



# Rule 1180 and Rule 1180.1 Fenceline and Community Air Monitoring Meeting

*Regla 1180 y Regla 1180.1  
Reunión de monitoreo del aire del  
cercado y comunitario*

**Wednesday October 9, 2024, at 6:00 PM**  
*Miércoles 9 de Octubre del 2024 a las 6:00 PM*

**Bateman Hall**  
11331 Ernestine Ave., Lynwood, CA 90262



# Agenda



BACKGROUND

*Antecedentes*



RULE  
DEVELOPMENT

*Desarrollo de  
reglas*



KEY  
REQUIREMENTS

*Requerimientos  
clave*



FUTURE  
ENGAGEMENTS

*Compromisos  
futuros*

# Background

## Antecedentes

Rule 1180 was adopted on December 1, 2017

*La Regla fue adoptada el 1 de Diciembre del 2017*

- Applicable to major petroleum refineries
- *Aplica a las principales refinerías de petróleo*

Complies with Assembly Bill 1647, approved October 2017

*Cumple con el Proyecto de Ley de la Asamblea 1647, aprobado en Octubre de 2017*

Requires facilities to: *Requiere que las instalaciones:*

- Conduct real-time fence-line monitoring
- Community can receive notifications if air pollutants are above thresholds
- Fund community air monitoring systems
- *Realicen monitoreo en tiempo real del cercado*
- *La comunidad puede recibir notificaciones si se detectan contaminantes en el aire por encima de ciertos límites*
- *Financien sistemas de monitoreo del aire comunitario*

Fence-line and community monitoring for seven major refineries since 2020

*Monitoreo del cercado y de la comunidad para siete refinerías importantes desde 2020*



# Recent Development of Rules 1180 and 1180.1

## *Desarrollo reciente de las Reglas 1180 y 1180.1*

Rule 1180 was amended in January 2024

*La regla 1180 fue enmendada en Enero del 2024*

- Amended to include facilities that are *related* to major petroleum refinery operations
- *Enmendada para incluir instalaciones relacionadas con las operaciones de refinerías de petróleo importantes*

Rule 1180.1 was adopted in January 2024

*La regla 1180.1 fue adoptada en Enero del 2024*

- Applies to smaller refineries, e.g., asphalt plants and refineries that process alternative feedstocks (biofuels)
- *Aplica a refinerías mas pequeñas, como plantas de asfalto y refinerías que procesan materias primas alternas (biocombustibles)*



# Facilities Subject to the Rules

## *Instalaciones sujetas a las reglas*

### Rule 1180 facilities:

- Seven major petroleum refineries
- *siete refinерías principales de petróleo*
- Five petroleum refinery related facilities
- *cinco instalaciones relacionadas con el petróleo*

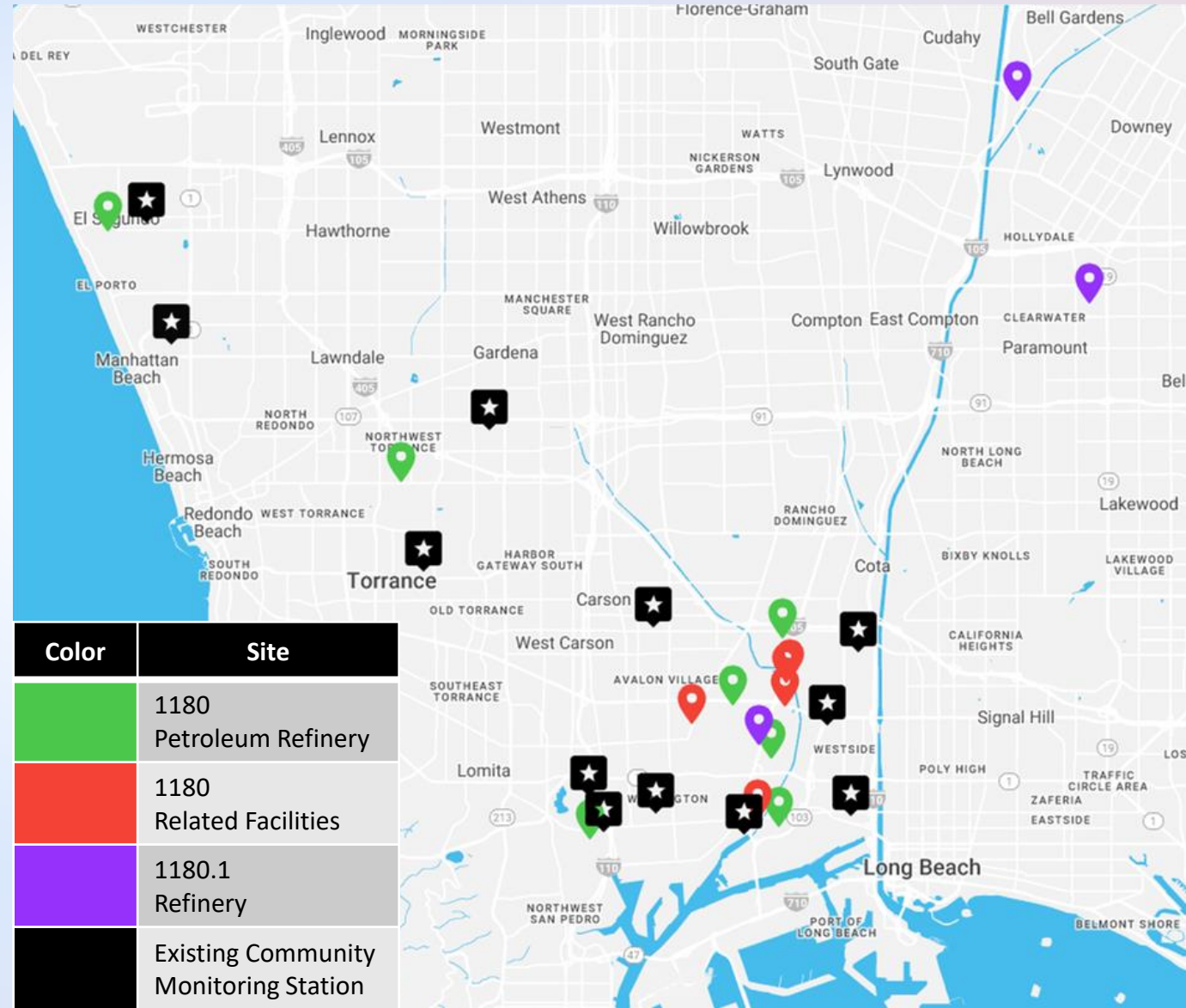
### Rule 1180.1 facilities:

- Three smaller refineries
- *tres refinерías más pequeñas*

### Currently 12 community monitoring stations

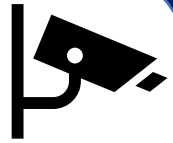
*Actualmente 12 estaciones de monitoreo comunitario*

- Up to 6 new stations will be added
- *se agregarán hasta 6 nuevas estaciones*



# Fenceline and Community Monitoring

## *Monitoreo del Cercado y de la Comunidad*



Consists of open path monitors, point monitors, and data system

*Consiste en monitores de camino abierto, monitores de punto, y sistema de datos*



Monitors specific criteria pollutants and air toxics

*Monitorea contaminantes específicos y tóxicos del aire*



Fenceline and community air monitoring systems provide real-time or near real-time air quality data and public alerts to the public

*Sistemas de monitoreo del aire del cercado y comunitario proporcionan datos sobre la calidad del aire en tiempo real y alertas públicas al público*





**Key Requirements**  
*Requerimientos Clave*

# New Requirement / *Nuevo requerimiento*



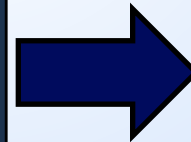
## Fenceline Air Monitoring *Monitoreo del aire del cercado*

- New Systems required for newly added facilities
- Monitor for additional pollutants (six new)
- *Nuevos sistemas requeridos para las instalaciones recién añadidas*
- *Monitorear contaminantes adicionales (seis nuevos)*

### Pollutants already measured (18 total)

### *Contaminantes ya medidos (18 en total)*

- |                    |                     |
|--------------------|---------------------|
| • Acetaldehyde     | • Hydrogen Cyanide  |
| • Acrolein         | • Hydrogen Fluoride |
| • Ammonia          | • Hydrogen Sulfide  |
| • Benzene          | • Nitrogen Oxide    |
| • Black Carbon     | • Styrene           |
| • 1,3-butadiene    | • Sulfur Dioxide    |
| • Carbonyl Sulfide | • Toluene           |
| • Ethylbenzene     | • VOCs              |
| • Formaldehyde     | • Xylenes           |



### Additional 6 Pollutants now required (24 total)

### *Ahora se requieren 6 contaminantes adicionales (24 en total)*

- Cadmium
- Manganese
- Naphthalene
- Nickel
- Polycyclic aromatic hydrocarbons (PAHs)\*
- Particulate matter

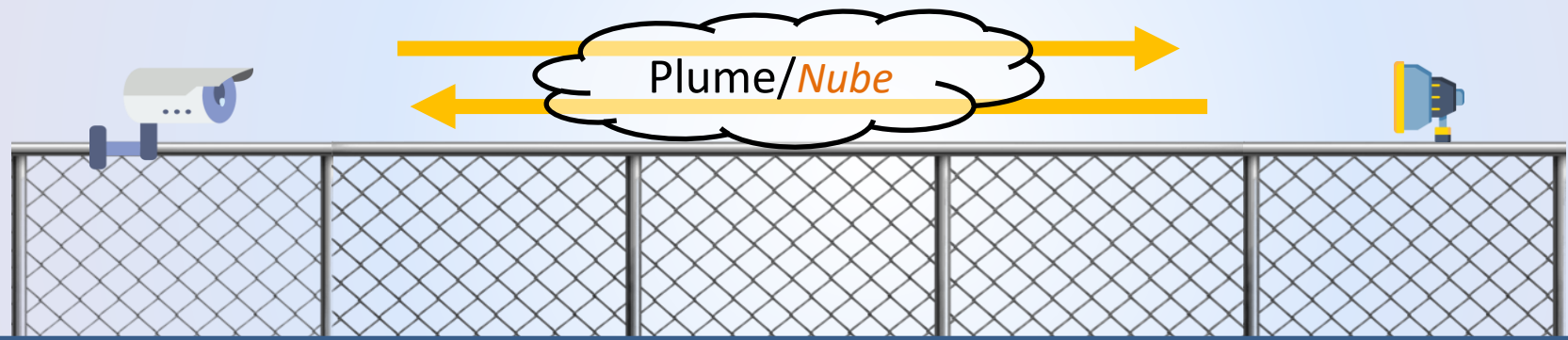


# Expansion of Existing Requirement / *Expansión del requerimiento existente*



## Public Notifications and Specific Cause Analysis / *Notificaciones publicas y análisis de causa específica*

- Notification if pollutant concentration exceeds notification level
  - Follow-up notification if pollutant levels increase from the initial detection
- Specific cause analysis for reason of exceedance
- *Notificación si la concentración del contaminante exede el nivel de notificación*
  - *Notificación de seguimiento si los niveles del contaminante incrementan desde la detección inicial*
- *Análisis de causa específica para la razon del exceso*



Continuous real-time data monitoring  
*Monitoreo continuo de datos en tiempo real*



Exceedance of notification thresholds  
*Superación de límite de notificación*



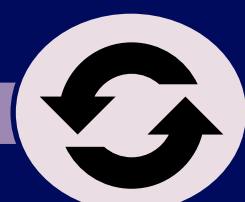
Public notifications  
*Notificaciones públicas*



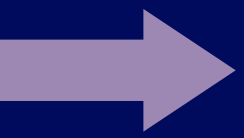
Email and text notifications  
*Notificaciones por email y mensaje de texto*



Follow-up notification  
*Notificación de seguimineto*



Public website  
*Sitio web público*



# Expansion of Existing Requirement

## *Expansión del requerimiento existente*



### Real-time and historical data on webpage

*Datos en tiempo real e históricos en la página web*

Display and store at least five years of collected data including:

- Real time and historic concentrations of pollutants, wind speed, and wind direction
- Description of measured techniques, notification threshold, and all instances when a pollutant measured above notification threshold
- Specific cause analyses, quarterly reports, corrective action plans, and description of measured pollutants, general health impacts, and a link to the OEHHA's chemical database website

*Mostrar y almacenar al menos cinco años de datos recopilados, incluyendo:*

- *Concentraciones en tiempo real e históricas de contaminantes, velocidad del viento y dirección del viento*
- *Descripción de las técnicas de medición, límite de notificación y todas las ocasiones en que un contaminante se midió por encima del límite de notificación*
- *Análisis de causa específica, informes trimestrales, planes de acción correctiva y descripción de los contaminantes medidos, impactos generales en la salud y un enlace al sitio web de la base de datos química de OEHHA*

Data accessible in a user-friendly and downloadable format

*Datos accesibles en un formato fácil de usar y descargable*

**New  
Requirement**  
*Nuevo  
Requerimiento*



**Independent Audit** *Auditoría independiente*

- Audit by third party, initial and reoccurring
- Corrective actions if deficiencies identified
- *Auditoría por un tercero, inicial y recurrente*
- *Acciones correctivas si se identifican deficiencias*

To ensure that the collected facility data meets quality assurance criteria

*Para asegurar que los datos recopilados de las instalaciones cumplan con los criterios de garantía de calidad*

Facilities required to have an initial audit and recurring audit every three years

*Las instalaciones deben tener una auditoría inicial y una auditoría recurrente cada tres años*

National Physical Laboratory (NPL) will conduct initial audit in 2025 for petroleum refineries

*El Laboratorio Nacional de Física (NPL) realizará una auditoría inicial en 2025 para las refinerías de petróleo*

Small refineries will complete audit within 12 months of installation

*Las refinerías pequeñas completarán la auditoría dentro de los 12 meses posteriores a la instalación*



The background image shows an industrial facility, possibly a refinery or chemical plant, with several tall distillation columns and complex piping. In the foreground, there is a chain-link fence with several strands of barbed wire on top. The scene is captured during the day under a clear blue sky with a few wispy clouds. The overall image has a slightly faded or semi-transparent appearance, which makes the overlaid text stand out.

**Fenceline Air Monitoring**  
*Monitoreo del aire del  
cercado*

# Fenceline Air Monitoring System Installation

## *Instalación del sistema de monitoreo del aire del cercado*

Submit a new or revised fenceline air monitoring plan (FAMP) after rule adoption (January 5, 2024)

*Presentar un plan nuevo o revisado de monitoreo del aire del cercado después de la adopción de la regla (Enero 5, 2024)*

Complete installation and begin operation after FAMP approval or partial approval

*Completar la instalación y comenzar la operación después de la aprobación del plan o la aprobación parcial*

August 5, 2024, for a facility with existing FAMP

*Agosto 5, 2024 para instalaciones con plan existente*

January 5, 2025, for a facility without existing FAMP

*Enero 5, 2025 para instalaciones sin plan existente*

15 months from FAMP approval for Rule 1180

*15 meses a partir de la aprobación del plan para la Regla 1180*

24 months from FAMP approval for Rule 1180.1

*24 meses a partir de la aprobación del plan para la Regla 1180.1*

# Facilities With or Without an Existing FAMP

## *Instalaciones con o sin un plan existente*

### Facilities With Existing FAMP

*Instalaciones con plan existente*

1180

- Tesoro Refining & Marketing Co, LLC (Carson and Wilmington)
- Chevron Products Co.
- Phillips 66 Company (Carson and Wilmington)
- Torrance Refining Company LLC
- Valero (Ultramar Inc.)

### Facilities Without Existing FAMP

*Instalaciones sin plan existente*

1180

- Air Products & Chemicals, Inc. (Carson and Wilmington)
- Tesoro Sulfur Recovery Plant
- Kinder Morgan Liquids Terminals, LLC
- Tesoro Logistics, Carson Crude Terminal

1180.1

- AltAir Paramount, LLC
- World Oil Refining
- Valero Wilmington Asphalt Plant



# Fenceline Air Monitoring Plan Requirements

## Requisitos del plan de monitoreo del aire del cercado

Fenceline air monitoring plans must detail the following:

*Los planes de monitoreo del aire del cercado deben detallar lo siguiente:*

### FENCELINE *CERCADO*

- Adequate fenceline air monitoring coverage  
*Cobertura adecuada de monitoreo del aire del cercado*
- Consideration of proximity to nearby communities, sensitive receptors  
*Evaluación de la cercanía a comunidades vecinas y receptores sensibles*
- Meteorological analysis  
*Análisis meteorológico*
- Description of refinery emissions and dispersion modeling  
*Descripción de las emisiones de las refinerías y modelado de dispersión*
- Analysis of other neighboring emission sources  
*Análisis de otras fuentes de emisión vecinas*

### DATA *DATOS*

- Data presentation to be made available to the public  
*Presentación de datos a disposición del público*
- Public notification system  
*Sistema de notificación pública*

### QA/QC *QA/QC*

- Quality Assurance  
*Garantía de calidad*

# Fenceline Air Monitoring: Adequate Coverage

*Monitoreo del aire del cercado: Cobertura adecuada*

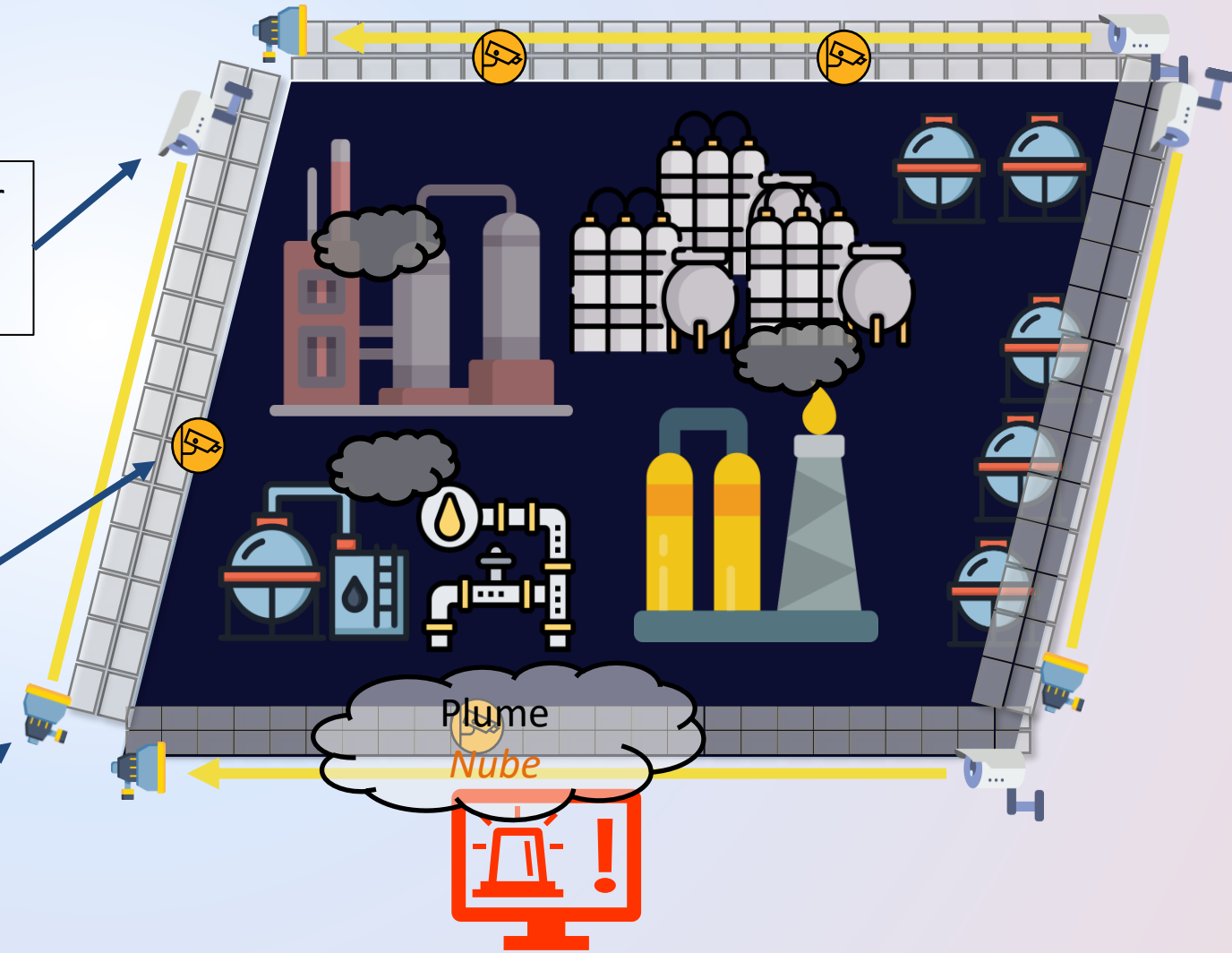


Open-path Monitor  
*Monitor de camino  
abierto*



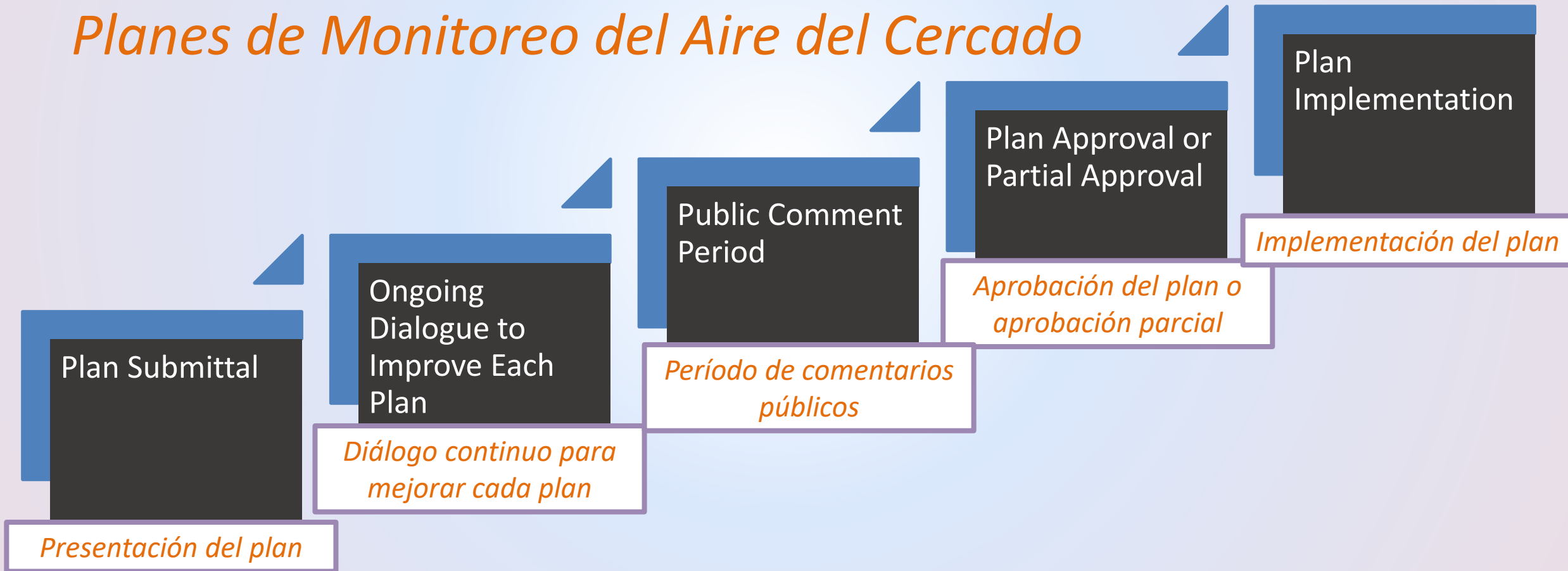
Point Monitor  
*Monitor de  
punto*

Reflector  
*Reflector*



# Fenceline Air Monitoring Plan Review and Approval Process

*Proceso de Revisión y Aprobación de los Planes de Monitoreo del Aire del Cercado*





**Community Air  
Monitoring**  
**Monitoreo del  
Aire Comunitario**

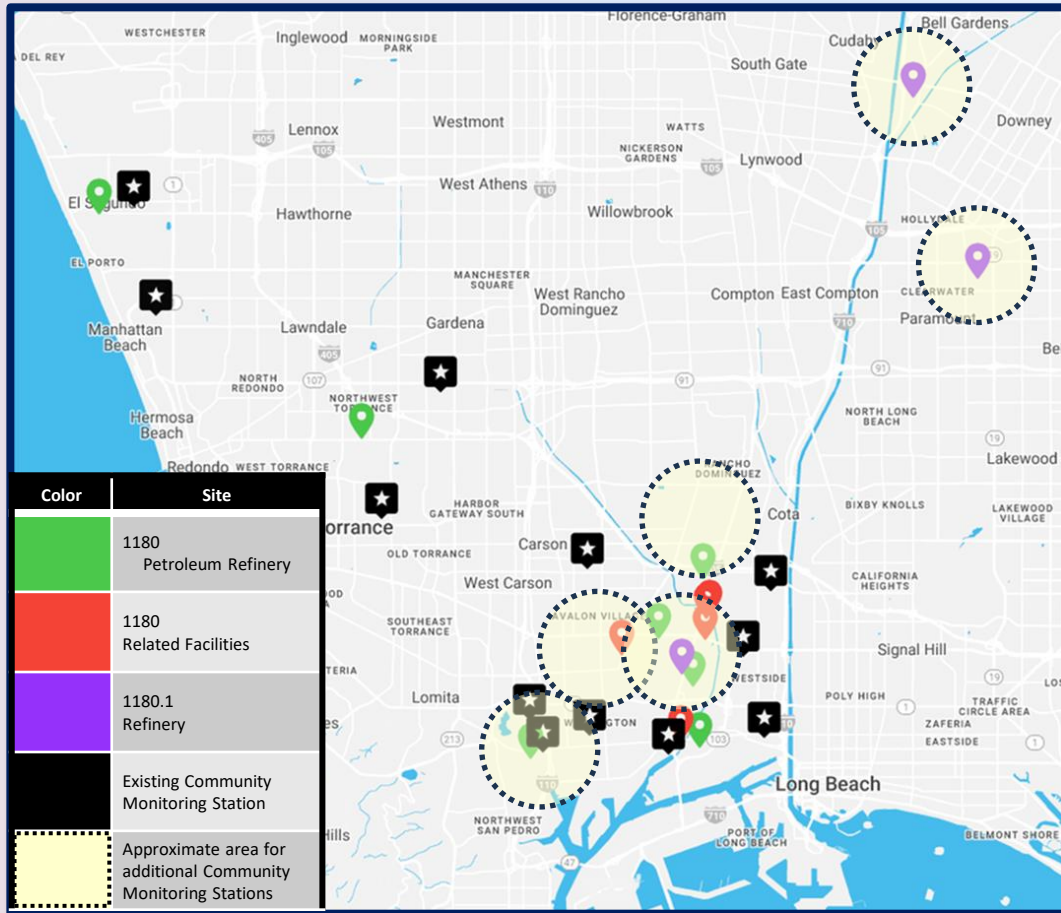


# Community Air Monitoring: Site Selection

## Monitoreo del aire comunitario: Selección de sitios

Up to 6 additional stations will be installed in next 3 years near facilities newly subject to Rules 1180 and 1180.1

*Se financiarán e instalarán hasta seis estaciones adicionales en los próximos 3 años cerca de las instalaciones recientemente incluidas en las Reglas 1180 y 1180.1*



Proximity to Sensitive Receptors and Environmental Justice

*Proximidad a receptores sensibles y justicia ambiental*



Proximity to Refinery and Non-Refinery Sources

*Proximidad a refinerías y fuentes ajenas a las refinerías*



Long Term Availability

*Disponibilidad a largo plazo*



Meteorology

*Meteorología*



Infrastructure + Access + Safety

*Acceso a infraestructura y seguridad*



Site suitability for air quality monitoring

*Adecuación del sitio para el monitoreo de la calidad del aire*

# Advanced Air Monitoring Equipment

## *Equipo avanzado de monitoreo del aire*

Rapid Response Measurements (5 minutes or less) - **used for notifications**

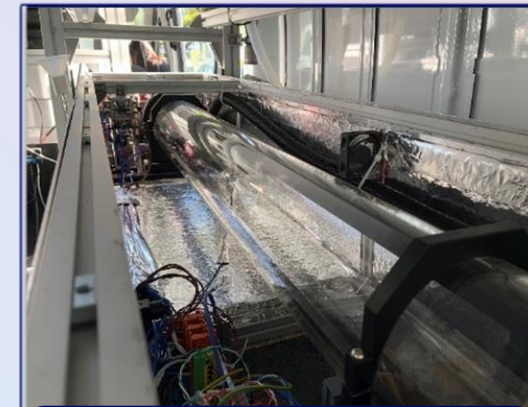
*Mediciones de respuesta rápida (5 minutos o menos): se utilizan para las notificaciones*

Optical multi-pollutant analyzers *Analizadores ópticos multicontaminantes*

- Benzene, Toluene, Ethylbenzene, Xylenes (BTEX), total VOCs, formaldehyde, 1,3-butadiene, acetaldehyde, acrolein, Ammonia, Hydrogen Cyanide, Sulfur Dioxide, Nitrogen Dioxide

Dedicated analyzers *Analizadores dedicados*

- Hydrogen Sulfide (H<sub>2</sub>S)
- Hydrogen Fluoride (HF)\*
- Black Carbon
- PM 10 and PM 2.5\*\*
- Metals\*\*



Cell of Optical Multi-Pollutant Analyzer



H2S Analyzer



Multi-Metal Monitor



Aethalometer

\*HF analyzers are only installed near facilities that use HF in their process stream *\*Los analizadores de HF solo se instalan cerca de instalaciones que utilizan HF en su flujo de proceso*

\*\*Will be added to stations funded by the refineries subject to original Rule 1180 *\*\*Se agregará a las estaciones financiadas por las refinerías sujetas a la Regla 1180 original*

# Advanced Air Monitoring Equipment

## *Equipo avanzado de monitoreo del aire*

Time Integrated Measurements (1 hour)

*Mediciones integradas en el tiempo (1 hora)*

Automated Gas Chromatography (Auto-GC)

*Cromatografía de gases automatizada (Auto-GC)*

- BTEX and other VOCs with detection limit of ~0.1 ppb
- *BTEX y otros COV con límite de detección de ~0,1 ppb*

Meteorology *Meteorología*

- Wind speed, Wind Direction, Temperature, Relative Humidity
- *Velocidad del viento, dirección del viento, temperatura, humedad relativa*



Auto-GC



Met Station



# Data Display and Air Quality Notifications

Visualización de datos  
y  
Notificaciones de calidad del  
aire



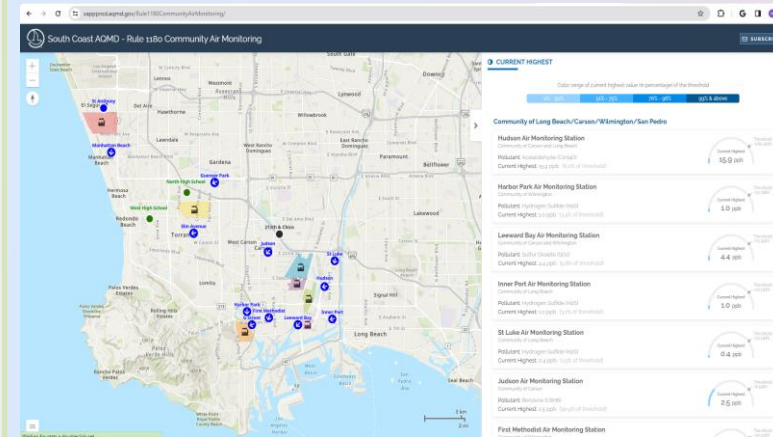
# Rule 1180 Data Portal / *Portal de datos de la Regla 1180*

Community Air  
Monitoring

*Monitoreo del  
Aire Comunitario*

- 10 fully-equipped community monitoring stations  
*10 estaciones de monitoreo comunitario totalmente equipadas*
- 2 partially equipped stations  
*2 estaciones parcialmente equipadas*
- Real-time monitoring for all required compounds  
*Monitoreo en tiempo real de todos los compuestos requeridos*
- Dedicated public data portal and notification system  
*Portal de datos públicos y sistema de notificación*
- Links to refinery fenceline data portals  
*Enlaces a portales de datos del cercado de refinerías*

<https://xappprod.aqmd.gov/Rule1180CommunityAirMonitoring/>



# Rule 1180 Data Portal / *Portal de datos de la Regla 1180*

Notification Sign up

*Registro para  
notificación por  
correo electrónico*

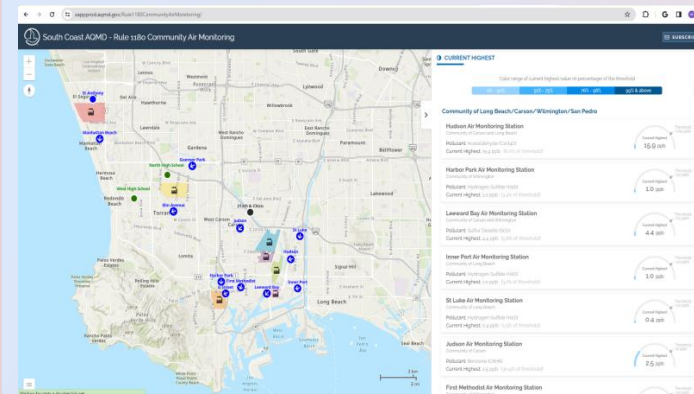
- Subscribe button on the upper-right hand of R1180 dashboard  
or <https://www.aqmd.gov/sign-up>

*Botón de suscripción en la parte superior derecha del panel de control R1180 o <https://www.aqmd.gov/sign-up>*

- Subscribers can select to receive notification for specific communities near refineries

*Suscriptores pueden seleccionar recibir notificaciones para comunidades específicas cerca de las refinerías*

<https://xapprod.aqmd.gov/Rule1180CommunityAirMonitoring/>





# Refinery Fenceline Data Portals

## Portales de datos del cercado de refinerías

Links to facilities who currently have data display portals and to opt-in notifications

Enlaces a instalaciones que actualmente tienen portales de visualización de datos y para suscribirse a las notificaciones

- Marathon Carson/Wilmington - [marathonlosangelesrefineryfencelinemonitoring.com](http://marathonlosangelesrefineryfencelinemonitoring.com)
- Phillips 66 Carson/Wilmington - [p66losangeles1180.com](http://p66losangeles1180.com)
- Chevron - [elsegundo1180.com](http://elsegundo1180.com)
- Torrance - [torranceair.org](http://torranceair.org)
- Valero - [wilmingtonrefinerymonitoring.org](http://wilmingtonrefinerymonitoring.org)

Facilities newly subject to Rules 1180 and 1180.1 will establish or update web-based data display upon commencing operation of Fenceline Air Monitoring System

Instalaciones recientemente incluidas a las Reglas 1180 y 1180.1 establecerán o actualizarán una pantalla de datos basada en la web al comenzar la operación del sistema de monitoreo del aire del cercado

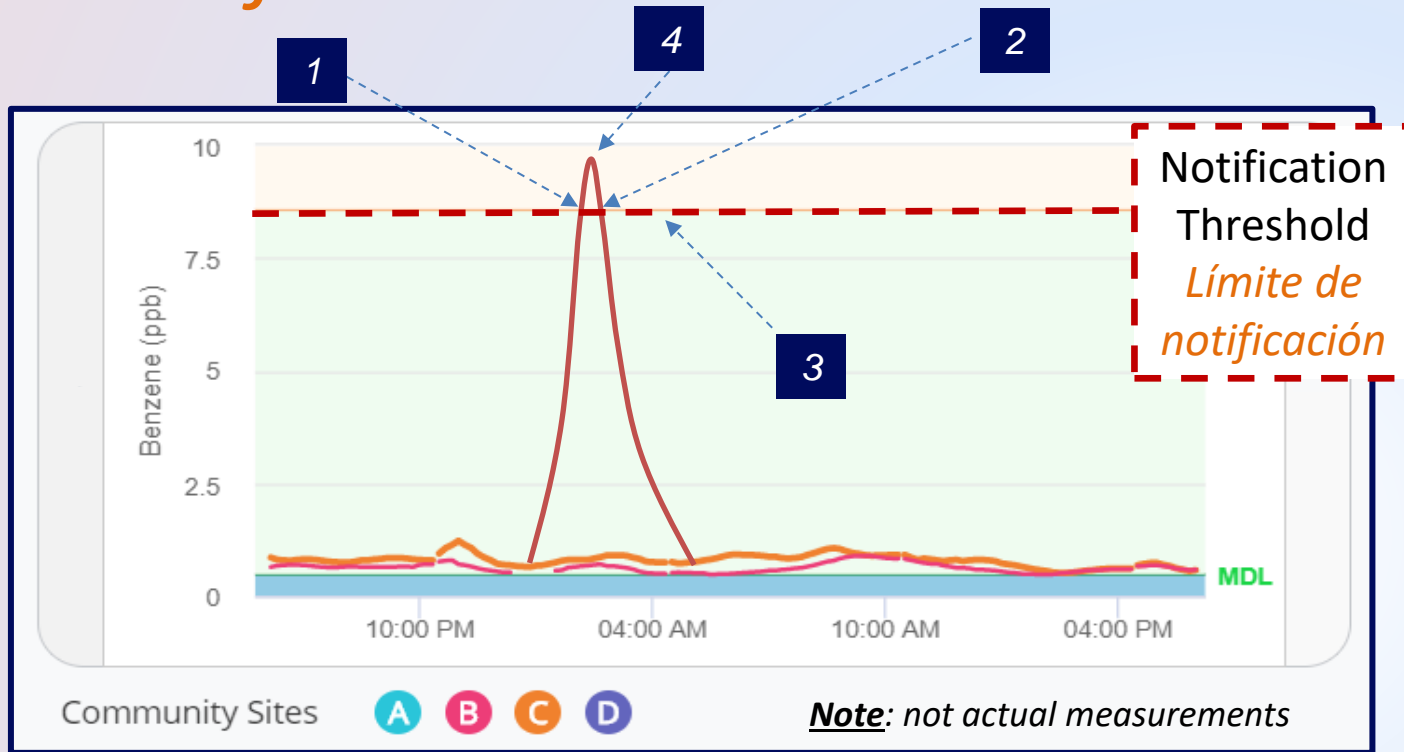
Example of Phillips 66 Refinery Fenceline Data Portal  
Ejemplo de portal de datos del cercado de la refinería Phillips 66

The screenshot displays the Phillips 66 Refinery Fenceline Air Monitors website. The top navigation bar includes 'home', 'about', 'data', and 'resources'. A banner image shows a hot air balloon with the Phillips 66 logo. Below the banner is an 'About' section with a paragraph explaining the program's purpose. To the right is a map of Carson, California, showing monitoring paths (Path 1 to Path 10) and measurement sites (PM1, PM2, PM3). Below the map is a 'Wilmington' map. The main content area features a 'How to Use the Air Quality Gauge' section with two examples: a 5-minute average concentration gauge showing 'OP1 1.2' and a 1-hour running average concentration gauge showing 'OP1 1.2'. A 'Data Legend' explains that numbers within the gauge correspond to concentrations, and a 'Reference Exposure Level' section states that the REL is the concentration level at or below which no action is required. The bottom section shows a detailed map of the Los Angeles Refinery area with monitoring paths and measurement sites. A data gauge for Benzene is displayed, showing a 1-hour average concentration of 1.2 ppb. The gauge has a green background, indicating a concentration below the MDL (Method Detection Limit). The gauge also shows a REL (Reference Exposure Level) at 7.5 ppb. The data is for 11:35 AM on October 19, 2023. A legend below the gauge identifies the monitoring paths. A 'Synchronize Graph with Map Display' toggle is visible. A note at the bottom states: 'BTEX is an acronym for the aromatic hydrocarbon compounds benzene, toluene, ethylbenzene, and xylenes, which occur naturally in crude oil. At room temperature, all are colorless liquids. Benzene and xylenes have sweet odors, while ethylbenzene smells like gasoline, and toluene smells like paint thinner. Learn More'.



# Air Quality Notifications

## Notificaciones de calidad del aire



South Coast AQMD

Air Quality Notification for Rule 1180  
Elm Avenue Community Air Monitoring Station

Levels of Benzene (VOC or other pollutants) have exceeded a 1-hour standard or short-term health-based threshold

An air pollution monitor located at Elm Avenue Community Air Monitoring Station measured high levels of Benzene (VOC or other pollutants) on 08/05/2020 at 11:50:15. The 1-hour average level measured at this location was:

**Identify the pollutant and concentration**  
*Identificación del contaminante y concentración*

What does this mean?  
These thresholds are established to help protect public health for infrequent short-term exposures. Breathing air pollution at levels below these thresholds means that you are not likely to experience health effects. When a threshold is exceeded, it does not necessarily mean that you face significant health risks. However, it does increase the likelihood of having health effects. These thresholds are meant to be conservative, to protect children, older adults, and people with certain health conditions, who may be more sensitive to the effects of air pollution. If there are repeated exceedances of these thresholds, people may choose to reduce their exposure.

What can I do?  
You can check the current levels of this chemical at Rule 1180 Community Air Monitoring and look for the monitor closest to your location. Generally, if levels are no longer elevated, then no action is needed.

**Description of the pollutant and associated health effects and recommendations**  
*Descripción del contaminante y sus efectos asociados a la salud y recomendaciones*

Where do you find benzene?  
Benzene is found in many products, including gasoline, paint, and household products. It is also found in air pollution from cars and factories.

Why are we concerned about benzene?  
Benzene is a known cancer-causing chemical in humans based on workers with long-term occupational exposure as well as on animal studies.

What concentration of benzene is typically found in air in the South Coast Air Basin?  
The average concentration of benzene found in the LA Basin is 0.40 ppb, with concentrations ranging from 0.02 to 1.77 ppb.

For more information about how the thresholds were determined, please refer to the South Coast AQMD Rule 1180 Refinery Fenceline Air Monitoring Notification Guidelines [Rule 1180 Community Air Monitoring](#)  
For questions regarding air monitoring or air quality, call South Coast AQMD at 1-800-CUT-SMOG.

1 Exceedance Event Start Notification / *Notificación de inicio de evento de exceso*

2 Concentrations falls below threshold / *Concentraciones caen por debajo del límite*

3 Exceedance Event End Notification (includes 30 minutes of continuous detection below the notification threshold)

*Marca la fecha y hora de la notificación del fin del evento de excedencia (incluye 30 minutos de detección continua por debajo del límite de notificación)*

4 Follow-up notifications if concentrations continue to increase

*Notificaciones de seguimiento si las concentraciones siguen aumentando*

# Future Engagements

## *Compromisos futuros*

### Update Communities on Rule Implementation

#### *Actualización a las comunidades sobre la implementación de la Regla*

- Anticipated for first quarter of 2025
- *Previsto para el primer trimestre de 2025*

### Rule Progress at Stationary Source Committee

#### *Progreso de la Regla en el Comité de fuente estacionaria*

- Anticipated for first quarter of 2025
- *Previsto para el primer trimestre de 2025*

### Technology Assessment at Stationary Source Committee

#### *Evaluación de tecnología en el Comité de fuentes estacionarias*

- First, by January 1, 2029 *Primero, 1 de Enero del 2029*
- Every five years thereafter *Cada cinco años a partir de entonces*



# Staff Contacts

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