



AUTHORITY TO CONSTRUCT

EASTERN KERN AIR POLLUTION CONTROL DISTRICT

Administrative Office: 2700 "M" Street Suite 302, Bakersfield, CA 93301
Phone: (661) 862-5250 • Fax: (661) 862-5251 • ekapcd@kerncounty.com

ISSUE DATE: XXXX XX, 2022	APPLICATION NO.:	1003026V
EXPIRATION: XXXX XX, 2024	DATE:	JANUARY 21, 2022

AUTHORITY TO CONSTRUCT IS HEREBY GRANTED TO:

CALIFORNIA PORTLAND CEMENT COMPANY

If this AUTHORITY TO CONSTRUCT is reissued to a new owner, any emissions increase assigned to this equipment during the initial New Source Review Process remains with initial bearer of this document.

AUTHORITY TO CONSTRUCT IS HEREBY GRANTED FOR:

Modification of Pyroprocessing System: Increase CO Emissions (PSD)

Rough Draft

(See attached sheets for equipment description and conditions)

S 24	T 11N	R 14W	Location: 8 Miles West of Mojave on Oak Creek Road, Mojave	Startup Inspection
-----------------------	------------------------	------------------------	---	---------------------------

This document serves as a temporary Permit to Operate only as provided by Rule 201 of the District's Rules and Regulations. For issuance of a Permit to Operate, Rule 208 requires equipment authorized by this Authority to Construct be installed and operated in accordance with conditions of approval. Changes to these conditions must be made by application and must be approved before such changes are made. This document does not authorize emission of air contaminants in excess of New Source Review limits (Rule 210.1) or Regulation IV emission limits. Emission testing requirements set forth on this document must be satisfied before a Permit to Operate can be granted.

UPON COMPLETION OF CONSTRUCTION AND/OR INSTALLATION, PLEASE TELEPHONE DISTRICT

Validation Signature:

Glen E. Stephens, P.E.
Air Pollution Control Officer

CONDITIONS OF APPROVAL:

Pursuant to Rule 209, "conditional approval" is hereby granted. Please be aware compliance with all conditions of approval imposed by any applicable Authority to Construct remain in effect for life of project, unless modified by application.

EQUIPMENT DESCRIPTION: Pyroprocessing System, including following equipment and design specifications:

- A. Oxygen injection system including: Vacuum Swing Absorption (VSA) plant, cryogenic storage tanks, vaporizers, pressure temperature control manifold with associated piping valves, regulators, trim heater and injection nozzles;
- B. Scrap tire shipping trailer parking/storage area;
- C. Scrap tire receiving conveyor;
- D. Scrap tire elevator;
- E. Scrap tire weigh bridge and conveyor;
- F. Scrap tire sliding air lock gate valve followed by two air lock flap gates;
- G. Two first stage preheating cyclones (H4-CC1A and CC1B) exhausting to heat exchanger (H4-6-HE1);
- H. Second stage preheater cyclone (H4-6-CC2);
- I. Third stage preheater cyclone (H4-6-CC3);
- J. Fourth stage preheater cyclone (H4-6-CC4);
- K. Gas conditioning tower with water injection;
- L. Preheater section exhaust fan and roller mill sweep fan (H4-6-KF1) with 3,000 hp motor;
- M. Preheater/precalciner combination burner assembly with coal and/or petroleum coke pipe, natural gas nozzle and fuel oil nozzle;
- N. Preheater bypass/beneficiation quench air chamber and blower (H6-6-BL1);
- O. Bleed air damper (H6-6-D1) with one drop out box (H6-6-B1) and two screw conveyors (H6-6-SC1 and H6-6-DC1-SC1) ventilated by fabric collector (H6-6-DC1);
- P. Beneficiation fabric dust collector (H6-6-DC1) with 432 - 12 in. dia. by 20.83 ft. long fiberglass twill filter tubes, reverse air cleaning mechanism, 300 hp exhaust fan and 50 hp reverse air fan;
- Q. Three beneficiation loadout screw conveyors (H6-6-DC1-SC1, SC2, and SC3) ventilated by fabric collector (H6-6-DC2);
- R. Beneficiation bucket elevator (H6-6-BE1) ventilated by fabric collector (H6-6-DC2);
- S. Beneficiation surge bin (H6-6-B2) ventilated by fabric collector (H6-6-DC2);
- T. Beneficiation truck loadout screw conveyor (H6-6-SC4) ventilated by fabric collector (H6-6-DC2);
- U. Beneficiation Fuller-Kenyon pneumatic transfer system (H6-6-FP1) and 100 hp compressor ventilated by fabric collector (H6-6-DC2);
- V. Beneficiation loadout fabric dust collector (H6-6-DC2) with 64 - 4.75 in. dia. by 10 ft. long polyester filter tubes, pulse jet cleaning mechanism and 15 hp exhaust fan;
- W. Beneficiation system alleviator (H6-6-CC1) going to existing surge bin ventilated by fabric collector (H6-6-DC3);
- X. Beneficiation surge bin fabric dust collector (H6-6-DC3) with 25 - 4.5 in. dia. by 10 ft. long polyester filter tubes, pulse jet cleaning mechanism and 7.5 hp exhaust fan;
- Y. Fuller Company rotary kiln #6 with variable, multiple fuel burner assembly with retractable burner pipes for coal and/or petroleum coke, and nozzles for natural gas and fuel oil;
- Z. Coal and/or petroleum coke transfer belt conveyors (R3-BC7 and BC8) (from existing storage) with dust control achieved by maintaining adequate moisture content (supplied by existing coal and/or petroleum coke handling system PTO 1003010C);
- AA. Coal and/or petroleum coke storage silo (R3-CSS2) with dust control achieved by maintaining adequate moisture content (supplied by existing coal and/or petroleum coke handling system PTO 1003010C);
- BB. Coal and/or petroleum coke mill weigh feeder (H7-6-WF1) ventilated by fabric collector (H7-6-DC1);
- CC. Inerting bin (H7-6-CC1) with two dampers (H7-6-D1 and H7-6-D2);
- DD. Coal and/or petroleum coke mill (H7-6-CM1), natural gas-fired air heater (H7-6-AH1), and blower (H7-6-BL1) ventilated to fabric collector (H7-6-DC1);

- EE. Coal and/or petroleum coke mill hot air (from clinker cooler) cleaning cyclone (H7-6-CC1) with two dampers (H7-6-D1 and D2);
- FF. Coal and/or petroleum coke mill hot air alternate flow damper (H7-6-D4) and blower (H7-6-BL2) into kiln #6;
- GG. Coal and/or petroleum coke mill fabric dust collector (H7-6-DC1) with 633 - 4.5 in. dia. by 10 ft. long polyester filter tubes, pulse jet cleaning mechanism and 300 hp exhaust fan;
- HH. Coal and/or petroleum coke mill mini-bins (H7-6-B1, B2, and B3) ventilated by fabric collector (H7-6-DC1);
- II. Two parallel coal and/or petroleum coke airlines (H7-6-AS1 and AS2), blower, and impact scales (H7-6-IS1 and IS2) ventilated by fabric collector (H7-6-DC1);
- JJ. Two parallel coal and/or petroleum coke diverter gates (H7-6-DG1 and DG2);
- KK. Fuller-Kenyon coal and/or petroleum coke pump (H7-6-FP1) and 150 hp blower with dust control ventilation by fabric collector (H7-6-DC1) (to precalciner burners);
- LL. Fuller-Kenyon coal and/or petroleum coke pump (H7-6-FP3) and 150 hp blower with dust control ventilation by fabric collector (H7-6-DC1) (to coal burner H3-6-KBC01 at kiln #6);
- MM. Fuller-Kenyon coal and/or petroleum coke pump (H7-6-FP2) and 150 hp blower with dust control ventilation by fabric collector (H7-6-DC1);
- NN. Two precalciner hot air (from clinker cooler) dust settling chambers and one damper (H4-6-D1);
- OO. One dust settling conveyor belt (H4-6-DCR1) ventilated by fabric collector (H2-6-DC1);
- PP. Kiln gas fabric dust collector (H5-6-DC1) (gas from roller mill) with 3,168 – 6.5 in. dia. by 24 ft. long teflon/PTFE filter tubes and 1,750 hp exhaust fan;
- QQ. Three kiln gas section screw conveyors (H5-6-DC1-SC2, SC4 and H5-6-SC1);
- RR. Kiln gas section bucket elevator (H5-6-BE1) ventilated by fabric collector (D2-6-DC2) (roller mill system);
- SS. Two kiln gas section airlines (H5-6-AS1 and AS2) and blower (H5-6-BL1) ventilated by fabric collector (D2-6-DC3) (roller mill system);
- TT. Ammonia injection system, reagent for selective non-catalytic reduction system (SNCR), including: 20,000-gallon ammonia storage tank, ammonia pump (H4-6-APS-P1), distribution piping to injection ports at calciner and injection control system;
- UU. Hydrated lime injection system, including: 10,000-cu.ft. storage bin, 2400-cfm bin vent filter (H4-6-LIS-DC1) with 10-hp exhaust fan, vibrating bin discharger (H4-6-LIS-BA), weigh bin, rotary feeder, blower with 40-hp motor (H4-6-LIS-BL1) feeding line to kiln feed/stage 2 outlet; and
- VV. Lime slurry injection system, including hopper with dual pant leg, slurry tank, rotary feeder, slurry pump with 15-hp motor, and screw conveyor with 3-hp motor.
- WW. Fabric Collector CKD with 3,500-cfm exhaust flow rate

NOTIFICATION REQUIREMENTS:

In accordance with District Rule 201.II (Permits Required), a person shall notify the Control Officer before operating or using equipment granted in this Authority to Construct. This Authority to Construct shall serve as a temporary Permit to Operate only after such notification. Such notification shall be completed in writing. Intent to Use Notification form is available at the District website: http://www.kernair.org/Main_Pages/Subpages/Forms_Sub/Application_Forms.html. Form can be mailed to the District Administrative Office at: 2700 "M" Street Suite 302, Bakersfield, CA 93301, e-mailed to the District at the following address: ekapcd@kerncounty.com, or sent by FAX to the District at: (661) 862-5251.

OPERATIONAL CONDITIONS:

1. Gas conditioning tower with water injection shall be equipped with operational water flow meters to assure operation of water injection system. (Rule 210.1)
2. Fabric collector serving hydrated lime storage silo shall be equipped with operational differential pressure indicator. (Rule 210.1)
3. Fabric collector shall be equipped with pulse-jet cleaning mechanism. (Rule 210.1)
4. Ammonia injection system shall be equipped with ammonia metering system determining rate of ammonia injection. (Rule 210.1)

5. Kiln exhaust stack shall be equipped with ammonia and sulfur dioxide continuous monitors/recorders system. (Rule 210.1)
6. Oxygen injection system including VSA plant shall be constructed and maintained in accordance with manufacturer's specifications. (Rule 210.1)
7. Visible emissions from fabric collector CKD shall not exceed 5% opacity or Ringelmann ¼ for not more than 3 minutes in any one hour. (Rule 210.1 BACT Requirement)
8. Visible emissions from kiln shall not exceed 20% opacity. Visible emissions from all other sources shall not exceed 10% opacity. (Rule 422 NSPS, Subpart F)
9. Material removed from fabric dust collectors and other collected fines shall be returned to product stream (except beneficiation system alkali fines) or otherwise disposed of using method preventing entrainment in atmosphere. (Rule 210.1)
10. Alkali dust from beneficiation system shall be mixed into slurry before discharging to pond. (Rule 210.1)
11. Each fabric collector shall have operational differential pressure indicator(s). (Rule 210.1)
12. Sufficient moisture shall be applied to coal supply system (PTO 1003010C) to prevent dust emissions when handling, storing, and transferring. (Rule 210.1)
13. Kiln shall be fired only with coal, petroleum coke, natural gas, fuel oil, or whole tires. No other combustible products shall be added to kiln system without prior written permission of Control Officer. (Rule 210.1)
14. Tires shall not exceed 3.6% by weight of total pyro processing system fuel without prior District approval and toxics testing. (Rule 210.1 and per application and EIR)
15. Tires to be used as fuel shall not be open-stored or stockpiled, and, unless otherwise prohibited by local Fire Marshal, tires stored in delivery trailers shall not exceed seven days inventory without prior approval of Control Officer. (Rule 210.1)
16. No air contaminant shall be released into atmosphere which causes public nuisance or public health hazard. (Rule 419 and CH&SC, Sec 41700)
17. Equipment breakdowns resulting in non-compliance with any emission limitations shall be reported pursuant to Rules 111 and 422. (Rule 422, Subpart F)
18. Kiln shall be operated using tire-derived fuel only when all pyro processing system control equipment is operated pursuant to manufacturer's recommendations resulting in particulate emissions not exceeding 0.015-gr/scf and 0.30-lb/ton of kiln feed. (Rules 210.1 and 422, Subpart F)
19. Kiln exhaust NO_x (as NO₂) emission rate not to exceed 2.5-lb NO_x (as NO₂) per ton of clinker produced, based on a 30-day rolling average. (Rules 210.1)
20. Kiln exhaust SO₂ emission rate not to exceed 1.7-lb SO₂ per ton of clinker produced, based on a 90-day rolling average. (Rules 210.1)
21. There shall be no fugitive emissions from any process or dust control equipment. (Rule 210.1)
22. Hydrated lime shall be pneumatically loaded into storage bins. (Rule 210.1)
23. California Portland Cement Company shall maintain files including: a) data collected from in-stack monitoring instruments and process monitoring, b) fuel input rate, c) sulfur content of fuels input into kiln, d) fuels sulfur balance showing compliance with 2.0% limit, e) clinker production rates, and f) results of all source tests and calibrations checks.
24. District shall have access to and be provided (upon request) with copies of any record required to be kept under terms and conditions of permit. Furthermore, such persons shall have access to inspect any equipment, operation, or method required in this permit, and to sample, or require sampling, of emissions sources. (Rule 107)
25. H5-6-DC1 exhaust stack shall be equipped with continuous monitors/recorders for opacity, nitrogen oxides, and non-methane hydrocarbons; and precalciner combustion chamber shall be equipped with continuous monitors/recorders for oxygen and carbon monoxide. **Non-methane hydrocarbons and oxygen and carbon monoxide shall be monitored only when using tires as fuel.** (Rule 210.1)
26. H5-6-DC1 exhaust stack shall be equipped with continuous monitors/recorders for oxides of sulfur as sulfur dioxide (SO_x as SO₂), carbon monoxide (CO), and ammonia (NH₃). (Rule 210.1)
27. Kiln exhaust CO emission rate not to exceed 3.0-lb CO per ton of clinker produced, based on a 90-day rolling average. (Rule 210.1)

STATE OF CALIFORNIA AIR TOXICS HOT SPOTS REQUIREMENTS:

Facility shall comply with California Health and Safety Code Sections 44300 through 44384. (Rule 208.1)

COMPLIANCE TESTING REQUIREMENTS:

Annual testing for compliance with volatile organic compound, particulate, oxides of sulfur (as SO₂), oxides of nitrogen (as NO₂), and carbon monoxide (CO) emission limits shall be demonstrated by District-witnessed sample collection by certified testing laboratory pursuant to Rule 108.1.

Source test shall utilize hourly emissions limits on this permit to determine compliance.

For the purpose of determining compliance with an applicable standard or numerical limitation, the arithmetic mean of three test runs shall apply, unless two of the three results are above the applicable limit. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit.

If this permit utilizes an hourly rolling average or daily emission limits to determine normal compliance, only the hourly emission limit (rolling average shall not be utilized) or 1/24th of daily emission limits shall be utilized to determine compliance for the required annual source test.

Should inspection reveal conditions indicative of non-compliance, compliance with hourly and concentration emission limits shall be verified pursuant to Rule 108.1 and District Guidelines for Compliance Testing, within 30 days of District request. (Rule 108.1)

EMISSION LIMITS:

Maximum emissions rate of each air contaminant from this emission unit shall not exceed following limits:

Particulate Matter (PM₁₀):

Beneficiation Collector H6-6-DC1	5.79	lb/hr
Loadout Collector H6-6-DC2	0.51	lb/hr
Surge Bin Collector H6-6-DC3	0.15	lb/hr
Coal Mill Collector H7-6-DC1	3.86	lb/hr
Kiln #6 Collector H5-6-DC1	31.89	lb/hr
Fabric Collector D2-6-DC1	0.99	lb/hr
Fabric Collector D2-6-DC2	0.31	lb/hr
Fabric Collector D2-6-DC3	0.71	lb/hr
Fabric Collector H4-6-DC1	3.41	lb/hr
Fabric Collector H4-6-DC2	0.90	lb/hr
Fabric Collector F3-6-DC1	0.58	lb/hr
Fabric Collector (Lime Storage)	0.21	lb/hr
Fabric Collector (CKD)	0.15	lb/hr
<hr/>		
PM ₁₀ Emission Totals:	49.46	lb/hr
	1,186.94	lb/day
	215.72	ton/yr

Oxides of Sulfur (as SO₂): 2,698.08 ton/yr

Oxides of Nitrogen (as NO₂): 3,744.90 ton/yr

Volatile Organic Compounds (VOC): 18.35 lb/hr
(as defined in Rule 210.1) 440.40 lb/day

80.37 ton/yr

Carbon Monoxide:

2,553.00 lb/hr (8-hr average) (Rule 210.4)
61,272.00 lb/day
2,277.00 ton/yr

Ammonia:

10.0 ppmv dry @ 7% O₂ (24-hr rolling avg.)
171.17 lb/day
62,475.67 lb/yr

(Emissions limits established pursuant to Rule 210.1 unless otherwise noted)

Compliance with maximum daily emission limits shall be verified by source operator (with appropriate operational data and record keeping to document maximum daily emission rate) each day source is operated and such documentation of compliance shall be retained and made readily available to the District for period of five years. (Rules 209 and 210.1)