

COMMONWEALTH OF PENNSYLVANIA
Department of Environmental Protection
Southwest Regional Office

TO AQ Case File TVOP-63-00027

FROM Noor Nahar *nn*
Air Quality

THROUGH Barbara Hatch, P.E. *BH*
Environmental Engineer Manager
Air Quality

MAW 7/16/13
Mark A. Wayner, P.E.
Program Manager
Air Quality

DATE March 29, 2013

RE Review of Title V Operating Permit Renewal Application
Jessop Steel, LLC.
Washington Specialty Plate
Washington, Washington County

APS 807935 AUTH 969726 PF 278317

Background:

Jessop Steel, LLC, located in Washington, Washington County processes specialty steel slabs into plate products. Slabs are ground, reheated and rolled into plate products at this facility. This is a finishing mill and there are no melting activities at Jessop. The finishing operations at this facility include annealing, shot blasting, batch pickling, plasma arc cutting, shearing, abrasive cutting and machining.

The initial Title V Operating Permit (TVOP) was issued on May 31, 2002 with an expiration date of May 30, 2007. A renewal Title V Operating Permit Application was received on November 30, 2006 and deemed complete. Company updated the renewal TV application on November 1, 2012.

Since the issuance of the initial TVOP, Plan Approval PA-63-00027A was issued on November 7, 2005 to authorize the installation of an LOI 110" mill reheat furnace. Title V permits was amended on July 10, 2006 to include LOI 110" mill reheat furnace in the permit. Plan Approval PA-63-00027B was issued on June 4, 2007 to authorize the installation of one Anneal Furnace and one Charge-fire Furnace. Conditions from this Plan Approval have been included in this TVOP renewal. On November 6, 2012, DEP received a deminimis notification from Jessop Steel regarding their intent to install two (2) plasma cutters. Emission increases resulting from the installation of the two plasma cutters were estimated to be 0.46 ton of NOx and 0.98 ton of PM10 per year.

On November 13, 2008, DEP received a de minimis notification from Jessop Steel regarding their intent to install a rotary brush plate cleaning system and a dust collector. Emission increased from the installation of this source was estimated to be 0.5 ton of PM10 per year.

On May 13, 2004, DEP exempted from Plan Approval the installation of two new package boilers rated at 2.6 mmbtu/hr each.

Emissions and Control Equipment

The process furnaces (reheating and annealing furnaces) and the boilers at this facility are natural gas fire. The 110 inch hot rolling mill complex consists of seven natural gas fired heating furnaces, a single charging machine, and a standard rolling mill equipped with a 110 inch wide hot roll stack, an Olson reheat furnace, L01 reheat furnace, charge fire furnace, plate anneal furnace and conveyor rolls.

Product specifications and quality demands determines which furnace is utilized. Furnaces use low-NOx burners to meet the BAT that was established in earlier Plan Approvals. Each of the furnaces discharges its products of natural gas combustion and particulate matter (PM) to the atmosphere outside the plant via individual stacks. Shot blast, powder burning-production and grinding machines are equipped baghouses to control the particulate emissions. The facility is not major for HAPs emissions.

Company estimated the emissions as shown below; however, the emissions established through RACT are more stringent. The potential NOx emission limits in the Table are higher than the limits established through RACT Permit #63-000-27. However, company agreed to operate with the limits established in RACT Permit #63-000-27 and subsequently in the Title V permit.

The Facility-wide PTE (tpy) is summarized as follows:

**JESSOP STEEL, LLC - WASHINGTON FACILITY
POTENTIAL EMISSIONS - OCTOBER 2012**

DEP ID No.	Source	PM10	SO2	CO	NOx	VOC
031	Miura Boiler #1	0.08	0.01	0.93	1.11	0.06
	Miura Boiler #2	0.08	0.01	0.93	1.11	0.06
102	Shot Blast	2.1				
130	Midwest Grinder #1	2.2				
	Midwest Grinder #2	2.2				
127	Powder Burning (Burning Bench) - NG combustion	0.02	0.0013	0.18	0.21	0.01
	Powder Burning (Burning Bench) - cutting	0.63				
	Plasma Cutter #1	0.49			0.23	
	Plasma Cutter #2 (to install 4th Qtr 2012)	0.49			0.23	

	Plasma Cutter #3 (to install 4th Qtr 2012)	0.49			0.23	
	SUBTOTAL - PRODUCTION CUTTING	2.1	0.001	0.2	0.9	0.01
	110" Mill Heating Furnace #1	1.7	0.1	7.1	13.1	0.5
	110" Mill Heating Furnace #2	1.7	0.1	7.1	13.1	0.5
	110" Mill Heating Furnace #3	1.7	0.1	7.1	13.1	0.5
	110" Mill Heating Furnace #4	1.7	0.1	7.1	13.1	0.5
	110" Mill Heating Furnace #5	1.7	0.1	7.1	13.1	0.5
	110" Mill Heating Furnace #6	1.7	0.1	7.1	13.1	0.5
	110" Mill Heating Furnace #7	1.7	0.1	7.1	13.1	0.5
	SUBTOTAL - 110" MILL HEATING FNCS.	11.9	0.4	50.0	91.7	3.3
180	Olson 110" Mill Reheat Furnace	1.9	0.1	7.86	14.4	0.5
181	LOI 110" Mill Reheat Furnace	0.7	0.1	3.5	9.5	0.5
250	Charge-Fire Furnace	1.9	0.1	7.9	5.5	1.1
260	Plate Anneal Furnace	0.3	0.1	4.9	11.7	1.7
	Bar Mill Annealing Furnace #3	0.1	0.03	3.6	7.0	0.23
	Bar Mill Annealing Furnace #4	0.1	0.03	3.6	7.0	0.23
	Bar Mill Annealing Furnace #5	0.1	0.03	3.6	7.0	0.23
	Bar Mill Annealing Furnace #7	0.04	0.014	1.9	3.8	0.13
	Bar Mill Annealing Furnace #8	0.04	0.014	1.9	3.8	0.13
	Bar Mill Annealing Furnace #9	0.04	0.014	1.9	3.8	0.13
	Bar Mill Annealing Furnace #10	0.04	0.014	1.9	3.8	0.13
140	Bar Mill Annealing Furnace #11	0.04	0.014	1.9	3.8	0.13
	Bar Mill Annealing Furnace #12	0.03	0.008	1.2	2.3	0.08
	Bar Mill Annealing Furnace #13	0.03	0.008	1.2	2.3	0.08
	Bar Mill Annealing Furnace #14	0.03	0.008	1.2	2.3	0.08
	Bar Mill Annealing Furnace #15	0.03	0.010	1.5	2.9	0.10
	Bar Mill Annealing Furnace #16	0.03	0.010	1.5	2.9	0.10
	Bar Mill Annealing Furnace #17	0.1	0.04	5.4	10.5	0.35
	SUBTOTAL - BM FURNACES	0.7	0.2	32.2	62.8	2.1
150	SWSL 400" Anneal Furnace	0.3	0.08	11.43	22.3	0.75
160	DWSL 400" Anneal Furnace	0.4	0.13	17.86	34.9	1.2
	H2SO4 Pickling	16.4				
126	HNO3/HF Pickling	15.3			9.9	
	SUBTOTAL - PICKLING	31.8			9.9	
230	Paved Roads	6.2				
210	Cooling Towers	1.5				
220	Misc. Space Heaters	1.9	0.15	21.4	25.5	1.4
170	Parts Cleaners					18.6
	FACILITY PTE TONS/YEAR	68.1	1.2	159.1	291.3	31.2

Regulatory Analysis

All of the conditions derived from Title 25 of the Pennsylvania Code in the original Title V permit have been included in this renewal. The facility went through NSR and PSD review requirements through Plan Approval PA-63-00027A in 2002 and PA-63-00027B respectively in 2005 & 2007. All the requirements have been included in this TV renewal. Jessop Steel is considered a finishing mill; no steel is produced at this location. There are no NSPSs or NESHAPs that are applicable to this facility.

The Compliance Assurance Monitoring (CAM) provisions of 40 CFR 64 applies when all of the following are true:

1. The source is located at a Title V facility,
2. The source is subject to an emission standard,
3. The source uses a control device to achieve compliance with the emission standard, and
4. Emissions from the source, without the control device, exceed major source thresholds.

Jessop Steel has identified the following sources and associated control devices to be subject to CAM:

Source ID 102 Shot blast
Source ID 127 Power burning - Production
Source ID 130 Grinding machines 1 & 2

Jessop Steel has proposed the use of existing testing, monitoring and recordkeeping requirements as CAM. Appropriate conditions have been added to the TVOP.

Additional conditions included in this TVOP are from Title 25 of the PA Code as well as appropriate testing, emission reduction, work practice standards, monitoring, recordkeeping and reporting requirements.

Conclusions and Recommendations

Jessop Steel has met the regulatory requirements associated with this application submittal. The attached permit reflects the applicable regulatory requirements associated with this facility. I recommend that the proposed Title V Renewal Operating Permit be issued for this site.