

**Public Workshop  
Proposed Amendments to  
Rule 2-Definitions  
February 5, 2019**



**Ventura County  
Air Pollution  
Control District**

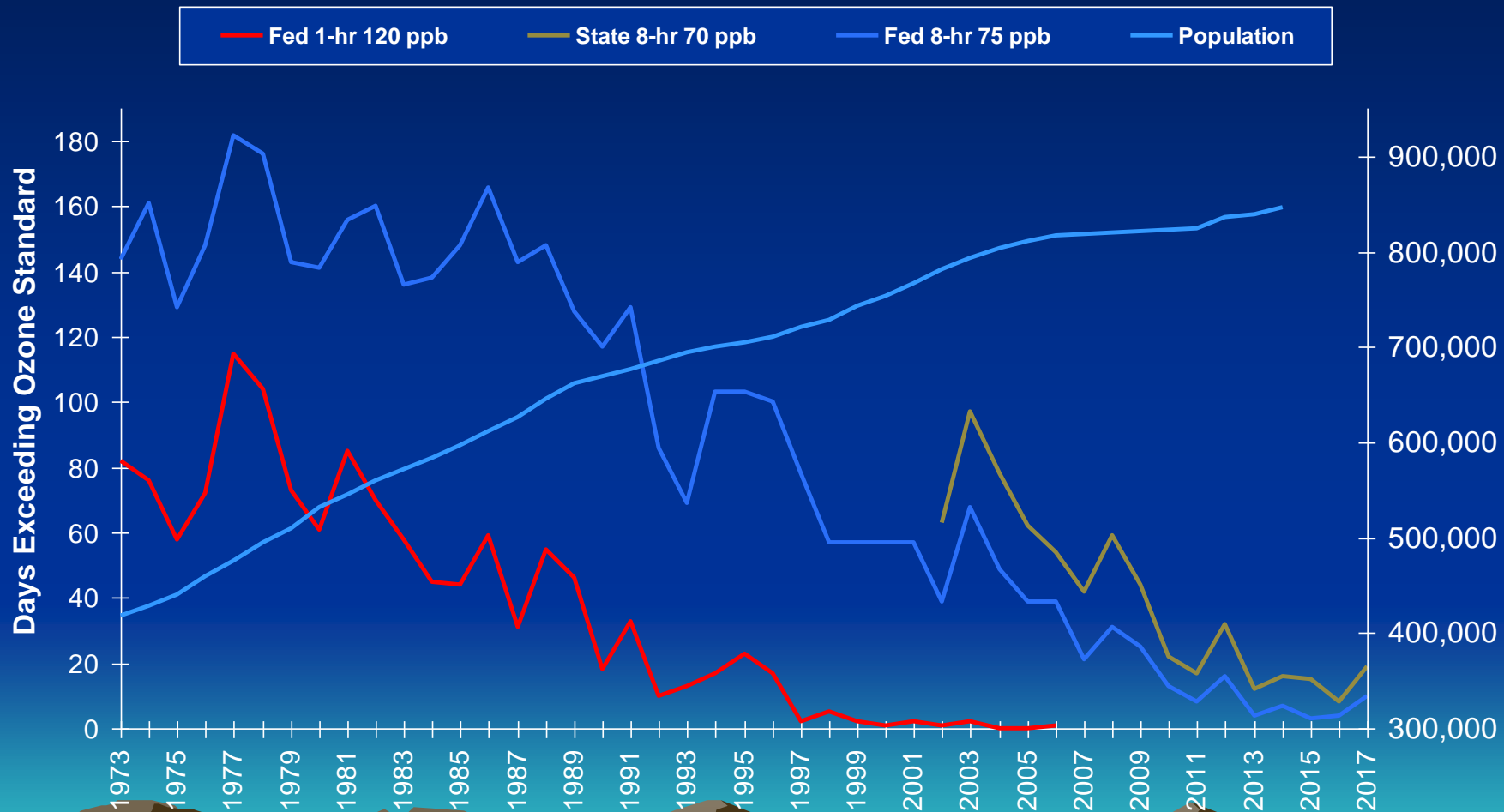
# Agenda

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- Air Quality (Ozone), California Clean Air Act
- Legislative Authority
- Background
- Proposed changes
- Impacts of proposed changes



# Days Over Ambient Ozone Standards – Ventura County



Ventura County  
Air Pollution  
Control District

# Legislative Authority

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The District is designated “severe” nonattainment for 2015 federal and state 8-hour ozone standard.

- Clean Air Act (CAA) section 172(c)(1)
  - “Reasonably available control measures” (RACM)
- HSC Section 40919
  - Best Available Retrofit Control Technology (BARCT)



# Background

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- Definition for exempt organic compounds has been revised 4 times since 1992
- Reasons for adding additional compounds:
  - Consistency with EPA definitions
  - Provide more alternative compounds and still be in compliance
  - use to comply with increasingly stringent ROC limits
  - Encourage the use of more environmentally friendly compounds (GHG potential, GWP)



# Proposed compounds to be added

Federal Register Reference	CAS Number	EPA Exempt Compound	K <sub>OH</sub>	MIR (mole basis)	MIR (mass basis)
	74-84-0	Ethane	2.4 x 10 <sup>-13</sup>	8.12	0.27
69 FR 69290	375-03-1	1,1,1,2,2,3,3-heptafluoro-3-methoxypropane (HFE 7000)	1.2 x 10 <sup>-14</sup>	ND	ND
77 FR 37610	29118-24-9	trans-1,3,3,3-tetrafluoropropene (HFO-1234ze)	9.25 x 10 <sup>-13</sup>	11.20	0.098
78 FR 11101	102687-65-0	trans-1-chloro-3,3,3-trifluoropropene (HFO-1233zd)	4.4 x 10 <sup>-13</sup>	5.22	0.04
72 FR 2193	132182-92-4	1,1,1,2,2,3,4,5,5,5-decafluoro-3-methoxy-4-trifluoromethyl-pentane (HFE 7300)	1.5 x 10 <sup>-14</sup>	ND	ND
69 FR 69290	297730-93-9	3-ethoxy-1,1,1,2,3,4,4,5,5,6,6,6-dodecafluoro-2-(trifluoromethyl)hexane (HFE 7500)	2.2 x 10 <sup>-15</sup>	ND	ND
78 FR 62451	754-12-1	2,3,3,3-tetrafluoropropene (HFO-1234yf)	9.16 x 10 <sup>-15</sup>	ND	0.28
79 FR 17037	124-68-5	2-Amino-2-methyl-1-propanol (AMP)	ND	ND	0.25
81 FR 50330	406-78-0	1,1,2,2-Tetrafluoro-1-(2,2,2-trifluoroethoxy) ethane (HFE-347pcf2)	9.16 x 10 <sup>-15</sup>	<0.26	<0.0013
83 FR 19026	692-49-9	cis-1,1,1,4,4,4-hexafluorobut-2-ene (HFO-1336mzz-Z)	4.91 x 10 <sup>-13</sup>	6.6	0.04



# Applicability of Proposed Compounds

- Following are recommended by the manufacturer:
  - Refrigerant
  - Aerosol propellant
  - Blowing agent
  - Solvent
  - Heat transfer
  - Lubrication deposition
  - Electronic testing
  - Electronic testing
  - Dewatering of electronic equipment,
  - Cleaning application,
  - Adhesive and coating additive,
  - Color dispersant



# EPA Exempt Compounds Not Included

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CAS Number	EPA Exempt Compound
1691-17-4	1,1,1',1'-Tetrafluorodimethyl ether (HFE 134)
78522-47-1	Bis(difluoromethoxy)difluoromethane (HFE-236ca12)
188690-78-0	1,2-bis(difluoromethoxy)-1,1,2,2-tetrafluoroethane (HFE-338pcc13)
N/A	1-(Difluoromethoxy)-2-[(difluoromethoxy)difluoromethoxy]-1,1,2,2-tetrafluoroethane (HFE-43-10pccc)





# Additional changes

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- Addition of CAS numbers
  - Provides a universal identifier, to ease identification of compounds with multiple names.
  - Does not change any compounds



# Economic & Environmental Impacts

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- Cost Effectiveness – Not required
- Socioeconomic Impact – N/A
  - California Health and Safety Code Section 40728.5
- Environmental Impacts – Categorically exempt
  - California Public Resource Code Section 21159
  - Section 15307 and 15308 of the State CEQA Guidelines



# Upcoming Dates

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- Advisory Council Meeting
  - Tuesday, February 26, 2019
- Board Meeting
  - Tuesday April 9, 2019

