



South Coast Air Quality Management District

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Via Email and Certified Mail with return receipt

September 13, 2022

Michael D. Bechtol
Phillips 66 Wilmington
1660 W. Anaheim Street
Wilmington, CA 90744

Subject: Conditional Approval of AB 2588 Risk Reduction Plan for **Phillips 66 – Wilmington**
(South Coast AQMD Facility ID No. **171107**)

Dear Mr. Bechtol:

This letter provides conditional approval of the Risk Reduction Plan (RRP) for Phillips 66 Wilmington pursuant to the Air Toxics “Hot Spots” Act (AB 2588) and South Coast Air Quality Management District’s (South Coast AQMD) Rule 1402.

Background

In accordance with AB 2588 and South Coast AQMD Rule 1402, South Coast AQMD staff notified Phillips 66 Wilmington on May 3, 2019, to submit a Health Risk Assessment (HRA) based on its 2015 Air Toxics Inventory Report (ATIR). After multiple revisions, a final revised HRA was submitted for review on June 9, 2020. South Coast AQMD staff reviewed the HRA and approval was granted on August 21, 2020.

The HRA demonstrated that the cancer health risk levels were mainly due to emissions of diesel particulate matter, PAH’s, naphthalene, hexavalent chromium, and benzene from rental portable diesel engines, welding, fugitives, fluid catalytic cracking unit, and heaters. The levels exceeded both the Notification Risk Level and the Action Risk Level of Rule 1402; therefore, an RRP was required. Phillips 66 Wilmington submitted the RRP to South Coast AQMD on December 16, 2020. South Coast AQMD and Phillips 66 Wilmington held numerous meetings to address various comments and discrepancies. On October 29, 2021, a final RRP revision was submitted by Phillips 66 Wilmington.

Risk Reduction Plan and Next Steps

The RRP proposes various Risk Reduction Measures (RRMs) which demonstrates a reduction of the facility’s risk below the Action Risk Level and Notification Risk Level of Rule 1402. These RRMs include addition of DPM filters on various permitted engines and removal of two FCC heaters; both of these measures have already been implemented. Additionally, the facility proposed an annual DPM emissions limit on portable diesel ICE’s.

Therefore, the RRP is hereby conditionally approved contingent upon the conditions of approval described in this letter (see attached). The attached conditions shall be incorporated into your Title V facility permit, thereby making them enforceable under Rule 3002(c), and therefore you must submit an application for a Compliance Plan, along with fees in accordance to Rule 306.

Please be advised, pursuant to South Coast AQMD Rule 1402 (k)(1), if information becomes known to the Executive Officer after the last submitted risk reduction plan that would substantially impact risks to exposed persons, implementation, or effectiveness of the plan, the Executive Officer may require the plan to be updated and resubmitted. Such examples include discovery of fugitive emissions emitted outside of traditional ventilation stacks or new equipment or processes.

Pursuant to Rule 1402 (j), Phillips 66 Wilmington is required to submit annual progress reports to demonstrate the progress achieved in implementing the RRM's. However, staff notes that all risk reduction measures of the conditionally approved Risk Reduction Plan have already been implemented, except for the recordkeeping requirements. In accordance with Condition 1 (see attachment), Phillips 66 Wilmington is required to submit the first quarterly DPM report on October 1, 2022. These DPM reports shall be ongoing, however, once staff determines that the DPM reports meets the requirements of this conditional approval, the RRP shall be considered to be fully implemented.

If you have any questions, please contact Alberto Jasso, Air Quality Engineer II, at (909) 396-3581 or Victoria Moaveni, Program Supervisor at (909) 396-2455.

Sincerely,



Eugene Kang.
Planning & Rules Manager
Planning, Rule Development & Implementation

EK:VM:FC:AJ

Attachment: Conditions of Approval

**FACILITY PERMIT TO OPERATE: COMPLIANCE PLAN
PHILLIPS 66 WILMINGTON**

Rule 1402 Plan

A/N XXXXXX

Site Location: 1660 West Anaheim Street, Wilmington, CA 90744

ADMINISTRATIVE REQUIREMENTS:

This facility shall be subject to the terms and conditions of this plan unless this plan is suspended, revoked, modified, reissued, or denied. Failure to maintain a valid plan is a violation of Rule 1402.

It is the responsibility of the facility to comply with other District Rules and Regulations and with all laws, ordinances and regulations of other government agencies which are applicable to the operation of the equipment.

This plan does not authorize the emission of air contaminants in excess of those allowed by Division 26 of the Health and Safety Code or the Rules and Regulations of the South Coast AQMD. This plan cannot be considered as permission to violate existing laws, ordinances, regulations or statutes of other governmental agencies.

CONDITIONS:

1. Beginning on December 31, 2022, the operator shall fall below the Action Risk Level as defined in Rule 1402 (c)(2). Conditions 2 -10 shall be initiated no later than October 1, 2022.
2. The operator shall track and record all usage of portable diesel internal combustion equipment, including Rule 219-exempt portable diesel engines located at the facility. A log shall be maintained on-site which includes, at a minimum, the following parameters: engine size in brake horsepower, start and end hours read from a non-resettable totalizing timer, engine tier status, engine application, location of use by "block" area consistent with the approved HRA for the 2015 inventory year, and South Coast AQMD Permit Number or Portable Engine Rental Program (PERP) permit number, if applicable.

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PHILLIPS 66 WILMINGTON**

Rule 1402 Plan

A/N XXXXXX

3. All portable engines described in Condition 2 shall have a tier rating meeting or exceeding Tier 4 Interim emissions standards, with the limited exception where such engine is not reasonably available. If a portable diesel engine not meeting or exceeding this standard will be used on-site, and prior notification has not been already submitted pursuant to other regulatory requirements, the operator shall provide notice to the South Coast AQMD no more than 5 days following the time the portable diesel engine becomes operational by calling (800) CUT-SMOG. Every portable diesel engine present or entering the facility must have a non-resettable totalizing timer.
4. The operator shall not exceed an annual emission limit of 523 pounds per year for diesel particulate matter (DPM) emissions from portable diesel engines. The DPM emissions shall be calculated in accordance with Conditions 8 and 9 using information contained within the log described in Condition 2, and reported in accordance with Condition 10.
5. The operator shall include engines rated at or less than 50 hp in the monitoring log described in Condition 2 with "R219" written in the 'Permit #' column and include their emissions in the DPM limit calculations.
6. The operator shall keep a copy of all portable diesel engine monitoring logs identified in Condition 2, a copy of the South Coast AQMD Permit to Operate or Statewide Portable Equipment Registration, if applicable, engine specification sheets, and all emission calculations for at least 5 years.
7. The operator shall calculate DPM emissions based on an uncontrolled DPM emission factor for any engines where engine tier status cannot be substantiated by South Coast AQMD.
8. The operator shall calculate DPM emissions from all portable diesel engines using a default 100% load factor. Alternatively, the operator may use a load factor from the most recent revision of the U.S. EPA "Median Life, Annual Activity, and Load Factor Values for Nonroad Engine Emissions Modeling" if the corresponding application for the equipment has been recorded.
9. The operator shall use the following equation to calculate DPM emissions based on operating hours:

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Rule 1402 Plan

A/N XXXXXX

$$E_{DPM} = EF_{DPM} \times BHP \times L \times A \times (1 - CE) \times 0.0022$$

Where,

E_{DPM} = *DPM emissions, in pounds per year*

EF_{DPM} = *DPM emission factor, in g/bhp-hr, derived from U.S. EPA/CARB guidance (shown in Table 1 below) based on the Tier level and bhp of the engine. Note: to convert from g/kw-hr, divide by 1.34 bhp/kw*

BHP = *Engine brake horsepower*

L = *Load factor, unitless (default value is 1; see requirements above on using non-default values)*

A = *Engine activity, in hours operated per year*

CE = *DPM control efficiency, as a ratio (value between 0 and 1); to be used if the effect of an add-on control was not included in the DPM emission factor, otherwise the value should = 0*

0.0022 = *Unit conversion factor, grams to pounds*

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Rule 1402 Plan

A/N XXXXXXX

Table 1. Off Road Compression - Ignition Diesel Engine Standards (NMHC + Nox/CO/PM in g/bhp hr.)

hp (kw)	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015+
≥ 50 (37) < 75 (55.5)				N/A ^(a) 6.9 (9.2) N/A						5.6 (7.5) 3.7 (5.0) 0.30 (0.40)				3.5 (4.7) 3.7 (5.0) 0.22 ^(d)					3.5 3.7 0.02 ^(e)		
≥ 75 (55.5) < 100 (75)				N/A ^(a) 6.9 (9.2) N/A						5.6 (7.5) 3.7 (5.0) 0.30 (0.40)				3.5 (4.7) 3.7 (5.0) 0.3				0.14 2.5 3.7 0.01 ^(b,d)			0.14 0.29 3.7 0.01 ^(b)
≥ 100 (75) < 175 (130) ^(a)			N/A ^(a) 6.9 (9.2) N/A						4.8 (6.6) 3.7 (5.0) 0.22 (0.30)				3.0(4.0) 3.7 (5.0) 0.22					0.14 2.5 3.7 0.01 ^(b,d)			0.14 0.29 3.7 0.01 ^(b)
≥ 175 (130) < 300 (225) ^(a)		1.0 (1.3) ^(b) 6.9 (9.2) 8.5 (11.4) 0.40 (0.54)							4.8 (6.6) 2.6 (3.5) 0.15 (0.20)			3.0 (4.0) 2.6 (3.5) 0.15 ^(d)					0.14 1.5 2.6 0.015 ^(b,d)			0.14 0.3 2.6 0.01 ^(b)	
≥ 300 (225) < 600 (450) ^(a)		1.0 (1.3) ^(b) 6.9 (9.2) 8.5 (11.4) 0.40 (0.54)				4.8 (6.4) 2.6 (3.5) 0.15 (0.20)						3.0 (4.0) 2.6 (3.5) 0.15 ^(d)					0.14 1.5 2.6 0.015 ^(b,d)			0.14 0.3 2.6 0.01 ^(b,d)	
≥ 600 (450) ≤ 750 (560) ^(a)		1.0 (1.3) ^(b) 6.9 (9.2) 8.5 (11.4) 0.40 (0.54)				4.8 (6.4) 2.6 (3.5) 0.15 (0.20)						3.0 (4.0) 2.6 (3.5) 0.15 ^(d)					0.14 1.5 2.6 0.015 ^(b,d)			0.14 0.3 2.6 0.01 ^(b,d)	
> 750 (560) ^(a)						1.0 (1.3) ^(b) 6.9 (9.2) 8.5 (11.4) 0.40 (0.54)						4.8 (6.4) 2.6 (3.5) 0.15 (0.20)					0.3 2.6 2.6 0.07 ^(b)			0.14 2.6 2.6 0.03 ^(b)	
> 750 ≤ 1207	Generators					1.0 (1.3) ^(b) 6.9 (9.2) 8.5 (11.4) 0.40 (0.54)						4.8 (6.4) 2.6 (3.5) 0.15 (0.20)					0.3 2.6 2.6 0.07 ^(b)			0.14 0.5 2.6 0.02 ^(b)	
> 1207	Generators					1.0 (1.3) ^(b) 6.9 (9.2) 8.5 (11.4) 0.40 (0.54)						4.8 (6.4) 2.6 (3.5) 0.15 (0.20)					0.3 0.5 2.6 0.07 ^(b)			0.14 0.5 2.6 0.02 ^(b)	

a. The PM standard for hand-start, air cooled, direct injection engines below 6 bhp may be delayed until 2010 and be set at 0.45 g/bhp-hr.
 b. Standards given are NMHC/NOx/CO/PM in g/bhp-hr.
 c. Engine families in the power category may alternately meet Tier 3 PM standards (0.3 g/bhp-hr) from 2008-2011 in exchange for introducing final PM standards in 2012.
 d. The implementation schedule shown is the three-year alternate Nox approach. Other schedules are available.
 e. Certain manufacturers have agreed to comply with these standards by 2005.
 Note: This chart was converted into bhp units based on the chart at <http://www.arb.ca.gov/msprog/offroad/offroad.htm> 2/7/06.

	Tier 1		Interim Tier 4
	Tier 2		Final Tier 4
	Tier 3		

10. Within 60 days following the end of each quarter and calendar year, the operator shall submit DPM emission calculations for each quarter and calendar year to the South Coast AQMD's AB 2588 Program staff at AB2588@aqmd.gov.