



# South Coast Air Quality Management District

## CEQA Scoping Meeting for the Marathon Los Angeles Refinery Modernization Projects

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November 18, 2025  
5:00 p.m.

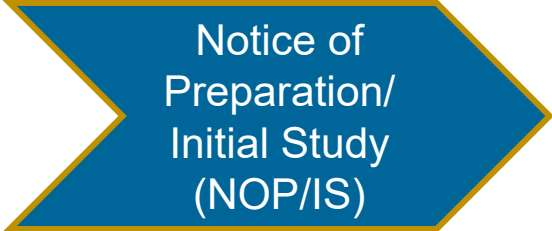
ZOOM WEBINAR LINK: <https://aqmd.zoomgov.com/j/1614593538>  
ZOOM WEBINAR ID: 161 459 3538  
TELECONFERENCE DIAL-IN: +1 (669) 254 5252  
SPANISH (ESPAÑOL) LANGUAGE WEBINAR ID: 161 104 2947

# Introduction

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- Marathon Los Angeles Refinery (Marathon) is seeking to upgrade multiple equipment units at the Carson and Wilmington Operations
- Marathon will need air permits from South Coast AQMD for the proposed modifications
- Proposed modifications are also subject to the California Environmental Quality Act (CEQA)
- South Coast AQMD is the CEQA lead agency responsible for evaluating the environmental impacts from the proposed projects

# Purpose of CEQA Scoping Meeting



Notice of  
Preparation/  
Initial Study  
(NOP/IS)

- Required because proposed projects are expected to have potentially significant environmental impacts
- Provide an overview of the proposed projects and explain the CEQA process
- Typically held during Notice of Preparation/Initial Study (NOP/IS) comment period
  - NOP/IS for proposed projects released for 34-day public review period from November 5, 2025 to December 9, 2025
- Opportunity for the public, other agencies, and interested parties to find out more about proposed project and to provide suggestions on:
  - Approaches for mitigating impacts
  - Project Alternatives
- Comments at CEQA Scoping Meeting will be considered when preparing Draft EIR

# Marathon Los Angeles Refinery

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- Tesoro Refining & Marketing Company, LLC, a subsidiary of Marathon Petroleum Corporation, does business as Marathon Los Angeles Refinery (Marathon)
- Refines crude oil to make a variety of petroleum-based products including transportation fuels (i.e., gasoline, diesel fuel, and jet fuel), and petroleum coke
- Operates 24 hours per day, every day



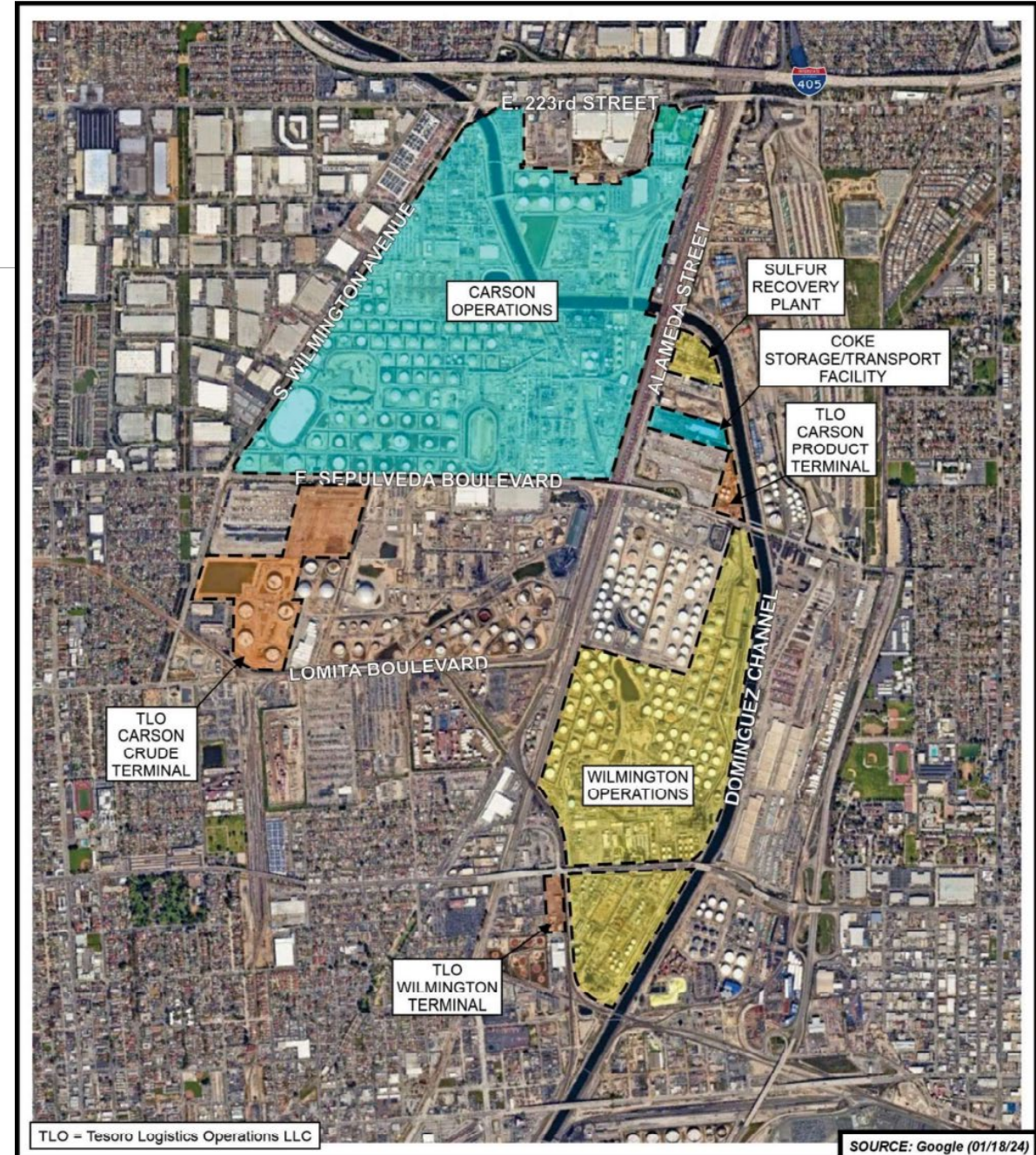


# Location

Marathon Refinery is comprised of:

- Carson Operations at:  
2350 223<sup>rd</sup> St, Carson, CA
- Wilmington Operations at:  
2101 E Pacific Coast Highway,  
Wilmington, CA
- Wilmington Operations Sulfur  
Recovery Plant (SRP)\* at:  
23208 S Alameda St, Carson, CA

\*No modifications are proposed at the SRP

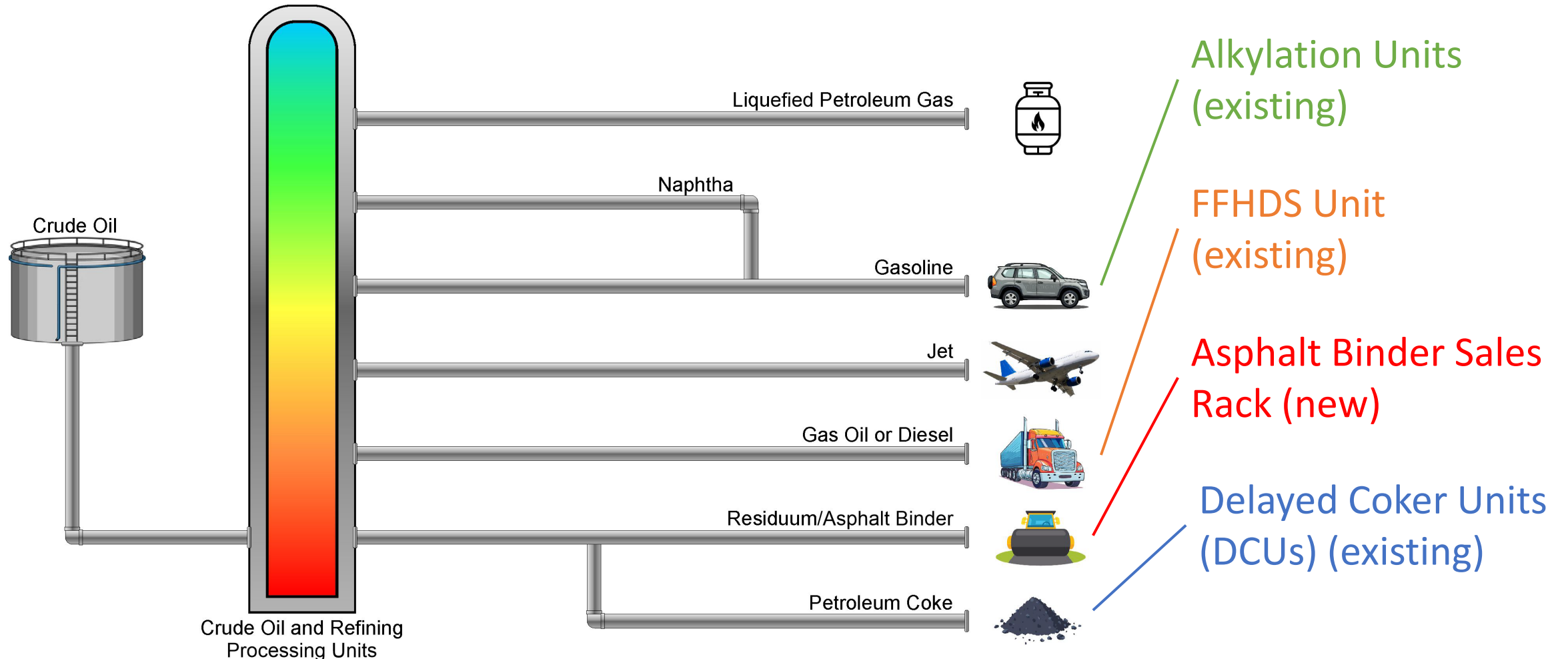


# Proposed Projects and Purpose

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1. Coke Drum Replacement Project
  - Replace equipment at the end-of-useful life
2. Asphalt Binder Sales Rack Project
  - Provide asphalt binder to meet market demand
3. Fluid Feed Hydrodesulfurization (FFHDS) Unit Modifications Project
  - Enable flexibility to shift between transportation fuel products
4. Alkylation (Alkyl) Unit Modifications Project
  - Improve production efficiency of octane-blending components needed for supplying California with gasoline

# Processing Units Affected by Proposed Projects





# Coke Drum Replacement Project: Delayed Coker Units (DCUs) Background

- DCUs heat heavy hydrocarbons called residuum to remove and reroute lighter hydrocarbons to the fractionator for further processing, leaving petroleum coke solids or coke to be collected
- When the coke drum is full, the coke is:
  - Cooled and broken into smaller pieces with high pressure water
  - Collected underneath the coke drum and routed to storage



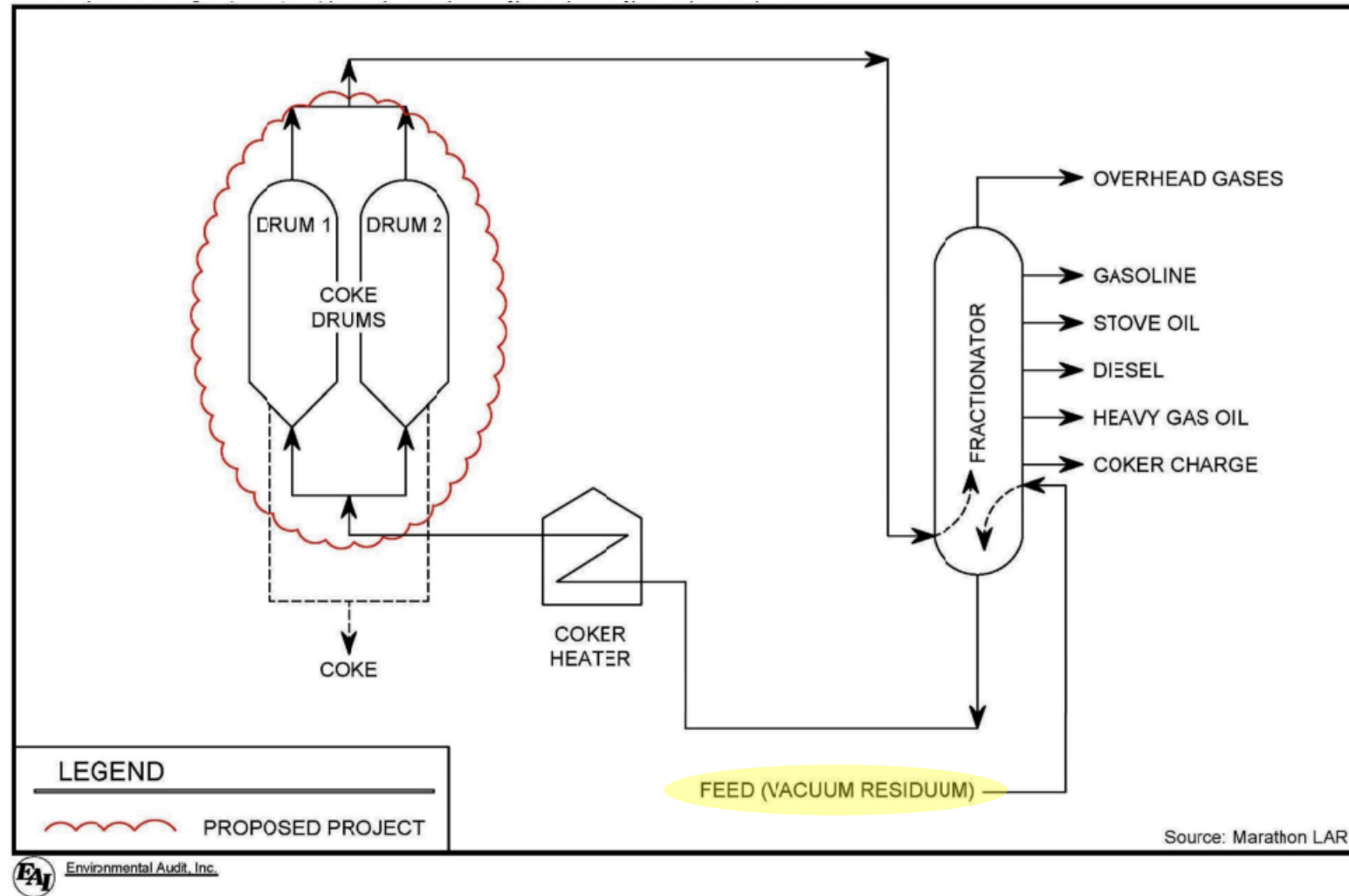
Carson Cokers No. 1 & 2 Units



Wilmington DCU



# DCU Process Flow Diagram

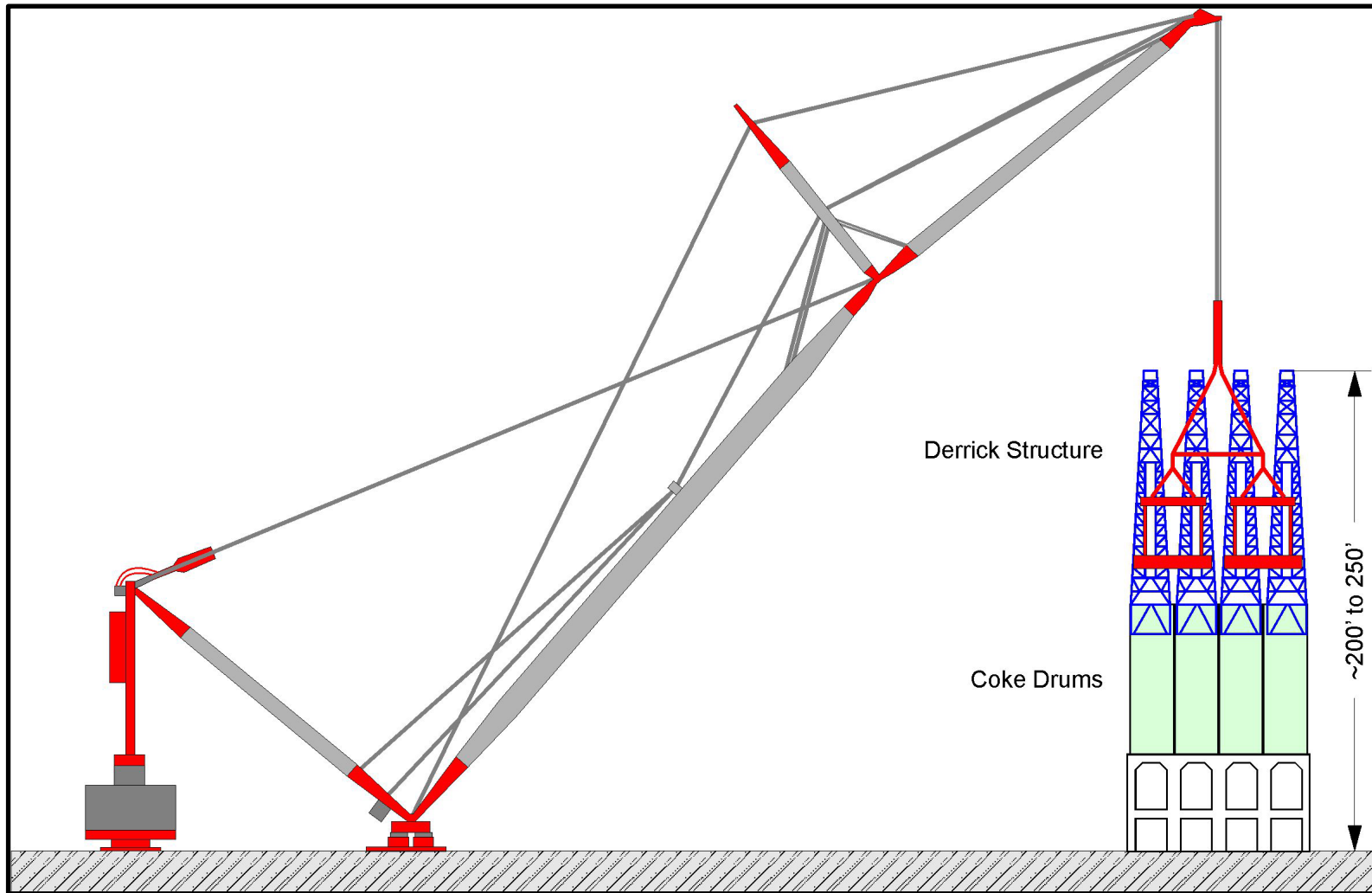


# Coke Drum Replacement Project: Scope

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- Replace 10 aging coke drums
  1. Wilmington Delayed Coker Unit (DCU) – 4 drums
  2. Carson No. 1 Coker Unit – 4 drums
  3. Carson No. 2 Coker Unit – 2 drums
- Construction will include:
  - Removing the derrick structure and existing drums via a large crane
  - Installing new drums with same size/capacity in the same footprint
  - Reinstalling the derrick structure above the new coke drums
  - Installing/upgrading instrumentation as needed

# DCU Construction Figure



# Asphalt Binder Sales Rack Project: Background

- Asphalt is the material used to pave roadways
  - Blend of crushed stone, sand, gravel mixed with asphalt binder
- Asphalt binder is the viscous liquid that holds the aggregate together when making asphalt
  - Can be made from mixing residuum with gasoil



<https://aashtojournal.transportation.org/utah-dot-deploys-weather-resistant-asphalt-for-roads/>

# Asphalt Binder Sales Rack Project: Scope

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- Providing up to 20,000 barrels per day of asphalt binder for sale by rerouting two existing streams of residuum and gasoil from the No. 52 Vacuum Unit
- Building new loading rack to allow up to 160 trucks per day to receive the asphalt binder
- Construction will include:
  - Modifying up to 3 existing storage tanks
  - Demolishing 1 existing storage building
  - Installing a new truck loading system, with associated piping, and emission control equipment
  - Modifying and/or installing of up to 8 heat exchangers and ancillary piping
  - Installing/upgrading instrumentation, as needed



# Fluid Feed Hydrosulfurization (FFHDS) Unit Modifications Project: Background

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- Carson FFHDS removes sulfur compounds from gas oil before it is routed for processing in the Fluidized Catalytic Cracking Unit (FCCU)
  - Hydrogen reacts with the sulfur in the presence of a catalyst to form hydrogen sulfide
  - Treated gas oil has a low sulfur content, allowing the FCCU to operate more efficiently and produce blending components for gasoline
  - Sulfur-based emissions are minimized at the stack

# FFHDS Modifications Project: Scope

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- Project seeks to increase the amount of hydrogen to increase the amount of sulfur removed from gas oil to improve the quality of gas oil routed to the FCCU (which produces gasoline)
- Additional hydrogen will be routed from other existing processing units
- Construction will include:
  - Replacing existing steam-driven recycle compressor with a new electric recycle compressor
  - Modifying vessel internals,
  - Reconfiguring 2 heat exchangers to improve heat transfer efficiency

# Alkylation Units Modification Project: Background and Affected Units

- Project seeks to produce more high-octane, the low vapor pressure blending components for making gasoline
  - Need to produce more alkylate from converting C3/C4 olefins
- Modifications needed for multiple affected units

Units Involved	Function
FCCU	Converts heavy hydrocarbons into lighter, gasoline and diesel-range hydrocarbons, including C3/C4 olefins
Wilmington and Carson Operations Alkylation Units	Receives olefins with 3- & 4-carbon molecules (C3 & C4) from the FCCU and process C3/C4 olefins with sulfuric acid
Carson Operations Alky Merox	Removes sulfur-containing compounds (mercaptans) from C3/C4 olefin feed streams to the Alkylation Unit
Carson Operations C3 Splitter	Separates propanes and propylenes (C3 molecules)

# Alkylation Units Modification Project: FCCU

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- Construction will include:
  - Modifications to Main Fractionation Column and Gas Plant areas :
    - Revamping/replacing/adding heat exchangers and pumps
    - Modifying vessel internals, ancillary piping, equipment, and instrumentation, as needed
  - No changes to permits of existing equipment
  - No new or modified combustion equipment
  - No changes to feed rate or throughput

# Alkylation Units Modification Project: Wilmington Alkylation Unit

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- Construction will include:
  - Upgrading coalescing media and mist eliminators
  - Modifying trays and packing in the deisobutanizer and debutanizer columns
  - Installing an economizer vessel
  - Replacing up to 3 pumps and spares (for a total of 6 pumps)
  - Modifying refrigeration system
  - Upgrading ancillary piping, equipment and instrumentation, as needed



# Alkylation Units Modification Project:

## Carson Alkylation Unit / Alky Merox Unit

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- Construction to the Carson Alkylation Unit will include:
  - Modifying the refrigeration system (i.e., new chiller or revamping/replacing existing refrigeration compressor)
  - Upsizing existing relief valves on vessels in the acid tank farm
  - Modifying/replacing/adding heat exchangers and pumps
  - Modifying water wash and neutralization systems, vessel internals, ancillary piping, equipment
  - Installing/upgrading instrumentation, as needed
- Construction to the Alky Merox Unit, which will include:
  - Installing a new caustic prewash to operate in parallel with the existing caustic prewash
  - Installing a new extractor in parallel with the existing extractor

# Alkylation Units Modification Project: Carson C3 Splitter

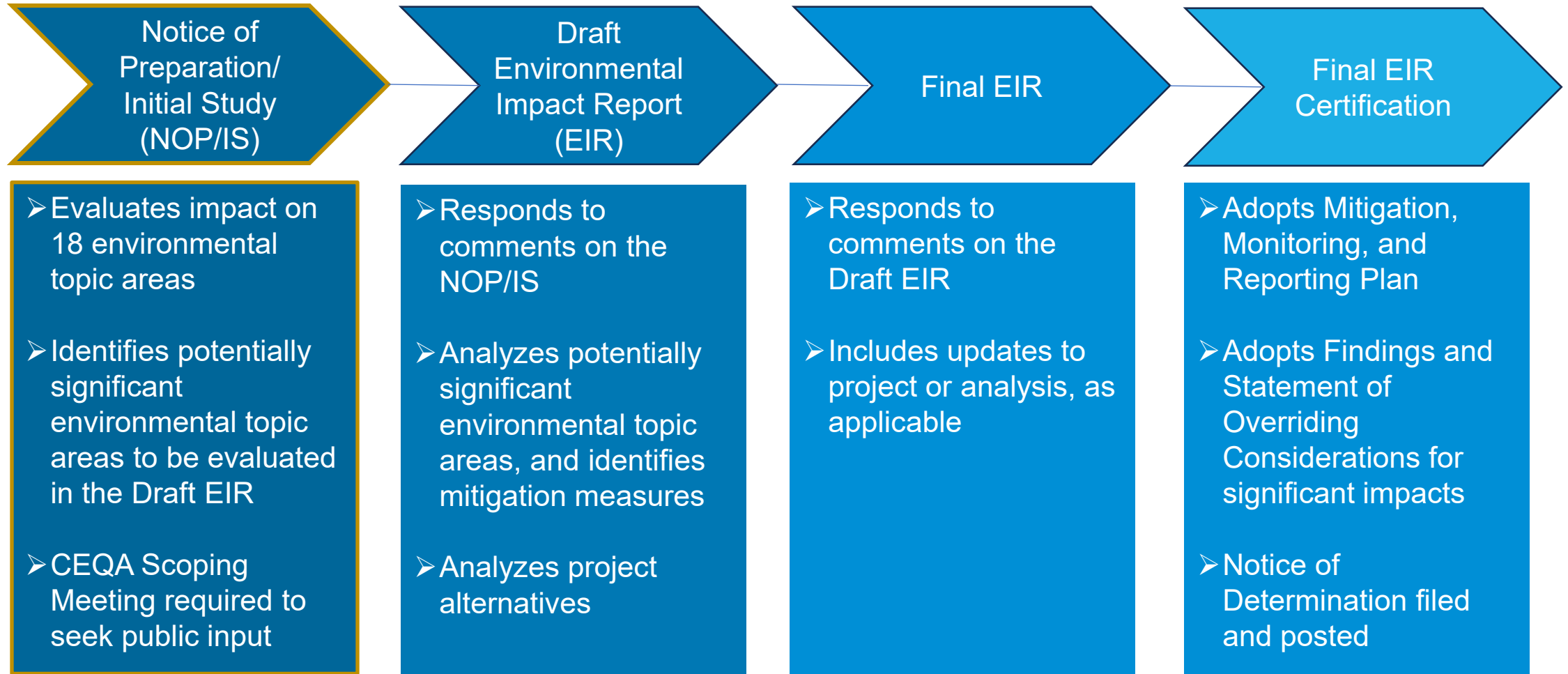
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- Construction will include:
  - Replacing existing pressure relief valve (PRV) to the flare gas recovery system with a new PRV with a larger diameter

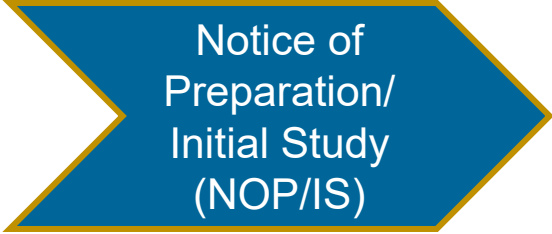
# Construction Schedule

Project	Timeline
<b>Coke Drum Replacement Project</b> <ul style="list-style-type: none"><li>• Wilmington DCU</li><li>• Carson Coker No. 1</li><li>• Carson Coker No. 2</li></ul>	<ul style="list-style-type: none"><li>• September 2027 to June 2030</li><li>• November 2027 to March 2031</li><li>• December 2031 to March 2035</li></ul>
<b>Asphalt Binder Sales Rack Project</b>	February 2027 to January 2028
<b>FFHDS Modifications Project</b>	January 2031 to February 2032
<b>Alkylation Units Modification Project</b> <ul style="list-style-type: none"><li>• Carson Alkyl Unit</li><li>• Wilmington Alkyl Unit</li><li>• Carson FCCU</li></ul>	<ul style="list-style-type: none"><li>• August 2030 to February 2032</li><li>• June 2030 to June 2031</li><li>• December 2030 to March 2032</li></ul>

# CEQA Process



# Notice of Preparation/ Initial Study (NOP/IS)

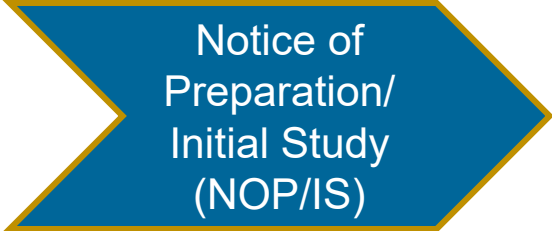


Notice of  
Preparation/  
Initial Study  
(NOP/IS)

- Chapter 1 provides background information and project description
- Chapter 2 identifies and analyzes environmental resource topics/impacts
- Environmental topic areas identified as **potentially significant** will be analyzed in the Draft EIR:
  - Air Quality and Greenhouse Gas Emissions
  - Hazards and Hazardous Materials
  - Hydrology and Water Quality Related to Water Demand During Operations
  - Noise During Construction
  - Transportation During Construction
- Environmental topic areas identified as having either **less than significant or no impacts**:
  - Aesthetics, Agricultural Resources, Biological Resources, Cultural Resources, Energy, Geology and Soils, Land Use and Planning, Mineral Resources, Population and Housing, Public Services, Recreation, Solid and Hazardous Waste, and Wildfires



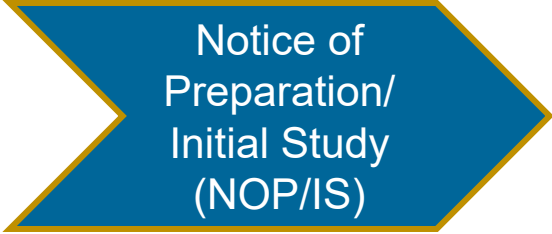
# Notice of Preparation/ Initial Study (NOP/IS)



Notice of  
Preparation/  
Initial Study  
(NOP/IS)

- NOP/IS released for 34-day public review period from November 5, 2025 to December 9, 2025
- NOP/IS can be accessed online at:
  - South Coast AQMD CEQA webpage  
<https://www.aqmd.gov/home/research/documents-reports/lead-agency-permit-projects>
  - Governor's Office of Land Use and Climate Innovation CEQAnet Portal  
<https://ceqanet.lci.ca.gov/2025110170>
- Hardcopies can be obtained at South Coast AQMD Headquarters, or by calling 909.396.2039

# Notice of Preparation/ Initial Study (NOP/IS)



Notice of  
Preparation/  
Initial Study  
(NOP/IS)

- Comments on NOP/IS will be considered when preparing Draft EIR
- Comments on the NOP/IS may be submitted to the South Coast AQMD no later than 5:00 p.m. December 9, 2025 to:
  - By Mail: Attn: Farzaneh Khalaj, Ph.D.  
South Coast AQMD  
21865 Copley Drive Diamond Bar, CA 91765
  - By Email: [fkhalaj@aqmd.gov](mailto:fkhalaj@aqmd.gov)

*Please note that under the California Public Records Act (Gov. Code Section 7920.000 et seq.) your written and oral comments, attachments, and associated contact information (e.g. your address, phone, email, etc.) become part of the public record and can be released to the public on request or posted on the South Coast AQMD website.*

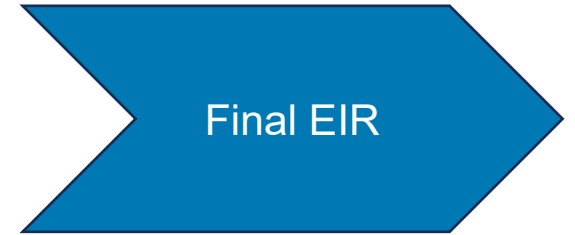
# Draft EIR



Draft EIR

- Draft EIR will include:
  - Descriptions of proposed projects
  - Existing setting/Baseline (physical conditions)
  - Detailed analysis of environmental topic areas identified in NOP/IS as having **potentially significant** impacts
  - Mitigation measures to eliminate or reduce potentially significant adverse impacts
  - Analysis of feasible alternatives to the proposed projects
  - Analysis of cumulative impacts
  - Copy of the NOP/IS
  - Comments received at CEQA Scoping Meeting and on the NOP/IS with responses
  - Reference materials such as technical studies, calculations, etc.
- Will be released for 45-day public comment review and period

# Final EIR



- Final EIR will include:
  - Any changes/updates made to the project after the Draft EIR was released for public review and comment
  - Comments received relative to the Draft EIR and responses to comments received
  - All previous content from the Draft EIR

# Final EIR Certification



Final EIR  
Certification

- Mitigation Monitoring and Reporting Plan, for potentially significant impact areas
- Findings identifying remaining significant adverse impacts after mitigation is applied
- Statement of Overriding Considerations, if the benefits of the proposed projects outweigh any significant adverse impacts
- South Coast AQMD Title V modified permit issued after Final EIR certified



# Next Steps

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- Comment Period Closes on **December 9, 2025, at 5:00 p.m.**
- Oral comments made during CEQA Scoping Meeting will be transcribed and responses will be included in Draft EIR
- Written comments received during public comment period and responses will be included in Draft EIR
- Preparation of the Draft EIR ongoing
  - Release date in 2026
  - 45-day public review and comment period
- Marathon required to submit applications for new and modified Permits to Construct
  - Applications and Draft Permits will be subject to review by South Coast AQMD and U.S. EPA

# South Coast AQMD Contacts

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