

Paso del Norte Air Quality Report



February 11, 2021

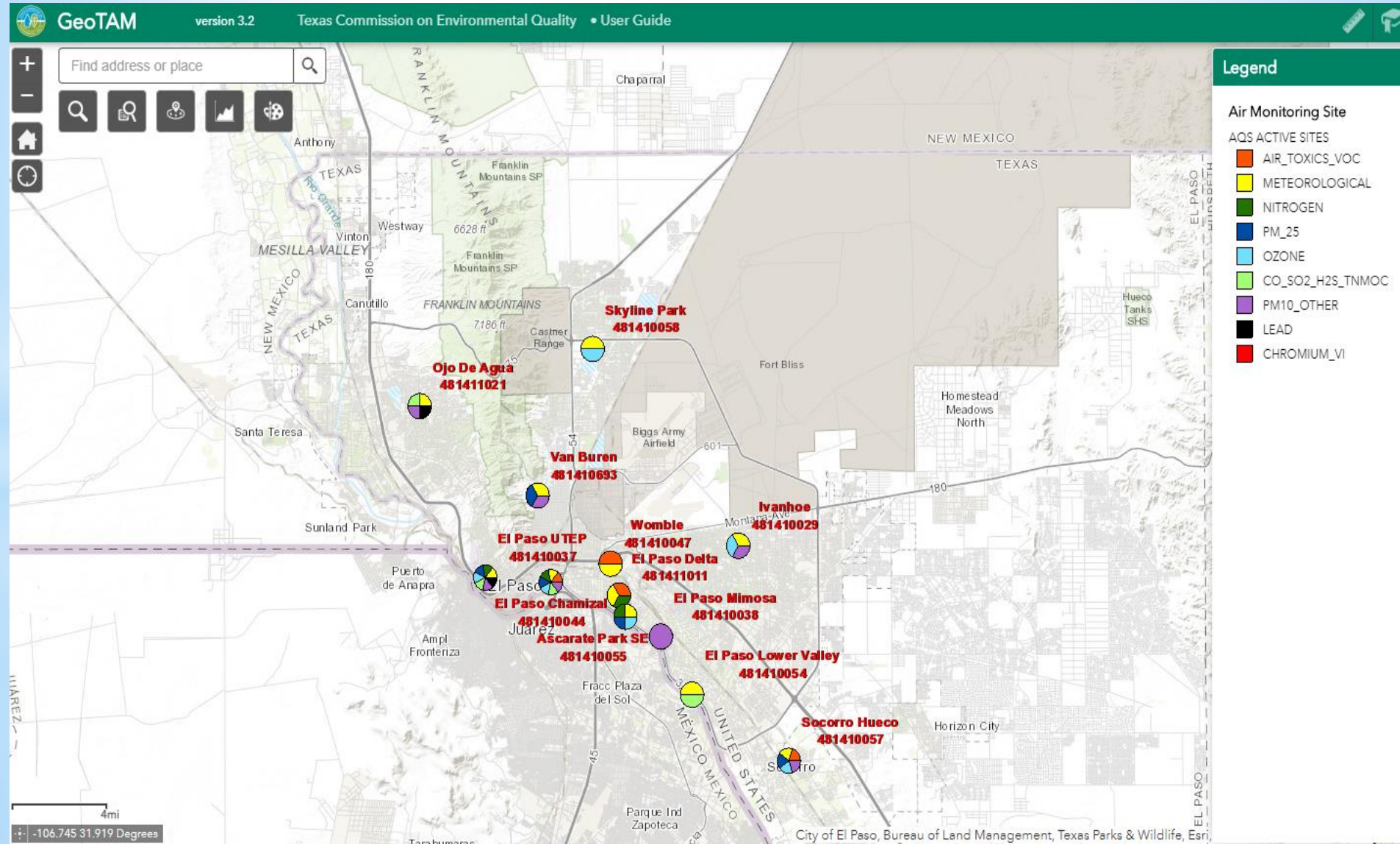
Carlos Rincon, US EPA Region 6

* Overview

- * Current air monitoring networks
- * January-December 2020 data by pollutant
- * Design Values
- * Open discussion

Paso del Norte current air monitoring stations

El Paso, Texas



Paso del Norte current air monitoring stations

Doña Ana County, New Mexico



New Mexico Environment Department

NewMexico.gov

Current Statewide Readings

Current Air Quality

Current Status

Reports

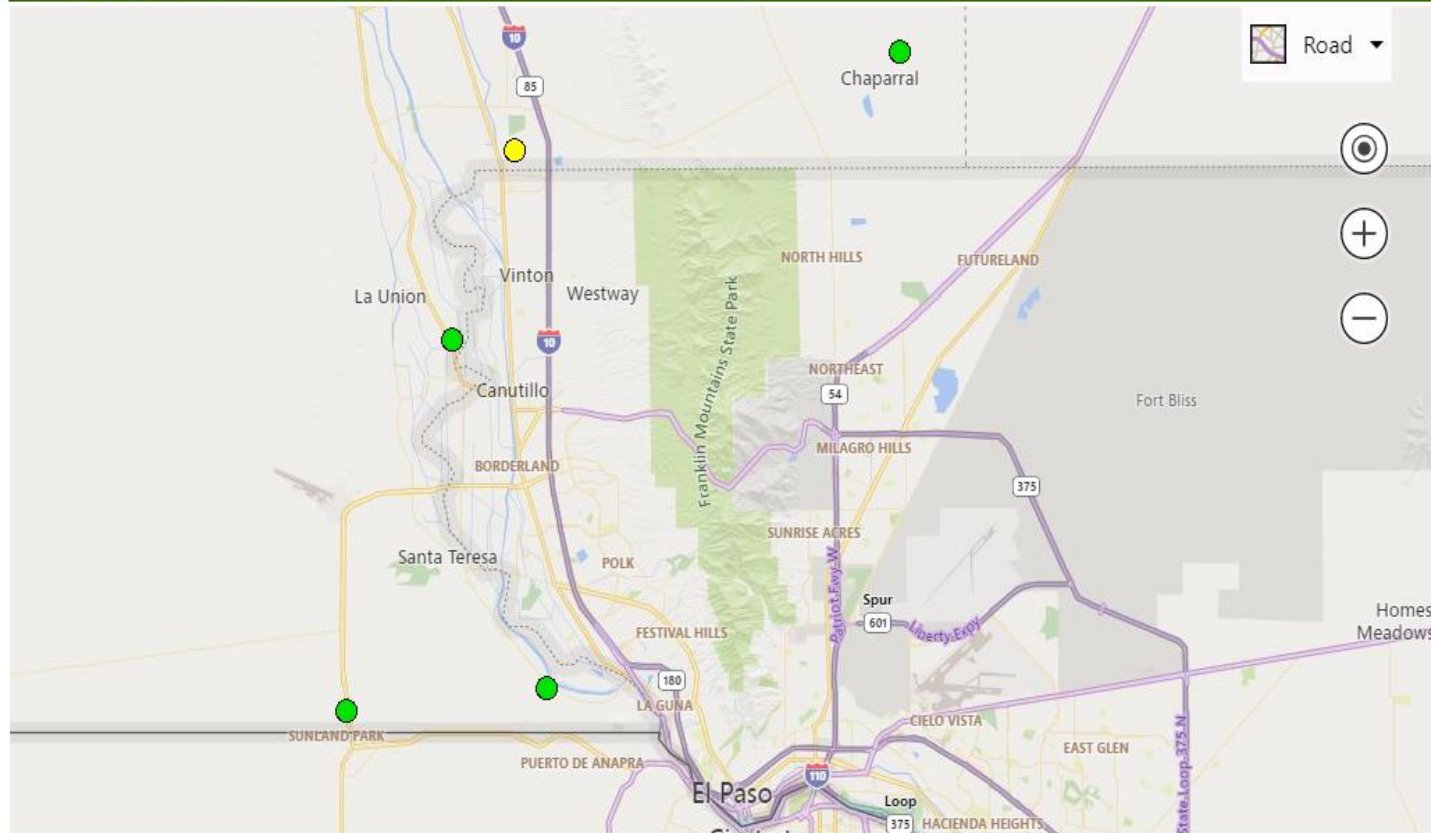
Publications

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Air Quality - All Sites

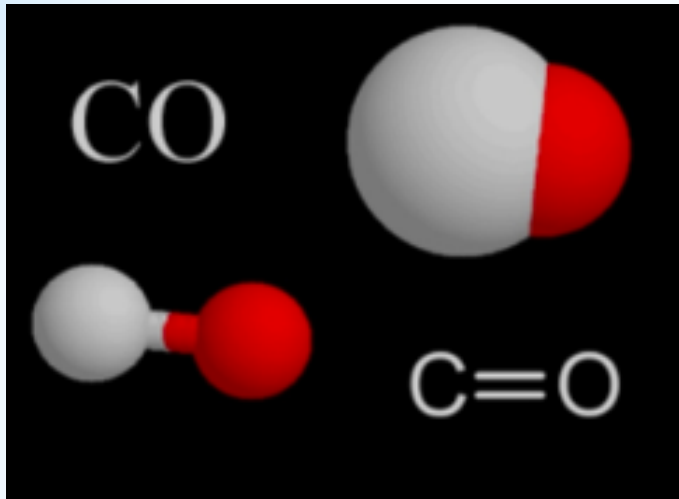


Index Legend

- Good
- Moderate
- Unhealthy For Sensitive Groups
- Unhealthy
- Very Unhealthy
- Hazardous

Paso del Norte current air monitoring stations
Ciudad Juárez and UACJ

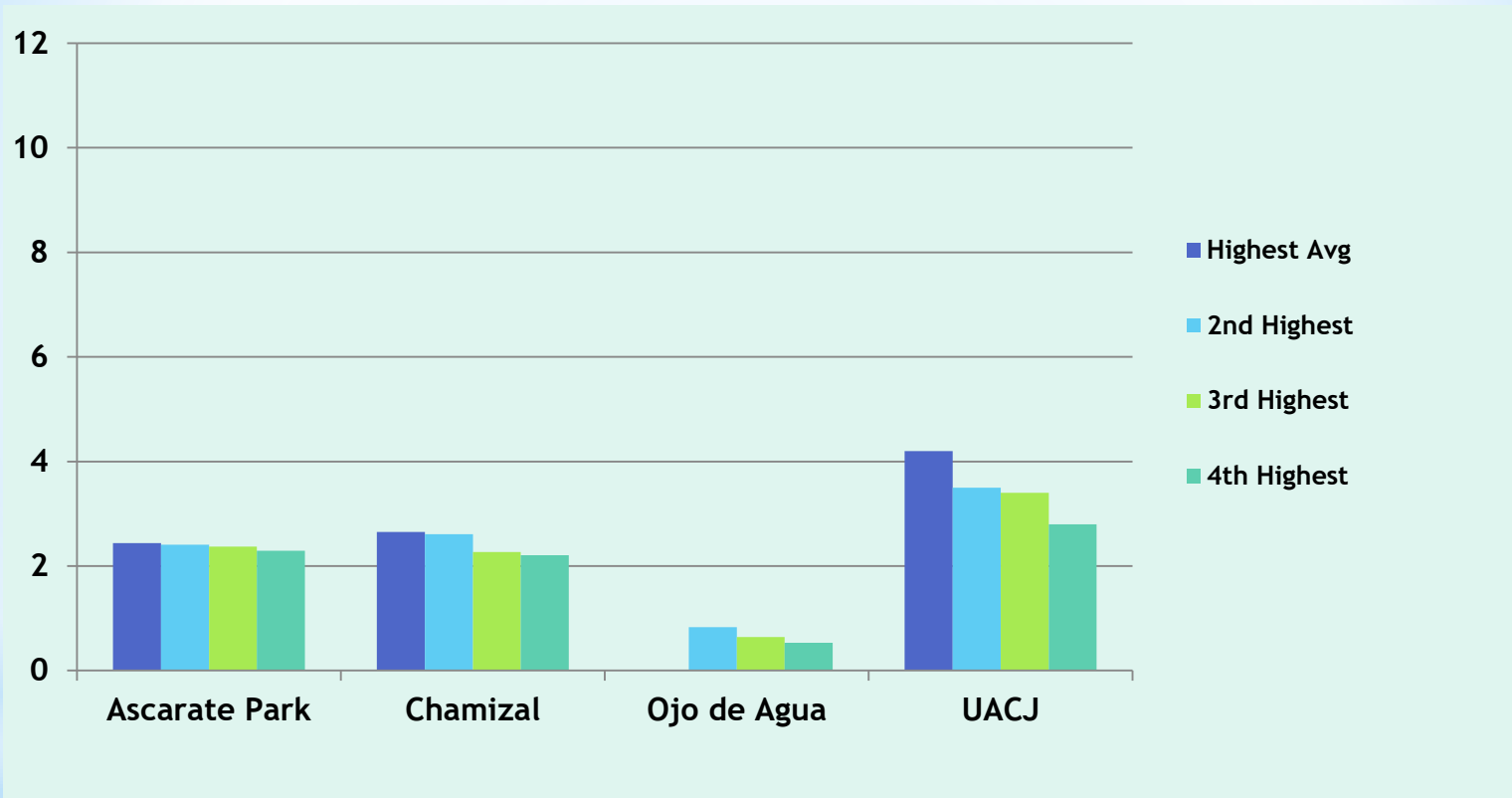




* Carbon monoxide (CO)
Monóxido de carbono

CO 8 Hr. Averages Four Highest Values in (ppm)

El Paso and UACJ
(January - December 2020)



The **U.S. federal standard, 9.0 ppm**, is violated when more than one reading at the same monitor in one calendar year is at or above that value.

The highest allowable limit in Mexico for CO is **11 ppm** in 8-hour rolling average.

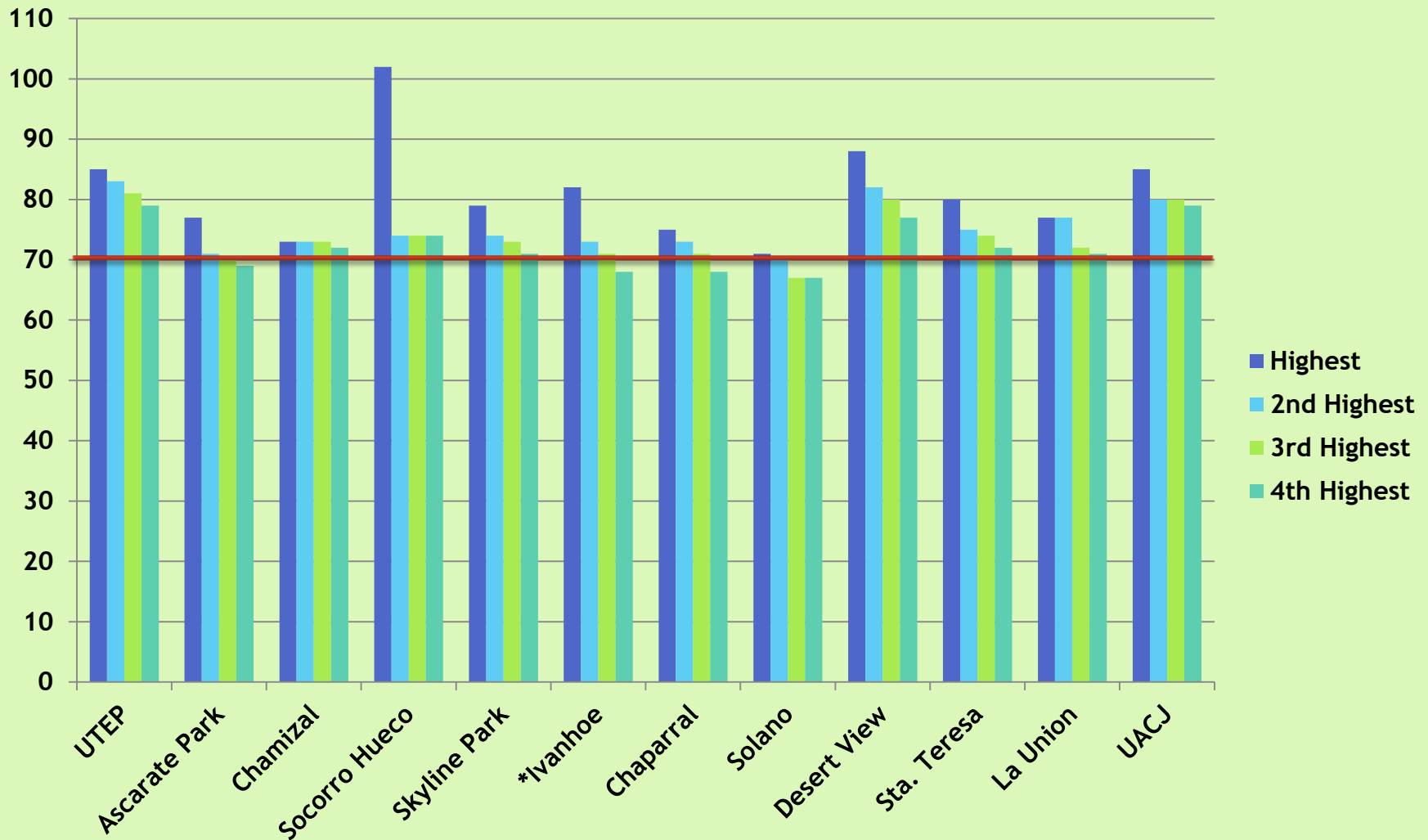


* Ozone (O_3)
Ozono

Ozone 8-Hour Averages (ppb)

Paso del Norte

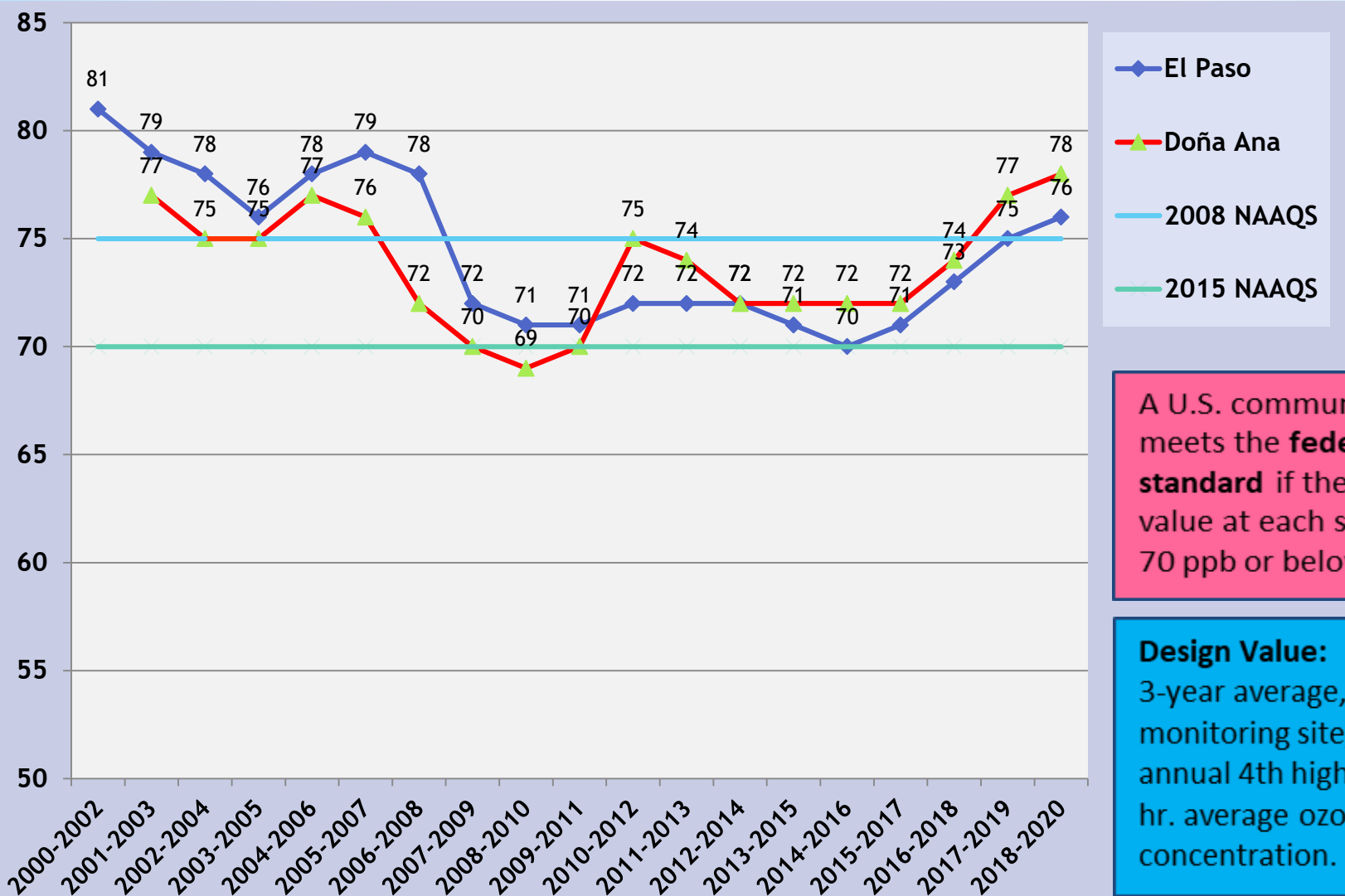
Four Highest Values (January - December 2020)



U.S. federal standard:
70 ppb for the 3-year average of the 4th
highest value.

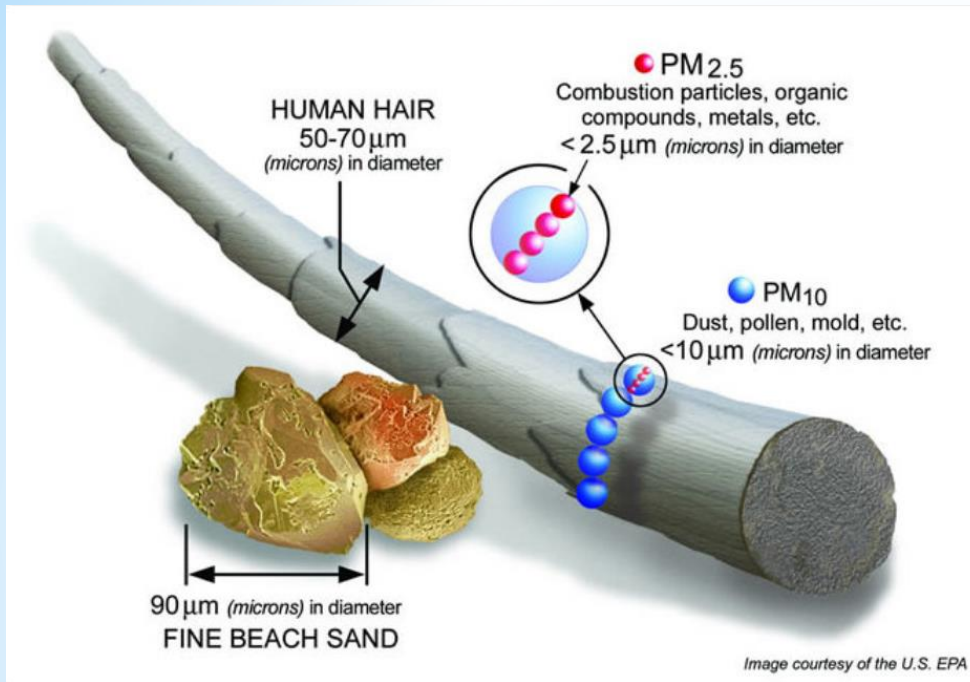
The highest allowable limit in Mexico for O₃ is
0.07 ppm (70 ppb) in 8-hour rolling mean.

Ozone 8-Hr. Design Values El Paso and Doña Ana County only (highest value of all sites in each area, 2002 - 2020)



A U.S. community meets the **federal standard** if the design value at each site is at 70 ppb or below.

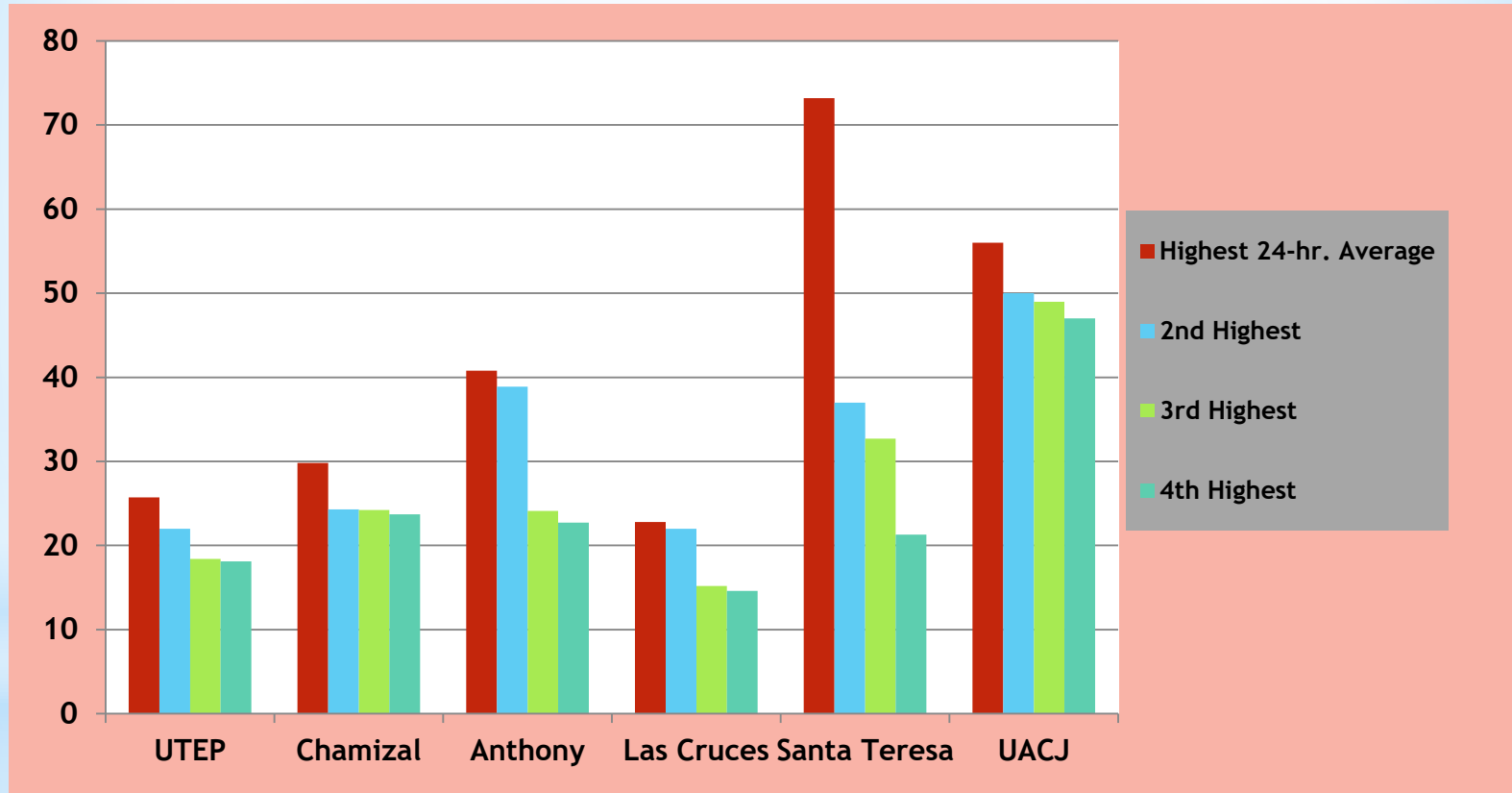
Design Value:
3-year average, at each monitoring site, of the annual 4th highest 8-hr. average ozone concentration.



* PM 2.5
* PM 10

* Particulate Matter (pm)
material particulado

PM_{2.5}
Four Highest 24-Hour Averages (µg/m³)
Paso del Norte
January - December 2020

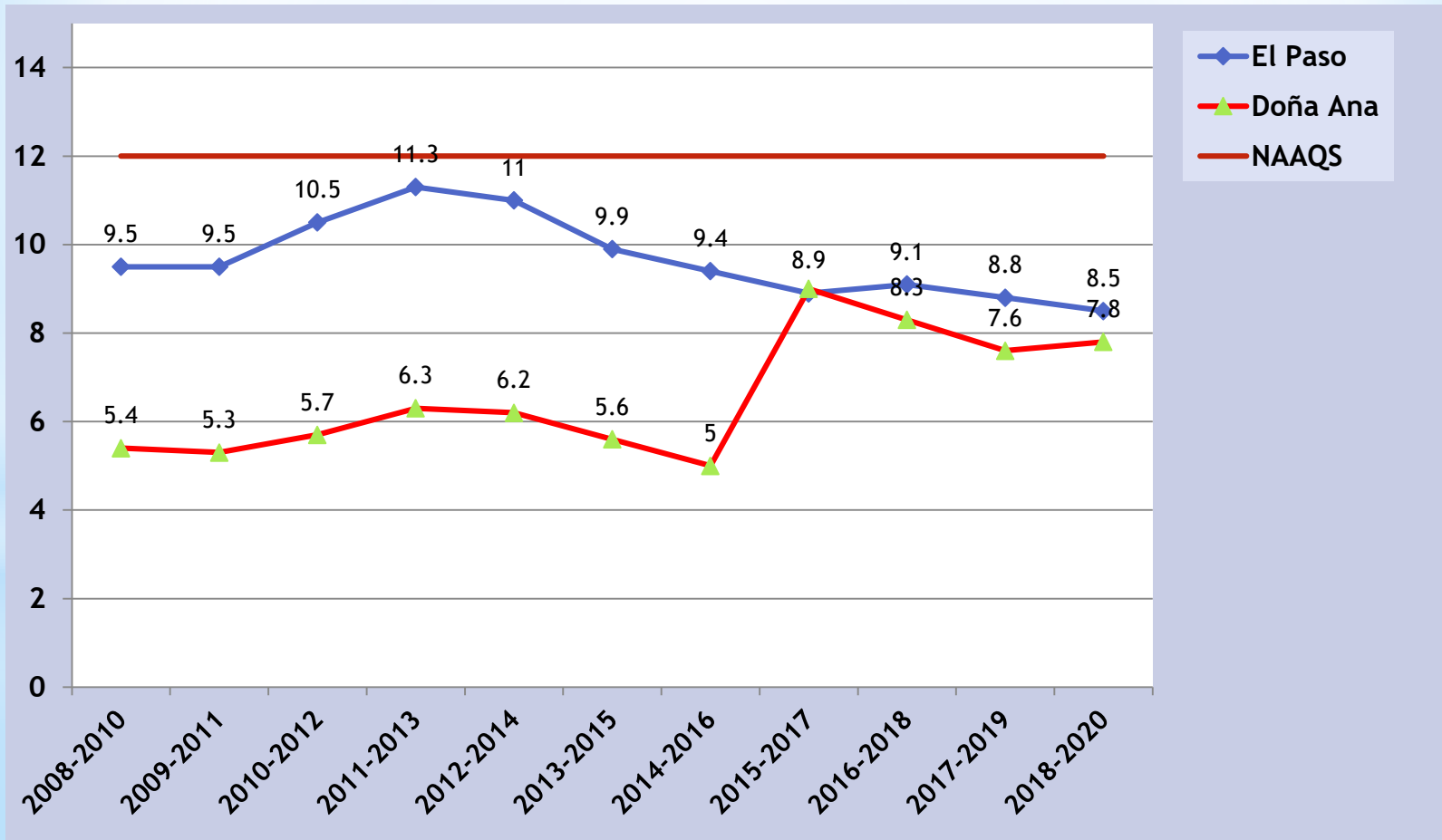


PM_{2.5}
Compliance with U.S. Federal Standards
El Paso and Doña Ana Counties

Annual Design Value

U.S. Standard

12 $\mu\text{g}/\text{m}^3$

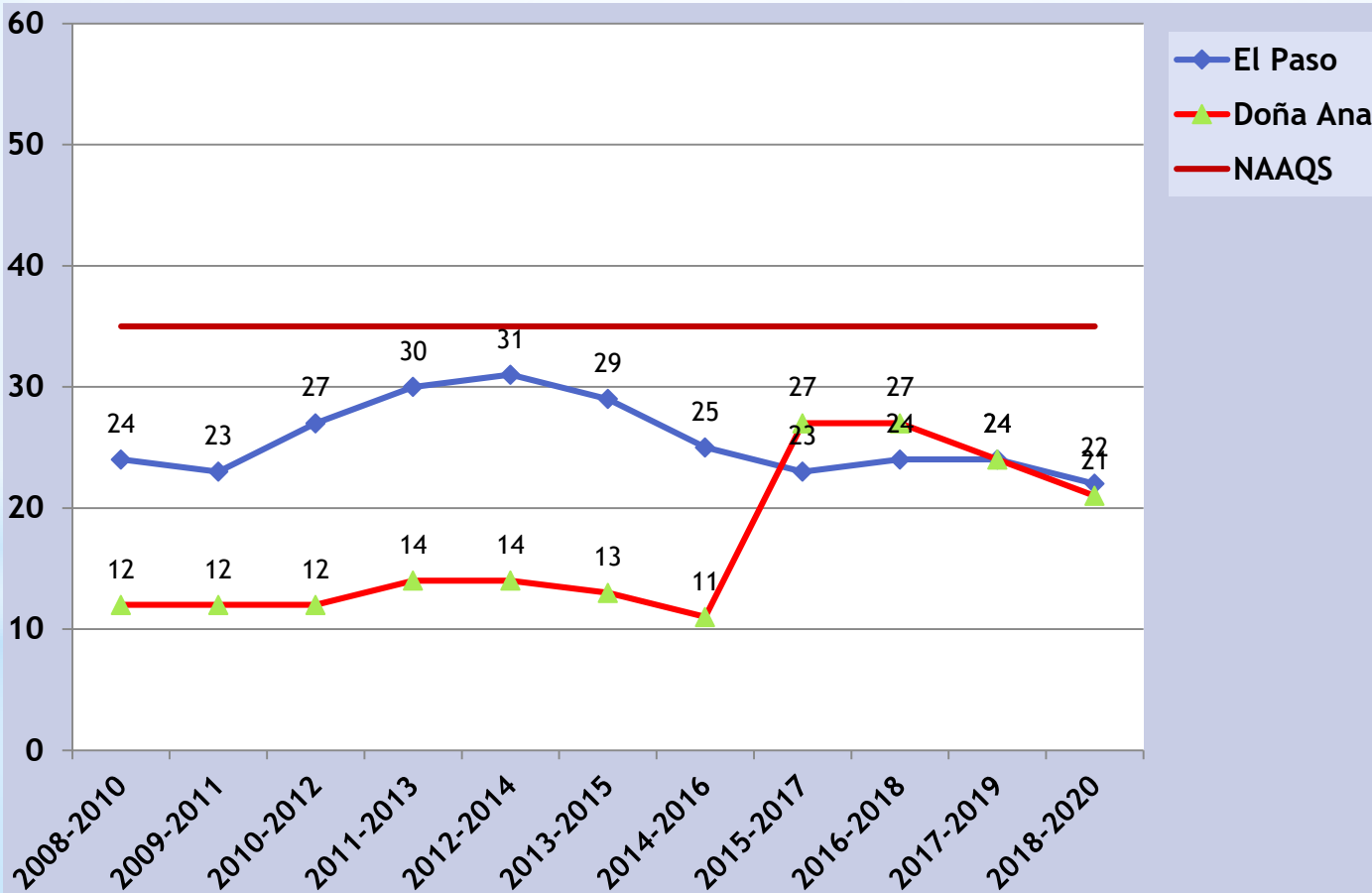


PM_{2.5}
Compliance with U.S. Federal Standards
El Paso and Doña Ana Counties

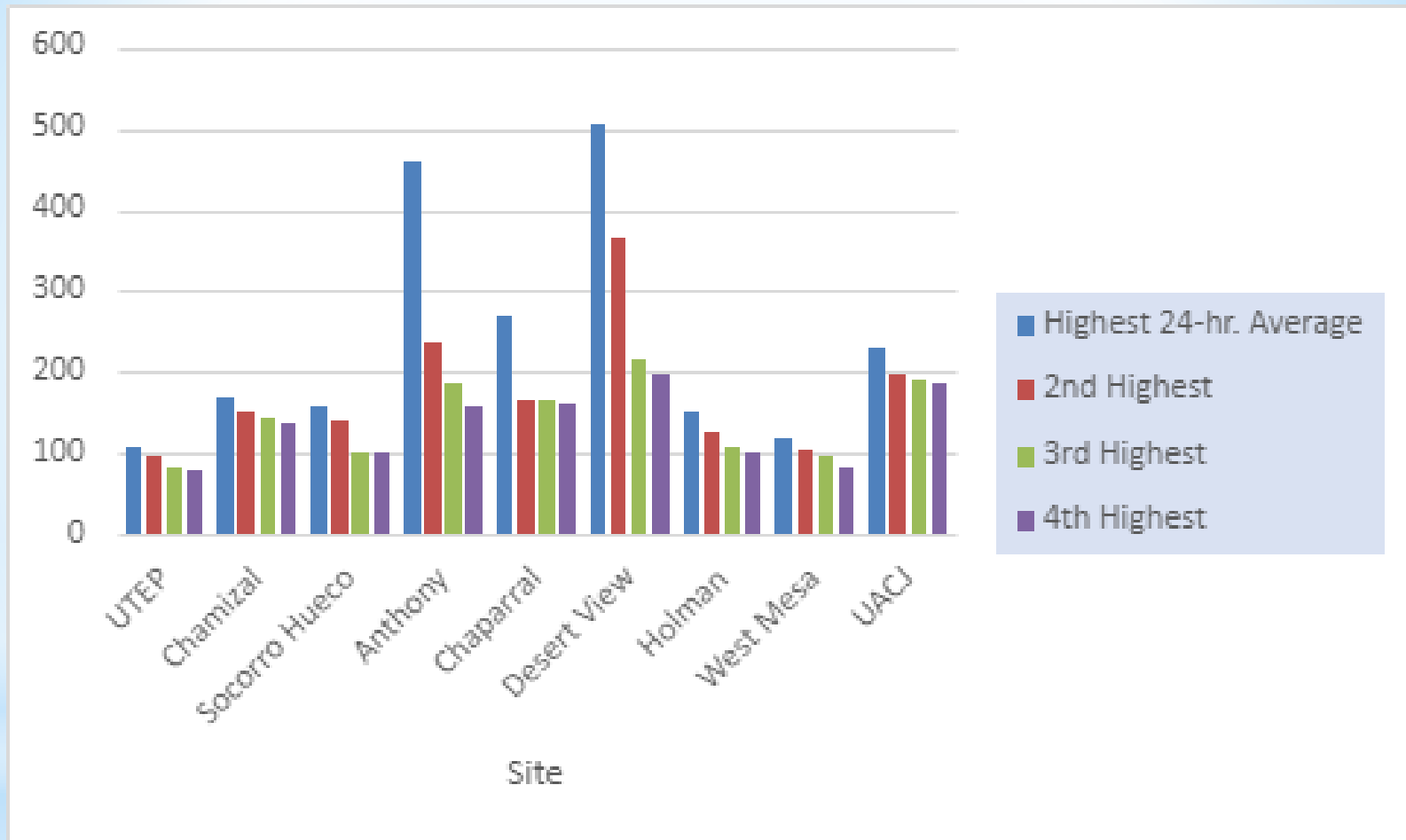
24-Hour Design Value

U.S. Standard

35 $\mu\text{g}/\text{m}^3$



PM₁₀
Four Highest 24-Hour Averages (µg/m³)
(January - December 2020)

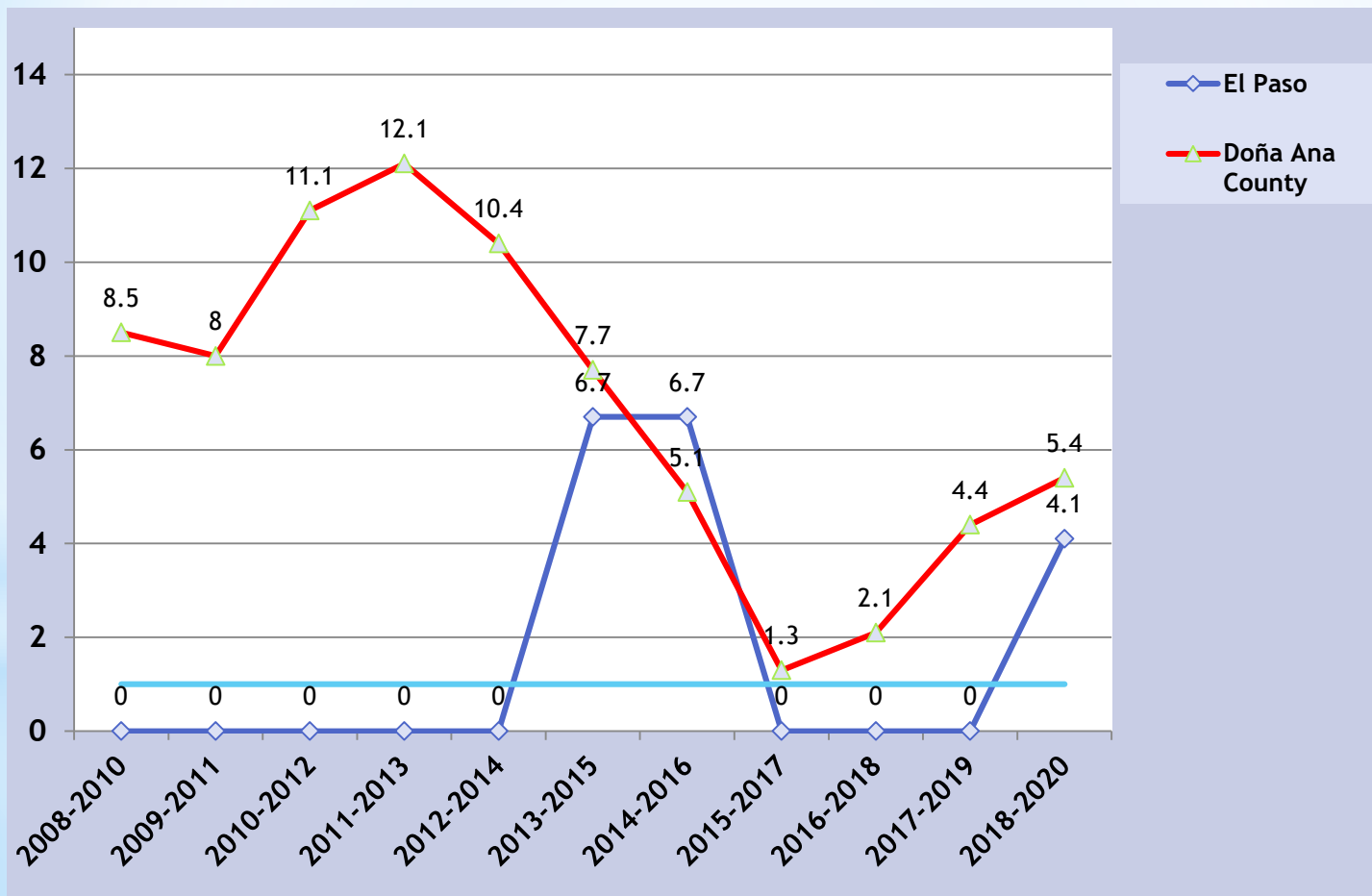


U.S. federal standard:
150 µg/m³, not to be exceeded
more than once per year on
average over three years at any
one monitor.

The highest allowable limit in
Mexico for PM_{2.5} is 45 µg m⁻³ in
daily averages.

PM₁₀
Compliance with U.S. National Ambient Air Quality Standard
for 24-Hour Design Value
El Paso and Doña Ana Counties
2018 - 2020

Estimated Number of Exceedances



Exceptional Events

High-Wind Blowing Dust PM₁₀ Exceedances of NAAQS in Doña Ana County

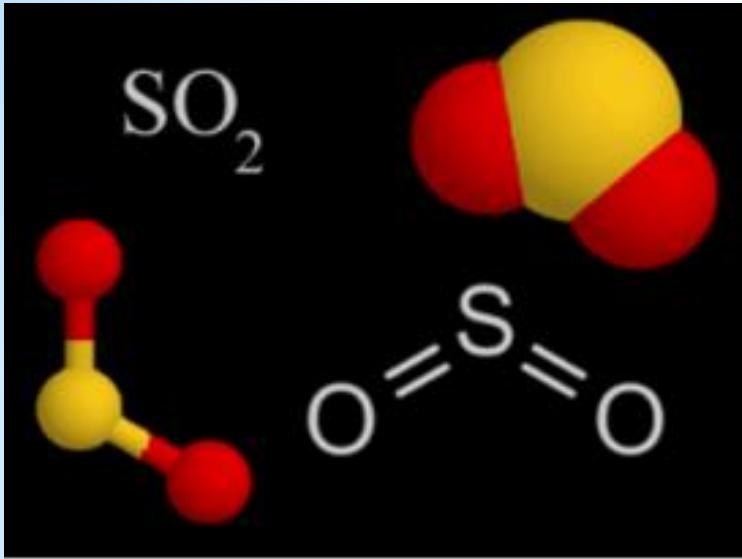
Year	Events	Observed Exceedances	Concentrations (µg/m ³)	EPA Review Process
2020	8	13	157- 504	AQS Flagged
2019	8	25	156-734	Preliminary Engagement
2018	7	18	158-326	Submitted to EPA for Review
2017	11	27	157-721	Concurrence
2016	11	28	162-689	Concurrence

UACJ Cumplimiento con los límites de exposición crónica | Media aritmética anual 2020

UACJ Compliance with chronic exposure limits | Annual arithmetical mean 2020

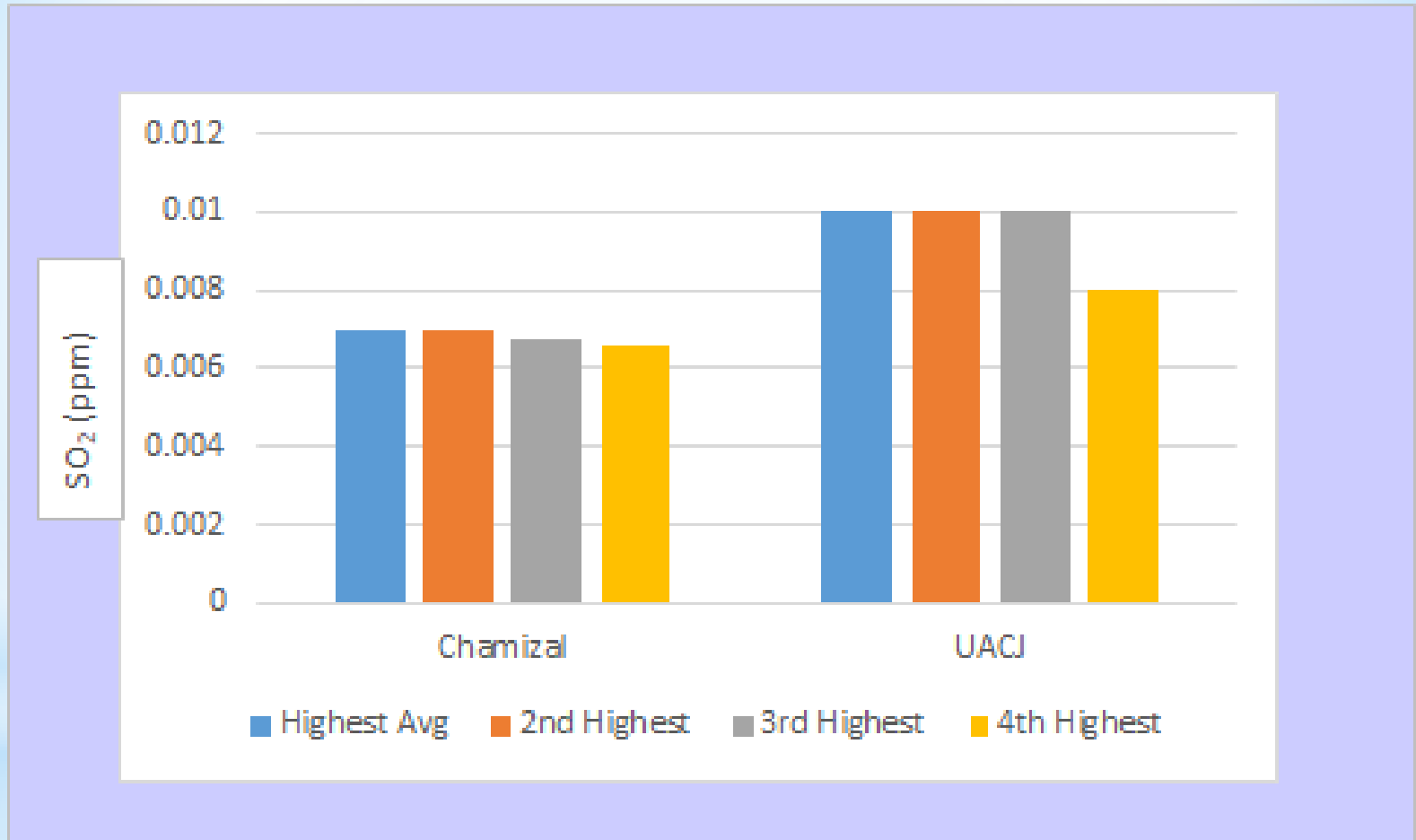
Parámetro Parameter	Límite de exposición crónica Chronical exposure limit	Promedio anual 2020 Annual mean 2020
PM _{2.5}	12 µg m ⁻³	ND
PM ₁₀	40 µg m ⁻³	ND

No se puede obtener el límite anual debido a que no se cumplió con el 75% de datos en 2 de los 3 trimestres de reporte según la NOM-025-SSA1-2014



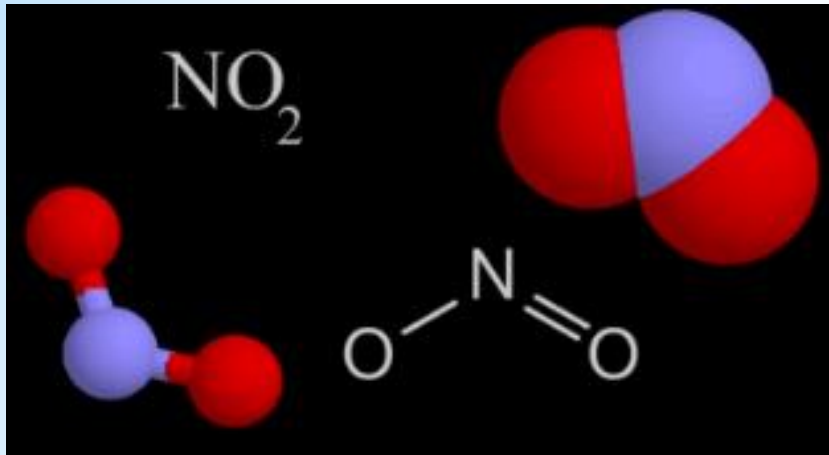
* Dióxido de azufre
Sulfur Dioxide SO₂

SO₂
Four Highest 1-Hour Averages (ppm)
El Paso and Ciudad Juarez
(January - December 2020)



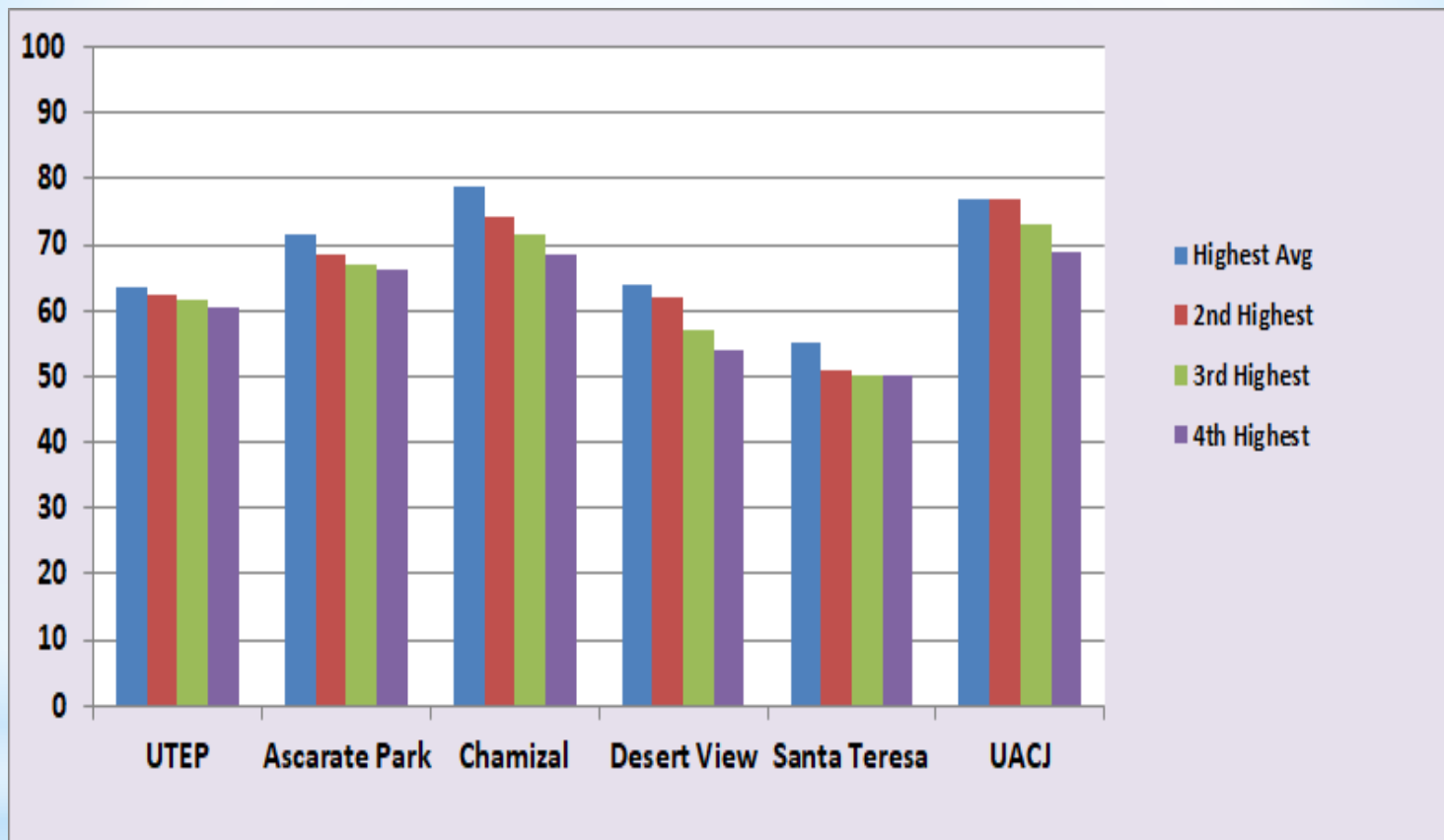
U.S. federal standard:
0.075 ppm, 99th percentile of 1-hour daily maximum concentrations, averaged over 3 years

The highest allowable limit in Mexico for SO₂ is **0.04 ppm** in daily averages.



* Dióxido de nitrógeno
Nitrogen Dioxide NO₂

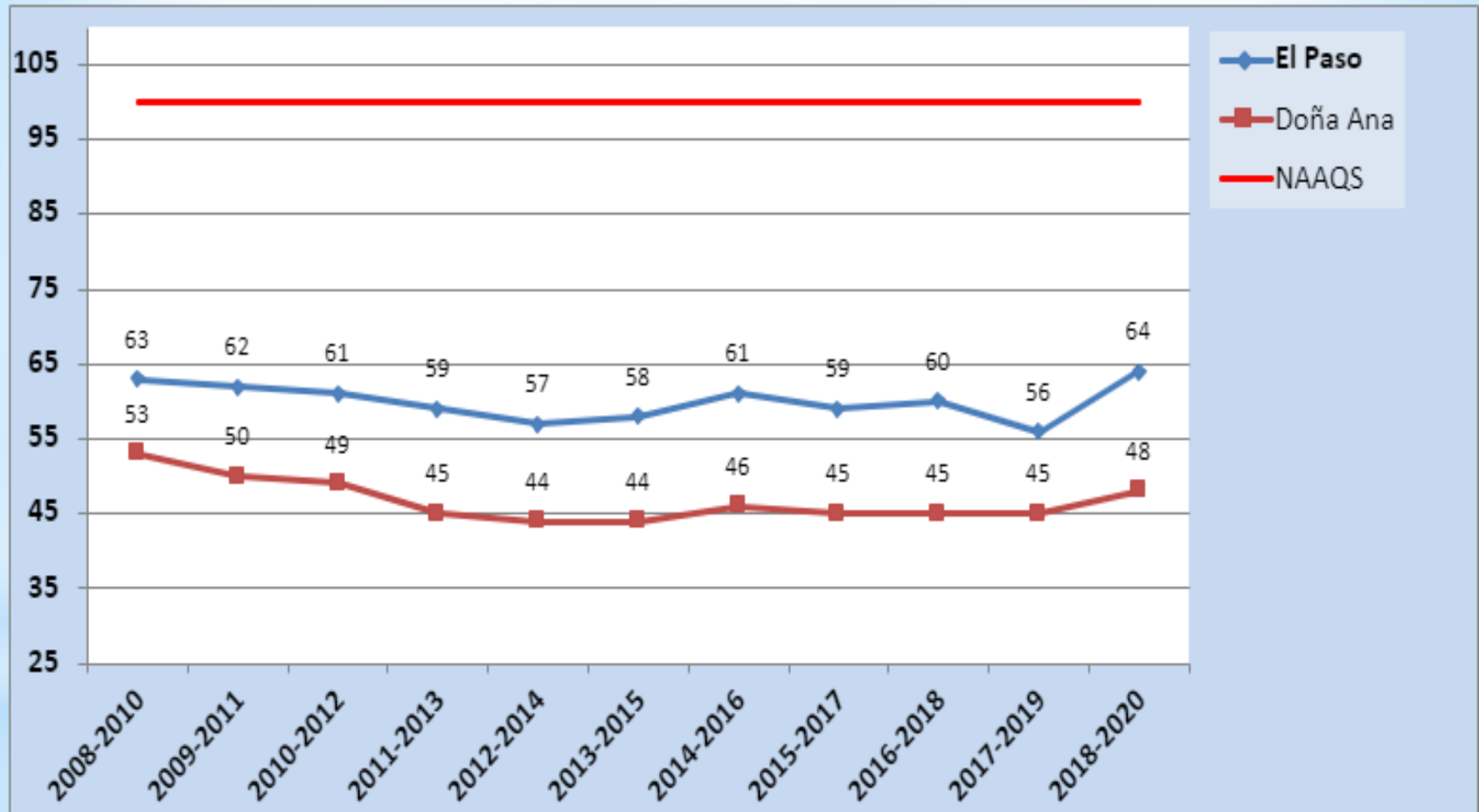
NO₂
Four Highest 1-Hour Averages (ppb)
El Paso del Norte
(January - December 2020)



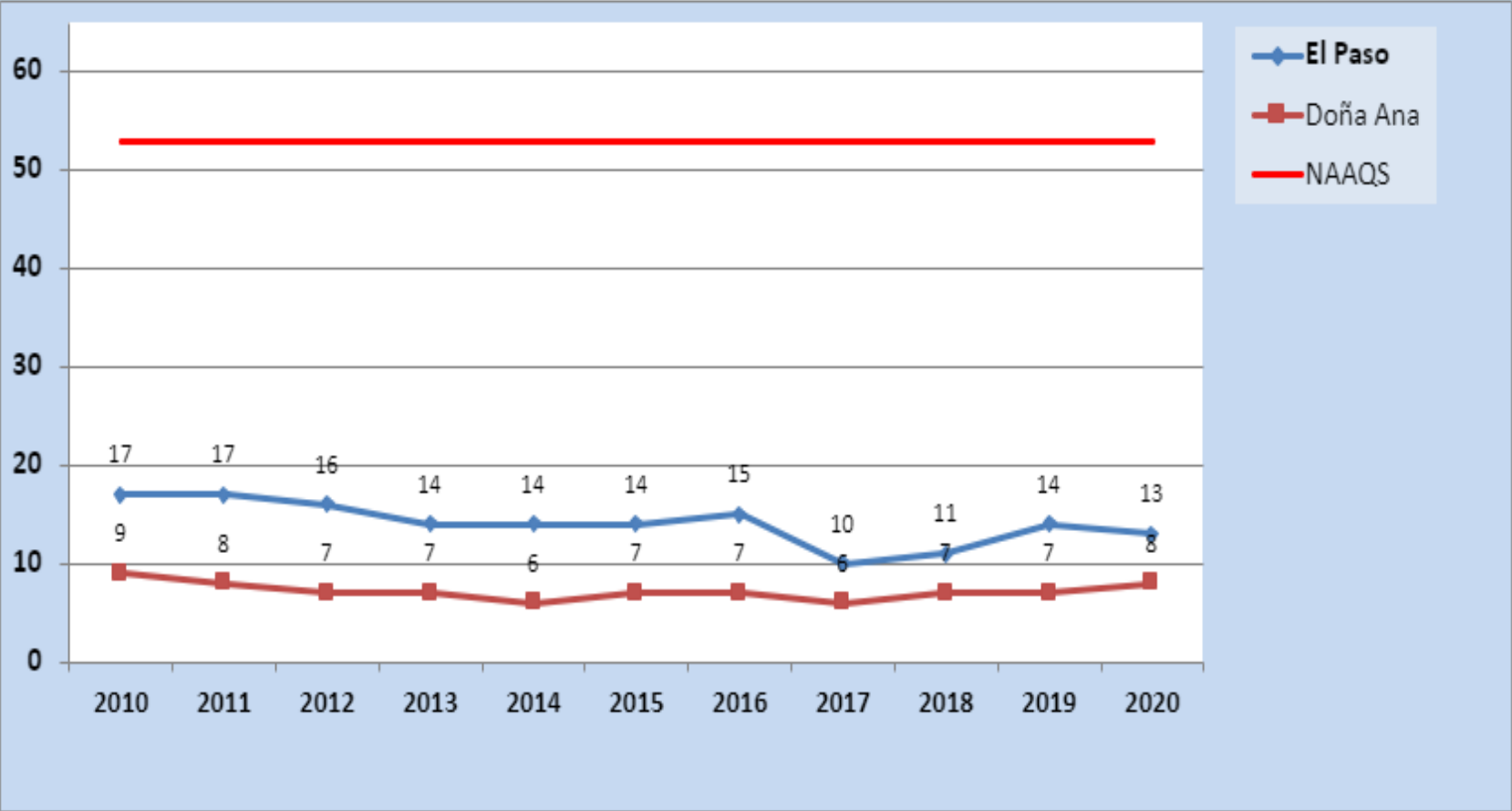
U.S. federal standard:
100 ppb 98th percentile of 1-hour daily
maximum concentrations, averaged over 3 years

The highest allowable limit in Mexico for
NO₂ is **210 ppb** in hourly averages.

NO₂
Design Values 1-Hour Averages (ppb)
El Paso & Doña Ana Counties



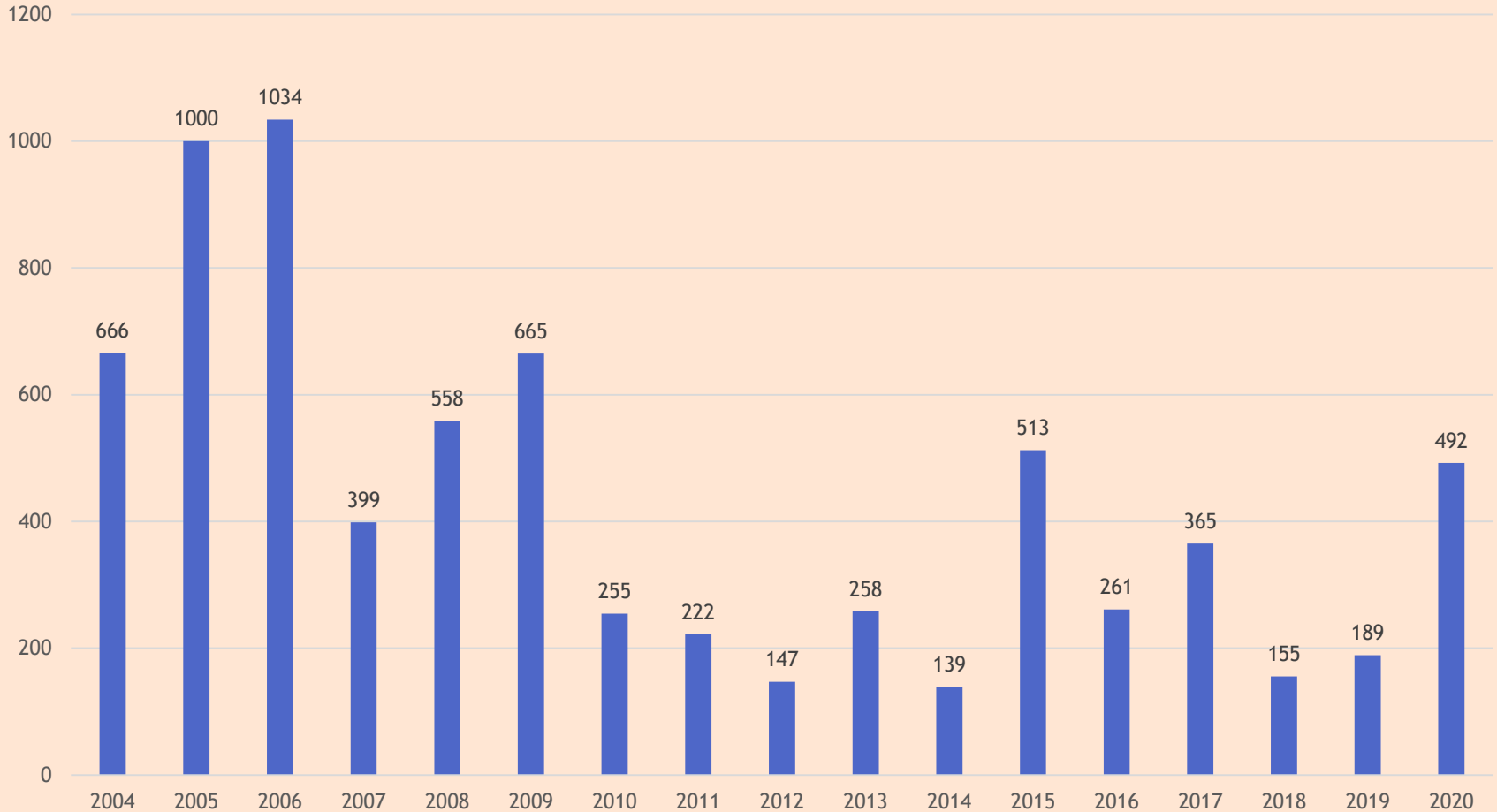
NO₂
Design Values Annual Mean (ppb)
El Paso & Doña Ana Counties



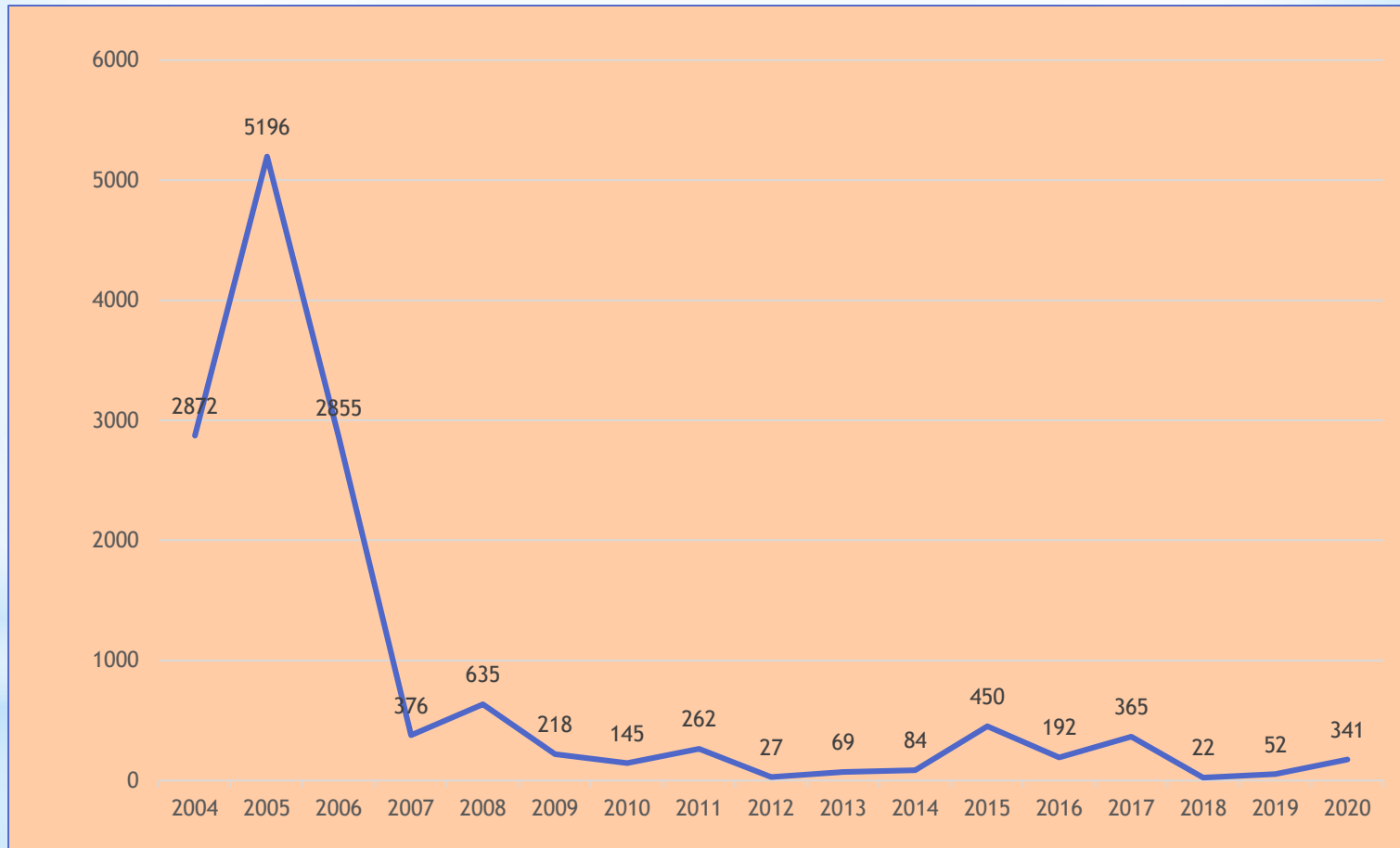


* Hydrogen Sulfide (H₂S)
Sulfuro de hidrógeno

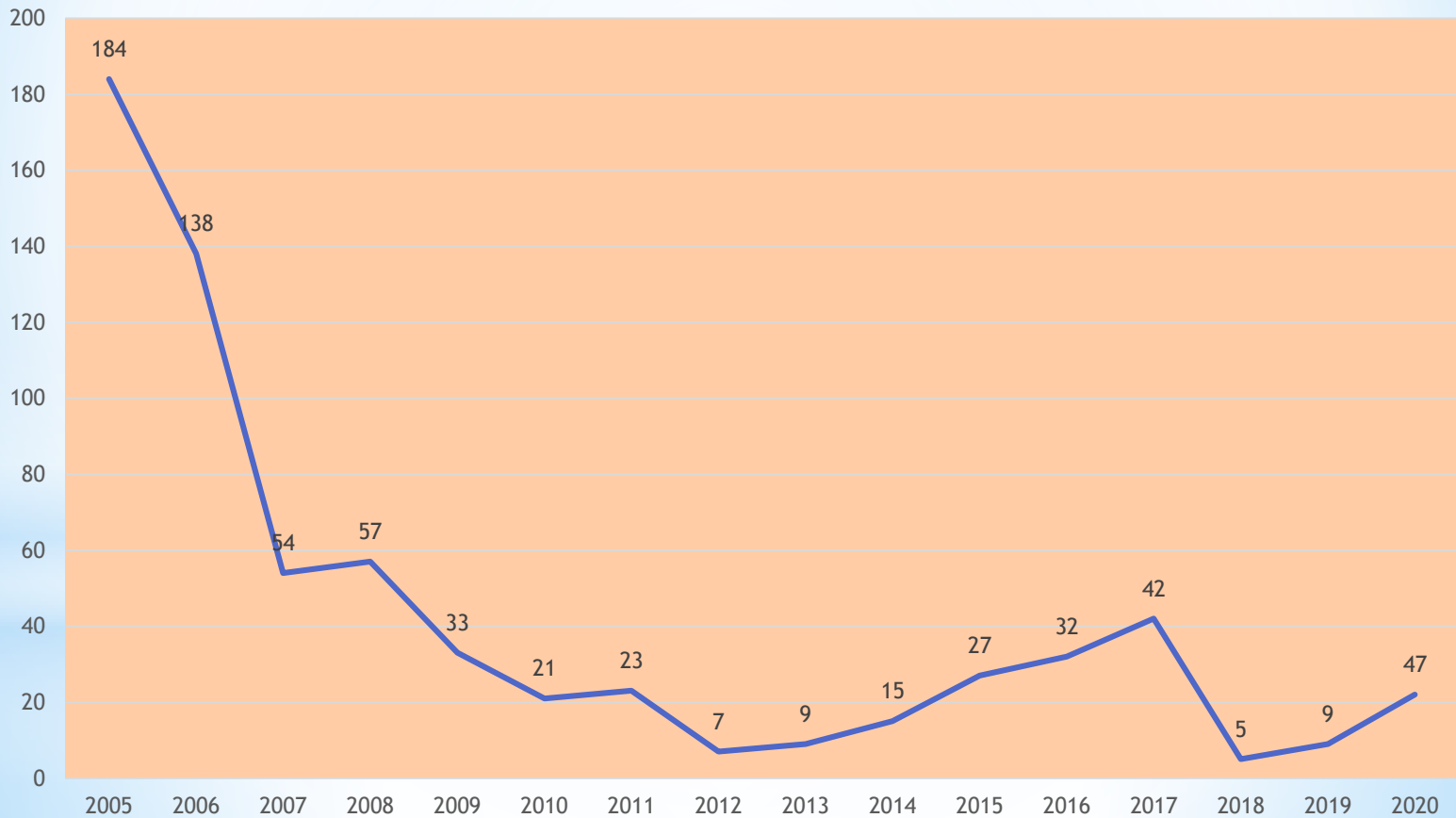
Hydrogen Sulfide - 30-Minute Averages Highest Value (in ppb) Each Year at “Lower Valley” Monitor (2004-2020)



Hydrogen Sulfide - 30-Minute Averages Number of Exceedances (in ppb) Each Year at “Lower Valley” Monitor (2004-2020)



Hydrogen Sulfide Number of Days with 30-Minute Exceedances at “Lower Valley” Monitor, (2004-2020)



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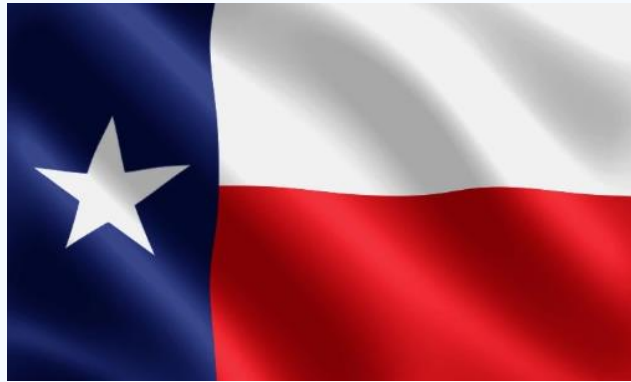
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* Questions?
¿Preguntas?



*Thank you!



*¡Gracias!

