Airports MOU
Working Group Meeting #4

Tuesday, October 15, 2019

9:00 a.m. – 11:00 a.m.

South Coast
Air Quality Management District

Public process to develop draft MOUs

LAX

JWA

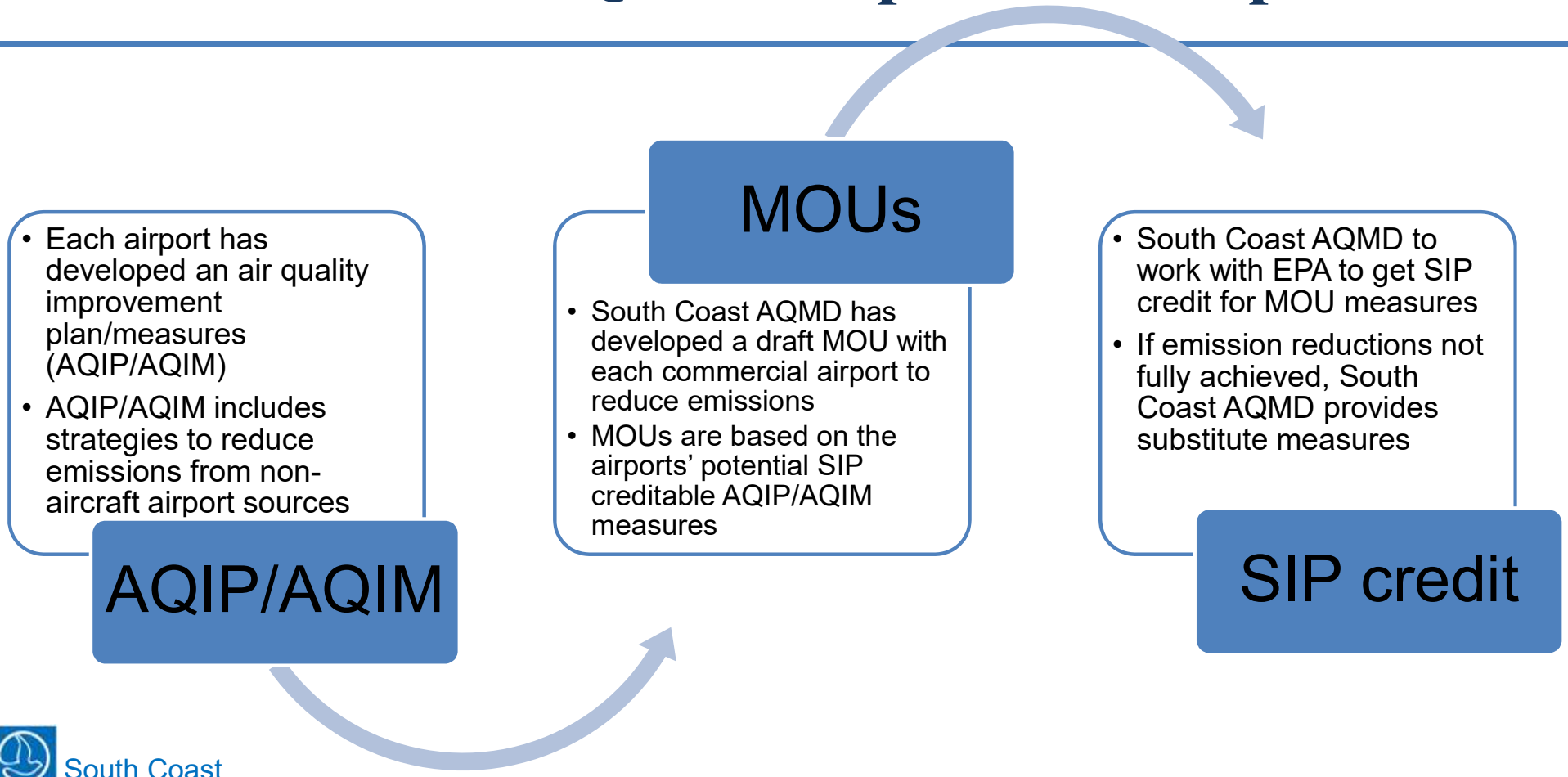
BUR

ONT

LGB

- 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



South Coast
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

AQIP/AQIM measures

- 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

Airport	AQIP/AQIM Measure	2023 NOx Reductions (tpy)	2031 NOx Reductions (tpy)
LAX	GSE Policy	146.71	98.94
LAX	LAX Alternative Fuel Vehicle Incentive Program	0.17	0.21
LAX	LAWA Clean Fleet Program	6.40	12.50
BUR	GSE	10.19	6.07
BUR	Zero-Emission Shuttle Bus Program	0.11	0.10

Potential SIP credit by airport by AQIP/AQIM measure (cont'd)

Airport	AQIP/AQIM Measure	2023 NOx Reductions (tpy)	2031 NOx Reductions (tpy)
JWA	GSE	14.53	7.46
JWA	Jet Fuel Delivery Trucks	1.52	1.13
JWA	Parking Shuttle Bus Electrification	1.34	1.06
LGB	GSE	0.92	0.49
ONT	GSE	7.83	9.93

Total Potential NOx SIP credit from SIP creditable AQIP/AQIM measures

	2023 (tons per day)	2031 (tons per day)
SIP creditable Emission Reductions	0.52	0.38

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