

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND COMPLIANCE

APPLICATION PROCESSING AND CALCULATION

Page 1 of 6

Date: 08/02/12

A/P: See Page 1

PROCESSED BY: MS

CHECKED BY:

**PERMIT TO CONSTRUCT
PERMIT TO CONSTRUCT/OPERATE**

(FACILITY ID# 16639)

Applicant Name: Shultz Steel

Mailing Address: 5321 Firestone Blvd.
South Gate, CA 90280

Equipment Location: SAME

EQUIPMENT DESCRIPTIONS:

APPLICATION NO. 536732 D26

ALTERATION TO HEAT TREAT FURNACE PERMIT TO OPERATE F97553
(A/N 477521) DEVICE D26, BY THE REMOVAL OF:

TWO ZEDTEC BURNERS, MODEL HOTWORK EJ06, NATURAL GAS
FIRED, EACH 8,200,000 BTU/HR, REGENERATIVE, BURNER PAIR
8,200,000 BTU/HR AND THE ADDITION OF:

EIGHT HOTWORK BURNERS, MODEL HV300, NATURAL GAS FIRED,
EACH 1,000,000 BTU/HR, 8,000,000 BTU/HR TOTAL

APPLICATION NO. 536733, 540384

TITLE V/RECLAIM REVISION

APPLICATION NO. 540381 C53

ADMINISTRATIVE CHANGE BY ADDITION OF A BAG LEAK DETECTION
SYSTEM FOR THE:

AIR POLLUTION CONTROL SYSTEM CONSISTING OF:

1. BAGHOUSE, WHEELABRATOR, SIZE 915, MODEL 144 TA-SB, PULSE JET
CLEANED, 4.26:1 AIR TO CLOTH RATIO, WITH 225 FILTER BAGS, EACH
6" DIA. X 12' L., 4,230 SQ. FT TOTAL FILTER AREA, AND ONE BAG LEAK
DETECTION SYSTEM, GOYEN, MODEL BBD5.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND COMPLIANCE

APPLICATION PROCESSING AND CALCULATION

Page 2 of 6
Date: 08/02/12
A/P: See Page 1
PROCESSED BY: MS
CHECKED BY:

PERMIT CONDITIONS: (SEE TITLE V PERMIT)

BACKGROUND:

Shultz Steel submitted A/N 536732 on April 27, 2012 for furnace D26 to replace burners @ 65 ppm NOx.

The facility submitted A/N 536733 on April 27, 2012 for a Title V/RECLAIM Revision.

On July 13, 2012, Shultz filed for a Title V/RECLAIM Revision, A/N 540384.

On July 13, 2012, Shultz filed A/N 540381, to add a Bag Leak Detection System to the baghouse (A/N 447954, P/N F83567) as required per Rule 1155.

PROCESS DESCRIPTION:

Furnace burners are retrofitted in order to reduce NOx emissions. The BLDS will be installed as an indicator of filter performance. If dust particles from a broken filter bag impinge on the probe in the stack, they produce current changes and a signal is produced. The control panel can be hooked up to an external device such as a horn, bell, and/or light.

PERMIT CONDITIONS: (SEE PERMIT)

EMISSION CALCULATIONS

A/N 540381

For BLDS installation, this is an Administrative Change with no increase in emissions.

A/N 534630

CALCULATIONS:

Given:

Maximum Heat Input Rating, MM BTU/hr:

Fuel:

Equipment Operating Load:

Conversion Factors, ppm @ 3% O₂ to lb/MM BTU

PostMod

8.0

Natural gas

100%

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND COMPLIANCE

APPLICATION PROCESSING AND CALCULATION

Page 3 of 6
 Date: 08/02/12
 A/P: See Page 1
 PROCESSED BY: MS
 CHECKED BY:

NOx		0.00121	[lb/MM BTU]/ppm
CO		0.00074	[lb/MM BTU]/ppm
Operating Schedule:			
hrs/day		24	
days/wk		7	
weeks/yr		52	
NOx Concentration, ppm @ 3% O ₂ (dry)		50	
Emission Factors, lb/MM BTU:	(Default)		
ROG:		0.0067	
SOx :		0.0008	
CO:		0.0333	
PM:		0.0071	
PM ₁₀ in total PM:		100%	
HHV of natural gas:		1,050	BTU/ft ³

Computations:

VOC:

lb/hr	0.0067 lb/MM BTU*8 MM BTU =	0.05	lb/hr
lb/day Max.	0.05 lb/hr*24 hrs/day =	1.28	lb/day Max.
lb/day, Avg	0.05 lb/hr*24 hrs/day*1.00 (Load factor) =	1.28	lb/day, Avg
lb/yr	.28 lb/day*7 days/wk*52 wks/yr =	465.92	lb/yr

NOx:

lb/MM BTU	0.00121 lb/MM BTU-ppm*50 ppm =	0.0607	lb/MM BTU
lb/hr	0.0607 lb/MM BTU*8 MM BTU/hr =	0.49	lb/hr
lb/day Max.	0.49 lb/hr*24 hrs/day =	11.65	lb/day Max.
lb/day, Avg	0.49 lb/hr*24 hrs/day*1.00 (Load factor) =	11.65	lb/day, Avg
lb/yr	11.65 lb/day*7 days/wk*52 wks/yr =	4242.39	lb/yr

SOx:

lb/hr	0.0008 lb/MM BTU*8 MM BTU =	0.006	lb/hr
lb/day Max.	0.006 lb/hr*24 hrs/day =	0.15	lb/day Max.
lb/day, Avg	0.006 lb/hr*24 hrs/day*1.00 (Load factor) =	0.15	lb/day, Avg
lb/yr	0.15 lb/day*7 days/wk*52 wks/yr =	55.24	lb/yr

CO:

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND COMPLIANCE

APPLICATION PROCESSING AND CALCULATION

Page 4 of 6
 Date: 08/02/12
 A/P: See Page 1
 PROCESSED BY: MS
 CHECKED BY:

lb/hr 0.0333 lb/MM BTU*8 MM BTU = 0.27 lb/hr
 lb/day Max. 0.27 lb/hr*24 hrs/day = 6.40 lb/day Max.
 lb/day, Avg 0.27 lb/hr*24 hrs/day*1.00 (Load factor) = 6.40 lb/day, Avg
 lb/yr 6.40 lb/day*7 days/wk*52 wks/yr = 2329.60 lb/yr

PM/PM10

lb/hr 0.0071 lb/MM BTU*8 MM BTU = 0.06 lb/hr
 lb/day Max. 0.06 lb/hr*24 hrs/day = 1.37 lb/day Max.
 lb/day, Avg 0.06 lb/hr*24 hrs/day*1.00 (Load factor) = 1.37 lb/day, Avg
 lb/yr 1.37 lb/day*7 days/wk*52 wks/yr = 499.20 lb/yr

	VOC	NOx	SOx	CO	PM/PM10
Factor (lb/MM BTU)	0.0067	0.0607	0.0008	0.0333	0.0071
lb/hr	0.05	0.49	0.006	0.27	0.06
lb/day					
Max.	1.28	11.65	0.15	6.40	1.37
Avg.	1.28	11.65	0.15	6.40	1.37
lb/yr	465.92	4,242.39	55.24	2,329.60	499.20

RULES EVALUATION:

RULE 212: (c) (1): This section requires a public notice for all new or modified permit units that emit air contaminants located within 1000 feet from the outer boundary of a school.

The nearest school is approximately 3,696 ft. from the boundary of the facility, therefore, public notice is not required.

(c)(2): This section requires a public notice for all new or modified facilities having onsite emission increases exceeding any of the daily maximums specified in Rule 212(g).

This is not a project requiring notification as described in this paragraph.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND COMPLIANCE

APPLICATION PROCESSING AND CALCULATION

Page 5 of 6
Date: 08/02/12
A/P: See Page 1
PROCESSED BY: MS
CHECKED BY:

(c)(3): This section requires a public notice for all new or modified permit unit with increases in emissions of toxic air contaminants listed in Table I of Rule 1401 resulting in MICR greater than $1E-6$ per permit unit or greater than $10E-6$ per facility.

The proposed project is not expected to result in increased toxic pollutant emissions, therefore, public notice is not required.

(g): Project emissions do not exceed daily max thresholds. Public Notice is not required.

RULE 401: Visible emissions are not expected with proper operation of this equipment.

RULE 402: Nuisance is not expected if equipment is properly operated and maintained.

RULE 404: Compliance is expected if equipment is properly operated and maintained.

RULE 1147: Because the equipment is at a RECLAIM facility, it is exempted.

RULE 1155: Operator shall only be exempt from the visible emissions provisions of paragraph (e)(1). Compliance is expected with Rule 1155. However, must do visible emissions inspections as required by Title V.

REG XIII – NEW SOURCE REVIEW

There is no emission increase due to the modification, NSR is not applicable.

RULE 2005: The facility is a NO_x RECLAIM facility. There is no net increase in NO_x. Additional NO_x allocation is not needed under RECLAIM Rule 2002. No offset is needed.

REG XXX: Applications for “minor permit revision” require EPA 45-day review.

RULE 1401: There is no emission increase due to the modification. Rule 1401 analysis not applicable.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND COMPLIANCE

APPLICATION PROCESSING AND CALCULATION

Page 6 of 6
Date: 08/02/12
A/P: See Page 1
PROCESSED BY: MS
CHECKED BY:

CONCLUSIONS AND RECOMMENDATIONS:

Based on the evaluation contained herein, the subject equipment will comply with all of the District's rules and regulations; therefore, I recommend a Title V Permit to Construct be issued to Furnace D26 (A/N 536732) and Permit to Construct/Operate be issue for installation of BLDS (A/N 540381) as described in this report.