognition of the importance of ONT to the economic health and well-being of the communities surrounding ONT and the importance of balancing the needs of the City of Ontario, County of San Bernardino and other surrounding communities for adequate commercial air transportation facilities with environmentally responsible air transportation operations at ONT.

5. Statement of Intent. ONT's consideration of the matters and issues referred to in this MOU is not intended as a statement that such matters and issues are the only ones considered by the Airport in connection with the formulation of the AQIP and this MOU. Rather this MOU reflects consideration by ONT of all of its state and federal obligations and responsibilities as the proprietor of the Airport and addresses only those emission sources that the Airport believes it can reasonably affect.

6. Air Quality Improvement Plan (AQIP). ONT has developed its own voluntary AQIP, with technical support provided by the South Coast AQMD. The AQIP represents the Airport's best efforts to develop programs and strategies for reducing NOx emissions from airport mobile source operations based on its existing authority over airport emission sources. The AQIP includes specific initiatives and measures for certain non-aircraft emission sources operating at the Airport.

7. Emissions Inventory. The AQIP includes the 2017 base year emissions inventory and 2023 and 2031 business as usual emissions forecast as well as the 2023 and 2031 forecasts that include the projected estimates of emissions benefits from voluntary airport AQIP measures with quantifiable emission reductions. The AQIP provides an emissions inventory only for non-aircraft airport sources for which the AQIP includes specific voluntary airport measures and initiatives (i.e., ground support equipment, fuel/delivery trucks, on-road and off-road airport fleet vehicles, shuttle buses, and passenger transportation). ONT has provided the AQIP with supporting calculations to the South Coast AQMD.

C. JOINT RECITALS

1. Purpose of MOU

The purpose of this MOU is to set forth how the Parties, consistent with their respective legal authorities, intend to quantify the emission reduction benefits in the Basin through the implementation of the voluntary airport strategies developed by ONT under the AQIP and MOU, and adopted by the OIAA on [**INSERT DATE**]. Attachment A, "MOU Schedule," sets forth the specific voluntary airport AQIP measures that are subject to the MOU. This MOU does not create SIP creditable reductions; rather, it identifies specific voluntary airport AQIP measures and provides the means for the South Coast AQMD to quantify the emission reductions from these voluntary airport AQIP measures to obtain SIP credits. The MOU is not intended to limit Airport growth. A central objective of the AQIP and MOU is to generate NOx reductions, and corresponding reductions of associated pollutants from non-aircraft airport mobile sources.

a. The MOU Schedule 1, specified in Attachment A, establish metrics for quantification of emission benefits associated with implementation of voluntary airport AQIP measures for each emissions source category consistent with the 2023 and 2031 dates for attainment of the ozone standards.

b. The Parties agree the MOU does not: i) Establish an emissions cap or any other facility-wide limit for NOx, or any other pollutant; ii) Obligate the Airport to provide a facility-wide inventory of NOx or VOC emissions; however, the parties agree to continue to work together in developing inventories of airport emission sources to support the development of future AQMPs outside of the AQIP/MOU process; or iii) Limit the Airport's ability to seek incentive or grant funding through federal, State and local programs, including but not limited to the FAA Voluntary Aviation Low Emissions (VALE) program and other similar programs, which require

emissions reductions achieved through such programs to be voluntary in nature and exceed existing obligations to achieve emissions reductions.

c. The emission reduction benefits from the voluntary airport AQIP measures in Attachment A may be used by South Coast AQMD to obtain SIP credit to the extent the emission reduction benefits quantified by South Coast AQMD for these measures satisfy USEPA's integrity elements (i.e., the emission reductions are quantifiable, surplus, permanent, and enforceable). South Coast AQMD may seek SIP credit for the quantified emission reductions through a separate SIP submittal.

d. The Parties agree that the South Coast AQMD, and not the Airport, will rectify any shortfall in prospective emission reductions from the voluntary airport AQIP measures specified in Attachment A.

e. The Parties specifically disavow any desire or intention to create any third-party beneficiary under this MOU, and specifically declare that no person or entity shall have any remedy or right of enforcement.

2. MOU Public Process

a. Following the adoption of the 2016 AQMP, South Coast AQMD staff held a series of public working group meetings to solicit comments on implementing Control Measure MOB-04 for commercial airports. Based on input received during the public process, South Coast AQMD staff developed a recommendation for the South Coast AQMD Governing Board for the development of an MOU with the commercial airports. In the event that the MOU approach with the airports was not successful, staff also recommended consideration of a regulatory approach for reducing emissions from commercial airports.

b. In May 2018, the South Coast AQMD Governing Board approved staff's recommendation and directed staff to pursue an MOU approach with the commercial airports to implement 2016 AQMP Control Measure MOB-04.

c. South Coast AQMD staff has established an MOU Working Group (WG), consisting of representatives from the South Coast AQMD, commercial airports (Los Angeles International Airport, John Wayne Airport, Ontario International Airport, Hollywood Burbank Airport, and Long Beach Airport), CARB, USEPA, environmental organizations, labor, freight industry, airlines, other stakeholders, and the public to solicit comments on the MOU development. South Coast AQMD staff will also monitor the implementation of this MOU and provide reports to USEPA. In addition, South Coast AQMD may utilize other well-established means of communication, including the South Coast AQMD website, Subscribers lists, and Governing Board and Committee meetings, for disseminating information concerning the status of MOU implementation.

d. The MOU is developed through the public process outlined above for consideration by the South Coast AQMD Governing Board and the Airport's Board.

3. MOU Applicability

a. The MOU (1) addresses only the voluntary Airport AQIP measures identified in Attachment A, and (2) does not supersede rules that are established by the USEPA or CARB, or legal, regulatory, or contractual obligations that the Airport is subject to such as U.S. Department of Transportation (USDOT) or Federal Aviation Administration (FAA) regulations; federal statutes, including the Anti-Head Tax Act (AHTA), the Federal Aviation Act, and the Airline Deregulation Act; international treaties; or the doctrines of federal preemption, the dormant Commerce Clause, and the Supremacy Clause.

b. Excluded Sources. Nothing in the AQIP or this MOU is intended or shall be interpreted to regulate or otherwise apply to (1) any source that is not specifically identified as a AQIP Source in Attachment A, including aircraft, inclusive of Auxiliary Power Units (APUs), aircraft engines or any other aircraft parts or systems, (2) the operation of any source that is not specifically identified as a AQIP Source in Attachment A, including aircraft, inclusive of APUs, aircraft engines, or any other aircraft parts or systems, either in flight or on the ground, including while taxiing or parked at an aircraft gate, remain-overnight (RON) position, maintenance facility, or any other airport location, or (3) any and all activities associated with General Aviation (GA) operations including aircraft, GA related GSE and vehicles and equipment. For purposes of the AQIP and this MOU, GA is defined as all civil aviation operations *except*: operations by 14 C.F.R. Part 121 commercial carriers, and regularly scheduled air services, defined as: (i) operated in support of, advertised, or otherwise made available to members of the public by any means for commercial air transportation purposes, and members of the public may travel or ship commercial cargo on the flights; (ii) the flights are scheduled to occur, or are represented as occurring (or available) at specified times and days; and (iii) the operator conducts, or proposes to operate, departures at ONT at a frequency greater than two (2) times per week during any consecutive three (3) week period.

II. NOW, THEREFORE, in consideration of the mutual interests and benefits of all parties to be derived from emissions reductions of NOx, and corresponding anticipated reductions of other pollutants, including VOC and PM, resulting from the implementation of the strategies identified in the voluntary AQIP, the Parties hereto agree as follows:

A. AIRPORT'S RESPONSIBILITIES

The OIAA or Airport agrees to take the following actions:

1. AQIP Implementation. Implement voluntary airport AQIP measures identified in Attachment A, Schedule 1.
2. Monitoring and Reporting. Monitor the implementation of voluntary airport AQIP measures and provide data and annual emissions inventory reports to South Coast AQMD as described in Attachment A, Schedule 1.
3. Incentives. Provide monetary or non-monetary incentives for non-aircraft airport mobile sources to the extent possible and as included in the AQIP. Nothing in this MOU requires the Airport to provide incentives.
4. Funding. Support grant funding efforts with potential funding sources that may provide funding for the voluntary airport AQIP measures, at ONT's discretion.

B. SOUTH COAST AQMD'S RESPONSIBILITIES

South Coast AQMD agrees to take the following actions:

1. Technical Analyses for SIP Credit from AQIP emission reductions. The South Coast AQMD will provide the necessary documentation and technical analysis with respect to the calculation of the emission reductions benefits attributable to the voluntary airport AQIP measures identified in Attachment A. This would include, but not be limited to, an analysis of the AQMP/SIP baseline for affected airport sources, emission reductions achieved through AQIP measures in Attachment A based on the AQIP inventories, and an estimation of emissions reductions benefits and corresponding SIP credits. Factors to be considered for purposes of calculating the emission reductions benefits attributable to the voluntary airport AQIP measures in Attachment A shall include, but not be limited to: growth forecasts from the airports, an implementation schedule for voluntary airport AQIP measures, the availability of funding for relevant incentives programs, and the technical and economic feasibility of specific voluntary airport AQIP measures.
2. Federal Enforceability. To the extent necessary to obtain SIP approval, the South Coast AQMD will provide federally enforceable commitments in a SIP update document that is separate from this MOU to the USEPA after approval by the South Coast AQMD and the CARB Boards. South Coast AQMD will monitor, assess, and report emission reductions benefits from the voluntary airport AQIP measures identified in Attachment A to the USEPA.
3. Responsibility for Shortfall. The South Coast AQMD shall be solely responsible to make up any emissions reduction shortfalls that may occur in the event that the actual voluntary airport AQIP emissions reduction benefits do not achieve the projected emissions reduction benefits resulting from implementation of the voluntary airport AQIP measures specified in Attachment A. South Coast

AQMD will also commit to adopt and submit substitute measures to USEPA to remedy any potential emission reduction shortfall associated with implementation of the AQIP measures identified in Attachment A. The Airport shall have no obligation(s) and/or requirement(s) to implement any substitute measures to remedy any potential emission reduction shortfall associated with implementation of the AQIP measures identified in Attachment A, unless otherwise mutually agreed on by both parties. Notwithstanding the above, ONT and South Coast AQMD agree that, in the event that the actual emission reductions associated with implementation of voluntary AQIP measures in Attachment A are less than the estimated emissions reduction benefits projected for implementation of these voluntary AQIP measures, ONT and South Coast AQMD will work together to consider potential new or enhanced programs, or better efforts to quantify existing programs, to help South Coast AQMD address any shortfalls.

4. Funding. The South Coast AQMD, at its Governing Board's discretion, will support grant funding efforts with potential funding sources that may provide funding for the voluntary airport AQIP measures.

5. Monitoring. The South Coast AQMD will monitor and assess the implementation of SIP creditable AQIP measures based on information provided by ONT as outlined in Schedule 1 in Attachment A.

6. Information Sharing. The South Coast AQMD will provide the means for ensuring that emission reduction data and other pertinent information related to the implementation of SIP creditable AQIP measures are fully accessible to the public and the USEPA.

C. MOU SCHEDULE

The voluntary airport AQIP measures for which the South Coast AQMD may quantify emission reductions and seek SIP credit through a separate SIP submittal is identified in Schedule 1 of Attachment A and is incorporated as part of this MOU:

1. MOU SCHEDULE NO. 1 - GROUND SUPPORT EQUIPMENT

The Schedule focuses on the voluntary airport AQIP measure and time frame aligned with the AQMP and SIP emission reduction target dates (i.e., 2023, 2031), and includes technical details pertinent to the equipment category such as:

- Metrics or performance targets
- Schedule for program implementation
- Annual reporting by the Airport to South Coast AQMD

Variations in the nature of information and data needed for each of the source measures may be addressed with focused and adaptive revisions to the individual

equipment category schedule and may be revised by mutual agreement of the Parties without modifying this MOU.

D. TERM OF MOU. This MOU shall be in full force and in effect when signed by all Parties following their respective required authorization processes. The initial term of this MOU shall expire on December 31, ~~2031~~ 2032 unless terminated earlier pursuant to Section II.E, below. Prior to expiration of this MOU, all Parties agree to meet to evaluate the need for continuing participation. If all Parties agree that continuing participation is desirable, they shall negotiate for their respective Boards' approval, a written extension of the term of this MOU, and any applicable additional MOU Schedules.

E. WITHDRAWAL AND EARLY TERMINATION. If any Party to this MOU determines that it wishes to no longer be a party to this MOU, then the Party shall provide notice to the other Party at least ninety (90) days in advance of the specified date of termination of the MOU. The Parties commit to work together to resolve any issues and negotiate an updated MOU at least thirty (30) days in advance of the specified date of termination of the MOU. If the Parties are unable to reach agreement, the MOU shall terminate on the date specified in the notification.

F. ENFORCEABILITY. The Parties agree to implement the provisions in the MOU. The parties agree that implementation of the measures specified in Attachment A is not to be construed as a regulation or requirement of the South Coast AQMD. In the event that any party fails to meet its commitment(s) or anticipates an inability to meet its commitment(s), the Party shall provide notice to the other Party within sixty (60) days of such determination and seek to negotiate a mutually agreeable solution within ninety (90) days of the date of the Notice. The Parties shall continue to comply with all other commitments under this MOU during the negotiations. Nothing contained in this paragraph is intended to limit any rights or remedies that the Parties may have under law. The Parties shall attempt in good faith to resolve any controversy that may arise out of or relating to this MOU. If a controversy or claim should arise that cannot be resolved informally by the respective staffs, executive level representatives of the Parties will meet at least once in person and, in addition, at least once in person or by telephone to attempt to resolve the matter. The Representatives will make every effort to meet as soon as reasonably possible at a mutually agreed time and place.

G. NOTICES. All notices that are required under this MOU shall be provided in the manner set forth herein, unless specified otherwise. Notice to a Party shall be delivered to the attention of the person listed below, or to such other person or persons as may hereafter be designated by that party in writing. Notice shall be in writing sent by U.S. Certified Mail, Return Receipt Requested, or a nationally recognized overnight courier service. Notice shall be deemed to be received when delivered (written receipt of delivery).

South Coast AQMD: South Coast Air Quality Management District

21865 Copley Drive
Diamond Bar, CA 91765-4178
Attn: Assistant Deputy Executive Officer - Planning, Rule Development & Area Sources

ONTARIO INTERNATIONAL AIRPORT: Mr. Mark Thorpe
Chief Executive Officer
1923 E. Avion Street
Ontario, CA 91761

H. AVAILABLE FUNDING. Each Party shall be responsible for its respective costs associated with this MOU and acknowledges that the agreements contained herein by ~~any other Party~~the Parties are subject to the availability of appropriated funds. No Party will submit a claim for compensation to ~~any~~ the other Party, or otherwise seek reimbursement of costs from ~~any~~ the other Party, for activities carried out pursuant to this MOU.

I. FUTURE AGREEMENTS. This MOU does not restrict any future agreements between the Parties with respect to the subject matter stated herein or any other subject matter.

J. JOINT WORK PRODUCT. This MOU shall not be construed against the Party preparing the same, shall be construed without regard to the identity of the person who drafted such and shall be construed as if all Parties had jointly prepared this MOU and it shall be deemed their joint work product.

K. RECITALS. Each of the Recitals is incorporated into this MOU.

L. ENTIRE UNDERSTANDING. This MOU, including all attachments, constitutes the entire understanding between the Parties and supersedes all other agreements, oral or written, with respect to the subject matter herein. This MOU shall not be amended except in writing, signed by the Parties which expressly refers to this ~~contract~~MOU.

M. VENUE. This MOU shall be construed and interpreted and the legal relations created thereby shall be determined in accordance with the laws of the State of California. Venue for resolution of any disputes under this MOU shall be County of San Bernardino, California, USA.

N. SEVERABILITY. If a court of competent jurisdiction holds any provision of this MOU to be illegal, unenforceable, or invalid in whole or in part for any reason, the validity and enforceability of the remaining provisions, or portions of those provisions, will not be affected.

O. ATTORNEYS' FEES. In the event any action is filed in connection with the enforcement or interpretation of this MOU, each Party shall bear its own attorneys' fees and costs.

P. AUTHORITY. Except as expressly stated herein, nothing in this MOU shall be construed as a waiver of any Party's discretionary authority or deemed to restrict authority granted to any Party under law in any way with respect to future legislative, administrative, or other actions.

Q. VOLUNTARY AQIP. The Parties agree that the Airport's AQIP measures in Attachment A are voluntary and are not to be construed as a regulation or requirement of South Coast AQMD.

R. MOU Modification. This MOU may be subsequently modified at any time but no modification shall be valid or binding unless made in writing and signed by authorized representatives of both Parties.

S. COUNTERPARTS. The signature pages of this MOU are being executed in counterparts by authorized signatories of the Parties following the approvals by their respective public agency governing boards. When both Parties have signed, all executed counterparts taken together shall constitute one and the same instrument.

T. AUTHORIZED SIGNATURES. Each signatory of this MOU represents that s/he is authorized to execute on behalf of the Party for which s/he signs. Each Party represents that it has legal authority to enter into this MOU and to perform all obligations under this MOU.

U. NO ENFORCEMENT AGAINST THIRD PARTIES. The South Coast AQMD shall not seek to enforce the measures specified in Attachment A or any of the measures or new initiatives in the AQIP or any of its terms against ONT's tenants, concessionaries, third party licensees, vendor, or other relevant operators doing business at ONT facilities.

IN WITNESS WHEREOF, the Parties hereto have caused this Memorandum of Understanding to be executed by their authorized representatives.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT	**ONTARIO INTERNATIONAL AIRPORT**
By _____	By _____
Name: Dr. William Burke	Name: Mr. Mark Thorpe
Title: Chairman, South Coast Governing Board	Title: Airport Director
Date: _____, 20___	Date: _____, 20___
Attest _____	Attest _____
Name:	Name:
Title:	Title:
APPROVED AS TO FORM:	APPROVED AS TO FORM:

Date: _____, 20___
BAYRON T. GILCHRIST,
General Counsel

By _____
Name:
Title:

Date: _____, 20___
Lori D. Ballance
General Counsel

By _____
Name:
Title:

ATTACHMENT A

MOU Schedule

MOU SCHEDULE NO. 1 – GROUND SUPPORT EQUIPMENT

This MOU Schedule No. 1 is based on ONT's AQIP measure for ground support equipment[1].

I. PROGRAM DESCRIPTION – Require that all ground support equipment associated with commercial operations achieve a fleet average NOx emission factors of 2.2 and 1.0 g/bhp-hr ~~in~~ by January 1 of 2023 and 2031, respectively.

II. PROGRAM TIMEFRAME - Upon execution through ~~2031~~2032.

III. AIRPORT AGREEMENTS – ONT agrees to the following:

A. Implement the measure by working with airport tenants to achieve the above performance targets by specified dates through accelerated turnover to cleaner equipment. ONT shall have complete discretion as to mechanisms used to implement this measure. Such mechanisms may include leases, licenses, operational requirements, or other agreements.

B. Beginning in 2021, and every year thereafter through ~~2031~~2032, provide the following information to South Coast AQMD on an annual basis by June 1 for each preceding calendar year:

1. List of ground support equipment ~~as provided by airlines operating at ONT~~subject to GSE measure with the following information:

a. Equipment ID
b. Equipment type
c. Fuel type
d. Engine model year
e. Power rating (hp or kW)
f. Engine tier level (for diesel engines)
g. Annual activity data for non-zero emission equipment that is sufficient to determine emission reductions at a reasonable level of accuracy (i.e., actual operating hours from hour meter readings/maintenance records, average operating hours representative of equipment type and airport, or average operating hours by equipment/fuel type from CARB's OFFROAD model, if applicable)

[1] Ground Support Equipment or "GSE" is any vehicle or equipment used to support aircraft operations that is subject to, or included in compliance plans to meet, the requirements of the California Air Resources Board (CARB) In-Use Off-Road Diesel (ORD) Vehicle Regulation Program, CARB Off-Road Large Spark-Ignition (LSI) Engine Fleet Requirements Regulation Program, or CARB Portable Equipment Registration Program and associated Portable Diesel Engine Airborne Toxic Control Measure. Furthermore, GSE as defined here only includes equipment that is not subject to compliance with SCAQMD Rule XX – RECLAIM, or included in a mobile source emission reduction credit program under SCAQMD Rule XVI.

2. For non-zero emission ground support equipment subject to this GSE measure, information regarding the sale or retirement of equipment available through CARB's DOORS system and, for pre-Tier 4 diesel, pre-2010 gasoline, or pre-2010 LPG ground support equipment relocated from ONT to another airport within the South Coast Air Basin, identify: a) the airport to which equipment is relocated, b) date of relocation, and c) estimated projected usage hours.

~~2.~~3. An annual emission inventory for all ground support equipment associated with commercial operations at ONT, including methodology and calculations.

IV. SOUTH COAST AQMD AGREEMENTS – South Coast AQMD agrees to the following:

A. Verify emission reductions from the implementation of this AQIP measure in order to determine actual emission reductions.

B. Ensure that any emission reduction data related to this AQIP measure and other pertinent information are accessible to the public and the USEPA.

Appendix B~~C~~: SIP Credit Calculations

Introduction

Ground Support Equipment Measures

LAWA Alternative Fuel Vehicle Incentive Measure

LAWA Zero Emission Bus Measure

JWA Parking Shuttle Bus Electrification Measure

JWA Jet Fuel Delivery Trucks Measure

Burbank Shuttle Bus Electrification

1. Introduction

Commercial airports are a major part of transportation and economic infrastructure in the South Coast Basin (Basin) but they also contribute to the adverse air quality in the Basin. Non-aircraft mobile source emissions associated with airport operations are covered under the MOUs between the South Coast and the commercial airports. These sources include airport ground support equipment (GSE), shuttles buses, trucks, on-road and off-road airport fleet vehicles, and passenger vehicles. The emissions from these sources are included in their respective aggregate categories in the AQMP's emissions inventories and they are not explicitly identified as airport specific emissions.

For the purpose of the MOUs with South Coast AQMD, the five commercial airports (i.e., LAX, John Wayne Airport, Burbank Airport, Ontario Airport, and Long beach Airport) developed their own Air Quality Improvement Programs (AQIPs) or Air Quality Improvement Measures (AQIM). A suite of measures and initiatives are presented in the airports AQIPs or AQIM aimed at reducing emissions from non-aircraft airport operations. The specific AQIP or AQIM measures that are potentially eligible for SIP credit are identified in the MOUs with the five commercial airports, as indicated in Chapter 4. These measures cover GSE, heavy-duty vehicles and trucks, and shuttle buses. This appendix describes how SIP creditable emissions reductions are estimated from the specific AQIP or AQIM measures covered under the MOUs, as indicated in the following sections.

2. Ground Support Equipment Measures

The GSE emissions inventory included in the 2016 AQMP reflects regulations adopted as of November 2015. Specific regulations affecting GSE are described in Chapter 1, Regulatory Background section. The CARB's OFFROAD emissions model (and corresponding emission factors), which the AQMP's GSE emissions are based on, reflect the full implementation of CARB's existing regulations.

CARB began efforts in reducing emissions from GSE with an MOU with commercial airlines operating in the five commercial airports in the South Coast AQMD in 2002 (GSE MOU, https://ww3.arb.ca.gov/msprog/offroad/gse/gse-mou-final.pdf). The GSE MOU included provisions for the early introduction of clean units, with requirements for a 2.65 grams per brake-horsepower hour HC+NOx fleet average in the Basin by December 31, 2010. Other major provisions included the introduction of electric or zero-emission vehicles into the fleet and the use of diesel oxidation catalysts and diesel particulate filters to significantly reduce particulate matter emissions from the diesel portion of the fleet. Although the GSE MOU expired on January 1, 2006, its adoption resulted in an earlier start in reducing GSE emissions in the Basin than the rest of the state and generally cleaner GSE fleets in the South Coast AQMD airports compared to the statewide averages. Currently, GSE emissions are covered under several regulations administered by CARB targeting in-use GSE fleets. Those programs include in-use off-road diesel vehicle rule (https://ww2.arb.ca.gov/our-work/topics/construction-earthmoving-

equipment), off-road large spark-ignition (gasoline and LPG) equipment (https://ww3.arb.ca.gov/msprog/offroad/orspark/orspark.htm) and new off-road compression-ignition (diesel) engines and equipment (https://ww3.arb.ca.gov/msprog/offroad/orcomp/orcomp.htm)

The OFFROAD model used in developing the GSE emissions in the 2016 AQMP utilizes equipment registration data from the CARB off-road in-use regulations. Statewide equipment population, model year distributions, fuel types, horse-power rating combined with equipment use characteristics, such as annual operating hours and load factors were used to estimate statewide emissions. The statewide emissions are allocated to each county in the state based on the commercial aircraft operations in each county. Future year emissions were projected with growth factors combined with fleet averaged emissions factor requirements in the regulations. Table C-1 presents the GSE NOx emissions in the Basin in the 2016 AQMP in tons per year (tpy). The emissions are shown for the base year (2017) and future milestone years (2023 and 2031) consistent with the airports AQIP/AQIM base year and future years emissions inventories. Table C-2 presents the 2016 AQMP GSE emissions in the Basin by fuel type (i.e., diesel, gasoline, natural gas, and LPG). As shown in Table C-2, NOx emissions are mostly from diesel powered equipment.

The 2016 AQMP emissions inventory did not assign the GSE emissions to specific airports but, for the purpose of MOUs, assumptions were made to allocate the county level emissions to each commercial airport. Since there is only one commercial airport each in the Orange and San Bernardino Counties, the county level GSE emissions were assigned to the respective airports. For the three airports in the Los Angeles County (LAX, Burbank, Long Beach airports), the Federal Aviation Administration (FAA) terminal area forecast data (https://taf.faa.gov/) for the commercial aircraft operations was used to split the Los Angeles (LA) County GSE emissions among these three airports. Table C-3 presents the percentages of commercial aircraft operations among the three airports in LA County. The resulting airport specific GSE emissions by fuel type are presented in Table C-4. The future emissions inventories show a significant declining trend due to the impact of existing regulations.

Table C-1. 2016 AQMP GSE NOx Emissions in the Basin (TPY)

Category	2017	2023	2031
Air Conditioner	6.05	1.85	1.11
Air Stand	32.04	16.62	6.49
Aircraft Tug	50.45	27.78	15.46
Baggage	51.84	24.98	19.80
Belt Loader	13.04	8.93	7.77
Bobtail	3.89	2.69	2.09
Cargo Loader	18.08	9.14	7.44
Cargo Truck	88.27	39.61	28.84
Cart	0.02	0.02	0.03
Catering Truck	20.48	9.32	4.42
Deicer	0.06	0.02	0.01
Forklift	14.80	9.82	5.84
Fuel Truck	1.76	0.84	0.32
Generator	136.79	69.52	26.96
Ground Power	93.94	48.93	18.37
Hydrant Truck	20.29	9.84	4.63
Lavatory Cart	0.02	0.02	0.02
Lavatory Truck	3.12	1.64	1.27
Lift	11.74	5.42	3.46
Maintenance. Truck	4.22	1.65	0.99
Other-C4	10.66	10.39	4.56
Other-GSE	44.81	23.75	18.95
Passenger Stand	2.39	1.08	0.53
Service Truck	28.58	13.10	6.28
Sweeper	0.68	0.42	0.28
Water Truck	0.42	0.18	0.07
All GSE	658.41	337.54	185.97

Table C-2. 2016 AQMP GSE NOx Emissions in the Basin by Fuel Type (TPY)

Fuel	2017	2023	2031
Natural Gas/LPG	35.31	22.50	10.68
Gasoline	171.97	87.70	59.18
Diesel	451.13	227.34	116.11
All Fuels	658.41	337.54	185.97

Table C-3. Commercial Aircraft Operations[1] in the Los Angeles County[2] ≛

Airport	2017		2023		2031	
LAX	681,578	(86.1%)	747,746	(85.7%)	872,191	(86.3%)
BUR	68,806	(8.7%)	83,472	(9.6%)	92,241	(9.1%)
LGB	41,102	(5.2%)	41,203	(4.7%)	45,652	(4.5%)
Total	791,486	(100.0%)	872,424	(100.0%)	1,010,084	(100.0%)

1 Landing and takeoffs

2 Based on FAA Terminal Area Forecast, September, 2019. Percentage of each airport shown with respect to county total.

Table C-4. GSE NOx Emissions by Airport Based on 2016 AQMP (TPY)

Airport	2017				2023				2031			
	Diesel	**Gasoline**	**NG/LPG**	**Total**	**Diesel**	**Gasoline**	**NG/LPG**	**Total**	**Diesel**	**Gasoline**	**NG/LPG**	**Total**
LAX	319.7	126.7	25.9	472.3	160.4	64.2	16.4	241.0	82.6	43.7	7.8	134.1
BUR	32.3	12.8	2.6	47.7	18.0	7.2	1.8	27.0	8.7	4.6	0.8	14.1
LGB	19.3	7.7	1.6	28.5	8.8	3.5	0.9	13.2	4.3	2.3	0.4	7.0
SNA	35.3	10.8	2.3	48.4	17.8	5.6	1.5	24.8	9.1	3.7	0.7	13.5
ONT	44.5	14.0	3.0	61.4	22.4	7.2	1.9	31.5	11.4	4.9	0.9	17.2
Total	451.1	172.0	35.3	658.4	227.3	87.7	22.5	337.5	116.1	59.2	10.7	186.0

During the AQIP/AQIM development process, the airport authorities collected information on GSE equipment operated in their respective airports for 2017 and provided emissions inventories using the methodology employed to develop the 2016 AQMP inventories. The airport specific inventories for the 2017 and future year Business-As-Usual (BAU) scenarios showed lower emissions than the AQMP inventories due to high penetration of electric equipment in the airports located in the Basin (except for Ontario Airport).

All five commercial airports have included a GSE measure in their AQIPs/AQIM and have committed to reduce emissions from GSE by achieving specific GSE performance targets for their GSE fleets. Table C-5 lists the GSE performance targets for the five airports. The performance targets reflect the unique mix of the GSE fleet at each airport. The airports provided their estimates of future BAU emissions before implementation of their GSE measures, emission reductions from implementation of their GSE measures based on their respective performance targets (compared to BAU), and the remaining GSE emissions in 2023 and 2031, as shown in Tables C-6a and C-6b. Since the information on airport specific operating hours of each piece of GSE may not be available, the statewide average operating hours for each class of GSE from the OFFROAD model are used in estimating GSE emissions in all airports.

The potential SIP credits from the GSE measures for all airports except ONT are calculated based on the differences between the AQMP inventory and AQIP/AQIM emissions given in Tables C-6a and C-6b, since the same methodologies were used for calculating emissions in the AQMP and in the AQIP/AQIM. For the Ontario airport, the potential SIP credits are calculated by applying the percent reduction between BAU emissions and AQIP emissions to the AQMP emissions. The Ontario airport is the only exception in that its AQIP specific GSE emissions inventory is higher than the AQMP apportioned emissions from the statewide emissions inventory. The Ontario airport has shown a wide range of growth and decline in aircraft operations in the past decades~~...~~. From 1990 through 2004, there were about 120,000 commercial aircraft operations annually in ONT. Starting on 2005, operations in ONT steadily decreased for almost a decade. There were 118,345 and 67,123 commercial operations in 2005 and 2014, respectively, and those started increasing in 2015. The number of operations in ONT in 2017 was 78,866. This fluctuation may have led to a larger number of GSE to accommodate its peak level aircraft operations over the last 10 years. The higher number of GSE in combination with the statewide average operating hours might have caused the overestimation of GSE emissions for ONT.

Table C-5. GSE Performance Targets by Airport
(NOx ~~or HC + NOx~~ g/bhp-hr)

Airport	2023	2031
~~LAX~~LAX[1]	1.8	1.0
BUR	1.~~92~~66	0.~~82~~74
LGB	0.93	0.44
SNA	1.7	0.9
ONT	2.2	1.0

[1] LAX uses a hydrocarbons + NOx combined emission factor.

Table C-6a~~,~~. 2023 NOx Emissions Benefits for GSE Measures (TPY)

Airport	BAU Emissions	AQIP Reductions	AQIP Emissions	AQMP Emissions	SIP Credits
LAX	150.69	56.17	94.32	241.03	146.71
BUR	17.46	0.65	16.81	27.00	10.19
LGB	13.23	0.93	12.30	13.22	0.92
SNA	15.07	4.80	10.27	24.80	14.53
ONT	91.10	22.66	68.44	31.49	7.83
Total					180.16

Table C-6b. 2031 NOx Emissions Benefits for GSE Measures (TPY)

Airport	BAU Emissions	AQIP Reductions	AQIP Emissions	AQMP Emissions	SIP Credits
LAX	121.31	86.16	35.15	134.09	98.94
BUR	16.72	8.65	8.07	14.14	6.07
LGB	10.54	4.04	6.50	6.99	0.49
SNA	9.98	3.92	6.06	13.52	7.46
ONT	79.84	46.03	33.81	17.22	9.93
Total					122.90

3. LAWA Alternative Fuel Vehicle Incentive Measure

Under its AQIM, LAWA has allocated $500,000 to incentivize replacement of 23 heavy duty vehicles/trucks with near zero emission (0.02 g/bhp-hr NOx standard) vehicles/trucks. The program is scheduled to be completed by 2021. LAWA has already selected 23 vehicles for awarding the incentive funding. The model years for the 23 vehicles range from 1999 to 2016, with GVWR of 14001 pounds or more, fueled with diesel, gasoline and natural gas, and with the combined total VMTs of 588,335 miles annually.

The baseline emissions for the 23 existing vehicles (to be replaced) were ~~was~~ estimated ~~using their~~assuming they are 2020 model- year ~~and GVWR specific emission factors from EMFAC2014. By 2023, older~~ vehicles ~~among~~ /trucks ~~as baseline~~ for the ~~23 vehicles would need to be replaced with newer model year vehicles to comply with the existing regulations. Assuming 2022 model year replacement vehicles, the~~purpose of SIP credit calculation. The projected emissions for these vehicles were estimated to be 0.~~91~~51 tons per year in 2023 and ~~1.55~~0.77 tons per year in 2031 based on ~~EMFAC~~EMFAC2104 emission factors for

~~corresponding model years and vehicle classes~~2020 model year vehicles/trucks for LA County and the VMTs provided by LAWA.

For each vehicle category, total NOx emissions were divided by total VMTs to obtain g/mile emission factors. These emission factors multiplied by annual VMT for each vehicle would yield annual emissions for each vehicle/truck. Refer to Attachment A for more details. The remaining emissions for the new near-zero emissions were calculated based on ~~the~~ ~~CARB~~CARB's Carl Moyer program guidelines (https://ww3.arb.ca.gov/msprog/moyer/guidelines/2017gl/2017_gl_appendix_d.pdf), which provide the near-zero vehicles NOx emission factors of 0.10 g/mile and 0.18 g/mile for vehicles with 14,001-33,000 pounds, and over 33,000 pounds GVWR, respectively. Deterioration rates are assumed to be of 0.005 g/mile per 10,000 miles for vehicles 14,001-33,000 pounds of GVWR and 0.004 for vehicles over 33,000 pounds of GVWR, respectively. Applying these emission factors and vehicles' respective annual miles, assuming they are in operation for 3.5 years by 2023 and 11.5 years by 2031, the 23 new vehicles would emit 0.12 and 0.25 tons of NOx annually in total in 2023 and 2031, respectively.

As a result, the potential SIP credit for the NOx emission reductions is expected to be 0.~~78~~39 tons per year in 2023 and ~~1.30 tons~~0.52tons per year in 2031, with an average emission reduction rate of ~~1.21~~0.60 g/mile in 2023 and ~~2.22~~0.80 g/mile in 2031. The emission calculations are summarized in Table C-7.

Table C-7. NOx Emissions Benefits for LAWA Alternative Fuel Vehicle Incentive Measure

	2023	2031
Total annual VMTs for replaced vehicles (million)	0.59	0.59
Emissions of existing vehicles (TPY)	0.~~29~~51	0.~~45~~77
Emissions of new near-zero vehicles (TPY)	0.12	0.25
SIP credits (TPY)	0.~~17~~39	0.~~21~~52

4. LAWA Zero Emission Bus Measure

LAWA's Clean Fleet Program – Zero-Emission Bus Program targets LAWA's own bus fleet to be 20% ~~of~~ zero emission vehicles by 2023 and 100% by 2031. LAWA's bus fleet accumulates 3.25 million miles annually. With the implementation of the program, it will eliminate exhaust emissions equivalent to 0.65 million miles of conventional buses in 2023 and 3.25 million miles in 2031. In the 2016 AQMP inventory, the urban bus emissions from the Basin portion of ~~the~~ Los Angeles County are 5.12 and 1.68~~,~~ tons per day for 2023 and 2031, respectively, and the corresponding VMTs are 514,000 and 431,000, respectively. The fleet average emission factors, defined as bus emissions divided by VMTs, are 8.95 g/mile and 3.49 g/mile, respectively for 2023 and 2031 using EMFAC 2014. Applying the average emission factor to the LAWA's shuttle bus VMT, the resulting SIP creditable emission reductions are 6.4 and 12.5 TPY for 2023 and 2031, respectively. In June 2019, CARB adopted the Zero-Emission Airport Shuttle Regulation which requires airport shuttle fleets to be 33% ~~zero-emissions~~zero emissions by December 31, 2027 and 66% ~~zero-emissions~~zero emissions by December 2031. Taking this regulatory development into account, the SIP creditable emission reductions for 2031 should be adjusted by a factor of 0.67. Table C-8 summarizes this information and the corresponding emission benefits for this measure. The SIP creditable emission reductions are much higher than the estimates in LAWA's AQIM measure since the AQIM emissions were based on EMFAC 2017, while the 2016 AQMP was based on EMFAC 2014. The EMFAC 2017 introduced significant updates on urban bus emissions which resulted in lower emissions than its ~~precedent~~ predecessor EMFAC2014.

Table C-8. NOx Emissions Benefits for LAWA Zero Emission Bus Program

	2023	2031
Urban bus emissions for LA County in 2016 AQMP (tons per day)	5.12	1.68
Daily urban bus VMTs in LA County in 2016 AQMP (miles/day)	514,000	431,000
LA County urban bus emission factor in 2016 AQMP (g/mile)	8.95	3.49
Airport's bus fleet total annual VMT (million miles/year)	3.25	3.25
Annual VMT affected by the AQIM measure (million miles/year)	0.65	3.25
SIP Credits (TPY)	6.40	~~12.50~~8.25

5. JWA Parking Shuttle Bus Electrification Measure

JWA is operating a fleet of 12 shuttle buses and is proposing to convert ~~6~~a minimum of 50% of the buses to electric by 2023 and ~~10~~a minimum of 80% of the buses to electric by 2031.The

estimated annual mileages for the bus fleet are 0.65 million in 2023 and 0.69 million in 2031. Implementation of this measure will eliminate exhaust emissions equivalent to 0.33 million miles of conventional bus in 2023 and 0.57 million miles in 2031. In the 2016 AQMP inventory, the urban bus emissions from Orange County are 0.52 and 0.23 tons/day in 2023 and 2031, respectively. The corresponding VMTs are 126,000 and 124,000, respectively, which lead to the average NOx emission factor for the urban buses to be 3.74 g/mile and 1.68 g/mile in 2023 and 2031, respectively. Note this is based on EMFAC 2014, which was the platform to estimate on-road mobile source emissions in the 2016 AQMP. The resulting SIP creditable emission reductions are 1.34 and 1.06 TPY for 2023 and 2031, respectively. The SIP creditable emission reductions for 2031 needs to be adjusted due to the zero emission airport shuttle regulation with an adjustment factor of 0.60. Table C-9 summarizes this information and the corresponding emission benefits for this measure. The potential SIP creditable emission reductions are higher than the JWA estimate of the AQIP benefit because the AQIP benefit was developed based on EMFAC 2017, which has lower emission rates for urban buses than EMFAC 2014.

Table C-9. NOx Emissions Benefits for JWA Parking Shuttle Bus Electrification

	2023	2031
Urban bus emissions for Orange County in 2016 AQMP (tons per day)	0.52	0.23
Daily urban bus VMTs in Orange County in 2016 AQMP (miles/day)	126,000	124,000
Orange County urban bus emission factor (g/mile)	3.74	1.68
Airport's bus fleet total annual VMT (million miles/year)	0.65	0.69
Annual VMT affected by AQIP measure (million miles/year)	0.33	0.57
SIP Credits (tpy)	1.34	~~1.06~~0.64

6. JWA Jet Fuel Delivery Trucks Measure

JWA's Jet Fuel Delivery Trucks measure proposes to eliminate commercial jet fuel delivery trucks by installing a jet fuel pipeline. The construction is expected to be completed by the end of 2019, which will eliminate commercial aviation jet fuel delivery trucks from tank farms near the refineries to the airport. The project is expected to be fully operational by 2023. The eliminated heavy duty diesel truck (HHDT) VMTs are estimated at 633,632 annually for both 2023 and

2031. In the 2016 AQMP inventory, the Orange County HHDT NOx emissions are 2.74 and 2.64 tons per day for 2023 and 2031, respectively, with corresponding VMTs of 1,138,000 and 1,477,000. The SIP creditable emission factors are 2.18 and 1.62 g/mile for 2023 and 2031, respectively, using EMFAC 2014. The resulting potential SIP creditable emission reductions are 1.52 and 1.13 TPY for 2023 and 2031, respectively, as shown in Table C-10.

Table C-10. NOx Emissions Benefits for JWA Jet Fuel Delivery Truck Measure

	2023	2031
HHDT NOx in Orange County in 2016 AQMP (tons per day)	2.72	2.64
HHDT daily VMT in Orange County in 2016 AQMP (miles/day)	1,138,000	1,477,000
Orange County HHDT emission factor (g/mile)	2.18	1.62
Airport's Fuel trucks total annual VMT (million miles/year)	0.63	0.63
Annual VMT Affected by AQIP measure (million miles/year)	0.63	0.63
SIP Credits (tpy)	1.52	1.13

7. Burbank Shuttle Bus Electrification

The Burbank airport operates a fleet of 13 passenger vans. It's estimated that the fleet accumulates 1.3 million miles annually. The airport is proposing to electrify 50% of its fleet by 2023 and 100 % by 2031. The emissions for this fleet are estimated using medium duty vehicle (MDV) emission factors. The measure would eliminate 0.65 million miles MDV NOx emissions in 2023 and 1.3 million miles in 2031. In the 2016 AQMP, the Los Angeles County MDV emissions are 4.39 and 2.01 tons per day for 2023 and 2031, respectively, with corresponding daily VMTs of 26,730 and 25,308. The SIP creditable emission factors are 0.15 and 0.07 g/mile for 2023 and 2031, respectively, using EMFAC 2014. The resulting potential SIP creditable emission reductions are 0.11 and 0.10 TPY for 2023 and 2031, respectively, as shown in Table C-11. The SIP creditable emission reductions for 2031 needs to be adjusted due to the zero emission airport shuttle regulation, with an adjustment factor of 0.67.

Table C-11. NOx Emissions Benefits for Burbank Airport Shuttle Electrification

	2023	2031
MDV NOx in LA County in 2016 AQMP (tons per day)	4.39	2.01
MDV daily VMT in LA County in 2016 AQMP (miles/day)	26,730	25,308
LA County MDV emission factor (g/mile)	0.15	0.07
Airport's shuttle fleet annual VMT (million miles/year)	1.30	1.30
Annual VMT Affected by AQIP measure (million miles/year)	0.65	1.30
SIP Credits (tpy)	0.11	0.~~10~~07

Attachment A

Methodology for Calculating Emission Reductions Achieved from the AQIP/AQIM Measures Specified in the MOUs with Commercial Airports

Under the MOUs with the five commercial airports, beginning in June 2021, the airports will provide annual reports to the South Coast AQMD on their progress in implementing the SIP creditable AQIP/AQIM measures specified in the MOUs. The annual reports will provide detailed equipment/vehicle data as well as annual emissions inventories for these measures. This attachment provides a description of methodologies for calculating emission reductions achieved based on the reported data from the airports and supplemental information provided by South Coast AQMD to calculate SIP credit~~s~~.

A) GSE Measures

Annually, the airports will provide a list of GSEs subject to the GSE measures to South Coast AQMD. The reported data will include equipment type, fuel type, engine model year, power rating, engine tier level, and activity data (annual operating hours) as specified in the MOUs. From the reported data, annual emissions will be calculated for each piece of equipment using the corresponding emission factors and load factors from the CARB's OFFROAD model. The summation of emissions from all reported GSEs from all airports will represent the emissions associated with the implementation of all GSE measures for all five airports each year. The difference between the 2016 AQMP inventory and the total GSE emissions calculated for all five airports ~~would~~ will show the progress towards meeting the SIP credit associated with the GSE measures for 2023 and 2031. This 2016 AQMP GSE emissions inventory from 2020 to 2031 is shown in Table 1. In this table, the summer planning inventory values are presented. For GSE NOx emissions, the summer planning and annual average inventory values are the same.

Table 1. NOx Emissions from Airport Ground Support Equipment in 2016 AQMP Summer Planning Inventory (tons per day)

Year	NOx Emissions	Year	NOx Emissions
2020	1.287	2026	0.707
2021	1.152	2027	0.653
2022	1.027	2028	0.608
2023	0.925	2029	0.556
2024	0.842	2030	0.536
2025	0.769	2031	0.510

Emissions from an individual piece of GSE can be calculated using the following equation:

$$E_i = EF_i \times HP_i \times LF_i \times A_i \times U$$

Where:

E_i is mass emissions in any desired unit for equipment *i*

EF_i is emission factor in gram per brake-horse power hour for equipment *i*

HP_i is the equipment's horse power rating

LF_i is the equipment's load factor (from CARB's OFFROAD model)

Ai is the equipment's annual operating hour

U is a unit conversion factor for the desired mass emission unit

Emission factor can be calculated using the following equation:

$EF_i = [EF_{zh} + (DR \times Accumulated\ Hours)] \times FCF$

Where:

EF_{zh} = Zero-hour emission factor in gram per brake-horse power hour for equipment *i* (from CARB's OFFROAD model)

DR = Deterioration rate (from CARB's OFFROAD model)

Accumulated Hours = Annual Hours x Age of Equipment (capped at 12,000 hours)

FCF = Fuel Correction Factor (from CARB's OFFROAD model)

Detailed information can be found in the following links to CARB's websites:
https://ww3.arb.ca.gov/regact/2010/offroadlsi10/offroadappd.pdf and
https://ww3.arb.ca.gov/msei/ordiesel/ordas_ef_fcf_2017_v7.xlsx

Example:

Calendar Year: 2022
Equipment Type: Diesel-Powered Aircraft Tug
Model Year: 2003
Engine Size: 265 horsepower (hp)
Annual Operating Hour: 301 hours/year
NOx EF_{zh} = 5.53 g/hp-hr
DR = 0.0001
FCF = 0.93
NOx Emission Factor EF_i = [5.53 + (0.0001 x 20 x 301)] x 0.93 = 5.70 g/hp-hr
Load Factor = 0.54
E_i (NOx Emissions) = 5.7 g/hp-hr x 0.54 x 265 hp x 301 hours/year = 245,517 g/year
It can be expressed as 0.27 tons/year, or 1.48 pounds/day

B) LAWA Alternative Fuel Vehicle Incentive Measure

LAWA will provide data for replaced trucks/vehicles and replacement trucks/vehicles including vehicle type, model year and annual mileage. The NOx emission factors in gram/mile for the replaced vehicles should be obtained from EMFAC2014 for ~~the~~ Los Angeles County. The emission factors of the replacement vehicles with specific engine model year and emission standard can be found ~~from~~ in Tables D-1 and D-2 of the CARB

Carl Moyer Program Guideline at (https://ww3.arb.ca.gov/msprog/moyer/guidelines/2017gl/2017_gl_appendix_d.pdf).

For example, for a Medium-Heavy Duty low-NOx replacement truck (14,001 – 33,000 lbs GVWR) meeting the 0.02 g/bhp-hr standard, its emission factor is 0.10 gram/mile with a deterioration rate of 0.005 g/mile per 10,000 miles. For a Heavy-Heavy Duty low-NOx replacement truck with GVWR greater than 33,000 lbs meeting the same standard, its emission factor would be 0.18 g/mile with a deterioration rate of 0.004 g/mile per 10,000 miles. The emission reduction for each replacement truck/vehicle can be calculated based on the following equation:

$E_i = \Delta EF_i \times VMT_i \times U$

Where:

E_i is mass emissions in any desired unit for replacement truck/vehicle *i*

ΔEF_i is the difference between the emission factors for the replaced and replacement vehicles, in gram/mile

VMT_i is annual VMT of the replacement vehicle (assume the same VMT for both replaced and replacement vehicles)

U is a unit conversion factor for the desired mass emission unit

Example:

Replaced Truck: Medium-Heavy Duty Diesel Truck
Model Year: 2000
Vehicle Type: T6 Instate Heavy, Diesel
Replacement Year: 2020
Annual VMT: 17,255 miles/year
NOx EF: NOx Emissions / VMT
NOx Emissions in Los Angeles County: 22,012 gram (EMFAC 2014 2020 model year, T6 Instate Heavy category)
VMT in Los Angeles County: 27,861 miles (EMFAC2014 2020 model year, T6 Instate Heavy category)
NOx Emission Factor: 22,012/27,861 = 0.79 g/mile

Replacement Truck: Near-Zero CNG truck that meets the 0.02 g/bhp-hr standard
Model Year: 2020
Vehicle Type: T6 Instate Heavy, Diesel
Annual VMT: 17,255 miles/year
NOx Emission Factor: 0.1 g/mile + (0.005 g/mile x 1.0 year x 17,255 mile/year /10,000) = 0.109 g/mile
Emission Factor Difference: ΔEFi: 0.79 – 0.109 = 0.68 g/mile
Emission Reductions: 0.68 g/mile x 17,255 miles/year = 11,750 g/year or 0.013 ton/year

C) Shuttle Bus Electrification Measures

For the MOU measures for shuttle bus electrification, the emission reductions can be calculated as:

$E = EF \times VMT \times U$

Where

E is mass emissions in any desired unit

EF is EMFAC2014 emission factor in gram/mile. NOx emission factor is calculated by dividing total NOx emissions (County/vehicle specific) by the VMT of the corresponding vehicles (e.g., urban buses)

VMT is annual vehicle miles impacted by the MOU measures

U is a unit conversion factor for the desired mass emission unit

Example:

Replacement Year: 2023, JWA Shuttle Buses
Fleet Information Base: Orange County, urban bus
Orange County Urban Bus NOx Emissions from EMFAC2014: 0.52 tons/day
Orange County Urban Bus VMT from EMFAC2014: 126,000 miles/day
NOx Emission Factor: 0.52 ton/day / 126,000 miles/day x 907184 g/ton = 3.74 g/mile
Annual VMT of the JWA Shuttle Bus Fleet: 649,000 miles/year
Electric Shuttle Bus Fleet VMT: 0.5 x 649,000 miles = 324,500 miles
Annual Emission Reduction: 3.74 g/mile x 324,500 miles/year =1,213,630 g/year or 1.34 tons/year

D) JWA Jet Fuel Delivery Trucks Measure (Pipeline Installation)

For the JWA jet fuel delivery trucks measure, the emission reductions can be calculated as:

$E = EF \times VMT \times U$

Where

E is mass emissions in any desired unit

EF is EMFAC2014 emission factor in gram/mile. NOx emission factor is calculated by dividing total NOx emissions from the Orange County Heavy-Heavy Duty diesel trucks by the corresponding VMT

VMT is annual vehicle miles impacted by the MOU measure

U is a unit conversion factor for the desired mass emission unit

Example:

Benefit Year: 2023
Fleet Information Base: Orange County, Heavy-Heavy Duty Diesel Truck (HHDT)
Orange County HHDT NOx Emissions from EMFAC2014: 2.74 tons/day
Orange County HHDT VMT from EMFAC2014: 1,138,000 miles/day
NOx Emission Factor: 2.74 ton/day / 1,138,000 miles/day x 907184 g/ton = 2.18 g/mile
Annual VMT of the JWA Fuel Delivery Trucks: 633,632 miles/year
Eliminated Fuel Delivery Truck VMT by the Measure: 633,632 miles/year
Annual Emission Reduction: 2.18 g/mile x 633,632 miles/year = 1,381,318 g/year or 1.52 tons/year

ATTACHMENT C: CEQA NOTICES OF EXEMPTION

Los Angeles International Airport
Burbank Airport
John Wayne Airport
Long Beach Airport
Ontario Airport

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

SUBJECT: **NOTICE OF EXEMPTION FROM THE CALIFORNIA ENVIRONMENTAL QUALITY ACT**

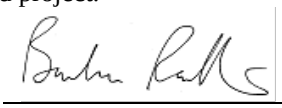
PROJECT TITLE: **MEMORANDUM OF UNDERSTANDING BETWEEN THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT AND THE CITY OF LOS ANGELES DEPARTMENT OF AIRPORTS**

Pursuant to the California Environmental Quality Act (CEQA) Guidelines, the South Coast Air Quality Management District (South Coast AQMD), as Lead Agency, has prepared a Notice of Exemption pursuant to CEQA Guidelines Section 15062 – Notice of Exemption for the project identified above.

The proposed project is comprised of: 1) a voluntary agreement related to activities the Los Angeles International Airport (LAX) has already agreed to implement as specified in the Memorandum of Understanding (MOU) between the South Coast AQMD and the City of Los Angeles Department of Airports to reduce emissions from non-aircraft mobile sources in accordance with the LAX Air Quality Improvement Measures (AQIM); and 2) South Coast AQMD's enforceable commitment to the United States Environmental Protection Agency (U.S. EPA) to achieve reductions in oxides of nitrogen (NOx) emissions, to which the MOU for LAX will contribute. The MOU for LAX specifies the following AQIM measures from the LAX AQIM that are capable of achieving State Implementation Plan (SIP) creditable emission reductions: 1) the ground support equipment emission reduction policy; 2) the LAX alternative fuel vehicle incentive program; and 3) the zero emission bus program. The potential NOx emission reductions to be credited into the SIP, to which the MOU for LAX will contribute a portion, are estimated to be 0.52 and 0.37 ton per day in 2023 and 2031, respectively.

The proposed project has been reviewed pursuant to: 1) CEQA Guidelines Section 15002(k) – General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA; and 2) CEQA Guidelines Section 15061 – Review for Exemption, procedures for determining if a project is exempt from CEQA. Because the acts of South Coast AQMD and the City of Los Angeles Department of Airports voluntarily agreeing to enter into a MOU, and quantifying emissions for the purpose of establishing an enforceable commitment are administrative and procedural in nature it can be seen with certainty that there is no possibility that the proposed project may have a significant adverse effect on the environment. Further, no new physical impacts beyond the potential emission reductions that were previously analyzed under CEQA by the City of Los Angeles Department of Airports for the LAX AQIM will be expected to occur. Therefore, the project is considered to be exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Common Sense Exemption. As provided in CEQA Guidelines Section 15306 – Information Collection, the proposed project is also exempt from CEQA because it will consist of basic data collection, research and resource evaluation activities and will not result in a serious or major disturbance to an environmental resource. Further, because the proposed project is designed to further protect or enhance the environment by supporting emission reductions from non-aircraft mobile sources within South Coast AQMD's jurisdiction, the proposed project is also categorically exempt from CEQA pursuant to CEQA Guidelines Section 15308 – Actions by Regulatory Agencies for Protection of the Environment. There is no substantial evidence indicating that any of the exceptions to the categorical exemptions apply to the proposed project pursuant to CEQA Guidelines Section 15300.2 – Exceptions. If the proposed project is approved, this Notice of Exemption will be filed with the county clerks of Los Angeles, Orange, Riverside and San Bernardino counties.

Any questions regarding this Notice of Exemption should be sent to Luke Eisenhardt (c/o Planning, Rule Development and Area Sources) at the above address. Mr. Eisenhardt can also be reached at (909) 396-2324. Dr. Sang-Mi Lee is also available at (909) 396-3169 to answer any questions regarding the proposed project.

Date: November 8, 2019 **Signature:** 

Barbara Radlein
Program Supervisor, CEQA
Planning, Rule Development, and Area Sources

Reference: California Code of Regulations, Title 14, Division 6, Chapter 3

NOTICE OF EXEMPTION FROM THE CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

To: County Clerks
Counties of Los Angeles, Orange,
Riverside and San Bernardino

From: South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765

Project Title: Memorandum of Understanding Between the South Coast Air Quality Management District and the City of Los Angeles Department of Airports

Project Location: The project is located within the South Coast Air Quality Management District (South Coast AQMD) jurisdiction which includes the four-county South Coast Air Basin (all of Orange County and the non-desert portions of Los Angeles, Riverside and San Bernardino counties), and the Riverside County portions of the Salton Sea Air Basin (SSAB) and Mojave Desert Air Basin (MDAB). The Memorandum of Understanding (MOU) will be implemented at the Los Angeles International Airport (LAX) which is located at 1 World Way, Los Angeles, CA 90045.

Description of Nature, Purpose, and Beneficiaries of Project: The proposed project is comprised of: 1) a voluntary agreement related to activities LAX has already agreed to implement as specified in the MOU between the South Coast AQMD and the City of Los Angeles Department of Airports to reduce emissions from non-aircraft mobile sources in accordance with the LAX Air Quality Improvement Plan (AQIM); and 2) South Coast AQMD's enforceable commitment to the United States Environmental Protection Agency (U.S. EPA) to achieve reductions in oxides of nitrogen (NOx) emissions, to which the MOU for LAX will contribute. The MOU for LAX specifies the following AQIM measures from the LAX AQIM that are capable of achieving State Implementation Plan (SIP) creditable emission reductions: 1) the ground support equipment emission reduction policy; 2) the LAX alternative fuel vehicle incentive program; and 3) the zero emission bus program. The potential NOx emission reductions to be credited into the SIP, to which the MOU for LAX will contribute a portion, are estimated to be 0.52 and 0.37 ton per day in 2023 and 2031, respectively.

Public Agency Approving Project:
South Coast Air Quality Management District

Agency Carrying Out Project:
South Coast Air Quality Management District

Exempt Status:
CEQA Guidelines Section 15061(b)(3) – Common Sense Exemption
CEQA Guidelines Section 15306 – Information Collection
CEQA Guidelines Section 15308 – Actions by Regulatory Agencies for Protection of the Environment

Reasons why project is exempt: Pursuant to the California Environmental Quality Act (CEQA), the South Coast AQMD, as Lead Agency, has reviewed the proposed project pursuant to: 1) CEQA Guidelines Section 15002(k) – General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA; and 2) CEQA Guidelines Section 15061 – Review for Exemption, procedures for determining if a project is exempt from CEQA. Because the acts of South Coast AQMD and the City of Los Angeles Department of Airports voluntarily agreeing to enter into a MOU, and quantifying emissions for the purpose of establishing an enforceable commitment are administrative and procedural in nature, it can be seen with certainty that there is no possibility that the proposed project may have a significant adverse effect on the environment. Further, no new physical impacts beyond the potential emission reductions that were previously analyzed under CEQA by the City of Los Angeles Department of Airports for the LAX AQIM will be expected to occur. Therefore, the project is considered to be exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Common Sense Exemption. As provided in CEQA Guidelines Section 15306 – Information Collection, the proposed project is also exempt from CEQA because it will consist of basic data collection, research and resource evaluation activities and will not result in a serious or major disturbance to an environmental resource. Further, because the proposed project is designed to further protect or enhance the environment by supporting emission reductions from non-aircraft mobile sources within South Coast AQMD's jurisdiction, the proposed project is also categorically exempt from CEQA pursuant to CEQA Guidelines Section 15308 – Actions by Regulatory Agencies for Protection of the Environment. There is no substantial evidence indicating that any of the exceptions to the categorical exemptions apply to the proposed project pursuant to CEQA Guidelines Section 15300.2 – Exceptions. Therefore, the proposed project is exempt from CEQA.

Date When Project Will Be Considered for Approval (subject to change):
South Coast AQMD Governing Board Hearing: December 6, 2019; South Coast AQMD Headquarters

CEQA Contact Person:	**Phone Number:**	**Email:**	**Fax:**
Mr. Luke Eisenhardt	(909) 396-2324	leisenhardt@aqmd.gov	(909) 396-3982
Project Contact Person:	**Phone Number:**	**Email:**	**Fax:**
Dr. Sang-Mi Lee	(909) 396-3169	slee@aqmd.gov	(909) 396-3252

Date Received for Filing: _____ **Signature:** *(Signed Upon Board Approval)*

Barbara Radlein
Program Supervisor, CEQA
Planning, Rule Development, and Area Sources

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

SUBJECT: **NOTICE OF EXEMPTION FROM THE CALIFORNIA ENVIRONMENTAL QUALITY ACT**

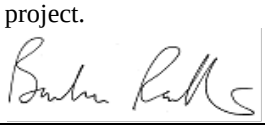
PROJECT TITLE: **MEMORANDUM OF UNDERSTANDING BETWEEN SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT AND BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY REGARDING HOLLYWOOD BURBANK AIRPORT'S AIR QUALITY IMPROVEMENT PLAN**

Pursuant to the California Environmental Quality Act (CEQA) Guidelines, the South Coast Air Quality Management District (South Coast AQMD), as Lead Agency, has prepared a Notice of Exemption pursuant to CEQA Guidelines Section 15062 – Notice of Exemption for the project identified above.

The proposed project is comprised of: 1) a voluntary agreement related to activities the Hollywood Burbank Airport (BUR) has already agreed to implement, as specified in the Memorandum of Understanding (MOU) between the South Coast AQMD and Burbank-Glendale-Pasadena Airport Authority, to reduce emissions from non-aircraft mobile sources in accordance with the BUR Air Quality Improvement Plan (AQIP); and 2) South Coast AQMD's enforceable commitment to the United States Environmental Protection Agency (U.S. EPA) to achieve reductions in oxides of nitrogen (NOx) emissions, to which the MOU for BUR will contribute. The MOU for BUR specifies the following AQIP measures from the BUR AQIP that are capable of achieving State Implementation Plan (SIP) creditable emission reductions: 1) ground support equipment emission reduction policy; and 2) the zero-emission shuttle bus program. The potential NOx emission reductions to be credited into the SIP, to which the MOU for BUR will contribute a portion, are estimated to be 0.52 and 0.37 ton per day in 2023 and 2031, respectively.

The proposed project has been reviewed pursuant to: 1) CEQA Guidelines Section 15002(k) – General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA; and 2) CEQA Guidelines Section 15061 – Review for Exemption, procedures for determining if a project is exempt from CEQA. Because the acts of South Coast AQMD and Burbank-Glendale-Pasadena Airport Authority voluntarily agreeing to enter into a MOU, and quantifying emissions for the purpose of establishing an enforceable commitment are administrative and procedural in nature it can be seen with certainty that there is no possibility that the proposed project may have a significant adverse effect on the environment. Further, no new physical impacts beyond the potential emission reductions that were previously analyzed under CEQA by the Burbank-Glendale-Pasadena Airport Authority for the BUR AQIP will be expected to occur. Therefore, the project is considered to be exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Common Sense Exemption. As provided in CEQA Guidelines Section 15306 – Information Collection, the proposed project is also exempt from CEQA because it will consist of basic data collection, research, and resource evaluation activities and will not result in a serious or major disturbance to an environmental resource. Further, because the proposed project is designed to further protect or enhance the environment by supporting emission reductions from non-aircraft mobile sources within South Coast AQMD's jurisdiction, the proposed project is also categorically exempt from CEQA pursuant to CEQA Guidelines Section 15308 – Actions by Regulatory Agencies for Protection of the Environment. There is no substantial evidence indicating that any of the exceptions to the categorical exemptions apply to the proposed project pursuant to CEQA Guidelines Section 15300.2 – Exceptions. If the proposed project is approved, this Notice of Exemption will be filed with the county clerks of Los Angeles, Orange, Riverside and San Bernardino counties.

Any questions regarding this Notice of Exemption should be sent to Luke Eisenhardt (c/o Planning, Rule Development and Area Sources) at the above address. Mr. Eisenhardt can also be reached at (909) 396-2324. Dr. Sang-Mi Lee is also available at (909) 396-3169 to answer any questions regarding the proposed project.

Date: November 8, 2019 **Signature:** 

Barbara Radlein
Program Supervisor, CEQA
Planning, Rule Development, and Area Sources

Reference: California Code of Regulations, Title 14, Division 6, Chapter 3

NOTICE OF EXEMPTION FROM THE CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

To: County Clerks
Counties of Los Angeles, Orange,
Riverside and San Bernardino

From: South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765

Project Title: Memorandum of Understanding Between South Coast Air Quality Management District and Burbank-Glendale-Pasadena Airport Authority Regarding Hollywood Burbank Airport's Air Quality Improvement Plan

Project Location: The project is located within the South Coast Air Quality Management District (South Coast AQMD) jurisdiction which includes the four-county South Coast Air Basin (all of Orange County and the non-desert portions of Los Angeles, Riverside and San Bernardino counties), and the Riverside County portions of the Salton Sea Air Basin (SSAB) and Mojave Desert Air Basin (MDAB). The Memorandum of Understanding (MOU) will be implemented at the Hollywood Burbank Airport (BUR) which is located at 2627 N Hollywood Way, Burbank, CA 91505.

Description of Nature, Purpose, and Beneficiaries of Project: The proposed project is comprised of: 1) a voluntary agreement related to activities BUR has already agreed to implement as specified in the MOU between the South Coast AQMD and Burbank-Glendale-Pasadena Airport Authority to reduce emissions from non-aircraft mobile sources in accordance with the BUR Air Quality Improvement Plan (AQIP); and 2) South Coast AQMD's enforceable commitment to the United States Environmental Protection Agency (U.S. EPA) to achieve reductions in oxides of nitrogen (NOx) emissions, to which the MOU for BUR will contribute. The MOU for BUR specifies the following AQIP measures from the BUR AQIP that are capable of achieving State Implementation Plan (SIP) creditable emission reductions: 1) ground support equipment emission reduction policy; and 2) the zero-emission shuttle bus program. The potential NOx emission reductions to be credited into the SIP, to which the MOU for BUR will contribute a portion, are estimated to be 0.52 and 0.37 ton per day in 2023 and 2031, respectively.

Public Agency Approving Project:
South Coast Air Quality Management District

Agency Carrying Out Project:
South Coast Air Quality Management District

Exempt Status:
CEQA Guidelines Section 15061(b)(3) – Common Sense Exemption
CEQA Guidelines Section 15306 – Information Collection
CEQA Guidelines Section 15308 – Actions by Regulatory Agencies for Protection of the Environment

Reasons why project is exempt: Pursuant to the California Environmental Quality Act (CEQA), the South Coast AQMD, as Lead Agency, has reviewed the proposed project pursuant to: 1) CEQA Guidelines Section 15002(k) – General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA; and 2) CEQA Guidelines Section 15061 – Review for Exemption, procedures for determining if a project is exempt from CEQA. Because the acts of South Coast AQMD and Burbank-Glendale-Pasadena Airport Authority voluntarily agreeing to enter into a MOU, and quantifying emissions for the purpose of establishing an enforceable commitment are administrative and procedural in nature, it can be seen with certainty that there is no possibility that the proposed project may have a significant adverse effect on the environment. Further, no new physical impacts beyond the potential emission reductions that were previously analyzed under CEQA by the Burbank-Glendale-Pasadena Airport Authority for the BUR AQIP will be expected to occur. Therefore, the project is considered to be exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Common Sense Exemption. As provided in CEQA Guidelines Section 15306 – Information Collection, the proposed project is also exempt from CEQA because it will consist of basic data collection, research, and resource evaluation activities and will not result in a serious or major disturbance to an environmental resource. Further, because the proposed project is designed to further protect or enhance the environment by supporting emission reductions from non-aircraft mobile sources within South Coast AQMD's jurisdiction, the proposed project is also categorically exempt from CEQA pursuant to CEQA Guidelines Section 15308 – Actions by Regulatory Agencies for Protection of the Environment. There is no substantial evidence indicating that any of the exceptions to the categorical exemptions apply to the proposed project pursuant to CEQA Guidelines Section 15300.2 – Exceptions. Therefore, the proposed project is exempt from CEQA.

Date When Project Will Be Considered for Approval (subject to change):
South Coast AQMD Governing Board Hearing: December 6, 2019; South Coast AQMD Headquarters

CEQA Contact Person:	**Phone Number:**	**Email:**	**Fax:**
Mr. Luke Eisenhardt	(909) 396-2324	leisenhardt@aqmd.gov	(909) 396-3982
Project Contact Person:	**Phone Number:**	**Email:**	**Fax:**
Dr. Sang-Mi Lee	(909) 396-3169	slee@aqmd.gov	(909) 396-3252

Date Received for Filing: _____ **Signature:** *(Signed Upon Board Approval)*

Barbara Radlein
Program Supervisor, CEQA
Planning, Rule Development, and Area Sources

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

SUBJECT: **NOTICE OF EXEMPTION FROM THE CALIFORNIA ENVIRONMENTAL QUALITY ACT**

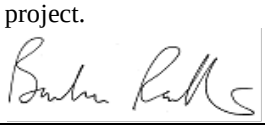
PROJECT TITLE: **MEMORANDUM OF UNDERSTANDING BETWEEN THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT AND JOHN WAYNE AIRPORT, ORANGE COUNTY REGARDING JOHN WAYNE AIRPORT'S AIR QUALITY IMPROVEMENT PLAN**

Pursuant to the California Environmental Quality Act (CEQA) Guidelines, the South Coast Air Quality Management District (South Coast AQMD), as Lead Agency, has prepared a Notice of Exemption pursuant to CEQA Guidelines Section 15062 – Notice of Exemption for the project identified above.

The proposed project is comprised of: 1) a voluntary agreement related to activities the John Wayne Airport (JWA) has already agreed to implement as specified in the Memorandum of Understanding (MOU) between the South Coast AQMD and John Wayne Airport, Orange County to reduce emissions from non-aircraft mobile sources in accordance with the JWA Air Quality Improvement Plan (AQIP); and 2) South Coast AQMD's enforceable commitment to the United States Environmental Protection Agency (U.S. EPA) to achieve reductions in oxides of nitrogen (NOx) emissions, to which the MOU for JWA will contribute. The MOU for JWA specifies the following AQIP measures from the JWA AQIP that are capable of achieving State Implementation Plan (SIP) creditable emission reductions: 1) ground support equipment emission reduction policy; 2) jet fuel pipeline to replace delivery trucks; and 3) parking shuttle bus electrification. The potential NOx emission reductions to be credited into the SIP, to which the MOU for JWA will contribute a portion, are estimated to be 0.52 and 0.37 ton per day in 2023 and 2031, respectively.

The proposed project has been reviewed pursuant to: 1) CEQA Guidelines Section 15002(k) – General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA; and 2) CEQA Guidelines Section 15061 – Review for Exemption, procedures for determining if a project is exempt from CEQA. Because the acts of South Coast AQMD and John Wayne Airport, Orange County voluntarily agreeing to enter into a MOU, and quantifying emissions for the purpose of establishing an enforceable commitment are administrative and procedural in nature it can be seen with certainty that there is no possibility that the proposed project may have a significant adverse effect on the environment. Further, no new physical impacts beyond the potential emission reductions that were previously analyzed under CEQA by the County of Orange for the JWA AQIP will be expected to occur. Therefore, the project is considered to be exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Common Sense Exemption. As provided in CEQA Guidelines Section 15306 – Information Collection, the proposed project is also exempt from CEQA because it will consist of basic data collection, research, and resource evaluation activities and will not result in a serious or major disturbance to an environmental resource. Further, because the proposed project is designed to further protect or enhance the environment by supporting emission reductions from non-aircraft mobile sources within South Coast AQMD's jurisdiction, the proposed project is also categorically exempt from CEQA pursuant to CEQA Guidelines Section 15308 – Actions by Regulatory Agencies for Protection of the Environment. There is no substantial evidence indicating that any of the exceptions to the categorical exemptions apply to the proposed project pursuant to CEQA Guidelines Section 15300.2 – Exceptions. If the proposed project is approved, this Notice of Exemption will be filed with the county clerks of Los Angeles, Orange, Riverside and San Bernardino counties.

Any questions regarding this Notice of Exemption should be sent to Luke Eisenhardt (c/o Planning, Rule Development and Area Sources) at the above address. Mr. Eisenhardt can also be reached at (909) 396-2324. Dr. Sang-Mi Lee is also available at (909) 396-3169 to answer any questions regarding the proposed project.

Date: November 8, 2019 **Signature:** 

Barbara Radlein
Program Supervisor, CEQA
Planning, Rule Development, and Area Sources

Reference: California Code of Regulations, Title 14, Division 6, Chapter 3

NOTICE OF EXEMPTION FROM THE CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

To: County Clerks
Counties of Los Angeles, Orange,
Riverside and San Bernardino

From: South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765

Project Title: Memorandum of Understanding Between the South Coast Air Quality Management District and John Wayne Airport, Orange County Regarding John Wayne Airport's Air Quality Improvement Plan

Project Location: The project is located within the South Coast Air Quality Management District (South Coast AQMD) jurisdiction which includes the four-county South Coast Air Basin (all of Orange County and the non-desert portions of Los Angeles, Riverside and San Bernardino counties), and the Riverside County portions of the Salton Sea Air Basin (SSAB) and Mojave Desert Air Basin (MDAB). The Memorandum of Understanding (MOU) will be implemented at the John Wayne Airport (JWA) which is located at 18601 Airport Way, Santa Ana, CA 92707.

Description of Nature, Purpose, and Beneficiaries of Project: The proposed project is comprised of: 1) a voluntary agreement related to activities JWA has already agreed to implement as specified in the MOU between the South Coast AQMD and John Wayne Airport, Orange County to reduce emissions from non-aircraft mobile sources in accordance with the JWA Air Quality Improvement Plan (AQIP); and 2) South Coast AQMD's enforceable commitment to the United States Environmental Protection Agency (U.S. EPA) to achieve reductions in oxides of nitrogen (NOx) emissions, to which the MOU for JWA will contribute. The MOU for JWA specifies the following AQIP measures from the JWA AQIP that are capable of achieving State Implementation Plan (SIP) creditable emission reductions: 1) ground support equipment emission reduction policy; 2) jet fuel pipeline to replace delivery trucks; and 3) parking shuttle bus electrification. The potential NOx emission reductions to be credited into the SIP, to which the MOU for JWA will contribute a portion, are estimated to be 0.52 and 0.37 ton per day in 2023 and 2031, respectively.

Public Agency Approving Project:
South Coast Air Quality Management District

Agency Carrying Out Project:
South Coast Air Quality Management District

Exempt Status:
CEQA Guidelines Section 15061(b)(3) – Common Sense Exemption
CEQA Guidelines Section 15306 – Information Collection
CEQA Guidelines Section 15308 – Actions by Regulatory Agencies for Protection of the Environment

Reasons why project is exempt: Pursuant to the California Environmental Quality Act (CEQA), the South Coast AQMD, as Lead Agency, has reviewed the proposed project pursuant to: 1) CEQA Guidelines Section 15002(k) – General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA; and 2) CEQA Guidelines Section 15061 – Review for Exemption, procedures for determining if a project is exempt from CEQA. Because the acts of South Coast AQMD and John Wayne Airport, Orange County voluntarily agreeing to enter into a MOU, and quantifying emissions for the purpose of establishing an enforceable commitment are administrative and procedural in nature, it can be seen with certainty that there is no possibility that the proposed project may have a significant adverse effect on the environment. Further, no new physical impacts beyond the potential emission reductions that were previously analyzed under CEQA by the County of Orange for the JWA AQIP will be expected to occur. Therefore, the project is considered to be exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Common Sense Exemption. As provided in CEQA Guidelines Section 15306 – Information Collection, the proposed project is also exempt from CEQA because it will consist of basic data collection, research, and resource evaluation activities and will not result in a serious or major disturbance to an environmental resource. Further, because the proposed project is designed to further protect or enhance the environment by supporting emission reductions from non-aircraft mobile sources within South Coast AQMD's jurisdiction, the proposed project is also categorically exempt from CEQA pursuant to CEQA Guidelines Section 15308 – Actions by Regulatory Agencies for Protection of the Environment. There is no substantial evidence indicating that any of the exceptions to the categorical exemptions apply to the proposed project pursuant to CEQA Guidelines Section 15300.2 – Exceptions. Therefore, the proposed project is exempt from CEQA.

Date When Project Will Be Considered for Approval (subject to change):
South Coast AQMD Governing Board Hearing: December 6, 2019; South Coast AQMD Headquarters

CEQA Contact Person:	**Phone Number:**	**Email:**	**Fax:**
Mr. Luke Eisenhardt	(909) 396-2324	leisenhardt@aqmd.gov	(909) 396-3982
Project Contact Person:	**Phone Number:**	**Email:**	**Fax:**
Dr. Sang-Mi Lee	(909) 396-3169	slee@aqmd.gov	(909) 396-3252

Date Received for Filing: _____ **Signature:** *(Signed Upon Board Approval)*

Barbara Radlein
Program Supervisor, CEQA
Planning, Rule Development, and Area Sources

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

SUBJECT: **NOTICE OF EXEMPTION FROM THE CALIFORNIA ENVIRONMENTAL QUALITY ACT**

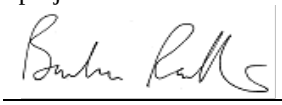
PROJECT TITLE: **MEMORANDUM OF UNDERSTANDING BETWEEN THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT AND THE CITY OF LONG BEACH REGARDING LONG BEACH AIRPORT'S AIR QUALITY IMPROVEMENT PLAN**

Pursuant to the California Environmental Quality Act (CEQA) Guidelines, the South Coast Air Quality Management District (South Coast AQMD), as Lead Agency, has prepared a Notice of Exemption pursuant to CEQA Guidelines Section 15062 – Notice of Exemption for the project identified above.

The proposed project is comprised of: 1) a voluntary agreement related to activities the Long Beach Airport (LGB) has already agreed to implement as specified in the Memorandum of Understanding (MOU) between the South Coast AQMD and the City of Long Beach to reduce emissions from non-aircraft mobile sources in accordance with the LGB Air Quality Improvement Plan (AQIP); and 2) South Coast AQMD's enforceable commitment to the United States Environmental Protection Agency (U.S. EPA) to achieve reductions in oxides of nitrogen (NOx) emissions, to which the MOU for LGB will contribute. The MOU for LGB specifies the ground support equipment emission reduction policy measure from the LGB AQIP that is capable of achieving State Implementation Plan (SIP) creditable emission reductions. The potential NOx emission reductions to be credited into the SIP, to which the MOU for LGB will contribute a portion, are estimated to be 0.52 and 0.37 ton per day in 2023 and 2031, respectively.

The proposed project has been reviewed pursuant to: 1) CEQA Guidelines Section 15002(k) – General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA; and 2) CEQA Guidelines Section 15061 – Review for Exemption, procedures for determining if a project is exempt from CEQA. Because the acts of South Coast AQMD and the City of Long Beach voluntarily agreeing to enter into a MOU, and quantifying emissions for the purpose of establishing an enforceable commitment are administrative and procedural in nature it can be seen with certainty that there is no possibility that the proposed project may have a significant adverse effect on the environment. Further, no new physical impacts beyond the potential emission reductions that were previously analyzed under CEQA by the City of Long Beach for the LGB AQIP will be expected to occur. Therefore, the project is considered to be exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Common Sense Exemption. As provided in CEQA Guidelines Section 15306 – Information Collection, the proposed project is also exempt from CEQA because it will consist of basic data collection, research and resource evaluation activities and will not result in a serious or major disturbance to an environmental resource. Further, because the proposed project is designed to further protect or enhance the environment by supporting emission reductions from non-aircraft mobile sources within South Coast AQMD's jurisdiction, the proposed project is also categorically exempt from CEQA pursuant to CEQA Guidelines Section 15308 – Actions by Regulatory Agencies for Protection of the Environment. There is no substantial evidence indicating that any of the exceptions to the categorical exemptions apply to the proposed project pursuant to CEQA Guidelines Section 15300.2 – Exceptions. If the proposed project is approved, this Notice of Exemption will be filed with the county clerks of Los Angeles, Orange, Riverside and San Bernardino counties.

Any questions regarding this Notice of Exemption should be sent to Luke Eisenhardt (c/o Planning, Rule Development and Area Sources) at the above address. Mr. Eisenhardt can also be reached at (909) 396-2324. Dr. Sang-Mi Lee is also available at (909) 396-3169 to answer any questions regarding the proposed project.

Date: November 8, 2019 **Signature:** 

Barbara Radlein
Program Supervisor, CEQA
Planning, Rule Development, and Area Sources

Reference: California Code of Regulations, Title 14, Division 6, Chapter 3

NOTICE OF EXEMPTION FROM THE CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

To: County Clerks
Counties of Los Angeles, Orange,
Riverside and San Bernardino

From: South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765

Project Title: Memorandum of Understanding Between the South Coast Air Quality Management District and the City of Long Beach Regarding Long Beach Airport's Air Quality Improvement Plan

Project Location: The project is located within the South Coast Air Quality Management District (South Coast AQMD) jurisdiction which includes the four-county South Coast Air Basin (all of Orange County and the non-desert portions of Los Angeles, Riverside and San Bernardino counties), and the Riverside County portions of the Salton Sea Air Basin (SSAB) and Mojave Desert Air Basin (MDAB). The Memorandum of Understanding (MOU) will be implemented at the Long Beach Airport (LGB) which is located at 4100 Donald Douglas Drive, Long Beach, CA 90808.

Description of Nature, Purpose, and Beneficiaries of Project: The proposed project is comprised of: 1) a voluntary agreement related to activities LGB has already agreed to implement as specified in the MOU between the South Coast AQMD and the City of Long Beach to reduce emissions from non-aircraft mobile sources in accordance with the LGB Air Quality Improvement Plan (AQIP); and 2) South Coast AQMD's enforceable commitment to the United States Environmental Protection Agency (U.S. EPA) to achieve reductions in oxides of nitrogen (NOx) emissions, to which the MOU for LGB will contribute. The MOU for LGB specifies the ground support equipment emission reduction policy measure from the LGB AQIP that is capable of achieving State Implementation Plan (SIP) creditable emission reductions. The potential NOx emission reductions to be credited into the SIP, to which the MOU for LGB will contribute a portion, are estimated to be 0.52 and 0.37 ton per day in 2023 and 2031, respectively.

Public Agency Approving Project:
South Coast Air Quality Management District

Agency Carrying Out Project:
South Coast Air Quality Management District

Exempt Status:
CEQA Guidelines Section 15061(b)(3) – Common Sense Exemption
CEQA Guidelines Section 15306 – Information Collection
CEQA Guidelines Section 15308 – Actions by Regulatory Agencies for Protection of the Environment

Reasons why project is exempt: Pursuant to the California Environmental Quality Act (CEQA), the South Coast AQMD, as Lead Agency, has reviewed the proposed project pursuant to: 1) CEQA Guidelines Section 15002(k) – General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA; and 2) CEQA Guidelines Section 15061 – Review for Exemption, procedures for determining if a project is exempt from CEQA. Because the acts of South Coast AQMD and the City of Long Beach voluntarily agreeing to enter into a MOU, and quantifying emissions for the purpose of establishing an enforceable commitment are administrative and procedural in nature, it can be seen with certainty that there is no possibility that the proposed project may have a significant adverse effect on the environment. Further, no new physical impacts beyond the potential emission reductions that were previously analyzed under CEQA by the City of Long Beach for the LGB AQIP will be expected to occur. Therefore, the project is considered to be exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Common Sense Exemption. As provided in CEQA Guidelines Section 15306 – Information Collection, the proposed project is also exempt from CEQA because it will consist of basic data collection, research and resource evaluation activities and will not result in a serious or major disturbance to an environmental resource. Further, because the proposed project is designed to further protect or enhance the environment by supporting emission reductions from non-aircraft mobile sources within South Coast AQMD's jurisdiction, the proposed project is also categorically exempt from CEQA pursuant to CEQA Guidelines Section 15308 – Actions by Regulatory Agencies for Protection of the Environment. There is no substantial evidence indicating that any of the exceptions to the categorical exemptions apply to the proposed project pursuant to CEQA Guidelines Section 15300.2 – Exceptions. Therefore, the proposed project is exempt from CEQA.

Date When Project Will Be Considered for Approval (subject to change):
South Coast AQMD Governing Board Hearing: December 6, 2019; South Coast AQMD Headquarters

CEQA Contact Person:	**Phone Number:**	**Email:**	**Fax:**
Mr. Luke Eisenhardt	(909) 396-2324	leisenhardt@aqmd.gov	(909) 396-3982
Project Contact Person:	**Phone Number:**	**Email:**	**Fax:**
Dr. Sang-Mi Lee	(909) 396-3169	slee@aqmd.gov	(909) 396-3252

Date Received for Filing: _____ **Signature:** *(Signed Upon Board Approval)*

Barbara Radlein
Program Supervisor, CEQA
Planning, Rule Development, and Area Sources

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

SUBJECT: **NOTICE OF EXEMPTION FROM THE CALIFORNIA ENVIRONMENTAL QUALITY ACT**

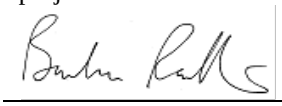
PROJECT TITLE: **MEMORANDUM OF UNDERSTANDING BETWEEN THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT AND ONTARIO INTERNATIONAL AIRPORT REGARDING ONTARIO INTERNATIONAL AIRPORT'S AIR QUALITY IMPROVEMENT PLAN**

Pursuant to the California Environmental Quality Act (CEQA) Guidelines, the South Coast Air Quality Management District (South Coast AQMD), as Lead Agency, has prepared a Notice of Exemption pursuant to CEQA Guidelines Section 15062 – Notice of Exemption for the project identified above.

The proposed project is comprised of: 1) a voluntary agreement related to activities the Ontario International Airport (ONT) has already agreed to implement as specified in the Memorandum of Understanding (MOU) between the South Coast AQMD and Ontario International Airport to reduce emissions from non-aircraft mobile sources in accordance with the ONT Air Quality Improvement Plan (AQIP); and 2) South Coast AQMD's enforceable commitment to the United States Environmental Protection Agency (U.S. EPA) to achieve reductions in oxides of nitrogen (NOx) emissions, to which the MOU for ONT will contribute. The MOU for ONT specifies the ground support equipment emission reduction policy measure from the ONT AQIP that is capable of achieving State Implementation Plan (SIP) creditable emission reductions. The potential NOx emission reductions to be credited into the SIP, to which the MOU for ONT will contribute a portion, are estimated to be 0.52 and 0.37 ton per day in 2023 and 2031, respectively.

The proposed project has been reviewed pursuant to: 1) CEQA Guidelines Section 15002(k) – General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA; and 2) CEQA Guidelines Section 15061 – Review for Exemption, procedures for determining if a project is exempt from CEQA. Because the acts of South Coast AQMD and Ontario International Airport voluntarily agreeing to enter into a MOU, and quantifying emissions for the purpose of establishing an enforceable commitment are administrative and procedural in nature it can be seen with certainty that there is no possibility that the proposed project may have a significant adverse effect on the environment. Further, no new physical impacts beyond the potential emission reductions that were previously analyzed under CEQA by the Ontario International Airport Authority for the ONT AQIP will be expected to occur. Therefore, the project is considered to be exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Common Sense Exemption. As provided in CEQA Guidelines Section 15306 – Information Collection, the proposed project is also exempt from CEQA because it will consist of basic data collection, research and resource evaluation activities and will not result in a serious or major disturbance to an environmental resource. Further, because the proposed project is designed to further protect or enhance the environment by supporting emission reductions from non-aircraft mobile sources within South Coast AQMD's jurisdiction, the proposed project is also categorically exempt from CEQA pursuant to CEQA Guidelines Section 15308 – Actions by Regulatory Agencies for Protection of the Environment. There is no substantial evidence indicating that any of the exceptions to the categorical exemptions apply to the proposed project pursuant to CEQA Guidelines Section 15300.2 – Exceptions. If the proposed project is approved, this Notice of Exemption will be filed with the county clerks of Los Angeles, Orange, Riverside and San Bernardino counties.

Any questions regarding this Notice of Exemption should be sent to Luke Eisenhardt (c/o Planning, Rule Development and Area Sources) at the above address. Mr. Eisenhardt can also be reached at (909) 396-2324. Dr. Sang-Mi Lee is also available at (909) 396-3169 to answer any questions regarding the proposed project.

Date: November 8, 2019 **Signature:** 

Barbara Radlein
Program Supervisor, CEQA
Planning, Rule Development, and Area Sources

Reference: California Code of Regulations, Title 14, Division 6, Chapter 3

NOTICE OF EXEMPTION FROM THE CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

To: County Clerks
Counties of Los Angeles, Orange,
Riverside and San Bernardino

From: South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765

Project Title: Memorandum of Understanding Between the South Coast Air Quality Management District and Ontario International Airport Regarding Ontario International Airport's Air Quality Improvement Plan

Project Location: The project is located within the South Coast Air Quality Management District (South Coast AQMD) jurisdiction which includes the four-county South Coast Air Basin (all of Orange County and the non-desert portions of Los Angeles, Riverside and San Bernardino counties), and the Riverside County portions of the Salton Sea Air Basin (SSAB) and Mojave Desert Air Basin (MDAB). The Memorandum of Understanding (MOU) will be implemented at the Ontario International Airport (ONT) which is located at 2500 East Airport Drive, Ontario, CA 91761.

Description of Nature, Purpose, and Beneficiaries of Project: The proposed project is comprised of: 1) a voluntary agreement related to activities ONT has already agreed to implement as specified in the MOU between the South Coast AQMD and Ontario International Airport to reduce emissions from non-aircraft mobile sources in accordance with the ONT Air Quality Improvement Plan (AQIP); and 2) South Coast AQMD's enforceable commitment to the United States Environmental Protection Agency (U.S. EPA) to achieve reductions in oxides of nitrogen (NOx) emissions, to which the MOU for ONT will contribute. The MOU for ONT specifies the ground support equipment emission reduction policy measure from the ONT AQIP that is capable of achieving State Implementation Plan (SIP) creditable emission reductions. The potential NOx emission reductions to be credited into the SIP, to which the MOU for ONT will contribute a portion, are estimated to be 0.52 and 0.37 ton per day in 2023 and 2031, respectively.

Public Agency Approving Project:
South Coast Air Quality Management District

Agency Carrying Out Project:
South Coast Air Quality Management District

Exempt Status:
CEQA Guidelines Section 15061(b)(3) – Common Sense Exemption
CEQA Guidelines Section 15306 – Information Collection
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Reasons why project is exempt: Pursuant to the California Environmental Quality Act (CEQA), the South Coast AQMD, as Lead Agency, has reviewed the proposed project pursuant to: 1) CEQA Guidelines Section 15002(k) – General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA; and 2) CEQA Guidelines Section 15061 – Review for Exemption, procedures for determining if a project is exempt from CEQA. Because the acts of South Coast AQMD and Ontario International Airport voluntarily agreeing to enter into a MOU, and quantifying emissions for the purpose of establishing an enforceable commitment are administrative and procedural in nature, it can be seen with certainty that there is no possibility that the proposed project may have a significant adverse effect on the environment. Further, no new physical impacts beyond the potential emission reductions that were previously analyzed under CEQA by the Ontario International Airport Authority Commission for the ONT AQIP will be expected to occur. Therefore, the project is considered to be exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Common Sense Exemption. As provided in CEQA Guidelines Section 15306 – Information Collection, the proposed project is also exempt from CEQA because it will consist of basic data collection, research and resource evaluation activities and will not result in a serious or major disturbance to an environmental resource. Further, because the proposed project is designed to further protect or enhance the environment by supporting emission reductions from non-aircraft mobile sources within South Coast AQMD's jurisdiction, the proposed project is also categorically exempt from CEQA pursuant to CEQA Guidelines Section 15308 – Actions by Regulatory Agencies for Protection of the Environment. There is no substantial evidence indicating that any of the exceptions to the categorical exemptions apply to the proposed project pursuant to CEQA Guidelines Section 15300.2 – Exceptions. Therefore, the proposed project is exempt from CEQA.

Date When Project Will Be Considered for Approval (subject to change):
South Coast AQMD Governing Board Hearing: December 6, 2019; South Coast AQMD Headquarters

CEQA Contact Person:	**Phone Number:**	**Email:**	**Fax:**
Mr. Luke Eisenhardt	(909) 396-2324	leisenhardt@aqmd.gov	(909) 396-3982
Project Contact Person:	**Phone Number:**	**Email:**	**Fax:**
Dr. Sang-Mi Lee	(909) 396-3169	slee@aqmd.gov	(909) 396-3252

Date Received for Filing: _____ **Signature:** *(Signed Upon Board Approval)*

Barbara Radlein
Program Supervisor, CEQA
Planning, Rule Development, and Area Sources

Facility-Based Mobile Source Measure for Commercial Airports

Governing Board Meeting

December 6, 2019

South Coast
Air Quality Management District

Background

- 2016 AQMP Facility-Based Mobile Source Measures
  - Control Measure MOB-04, Emission Reductions at Commercial Airports
- Board direction in May 2018
  - Voluntary MOU approach for commercial airports
  - MOUs based on airports' air quality improvement plans/measures (AQIP/AQIM)
    - Non-aircraft emission sources

Draft MOUs developed for five commercial airports

- MOUs cover five commercial airports
  - LAX, Burbank, John Wayne, Ontario, Long Beach airports
- Air Quality Improvement Plans/Measures developed by each airport
  - Emission Inventories (2017, 2023, 2031)
  - Specific measures and initiatives for ***non-aircraft*** emission sources
- MOUs only cover airports measures that are eligible for SIP credit
  - Performance targets, timeline for implementation, reporting requirements

MOU commitments

Airports

- Implement measures included in MOUs and achieve performance targets
- Annual reporting to South Coast AQMD on implementation of MOU measures
  - Equipment/vehicle data
  - Emission benefit calculations
  - Disposition of older equipment

South Coast AQMD

- Quantify SIP creditable emission reductions for MOU measures
- Provide federally enforceable commitments and report emission reduction benefits to U.S. EPA based on annual reports from airports
- Process to cover potential shortfall
- Provide public access and disclosure

MOU measures eligible for SIP credit

- Ground Support Equipment (GSE) Performance Targets by Airport (NOx fleet average emissions rate in g/bhp-hr)

Airport	2023	2031
JWA	1.7	0.9
LAX[1]	1.8	1.0
LGB	0.93	0.44
ONT	2.2	1.0
BUR	1.66	0.74

[1] Hydrocarbons + NOx combined emission factor

MOU measures eligible for SIP credit (cont'd)

➢ Shuttle Bus Electrification Measures

	2023	2031
LAX – Zero Emission Bus Program	20%	100%
JWA- Parking Shuttle Bus Electrification	50%	80%
BUR- Zero-Emission Shuttle Bus Program	50%	100%

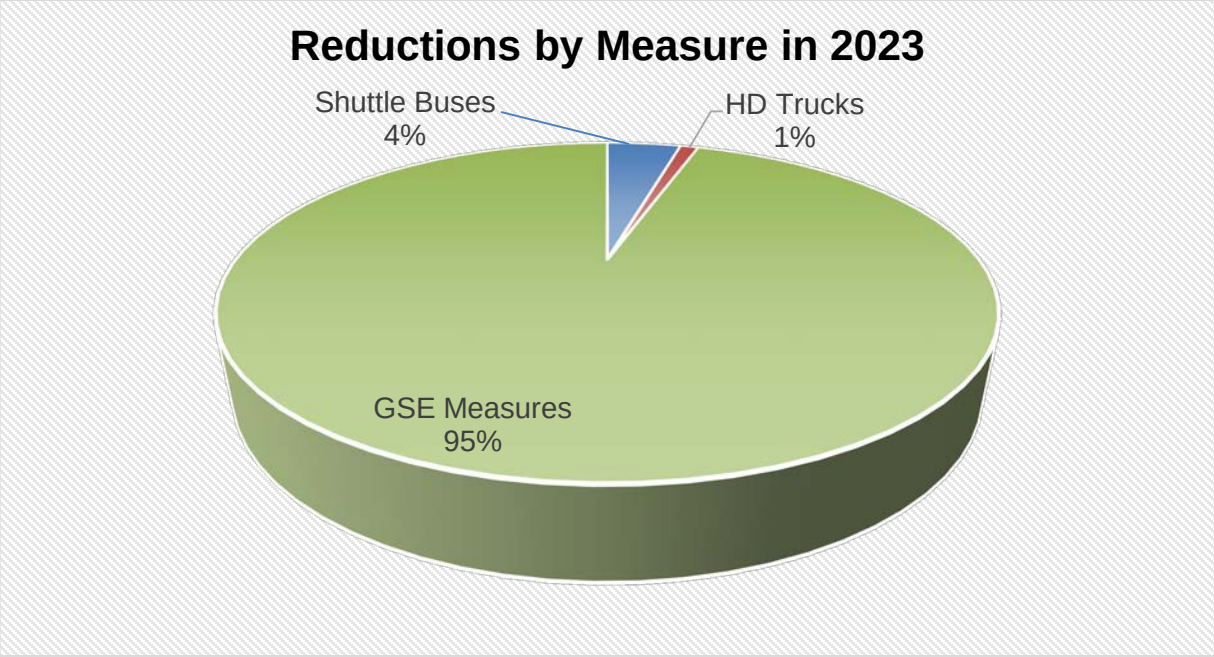
MOU measures eligible for SIP credit (cont'd)

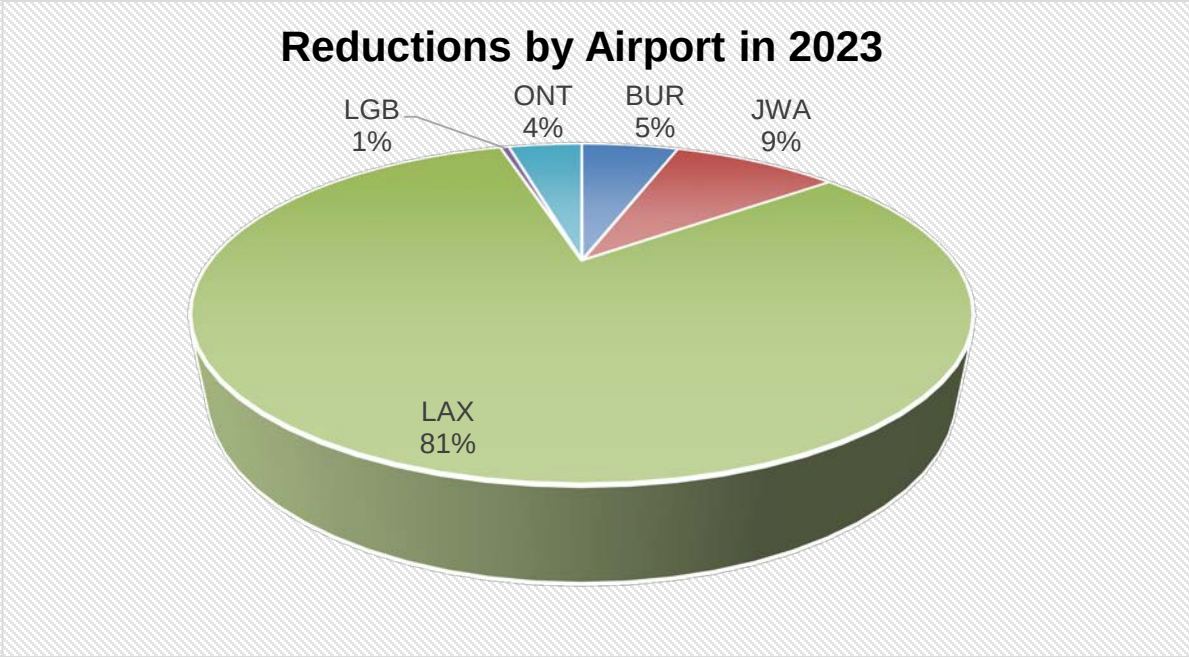
- LAX
  - Alternative Fuel Vehicle Incentive Program: Implement an incentive program to distribute up to $500,000 dollars in funding to assist the purchase of zero or near-zero emission vehicles by December 31, 2021
- JWA
  - Jet Fuel Delivery Trucks: Install a jet fuel pipeline to eliminate routine commercial passenger jet fuel delivery trucks by 2023

Total potential NOx SIP emission reductions for MOU measures

	2023 (tons per day)	**2031 (tons per day)**
SIP Creditable Emission Reductions	0.52	0.37

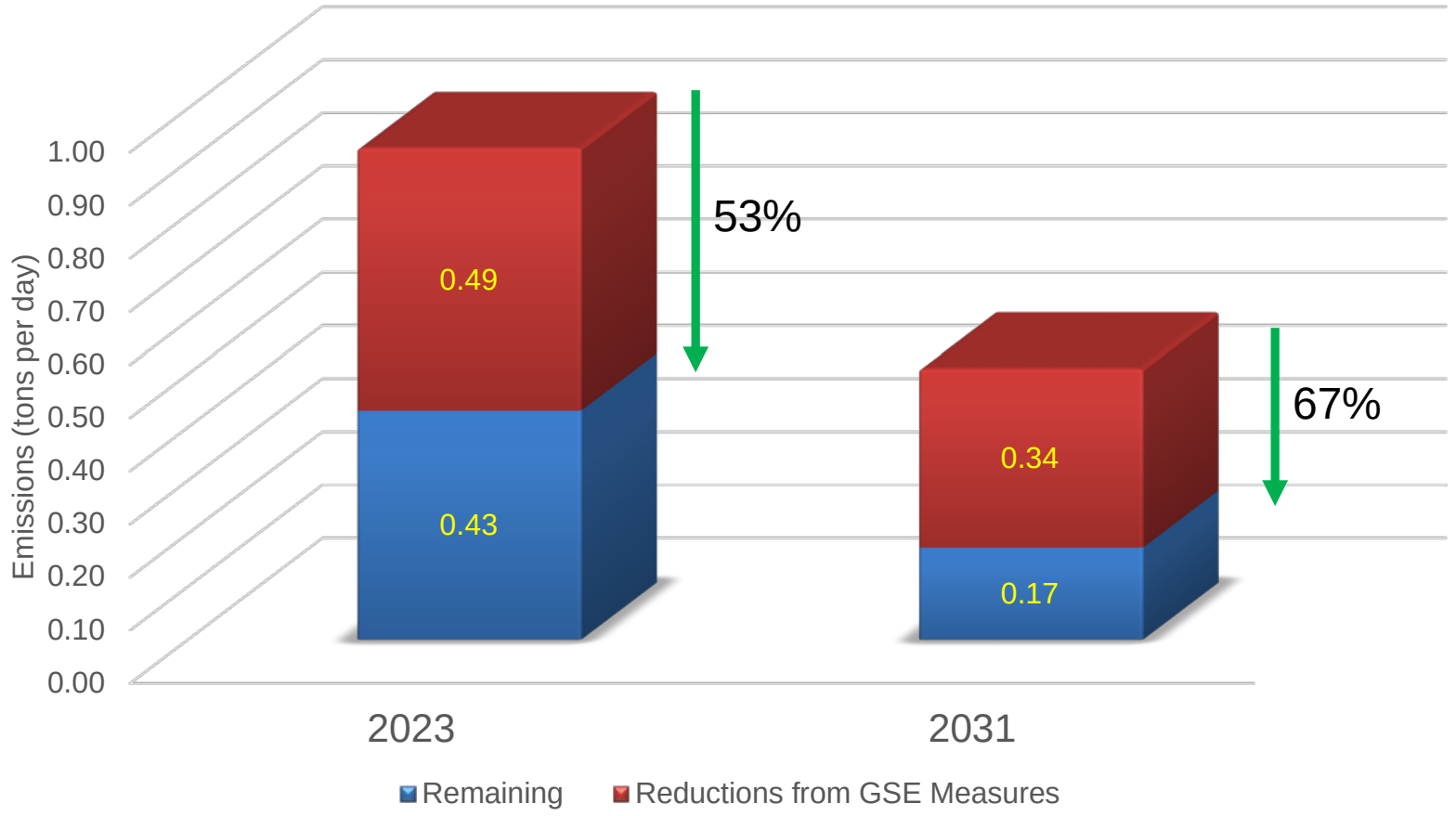
Potential NOx reductions in 2023





Total NOx Reductions = 190 tons per year

NOx Reductions from MOU GSE measures



South Coast AQMD's enforceable commitment

- Achieve 0.52 and 0.37 tpd NOx reductions in 2023 and 2031, respectively
- Track the implementation of MOU measures based on airports' annual reports
- Report to EPA on:
  - Implementation of SIP creditable MOU measures and actual emission reductions achieved; and
  - Make each report and relevant data publicly available
- Through a public process, adopt and submit substitute measures to EPA in the event of any emission reduction shortfall

Public process to develop draft MOUs

LAX

JWA

BUR

ONT

LGB

- Airports MOU working group meetings
- Updates to Mobile Source Committee
  - Feb 15, Sep 20, Oct 18, and Nov 15, 2019
- Public Consultation Meeting – October 10, 2019
- MOUs have been approved by all five airports respective authorities
- MOUs subject to approval by South Coast AQMD Board

Public comments

- Questions regarding annual operating data for GSE equipment
  - *Added new MOU language to allow options based on data availability*
- What happens to replacement GSE equipment?
  - *Added new MOU language to require reporting for equipment retired, sold, and relocated with the Basin*
- How are emissions benefits/SIP credits calculated?
  - *Provided clarifications in responses to comments*
- What are the infrastructure needs for GSE?
  - *Airports and airport tenants have agreed to airport-wide performance targets; required infrastructure to be coordinated between airports and airport tenants*

Public comments (cont'd)

- Concern regarding modest reductions from MOUs
  - *Majority of reductions come from GSE*
    - *Reductions from GSE are significant (53% in 2023, 67% in 2031)*
  - *Largest source of emissions at airports are aircraft, then trucks*
    - *The MOUs are targeting non-aircraft emissions per Board direction*
    - *Cargo trucks serving the airports to be addressed under proposed ISR for warehouses*
- Questions regarding the process for addressing potential shortfall
  - *Potential reduction shortfalls to be determined based on the annual reports from the airports*
  - *Substitute measures to be developed through public process*

Comments from Mobile Source Committee

- How is progress toward the 2023 and 2031 targets tracked?
  - *Airports required to submit annual reports by June 1 of 2021 to 2032*
    - *Detailed equipment/vehicle data; emission inventories*
  - *Annual reports will determine progress toward targets*
- How will substitute measures be developed in the case of an emissions shortfall?
  - *South Coast AQMD reports on progress to EPA by November 1 annually*
  - *If cannot demonstrate sufficient progress to EPA by February 2022, South Coast AQMD must submit substitute measures by November 2022*
  - *Substitute measures to be developed through a public process working with airports and stakeholders to seek reductions from airports*

Comments from Mobile Source Committee (cont'd)

- Could staff develop a parallel ISR if the MOUs are not successful?
  - Possible to develop draft language in reserve if directed by the Board
  - Approximately 6 month timeline to complete rulemaking if needed
- Are Ground Power Units covered by the MOUs?
  - *Included in the MOUs GSE measures*
  - *7% of total GSE population (4,078); 80% diesel, 20% electric*
- What happens to older equipment that is replaced? Is it moved to other airports?
  - *Older equipment mainly retired/scrapped*
  - *Reporting required for equipment retired, sold, and moved within the Basin airports (under rare circumstances)*
- How is fuel delivered to remote gates and cargo/maintenance areas at LAX
  - *Primarily through fueling hydrant system*

Staff recommendations

Adopt Resolution to:

1. Determine that the Facility-Based Mobile Source Measure for Commercial Airports is exempt from the requirements of California Environmental Quality Act;
2. Approve the MOUs with each of the five commercial airports;
3. Approve South Coast AQMD's enforceable commitment; and
4. Direct the Executive Officer to submit South Coast AQMD's enforceable commitment to CARB for its approval and subsequent submittal to the U.S. EPA for inclusion into California SIP.