Airports MOU
Working Group Meeting #4

Tuesday, October 15, 2019
9:00 a.m. – 11:00 a.m.
Public process to develop draft MOUs

- Airports MOU working group meetings
  - Working group meeting #1 – February 28, 2019
  - Working group meeting #2 – May 8, 2019
  - Working group meeting #3 – July 18, 2019
  - Working group meeting #4 – October 15, 2019
- Updates to South Coast AQMD’s Mobile Source Committee (Feb 2019 and Sep 2019)
- Public Consultation Meeting – October 10, 2019
- Airports’ AQIPs/AQIM/MOUs subject to approval by respective airport authority
- Each MOU subject to approval by South Coast AQMD
South Coast AQMD-Airports MOU process

- Each airport has developed an air quality improvement plan/measures (AQIP/AQIM)
  - AQIP/AQIM includes strategies to reduce emissions from non-aircraft airport sources

- MOUs
  - South Coast AQMD has developed a draft MOU with each commercial airport to reduce emissions
  - MOUs are based on the airports’ potential SIP creditable AQIP/AQIM measures
  - South Coast AQMD to work with EPA to get SIP credit for MOU measures
  - If emission reductions not fully achieved, South Coast AQMD provides substitute measures

- SIP credit

South Coast AQMD-Air Quality Management District
MOU commitments

**Airports**
- Implementing AQIP/AQIM measures included in MOUs by working with airport tenants
- Annual reporting to South Coast AQMD on implementation of AQIP/AQIM measures, including equipment data and emission benefit calculations

**South Coast AQMD**
- Quantify SIP creditable emission reductions for AQIP/AQIM measures (2023, 2031)
- Provide federally enforceable commitments and report emission reduction benefits to U.S. EPA
- Establish metrics to track implementation progress
- Process to cover potential shortfall
- Provide public access and disclosure
Specific measures vary among airports, reflecting uniqueness of each airport

Common measures for GSE, airport-owned fleet, improvement in passenger traffic and infrastructure

Performance targets for measures vary among airports

Emission reduction benefits estimated for quantifiable measures

MOUs identify specific AQIP/AQIM measures that are potentially eligible for SIP credit
EPA’s requirements for eligibility of emission reductions for SIP credit

- Integrity Elements
- Federal Enforceability
- Technical Support
- Funding
- Legal Authority
- Public Disclosure and Tracking
Specific AQIP/AQIM measures eligible for SIP credit

LAX

- GSE: Achieve fleet average NOx + HC combined emission factors of 1.8 and 1.0 grams per brake horsepower-hour in 2023 and 2031, respectively
- 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
- LAWA Clean Fleet Program: Replace 20% and 100% of LAWA-owned and operated buses with zero-emission buses by 2023 and 2031, respectively
Specific measures eligible for SIP credit (cont’d)

- JWA
  - GSE: Achieve fleet average NOx emission factors of 1.7 and 0.9 g/bhp-hr in 2023 and 2031, respectively.
  - Jet Fuel Delivery Trucks: Install a jet fuel pipeline by the end of 2019 to eliminate routine commercial aviation jet fuel delivery trucks by 2023
  - Parking Shuttle Bus Electrification: Replace a minimum of 50% and 80% of airport shuttle buses with battery-electric shuttle buses by 2023 and 2031, respectively
Specific AQIP/AQIM measures eligible for SIP credit

➢ **BUR**
   - GSE: Achieve fleet average NOx + HC combined emission factors of 1.92 and 0.82 g/bhp-hr in 2023 and 2031, respectively
   - Zero-Emission Shuttle Bus Program: Replace 50% and 100% of BUR-owned and operated buses with electric buses by 2023 and 2031, respectively

➢ **LGB**
   - GSE: Achieve fleet average NOx + HC combined emission factors of 0.93 and 0.44 g/bhp-hr in 2023 and 2031, respectively

➢ **ONT**
   - GSE: Achieve fleet average NOx emission factors of 2.20 and 1.00 g/bhp-hr in 2023 and 2031, respectively.
SIP Credit Calculation Methodology

- GSE Measures for all airports
  - Calculated as the difference between the AQMP baseline and the AQIP/AQIM remaining emissions

- LAX Alternative Fuel Vehicle Incentive Measure
  - Calculated based on the CARB Carl Moyer program guidelines and vehicle information (VMT, model year) from LAWA

- LAWA, JWA and BUR zero emission bus programs
  - Calculated based on vehicle specific average emission factors from 2016 AQMP and VMT data from the airports

- JWA Jet Fuel Delivery Trucks Measure
  - Calculated based on vehicle specific average emission factors from the 2016 AQMP and VMT data from the airport
# Potential SIP credit by airport by AQIP/AQIM measure

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<thead>
<tr>
<th>Airport</th>
<th>AQIP/AQIM Measure</th>
<th>2023 NOx Reductions (tpy)</th>
<th>2031 NOx Reductions (tpy)</th>
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<tr>
<td>LAX</td>
<td>GSE Policy</td>
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<td>98.94</td>
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<td>LAX</td>
<td>LAX Alternative Fuel Vehicle Incentive Program</td>
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<td>BUR</td>
<td>Zero-Emission Shuttle Bus Program</td>
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## Potential SIP credit by airport by AQIP/AQIM measure (cont’d)

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<tr>
<th>Airport</th>
<th>AQIP/AQIM Measure</th>
<th>2023 NOx Reductions (tpy)</th>
<th>2031 NOx Reductions (tpy)</th>
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<td>JWA</td>
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<td>JWA</td>
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<tr>
<td>ONT</td>
<td>GSE</td>
<td>7.83</td>
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## Total Potential NOx SIP credit from SIP creditable AQIP/AQIM measures

<table>
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<tr>
<th></th>
<th>2023 (tons per day)</th>
<th>2031 (tons per day)</th>
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<tbody>
<tr>
<td>SIP creditable Emission Reductions</td>
<td>0.52</td>
<td>0.38</td>
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South Coast AQMD’s Enforceable Commitment

- Achieve 0.52 and 0.38 tpd NOx reduction in 2023 and 2031, respectively
- Monitor the airports’ implementation of the AQIP/AQIM measures with SIP creditable emission reductions based on the annual reports submitted by the airports as specified in the MOUs
- Report to EPA on:
  - Implementation of SIP creditable AQIP/AQIM measures and actual emission reductions achieved
  - Make each report and relevant data publicly available
- Adopt and submit substitute measures to EPA in the event of any emission reduction shortfall through a public process
Additional Items under Consideration

- Airports annual reporting to South Coast AQMD for GSE equipment
  - Annual usage data
  - Status of replaced equipment
- Monitor and evaluate development at San Bernardino Airport
Next steps

- **October 21**: Close of public comments on the Draft Staff Report
- **Update to South Coast AQMD’s Mobile Source Committee**
  - **October 18**: Informational item
  - **November 15**: Action item
- **November**: Adoption of draft AQIPs/AQIMs and draft MOUs by each airport authority
- **December 6**: South Coast AQMD Governing Board Adoption of the FBMSM for Commercial Airports