



**Phillips 66 Company**  
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April 16, 2002

ESDR-087-02  
ACC-1.5

Mr. Donald Van Buren  
Bay Area Air Quality Management District  
939 Ellis Street  
San Francisco, CA 94109

**Subject: Comments regarding Plant 22 Title V Permit**

Dear Mr. Van Buren:

The following are comments relating the Draft Title V Permit for Plant 22.

1. Page 7, Source # S-1. Please change the description to "...Natural gas fired, ~~60~~ 62 MMBTU/HR" and the description to "...kiln with ~~Coen~~ Procedair Industries burner".  
This kiln is identical to S-2 as to make, type and capacity. It was noted during a recent review of the Carbon Plant BAAQMD files that both S-1 and S-2 were listed at 62 MMBTU/HR indicating that this information had been previously supplied to the District.
2. Page 7, Source # S-6. Please change make or type to "DCL Loading System. Capacity should be 350 tons per hour. See attached documentation. In addition, please delete reference to "20 minutes per batch", this limitation is unnecessary given the hourly and annual limitation. The basis for adding this new limitation is not known as it was not in previous permits. It adds potential operational or monitoring limitations without an improvement in air quality.
3. Page 7, A-# A-1 and A-2. Please change "...30 MMBTU/HR" to 43.8 MMBTU/HR in both cases the burner is sized at 43.8 MMBTU/HR. See attached documentation.
4. Page 11, 12, A-# A-10 and A-11. Please delete "Reverse Air, with Natural Gas fired heater (10 MMBTU/HR)" and replace with "Pulse Jet" in both cases. The fired heater has been demolished.

We appreciate your consideration of our comments. Please contact me at (510) 245-4439 if you have any questions.

Very truly yours,

Dale G. Iverson  
Senior Environmental Engineer

DGI/av

Attachments

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I did more digging into the proposal and found that the loading spout was spec'd out for 350 tons per hour. Maybe this information will be a little easier to use.

Bruce

CHOKLE FEEDER

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Date and time of transmission: Thursday, February 21, 2002 3:05:32 PM  
Number of pages including this cover sheet: 01

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RERATE CONSTANTS

19875

UNITS SELECT

RATE UNITS (LB./MIN, LB./HR, T/HR) KG/MIN, KG/HR, U/HR)  
 TOTAL UNITS (LBS, TONS) KG, U)

DECIMAL POINTS

RATE D.P. 1  
 TOTALIZER D.P. 1  
 SPEED D.P. 1  
 BELT LOAD D.P. 2  
 BELT LENGTH D.P. 2

DESIGN CAPACITIES

RATE CAP 350.0  
 DESIGN SPEED 320.0  
 BELT LOAD 36.46

OTHER PARAMETERS

	NOMINAL	ACTUAL
PULSES/BELT REV	<u>14629</u>	<u>          </u>
BELT LENGTH	<u>186.00</u>	<u>          </u>
TEST BELT REVS	<u>2</u>	<u>          </u>
CHAIN LOAD	<u>N/A</u>	<u>          </u>
E-CAL LOAD	<u>35.20</u>	<u>          </u>
NO. RATE AVG'S	<u>5</u>	<u>          </u>
EMT DIVIDE VALUE	<u>2000</u>	<u>          </u>
EXT PULSE LENGTH	<u>0.01</u>	<u>          </u>

CALIBRATION

AUTO-TARE PARAMETERS

NO (0), AUTO (1) 0  
 % LOAD 2.0  
 TARE DELAY (SEC) 15.0  
 MAX % CHANGE 2.0

TOTALIZER CUT-OFF

TOTAL CUT-OFF % 3.0

### ALARMS

#### HIGH/LOW ALARM

ALARM MODE (RATE HI/LO) SPEED HI/LO, WEIGHT HI/LOW

#### ALARM VALUES

HI RATE ALARM	<u>350.0</u>	(100%)
LO RATE ALARM	<u>122.5</u>	(35%)
HI SPEED ALARM	<u>340.0</u>	
LO SPEED ALARM	<u>100.0</u>	
HI WEIGHT ALARM	<u>43.75</u>	(120%)
LO WEIGHT ALARM	<u>9.12</u>	(25%)

#### ALARM DELAYS

HI DELAY (SEC)	<u>2</u>
LO DELAY (SEC)	<u>2</u>

#### ZERO SPEED SWITCH

OUTPUT MODE (ON ABOVE CUT-OFF, ON BELOW CUT-OFF)

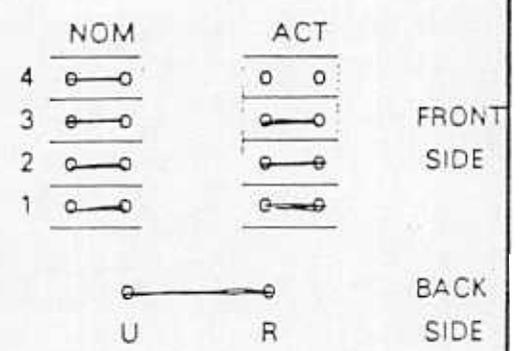
SPEED CUT-OFF %	<u>1.0</u>
DELAY (SEC)	<u>0.0</u>

### TRANSDUCER A/D

#### RUN/CAL SWITCHES

RUN		CAL	
NOM	ACT	NOM	ACT
4	<u>DOWN</u>	<u>UP</u>	_____
2	<u>DOWN</u>	<u>UP</u>	_____
2	<u>DOWN</u>	<u>UP</u>	_____
1	<u>DOWN</u>	<u>DOWN</u>	_____

#### A/D JUMPER



TARE A/D COUNTS: \_\_\_\_\_  
 CHAIN LOAD A/D COUNTS: \_\_\_\_\_  
 EST. MAX A/D COUNTS: 12510  
 (@ 120 % DESIGN LOAD)

MAX A/D COUNTS = TARE A/D COUNTS +

(CHAIN A/D COUNTS - TARE A/D COUNTS) X DESIGN LOAD X 1.20  
 CHAIN LOAD

THIS NUMBER MUST NOT EXCEED 24000 COUNTS

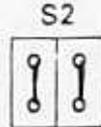
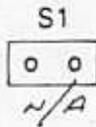
MC<sup>2</sup> OPTION CARD DATA

19875

ANALOG EXTENSION CARD NO. 1

OUTPUT NO. 1 4 TO 20 MA  
 OUTPUT NO. 2 N/A TO \_\_\_\_\_ MA  
 INPUT NO. 1 N/A TO \_\_\_\_\_ (MA, VDC)

JUMPER POSITIONS

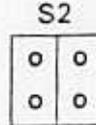


ANALOG EXTENSION CARD NO. 2

N/A

OUTPUT NO. 3 \_\_\_\_\_ TO \_\_\_\_\_ MA  
 OUTPUT NO. 4 \_\_\_\_\_ TO \_\_\_\_\_ MA  
 INPUT NO. 2 \_\_\_\_\_ TO \_\_\_\_\_ (MA, VDC)

JUMPER POSITIONS

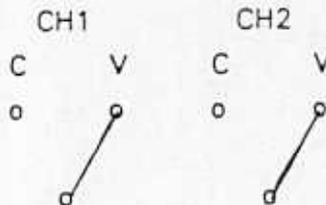


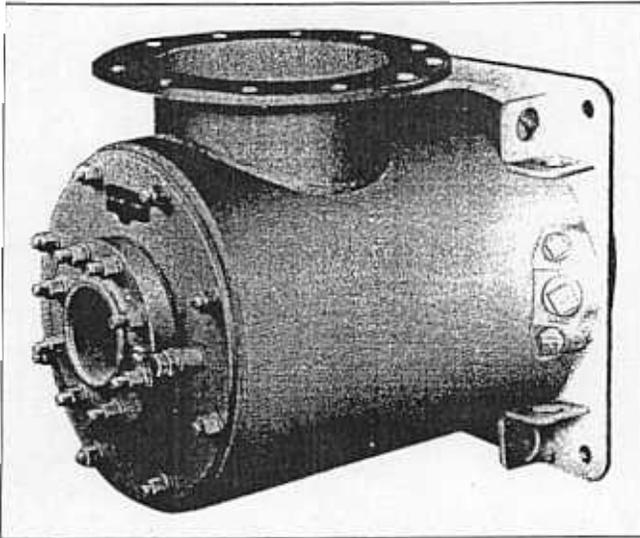
SERIAL COMMUNICATIONS

DISPLAY BD  
 SWITCH SETTINGS  
 S4 S3 S2 S1  
 ON ON ON ON

PRINTER (DIGITEC, STANDARD)  
 BAUD RATE (300, 600, 1200, 2400, 4800, 9600)  
 DATA BITS (7, 8)  
 PARITY (NO, ODD, EVEN)  
 STD CODES  
 BEGIN 10 (NORMAL = 13) CR  
 PRINT 13 (NORMAL = 10) LF  
 PRINTOUT (TOTAL, SUB-TOTAL, BATCH)  
 (NO DATE, WITH DATE)  
 CHAN NO. 1 (V28, 20 MA C.L.)  
 CHAN NO. 2 (V28, 20 MA C.L.)

HOOK-UP SWITCH POSITIONS





Long Stable Flame--Wide Range of Air/Gas Ratios  
Electronic Flame Supervision

### BURNER DESCRIPTION

The 4795 MAGNA-FLAME Gas Burner is designed to combine the versatility of the smaller forward flame burners, the convenience of the large capacity burners, and the safety of modern flame supervisory systems.

Operation is quiet and the flame is tile-stable over a wide range of air/gas ratios from fuel rich to 1000% excess air. It may be used on cold, sealed-in applications running on-ratio or lean.

Sizes up to 20" are available (approximately 56 000 000 Btu/hr) making it convenient to use where multiple small burners would be impractical. Uses for the 4795 MAGNA-FLAME Burner are varied, ranging from dryers, boilers, and fluidized bed heating to air heaters and fume incineration.

Table 1. COMBUSTION AIR CAPACITY, scfh. (For Btu/hr capacity, multiply cfh by 100.)

Burner Designation	Air pressure at burner, osi			
	1.0	5.0	6.0	8.0 <sup>b</sup>
4795-9-A	29 000	64 800	71 000	82 000
4795-9-B	36 000	80 500	88 200	101 700
4795-10	47 500	106 000	116 300	134 300
4795-12	70 000	156 500	171 500	198 000
4795-14	95 500	213 500	234 000	270 000
4795-16	120 500	269 000	295 000	340 000
4795-18	155 000	346 000	380 000	438 000
4795-20	200 000	447 000	490 000	565 000

<sup>a</sup> Because of a positive pressure in the burner, it is difficult to light with a torch unless the air is turned very low and a strong pressure torch is used.

<sup>b</sup> Maximum recommended pressure.

43.8m

### FLAME DESCRIPTION

In general, the on-ratio flame at high fire is straight, increasing gradually in diameter to a maximum near the end. The end is not well defined, being somewhat jagged rather than rounded or pointed. At high fire, the flame is blue as it leaves the tile, changing quickly to transparent blue-yellow and then to yellow for about the last half of the visible length. As the burner is turned down, the flame becomes yellow and more opaque, and at low fire is quite luminous.

### CONSTRUCTION

The MAGNA-FLAME burner does not include a refractory tile--the shape shown on the dimension sketch must be built into the combustion chamber wall. See Supplement AM-10 for suggested arrangement.

The body is fabricated of heavy duty welded steel with a refractory ring in the front.

### PILOT and FLAME SUPERVISION

The MAGNA-FLAME burner should be pilot ignited<sup>a</sup>. A pilot of the size shown on the table below is required, and provision must be made for low fire start with 1.0"wc or less main air. For flame supervision the pilot must be of the interrupted type. A UV flame detection system is preferred. Flame rod systems are available--consult North American. A standard flame detector adapter should be used. Operation with the R4138A-C7012E checking system is good.

Air pressure at the pilot mixer must be at least 6 osi, and the pilot regulator must be cross-connected to the pilot air line to insure an adequate pilot--see Sheet 4014.

### CONTROL

The use of flow control systems is expected with the 4795 Burner, at least in the larger sizes. The gas pressure requirement, however, is about 0.6 times the air pressure, so that cross-connected regulator systems can be used.

Table 2. MAXIMUM % EXCESS AIR and PILOT DATA

Burner Designation	Air pressure, osi			Pilot Ass'y
	0.2	4.0	8.0	
4795-9-A	840	1090	1090	4014-1-T
4795-9-B	840	1150	1100	4014-1-T
4795-10	800	1100	1150	4014-2-T
4795-12	800	1100	1150	4014-2-T
4795-14	800	1100	1300	4014-3-AT
4795-16	800	1000	1400	4014-3-AT
4795-18	800	1100	1400	4014-3-AT
4795-20	800	1100	1500	4014-3-BT