

Potential Changes to the PERP Regulation and Portable Engine ATCM



**March 10, 2016
Sacramento**

California Environmental Protection Agency
Air Resources Board



Questions/Comments During Workshop

- Please hold all questions until after presentation

- For those viewing remotely, you may submit questions via email at portable@arb.ca.gov

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Background

- PERP Regulation effective September 17, 1997
- Voluntary program for registration
 - Allows for Statewide operation of engines & eq. units
 - Districts retain permit authority
 - ARB sets requirements, Local Districts enforce
- Approximately 39,000 units
 - 30,500 engines
 - 4,500 equipment units
 - 4,000 TSE



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Background (con't)

- Portable ATCM effective March 11, 2005
- Part of the Diesel Risk Reduction Plan
 - New engine standards (Tier 4, etc.)
 - Cleaner diesel fuel (15 ppm)
 - Replacement of older engines
- DPM Reduction Strategies
 - Tier 0 phase out
 - Permit eligibility
 - Fleet average



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Current Requirements

- Tier 0 engines removed from service since 2011
 - Except emergency & low use (2017)
- Strict eligibility for PERP and local permits
- Fleet standards currently in effect (≥ 50 bhp)

Date	<175 bhp	175 to 750 bhp	>750 bhp
1/1/13	0.3	0.15	0.25
1/1/17	0.18	0.08	0.08
1/1/20	0.04	0.02	0.02

- Fleet definition based on Responsible Official

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Current Certified PERP Inventory

Engine Tier	Number of Engines	% of PERP Inventory	Average PM Emission Factor (g/bhp-hr)
1	4673	17%	0.17
2	6261	22%	0.13
3	11946	43%	0.13
T4i	4320	15%	0.02
T4f	827	3%	0.02

✓ More than 50% of fleets in PERP cannot meet 2017 standards

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Air Districts With Largest Portable Engine Population

Engine Tier	South Coast	% of PERP Inventory	San Joaquin Valley	% of PERP Inventory	Bay Area	% of PERP Inventory
1	1,944	7%	550	2%	770	3%
2	2,293	8%	1256	4%	1130	4%
3	4,273	15%	2626	9%	2250	8%
iT4	2,119	8%	616	2%	762	3%
T4f	397	1%	101	0%	179	1%
Total	11,026	39%	5149	18%	5091	18%

❖ SCAQMD & SJVAPCD are non-attainment for PM_{2.5}

Opening the Portable ATCM

- Compliance with future fleet requirements projected to be very difficult
 - ATCM adopted 12 years ago (before T4 was created)
 - Lack of retrofits (only 7 engines total)
 - Delay in availability and high cost of Tier 4 engines
 - Abundance of flex engines (>15% of PERP inventory)
- Necessary to revise fleet requirements due to the lack of needed technology

ATCM Fleet Requirements

Potential Strategy: Tier phase-out for all fleets

Tier of Engine	Engines 50 - 750 bhp		Engines >750 bhp
	Regular Fleet	Small Fleet	
1	Year TBD	Year TBD	Year TBD
2	Year TBD	Year TBD	Year TBD
3	Year TBD	Year TBD	N/A

- Redefine fleet to be based on common ownership
- Small fleet would have no more than 750 bhp total
 - possible later schedule
- Flex engines comply based on actual emission level
- Possible faster schedule for PM_{2.5} non-attainment Air Districts

ATCM Fleet Requirements

Potential Strategy: Potential fleet average option for large fleets only

Fleet Standard Compliance Date	Engines ≥ 50 bhp (g/bhp-hr)
Year TBD	Standard TBD
Year TBD	Standard TBD

➤ Large fleets would have >5000 bhp
➤ Potential Restriction for PM_{2.5} non-attainment Air Districts

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Other Potential ATCM Updates

- Possible credits for fleets that meet the current 2017 Portable ATCM Standards
- Add incentives for using advanced technologies (i.e. fuel-cells)
- Exempt agricultural engines (add definition)
- Clarify emergency event engines exemption

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Other Potential ATCM Updates

- Exempt engines on all 2-engine vehicles subject to Off-Road Regulation – currently only certain vehicle types exempt
- Remove obsolete language (e.g. Tier 0 extension, airport MOU, etc.)
- Add prohibition of sale of non-compliant engines

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Potential PERP Regulation Updates

- Exempt agricultural engines (add definition)
- Add eligibility for engines on 2-engine vehicles subject to Off-Road Regulation
- Clarify fuel use (red-dye okay)
- Redefine Providers of Essential Public Services (PEPS)
- Review multiple engine inspection discount
- Evaluate Fees

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Emissions Inventory

- Emissions inventory provides detail on amount of pollution emitted from sector
 - Based on engine population, horsepower, hours of activity, age of the engines, load (how hard the engine is run)
- Inventory data determines need for emissions reductions and effectiveness of strategies
- Accuracy of inventory important for rulemaking decisions and assessing impact on industry

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Inventory Update

- Updating inventory in 2016 in support of regulatory update
 - Updated inventory will be fleet-specific, population and ages based on data provided
 - Goal of reflecting equipment turnover and purchasing within each fleet, determine impact of rule scenarios

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Data Needs for Inventory

- Hourly activity, fuel use, and engine load information needed
 - Fleet records or individual engine records on activity and fuel use needed to supplement available data
 - Information shared with ARB is confidential
 - Any format, any and all data welcome
 - ARB may have draft baseline inventory by early summer
 - Contact inventory staff at Cory.Parmer@arb.ca.gov

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Next Steps

- Continue to work with stakeholders
 - Workgroup participation
- Draft proposed regulatory language
- Public workshops Fall of 2016
- Draft Staff Report (ISOR)
- Board hearing March 2017



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For more information:
www.arb.ca.gov/portable/portable.htm

Sign up for the portable listserv:
www.arb.ca.gov/listserv/listserv_ind.php?listname=portable

Send questions or comments via email:
portable@arb.ca.gov
