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Attorneys for Petitioner,
TESORO REFINING & MARKETING
COMPANY LLC

BEFORE THE HEARING BOARD OF
SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

In the Matter of

Case No. 4982-139

Tesoro Refining & Marketing Company LLC
(Facility ID No. 800436)

**DECLARATION SETH CONLEY IN
SUPPORT OF PETITION FOR
INTERIM VARIANCE**

Petitioner,

Hearing: January 21, 2026
Time: Consent Calendar

I, Seth Conley, hereby declare:

1. I am a Process Engineer II for the Tesoro Refining & Marketing Company LLC - Los Angeles Refinery-Wilmington Operations located at 2101 E. Pacific Coast Highway in Wilmington, California (“Los Angeles Refinery-Wilmington”). The refinery’s operations are subject to a June 26, 2025 permit to construct (“Permit”) issued by the South Coast Air Quality Management District.

2. I have personal knowledge of the facts stated herein and, if called as a witness, could and would testify competently thereto under oath.

3. I am familiar with the contents of the Petition for Interim/Emergency and Short Variance (“Variance”) that Tesoro Refining & Marketing Company LLC (“Tesoro”) filed on December 26, 2025 and amended on December 30, 2025 to request a regular variance instead of a

1 short variance (“Petition”).

2 4. This Declaration is submitted pursuant to District Hearing Board (“Board”) Rule
3 in support of the interim variance request in the Petition.

4 **ADDITIONAL BACKGROUND ON PROJECT AND PROCESSES**

5 **A. Project**

6 5. Boiler No. 12, which is the subject of the Petition, is one of two new boilers that
7 were installed to replace Boiler Nos. 7, 8, 9, and 10, which were installed in 1944. Boilers 7, 8, 9,
8 and 10 provided steam to the Wilmington Refinery. New Boiler Nos. 11 and 12 were installed to
9 provide steam to the refinery in a way that reduced nitrogen oxides (“NOx”). Tesoro has
10 permanently shut down Boilers 7, 8, 9, and 10 (and other devices) and disconnected the fuel gas
11 lines to these boilers.

12 6. Boiler Nos. 11 and 12 and the Auxiliary boiler are now the only boilers we have
13 for steam. We need two of the three operating at capacity to have enough steam for stable
14 operations to avoid steam curtailment risks. Right now, Boiler No. 11 can only operate at
15 approximately 60% of its capacity. If we shut Boiler No. 12 down, we will experience unstable
16 operations.

17 7. Boiler No. 12 combusts fuel gas to generate heat to boil water that is then
18 converted to steam that is used in the refinery. The combusted fuel gas (also known as flue gas) is
19 routed to the SCR to reduce NOx arising from combustion. The SCR uses catalyst and ammonia
20 to reduce NOx. Ammonia is injected into the SCR and reacts with NOx in the presence of
21 catalyst and converts it to harmless nitrogen and water.

22 8. The SCR for Boiler No. 12 is large – 14 feet by 15.5 feet by 3 feet and 2 inches
23 wide. The SCR consists of multiple modules that are packed with reactive catalyst. The catalyst
24 provides an active surface where the chemical reaction for emission control can occur. A total
25 681.5 cubic feet of catalyst are used in the SCR.

26 **B. Start-up**

27 9. The new boiler and SCR (“Equipment”) introduce a new technology for the

1 refinery to meet stringent NOx limits. The Equipment is probably the first within the southern
2 California air basin expected to reach such low NOx. The start-up process for the boiler has been
3 extensive, detailed, and involving multiple steps including but not limited to:

- 4 a. A “boil out” where chemicals were pumped into the boiler at a target pressure and
5 temperature, internally circulated for 24 hours, and then drained out;
- 6 b. A “low-temperature SCR burn out and refractory dryout” that removed any
7 contaminants and ensure catalyst performance;
- 8 c. A “steam blow” process, which required 14 repeated sequences to ensure the
9 steam was of the quality necessary to supply refinery equipment; and
- 10 d. Development of a “burner curve,” where we ramped the equipment all the way up
11 and then all the way down manually to develop a safe operating window.

12 **FACTS RELEVANT TO FINDINGS**

13 **C. Good Cause**

14 10. We encountered unanticipated challenges during the extensive, detailed start-up
15 for Boiler No. 12. Boiler No. 12 began to show symptoms of fuel gas flow restriction. On the
16 morning of December 18, 2025, we proactively shut down Boiler 12 to remove debris identified
17 inside a fuel gas line.

18 11. During the start-up sequence that evening, however, we encountered a malfunction
19 involving the emergency isolation/chopper valve for the fuel gas line. The chopper valve opened
20 allowing fuel gas to accumulate in the boiler in a way that led to an unanticipated internal
21 combustion event.

22 12. We immediately stopped the start-up sequence during the evening of December
23 18, 2025 and inspected the boiler and SCR. Investigation determined that the bypass solenoid
24 switch had failed in the instrumentation panel. The solenoid had failed to switch to ensure a
25 closed/normal mode position for the chopper valve. We removed the panel and replaced it prior
26 to startup on December 22nd.

27 13. Between December 18 and December 22, 2025, we proactively decided to

1 continue our inspection of the Equipment to ensure good operating condition. We inspected the
2 SCR and conducted maintenance on all portions that our inspection identified. We found gaps
3 (i.e., dislocated portions) in SCR modules and sealed them. SCR catalyst typically lasts for at
4 least 10 years; therefore, catalyst deactivation was not a condition we expected nor was it
5 something that could have been detected even through internal inspection of the SCR.
6 Deactivated catalyst does not show any visual signs.

7 **D. Beyond Reasonable Control**

8 14. When we started up on December 22, 2025, the SCR's performance could not
9 achieve low NOx limits of 2.5 and 3 parts per million ("ppm").

10 15. Since then, we have taken several steps to improve the SCR, including:

- 11 a. Increased SCR inlet temperatures to improve effectiveness,
- 12 b. Increased ammonia injection rates,
- 13 c. Conducted stratification tests at various locations in the SCR and confirmed
14 channeling was not occurring and causing flue gas to bypass the catalyst,
- 15 d. Spoke with the SCR vendor and with the catalyst manufacturer to confirm
16 proper operation and troubleshooting, and
- 17 e. Evaluated operating parameters like SCR pressures.

18 16. Unfortunately, these steps did not reduce NOx. We determined that the chopper
19 valve failure caused abnormally high temperatures. We believe all of the catalyst in the SCR is
20 more than likely irreversibly damaged and should all be replaced. We, therefore, ordered
21 replacement catalyst on an expedited basis on December 30, 2025. The SCR catalyst needed is of
22 specific size and type specified in the Permit. The SCR manufacturer advised that the availability
23 of the catalyst is limited and long lead times apply. There has been an increase in shutdown and
24 turnarounds, as some facilities postponed maintenance during the pandemic until now.
25 Exponential growth in data centers has increased demands for catalyst. Additionally, the amount
26 of catalyst the refinery needs is not a small volume; therefore, it is difficult to "move orders
27 around" with other customers.

28 17. Given the need to replace catalyst, at this time, compliance with the NOx limits

1 remains beyond the refinery's control. We also believe that back-up boilers should be obtained
2 and permitted to help enhance the stability of refinery operations and lessen or avoid steam
3 curtailment issues.

4

5 I declare under penalty of perjury under the laws of the State of California that the
6 foregoing is true and correct.

7 Executed this 13th day of January 2026, in the County of Los Angeles, State of California.

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11 _____
12 Seth Conley (Jan 13, 2026 13:06:42 EST)

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