



**CHAPTER 129. STANDARDS FOR SOURCES ADDITIONAL RACT REQUIREMENTS
FOR MAJOR SOURCES OF NO_x AND VOCs FOR THE 2015 OZONE NAAQS**

Written notification, 25 Pa. Code §§129.111 and 129.115(a)

25 Pa. Code Sections 129.111 and 129.115(a) require that the owner and operator of an air contamination source subject to the final-form RACT III regulations submit a notification describing how you intend to comply with the final-form RACT III requirements, and other information spelled out in subsection 129.115(a). The owner or operator may use this template to notify DEP. Notification must be submitted in writing or electronically to the appropriate Regional Manager located at the appropriate DEP regional office. In addition to the notification required by §§ 129.111 and 129.115(a), you also need to submit an applicable analysis or RACT determination as per § 129.114(a) or (i).

Is the facility major for NO_x?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Is the facility major for VOC?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

FACILITY INFORMATION					
Facility Name	IPSCO KOPPEL TUBULARS, LLC/KOPPEL PLT				
Permit Number	04-00059	PF ID if known 25-1635833-5			
Address Line1	PO BOX 750				
Address Line2					
City	BEAVER FALLS	State	PA	Zip	15010
Municipality	HARMONY TOWNSHIP	County	BEAVER		
OWNER INFORMATION					
Owner	IPSCO KOPPEL TUBULARS, LLC				
Address Line1	PO BOX 750				
Address Line2					
City	BEAVER FALSS	State	PA	Zip	15010
Email			Phone		
CONTACT INFORMATION					
Permit Contact Name	ALEX RICHMOND				
Permit Contact Title	HSE MGR				
Address Line	PO BOX 750				
City	BEAVER FALLS	State	PA	Zip	15010
Email	ARICHMOND@TENARIS.COM		Phone	724-255-2992	

Complete Table 1, including all air contamination sources that commenced operation on or before August 3rd, 2018. Air contamination sources determined to be exempt from permitting requirements also must be included. You may find this information in section A and H of your operating permit.

Table 1 - Source Information

Source ID	Source Name	Make	Model	Physical location of a source (i.e., building#, plant#, etc.)	Was this source subject to RACT II?
033	VARIOUS SMALL HEATERS & FURNACES			Various	No
123	SMALL GAS HEATERS			Various	No
102	AUSTENTIZING FURNACE	Flinn & Dreffein		Q&T	Yes
103	TEMPER FURNACE RATED AT 17.0 MMBTU/HR	Flinn & Dreffein		Q&T	Yes
104	TEST FORGE OVEN	Small Laboratory Reheat Oven		Warehouse	No
105	TUNDISH NOZ HEAT(2 UNIT) TUND.HEAT(2UN)	North American Manuf. Co.	3.9 MCF/Hr Noz. 10.6 MCF/Hr	Meltshop	No
106	TUNDISH DRYERS (2 UNITS)	Natural Gas Dryer	0.92 MCF/Hr	Meltshop	No
107	71 LADLE DRYER 5.14 MMBTU/HR/4 LADLE HEATERS 31.4 MMBTU/HR	Natural Gas Fired	5.14 MCF/Hr (Dryer) 31.4 MCF/Hr (Heaters)	Meltshop	No
108	TORCH CUTOFFS (5 TORCHES) RATED 2.4 MMBTU/HR		2.4 MCF/Hr	Meltshop	No
109-110-111-112	#4 MELT SHOP - "EAF, LRS, CONT. CASTER & SUP. ACT.", CHARGING, TAPPING, REFINING	Krupp (EAF), Mannesman Demag	L5.8/80-60, 16M3-0602	Meltshop	Yes

116	DRY LIME AND ALLOY UNLOADING STATION	NA	NA	Meltshop	No
117	SCRAP CUTTING AND HANDLING	NA	NA	Various	No
118	EMERGENCY GENERATOR (375HP) (CASTER WWTP)	Diesel		Water Treatment Plant	No
119	LIME HANDLING (2 SILOS)	NA	NA	Meltshop	No
120	CARBON SILO			Meltshop	No
121	ACID ETCH BATH			Melthshop	No
124	STEELYARD BILLET TORCH			Steelyard	No
125	EMERGENCY GENERATOR (435 BHP) (STEELYARD)	ONAN	275DFBF	Steelyard	No
126	UV COATER			Q&T	No
127	UV COATER DRYER			Q&T	No
128	STEELYARD BILLET TORCH			Steelyard	No

Complete Table 2 or 3 if the facility is a major NO_x or VOC emitting facility. For the column with the title “How do you intend to comply”, compliance options are:

- Presumptive RACT requirement under §129.112 (**PRES**),
- Facility-wide averaging (**FAC**) §129.113,
- System-wide averaging (**SYS**) §129.113, or
- Case by case determination §129.114 (**CbC**).

Please provide the applicable subsection if source will comply with the presumptive requirement under §129.112.

Table 2 – Method of RACT III Compliance, NO_x

Source ID	Source Name	NO _x PTE TPY	Exempt from RACT III (yes or no)	How do you intend to comply? (PRES, CbC, FAC or SYS)	Specific citation of rule if presumptive option is chosen
033	VARIOUS SMALL HEATERS & FURNACES	< 1	Yes		
123	SMALL GAS HEATERS	< 1	Yes		
102	AUSTENTIZING FURNACE	< 1	No	PRES	129.112(c)

103	TEMPER FURNACE RATED AT 17.0 MMBTU/HR	>1	No	PRES	129.112(b)
104	TEST FORGE OVEN	<1	Yes		
105	TUNDISH NOZ HEAT(2 UNIT) TUND.HEAT(2UN)	<1	Yes		
106	TUNDISH DRYERS (2 UNITS)	<1	Yes		
107	71 LADLE DRYER 5.14 MMBTU/HR/4 LADLE HEATERS 31.4 MMBTU/HR	< 1	Yes		
108	TORCH CUTOFFS (5 TORCHES) RATED 2.4 MMBTU/HR	< 1	Yes		
109-110-111-112	#4 MELT SHOP - "EAF, LRS, CONT. CASTER & SUP. ACT.", CHARGING, TAPPING, REFINING	164.5	No	CbC	
116	DRY LIME AND ALLOY UNLOADING STATION	Not a NOx Source	Yes		
117	SCRAP CUTTING AND HANDLING	< 1	Yes		
118	EMERGENCY GENERATOR (375HP) (CASTER WWTP)	<1	Yes		
119	LIME HANDLING (2 SILOS)	Not a NOx Source	Yes		
120	CARBON SILO	Not a NOx Source	Yes		
121	ACID ETCH BATH	Not a NOx Source	Yes		
124	STEELYARD BILLET TORCH	Not a NOx Source	Yes		
125	EMERGENCY GENERATOR (435 BHP) (STEELYARD)	< 1	Yes		
126	UV COATER	<1	Yes		
127	UV COATER DRYER	< 1	Yes		
128	STEELYARD BILLET TORCH	< 1	Yes		

Please complete Table 3 if the facility is a major VOC emitting facility. Please provide the applicable section if a source is complying with any RACT regulation listed in 25 Pa Code §§ 129.51, 129.52(a)—(k) and Table I categories 1—11, 129.52a—129.52e, 129.54—129.63a, 129.64—129.69, 129.71—129.73, 129.75 129.71—129.75, 129.77 and 129.101—129.107.

Table 3 – Method of RACT III Compliance, VOC

Source ID	Source Name	VOC PTE TPY	Exempt from RACT III (yes or no)	How do you intend to comply?	Specify citation of rule or subject to 25 Pa Code RACT regulation, (list the applicable sections)
033	VARIOUS SMALL HEATERS & FURNACES	< 1	Yes		
123	SMALL GAS HEATERS	< 1	Yes		
102	AUSTENTIZING FURNACE	< 1	Yes		
103	TEMPER FURNACE RATED AT 17.0 MMBTU/HR	<1	Yes		
104	TEST FORGE OVEN	< 1	Yes		
105	TUNDISH NOZ HEAT(2 UNIT) TUND.HEAT(2 UN)	< 1	Yes		
106	TUNDISH DRYERS (2 UNITS)	< 1	Yes		
107	71 LADLE DRYER 5.14 MMBTU/HR/4 LADLE HEATERS 31.4 MMBTU/HR	< 1	Yes		
108	TORCH CUTOFFS (5 TORCHES) RATED 2.4 MMBTU/HR	< 1	Yes		
109-110-111-112	#4 MELT SHOP - "EAF, LRS, CONT. CASTER & SUP. ACT.", CHARGING, TAPPING, REFINING	104.7	No	CbC	

116	DRY LIME AND ALLOY UNLOADING STATION	Not a VOC Source	Yes		
117	SCRAP CUTTING AND HANDLING	< 1	Yes		
118	EMERGENCY GENERATOR (375HP) (CASTER WWTP)	< 1	Yes		
119	LIME HANDLING (2 SILOS)	Not a VOC Source	Yes		
120	CARBON SILO	Not a VOC Source	Yes		
121	ACID ETCH BATH	Not a VOC Source	Yes		
124	STEELYARD BILLET TORCH	Not a VOC Source	Yes		
125	EMERGENCY GENERATOR (435 BHP) (STEELYARD)	< 1	Yes		
126	UV COATER	Not a VOC Source	Yes		
127	UV COATER DRYER	Not a VOC Source	Yes		
128	STEELYARD BILLET TORCH	< 1	Yes		

RACT Evaluation

Source ID 102 (Austenizing Furnace)

Source 102 is equipped with ultra low NO_x burners and is rated at 30 MM Btu/Hr. Testing data indicates a NO_x emission rate of 0.337 lbs./hr. or 0.062lbs/MM Btu. The PTE for this source is $(0.337\text{lbs/hr.} \times 8,760 \text{ hrs./yr.}) / 2000 \text{ lbs./Tn} = 1.47 \text{ tpy}$. Emissions are less than 5 tpy, the presumptive RACT requirement 25 Pa Code 129.112(c) is applicable. RACT is to maintain and operate Source 102 in accordance with the manufacturer's specifications and with good operating practices.

Source ID 103 (Temper Furnace)

Source 103 is equipped with ultra low NO_x burners and is rated at 17 MM Btu/Hr. Testing data indicates a NO_x emission rate of 0.191 lbs./hr.. The PTE for this source is $(0.191\text{lbs/hr.} \times 8,760 \text{ hrs./yr.}) / 2000 \text{ lbs./Tn} = 0.84 \text{ tpy}$. Emissions are less than 5 tpy, with a potential future potential of greater than 1 tpy. The presumptive RACT requirement 25 Pa Code 129.112(b) is applicable. RACT is to maintain and operate Source 103 in accordance with the manufacturer's specifications and with good operating practices including: inspection, adjustment, recordkeeping, and reporting requirements).

Source IDs: 109,110,111, & 112 (#4 Melt shop)

NOx and VOCs from the electric arc furnace #4 melt shop are limited to 164.5tpy and 104.7 tpy, respectively. Source testing data from January 2022, indicates the facility is meeting the aforementioned requirements: NOx = 45.9 tpy and VOCs = 36.7 tpy. A case- by- case determination is required by 25 Pa Code 129.114. The melt shop is controlled by a positive pressure baghouse with gaseous emissions from the melt shop exhausting through the fabric filter system consisting of 20 compartments.

The #4 melt shop is the largest source of NOx and VOC emissions at the facility. NOx emissions are primarily thermal NOx, caused by the oxidation of atmospheric nitrogen. This mechanism is significant at temperatures greater than 2500 F in which they increase exponentially as temperature increases. It has been determined that the highest NOx formation occurs due to air ingress through the slag door and roof ring gap flowing into the high temperature regions of the furnace near the burners. Additional, NOx formation occurs from the combustion of CO gases that are formed in the furnace and are combusted in the fourth hole or outside of the furnace.

- Controlling temperature is not an option to NOx control since it would only add additional time to complete a heat.
- The nature of the exhaust and no stacks following the fabric filters in which to put an add on control device. Adding control equipment is not technically feasible.

Reductions in NOx emissions are achieved by controlling exhaust flows to limit air ingress, closing the slag door, and making sure that the oxygen supply is free of nitrogen.

VOC emissions are dependent on the scrap quality depends on the amount of organic materials that is introduced into the EAF. NSPS and NESHAP require a scrap management plan and proper operating practices. Add on controls could include thermal or catalytic oxidation. However, there controls can be rejected since they have a significant likelihood of failure. Any possible controls would have to be installed downstream of the meltshop baghouse. The current baghouse design with 10 snub stacks; any type of add-on control would not be feasible.

The RACT for NOx and VOC from the melt shop is to continue with good operating practices to limit NOx formation in accordance with a case-by-case determination in accordance with 25 Pa Code 129.114 and to combine good operating practices with the required scarp management plan to minimize VOC formation in accordance with 25 Pa Code 129.114. Compliance with the limitations in existence will be demonstrated through periodic source testing as part of the current permit conditions.